

Mosaic (MOS:NYS) Fundamental Valuation Report

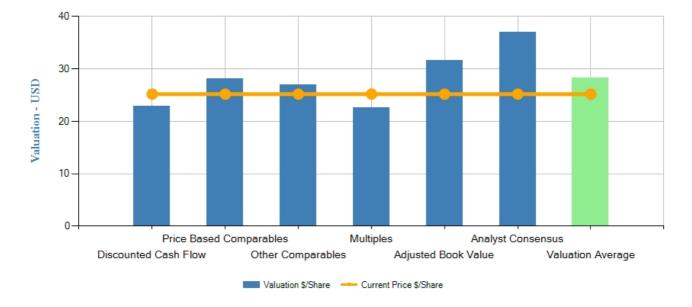
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Valuation Summary: Mosaic \$25.21 (USD) Close Price as of 13/02/2018

Based on the analysis conducted in this report, **Mosaic**, (MOS:NYS) is found to be **Undervalued**.

Company	Mosaic		
Symbol:Exchange	MOS:NYS		
Industry	Basic Materials:Agricultural Inputs		
Close Price/Date	\$25.21 (USD) 13/02/2018		
Weighted Average Valuation	\$30.83 (USD)		
Summary	MOS:NYS is found to be Undervalued by 22.3% using the 3 valuation models shown below.		
Valuation Models Used	Analyst Consensus: \$37.00 (USD)		
(in order of importance)	Discounted Cash Flow: \$22.92 (USD)		
	Comparables: \$28.13 (USD)		
Valuation Methods Analysis	This company is:		
Cash Flow Basis:	Overvalued on a Cash Flow Valuation basis		
Comparable Company Basis:	Undervalued on a Comparable Valuation basis		
Asset Basis:	Undervalued on an Asset Valuation basis		



Mosaic Valuations

We have up to 6 valuation points for each company. Details are at the bottom of the report.

Discounted Cash Flow and Sensitivity Analysis for MOS:NYS

Using a discounted cash flow model we generated an intrinsic value of \$22.92 (USD) for MOS:NYS

Sensitivity Analysis

MOS:NYS	Current Values	Valuation If Dropped		Valuation If Raised	
Calculated Value:	\$22.92	1%	5%	1%	5%
WACC (or Ke)	9.95	\$28.57		\$18.70	
Terminal Growth Rate	3.00	\$19.19		\$27.92	
Tax Rate	0.31		\$25.59		\$20.25
Cash Flow	1,584,655,000		\$21.07		\$24.78
Capital Expenditures	0		\$22.92		\$22.92
Long Term Debt	3,876,700,000		\$23.43		\$22.42

(showing how changes in the input variables impact the DCF calculation)

 * Changes are absolute: ex WACC from 8% to 7%

Comparables Model

Using similar companies and price based ratios we generated a valuation of **\$28.13 (USD)** for **MOS:NYS**. We also generated a valuation of **\$26.98 (USD)** using other metrics and comparables. The comparable companies were CF Industries Holdings (CF:NYS) and The Scotts Miracle Gro (SMG:NYS)

Company MOS:NYS	End Date Value	Price Based on Comps	Adjustment Factor (%)
Earnings/Share	\$0.95 (USD)	\$21.66 (USD)	-19.1
Book Value/Share	\$26.26 (USD)	\$75.42 (USD)	-51.4
Sales/Share	\$20.41 (USD)	\$44.19 (USD)	-21.0
Cash Flow/Share	\$2.42 (USD)	\$25.94 (USD)	-9.7
EBITDA/Share	\$0.00 (USD)	\$0.00 (USD)	-20.7

MOS:NYS	Ratios Used	Average Values	CF:NYS	SMG:NYS
26.54	PE Ratio	22.80	0.00	22.80
0.96	PB Ratio	6.48	2.87	10.09
1.24	PS Ratio	2.17	2.33	2.00
10.40	PCF Ratio	10.70	6.37	15.03
11.40	EV to EBITDA	16.10	17.93	14.26

Multiples

Using a multiples approach we generated a valuation of \$22.60 (USD) for MOS:NYS

Company MOS:NYS	End Date Value	Price Based on Comps	Adjustment Facto
Earnings/Share	\$0.95 (USD)	\$14.02 (USD)	0
Book Value/Share	\$26.26 (USD)	\$27.09 (USD)	0
Sales/Share	\$20.41 (USD)	\$26.06 (USD)	0
Cash Flow/Share	\$2.42 (USD)	\$18.68 (USD)	0
EBITDA/Share	\$3.11 (USD)	\$27.13 (USD)	0

	Ratios	Ratio Average
PE Ratio		14.76
PB Ratio		1.03
PS Ratio		1.28
PCF Ratio		7.71
EV to EBITDA		8.72

Adjusted Book Value versus Historical Price to Book

The average the Price to Book ratio for MOS:NYS for the last 10 years was 1.16

We ran the Adjusted Book Value for **MOS:NYS** and generated a book value of **\$27.37 (USD)** By multiplying these we get an adjusted valuation of **\$31.65 (USD)**

Analyst Data

In the Stockcalc database there are 2 analysts that provide a valuation for **MOS:NYS**. The 2 analysts have a concensus valuation for **MOS:NYS** for 2018 of**\$37.00 (USD)**.

MOS:NYS Mosaic

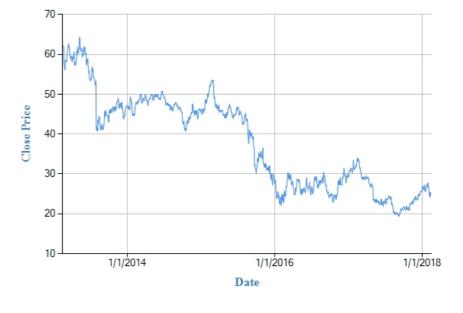
Analyst Recommendation					
Buy	Hold	Sell	Rating (of 5)	Guidance	As Of
2	3	0	3.8000	Outperform	2018-2-13

Current Price: not available

Analyst	Analyst Consensus					
USD Millions	2017	2018	2019			
Mean EPS	1.97	1.45	1.35			
# EPS Analysts	4	3	1			
Mean Revenue	7,148.80	8,714.50	9,209.80			
# Revenue Analysts	2	2	1			
Mean Target Price		37.00				
Mean Cash Flow	2.91	3.10	3.49			
Mean EBITDA	1,134.20	1,475.70	1,538.50			
Mean Net Income	315.00	446.30	522.80			
Mean Debt Outstanding	-3,263.40	-4,511.10	-4,567.00			
Mean Tax Rate						
Mean Growth Rate		20.31				
Mean Capital Expenditure	825.00	970.50	991.00			

Company Overview (MOS:NYS USD)

25.21
24.78 - 25.34
19.39 -
33.64
25.07
2.89M/2.74M
8.85B
26.54
0.10/0.02
0.85
351.05M
1.30



Detailed Company Description

Mosaic Co has its activities based in the agriculture industry. Its business involves production and marketing of crop enhancement products such as concentrated phosphate and potash crop nutrients.

We have up to 6 valuation points for each company in the database.

The **Discounted Cash Flow (DCF)** valuation is a cash flow model where cash flow projections are discounted back to the present to calculate value per share. DCF is a common valuation technique especially for companies undergoing irregular cash flows such as resource companies (mining, forestry, oil and gas) going though price cycles or smaller companies about to generate cash flow (junior exploration companies, junior pharma, technology firms...).

The **Price Comparables** valuation is the result of valuing the company we are looking at on the basis of ratios from selected comparable companies: Price to Earnings, Price to Book, Price to Sales, Price to Cash Flow, Enterprise Value (EV) to EBITDA. Each of these ratios for the selected comparable companies are averaged and multiplied by the values for the company we are interested in to calculate a value per share for our selected company.

We have included the **Other Comparables** as a way to value companies that cannot be valued using Earnings based ratios. This technique is very useful for companies still experiencing negative cash flows such as mining exploration firms. We use Cash/Share, Book Value/Share, MarketCap, 1 Year Return, NetPPE as the ratios here. Each of these ratios for the selected comparable companies are averaged and multiplied by the values for the company we are interested in to calculate a value per share for our selected company.

Multiples are similar to Price comparables where we look at current or historic ratios for the company in question to assess what it should be worth today based on those historic ratios. We use the same 5 ratios as in the price comparables and value the company with its historic averages.

With **Adjusted Book Value (ABV)** we calculate the book value per share for the company based on its balance sheet and multiply that book value per share by its historical price to book ratio to calculate a value per share.

If we have **Analyst coverage** for the company we use the consensus target price here.

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