HYPOTHESIS RESEARCH

Initiation of coverage

Equity Research

Fertilisers

Fertilisers

Weak prices but good deliveries

- **Low prices for commodity fertilisers maintain pressure on global producers' margins.** Reviewing fertiliser stocks' recent performances, it seems that they are victims of circumstance, and remain affected by low fertiliser price expectations. The latest reports from Yara, PotashCorp, and Mosaic indicate that potash demand has recovered with a 15% price increase; however, phosphate and nitrogen fertiliser prices are still low. Demand for fertilisers was stable in 3Q16, and even increased in some markets like Brazil where fertiliser deliveries were up 10% YoY to 24.4mt in 9M16. The current fertiliser prices support of farmers' demand but restrict marginal producers (Chinese coal-based nitrogen companies, for example). However, the expectation of another strong harvest in 2016/17, which will affect grain prices and farmers' margins, prevent us from anticipating a strong fertiliser price recovery soon.
- **We believe that fertiliser producers' current valuations stay close at their lows bottoming out.** Fertiliser price corrections forced fertiliser sector companies to optimise costs, while continuing to invest in capacity expansion. Large nitrogen and phosphate projects in the USA, Russia, and Saudi Arabia will come in operation in 2016-2018, with few additional launches due post-2018. Assuming no other shocks, we expect the market to balance in 2017. Moreover, fertilizer majors' capacity is focused more on meeting the 1.5-2.5% projected demand growth rather than oversupplying the market. The risk of Chinese nitrogen and phosphate supplies is decreasing as China continues to shut inefficient capacity. Most global players are set to deliver good production growth once the price recovers, while fertiliser market consolidation (encompassing more distributors, and retail controlled by the majors), is likely to facilitate stable retail pricing in key markets.
- **We initiate coverage of largest global fertiliser players, with valuations that assume a slow price recovery, but healthy volumes.** Access to premium fertiliser markets, expansion into retail distribution, and sizeable product capacity suggest that US fertiliser companies Agrium, Mosaic and PotashCorp are better positioned to benefit from a price recovery. We initiate coverage of PotashCorp (TSX: POT, $22.8 12-month price target, BUY), Mosaic (NYSE:MOS, 12-month price target $31.5, HOLD), and Agrium (TSX:AGU, 12-month price target $129.9, BUY). The combined Agrium-PotashCorp will be able to capitalize on the synergies, with the respective retail operation expansion to reach an indicative $41bn based on targeted synergies on 15-months horizon. The main triggers for POT, AGU and other stocks, are a seasonal price increase in 1Q17, completion of the POT-AGU merger in mid-2017, and the NewCo's first consolidated reporting in Aug-Oct 2017.

Report date:	**22 November 2016**
S&P Global 1200 Chemicals	2,413.0 (YTD +4.2%)
S&P Global 1200 Fertilisers & Agricultural Chemicals	5,252.7 (YTD +1.3%)

PotashCorp	TP US$ 22.8	BUY
Agrium	TP US$129.9	BUY
Mosaic	TP US$31.5	HOLD

Description:

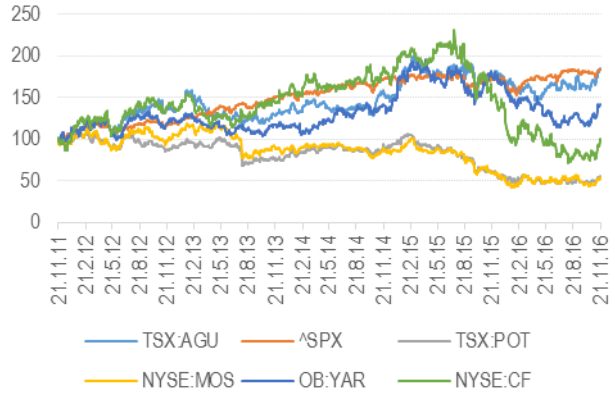
PotashCorp is the largest global fertiliser company by capacity producing potash, phosphates and nitrogen.

Agrium is the largest global fertiliser retailer and diversified fertiliser producer with primary capacities in the USA and Canada. The Agrium-PotashCorp merger of equals has been approved by their shareholders, and is subject to regulatory approvals.

Mosaic is one of the leading phosphate and potash fertiliser producers with primary capacities located in the US and Canada.

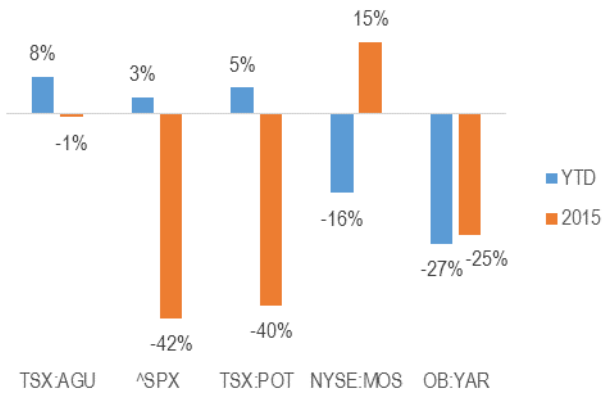
Marina Alekseenkova
Research analyst
+44 (0) 78527 00371
ma@hypothesisresearch.co.uk

Figure 1: Price performance – 5 years



Source: Capital IQ

Figure 2: Sector stock performance – 2015 and YTD*



Source: Capital IQ, as of 22-November-2016, *) performance in trade currency

Contents

Executive summary

In this report, we initiate coverage of the largest fertiliser companies Potash Corporation of Saskatchewan (TSX: POT), Agrium (TSX: AGU), and Mosaic (NYSE: MOS).

Fertiliser stocks' weak performance over the last year was due to lower fertiliser prices pressured by the decline in soft commodity prices. The latter decline as a result of strong harvest for few years, lower energy and other feedstock prices, increased exports from China and other producing regions, and concerns about additional capacity set to come on stream in 2016-2017. The three-year share-price performances are as follows: TSX:POT -25% (in Canadian dollars, 11% in US dollars), TSX:AGU 44% (in Canadian dollars, -41% in USD), and NYSE:MOS -37% (USD).

Demand for fertilisers by region varied during 2016 due to mixed economics of grains, seed oil, palm oil, and others, but fertiliser prices declined more than soft commodity prices. Most farmers still have sufficient margin to maintain fertiliser demand, but another record grain and oil seed harvest is forecasted, and major fertiliser producers' operating rates are high. Abundant supply has put pressure on fertiliser prices despite the positive fertiliser demand outlook. We believe that the current price situation is stimulating demand while making high cost producers' margin unsustainable, including Chinese coal-based nitrogen and DAP exporters. We therefore suggest that prices have bottomed out.

Over the past two years, fertiliser majors have paid attention to their relative positioning on the cash curve, reporting cash cost cuts during 2016 thanks to lower raw material costs. Most majors, including PotashCorp, Agrium, Mosaic, CF Industries, EuroChem, PhosAgro, and SAMC (Ma'aden) have bolstered their capacity despite the weakening price environment for few years in a row. The industry relies on a long-term growth trend with a 1.5-2.5% rate achievable for the nitrogen, potash and phosphate segments - food producers' inputs. More efficient operations, potential for growth, and an incremental margin for those investing in retail distribution, are the three pillars on which fertiliser majors are touting in order to gain investors' attention. Relatively stable dividends and extended share repurchasing programmes are also in place during this cycle.

We initiate coverage of global fertiliser majors Agrium, PotashCorp, and Mosaic. Our fertiliser price forecasts assume benchmarks of $206-241 for urea, $377-431 for DAP, and $216-275 for potash for 2017-2020, and relatively stable historical relationships between benchmarks and producers' prices. The valuations are based on DCF and multiples.

Mosaic ($31.5 12-month target price, HOLD) Mosaic has already achieved reasonable cost control and operating efficiency that we believe makes it well-positioned in the sector for growth once prices for potash and DAP recover. Key growth drivers apart from price developments are the completion of its potash expansion project at Esterhazy in 2017, and its phosphate project in Saudi Arabia where Mosaic has a potential 25% share of distribution. Development of own distribution in Latin America and an ammonia contract with CF Industries target margin stabilisation, in addition to the over $575mn cost-cutting programme that Mosaic has already implemented. We estimate the potential potash capacity and production growth at 9% and 14% respectively, to 11.4mt and 8.9mt by 2020. Triggers for the stock include the seasonal price increase in 1Q17, completion of its potash expansion project and the Ma'aden project in Saudi Arabia in 2017.

PotashCorp ($22.8 12-month target price, BUY) and Agrium ($130 12-month target price, BUY) both have upside, on our estimates, particularly if we assume additional synergies from their merger of equals. The planned $500mn pa synergy from cost optimization, and the boost to its distribution chain are achievable, in our view. Our 12-month target equity value for NewCo, the consolidated PotashCorp-Agrium company is $41-48bn once the planned synergies of up to $500mn per year are realized, starting gradually from the second half of 2017. Triggers for AGU and POT stocks include the seasonal price increase in 1Q17, completion of their merger in mid-2017, and the NewCo's first and second financial reporting in 2H2017. On our numbers, the combined company has current

capacity of 19.1mt of potash to be extended to 22.1mt KCl by 2020, sells around 4mt of phosphates (P2O5), and 9.4mt of nitrogen fertilisers, and sells over 10.5mt of retail crop nutrient in the USA, Latin America, and other countries.

Figure 3. Key parameters of fertiliser majors

Company	TP, $/share	Rating	Price, $/share	MktCap, $mn	EV, $mn	EV/ EBITDA'17	P/E'17	D/P'17	YTD*
PotashCorp	22,8	BUY	18,3	15327	19463	13	34	3,8%	11%
Agrium	129,9	BUY	97,8	13508	18349	12	25	1,8%	12%
Mosaic	31,5	HOLD	29,1	10173	13390	10	22	3,8%	2%

Source: Capital IQ, Hypothesis Research estimates, *)USD price-based

Figure 4. Capital IQ Consensus estimates for fertilizer sector

	Price, $	MktCap, $mn	EV, $mn	EV/Revenues			EV/EBITDA			P/E			ROE' 16	FCF/P '16	D/P '16
				FY16	FY17	FY18	FY16	FY17	FY18	FY16	FY17	FY18			
PotashCorp	18,26	15 332	19 830	5,0	4,7	4,6	14,5	12,7	11,3	35,8	30,1	23,8	5,0	3,9%	4,4%
CF Industries	29,87	6 963	14 069	3,8	3,4	3,2	14,8	11,4	9,8	41,8	47,1	21,8	3,6	-22,5%	4,0%
Agrium	100,72	13 918	19 735	1,4	1,4	1,3	11,8	10,6	9,4	20,9	18,1	15,5	10,7	4,5%	3,5%
Mosaic	29,05	10 174	13 435	1,9	1,9	1,8	12,7	10,8	9,8	41,0	29,2	22,3	2,9	1,4%	3,8%
PhosAgro	13,3	5 167	6 618	2,3	2,4	2,2	5,9	6,7	6,3	7,1	8,9	8,6	62,0	4,2%	7,0%
ICL	3,8	4 849	8 407	1,6	1,5	1,4	8,3	7,5	6,8	11,3	10,7	9,8	12,5	2,1%	4,2%
Monsanto	101,32	44 396	51 874	3,9	3,7	3,5	14,1	13,3	11,6	23,0	21,6	18,6	31,4	3,4%	2,1%
OCI N.V.	14,53	3 062	7 339	3,7	2,6	2,3	13,3	8,0	6,7	204,1	10,9	10,1	15,4	-6,3%	0,0%
Yunnan Yuntianhua	1,36	1 794	4 906	0,9	0,7	na	13,5	10,1	na	na	na	na	-14,0	na	0,0%
Sinofert	0,14	969	1 913	0,8	0,6	0,6	-166	20,7	13,6	-9,0	26,6	na	-5,0	na	0,0%
Acron	52,72	2 099	3 368	2,1	1,9	1,8	6,9	5,8	5,2	4,7	5,5	5,7	23,2	4,5%	7,4%

Source: Capital IQ

The Mosaic Company

Investment summary

- ✓ **Mosaic is one of the world's largest integrated producers** of phosphate and potash fertilisers. In the potash sector (KCl), it controls approximately 12% of global potash, and 41% of North American capacity. The company has the largest phosphate product capacity among public companies.

- ✓ The company **runs for value, not for volume**, according to its management. Mosaic has validated this strategy by shutting down capacities, including, for example, Colonsay, to optimise operating costs and output.

- ✓ **Its growth strategy** is to be realised through participation in the MWSPC phosphate project (Saudi Arabia) and the potash expansion at Esterhazy. Mosaic will market 25% of the phosphate products from Saudi Arabia's 3.5mt capacity. The K3 potash shaft at Esterhazy mine should add 0.9mt capacity to its current 10.5mt starting from 2017. Mosaic's other growth projects might include the MicroEssentials plant and phosphate mines.

- ✓ **Mosaic plans to increase annual distribution capacity** from 4mt to 6mt of crop nutrients in Brazil and Paraguay after the acquisition of Archer Daniels Midland's (ADM) blending and warehousing facilities. In 3Q16 the Brazilian distribution business demonstrated a strong performance. Mosaic also announced that it is considering a merger with Vale's Brazilian phosphate business. The deal is worth about $3bn, according to media sources. Vale's board has approved the sale of the phosphate business in Brazil to Mosaic.

- ✓ **Sustainable product innovation** includes the expansion of MicroEssentials capacity from 2.3mt to 3.5mt by 2017. Record MicroEssentials deliveries were achieved in 3Q16, according to Mosaic.

- ✓ Mosaic adheres strictly to its **financial and operating targets**, and proficiently cuts costs ($575mn cost-cutting program is near to completion) and optimizes capex. The company plans to maintain $2.5bn liquidity and targets Net debt/Adjusted EBITDA at 2.0-2.5x. Mosaic has held a BBB senior unsecured rating from S&P since 2011, a Baa2 (ON) from Moody's since Jan 2016, and a BBB from Fitch Ratings, which the company intends to maintain.

- ✓ **Shareholder return is realised via dividends and a share repurchasing programme**. The dividend increased 10% YoY to $1.1 per share, and the repurchasing programme reached $1.5bn ($698mn repurchased) in 2015 following a $1bn ($850mn completed) repurchase in 2014.

Business Description

The Mosaic Company (NYSE: MOS) operates four mines in North America, including two shaft mines- Esterhazy and Colonsay, the Belle Plaine potash solution mine in Saskatchewan (Canada), and the Carlsbad shaft mine in the United States (operations discontinued in 2015), as well as phosphate facilities in Central Florida. Its potash capacity is 10.5 mt per year, and will be expanded to 11.4mt upon completion of its project at the Esterhazy K3 mine in Saskatchewan which will add 0.9mt in 2017. Mosaic's US phosphate operations have capacity of 5.3mt of phosphoric acid, and 17.2mt of phosphate rock. Approximately one-third of phosphate products are shipped within North America. Annual capacity of finished phosphate products is 11.7mt of its operational capacity. As of 2010 Mosaic estimated its reserves at 565mt of phosphate concentrate. This is sufficient for 35 years of production based on a 16mt per annum production volume.

The Mosaic company was formed as a combination of Cargill Inc and IMC Global in 2004. In 2011, Cargill divested its approximately 64% equity interest in Mosaic in the first of a series of transactions. The current interest of the fund representing Cargill is around 0.77%. In 2014, Mosaic acquired the

phosphate business of CF Industries, the large US nitrogen player, for $1,172bn plus $204mn to fund CF's asset retirement obligation trust and escrow. Also in 2014, Mosaic purchased the Archer Daniels Midland Company's (ADM) fertiliser distribution business in Brazil and Paraguay for $302mn. Mosaic has port terminals, warehouses, and fertiliser blending facilities in China, India, and South America.

Currently the company reports operations in three business segments: phosphate, potash and international. In the phosphate segment, Mosaic accounts for its operations in Florida (production of concentrate phosphate and phosphate-based animal feed ingredients), its processing plant in Louisiana (concentrated phosphate crop nutrients), a 30% interest in JV Miski Mayo Mine in Peru (phosphate-mining site), and its 25% interest in Ma'aden Wa'ad Al Shamal Phosphate Company (MWSPC). MWSPC is a JV with Saudi Arabian Mining Company (Ma'aden) and Saudi Basic Industries Corporation (SABIC). The project with a total estimated cost of $8bn, assumes $2.4bn equity injections from its partners, with Mosaic estimating its MWSPC investment at over $850mn. At 31 December 2015, Mosaic had invested $608mn, and its potential cash contribution will amount to $362mn. The 25% interest in the MWSPC JV, an integrated complex, and phosphate fertiliser complex in Saudi Arabia with potential capacity of 3.5mt of finished product, will give Mosaic approximately 25% of the marketing volume.

Figure 5. Mosaic portfolio investments

Company	Stake, %
Ma'aden Wa'ad Al Shamal Phosphate Company (MWSPC, Saudi Arabia)	25%
Miski Mayo Mine, Peru	35%
Gulf Sulphur Services Ltd, LLLP	50%
River Bend Ag, LLC	50%
IFC SA	45%
Canpotex	40,6%

Source: Company data

In the potash segment, the company reports potash operations in Canada and the USA. Mosaic sells potash fertilisers via Canpotex, an export association of the Canadian potash producers PotashCorp and Agrium. In the International distribution business segment the company reports sales of phosphates and potash through Canpotex to international markets outside North America.

Operating performance

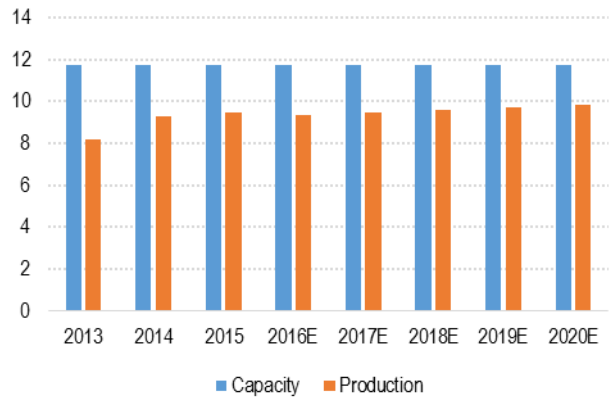
Mosaic operates sizeable potash and phosphate capacity, and our forecasts for the company are based on several key assumptions.

- ✓ Mosaic is planning to complete the expansion of its potash capacity at Esterhazy, which will add 0.9mt capacity to its current 10.5mt KCl.
- ✓ Phosphate rock capacity and production will remain stable over the next several years.
- ✓ Mosaic reports that business conditions improved in 3Q16, which is in line with our view. The company expects some improvements in prices over 2017.
- ✓ Mosaic's targeted capex levels of $800-900mn for 2017-2019 are sufficient to complete its expansions, and allocate $450-500mn pa to maintenance.
- ✓ An effective tax rate of around zero in 2016, 10% in 2017 on the back of a margin recovery, and 20% in 2018 and thereafter.
- ✓ Capex associated with a sinkhole in Florida, where, according to the company, the situation is under control and phosphate production unaffected, is fully included in the target capex.
- ✓ Colonsay production might be launched in spring 2017 if there is good demand and low inventories.
- ✓ The company is exposed to the Brazilian real and potentially this could increase if Mosaic acquires the Brazilian fertiliser asset from Vale.
- ✓ Mosaic implemented a cost-cutting programme and achieved over $575mn cost savings in COGS and SG&A. In our model we assume no further large optimisation projects.

- ✓ Apart from the price environment and demand volumes on each market, Mosaic's results depend on the Canadian dollar exchange rate, and Canadian resource taxes and royalties paid to the Province of Saskatchewan affect the cost of potash production. The two most important currencies affecting its operations are the Brazilian real and the Canadian dollar. The cost of production is also affected by the company's ability to manage salt-saturated brine inflows at Esterhazy potash mine. These can cost about $150-170mn per year.

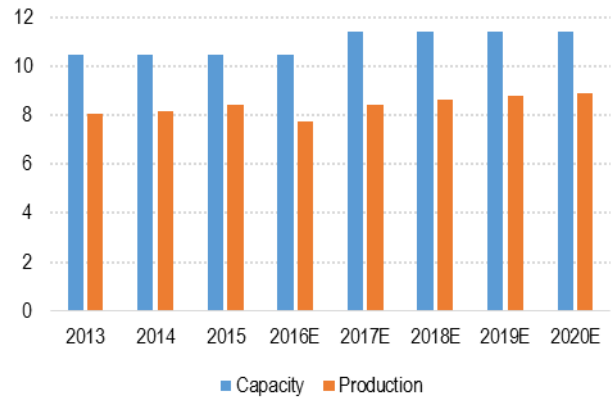
We do not take into consideration Mosaic's possible acquisition of the Brazilian phosphate fertiliser business from Vale for around $3bn. We believe that the company may use both equity and debt financing once the deal is agreed. The Brazilian distribution business, according to Mosaic, is performing above expectations, thus the new acquisition might extend the company's presence in Brazil, the world's fifth-largest phosphate consumer.

Figure 6. Mosaic phosphate rock capacity/production, kt



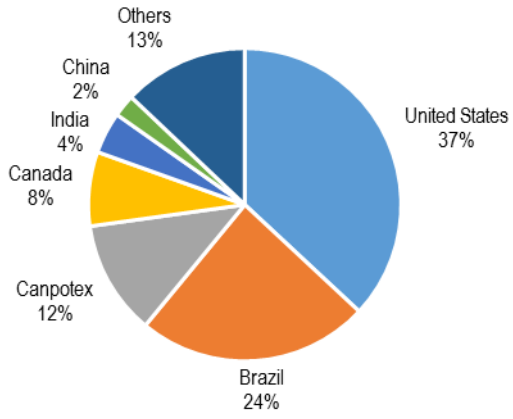
Source: Company data, Hypothesis Research estimates

Figure 7. Mosaic potash capacity/production, kt



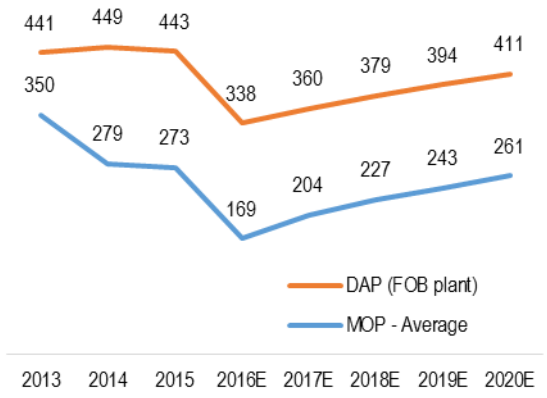
Source: Company data, Hypothesis Research estimates

Figure 8. Mosaic revenue by market in 2015, %



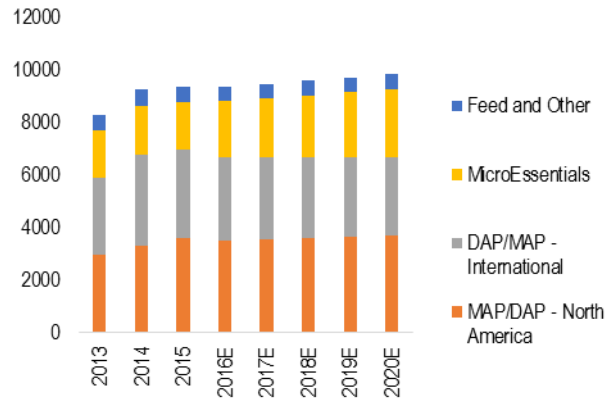
Source: Company data

Figure 9. Mosaic average DAP and MOP prices, $/t



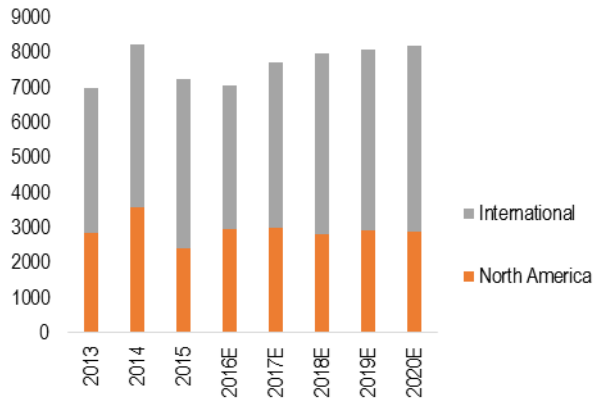
Source: Company data, Hypothesis Research estimates

Figure 10. Mosaic phosphates sales volumes, kt



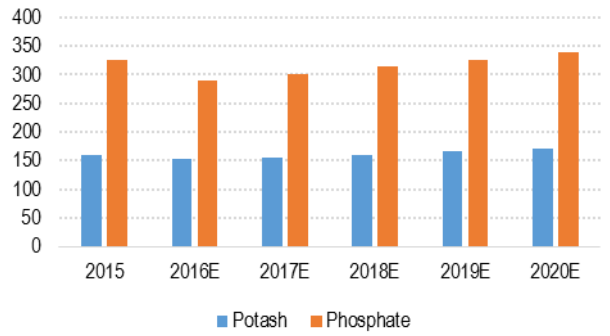
Source: Company data, Hypothesis Research estimates

Figure 11. Mosaic potash sales volumes, kt



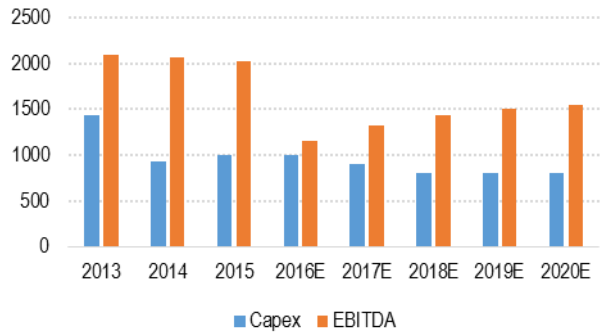
Source: Company data, Hypothesis Research estimates

Figure 12. Mosaic potash & phosphates cash cost, $/t



Source: Company data, Hypothesis Research estimates

Figure 13. Mosaic EBITDA & capex, $mn



Source: Company data, Hypothesis Research estimates

Valuation

We value Mosaic using a DCF with estimated WACC of 8.58%, equity risk premium of 4.89%, and 1.25 beta. We do not see any upside to the company's value if the current MOP price remains at $200-250/t for in long term.

We assume the current MOP price has bottomed out and expect a price recovery in 2017-2020. We also assume that new capacity will come into operation in North America and Russia until 2020. The additional 2.3-2.4mt capacity is to be launched by EuroChem (a Russian diversified producer) in 2018-2019, with ramp-up in three-to-four years, however the market demand should add 1-2mt pa. It is likely that EuroChem as well as North American producers will try to avoid any oversupply.

Our DCF model indicates a 12-month fair value for Mosaic of $31.5 per share based on 8.58% WACC and 2% terminal growth rate estimates. Mosaic's 2017 EBITDA shows greater sensitivity to the DAP price (a 16% change in 2017 EBITDA as a result of a 10% change in DAP price in 2017) and is less sensitive to the potash price (10%/10%). A 10% change in the 2017 DAP/potash price results in a 2-3% change to the DCF value.

Figure 14. Mosaic DCF model, $mn

	FY16	FY17	FY18	FY19	FY20
EBIT	471	594	715	802	858
Less taxation	44	51	126	145	156
Tax adjusted EBIT	427	544	589	657	701
Depreciation	675	720	714	701	688
Less: Capex	-1000	-900	-800	-800	-800
Change in working capital	-60	86	37	87	114
Unleveraged free cash flow	42	450	540	645	703
WACC	8,6%				
Future cash flow growth rate	2,0%				
Fair market capitalisation	11048				
Number of shares, mn	350,2				
Fair value per share, $	31,5				
Implied Multiples	**FY16**	**FY17**	**FY18**	**FY19**	**FY20**
P/E	27,8	24,2	21,9	19,0	17,7
EV/EBITDA	12,4	10,9	10,0	9,5	9,2
EV/Sales	2,0	1,9	1,8	1,7	1,6

Source: Hypothesis Research estimates

Risks

- ✓ **Mining risk** is essential for potash companies. Mosaic experiences **brine inflows** in its mine, and reports approximately $18-24 per production ton brine-inflow cost. This is comparable with the $34/t cash cost of low-cost producer Uralkali. Our estimate of Mosaic's cash cost excluding Canadian resource tax, royalties and brine inflow expenses is $107/t. The brine cost therefore increases the cash cost by 20-25%. Brine flow is experienced by many potash companies, including Russian Uralkali (which has lost two mines since 2008), but Mosaic is able to monitor the inflow, which makes this risk manageable.

- ✓ Mosaic is part of the Canpotex marketing vehicle for joint overseas sales with the Canadian potash producers PotashCorp and Agrium. It is **a price taker** on the Chinese market. Canpotex usually takes the price set by CIS producers in China and India.

- ✓ Mosaic is **not self-sufficient in ammonia** and gas, and buys ammonia, sulphur and gas for its phosphate production (mainly DAP) from CF Industries and other suppliers. It is therefore highly exposed to gas and ammonia price variations. Mosaic's long-term agreement with CF Industries assumes deliveries of ammonia commencing mid-2017. Mosaic accepts that there "will be times when the agreement is beneficial and times when not".

- ✓ Mosaic's DAP **cash cost is higher than other large suppliers, OCP and PhosAgro,** and its **potash cost is above Uralkali's cost** (cash cost of $107/t vs $34/t cash cost in 2015, worsened by royalties, Canadian resource tax and the brine cost). This exposes Mosaic to the potential risk of a diminishing offshore-market share, but does not affect its strong position in North and South America.

- ✓ Mosaic intends to develop its business in Brazil, which we believe would be advantageous. At the same time, the company's **potential exposure to the Brazilian real** could come to the fore if it decides to acquire Vale's phosphate asset.

Figure 15. Mosaic condensed US GAAP financial statements and ratios

Income statement						Statements of cash flows					
$mn	FY14	FY15	FY16	FY17	FY18	$mn	FY14	FY15	FY16	FY17	FY18
Net sales	9056	8895	7162	7421	7981	Net cash - operating act.	2122	1808	962	1130	1226
COGS	7129	7177	6239	6397	6804	Net cash - investing act.	-2739	-1748	-1000	-900	-800
Gross margin	1927	1718	922	1023	1177	Net cash - financing act.	-2168	-893	-951	-687	-448
Operating earnings	1312	1279	471	594	715	Effect of exchange rate changes on cash	-133	-264	0	0	0
(Loss) from share repurchase agreement	-60	0	0	0	0	Net change in cash and cash equivalents	-2919	-1098	-989	-457	-22
Interest (expense) income, net	-108	-98	-98	-88	-84	Cash and cash equivalent - bop	5293	2375	1276	287	-170
Foreign currency transaction gain (loss)	79	-61	70	0	0	Cash and cash equivalent - yop	2375	1276	287	-170	-192
Other (expense) income	-6	-17	0	0	0	Net debt	1458	2583	3217	3303	3193
Earnings before inc. tax	1217	1103	442	507	631	EBITDA	2063	2019	1146	1315	1429
Provision for income taxes	185	99	44	51	126						
Net earnings attributable to Mosaic	1029	1004	398	456	504						
Balance sheets						**Ratios**					
USD mn	FY14	FY15	FY16	FY17	FY18		FY14	FY15	FY16	FY17	FY18
Cash and cash equivalents	2375	1276	287	-170	-192	Gross margin, %	21%	19%	13%	14%	15%
Receivables, net	754	675	667	691	700	Operating margin, %	14%	14%	7%	8%	9%
Inventories	1718	1564	1538	1577	1547	Net margin, %	11%	11%	6%	6%	6%
Other current assets	368	630	628	630	634						
Total current assets	5216	4145	3121	2729	2689	Revenue growth	0%	-2%	-19%	4%	8%
Non-current assets	13068	13268	14245	14421	14536	Net profit growth	-3%	-2%	-60%	15%	11%
Total assets	18283	17412	17366	17150	17225	EBITDA growth	-1%	-2%	-43%	15%	9%
Short-term debt	14	26	54	55	58	Capex growth, %	-35%	8%	0%	-10%	-11%
Current portion of LT debt	41	43	373	135	318	Payout ratio	-37%	-38%	-97%	-77%	-69%
Structured acc. payable arrangements	238	482	462	473	503						
Accounts payables	560	521	513	526	522	EBITDA / Interest coverage	19,2	20,6	11,7	15,0	17,0
Accrued liabilities	726	972	957	981	1007	Net debt/EBITDA	0,7	1,3	2,8	2,5	2,2
Accrued income taxes	19	6	0	0	0	Net debt/Equity	0,1	0,3	0,3	0,3	0,3
Current liabilities	1597	2048	2358	2170	2407	Revenues/Assets	0,5	0,5	0,4	0,4	0,5
Long-term debt	3778	3791	3078	2943	2626	Capex/ EBITDA	0,5	0,5	0,9	0,7	0,6
Deferred income taxes	988	977	1070	1070	1070	RoCE	9,0%	9,5%	3,5%	4,5%	5,4%
Other noncurrent liabilities	1200	1031	946	946	946	FCF yield	12%	8%	0%	2%	4%
Total equity	10721	9565	9915	10021	10176	RoIC	9%	10%	3%	4%	4%
Total liabilities and equity	18283	17412	17366	17150	17225	ROE	10%	11%	4%	5%	5%

Source: Company data, Hypothesis Research estimates

Corporate governance and shareholder structure

Mosaic has returned $4.8bn of capital to shareholders through dividends and share repurchases since 2013. The company has paid a quarterly dividend of $0.275 per share since June 2015, and $0.25 per share quarterly from July 2012. In 2014-15 the dividend payout amounted to approximately 37-38% of net income. In 2016 we expect the payout to be close to 100%, with a 4.5% dividend yield, if the company keeps the quarterly dividend at the current level. Mosaic puts its free float at 99.8%, with a 0.22% insiders' stake. The top 10 institutional holders, including Vanguard, BlackRock, State Street Global Advisors, Franklin Resources, BNY Asset Management, JP Morgan Asset Management, FIL Investments, Artisan Partners, Invesco, and Managed Account Advisors, control 42.78%, with the top three owners holding over 5% each.

The **company's Board of Directors** is headed by Mr Robert Lumpkins, ex-CFO and Vice Chairman of Cargill and includes 12 members. Most of the members are independent. The Board includes Ms Nancy Cooper, former Executive Vice President and CFO of CA, an IT management software provider; Mr Gregory Ebel, a chairman, president and CEO of Spectra Energy Corp; Mr Timothy Gitzel, ex-CEO of Cameco Corporation; Ms Denise Johnson, a Group President of Resource Industries of Caterpillar Incorporated; Mr Emery Koenig, a former Vice Chairman and Chief Risk Officer of Cargill; Mr William Monahan, a former Chairman , President and CEO of Imation Corp; Mosaic CEO Mr James O'Rourke; Mr James Popowich, the former President and CEO of Elk Valley Coal Corporation; Mr David Seaton, a former CEO and Chairman of the Board of Fluor Corporation; Mr Steven Seibert, a land use and environmental attorney and a former Florida Supreme Court-certified mediator; and Mr Kelvin Westbrook, a former President and CEO of KRW Advisors.

The company has four committees, including the Audit Committee headed by Nancy Cooper, Compensation Committee headed by William Monahan, Corporate governance and Nominating Committee headed by Robert Lumpkins, and the Environmental, Health, Safety and Sustainable Development Committee headed by Steven Seibert. The Board has determined that each member of the Audit Committee is independent, that Ms Cooper is an audit committee financial expert under the SEC's rules and that business judgment of the committee is per the NYSE's listing standards.

Mosaic's environmental issues include brine solution inflows at its potash mine at Esterhazy, and recently the company faced a sinkhole at its phosphate mine in Florida. The carry cost of brine pumping is around $150-170mn per year, which increases the cash cost of potash. With respect to the phosphate mine, the company reports reflect that it is manageable, and respective costs are included into its capex. Mosaic's competitors have similar problems at their mines, and monitoring the situation is the only possible way to control and proactively manage these risks.

Cash use priorities announced by Mosaic in May 2013 include following: 1) maintain rating and financial strength, 2) sustain assets and recurring dividend, 3) investments to drive organic growth, 4) opportunistic strategic investments, 5) return surplus to shareholders.

PotashCorp and Agrium: Merger of equals

In September 2016, PotashCorp and Agrium announced their merger of equals to create a world-class integrated global supplier of crop inputs. The agreement, approved by the two companies, assumes the creation of a new parent company to own both PotashCorp and Agrium. PotashCorp shareholders will receive 0.400 common shares in the new company for each POT common share, and Agrium shareholders will receive 2.230 common shares of the new company for each AGU common share that they own. Once the transaction is concluded, PotashCorp shareholders will own approximately 52% of the new company, and Agrium shareholders will own about 48% on a fully diluted basis. The new company will have about 20000 employees, and operations and investments in 18 countries. Its pro-forma enterprise value is $36bn based on the companies' net debt at 30 June, 2016, and share prices on 29 August 2016. The current market capitalisation of the combined NewCo is $29bn, and an enterprise value of $39bn. The company will be registered in Saskatoon with Canadian Corporate offices in Calgary and Saskatoon. The two companies announced several benefits from the merger:

- ✓ The company will have a balanced nutrient portfolio, including potash production, nitrogen and phosphate operations. It will benefit from low-cost potash operations in North America, low cost feedstock for nitrogen operations, and local distribution.

- ✓ NewCo will have a leading retail distribution platform for crop nutrients and other input products, services and solutions, with operations in seven countries.

- ✓ The combination is expected to generate up to $500mn of annual operating synergies from distribution and retail integration (30%), production optimisation (25%), SG&A optimisation (25%), and procurement (20%). NewCo plans to achieve approximately $250mn of synergies by the end of its first year after closing and to double this figure by the end of the second year.

- ✓ The company will have additional low-cost capacity in potash to to respond to demand growth. It will continue to expand its retail operations, driven by roll-up opportunities, new store openings and innovative products.

- ✓ The all-share deal will not involve any cash and allows all shareholders to benefit from the deal. With a strong balance sheet and cash generation ability the company will have low leverage and the flexibility to return capital to shareholders. Both companies are going to maintain their existing dividend payments until the transaction is completed. The NewCo will target a stable and growing dividend that reflects the NewCo's strengthened cash flow profile. After the merger, it might approach Agrium's dividend payment level adjusted for the new share count.

- ✓ Upon the transaction's conclusion Jochen Tilk (PotashCorp President and CEO) will serve as Executive Chairman, Charles Magro (Agrium President and CEO) as CEO, Wayne Brownlee (PotashCorp Executive VP and CFO) as CFO, and Steve Douglas (Agrium Senior VP and CFO) as Chief Integration Officer. The NewCo will have equal representation. Agrium will appoint the independent Lead Director.

- ✓ Agrium estimates the costs related to the merger at $140mn.

Shareholders of both companies voted to approve the proposed merger of equals. On 7 November 2016 Agrium and PotashCorp advised that the Ontario Superior Court of Justice had issued a final order approval for their merger of equals to be implemented by way of a plan of arrangement under the Canada Business Corporation Act. Both companies have made good progress in filing for the regulatory approvals as planned, and expect to close the transaction mid-2017.

Figure 16. Key parameters of merged companies

	PotashCorp	Agrium	NewCo
Current number of shares	839376000	138175400	
Number of NewCo shares received by a holder of one share	0,4	2,23	
Number of nNewCo to be received by shareholders	335750400	308131142	643881542
Share of shareholders in NewCo	52,14%	47,86%	100,00%
2015 Revenue, $mn	6279	14795	21074
2015 EBITDA, $mn	2598	2096	4694
2015 Net income, $mn	1 270	988	2258
Operating cash flow 2015, $mn	2 338	1663	4001
Credit rating	BBB+/A3	BBB/Baa2	
Net debt as of 30 Sept 2016, $mn	4597	5939	10 536
2016 Revenue, $mn	4636	13941	18 576
2016 EBITDA, $mn	1340	1410	2 750
2016 Net income, $mn	315	494	809
MktCap as of 21 Nov 2016, $mn	15327	13508	28 835
EV, $mn	19924	19447	39 371
EV/EBITDA'15	7,67	9,28	8,39
P/E'15	12,07	13,67	12,77
EBITDA'17	1531	1480	3 136
Net income'17	449	531	1 071
Expected synergies'17			125
EV/EBITDA'17	13,02	13,14	12,56
P/E'17	34,15	25,43	26,92

Source: Company data, Hypothesis Research estimates

*) Assuming $125mn synergies reported in FY2017.

Our indicative valuation for the combined NewCo is based on companies' synergies and DCF models of PotashCorp and Agrium as stand-along companies. Assuming synergies of $125mn achievable in 2017, $375mn in 2018 and $500mn starting from 2019, we come up with 12-month target $41-48bn NewCo DCF value for (at 7.5-8.3% WACC). Taking into account the current weak price environment and risks associated with the merger, we believe that over 50% upside might be realised on a two-year horizon.

The new Canadian company has very strong positions in the potash and nitrogen industry, and particularly in the USA and Latin America. We believe that its focus on retail will generate additional margin for NewCo and will be its core competitive advantage.

We see the following triggers for PotashCorp's an Agrium's stocks: the new seasonal price indication and volume growth in 1Q2017, completion of the merger in Jun-Jul 2017, and the first financial results of the combined company, as well as harvest / sales volume projections for the year which will be available in Aug-Oct 2017.

Both Agrium and PotashCorp are exposed to mining risks, potential weakening of the fertilizer demand and prices, increase in feedstock prices, macroeconomic and political problems in export markets. The specific risk of delay or cancellation of the merger, which is already partially priced-in, might result in share price drop of both companies.

Potash Corporation of Saskatchewan

Investment summary

- ✓ **PotashCorp is the largest global fertiliser producer by capacity**. The company is diversified in three crop nutrients, producing potash (KCl), phosphates (P2O5) and nitrogen (N). PotashCorp's potash nameplate capacity of PotashCorp in Canada is 16.1mt that is approximately 20% of global capacity. Phosphoric acid capacity is 1.9mt P2O5 and total ammonia capacity is 4.1mt as of 2016.

- ✓ PotashCorp's shareholders approved the merger of equals with Agrium, the large diversified North American producer of fertilisers and large retailer of crop nutrition. The combination of PotashCorp with Agrium creates the largest global fertiliser player not only by capacity, but also in terms of retail distribution. The company will be able **to earn both producer's margin and distributor's margins**.

- ✓ The company sets very high corporate governance standards for its sector, and is a **long-term benchmark for the sector** in terms of information disclosure, strategy and board efficiency.

- ✓ Production **growth** may be achieved by increasing operating capability by 6.3mt pa to 17.2mt post-expansion, including 2.7mt in Rocanville (planned for 2016), 2.9mt at other SK mines (approximately 3-12 months from the decision point), and 0.7mt in New Brunswick (within 30 months from decision point).

- ✓ The fertiliser industry assumes relatively high entry barriers, especially in the potash sector in Canada. Despite the relatively large resource base in Saskatchewan, only a few producers have managed to launch sustainable respective production there, including PotashCorp, Mosaic, and Agrium.

Business description

Potash Corporation of Saskatchewan (PCS) is the successor to a corporation without share capital established by the Province of Saskatchewan, Canada in 1975. The company acquired interests in the Saskatchewan potash industry, including the Cory mine in 1976 and the Rocanville and Lanigan mines in 1977. The Province of Saskatchewan privatized PCS in 1989 and the Province sold its entire interest by the end of 1993. Since the privatization, PCS acquired the Allan mine in 1990, the New Brunswick potash mine and port facilities in 1993, PCS Phosphate Company (former Texas gulf) and White Springs Agricultural Chemicals in 1995, the nitrogen fertiliser producer Arcadian Corporation in 1997, PCS Cassidy Lake in 1998, and Purified Phosphates in 2000. The company currently has six potash production facilities with total nameplate capacity of 16.1mt KCl. Nitrogen capacities includes four facilities in the USA and Point Lisas (Trinidad and Tobago) with total nameplate ammonia capacity of 4.1mt. Phosphate sets include two mining and processing facilities in the USA and five upgrading facilities, all in the USA. Phosphate rock capacity is 9.6mt, and phosphoric acid capacity is 1.9mt.

Capacity and production

Potash mineral reserves includes 607mt of proven and 1,109mt of probable reserves totaling 1.7bn reserves in all potash locations as of 31 Dec 2015. PCS has 48-80 years of remaining mine life. The company operates approximately 1,000m underground mines in Saskatchewan, the largest global potash producing region. Potash is mined using two- and four-rotor continuous boring machines and hoisted to the surface through the production shaft. The mining process includes crushing, grinding and desliming, followed by flotation, drying and sizing before it is compacted and crystallised.

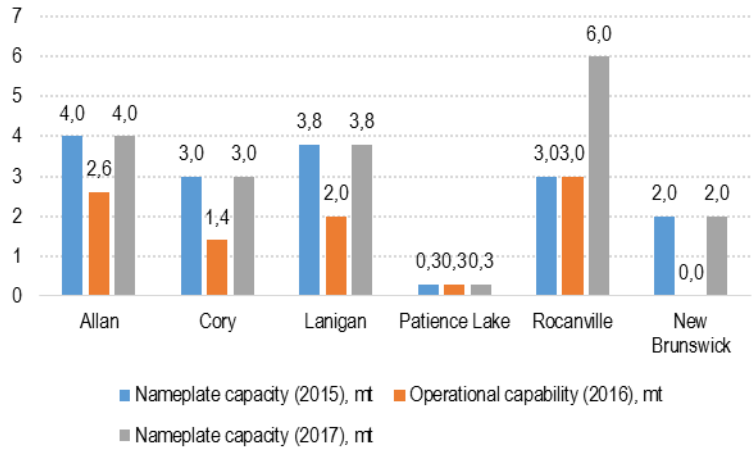
Figure 17. PotashCorp potash reserves

Facility	Proven mineral reserves, mt recoverable ore	Probable mineral reserves, mt recoverable ore	Total mineral reserves, mt recoverable ore	Average grade, %	Years of remaining mine life
Lanigan	104	406	510	20,4-23,2	82
Rocanville	184	318	502	23,5	79
Allan	71	201	272	25	58
Cory	92	163	255	24,7	54
New Brunswick	182		182	24,6	89

Source: Company data

We believe that PotashCorp can achieve growth expanding its potash projects. The company realised construction projects of $5.3bn CAD in 2005-2015 to reach nameplate capacity of 13.1mt post-expansion. The $3.2bn Rocanville project (to be completed in 2016) is set to add 6mt to nameplate capacity, and PCS total nameplate capacity should reach 19.1mt in 2017, up from 16.1mt at the beginning of 2016. Once the current projects have been completed, production capability is expected to reach 17.2mt up from 9.3mt in 2016. New Brunswick has been temporary shut but its nameplate capacity is 2mt.

Figure 18. PotashCorp nameplate capacity and capability in 2016-2017, mt



Source: Company data

Total proven and probable phosphates reserves were 127mt at approximately 30% P2O5 grade. The company operates phosphate rock production at two premises, and phosphoric acid production at three plants. Overall phosphoric acid production amounted to 1.72mt in 2015.

Figure 19. PotashCorp estimated reserves (average grade of 30.7% P2O5), mt

mt	Proven reserves	Probable reserves	Total reserves
Aurora			
Permitted	37,5	1	38,5
To be permitted	53,8	6,8	60,6
White Springs			0
Permitted	26,3		26,3
To be Permitted	1,6		1,6
Total	**119,2**	**7,8**	**127**

Source: Company data

Figure 20. Phosphate rock and phosphoric acid production, mt

	Phosphate rock capacity, mt	Production, 2015	Phosphoric acid capacity	2015 Production
Aurora, NC	6	5,04	1,2	1,05
White Springs, FL	3,6	1,9	0,5	0,55
Geismar, LA			0,2	0,12
Total	**9,6**	**6,94**	**1,9**	**1,72**

Source: Company data

PotashCorp's nitrogen capacity is 4.1mt of ammonia, 1.5mt of urea and 6.4mt of solutions, AN, NA capacity. The largest facility is in Trinidad, which has cheap and abundant feedstock.

Figure 21. Nitrogen capacity and production, mt

	Ammonia capacity	Ammonia Production, 2014	Urea capacity	Urea production, 2014	Solutions, AN,NA capacity	Solutions, AN,NA production, 2014	Employees
Trinidad	2,2	2,03	0,7	0,44			380
Augusta, GA	0,8	0,8	0,5	0,32	3,1	2,42	138
Lima, OH	0,6	0,5	0,3	0,28	0,9	0,64	148
Geismar, LA	0,5	0,53			2,4	1,71	136
Total	**4,1**	**3,86**	**1,5**	**1,04**	**6,4**	**4,77**	**802**

Source: Company data

PotashCorp holds stakes in several fertiliser companies, including 28% in Arab Potash in Jordan, 14% in Israel Chemicals (Israel), 22% in Sinofert, China, and 32% in Sociedad Quimica y Minera de Chile S.A. (SQM), Chile. Two, ICL and Sinofert, are available-for-sale investments valued at $0.7mn and $0.3mn respectively as of end 2015.

Figure 22. PotashCorp portfolio and strategic investments

	SQM, Chile	ICL, Israel	APC, Jordan	Sinofert, China
Potash capacity	2,3mt KC l	6mt KC l	2,4mt KC l	No primary potash capacity
PotashCorp Ownership	32%	14%	28%	22%
Board Representation	Right to designate three of eight Board members	No Board members	Right to designate three of 13 Board members and the top four management positions	Right to designate two of seven Board members
Market value, $bn	1,9	0,7	0,7	0,3

Source: PotashCorp

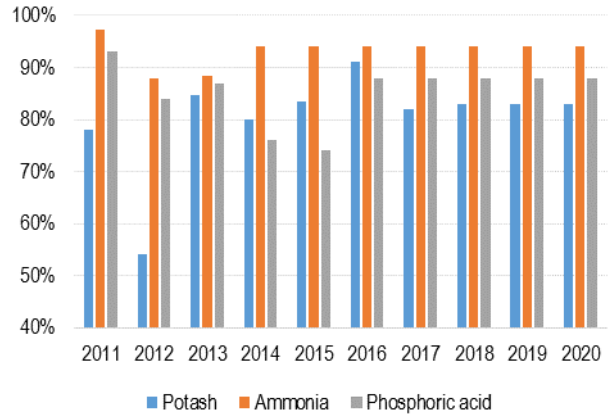
PSC's asset portfolio helps the company to maintain a balanced revenue structure by product. PotashCorp received 40% of net sales from potash, 34% from nitrogen, and 28% from phosphates in FY2015. The combination of a diversified revenue structure, and primary access to the premium North American market, allow PCS to maintain its leading position.

PotashCorp operates large potash capacity and usually adheres to a price-over-volume strategy that can entail facilities being shut down to avoid overproduction and oversupply to the market.

We believe that the market has reached the floor, based on PotashCorp's 3Q16 report as well as its competitors' data. Fertiliser production capacity has increased over the past five years on the back of a favourable price environment between 2010 and 2012. The additional volumes are still available on the market and negatively affect the price in all fertiliser segments. PotashCorp as well as some other large producers cut production and shut down capacities in New Brunswick to balance the potash market. Canpotex's potash volumes of for 4Q2016 were already sold in October indicating that the potash market is approaching equilibrium. The potash price also demonstrated a 15% recovery in 3-4Q16. Nitrogen and phosphate volumes and prices are stabile, mostly affected by the cost of production (gas and coal) and exports from China.

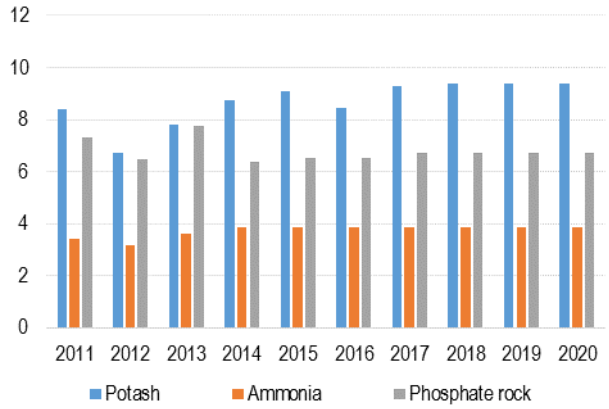
We expect stable production volumes from PotashCorp as there are no strong signals of price growth or a sizable price decline.

Figure 23. PotashCorp operating rates, %



Source: Company data, Hypothesis Research estimates

Figure 24. PotashCorp production volumes, mt

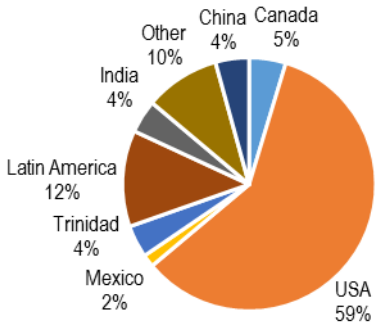


Source: Company data, Hypothesis Research estimates

Marketing and distribution

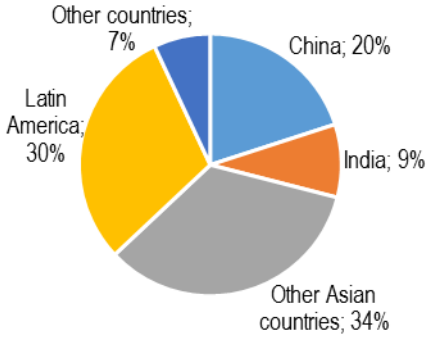
PotashCorp has well-diversified global distribution, but its main priority is the North American market. The company sells in its producing regions, including Canada, the USA, and Trinidad. However, in 2015 the company received approximately 32% of its revenue from countries other than the aforementioned three. Canpotex, the export vehicle for potash sold by PotashCorp with its partners Mosaic and Agrium, sells predominantly to Asia (63% of volumes) and to Latin America (30%).

Figure 25. PotashCorp sales by region, 2015



Source: Company data, Hypothesis Research estimates

Figure 26. Canpotex sales volume by region, 2015



Source: Company data

Potash exports account for approximately 80% of total potash sales globally. PCS is the largest fertilizer company globally by potash capacity, and it follows a price-over-volume strategy. However, low-cost CIS producers have historically dominated Asian export potash markets. Uralkali is typically the first producer to sign a contract with China in the first half of each year that creates expectations for the rest of the market. Other core export markets for the largest potash producers are India, SEA and Latin America.

Figure 27. PotashCorp's primary potash markets

Country/Region	Growth rate	Offshore imports (mt-2015)	Domestic producer sales (mt-2015)	Agriculture products
China	3,50%	9,1	6,7	Vegetables, rice, fruits, corn
India	1,10%	4		Rice, wheat, vegetables, sugar crops
Other Asia	4,20%	8,5		Oil palm, rice, sugar crops, fruits, vegetables
Latin America	4,70%	9	1,8	Soybeans, sugar crops, corn
North America	-0,40%	1,4	7,2	Corn, soybean

Source: PotashCorp

Phosphate-based products are distributed mainly to India and other Asian countries and Latin America. The price politics in India affect the largest phosphate exporters' volume distribution to this market, and the biggest respective suppliers are CIS and Middle East/North Africa companies.

Figure 28. PotashCorp primary phosphates markets

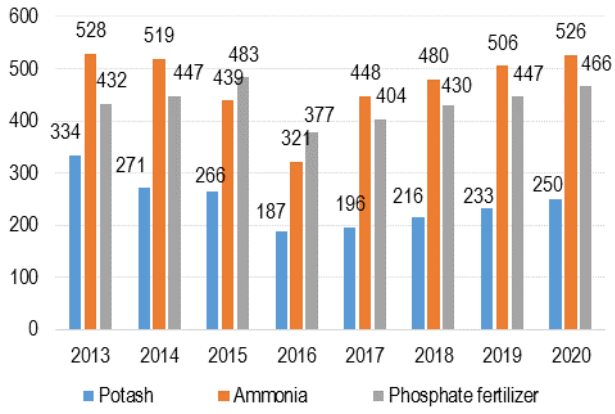
Country	10Y CAGR consumption (2004-2014E)	DAP/MAP production, mt - 2014	DAP/MAP imports, mt - 2014	Main crop
China	1,60%	30	0,3	Vegetables,corn,wheat
India	2,60%	3,3	3,8	Rice, wheat, oilseed
Other Asia	1,30%	1,1	3,8	Rice, wheat, oil palm
Latin America	2,20%	1,7	6,3	Soybeans, corn, sugar crops
North America	1%	10	1,4	Corn, Wheat, soybeans

Source: Company data

Financials

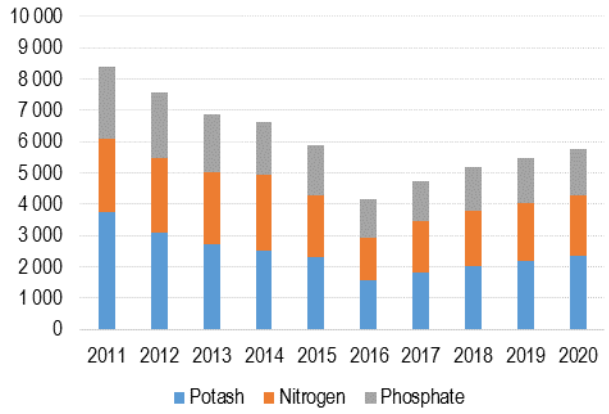
Our financial forecast for PotashCorp assumes on stable operating rates, and a modest fertiliser price recovery. Our price forecast is based on a unified benchmark model for the global fertiliser sector (see "Fertilisers: Rebalancing at the bottom" from 12 October 2016) and historical relationships between PotashCorp's average realised prices and sector benchmarks. Potash represented over 44.5% of PCS net revenues in 2011, and around 40% in 2015. We expect the share of potash in new revenues to remain at around 38-40% for the next five years. Nitrogen and phosphate accounted for 33% and 27% of new sales, respectively in 2015.

Figure 29. PotashCorp average prices forecast, $/t



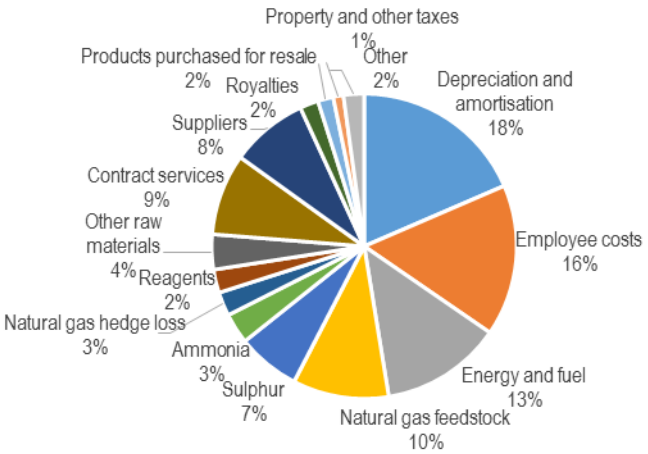
Source: Company data, Hypothesis Research estimates

Figure 30. PotashCorp net sales, $mn



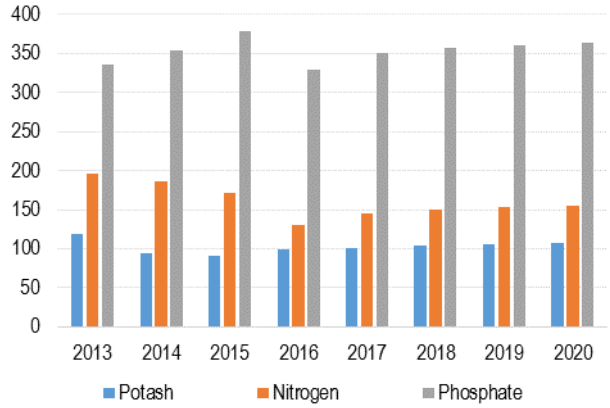
Source: Company data, Hypothesis Research estimates

Figure 31. Cost of sales structure



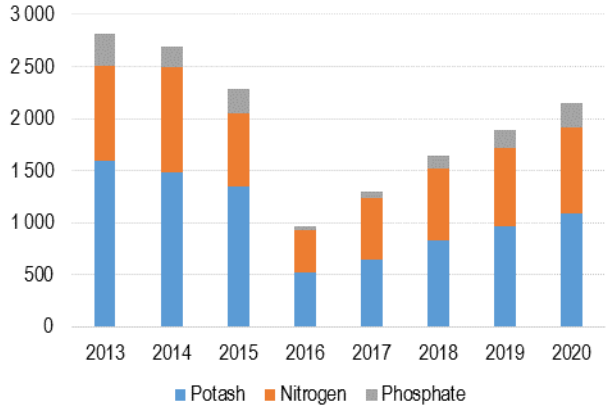
Source: Company data

Figure 32. PotashCorp total cash cost by segment, $/t



Source: Company data, Hypothesis Research estimates

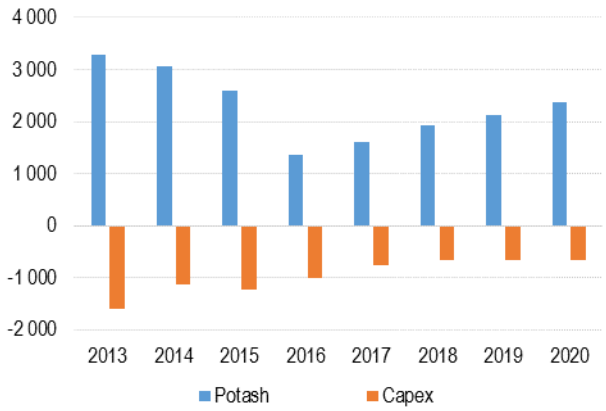
Figure 33. PotashCorp gross margin by segment, $mn



Source: Company data, Hypothesis Research estimates

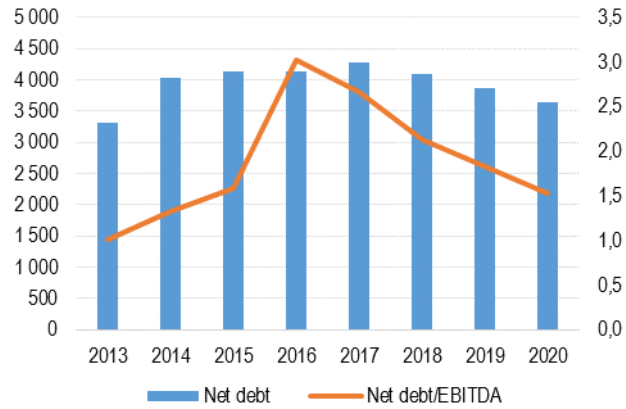
Potash remained the most profitable segment for the company in 2015-16, despite a sizeable decrease in average realised prices. Operating cash flow remains sufficient to cover capex.

Figure 34. PotashCorp adj EBITDA and capex, $mn



Source: Company data, Hypothesis Research estimates

Figure 35. PotashCorp Net debt ($mn), Net debt/EBITDA



Source: Company data, Hypothesis Research estimates

Figure 36. PotashCorp financial summary, $mn

Income statement							Statements of cash flows						
$mn	FY13	FY14	FY15	FY16E	FY17E	FY18E	$mn	FY13	FY14	FY15	FY16E	FY17E	FY18E
Sale	7305	7115	6279	4636	5261	5695	Net income	2 079	1 785	1 536	1 270	315	449
Freight and Transportation	-572	-609	-488	-550	-586	-601	Cash from operations	3 225	3 212	2 614	2 338	1 354	1 429
Cost of goods sold	-3943	-3859	-3522	-3186	-3455	-3530	Cash used in investing activities	-2 204	-1 624	-1 160	-1 284	-83	-57
Gross Margin	2790	2647	2269	900	1220	1564	Cash used in financing activities	-889	-1 522	-1 867	-1 178	-748	-1 519
Operating Income	2616	2348	1913	651	837	1146	Change in cash and equivalents	132	66	-413	-124	523	-146
Finance costs	144	184	192	214	214	214	Cash and cash equivalents, bop	430	562	628	215	91	614
Income Before Income Taxes	2472	2164	1721	437	623	932	Cash and cash equivalents, eop	562	628	215	91	614	468
Income taxes	687	628	451	122	175	261	Net debt	3309	4030	4136	4136	4282	4093
Net Income	1785	1536	1270	315	449	671							
Total dividends, $mn	997	1141	1273	584	337	503							
EBITDA	3282	3049	2598	1340	1531	1844							
Balance sheets							**Ratios**						
USD mn	FY13	FY14	FY15	FY16E	FY17E	FY18E		FY13	FY14	FY15	FY16E	FY17E	FY18E
Cash & equiv.	628	215	91	614	468	657	Gross margin, %	38%	37%	36%	19%	23%	27%
Receivables	752	1029	640	473	536	580	Oper. margin, %	36%	33%	30%	14%	16%	20%
Inventories	728	646	749	605	696	691	Net margin, %	24%	22%	20%	7%	9%	12%
Prepaid exp.	81	48	73	54	61	66							
Current assets	2189	1938	1553	1746	1761	1995	Revenue growth	-8%	-3%	-12%	-26%	13%	8%
Non-curr assets	15769	15786	15916	15999	16056	16016	Net profit growth	-14%	-14%	-17%	-75%	43%	50%
Total assets	17958	17724	17469	17746	17818	18011	EBITDA growth	-9%	-7%	-15%	-48%	14%	20%
Short-term debt	967	1032	517	1036	1036	1036	Capex growth, %	-24%	-29%	7%	-18%	-25%	-13%
Payables	1104	1086	1146	967	1086	1090	Payout ratio	56%	74%	100%	185%	75%	75%
Curr. portion of deriv. liabilities	42	80	84	43	46	47							
Current liabilities	2113	2198	1747	2045	2168	2174	EBITDA / Interest coverage	22,8	16,6	13,5	6,3	7,2	8,6
Long-term debt	2970	3213	3710	3714	3714	3714	Net debt/EBITDA	1,0	1,3	1,6	3,1	2,8	2,2
Deriv. instrum. liabilities	129	115	109	70	76	78	Net debt/Equity	0,3	0,5	0,5	0,5	0,5	0,5
Deferred inc. tax liab.	2013	2201	2438	2205	2391	2444	Revenues/Assets	0,4	0,4	0,4	0,3	0,3	0,3
Pension and other liabilities	410	503	431	621	627	633	Capex/ EBITDA	0,5	0,4	0,5	0,7	0,5	0,4
Asset retirem. obligations and envir. costs	557	589	574	610	616	622	RoCE	19%	18%	15%	5%	7%	9%
Other non-current liabilities	138	113	78	103	117	126	FCF yield	11%	14%	10%	9%	4%	5%
Total non-current liabilities	6217	6734	7340	7323	7541	7617	RoIC	14,9%	13,4%	11,7%	4,2%	5,3%	7,2%
Total liabilities	8330	8932	9087	9368	9709	9791	ROE	19%	17%	15%	4%	6%	8%
Shareholders' equity	9628	8792	8382	8377	8108	8220							
Liabilities and equity	17958	17724	17469	17746	17818	18011							

Source: Company data, Hypothesis Research estimates

Valuation

We use a DCF valuation for PotashCorp. Our estimated WACC is 7.3% based on a 1.89% risk-free rate, 4.89% equity risk premium, and 0.66 beta. Our 12-month target price is $22.8 per share, implying 25% upside potential for the stock. We rate the company BUY. The share price is being affected by the ongoing merger of equals between PotashCorp and Agrium, and the prospects of the new and substantially larger company (to be named later, before the close of the merger) do play an essential role.

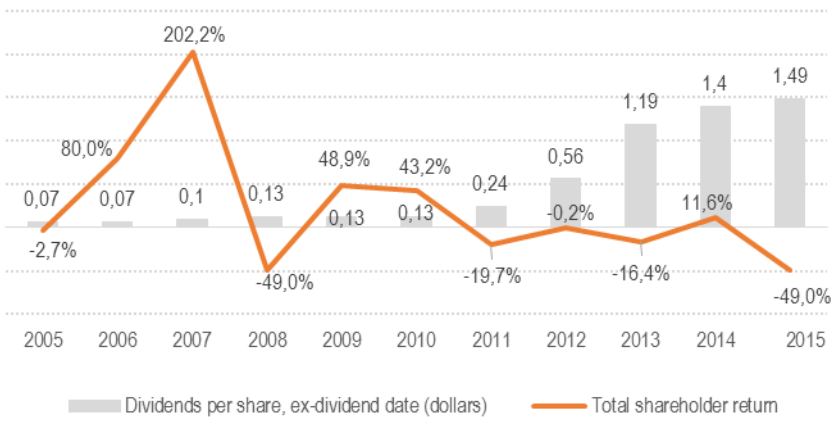
Figure 37. PotashCorp DCF model, $mn

	FY2015	2016E	2017E	2018E	2019E	2020E
EBIT	1913	651	837	1146	1329	1577
Less taxation	451	122	175	261	312	382
Tax adjusted EBIT	1462	529	663	885	1017	1195
Depreciation	685	714	716	704	688	673
Less: Capex & Merger cost	-1223	-1070	-750	-650	-650	-650
Change in working capital	-66	105	108	-228	-251	-266
Unleveraged free cash flow	858	278	737	711	804	952
WACC	7,3%					
Future cash flow growth rate	2,0%					
Fair market capitalisation	19117					
Number of shares, mn	839					
Fair value, $	22,8					
Current share price, USD	18,3					
Upside (Downside) to fair value	25%					
Implied Multiples	**FY2015**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**
P/E	15,1	60,7	42,6	28,5	23,8	19,5
EV/EBITDA	9,0	17,3	15,2	12,6	11,4	10,2
EV/Sales	3,7	5,0	4,4	4,1	3,9	3,7

Source: Hypothesis Research estimates

PotashCorp's relatively weak share price performance since 2011 because of softer fertiliser prices was partially compensated by increased shareholder payouts in the form of dividends and share repurchases. The company paid around 100% of its net profit to shareholders in 2015, 74% in 2014, and 56% in 2013. We expect the 2016 dividend payout to exceed net income. The company has already declared a dividend of $0.6 per share comparing with $0.33 EPS for 9M16.

Figure 38. Dividend per share and total shareholder return



Source: Company data

Agrium

Investment summary

- ✓ Agrium is the major fertiliser producer globally with the world's largest retail distribution network. The company distributes directly to customers in seven countries and benefits not only from producer's margin but also from distributor's margin.

- ✓ The company operates 9mt of annual nutrient capacity which is set to be expanded to 10.5mt in 2017. Agrium is planning to complete its wholesale capacity expansion and add 20% to its production capacity.

- ✓ The capex cycle is almost over. At its peak, capex reached $2.02bn in 2014 and $1.19bn in 2015. Effective 2016, the company plans to spend around $250mn per annum on growth, with $550mn annual sustaining capex.

- ✓ Agrium will expands its potash and other fertiliser capacity through the merger of equals with PotashCorp. Agrium consistently expands its retail distribution operations though purchases of small retailers. The merger with PotashCorp will provide grounds for further expansion and growth in retail.

- ✓ Agrium's operations in Latin America might provide additional growth once its consolidation with PotashCorp is completed. The large export market for potash, phosphate and complex fertilisers is now fertiliser majors' most attractive segment for expansion.

Business description

Agrium is a diversified major global producer and distributor of agricultural products, services and solutions. The company supplies key products and services directly to farmers, including crop nutrients, crop protection, and seed, as well as agronomic and application services. Agrium has nine nitrogen, two phosphate, and one potash primary production facilities, two mines, four other production facilities, storage and distribution network, including more than 1,400 retail facilities. The retail facilities operate under the name Crop Production Services (CPS). The company also benefits from a 600kt fertiliser storage and distribution network in Europe, 200 retail facilities in Australia under Landmark brand, 60 retail facilities in South America under the name Agroservicios Pampeanos (ASP) in Argentina, Chile, Uruguay, and Brazil. Agrium has 26% equity interest in the MOPCO nitrogen facility in Egypt and 50% interest in the Profertil nitrogen facility in Argentina.

The company is highly focused on enhancing efficient communication with final customers that allows it to deliver a sustainable margin in North America from sales of nitrogen, phosphate and potash fertilisers. Agrium reports over $12bn in retail revenue that makes it North America's largest agriculture retailer/distributor of crop inputs. The comparison of the company's prices in its two main segments, Wholesale and Retail, indicates the end value that retail creates for fertiliser producers.

Strategy

The company's core strategy pillars include the following:

- ➢ The achievement of 'Operations Excellence' through increase of operating rates in production and improvement of retail operations. The company targets $125m of recurring EBITDA improvements, and a $350mn one-time benefit via a non-core asset divesture in 2017;

- The 'Efficient Capital Allocation' is delivered to investors through a healthy dividend payout of 40-50% of free cash flow, a share repurchase plan ($559mn in 2015), and disciplined investment projects with a 12% hurdle rate;

- The company's 'Growth' is focused on expanding its Borger, Texas nitrogen facility, increasing the potash nameplate capacity of the Vanscoy project to 3.024mt, and acquiring new retail locations (26 locations acquired in 2015 with expected annual EBITDA of $20mn, and a further 70 locations in 2016 YTD with expected revenues of $500mn);

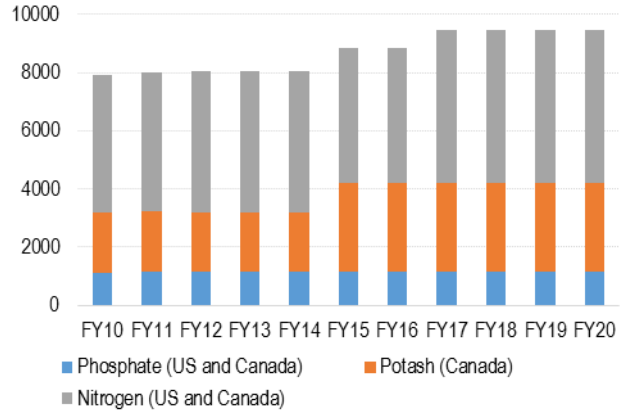
- 'Focus of People' helps Agrium to maintain a very engaged workforce (4.14 PWC Employee Engagement Index and ranked in the top-50 most engaged workplaces in North America).

Capacity and production

Agrium operates approximately 9mt of product capacity in its Wholesale segment and plans to expand this to 10.5mt in 2017. Annual nitrogen capacity is 5.8mt at 11 nitrogen facilities located in Canada, the USA, Argentina, and Egypt. The company has access to ammonia pipeline and ammonia storage facilities in Borger, Homestead, Early, and Garner in the USA. Annual potash capacity is 3.024mt in Saskatchewan (Canada). The company operates two phosphate plants with 1.2mt combined annual capacity. The product range includes ammonium sulphate, ammonium phosphate, anhydrous ammonia, aqua ammonia, calcium ammonium nitrate (CAN 17), environmentally smart nitrogen (ESN), merchant grade phosphoric acid (MGA), monoammonium phosphate (MAP), muriate of potash, super phosphoric acid (SPA), urea ammonium nitrate (UAN), and urea. Agrium sells the product for industrial applications as well, including primary ammonia, urea, ammonium nitrate (AN) and aqua ammonia.

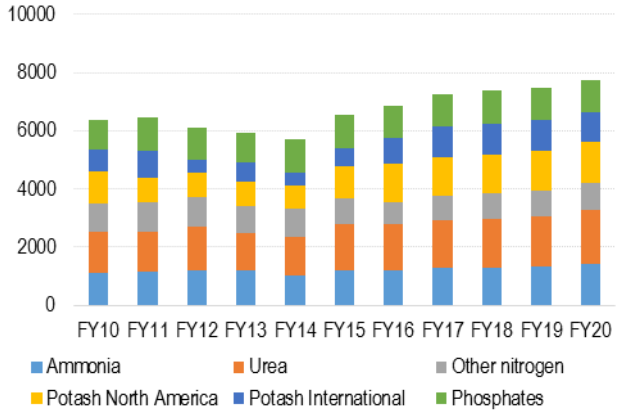
The Border urea expansion targets new annual urea production capacity of 610kt. The facility will include the new Diesel Exhaust Fluid plant with 100kt (urea equivalent), and is set to be completed in 4Q16, with production commencing in 1Q2017.

Figure 39. Agrium capacity*, kt



Source: Company data, Hypothesis Research estimates
*) excludes nitrogen international capacities in 2010-2011

Figure 40. Agrium sales volumes, kt



Source: Company data, Hypothesis Research estimates

Apart from selling nitrogen, phosphate and potash fertilisers, the Wholesale segment includes resale operations, and ammonium sulphate, ESN and other product sales. The Retail segment includes sales of crop nutrients, crop protection products, seeds, merchandise, and services amongst other things. Crop protection products are offered to farmers through the Crop Production Services (CPS) in North America, Landmark in Australia and Agroservicios Pampeanos (ASP) in South America, as well as herbicides, insecticides, fungicides and other products. The company is also involved in research, provides technical advice on its products, sale and delivery of those products and custom application. In the retail segment crop nutrients sales generated 41% of revenues, and 17% gross margin in 2015,

crop protection - 37% revenues and 23% gross margin, and seeds - 12% of revenues and 20% gross margin. Services generated just 5% of revenues but 66% gross margin.

Agrium has the largest retail distribution globally with over 1,400 facilities in seven countries. The five largest crops for which the company distributes nutrients to are corn (23% generated revenues in 2015), wheat (18%), Soybean (16%), canola (11%) and cotton (6%). Since 2005 until 2015 the performance of acquired retail locations has improved with some 4-6% EBITDA margins to grow up to 9.9% Agrium retail 2015 EBITDA margin.

Agrium plans to further boost its sales of proprietary products, which generate 50-100% more margin than third-party products. The company has 46 proprietary product brands, including Loveland products, Dyna-Gro seed, and Proven seed. In crop protection, Agrium plans to increase proprietary crop protection offering from 22% of total Crop Protection sales in 2015 to 25% in 2020. Average proprietary product gross margin is 37%.

Agrium has a 17% US retail market share (comped with just 9% share in production), with up to 30% in some key regions. A 26% share is controlled by the independent retailers, which Agrium could potentially partially consolidate. Other large players in the US retail market are Co-ops (30%), Helena (7%), Growmark (5%), Wilbur-Ellis (4%), Pinnacle (4%), CHS (3%), and Simplot Retail (2%).

Figure 41. 2020 Retail location targets

Performance metric	2013-2015 average	2020 target
EBITDA per location	$710k	>$900k
Cash operating coverage ratio	62%	59%-57%
EBITDA margin	8,50%	9,5%-10,5%
working Capital to Sales ratio	18%	16%-17%
Normalized comparable store sales	2%	1%-3% per year

Source: Company data

In 3Q16, Agrium completed the acquisition of 37 retail locations in North America in addition to other 33 locations acquired in 1H16. In total, 70 new locations have been added YTD, representing approximately $500mn of expected annual sales.

Figure 42. Agrium history of location acquisitions

	2010	2011	2012	2013	2014	2015	2016	Total
# of locations acquired	100	33	59	22	32	26	70	342
Annual sales, $mn	476	211	479	124	194	190	500	2174
Annual EBITDA, $mn (Year 1)	33	27	49	12	20	20	na	

Source: Company data

Agrium plans to continue to execute its deal pipeline to increase its US retail market share. The average multiple paid per location is 6x EBITDA.

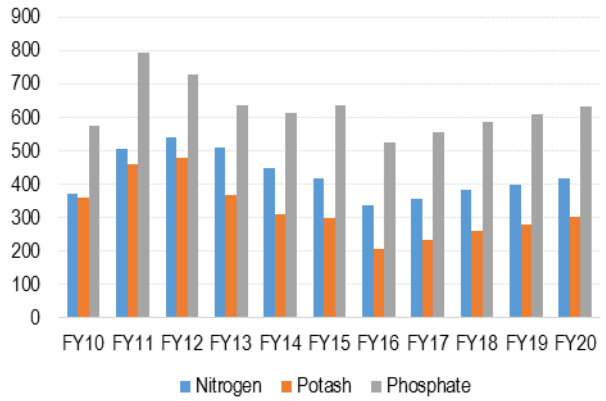
Financials

Agrium's financial performance is driven mostly by the Retail crop nutrient sales, and nitrogen wholesale operations. In 3Q16 Agrium posted a loss of $14mn ($0.29 diluted loss per share) for the first time since 1Q10 due to lower nutrient pricing, low pest and disease pressure in the USA, a delayed harvest across North America related to wet weather, and one-time costs related to its merger with PotashCorp ($35mn).

Agrium's average realised prices are usually higher than competitors' prices and close to retail prices. However, weather and agricultural demand for crop nutrients and crop protection can affect Agrium's margin. Agrium sells approximately 50% of potash volumes through Canpotex, the joint trader for Canadian potash producers PotashCorp, Mosaic and Agrium.

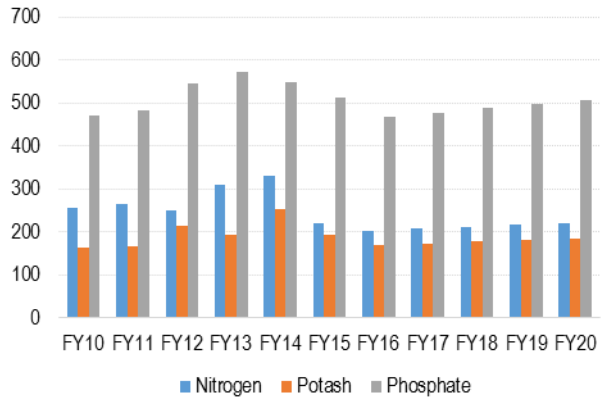
The current price situation is improving slightly compared to 3Q16. In September 2016 urea prices increased due to sizable Indian urea imports and lower-than-expected availability of Chinese exports while Chinese producers' costs increased as a result of a 60% bituminous coal price increase. Potash contracts with India and China have created a favorable demand situation for producers, and Agrium expects high production volumes for the rest of the year. This is set to be additionally driven by Brazilian potash imports (already up 21% YOY in 3Q16), US potash applications which have been low for the past three years due to weather. Tight phosphate inventories in Brazil and a positive US phosphate demand outlook create positive expectations in the phosphate segment.

Figure 43. Agrium average realized prices, $/t



Source: Company data, Hypothesis Research estimates

Figure 44. Agrium average cost of product sold, $/t



Source: Company data, Hypothesis Research estimates

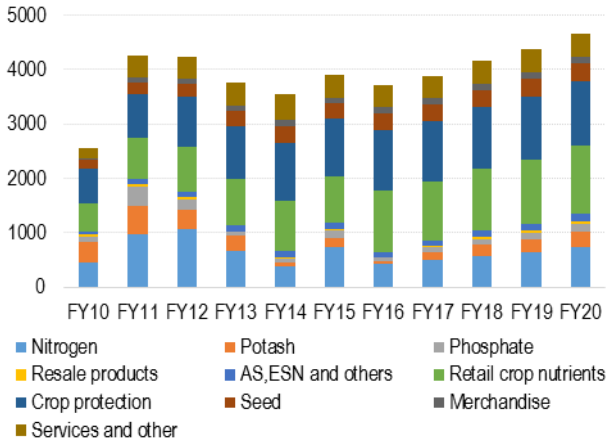
Agrium's largest sales are generated by crop nutrient and crop protection, both reported in the retail segment. These two businesses as well as nitrogen wholesale and services, contribute most of the company's gross margin. On per ton basis, potash generates lower margin for the company ($104/t in 2015) in wholesale segment comparing with nitrogen ($199/t), which became the most profitable product in 2012 followed by phosphates ($122).

Based on 2016 outlook presented by Agrium, we expect rather solid 4Q16. Agrium's guidance for FY2016 includes following:

- nitrogen production of 3.6mt due to high operating rates in 4Q16,
- 2.1-2.2mt potash production,
- retail crop nutrient at 9.8-10.2mt but retail EBITDA remaining at $1.07-1.11bn,
- FY2016 capex at $750mn.

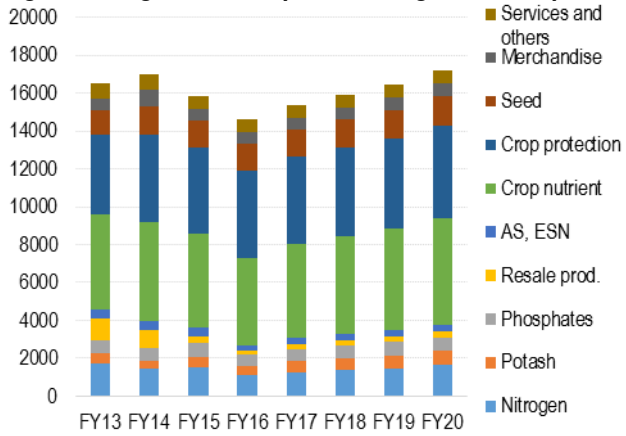
The Canadian currency depreciation in 3Q16 may also affect the financial results by contributing to a small Canadian production cost decline in 4Q16.

Figure 45. Agrium's gross profit by product, $mn



Source: Company data, Hypothesis Research estimates

Figure 46. Agrium sales (incl intersegment sales), $mn

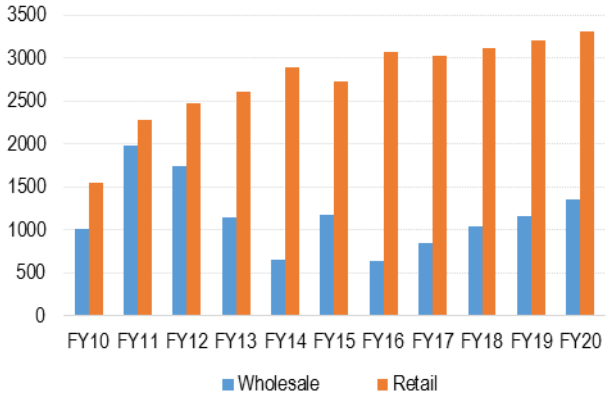


Source: Company data, Hypothesis Research estimates

Sizeable retail sales result in a high share of SG&A in revenues (14.8% in 2015). In 3Q16 Agrium reported a 26% YoY reduction in Wholesale SG&A. The 2016 Retail operating cost helped the company to improve its Retail EBITDA from 8% to 9%. Agrium's EBITDA margin was approximately 14% in 2015, however we believe it may shrink to around 10% in 2016. At the current level, Agrium's EBITDA margin is dominated by its retail margin and we do not see further downside risk for the company.

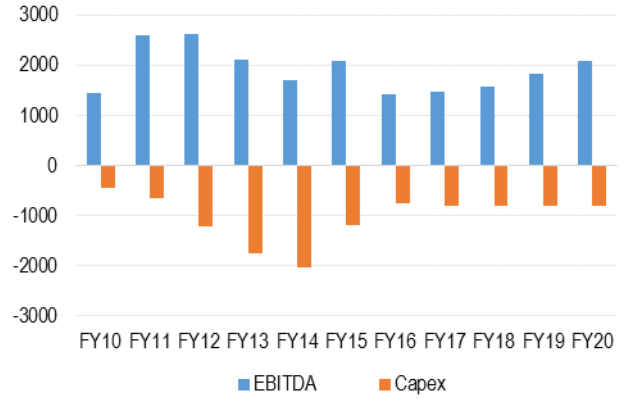
The capex cycle peaked in 2014 and it is already close to completion in 2016. The company announced its intention to keep maintenance capex at $500-550mn per year, and growth capex at $250mn for the next several years. The guidance for FY16 is $750mn. Investments into new nitrogen capacity add a further 20% of the company's volumes by 2020. However, we expect only slight nitrogen growth.

Figure 47. Agrium gross profit by segment, $mn



Source: Company data, Hypothesis Research estimates

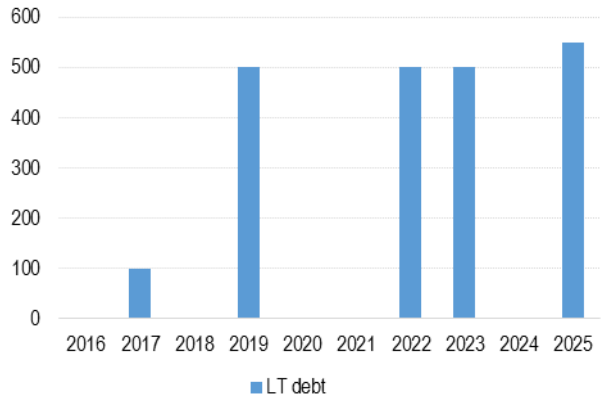
Figure 48. Agrium EBITDA and Capex, $mn



Source: Company data, Hypothesis Research estimates

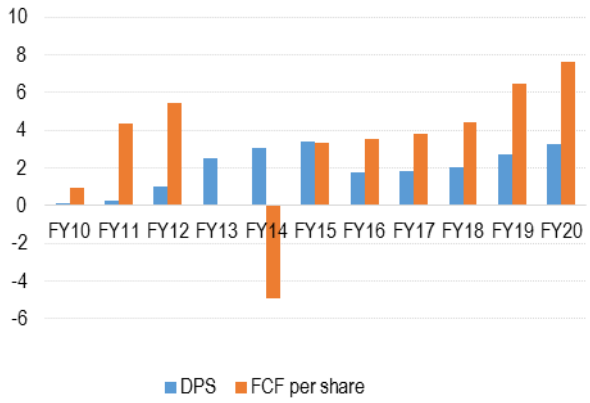
Reduced capex and relatively modest long-term payouts beyond 2017 will help Agrium to maintain its dividend policy. The company currently pays an annual dividend of $3.5 per share with its dividend policy targeting to return 40-50% of free cash flow through dividends to shareholders. The payout to shareholders through dividends and the share buyback in 2015 amounted over $1bn.

Figure 49. Agrium LT debt maturity profile, $mn pa



Source: Company data, Hypothesis Research estimates

Figure 50. Agrium DPS and FCF per share, $/share



Source: Company data, Hypothesis Research estimates

The combination with PotashCorp, approved by Agrium shareholders, looks advantageous for Agrium. The company's sales in the Wholesale segment amounted to 8.6mt in 2015, and Retail sales volumes exceeded 9.5mt. The wholesale resale business amounted to over 1mt in 2015. Taking into account that Agrium acquired 70 retail locations with estimates sales of $500mn in 9M2016, the combination with PotashCorp will allow Agrium to boost retail operations from volumes produced by PotashCorp.

Valuation

Our DCF model for Agrium is based on a 2% terminal growth assumption, and a 7.5% estimated WACC. Our 12-month target price is US$130 per share. The upside is likely be realized in greater degree if the merger with PotashCorp goes in line with expectations. We rate the company BUY. Agrium DCF value is most sensitive to nitrogen and DAP (over +14% increase following +10% price curve up), and less sensitive to potash price increase (+5%).

Figure 51. Agrium DCF model

$mn	FY16	FY17	FY18	FY19	FY20
EBIT	925	975	1044	1283	1508
Less taxation	174	196	217	284	346
Tax adjusted EBIT	751	779	826	998	1162
Depreciation	485	505	528	548	568
Less: Capex and Merger cost	-820	-800	-800	-800	-800
Change in working capital	-61	29	99	95	118
Unleveraged free cash flow	355	512	653	842	1047
WACC	7,5%				
Future cash flow growth rate	2,0%				
Fair market capitalisation	17946,2				
Number of shares, mn	138,2				
Fair value, $	129,9				
Current share price, USD	97,8				
Implied Multiples	**FY2016**	**FY2017**	**FY2018**	**FY2019**	**FY2020**
P/E	36,3	33,8	30,5	23,4	19,2
EV/EBITDA	16,2	15,4	14,5	12,4	11,0
EV/Sales	1,6	1,6	1,5	1,5	1,4

Source: Hypothesis Research estimates

Figure 52. Agrium's key financial parameters

Income statement							Statements of cash flows						
$mn	FY13	FY14	FY15	FY16	FY17	FY18	$mn	FY13	FY14	FY15	FY16	FY17	FY18
Sales	15727	16042	14795	13941	14686	15061	Net earnings - operations	1080	798	988	494	531	588
COGS	11954	12490	10907	10859	11477	11756	Cash - operating activities	1767	1312	1663	1239	1329	1407
Gross profit	3773	3552	3888	3081	3209	3306	Cash - investing activities	-681	-2068	-1503	-692	-800	-800
Earning before fin. costs, inc.taxes	1630	1160	1616	925	975	1044	Cash - financing activities	-867	856	-573	-308	-845	-857
Finance costs rel. to long-term debt	90	62	181	189	179	170	Effect of exchange rate	-24	-35	80	0	0	0
Other finance costs	66	70	71	68	68	68	Increase (decrease) in cash and equivalents	195	65	-333	239	-317	-250
Earnings (loss) before income taxes	1474	1028	1364	668	728	805	Cash and cash equivalents - eop	801	848	515	754	437	188
Income taxes	394	230	376	174	196	217	Net debt	3087	4249	4841	4834	6605	6909
Net earnings from cont. operations	1080	798	988	494	531	588							
Net earnings (loss)	1063	720	988	494	531	588							
EBITDA	2102	1710	2096	1410	1480	1571							
Balance sheets							**Ratios**						
USD mn	FY13	FY14	FY15	FY16	FY17	FY18		FY13	FY14	FY15	FY16	FY17	FY18
Current assets	7508	7398	6718	6835	6855	6759	Gross margin, %	24%	22%	26%	22%	22%	22%
PPE	4960	6272	6333	6598	6893	7166	Operating margin, %	10%	7%	11%	7%	7%	7%
Intangibles	738	695	632	635	629	622	Net margin, %	7%	4%	7%	4%	4%	4%
Goodwill	1958	2014	1980	2023	1983	1943							
Investments in associates, JV	639	576	607	665	665	665	Revenue growth	-2%	2%	-8%	-6%	5%	3%
Other assets	99	78	54	56	66	66	Net profit growth	-29%	-32%	37%	-50%	7%	11%
Deferred income tax assets	75	75	53	44	44	44	EBITDA growth	-20%	-19%	23%	-33%	5%	6%
Total assets	15977	17108	16377	16857	17134	17265	Capex growth, %	43%	15%	-41%	-37%	7%	0%
Current liabilities	4965	5853	4929	5095	5128	4980	Payout ratio	35%	60%	48%	48%	48%	48%
Long-term debt	3066	3559	4513	4412	4368	4324							
Post-emp. Benef.	135	151	124	124	124	124	EBITDA / Interest coverage	23,4	27,6	11,6	7,5	8,2	9,2
Other provisions	426	367	336	347	352	366	Net debt/EBITDA	1,5	2,5	2,3	3,4	4,5	4,4
Other liabilities	59	69	85	66	74	80	Net debt/Equity	0,5	0,6	0,8	0,8	1,0	1,0
Deferred inc tax	530	422	383	383	383	383	Revenues/Assets	1,0	0,9	0,9	0,8	0,9	0,9
Total liabilities	9181	10421	10370	10427	10430	10257	Capex/ EBITDA	0,8	1,2	0,6	0,5	0,5	0,5
Share capital	1820	1821	1757	1757	1757	1757	RoCE	15%	10%	14%	8%	8%	9%
Retained earnings	5253	5502	5533	5788	6062	6366	FCF yield	0,1%	-5,2%	3,5%	3,6%	3,9%	4,5%
Accum. other compr. Inc. (loss)	-279	-643	-1287	-1119	-1119	-1119	RoIC	12,6%	8,5%	11,4 %	6,7%	6,8%	7,0%
Equity holders of Agrium	6794	6680	6003	6426	6700	7004	ROE	16%	11%	16%	8%	8%	8%
Non-controlling interest	2	7	4	4	4	4							
Total equity	6796	6687	6007	6430	6704	7008							
Total liabilities and equity	15977	17108	16377	16857	17134	17265							

Source: Company data, Hypothesis Research estimates

Important disclosures

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