

Q4 2013: Trends and Market Review

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Recent M&A Trends in the Chemical Industry



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In the fourth quarter of 2013, industry performance remained consistent with the end of 2012 in terms of revenue and EBITDA margins. The slowdown in emerging equity markets due to the pullback of the Federal Reserve's quantitative easing was offset by improved economic activity in North America and the European Union's slow albeit steady recover. In India, despite an overall reduction in M&A activity due to uncertainty preceding the country's national elections, nine deals with India-based acquisitions were announced in Q4.

Although the volume of mergers and acquisitions in Q4 was up by only 4% when compared to the same period in 2012, the total transaction size of deals with disclosed values increased by almost 63%, largely due to the number of large transactions announced in the last quarter of 2013. In total, 10 deals with disclosed values were announced with transaction values of \$500 million or greater. Private equity groups such as Advent International, American Capital, American Securities and Court Square Capital Partners divested portfolio companies in the chemicals space during the last quarter of 2013. In total, more than 20 private equity groups divested chemical companies in Q4 2013 worth more than \$8.5 billion in assets, globally. Historically high market valuations, as well as a positive

debt financing environment continued to foster an attractive environment for sellers. A number of major corporate divestments that were ongoing throughout the year were also announced before the end of 2013. Chemtura, Clariant, Dow Chemical, DuPont, FMC and Kemira announced divestitures in Q4 2013, with the aim of using proceeds to either buy back shares, deleverage or pursue acquisitions for portfolio businesses of strategic importance.

Global M&A volume in the chemical industry continued to be the highest in the Asia / Pacific region, which accounted for over 40% of deals in the fourth quarter of 2013. However, only about 9% of the total deal value for transactions with announced values was attributed to Asia / Pacific-based targets.

- **2014 Outlook.** A number of positive trends, including receptive lenders, advantaged feedstocks for US chemical companies and strong market valuations, are predicted to continue in 2014. Additionally, several major corporate divestitures have been announced, including the sale or separation of Chemtura's AgroSolutions division and Dow Chemical's chlor-alkali, chlorinated organics and epoxy businesses. 2014 is also predicted to be a strong year for middle-market chemical companies as various subsectors within specialty chemicals continue to consolidate. Interest in adhesives and sealants, coatings, oilfield and gas production chemicals businesses is pre-

dicted to continue to be strong as the construction industry improves and demand for oilfield chemicals continues to grow. Despite the downward revision in China's economic outlook, the country is still predicted to be the single largest driver of growth in the chemical industry. Overall, 2014 has the potential to be the most active year for M&A in the industry since the financial crisis.

Figure 1. Chemical Industry Revenues (\$ in billions)

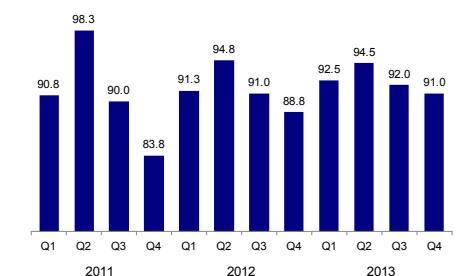


Figure 2. Chemical Industry EBITDA (\$ in billions)



Figure 3. Cash on Balance Sheet (\$ in billions)



Source: S&P Capital IQ, Lincoln International and public filings

Q4 2013 Market Commentary — Chemicals

The charts on the following page provide a statistical summary of deal and market activity in the global chemical industry during the last five quarters ended December 31, 2013, as collected by Capital IQ.

Mergers and acquisitions comprised slightly less than half of global transactions that occurred in the fourth quarter of 2013. The number of announced M&A deals was up slightly when compared to the same period in the previous year. M&A transactions announced in the fourth quarter of 2013 numbered 221, compared to 213 in Q4 2012.

A number of notable large transactions were announced in the fourth quarter.

- On October 7, Solvay entered into an agreement to acquire Chemlogics, a producer of specialty chemicals and polymers used in the extraction and production of oil and gas, from the private equity group One Equity Partners for \$1.3 billion, representing a multiple of approximately 10.8x trailing twelve months (“TTM”) EBITDA.
- On October 10, Oman Oil Company entered into an agreement to acquire Oberhausen, Germany-based OXEA GmbH, a manufacturer of oxo intermediates and derivatives, from the private equity group Advent International for €1.8 billion (\$2.4 billion), representing approximately 1.2x TTM revenue.
- On October 10, Platform Acquisition Holdings Limited entered into an agreement to acquire Waterbury, Connecticut-based MacDermid Incorporated, a manufacturer of specialty chemicals for the metals, plastics finishing, electronics, oil production and other markets, from Court Square Capital Partners, Weston Presidio and other shareholders for \$1.8 billion. The purchase price represents approximately 10.0x TTM adjusted EBITDA as reported on 9/3/2013.
- On December 4, Chemtrade Logistics Inc. entered into an agree-

ment to acquire General Chemical, a manufacturer of inorganic chemicals for water treatment, sulfuric acid and specialty applications, from the private equity group American Securities for \$860 million in cash or approximately 7.8x TTM EBITDA.

- On December 5, Merck announced that it had reached an agreement with the Board of Directors of Luxembourg-based AZ Electronic Materials, a manufacturer of specialty chemical materials for the electronics market, to acquire the company for £1.6 billion (\$2.6 billion) in cash, representing a multiple of approximately 11.8x TTM EBITDA or £4.035 per share. The offer has been extended to March 14, 2014, pending approval from the Chinese antitrust authority and UK Takeover Panel.

Several middle-market transactions were also announced in the fourth quarter:

- On October 10, KIK Custom Products, a Toronto-based contract manufacturer of consumer products and portfolio company of CI Capital Partners, entered into an agreement to acquire Chemtura’s consumer products business for \$300 million. The divestiture includes Chemtura’s pool and spa chemicals assets, as well as its household cleaners portfolio.
- On October 11, W.R. Grace & Co. entered into an agreement to acquire the assets of the UNIPOL Polypropylene Licensing and Catalysts business from Dow Chemical for \$500 million in cash. The divestiture includes Dow’s polypropylene catalysts manufacturing facility at Norco, Louisiana, as well as customer contracts, licenses, intellectual property and inventory.
- On October 29, Osaka Gas Chemicals Co., Ltd. entered into an agreement to acquire Kalmar, Sweden-based Jacobi Carbons AB, the world’s largest manufacturer of coconut shell activated carbon products, for \$400 million.

- On December 13, One Equity Partners entered into an agreement to acquire FMC Corp.’s Peroxygens business, a manufacturer of hydrogen peroxide, persulfate products peracetic acid and other oxidants, for \$200 million.

The LI Specialty Chemicals index continued to outperform the S&P 500 and the LI Diversified Chemical Index. The LI Diversified Chemical index has also closely followed the rise in S&P 500.

Total enterprise value (“TEV”) / EBITDA multiples for large and small cap specialty chemical companies, were up significantly in Q4 2013 — 18% and 52%, respectively— when compared to Q4 2012. The spread between large and small cap specialty chemicals multiples continued to narrow considerably. Multiples for large cap specialty chemical companies were 11.4x in December 2013 as compared to 9.7x in December 2012. Multiples for small cap specialty chemical companies were 10.8x in March 2013, compared to 7.1x in December 2012. The average multiple for diversified chemical companies, remained relatively stable at 9.6x at the end of Q4 2013, up slightly compared to December 2012. ■

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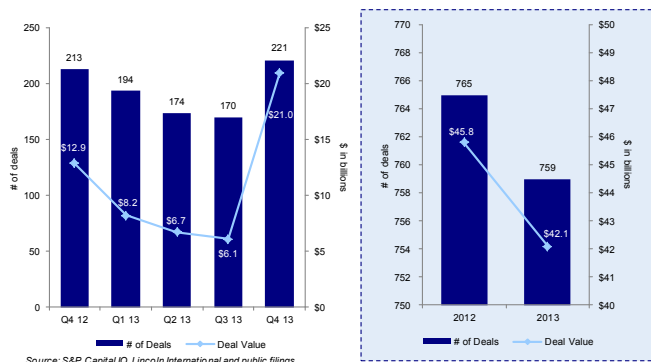
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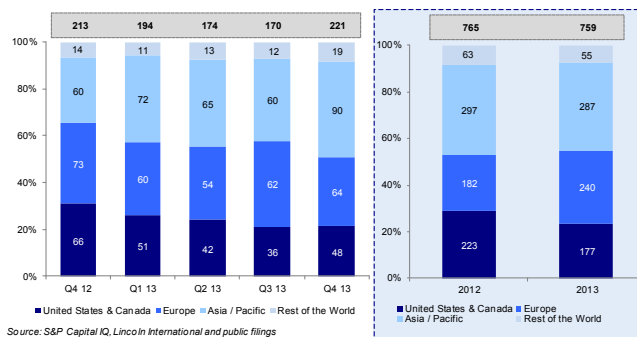
Sources: S&P Capital IQ, Mergermarket, FactSet MergerStat, press releases and public filings

Q4 2013 Key Market Statistics — Chemicals

Global Chemical M&A Transaction Activity vs. Deal Value
(Announced transactions and transaction values)



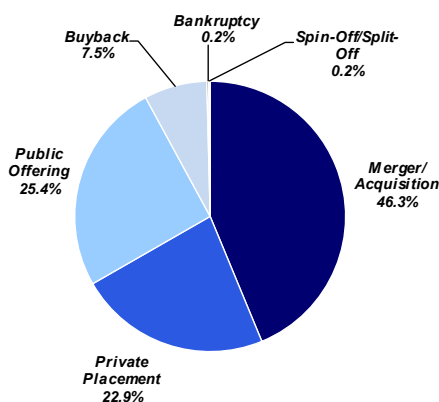
Global Chemical M&A Transactions by Region
(Announced transactions)



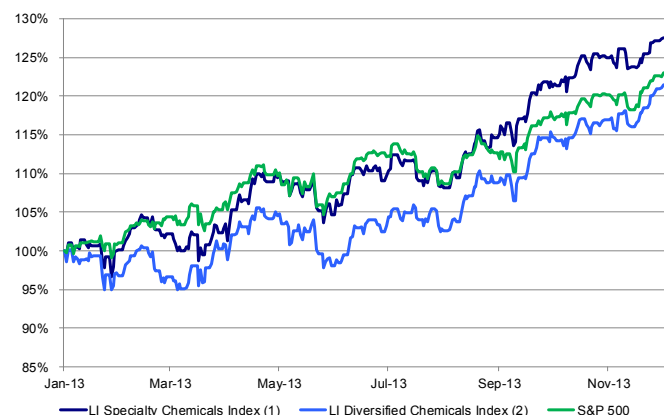
Most Active Chemical Buyers / Investors Globally
(Last Twelve Months to end of Q4 2013)
(Based on announced transactions and transaction values)

Top Buyers by No. of Deals		Top Buyers by Deal Size	
Company Name	No. of Deals	Company Name	Deal Size (\$m)
Etingale Management Limited	4	Saudi Int'l Petrochemical Co. (SIPCHEM)	\$2,956
Huapont-Nutrichem Co., Ltd.	4	Merck KGaA	2,905
Coromandel International Limited	4	Oman Oil Company S.A.O.C.	2,437
Verdesian Life Sciences, LLC	3	Platform Specialty Products Corporation	1,800
Praxair Inc.	3	Berkshire Hathaway Inc.	1,420
Yihai Kerry Investments Co., Ltd.	3	Solvay SA	1,345
Novozymes A/S	3	Huntsman International LLC	1,325
Zhuzhou Times New Material Technology Co., Ltd.	3	The Mosaic Company	1,200
Borealis AG	3	Praxair Inc.	1,100
Innospec Inc.	3	Chemtrade Logistics	860
Clariant AG	3	Temasek Holdings Limited	846
Solvay SA	2	Yuntianhua Group Co., Ltd.	806
Total Top 12	38	Total Top 12	\$19,000

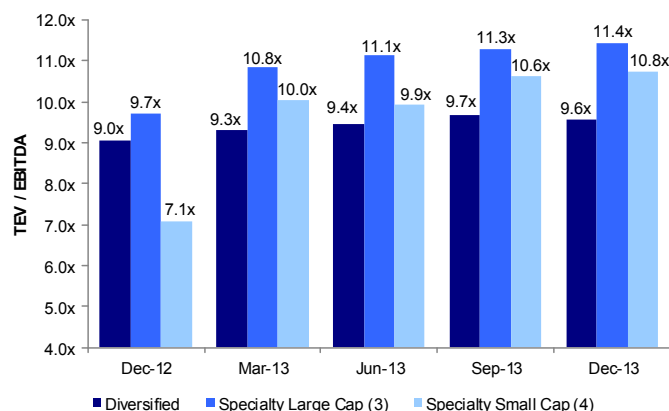
All Global Chemical Transactions by Type
(Last Twelve Months to end of Q4 2013)



Public Market Performance
(Last Twelve Months to end of Q4 2013)



Enterprise Value / EBITDA
(Last Twelve Months to end of Q4 2013)



- LI Specialty Chemicals Index: APD, ECL, PPG, SIAL, ARG, ALB, IFF, VAL, RPM, ROC, CYT, SXT, NEU, GRA, FUL, OMG, SHLM, FOE, CBM
- LI Diversified Chemicals Index: AKZA, ASH, BAS, CBT, CE, CLX, DD, DOW, EMN, FMC, HUN, MON, OLN, POL, PPG
- Large Cap group includes companies in the LI Specialty Chemicals Index with greater than \$2.0 billion in market capitalization
- Small Cap group includes companies in the LI Specialty Chemicals Index with less than \$2.0 billion in market capitalization

Lincoln International advises Buy-Out Central Europe in the sale of Chemson Polymer-Additive AG to The OYAK Group

Lincoln International has advised the Vienna-based private equity investor Buy-Out Central Europe II Beteiligungs-Invest AG on the sale of its portfolio company Chemson Polymer-Additive AG ("Chemson") to the Turkish industrial conglomerate Ordu Yardımlaşma Kurumu ("The OYAK Group").

Chemson is a leading global producer of polymer additives for the international PVC processing industry, achieving sales of €252 million in 2012. Chemson provides a broad range of customized PVC additive solutions for the use in profiles and sheets, pipes and fittings, cables and other applications such as PVC foils and flooring. The company's operational headquarters are located in Arnoldstein, Austria. Globally, the company has over 540 employees with additional production and sales operations located in United Kingdom, Germany, the Netherlands, the United States, Brazil, Australia and China.

The OYAK Group is one of the largest industrial conglomerates in Turkey and employs more than 35,000 people. Its

subsidiary Akdeniz Kimya also operates in the field of polymer additives and its related raw materials. The combination of Chemson and Akdeniz Kimya will create a new, backward-integrated company with clear world market leadership in PVC stabilizers.



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More than 120 professionals in Europe and Asia

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★ Indicates Lincoln International office

★ Indicates strategic partnership and / or Lincoln International personnel

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Lincoln International specializes in merger and acquisition advisory services, debt advisory services, private capital raising and restructuring advice on mid-market transactions. Lincoln International also provides fairness opinions, valuations and pension advisory services on a wide range of transaction sizes. With fifteen offices in the Americas, Asia and Europe, Lincoln International has strong local knowledge and contacts in key global economies. The firm provides clients with senior-level attention, in-depth industry expertise and integrated resources. By being focused and independent, Lincoln International serves its clients without conflicts of interest. More information about Lincoln International can be obtained at www.lincolninternational.com.

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