



CHEMICAL REACTIONS

Is 15x EBITDA the “New Normal”?

Bolivia’s Salt Flats – Photo Credit: Dr Nicola Martin

In the last few months there have been a number of acquisitions announced at 15x EBITDA. This multiple was last paid for a chemical business in the heady days of the fine chemical consolidation in 1999/2000. Does this mean that we are at the peak of valuations or is this the “New Normal”? The simple answer is possibly the latter. At that time, there was a scarcity of strategic assets that drove up acquisition prices and this is happening again. But there are two big differences: borrowing costs are now much lower and stock market valuations are higher. Companies evaluate acquisitions against an internal rate of return based on WACC (Weighted Average Cost of Capital). In this note we argue that the WACC calculation is flawed and when other measures are used that reflect better current stock market valuations and lower interest costs then in some sectors 15x could well prove to be the “New Normal”.

Table 1. Recent chemical industry deals above 14x EBITDA

Target	Buyer	Value	EV/EBITDA Multiple
Chemetall (Albemarle)	BASF	\$3.2bn	15.3x
Valspar Corporation	Sherwin Williams Company	\$11.3bn	14.6x
Performance Materials (Air Products)	Evonik Industries	\$3.8bn	15.7x
BASF Industrial Coatings	Akzo Nobel	\$0.5bn	15.0x ¹
Cytec Industries	Solvay	\$6.0bn	15.6x

¹Industry estimate

THE FLAWS IN WACC

With interest rates throughout the world at record low levels, companies that are well capitalised should be able to afford to spend more. But the WACC calculation favours companies that have weak balance sheets, high leverage and poor share performance. I am reminded of the comment by David Einhorn of Greenlight Capital about the fall of Lehman.

“This is crazy accounting. I don’t know why they put it in”, Einhorn told his staff. “It means that the day before you go bankrupt is the most profitable day in the history of your company, because you’ll say all the debt was worthless....

which drives me nuts.” – Too Big to Fail, Andrew Ross Sorkin

The traditional calculation of WACC has a number of fundamental flaws:

- It gives too much prominence to the cost of equity unless the acquiror is highly leveraged
- It fails to give credit to well capitalised companies
- The cost of equity fails to reflect the quality and stock market valuation of acquirors.

For the Chemical Industry the WACC calculation disproportionately weights the cost of equity. The WACC calculation compares the weighted average cost of

equity with the weighted average cost of debt. With relatively high stock market valuations for both European and North American companies, the net debt as a proportion of Enterprise Value (EV) is low (average for Europe – 15%; average for US – 18%).

The low cost of borrowing is only marginally reflected in WACC calculations. Using an interest rate of 2%, a company with 15% leverage and a normal cost of equity of 10% has a WACC of 8.8%. While companies with high levels of debt such as Chemours, Platform Specialty and Kraton have much lower WACC despite the inherent risks associated with their high leverage.

The calculation of the cost of equity fails to evaluate the global nature and quality of a company, its growth potential, margins etc or its weaknesses.

Table 2. Companies with low WACC (under 6%)

Company Name	WACC (%)	LTM Share Performance (%)	Net Debt / EBITDA (adj.)	Net Debt / EV ²
Chemours	3.5	-13	8.6	73%
Kraton	4.7	+46	7.8	66%
Platform	5.4	-61	8.0	72%
Merck KGaA	5.4	-1	3.0	27%
Symrise	5.4	0	2.6	16%
Solvay	5.5	-21	2.2	36%
Kemira	5.6	-1	1.7	23%
Linde	5.8	-26	1.9	25%

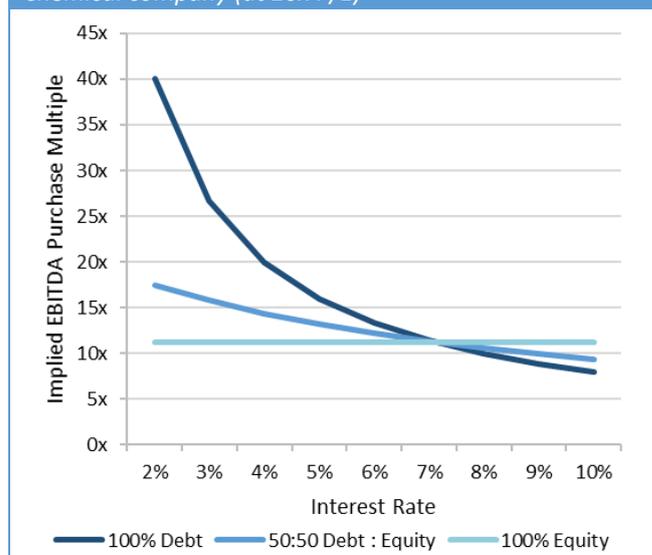
²EV on 31/12/15 except Kraton on 31/03/16 (inc. Arizona Chemicals acquisition); Source: Bloomberg

PERHAPS A BETTER MODEL IS EARNINGS ACCRETION

Well capitalised companies can afford to fund most acquisitions out of debt. At low interest rates companies can pay (ridiculously) high multiples for acquisitions even before evaluating the potential value for synergies. Our calculations are based on the highest price that can be paid to remain earnings neutral.

In effect we are calculating a WACC for the Accretion model. This is based again on the blend of debt and equity, but not of the acquiror but of the acquisition, reflecting its financing. The cost of equity is determined by the cost of issuing new shares which is determined by the P/E of the company on a pre-tax basis. A P/E of 15x gives an implied cost of equity of 9.5%, using a tax rate of 30%, whilst a P/E of 25x drops this to 5.7%.

Figure 1. Acquisition multiples for a ‘Normal’ Specialty Chemical company (at 20x P/E)



An acquisition for debt using borrowing costs of 2% will be accretive up to a purchase multiple of 40x EBITDA, using metrics for a ‘Normal’ Specialty Chemical company (see Table 4). As interest rates rise, the multiple that can be paid to be earnings neutral falls to 8.0x at 10% interest costs. Clearly, there is the potential for a substantial (but unacceptable) inflation in acquisition prices and multiples.

The implied borrowing costs of new equity is based on the P/E and the tax rate, giving a pre-tax interest equivalent to the issues of new shares. Most Specialty Chemical companies are trading in the range 15x to 25x (see Figure 4). In our example we use a P/E of 20x and a representative tax rate of 30%, although this does vary considerably across the sector.

Table 3. Implied WACC based on Accretion model³

		Debt Fraction				
		0%	25%	50%	75%	100%
Acquiror's P/E	15x	9.5	7.6	5.8	3.9	2.0
	20x	7.1	5.9	4.6	3.3	2.0
	25x	5.7	4.8	3.9	2.9	2.0

³Interest rate on debt 2.0% & tax rate 30%

The acquisition multiple falls to 18x EBITDA when the acquisition is financed with 50% equity. This valuation reflects fully the acquiror’s current stock market valuation.

Using all equity still offers an accretive transaction at a reasonably high purchase price. The acquisition multiple range falls to 11x, using the tax rate above.

The implied WACC using 50% equity is 4.6%. The WACC for other mixes of debt and issuing equity are in Table 3.

Table 4. A 'Normal' Specialty Chemical Company

	\$m	As % of Sales
Sales	100	100%
EBITDA	15	15%
Depreciation	3	3%
EBIT	12	12%
Tax Rate	30%	-
Net Income	8	8%

INTEREST RATES AND VALUATIONS

The British Brexit vote has increased uncertainty in global capital markets, sterling fell sharply when the leave outcome was clear but, after a knee jerk sell off, the FTSE 100 is trading higher than its pre-Brexit levels and government bonds have also risen.

Herein lies the paradox, Government bonds and equities are supposed to be countercyclical but at present they are moving together. The explanation could lie in the cost of borrowing that is now very low.

Figure 2. FTSE 100 vs. UK 10 Year Bond Yield



There is now over \$11 trillion of sovereign debt that is trading at zero or negative interest. It now costs the depositor to lend money to countries such as Japan, Europe (ECB), Germany, Netherlands and Switzerland. Other countries are likely to cut rates. Corporate bonds are trading at a premium to government debt but still at historically low levels.

Most commentators are expecting interest rates to remain at historically low levels for some time and, with low inflation, the yield curve remains low.

Low interest rates are now driving equity valuations. The rise in the FTSE 100 reflects two key elements: that most of the FTSE companies are global so benefit from a significant boost from the pound's fall and high yielding companies are proving a safe haven for income investors with an average yield of close to 4%.

Table 5. FTSE highest yielding companies

Company Name	Dividend Yield %
HSBC Holdings PLC	7.8%
Royal Dutch Shell PLC	7.5%
Berkeley Group Holdings PLC	7.3%
Marks & Spencer Group PLC	7.3%
BP PLC	7.1%
Legal & General Group PLC	6.5%
Rio Tinto PLC	6.5%
BHP Billiton PLC	6.1%
Standard Life PLC	6.1%
Pearson PLC	5.9%

As interest rates are set to remain at historically low levels for some time, stock market valuations could rise further as investors view equities both for yield and possible capital gain.

15x EBITDA MAY BE THE "NEW NORMAL"

Specialty Chemical Companies trading on high multiples have the opportunity to invest in quality businesses that are also on high multiples, however, many of these acquirors also have a disciplined approach to acquisitions.

The main constraint is the experience of history. This is true for all investors in changing times but, unlike buying and selling stocks and bonds, acquisitions are more challenging to reverse and often more prominent, prompting greater caution.

A further challenge is the "What if our shares fall?" question beloved of non-executive directors. This could be due to a negative reaction to the announcement or simply a fall in the stock market.

The long term driver for stocks is earnings growth and ultimately dividend growth. In a low growth, low interest rate environment then a focus on EPS growth should be one recipe for success. Judging acquisitions on how well they achieve this could become even more important.

Perhaps now is time to review the methodology of internal valuation models that captures more closely the capital structure of the acquisition itself.

Many Specialty Chemical Companies shares have risen substantially in the last 2-3 years. They are trading at above the 15x P/E multiple (see Figure 4) that we have used in our calculations and some are above 25x. This would justify using higher multiples for all acquisitions.

In the Coatings sector, most of the recent deals have been at 15x EBITDA (see Table 1) and several Coatings companies are trading at close to this level. Where opportunities are scarce, “must have”, high quality assets will attract strong interest from a number of bidders and high prices are likely to be sustained. **Yes, at least in Coatings 15x EBITDA is the “New Normal”.**

Whatever the price paid, companies can reduce the risks of a negative reaction by ensuring that the acquisition fits the company’s strategy (which already has been well articulated to investors); that the specific

fit is clear; the potential for synergies outlined and achievable and, finally, that the financing of the acquisition is appropriate which often means showing a path to a strong balance sheet.

Figure 3. Valuation of top paint companies – Sherwin Williams, PPG & Akzo Nobel

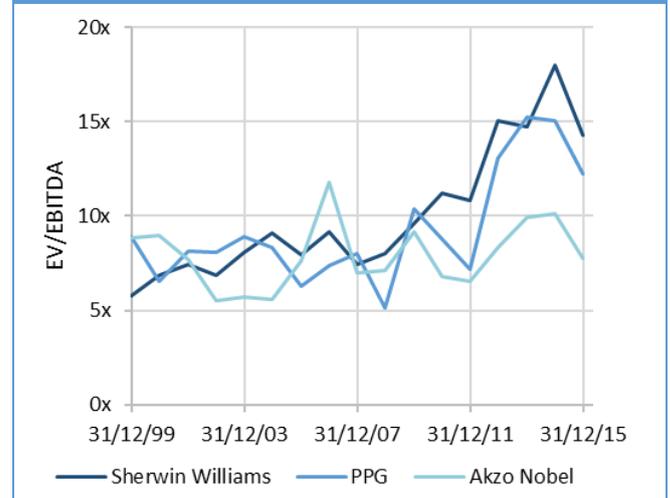
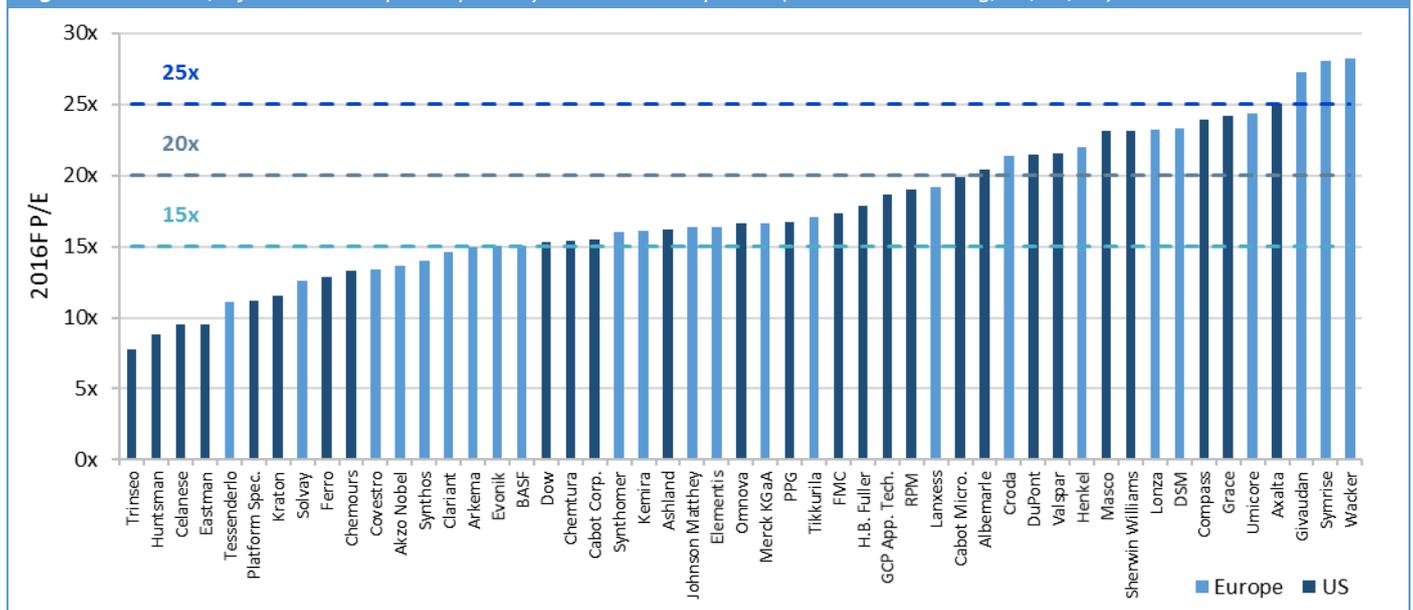


Figure 4. 2016F P/E for US & European Specialty Chemical Companies (source: Bloomberg, 02/08/16)



CONTACT THE TEAM
[Click here](#)

Alasdair Nisbet
 CEO
 +44 7767 207 185

Dr Nicola Martin
 Vice President
 +44 7920 473 972

Laura Marsh
 Analyst
 +44 7920 473 992

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