
Chemical compounds

Fourth-quarter 2014 chemicals industry
mergers and acquisitions analysis

Highlights



To our chemical compounds readers



Pam Schlosser
US Chemicals
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To help provide insight into recent mergers and acquisitions (M&A), PwC is pleased to share, *Chemical compounds*, our quarterly analysis of M&A activity in the global chemicals industry. In our fourth quarter edition, we include an examination of deal activity for the full year, as well as expectations for deal activity in the future.

In 2014, we saw strong improvement in both deal volume and value, as transactions grew to 177 deals valued at more than \$85 billion. Deal value was the highest since 2007, while volume was the highest in at least ten years.

However, the fourth quarter of 2014 saw declines in activity, as value fell, both sequentially and year-over-year and average deal value declined as well, almost 44% compared to Q3. Much of this decline can be attributed to fewer megadeals (those valued at \$1 billion or more). While we had expected continued growth, headwinds in Europe and the Middle East led to a decline in activity.

PwC analysts identified several key issues and trends impacting the chemicals deal environment in 2014, including:

- Asia and Oceania and North America remained major drivers of activity, with acquisitions accounting for 46.5% and 34.7% of worldwide deal value, respectively.
- Specialty chemical targets were a large contributor of the improved deal environment in 2014; more than 37% of value was driven by this segment, and it also accounted for eleven of the twenty-five megadeals. However, this is a decline from 2013, when specialty chemicals accounted for more than 51% of activity. This year-over-year decline may be due in part to an improvement in key end-use markets, such as automotive and construction, that drive segments such as commodity and paints and coatings.
- As new sources of energy continued to come on-line in the United States, some chemical producers were seeing opportunities for decreased feedstock and energy costs as well; these players are now looking to low-cost fuel sources, driven by shale oil and gas production in several US regions, notably western Pennsylvania (Marcellus reserves), eastern Ohio (Utica reserves) and North Dakota (Bakken reserves). Because of this, many US companies are seeking non-organic growth in the near term. As these US players look for opportunities to increase scale, the recent increase in the M&A deal environment is not surprising, given the competitive advantage these low-cost energy and feedstocks provide. Despite this advantage, other chemical companies are seeing top-line headwinds, given that the energy industry is seeing lower pricing and decreased demand. These chemical companies tend to be more integrated into the oil and gas industry, and as oil prices continue to decline, they are seeing an impact on demand for their products. At the same time, a strengthening US dollar increases the risk that US exports may decline, as exports become more expensive to offshore purchasers.
- We expect to see a pause in the near future as investors wait to see if lower energy prices are a long-term shift (and arguably that's why Q4 was soft). If the trend persists, lower costs will likely drive activity in Europe and Asia.



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We are cautiously optimistic about 2015 as the recovery in many advanced economies continues. For example, the US economy remains strong, and some countries in Europe are seeing improvement, although the region as a whole remains mixed. Also, emerging and developing economies continue to grow. Despite an expected decline in GDP growth in China in 2015, the country's economic growth is still expected to remain strong at more than 7%, while India and Brazil are expected to see improvement.

For a deeper dive into the data, we encourage you to launch the data explorer at www.pwc.com/us/chemicalcompounds or contact us to further discuss our insights.



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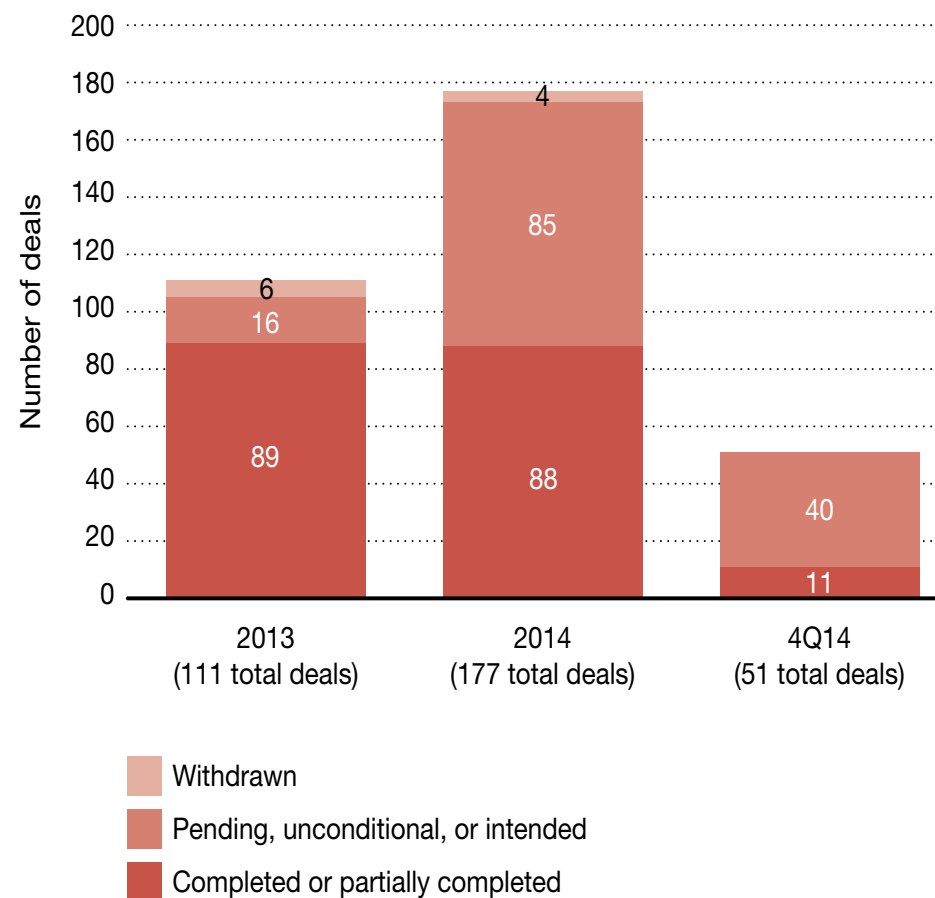
Antoine Westerman

Deal activity

Deal value and volume shows significant gains over 2013.

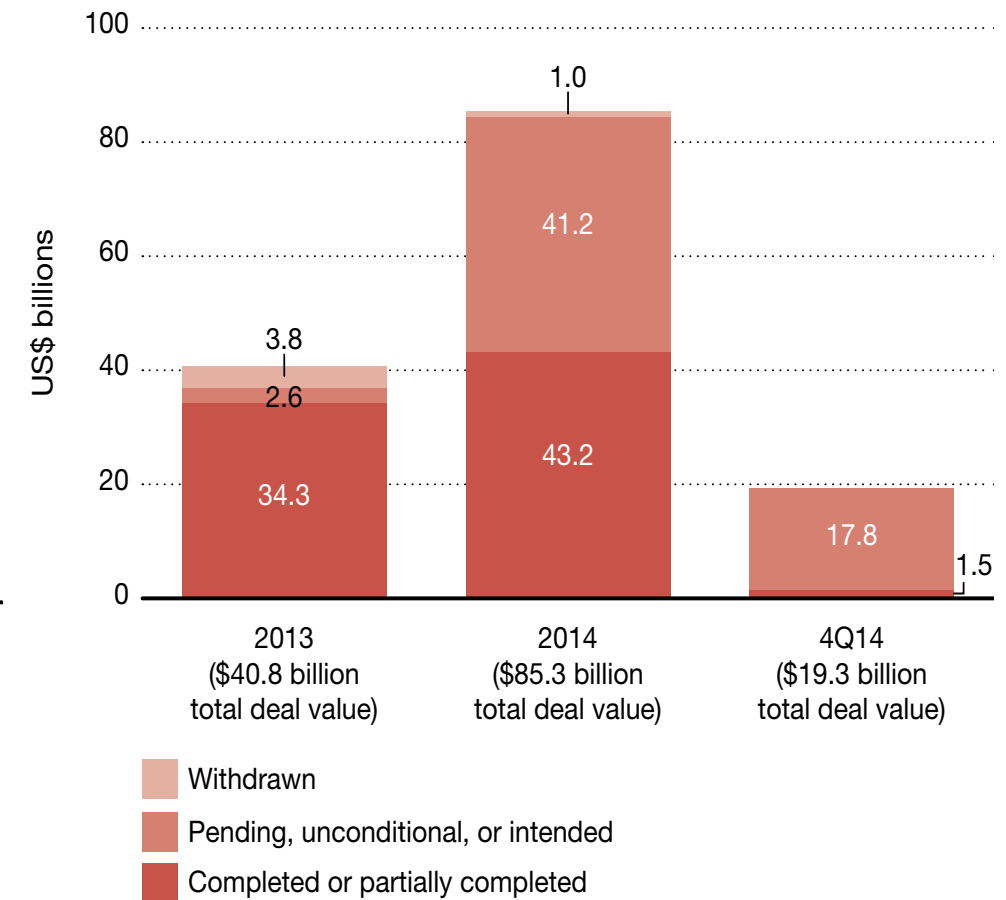
Deal activity by number of deals

Measured by number of deals worth \$50 million or more



Deal activity by total deal value

Measured by value of deals worth \$50 million or more



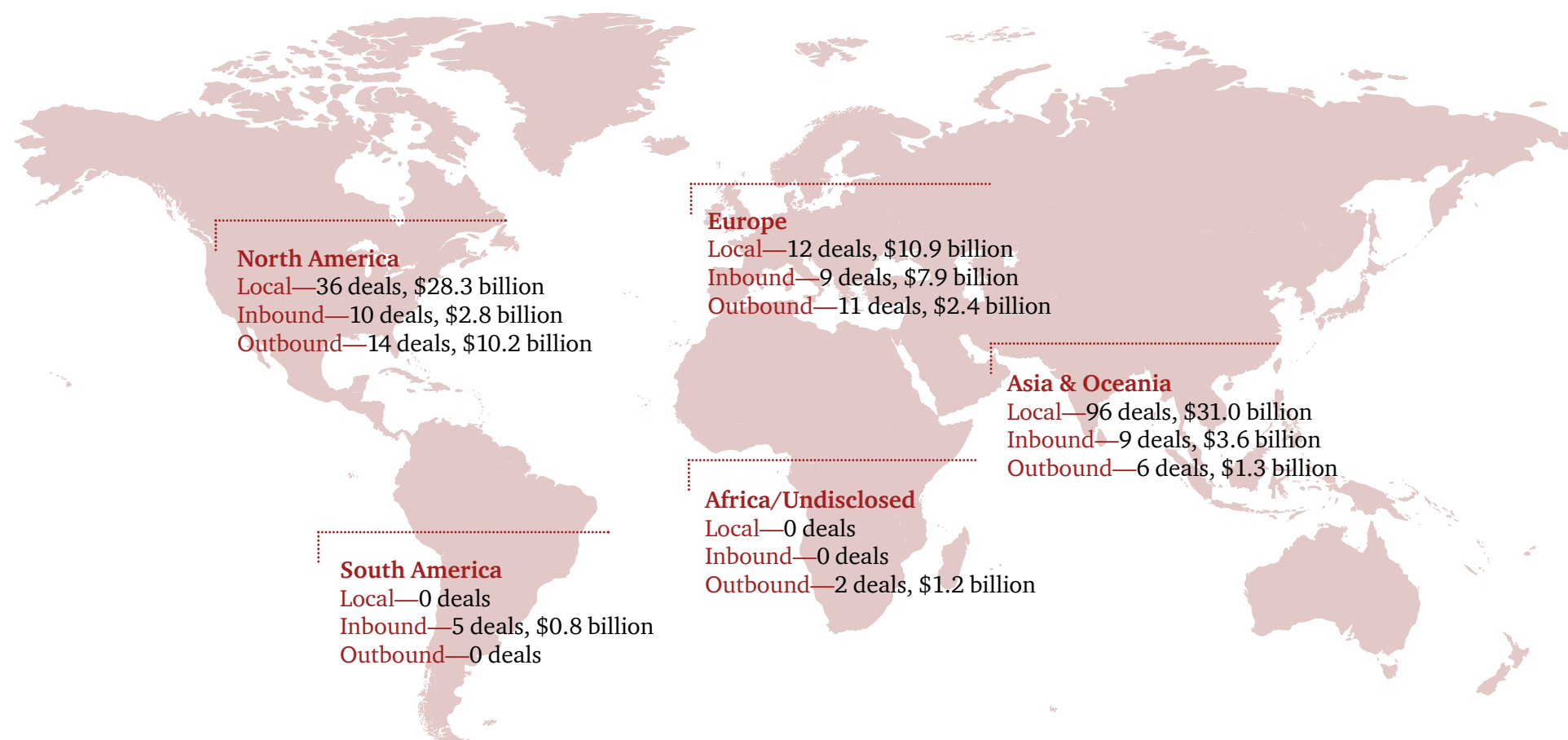
In the fourth quarter, deal value declined substantially from the quarter before, despite a small improvement in volume. Gains in volume were driven in large part by an increase in middle-market deals. The average deal value in Q4 was down by almost 50%, to \$379.1 million, in Q3.

On an annualized basis, volume and value improved, driven by strong Q3 results. Deal value more than doubled, to \$85.3 billion, while volume increased almost 60% to 177 deals (valued at \$50 million or more). Average deal value increased as well (to almost \$482 million), indicative of the increase in megadeals in 2014.

Deal market characteristics

North America leads 2014 deal value while Asia & Oceania lead volume.

Global chemicals M&A activity 2014
Measured by number and value of deals worth \$50 million or more (2014)



North America led 2014 deal value with 60 deals valued at more than \$41.2 billion. This activity included a mix of local, inbound, and outbound deals. A large proportion of this value was the result of eleven megadeals with a combined value of more than \$26 billion. This is not surprising, given the improvement in economic activity seen in 2014.

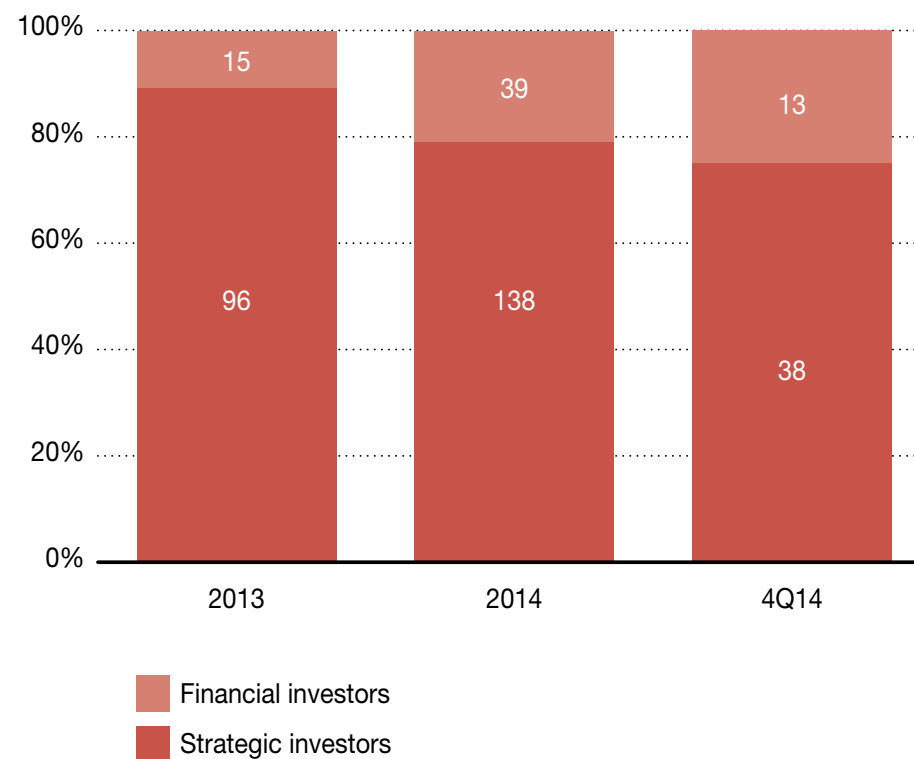
Asia and Oceania led deal volume in 2014 with a total of 111 deals valued at just over \$35.9 billion. The majority of these deals were local deals, with China continuing to be a primary driver of activity in the region. There were 68 China-based local deals, which is unsurprising as the government continues to consolidate heavy industry in an effort to increase efficiency and to reduce excess capacity and pollution. The main objective appears to be consolidating state-owned companies to create major national chemical players. Also, an improved equity market is providing China-based chemical players with the opportunity to execute on acquisitions and restructuring.

Globally, local deals increased as a proportion of deal volume, accounting for 67.2% of activity, compared to 65.8% in 2013. A key driver of this increase in local deals was activity in the United States and China.

Financial investor activity continues to expand as world economy improves.

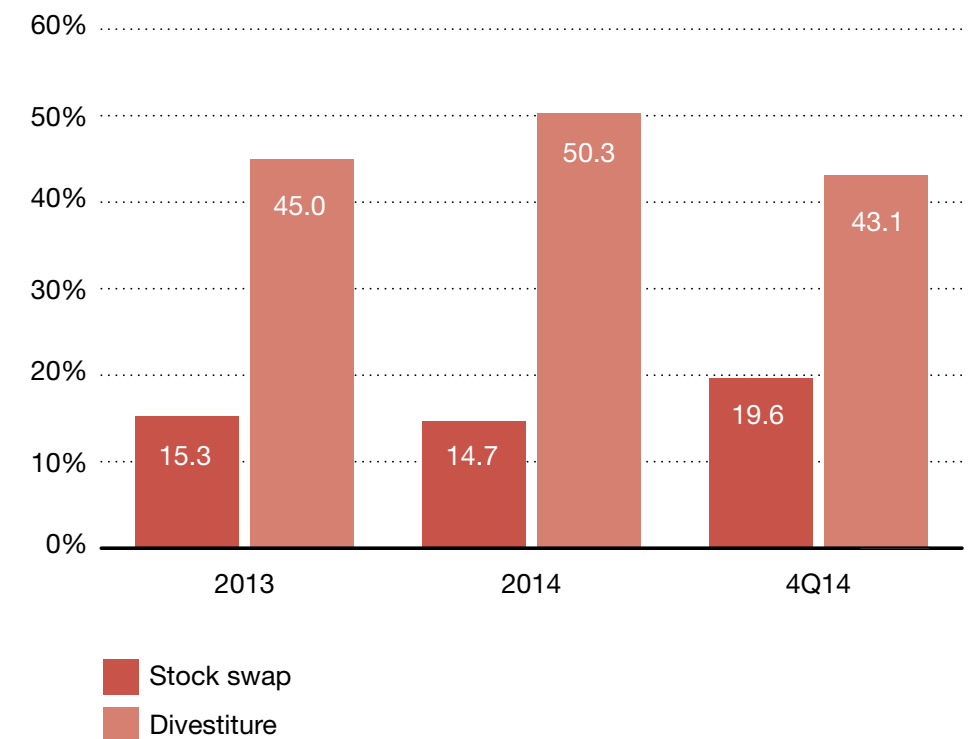
Deals by investor group

Measured by volume of deals worth \$50 million or more



Acquisition characteristics

Measured by percentage of deals worth \$50 million or more



The proportion of deals involving financial investors increased slightly in 2014, aided by strong growth in the fourth quarter. Financial investors appear to be returning to the table as the economy continues to improve. Financial investors generally have shorter time horizons for obtaining a return on investment than strategic investors, and as the world economy continues to improve, an increase in activity from this group is not surprising. Valuations have risen from 7.9 in 2013 to 9.9 in 2014—a rise of 20%—driven mainly by confidence about the future. The problem in 2013 was the absence of willing sellers, as there was plenty of willing buyers since public P/E ratios have also risen and public companies have been able to raise cash more easily and/or pay in more valuable shares.

Stock swaps as a means for acquisition financing increased in 2014. This year-over-year increase was despite a decline in fourth quarter activity. Stock swaps allow a company to acquire the assets of another company while maintaining cash balances and debt levels. Equity markets performed well last year, which allowed stock to become a more richly valued “currency” for financing deals. Swaps also allow companies to maintain their current liquidity positions while reaping the expected synergies of the acquisitions. The past year also saw an increase in announced spinoffs as an alternative to the divestitures of non-core assets.

Large deals

Increase in megadeals in 2014 drives deal value.

Megadeals in 2013 (value of \$1 billion or more)

Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ billion	Category
Dec	OAO Uralkaliy	Russian Fed	OAO Ob'yedinennaya khimicheskaya kompaniya URALKHIM	Russian Fed	Completed	3.79	Commodity Chemicals
Dec	AZ Electronic Materials SA	Luxembourg	Merck 15 Allgemeine Beteiligungs-GmbH	Germany	Completed	2.51	Specialty Chemicals
Jun	Sahara Petrochemicals Co	Saudi Arabia	Saudi International Petrochemical Co(Sipchem)	Saudi Arabia	Withdrawn	2.30	Other
Oct	VION Ingredients Nederland BV	Netherlands	Darling International Inc	United States	Completed	2.17	Specialty Chemicals
Oct	MacDermid Inc	United States	Platform Acquisition Holdings Ltd	British Virgin	Completed	1.90	Specialty Chemicals
Oct	CF Industries Holdings Inc- Phosphate Mining & Manufacturing Business	United States	The Mosaic Co	United States	Completed	1.40	Fertilizers & Agricultural Chemicals
Oct	Chemlogics Group LLC	United States	Solvay SA	Belgium	Completed	1.35	Specialty Chemicals
Dec	Phillips Specialty Products Inc	United States	Berkshire Hathaway Inc	United States	Completed	1.33	Specialty Chemicals
Sep	Rockwood Holdings Inc-Titanium Dioxide Pigments&Other Businesses	Germany	Huntsman Corp	United States	Completed	1.33	Commodity Chemicals
Feb	NuCO2 Inc	United States	Praxair Inc	United States	Completed	1.10	Commodity Chemicals

Megadeals in 2014 (value of \$1 billion or more)

Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ billion	Category
Jul	Rockwood Holdings Inc	United States	Albemarle Corp	United States	Pending	6.33	Specialty Chemicals
Sep	Sinopec Oilfield Service Corp	China	Sinopec Yizheng Chemical Fibre Co Ltd	China	Completed	4.18	Other
Oct	Arysta Lifescience Ltd	Ireland-Rep	Platform Specialty Products Corp	United States	Pending	3.51	Fertilizers & Agricultural Chemicals
Dec	Schenker-Winkler Holding AG	Switzerland	Cie de Saint-Gobain SA	France	Pending	2.82	Specialty Chemicals
Sep	Taminco Corp	United States	Eastman Chemical Co	United States	Completed	2.73	Commodity Chemicals
Feb	Occidental Petroleum Corp-California Business Assets	United States	Shareholders	United States	Completed	2.51	Other
Jun	Consorcio Comex SA de CV	Mexico	PPG Industries Inc	United States	Completed	2.30	Specialty Chemicals
Sep	Bostik SA	France	Arkema SA	France	Pending	2.23	Specialty Chemicals
Sep	Shanghai Bakesi Wine Co Ltd	China	Shanghai Bairun Flavor & Fragrance Co Ltd	China	Pending	1.95	Other
Sep	Bluestar Adisseo Nutrition Group Ltd	Hong Kong	Blue Star New Chemical Material Co Ltd	China	Pending	1.89	Other
Sep	Cheminova A/S	Denmark	FMC Corp	United States	Pending	1.82	Fertilizers & Agricultural Chemicals
Feb	Ashland Water Technologies Inc	United States	Clayton Dubilier & Rice LLC	United States	Completed	1.80	Other
Dec	Golmud Possession Grid Potash Co Ltd	China	Jinguyuan Holding Co Ltd	China	Pending	1.61	Specialty Chemicals
Jun	Styrolution Group GmbH	Germany	Ineos Industries Holdings Ltd	United Kingdom	Completed	1.51	Commodity Chemicals
Feb	Amcol International Corp	United States	Minerals Technologies Inc	United States	Completed	1.49	Other
Sep	Cermaq ASA	Norway	MC Ocean Holdings Ltd	United Kingdom	Completed	1.40	Other
May	PetroLogistics LP	United States	Flint Hills Resources LLC	United States	Completed	1.22	Specialty Chemicals
Nov	Angus Chemical Co	United States	Golden Gate Capital	United States	Pending	1.22	Commodity Chemicals
Apr	Caspian Investments Resources Ltd	Kazakhstan	Sinopec International Petroleum E&P Hongkong Overseas Ltd	Hong Kong	Pending	1.20	Other
Sep	Methanol Holdings Trinidad Ltd	Trinidad&Tob	Consolidated Energy Co Ltd	Mauritius	Completed	1.18	Commodity Chemicals
Sep	Sinopec Yizheng Chemical Fibre Co Ltd-Assets	China	China Petroleum & Chemical Corp	China	Completed	1.13	Commodity Chemicals
Feb	ATMI Inc	United States	Entegris Inc	United States	Completed	1.11	Commodity Chemicals
Jan	Sulzer Metco AG	Switzerland	OC Oerlikon Corp AG	Switzerland	Completed	1.10	Other
May	Taiyo Nippon Sanso Corp	Japan	Mitsubishi Chemical Holdings Corp	Japan	Completed	1.03	Industrial Gases
Feb	Nippon Paint Co Ltd	Japan	Nipsea International Ltd	Hong Kong	Completed	1.01	Specialty Chemicals

Megadeals in 4Q14 (value of \$1 billion or more)							
Month announced	Target name	Target nation	Acquirer name	Acquirer nation	Status	Value of transaction in US\$ billion	Category
Oct	Arysta Lifescience Ltd	Ireland-Rep	Platform Specialty Products Corp	United States	Pending	3.51	Fertilizers & Agricultural Chemicals
Dec	Schenker-Winkler Holding AG	Switzerland	Cie de Saint-Gobain SA	France	Pending	2.82	Specialty Chemicals
Dec	Golmud Possession Grid Potash Co Ltd	China	Jinguyuan Holding Co Ltd	China	Pending	1.61	Specialty Chemicals
Nov	Angus Chemical Co	United States	Golden Gate Capital	United States	Pending	1.22	Commodity Chemicals

Megadeals volume and value rose substantially this year, showing an increase in deal activity as the global economy continued to recover. In 2014 there were 25 deals valued at \$1 billion or more, compared to 10 such deals in 2013. Value increased as well, to \$50.9 billion from \$19.2 billion, an increase of more than 160%.

Four of the year's deals were announced in the fourth quarter, and three of these involved specialty chemical players. Specialty players traditionally have better margins than commodity players, so this may suggest that acquirers are continuing their efforts to improve profitability as the economic environment continues to improve. On a regional basis, the United States was well represented, with eight targets and eleven acquirers.

Methodology

Chemical compounds is an analysis of deals in the global chemicals industry. Deal information was sourced from Thomson Financial using the Thomson-defined industry sector of Chemicals and Allied Products for targets or acquirers. This analysis includes all mergers and acquisitions for disclosed or undisclosed values, leveraged buyouts, privatizations, minority stake purchases and acquisitions of remaining interest announced between January 1, 2013, and December 31, 2014, with a deal status of completed, intended, partially completed, pending, pending regulatory approval, seeking buyer, seeking buyer withdrawn, unconditional (i.e., initial conditions set forth by the acquirer have been met but deal has not been completed), or withdrawn. Geographic categories generally correspond to continents with exceptions for Australia (included in the Asia Pacific category), Europe (divided into Western and Eastern categories based upon UN definitions) and the Middle East (included in Africa/Undisclosed). Where China is referenced in this analysis, it includes both mainland China and Hong Kong, unless otherwise indicated. Where the number of deals is referenced in this analysis it means the number of all deals with disclosed or undisclosed values, unless otherwise noted.

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