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Harris Williams & Co. Ltd is a private limited company incorporated under English law having its registered office at 5th Floor, 6 St. Andrew Street, London EC4A3AE, UK, registered with the Registrar of Companies for England and Wales under company number 7078852. Directors: Mr. Ned Valentine, Mr. Paul Poggi, Mr. Thierry Monjauze and Mr. Aadil Khan, authorised and regulated by the Financial Conduct Authority.

Harris Williams & Co. Ltd Niederlassung Frankfurt (German branch) is registered in the Commercial Register (Handelsregister) of the Local Court (Amtsgericht) of Frankfurt am Main, Germany, under registration number HRB 96687, having its business address at Bockenheimer Landstrasse 33-35, 60325 Frankfurt am Main, Germany. Permanent Representative (Ständiger Vertreter) of the Branch Niederlassung: Mr. Jeffrey H. Perkins.

CHEMICALS AND SPECIALTY MATERIALS INDUSTRY UPDATE

INTRODUCTION

Harris Williams & Co. is pleased to present its chemicals and specialty materials industry update for September 2016. This report provides commentary and analysis on current market trends and merger and acquisition dynamics within the global chemicals and specialty materials industry.

M&A activity in the chemicals and specialty materials sector remained robust through the first three quarters of 2016. The mega-merger trend continued, while broader strategic optimization efforts and growing financial buyer interest in the sector also contributed to deal activity. Additionally, credit market conditions remain stable and the outlook for the sector as a whole appears positive for the foreseeable future.

We hope you find this edition helpful and encourage you to contact us directly if you would like to discuss our perspective on current industry trends or our relevant industry experience.

OUR PRACTICE

Harris Williams & Co. is a leading advisor to the chemicals and specialty materials industry. Our significant experience covers a broad range of business models, market segments, and applications.

Business Types

- Manufacturers
- Distributors
- Outsourced Solutions
- Other Service Providers

End Markets

- Aerospace
- Agricultural
- Automotive
- Consumer
- Industrial
- Life Sciences
- Oil & Gas
- Other

Applications

- Adhesives, Sealants, & Elastomers
- Aerosols
- Cleaning & Preparation
- Films
- Paints & Coatings
- Water Treatment
- Other

HARRIS WILLIAMS & CO. DEAL SPOTLIGHT



Ennis-Flint

Harris Williams & Co. advised Ennis-Flint, a portfolio company of Brazos Private Equity Partners, on its sale to Olympus Partners. Ennis-Flint is the leading manufacturer of a broad range of road marking and traffic safety products.

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WHAT WE'RE READING

THE GLOBAL WATER TREATMENT CHEMICAL MARKET IS EXPECTED TO REACH \$32.8 BILLION BY 2021

Nasdaq 9/27/2016

According to a new market report published by Lucintel, the future of the water treatment chemical market is expected to remain attractive with opportunities in the oil & gas, power generation, metal & mining, and food & beverages segments.

The global water treatment chemical market is expected to reach an estimated \$32.8 billion by 2021 with a CAGR of 3.4% from 2016 to 2021. The major drivers of growth for this market are improving water quality standards and increasing demand for clean water.

Read the full article [here](#).

LANXESS AGREES TO ACQUIRE CHEMTURA FOR \$2.7 BILLION

IHS Chemical Week 9/25/2016

Lanxess announced that it has reached an agreement to acquire Chemtura Corporation for an enterprise value of €2.4 billion (\$2.7 billion).

Chemtura said last year that it is looking for a large "buy, sell or merge" transaction to significantly increase the company's reach and scale.

The deal, Lanxess's largest acquisition to date, will build on the company's additives portfolio. Chemtura is one of the major global producers of flame retardants and lubricant additives.

Read the full article [here](#).

HIGH-YIELD CHEMICAL LBOs ON THE RISE, BUT DEBT-DRIVEN M&A POSES RISK INTO 2017

Moody's 9/15/2016

Leveraged buyouts in the high-yield chemicals sector are increasing as large diversified groups sell non-core businesses, typically to private equity funds.

"While we expect more chemical LBOs in the next quarters, with large diversified companies having publicly indicated their plan to sell non-core assets, aggressively funded M&A will be the main downside risk for overall credit quality and...also for ratings."

Read the full article [here](#).

BAYER CLINCHES MONSANTO WITH IMPROVED \$66 BILLION BID

CNBC 9/14/2016

German drugs and crop chemicals company Bayer has won over U.S. seeds firm Monsanto with an improved takeover offer of around \$66 billion, ending months of wrangling after increasing its bid for a third time.

The deal will create a company commanding more than a quarter of the combined world market for seeds and pesticides in the fast-consolidating farm supplies industry.

Competition authorities are likely to scrutinize the tie-up closely, and some of Bayer's own shareholders have been highly critical, saying the transaction risks overpaying and neglecting Bayer's pharmaceutical business.

Read the full article [here](#).

NORTH AMERICAN AND EMEA CHEMICALS INDUSTRY OUTLOOK CHANGED TO STABLE

Moody's 9/1/2016

The outlook for the North American and EMEA chemicals industry has been upgraded. Earnings are likely to rise through next year as the industry benefits from cost-cutting and acquisitions, as well as from global economic growth.

"The upward outlook revision for the North American and EMEA chemicals industry is based on diminished global macro risks, the still-strong performance of diversified and specialty chemical companies, and the apparent bottoming of several commodity chemicals."

Read the full article [here](#).

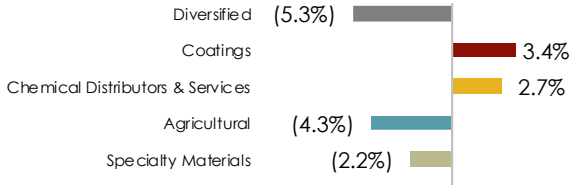
PUBLIC COMPARABLES

As of September 30, 2016 (\$ in millions, except per share amounts)

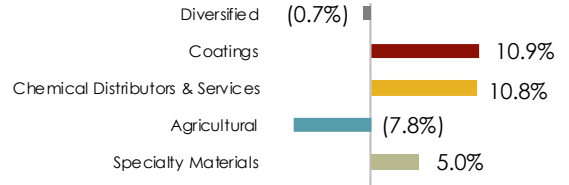
(\$ in millions except per share data)	Market Cap	TEV	Stock Performance			TEV / EBITDA	
			Current Price	52-Week		2016E	2017P
				High	% of High		
Diversified							
BASF SE	\$78,560	\$94,864	\$85.53	\$85.79	99.7%	8.4x	7.9x
Dow Chemical Company	58,404	82,713	51.83	57.10	90.8%	8.8x	8.1x
Eastman Chemical Company	9,997	16,720	67.68	78.79	85.9%	7.9x	7.5x
Albemarle Corporation	9,609	13,145	85.49	87.29	97.9%	16.5x	15.6x
Celanese Corporation	9,634	12,051	66.56	74.55	89.3%	7.7x	7.6x
Ashland Global Holdings, Inc.	7,201	10,147	115.95	125.00	92.8%	9.3x	9.8x
FMC Corporation	6,468	8,499	48.34	50.57	95.6%	12.1x	10.9x
Clariant AG	5,725	7,256	17.25	19.36	89.1%	8.0x	7.6x
Median					91.8%	8.6x	8.0x
Coatings							
PPG Industries, Inc.	\$27,523	\$31,340	\$103.36	\$117.00	88.3%	11.2x	10.6x
Sherwin-Williams Company	25,514	27,759	276.66	312.48	88.5%	13.6x	12.3x
Akzo Nobel N.V.	16,777	19,364	67.75	73.45	92.2%	8.0x	7.7x
RPM International Inc.	7,165	8,658	53.72	55.92	96.1%	12.1x	11.2x
Median					90.4%	11.6x	10.9x
Chemical Distributors & Services							
Brenntag AG	\$8,439	\$10,410	\$54.62	\$61.40	89.0%	11.2x	10.6x
IMCD N.V.	2,311	2,618	43.93	44.81	98.0%	15.3x	14.4x
Quaker Chemical Corporation	1,404	1,389	105.93	106.61	99.4%	12.9x	12.1x
Aceto Corporation	571	613	18.99	32.20	59.0%	8.0x	7.6x
Median					93.5%	12.0x	11.4x
Agricultural							
Monsanto Company	\$44,744	\$54,292	\$102.20	\$114.26	89.4%	14.8x	13.3x
Syngenta AG	40,588	44,012	438.42	446.45	98.2%	16.6x	15.1x
Potash Corporation	13,640	18,133	16.25	22.33	72.7%	12.9x	11.0x
Agrium Inc.	12,495	17,644	90.43	99.92	90.5%	10.1x	9.3x
Mosaic Company	8,566	11,402	24.46	36.95	66.2%	10.4x	8.7x
Intrepid Potash, Inc.	86	186	1.13	7.14	15.8%	NM	5.6x
Median					81.1%	12.9x	10.1x
Specialty Materials							
Compagnie de Saint-Gobain SA	\$23,992	\$31,917	\$43.23	\$46.57	92.8%	7.1x	6.7x
Solvay SA	12,249	20,452	115.70	117.40	98.5%	7.5x	7.1x
Evonik Industries AG	15,760	15,157	33.82	37.13	91.1%	6.3x	5.6x
Avery Dennison Corporation	6,912	7,984	77.79	79.27	98.1%	10.2x	9.7x
PolyOne Corporation	2,842	3,848	33.81	38.41	88.0%	8.9x	8.4x
Rogers Corporation	1,102	1,048	61.08	69.26	88.2%	8.7x	7.8x
Median					92.0%	8.1x	7.5x
Overall Median					90.6%	10.1x	9.0x

PUBLIC MARKETS OVERVIEW

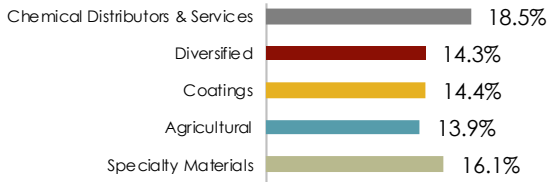
3-YEAR REVENUE CAGR (2013 – 2016E)



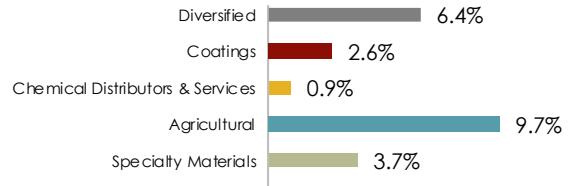
3-YEAR EBITDA CAGR (2013 – 2016E)



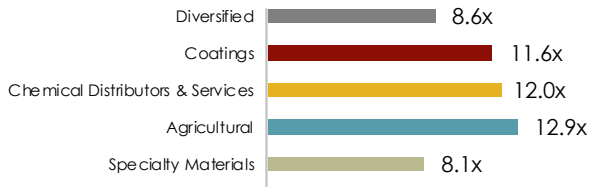
AVERAGE EBITDA MARGIN (2016E)



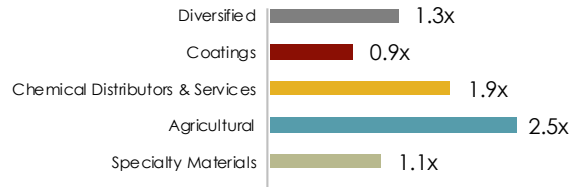
CAPEX (AS % OF REVENUE) (2016E)



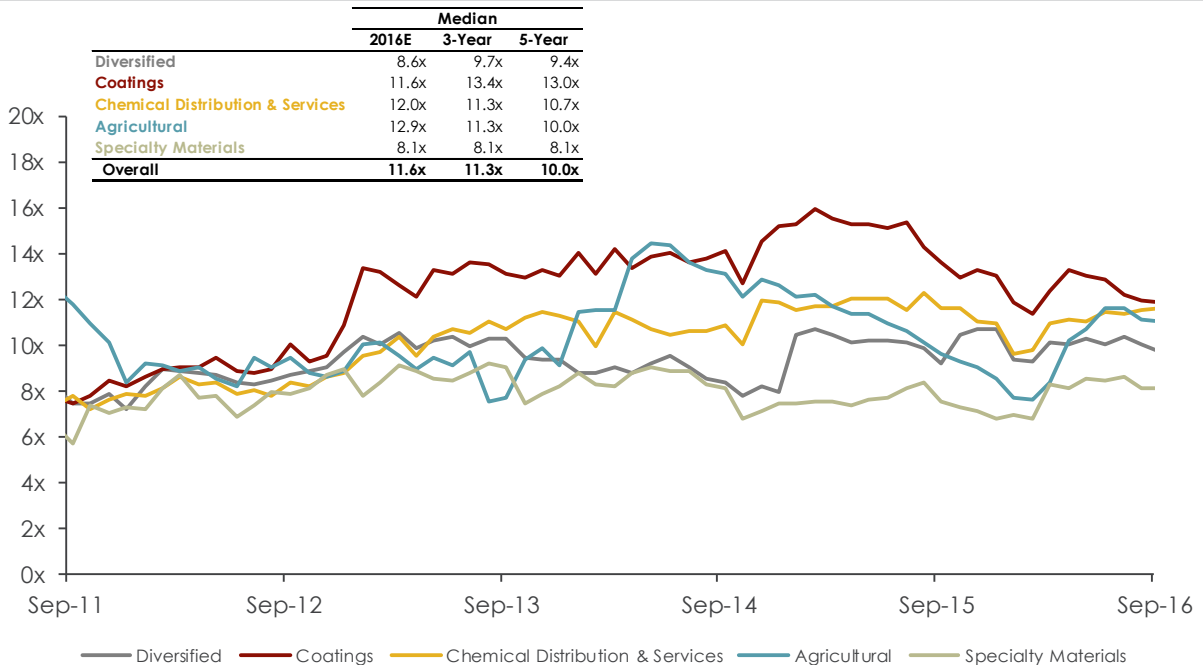
TOTAL ENTERPRISE VALUE / 2016E EBITDA



NET DEBT / 2016E EBITDA



PUBLIC COMPARABLES (MEDIAN TEV / LTM EBITDA)



M&A TRANSACTIONS

Announced Date	Target	Target Business Description	Acquirer
09/25/2016	Chemtura Corp.	Chemtura Corp. develops and manufactures performance-driven engineered industrial specialty chemicals, operating in the Industrial Engineered Products and Industrial Performance Products segments.	LANXESS AG
09/20/2016	Monsanto	Monsanto engages in the production and sale of chemicals and hybrid seeds. The company's brands include Dekalb and Roundup.	Bayer AG
09/14/2016	Canexus Corp.	Canexus Corp. primarily produces sodium chlorate and chlor-alkali products for the pulp and paper, petrochemical, and water treatment industries.	Chemtrade Logistics Income Fund
08/05/2016	The Nippon Synthetic Chemical Industry Co., Ltd.	The Nippon Synthetic Chemical Industry Co. engages in the manufacture, processing, and sale of acetic acid resins. It operates in the Synthetic Resins, Acetyl and Fine Chemicals, and 'Other' segments.	Mitsubishi Chemical Holdings Corp.
07/20/2016	Den Braven Sealants BV	Den Braven Sealants engages in the production of sealants, adhesives, foams, and technical aerosols.	Arkema SA
07/07/2016	Wallover Oil Co.	Wallover Enterprises manufactures oils and lubricant products, including cutting oils, rust preventives, quenching and release oils, lubrication oils, rolling oils, machine coolants, and cleaners.	Houghton International
06/27/2016	Dura Coat Products, Inc.	Dura Coat Products manufactures coil coatings for metal substrates. The firm supplies products for metal building exteriors, roofs, and side panels.	Axalta Coating Systems Ltd.
06/20/2016	Alfatherm SpA	Alfatherm manufactures calendered PVC films for applications in the food, pharmaceutical, cosmetic, stationery, and furniture markets.	OpenGate Capital LLC
6/17/2016	Albermarle's Chemetall Surface Treatment Business	Albermarle's Chemetall surface treatment business manufactures applied surface treatments and services for metal, plastic, and glass substrates in a wide range of industries and end markets.	BASF
6/13/2016	Ennis-Flint	Ennis-Flint provides a broad range of traffic safety solutions, including various road marking products as well as components to enhance traffic control systems.	Olympus Partners
6/11/2016	Axiall Corporation	Axiall Corporation manufactures and distributes chlorovinyl and aromatics chemicals as well vinyl-based building and home improvement products.	Westlake Chemical
6/10/2016	Panolam Surface Solutions	Panolam Surface Solutions is a designer and manufacturer of highly engineered, integrated surface solutions including high-pressure laminates, thermally-fused laminates, and other specialty products.	Insight Equity
6/8/2016	MetoKote Corporation	MetoKote Corporation provides coating services to multiple sectors, including agriculture, appliance, automotive, computer, construction equipment, industrial equipment, and commercial vehicles.	PPG Industries
6/7/2016	Compass Chemical	Compass Chemical produces phosphonates, dispersants, polymers, acids, agricultural products, biocides, and esters for water treatment.	Italmatch Chemicals Group
5/26/2016	Plastal Industri	Plastal Industri is a supplier of engineered thermoplastic bumper modules, painted and unpainted exterior trim, and plastic parts serving both the passenger car and heavy commercial vehicle markets.	Plasman Group
5/25/2016	BASF, Kollicoat Coating Systems	BASF's Kollicoat Coating Systems business manufactures water-soluble coatings for a variety of applications, including pill coatings.	Colorcon Inc.
5/10/2016	Polynt SpA	Polynt provides polymer chemical intermediates, including general-purpose plasticizers, Maleic Anhydride, derivatives and catalysts, special-purpose plasticizers, resins and compounds, and special esters.	Reichold, Inc.

OUR FIRM

Harris Williams & Co. has a broad range of industry expertise, which creates powerful opportunities. Our clients benefit from our deep-sector experience, integrated industry intelligence and collaboration across the firm, and our commitment to learning what makes them unique. For more information, visit our website.

Aerospace, Defense
& Government
Services



Building Products
& Materials



Business
Services



Consumer



Energy, Power
& Infrastructure



Healthcare
& Life Sciences



Industrials



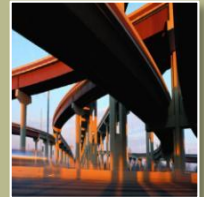
Specialty
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Media & Telecom



Transportation
& Logistics



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SOURCES

CNBC

FactSet

IHS Chemical Week

Moody's

Nasdaq

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