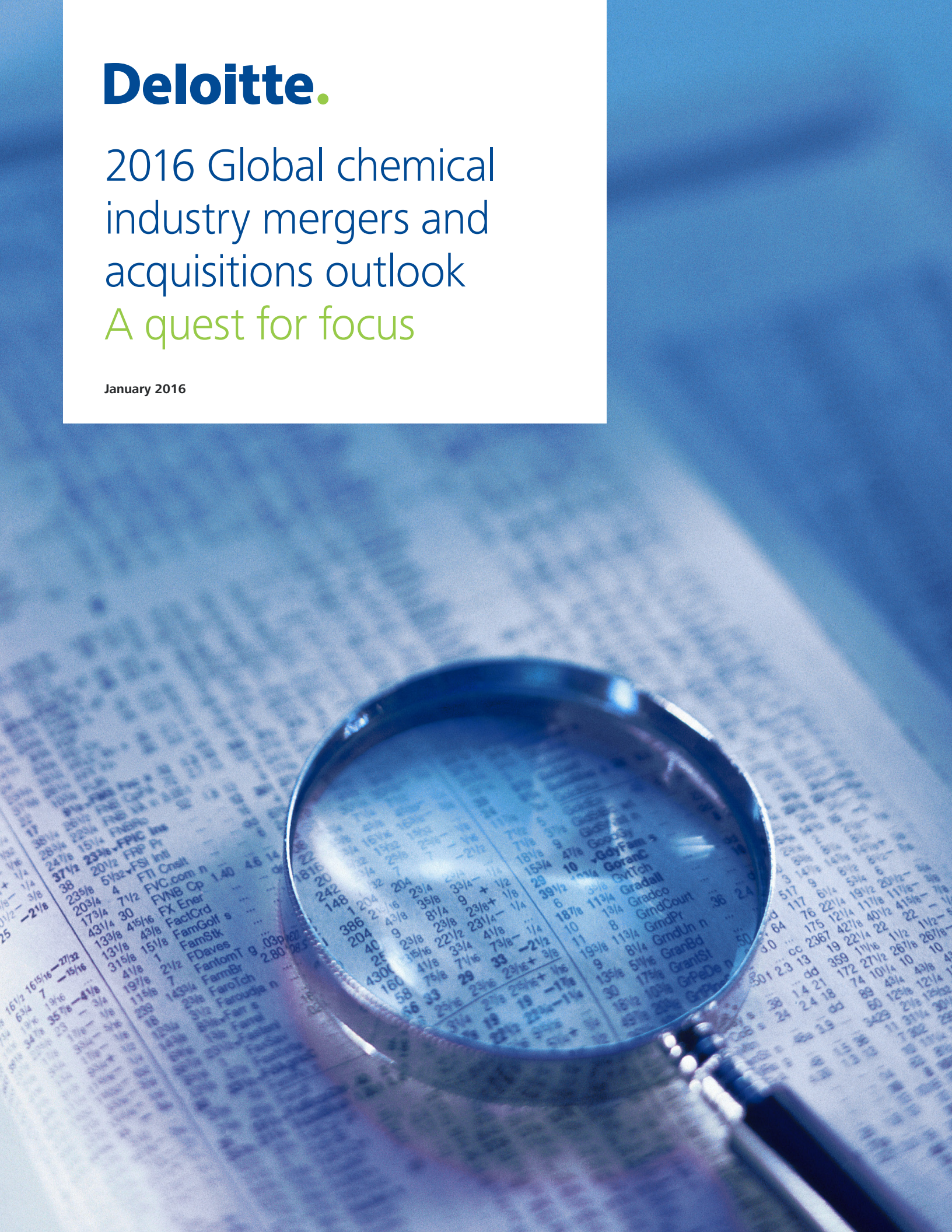


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2016 Global chemical industry mergers and acquisitions outlook A quest for focus

January 2016



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Global activity

In the Deloitte Touche Tohmatsu Limited (Deloitte Global) *2015 Global chemical industry mergers and acquisitions outlook*, record levels of chemical mergers and acquisitions (M&A) activity in 2014 were observed, with a prediction that strong M&A momentum would continue in the industry into 2015.¹ While the number of global chemical deals was relatively flat in 2015, the strong M&A momentum has continued with the number of global chemical deals in 2015 exceeding the previous six-year average by over 6 percent (see Figure 1). Also, the total global deal value is setting new records driven by the 16 deals valued at over US\$1 billion announced during the year, including the proposed US\$73 billion Dow and DuPont deal.²

In 2015, the year began with plenty of uncertainty related to key feedstock volatility, as oil prices experienced a 50 percent decrease in the second half of 2014.³ Oil prices continued their decrease in 2015 as the spot price for both West Texas Intermediate (WTI) and Brent crude oil finished the year at below US\$40 per barrel.⁴ The continued slide in oil prices, as well as upstream petrochemical prices, which are often directly correlated with oil prices, put pressure on deal valuation expectations between buyers and sellers.

Many global chemical companies faced a difficult operating environment in 2015, challenging chemical executives to find growth in often contracting or slow growing end-markets and geographies. Global commodity price decreases across agriculture, metals, and energy put demand pressures on chemical companies serving these end-markets and made for a more challenging environment for bio-based chemicals competing with petro-based substitutes. Growth in industrial production, a major driver of chemical demand, has also been under pressure in many economies. Economic growth rates slowed during 2015 in many important economies and

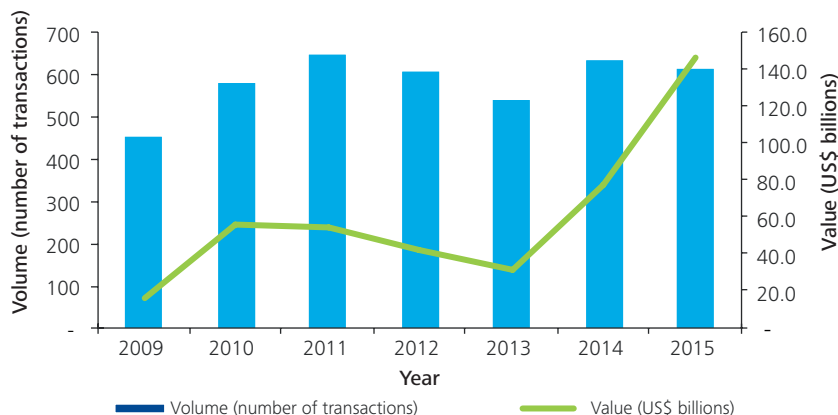
2016 forecasts have seen recent downward revisions by both the International Monetary Fund and World Bank.⁵

These various market and demand factors have put pressure on global chemical revenues, as well as their stock performance. Based on a Deloitte Global analysis, the components of the Dow Jones Chemical Titans 30 Index experienced average revenue increase of only 0.3 percent in the latest twelve months of 2015, compared to 3.3 percent in 2014.

These challenges have contributed to many global chemical companies' efforts to focus on their core strengths in order to drive revenue growth and shareholder value. While chemical companies have been realigning their portfolios over the past years to reduce complexity in their businesses and make them easier for investors to understand, there was an increasing emphasis observed on building their core businesses that underpinned 2015 M&A activity. Helped by fairly liquid and inexpensive debt markets, many global chemical companies with strong balance sheets and continued strong cash flows looked to acquisitions in 2015 to deliver growth. Growth driven by a quest for focus.

What will 2016 bring? Will the potential Dow and DuPont merger drive consolidation in the agricultural chemicals segment? Will other segments take notice and pursue simplification and focus on their core markets? How will new advances in additive manufacturing technology open opportunities for collaboration and acquisitions? Will M&A markets now accept low oil prices as the "new normal" and incent or at least not distract from driving M&A activity? Which geographies will lead in 2016 and which will retreat? These questions and others will be explored in this year's issue of the *2016 Global chemical industry mergers and acquisitions outlook*.

Figure 1: Global chemical industry mergers and acquisitions activity (2009 to 2015)



Total activity (2009 to 2015)

	2009	2010	2011	2012	2013	2014	2015
Volume (number of transactions)	450	579	646	609	537	635	612
Value (US\$ billions)	15.6	55.6	55.1	41.8	31.8	77.8	145.8

Activity over US\$1 billion (2009 to 2015)

	2009	2010	2011	2012	2013	2014	2015
Volume (number of transactions)	3	10	11	11	8	13	16
Value (US\$ billions)	8.9	39.2	36.7	23.8	13.6	52.6	126.3

Source: Deloitte Touche Tohmatsu Limited Global Consumer & Industrial Products Industry group analysis of data from S&P Capital IQ, January 2016. Data is from January 1, 2009 to December 31, 2015.

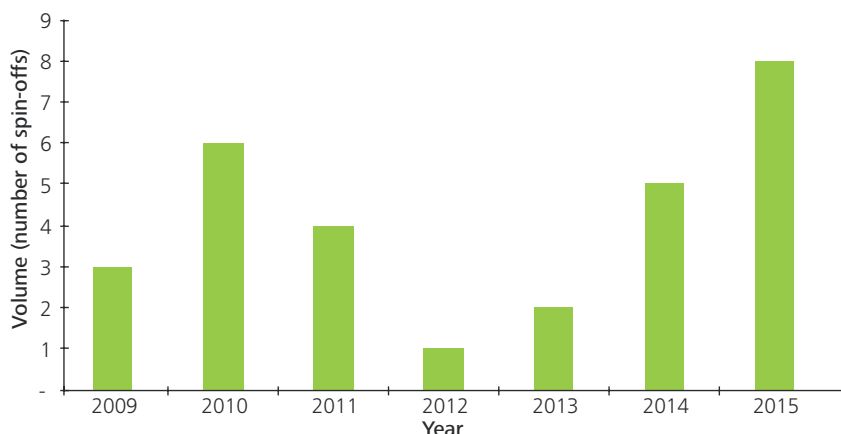
Chemical companies expected to aggressively pursue growth by focusing on the core

Growth in mega deals (over US\$1 billion) returned starting in the fourth quarter of 2013 and has continued through 2015.⁶ In contrast to 2014, which also experienced a divergent trend of further fragmentation of the industry, 2015 may well be remembered as the year of deals that reshaped the industry. This was the result of companies that pursued scale and focus in their core businesses and competences to enhance their competitive position and provide more innovative solutions to their customers' needs. The agricultural chemicals segment is a prime example of the type of transformational deals being contemplated in 2015. In May 2015, Monsanto attempted to negotiate a merger with Syngenta that was believed to provide the combined company with "scale and reach" to offer integrated solutions across a larger geography and crop selection.⁷ The recently announced Dow and DuPont combination and anticipated spin-offs are expected to create three companies including a new US\$19 billion global agriculture chemicals company, a US\$51 billion material sciences company and a US\$13 billion specialty products company, which will likely provide each with more focus on their core businesses and the needs of their customers.⁸ Agricultural chemicals was not the only segment that demonstrated a pursuit of focus on its core business. In November 2015, Air Liquide announced its US\$13.4 billion acquisition of Airgas that will bring together two highly complementary businesses to deliver greater value, service, and innovation to customers in North America and around the world.⁹ In the United States (US), Airgas' leadership in the packaged gases business and associated products and services and Air Liquide's strong footprint in complementary activities will likely increase the scope and competitiveness of the combined companies' product offering.¹⁰

Corporate spin-offs: Is it all about the tax benefits?

Activist shareholders and proactive management teams have been a key impetus for reshaping the global chemical industry. This is adding focus on core competencies and end markets, with the thesis of creating more value for shareholders, and simplifying overly complex business models. Once the strategy to separate has been made, many important decisions remain including how to effectuate the separation. Will it be through a sale or divestiture to another party, such as a strategic buyer or private equity firm, or through a spin-off to existing shareholders?

Figure 2: Global chemical industry spin-offs (2009 to 2015)



Total spin-off activity (2009 to 2015)

	2009	2010	2011	2012	2013	2014	2015
Number of spins	3	6	4	1	2	5	8

Source: Deloitte Touche Tohmatsu Limited Global Consumer & Industrial Products Industry group analysis of data from Thompson Reuters, accessed in January 2016. Data is from January 1, 2009 to December 31, 2015.

Spinoffs are becoming more prevalent as a means to realign portfolios in the global chemical industry, as corporate strategy continues to drive divestitures of non-core or underperforming assets. One might draw the conclusion that spin-offs are not very meaningful in the global chemical industry, based purely on a comparison of the number of spin-offs versus total M&A activity (see Figure 2). However, in 2014 and 2015 spun entities had a combined total revenue of approximately US\$25 billion.¹¹

Recent notable chemical spin-offs announced include Ashland's spin-off of Valvoline,¹² The Bayer Company's partial initial public offering (IPO) of its material science business (Covestro),¹³ and Air Products spin-off of its Material Technology business (Versum Materials).¹⁴

Are the tax savings the primary reason for choosing a spin-off over a divestiture? While tax implications are an important part of the equation in delivering value to shareholders, there are other factors to evaluate.

The sale and divestiture process generally proceeds faster and requires less external financial reporting, but negotiating with a buyer and gaining regulatory approvals can add a degree of complexity and uncertainty. Spin-offs, on the other hand, can often take a year or more to plan and execute and typically require rigorously prepared audited financial statements and public company regulatory filings. In addition to often greater after-tax benefits to the existing shareholders, spin-offs can often provide higher market valuations for both the parent company and the spin company, and may not hinge on a buyer's or an industry regulator's approval to close.¹⁵ However, spin-offs lack the revenue and cost synergies often realized in acquisitions and can sometimes result in dis-synergies. This is likely due to the additional public company and standalone costs necessary to operate the spun-off entity on a standalone basis.

As the portfolio realignment trend in the global chemical industry does not seem to look to be slowing down, strong spin-off activity, similar to the levels experienced in 2014 and 2015, is expected to continue into 2016 and 2017. The pending Dow and DuPont combination is also expected to result in two sizable spin-offs over the next few years, further adding to the spin-off momentum.¹⁶ Given the often low tax basis in legacy businesses, spin-offs will likely continue to be a means, which global chemical companies use to effectuate separations.

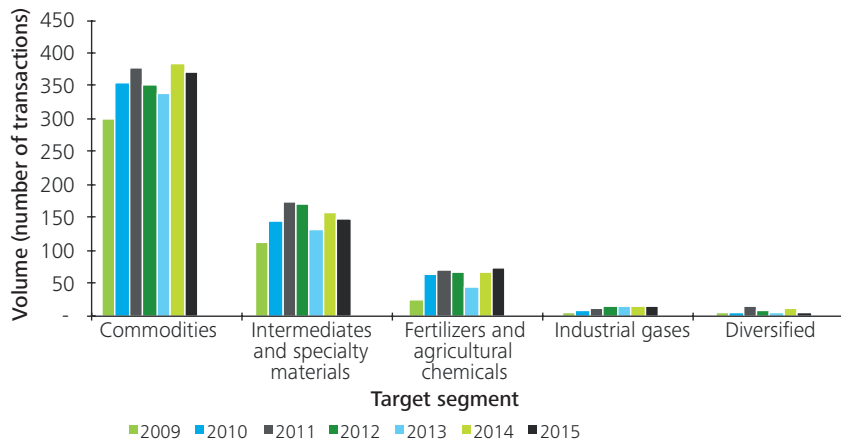
Additive manufacturing: Will new technologies drive new deals?

Additive manufacturing is a term used for a set of technologies being developed over decades and now reaching a level of maturity that has potential to transform manufacturing industries over the next decade. This manufacturing process creates products through the addition of materials (typically layer by layer) rather than by subtraction (e.g., through machining or other types of processing).¹⁷ The significant advantage of additive manufacturing is the reduction of capital investment through increased economies of scale and economies of scope, which both serve to reduce the average cost per unit. Some of the examples of the material used to form the layers described above are metallic powders, polymers, plasticizers, and resins. These exciting technologies likely have potential to be disruptive in certain manufacturing sectors and are expected to become increasingly important to the global chemical industry. A report recently issued by SmarTech Publishing predicts that consumption of polymers in additive manufacturing will reach US\$4.3 billion by 2023.¹⁸ A further specialization in producing the specialty chemicals used in additive manufacturing may inevitably lead to greater collaboration between specialty chemical manufacturers, such as the recent alliance formed between Eastman Chemical Company and Helian Polymers.¹⁹ Additive manufacturing may be one example of an area that chemical companies are willing to move to the edge of their core competencies, potentially moving into new ecosystems in the pursuit of growth.

Mergers and acquisitions activity by chemical segment

Though M&A activity remains strong, deal volume (i.e. number of transactions) in 2015 was flat or slightly lower as compared to 2014 for all chemical segments, except the fertilizers and agricultural chemicals segment, which experienced an increase (see Figure 3). The following section explores the M&A activity in each of the target chemicals segments and highlights recent transactions.

Figure 3: Global chemical industry mergers and acquisitions - by target segment (2009 to 2015)



Total activity - by target segment (2009 to 2015)

Target segment	2009	2010	2011	2012	2013	2014	2015
Commodities	301	356	376	350	340	383	372
Intermediates and specialty materials	113	145	174	171	132	159	147
Fertilizers and agricultural chemicals	26	64	69	66	43	67	72
Industrial gases	4	9	12	14	16	15	14
Diversified	6	5	15	8	6	11	7
Total	450	579	646	609	537	635	612

Source: Deloitte Touche Tohmatsu Limited Global Consumer & Industrial Products Industry group analysis of data from S&P Capital IQ, January 2016. Data is from 1 January 2009 to 31 December 2015.

Commodity chemicals: Scale and efficiency important in a depressed commodity chemical pricing environment

From a volume perspective, the deal activity in the commodities segment was relatively flat in comparison to 2014, while still higher compared to 2012 to 2013 levels.²⁰ However, in 2015, a continuation of an important trend that started post-recession emerged-corporate realignment and portfolio rationalization. A notable 2015 transaction in this sector is Dow Chemicals' separation of its US Gulf Coast chlor-alkali and vinyl, global chlorinated organics and global epoxy businesses.²¹ In 2016, it is expected that robust M&A activity continues in this segment. This will likely be a result of companies attempting to compensate for a lack of commercially significant innovation with portfolio rebalancing to increase focus on solutions at the end of the value stream, versus simply selling solids or liquids.²² Additionally, with depressed pricing in many commodity chemicals, such as titanium dioxide, butadiene, and xylene, some global chemical companies may try to gain scale through acquisitions and drive further efficiency by selling or even shuttering less efficient plants.

Intermediates and specialty materials: Building the core

Gaining scale in the core was a common theme in the intermediates and specialty materials segment during 2015, as several major strategic players strengthened their portfolios through acquisitions. Although volumes have declined compared to 2014, several significant deals were announced including Solvay's advanced materials portfolio upgrade via an acquisition of US-based Cytec for US\$6.4 billion;²³ and Platform Specialty Products Corporation's US\$2.3 billion acquisition of UK based Alent Plc, which is expected to combine complementary product portfolios and geographical footprints of the two companies.²⁴ In 2016, it is expected that further core strengthening plays will be evident with buyers interested in those companies exposed to industry sectors, such as automotive and aerospace, which have stringent quality requirements and require materials with specific high performance characteristics.

Fertilizers and agriculture chemicals: A focus on growth and profitability in a down agricultural cycle

A continued downturn in crop prices, amid expectations of record harvests by US farmers, is expected to cause a 38 percent decline in 2015 US farm income to its lowest level since 2002.²⁵ This, in turn, impacts farmers' purchasing decisions, putting pressure on pricing and reducing the demand for certain agricultural chemicals and fertilizers.

Given the relatively low topline growth rate, several companies in the fertilizer and agriculture chemicals segment have undertaken cost-cutting strategies in 2015, including closing older and less-efficient plants, cutting employment, and refocusing their product portfolios. For instance, Potash Corporation of Saskatchewan reduced its potash production late in 2015 and subsequently announced operational changes to divert production to lower cost facilities, from which annualized cost savings of US\$40 to US\$50 million are expected in 2016.²⁶

It also appears that the segment may be on the brink of significant consolidation, as agricultural chemical companies look to gain cost and research and development (R&D) synergies, as well as revenue synergies through the combination of complementary product portfolios. The proposed Dow and DuPont combination and the resulting US\$19 billion agricultural company spin-off is an example of combining the breadth of the agricultural chemical portfolio of Dow with the market leading seed business of DuPont to gain revenue synergies to drive growth.²⁷ The value thesis behind the proposed acquisition of Syngenta by Monsanto was relatively the same.²⁸

In 2016, it is likely that the uptick in M&A deal volume experienced in 2015 will continue, as the agriculture sector's down cycle continues during 2016 challenging many fertilizer and agricultural chemical companies to contemplate M&A activity to deliver growth expected from shareholders.

Industrial gases: Challenging market environment creates mergers and acquisitions opportunities

As predicted in the *2015 Global chemical industry mergers and acquisitions outlook*, the industrial gases segment made headlines in 2015.²⁹ Industrial gas companies are highly dependent on the industrial output for topline growth. For example, metal manufacturers use nitrogen in steel production, while oil refineries use hydrogen to remove sulfur from crude oil. With the lower growth rates in industrial production in some of the world's largest economies, industrial gas companies may need to look to acquisitions to accelerate growth. One example of this is Air Liquide's US\$13.4 billion announced acquisition of Airgas, which is expected to combine complimentary product offerings and expand Air Liquide's geographical footprint in the US.³⁰ Moving into 2016, this deal may put pressure on others in the segment to also make a transformational move, especially after current realignments and spin-offs underway are completed.

Diversified: A year marked by a mega deal unlikely to repeat

The deal between Dow and DuPont was the announced deal of the year in the global chemical industry and is expected to continue the historical trend of mega deals in the diversified chemicals segment. The parties intend to subsequently pursue a separation of DowDuPont, a company with an estimated US\$130 billion market capitalization at the time of the announcement, into three independent, segment-focused companies through tax-free spin-offs.³¹ A significant value proposition for the combined entity lies in the run-rate cost synergies of approximately US\$3 billion, as well as US\$1 billion in growth synergies.³² The transaction will likely bring the benefits of both scale and focus through the subsequent spin-offs, but the complexity of combining the entities, while separating into the three ultimate standalone business structures cannot be understated. Given the various challenges in such transactions and the relatively low number of significant global chemical companies, another deal of this magnitude and complexity is unlikely to occur in 2016.

Chemical mergers and acquisitions activity in key geographies

United States: Slowdown in Chinese led consumption drives industry consolidation

Chemical industry M&A activity in the US declined nearly 10 percent in 2015 in terms of volume, but increased in terms of value primarily driven by large deals such as Dow's pending merger with DuPont, and Air Liquide's pending US\$13 billion acquisition of Airgas (see Figure 4). Sellers benefited from a combination of strong financial markets, well-capitalized balance sheets of strategic acquirers, and a favorable financing environment to drive deal volume and values.

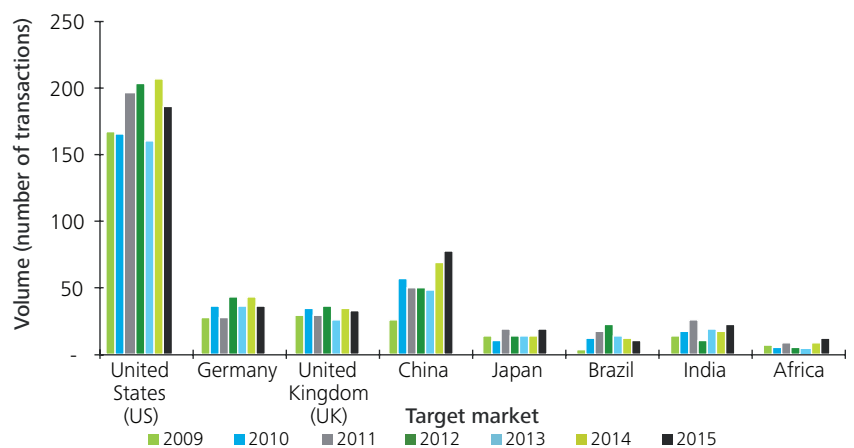
Moving into 2016, deal volume is expected to remain at elevated levels in the US due to a confluence of factors. The pending Dow and DuPont merger and subsequent split into three focused businesses enhances pressure for industry players to consolidate to be competitive. Compounding this competitive dynamic is the expectation of tepid demand and volume growth rates, driven by a slowdown in consumption led by China and many emerging markets, making topline growth more difficult to achieve. Furthermore, US producers benefiting from the decline in oil prices have seen their cost advantage versus competitors outside the US diminish due to compression of the oil to natural gas spread. These topline and margin pressures make M&A a very attractive means by which to supplement growth and enhance competitive positioning.

In 2015, shareholder activism continued to drive change at US chemical companies. With significant transactions announced at Dow, DuPont, Ashland, and Air Products, will shareholder activists continue their interest in the US chemical industry in 2016? Or is the realignment and change they were seeking mostly completed?

In 2015, the US was one of the preferred markets for European and Asian chemical buyers looking to expand their businesses. However, the appreciation of the US dollar could impact the attractiveness and affordability of these assets to foreign buyers headed into 2016.

Despite the large transformational deals in the US in 2015 and the appreciation of the US dollar, it is expected that the US will continue to be a prime target market in 2016 for chemical industry M&A activity.

Figure 4: Global chemical industry mergers and acquisitions activity - by target market (2009 to 2015)



Total activity - by target market (2009 to 2015)

Target market	2009	2010	2011	2012	2013	2014	2015
United States (US)	167	165	197	204	160	206	186
Germany	28	37	28	44	37	44	37
United Kingdom (UK)	30	35	29	37	27	35	33
China	26	57	50	50	48	70	78
Japan	14	11	20	15	14	15	20
Brazil	3	12	18	23	15	12	10
India	15	17	27	10	20	17	23
Africa	8	5	9	5	4	9	12
Other	159	240	268	221	212	227	213
Total	450	579	646	609	537	635	612

Source: Deloitte Touche Tohmatsu Limited Global Consumer & Industrial Products Industry group analysis of data from S&P Capital IQ, January 2016. Data is from 1 January 2009 to 31 December 2015.

Germany: High mergers and acquisitions activity anticipated to continue

German chemical companies have continued to focus on small and medium-sized transactions in 2015. These transactions were primarily driven by portfolio optimizations that triggered divestitures of distinct parts of the chemical value chain. The remaining businesses are then more strategically focused on products and solutions that can be better differentiated in the market. Private equity players are still strongly involved in the M&A even though most of the deals continued to be done by strategic buyers.

Opening new strategic options for growth (e.g., access to technology, markets, and customers) is becoming an increasingly important driver of M&A activity and may positively impact deal activity in 2016, in particular with a focus on specialty chemicals. Spin-offs are still fairly limited in Germany, although the Bayer Material Science's initial public offering (IPO) of Covestro was a major transaction in 2015.³³ Whether the initiated separation of BASF's pigments business will eventually result in a further larger spin-off remains to be seen.³⁴

Overall, it is expected that M&A activity in 2016 in Germany will continue at the fairly high levels experienced in 2015, as portfolio restructuring continues.

United Kingdom: Strong cross-border activity to continue

M&A activity in the UK chemicals industry was strong in 2015, bolstered by the continued economic recovery, significant pent up demand for assets (across all segments), a benign debt environment and stable outlook.

Deal activity in 2015 was primarily focused on small to mid-sized businesses, punctuated with several notable larger transactions, including the acquisition of Alent plc by Platform Specialty Products for US\$2.3 billion; and the sale of Alfa Aesar by Johnson Matthey plc to Thermo Fisher Scientific for US\$405m.³⁵

UK chemical businesses have continued to present attractive targets to international buyers, particularly from the US, who have acquired UK-based companies for, among other things, growing their technology and market footprint. Overseas acquirers have included RPM, Clariant, Lehman & Voss, and Sun Chemical.³⁶ UK listed companies have also shown a strong desire for international acquisitions, including Vesuvius's acquisition of Sidermes (Italy) in May; the acquisition of Kleiss Gears (Germany) by Victrex in July; and Croda's takeover of Incotec (Netherlands) in November.³⁷

There have also been a number of smaller takeovers and buy-outs of privately owned businesses in the paints and coatings, private label, fuel additives, and rubber products segments.

Looking forward, investor sentiment is expected to remain strong, which will continue to drive both inbound and outbound M&A activity in 2016.

China: Coatings and agricultural chemicals will be top sectors to watch

The Chinese chemical M&A market was the second largest globally behind the US in terms of deal numbers, with 78 announced deals in 2015.³⁸ For the first half of the year, many Chinese investment companies and private equity firms considered IPO exits significantly more lucrative than divestiture exits. However, the declines at the Chinese stock exchanges in Shanghai and Shenzhen in July 2015 significantly impacted chemical M&A activity as valuations of listed companies decreased by around 50 percent.³⁹ Additionally, the subsequent suspension and re-evaluation of IPO candidates, many of them in the global chemical industry, caused several vendors to reconsider sales to corporate buyers. However, even after this pricing disruption, valuations still appear lofty, and pricing may be one of the main reasons why foreign investors only play a minor role in chemical M&A in China; over 90 percent of the Chinese chemical deals in 2015 were driven by local buyers.⁴⁰ Domestic activity in China also included 15 transactions above US\$500 million, comprising 54 percent of the (announced) global deal values of US\$25 billion.⁴¹ Driven by the anticipated Chinese economic slowdown in 2016, valuations are expected to move slightly downwards, but remain substantially higher than those in the US or Europe. In terms of segments, coatings, rubber, and agricultural chemicals were the most active, followed by deals in the cosmetics and construction chemicals segments. Observations and analysis indicate that M&A activity will continue to be high in the agricultural chemicals and coatings segments in 2016.⁴²

Chinese chemical companies, particularly the state-owned enterprises, are increasingly looking for outbound M&A opportunities stimulated by Chinese central government's Belt & Road Initiative and currency internationalization.⁴³ Following the mega trends in China, the interests have expanded from agricultural chemicals such as fertilizer and pesticide, environment protection, to mobility (e.g. electronic materials), and food and nutrition (e.g. food ingredients, flavor and fragrance). The rationale has shifted from solely focusing on strategic resources to acquiring greater advanced technology and market access.

Facing overcapacity in commoditized segments and pressure on returns, Chinese chemical companies have an urgent need to upgrade their portfolios, moving towards end market customers with formulation and service capability. Specialty chemicals and fine chemicals will remain top sectors to watch in 2016. Watching overseas market access, some Chinese players are also actively assessing the opportunity to invest in overseas chemical distributors with a proven business model.

Japan: Consolidation in commodity chemicals to drive mergers and acquisitions activity

Chemical M&A activity in Japan is rising across all segments from commodity to specialty chemicals. This level of activity is expected to continue in 2016. The expectation is the result of two major factors. First, the Japanese chemical companies continue to shift their focus away from the uncompetitive petroleum commodity chemicals, consistent with trend seen in prior years. Second, the improvement in general business conditions which began in 2014 resulting in increased earnings and financial strength.

In 2015, M&A companies in Japan were active participants in the M&A space and are expected to further their inorganic growth in 2016 via cross-border acquisitions. In 2016, the active segments are likely to be those that aim to enhance the competitiveness of commodity chemical suppliers in the global market. These trends (primarily the cross-border focus and strengthening of the commodity chemicals businesses) were demonstrated in the latter half of 2015 through deals such as Tosoh Corporation's acquisition of caustic soda business of Mabuhay Vinyl Corporation in the Philippines, and Taiyo Nippon Sanso Corporation's acquisition of industrial gas business in Thailand.⁴⁴ Additionally, in 2016 it is likely that the industry will see deals that will strengthen high margin businesses, including the high performance chemicals, with particular focus on segments, such as life science chemicals.

The slowing of the Chinese economy will likely have only a limited direct effect on the Japanese chemical industry, due to its supply destination, which is primarily the domestic market. However, the Japanese specialty chemical segment is strongly dependent on the electronics and automotive industries, therefore, weakness in the Chinese economy could negatively impact it.

Brazil: Uncertain economic conditions persist

The Brazilian economy is forecasted to grow by 2.6 percent in 2016.⁴⁵ However, weakness over the past few years in Brazil's gross domestic product, (GDP), along with the depreciation of the Brazilian Real and the falling commodity prices, present challenges for M&A activity in Brazil. The combination of these three factors has greatly reduced the cost of Brazilian products and assets, potentially increasing their attractiveness to foreign investors. In addition, the struggling Brazilian economy and resulting decrease in both durable and non-durable goods has hurt the performance of domestic chemical companies.⁴⁶

Fertilizers and agricultural chemicals have been among the favorite target segments for chemical M&A activity in Brazil since the global recovery in 2009. With Brazil being one of the top agricultural markets in the world, many of the significant global agricultural chemicals companies have been investing heavily to gain market share and capture growth from Brazil's advancing agricultural economy.⁴⁷ However, the combination of depressed agricultural commodity prices and drop in the value of the Brazil Real against foreign currencies has slowed down the M&A activity in the segment.

While there is cautious optimism of a recovering economy in 2016, it is not likely there will be any significant uptick in Brazil's chemical M&A activity during 2016. Yet, lower valuations could generate interest from foreign investors with a long-term investment horizon.

India: Reforms and higher per capita income to drive chemical industry mergers and acquisitions activity

In India, the chemical industry is gearing up for an M&A surge supported by both internal and external factors. Growth is being driven in part by the reduced crude price and indicative wholesale price inflation which is contributing to a larger disposable income for the highly populated economy. The World Bank forecasts GDP in India to grow at a rate of 7.9 percent in 2016 and 2017.⁴⁸

Additionally, there are several initiatives created by the new Government, such as the “Make in India” program, which is the focus on improving the ease of doing business.⁴⁹ Also, foreign direct investment reforms, de-reservation of items earlier reserved for micro and small enterprises and weighted tax deduction for research and development have enticed global chemical companies to invest and expand their operations in India.⁵⁰ Finally, India is the third largest producer of chemicals in Asia and eighth largest in the world.⁵¹ With current initiatives of industry and government, the Indian chemical industry could grow at 11 percent per annum to reach the size of US\$224 billion by 2017.⁵²

During 2015, M&A transactions took place across all segments of the chemical industry. The Indian chemical industry M&A outlook for 2016 seems ready for further growth with predominately inbound investments expected against a background of increased GDP growth, reforms and initiatives taken by the new Government, and improving living standards based on higher disposable income in the economy. While commodity chemicals will likely comprise most of the M&A activity, significant volumes are expected also in the specialty and agricultural chemicals segments.

Africa: Growing population and water shortage to impact mergers and acquisitions activity

The themes for M&A activity in the chemicals industry in Africa are those that are both global, but also trends unique to the continent. Chemical M&A activity in 2016 is likely to be driven mainly, but not exclusively, by three megatrends. These include the shortage of water on the African continent, increase in the African population, and growth of the African middle class.

The shortage of water and the future demand for potable water in the African continent will continue to be a driver of M&A activity, as has already been seen in the recent past. Local and foreign companies will look to gain exposure to a value chain that could achieve significant returns given the underlying fundamentals of a shortage of potable water on the continent and a growing demand for it. This, coupled with the potential for chemical breakthroughs being achieved, presents an attractive value proposition for players with a cash resources available to invest in their ‘business of tomorrow.’

The increase in the African population and the growth of the middle class will have a number of impacts on the chemical industry. One of particular importance will be the need for the African continent to feed its growing population. The demand for food should benefit chemicals companies supplying products into this value chain by increasing demand for their products. This will make chemical producers, specifically those with their own intellectual property in various forms, very attractive targets. Thus, look for some consolidation deals in order to ensure that efficiencies are extracted from the value chain. There is already some level of consolidation in the chemicals industry, specifically in South Africa, and this will likely continue in 2016.

Some level of competition is likely between local and foreign sources of capital, as it relates to M&A activity in the chemical sector, as well as the pace at which local capital will replace international capital in the near future.

Summary outlook for 2016 mergers and acquisitions activity

With global interdependence continuing to increase, the risk of a large global event is always a concern. But, the world has demonstrated over the past few years that the global chemical industry can forge through many difficulties, while keeping focus on executing on business strategies.

Mega-deals are likely to continue in 2016, in addition to continued portfolio realignment to monetize off-strategy or lower performing businesses. Yet, they are often complex to execute and require more of management's focus to realize and capture the synergies used to justify often high valuations. As such, digesting these large complex transactions may drag on new deal activity. As a result, companies may be more focused on efficiently integrating their 2015 deals, rather than looking for new acquisitions.

However, there are some key questions for the industry that may play out in the year. Will the complexity of doing large global transactions cause companies to see the risks outweighing the potential benefits? Will activist investors be satisfied with the results they have helped to drive through the industry or will they continue to challenge the industry to find new ways to increase shareholder returns even further? Will cutting costs and focusing on core competencies and end markets lead to the returns that will attract investors to the chemical industry? Will management teams begin to pursue opportunities at, or outside of, the edges of their core, venturing further into solutions, perhaps even disrupting other industries?

The year ahead will likely answer these questions for an exciting 2016 M&A market, as innovative leaders strive to create shareholder value. Expectations remain bullish about the chemical M&A market in 2016, anticipating a solid year in line with the high levels experienced in 2015.

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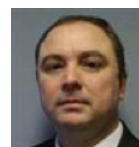
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Acknowledgements

The following are recognized for their strong contributions to this outlook including Jim Guill and John Forster both with Deloitte United States (Deloitte Services LP); Dan Avramovic, Deloitte United States (Deloitte & Touche LLP); David Tutrone, Deloitte United States (Deloitte Corporate Finance LLC); Jia Ming Lee, Deloitte China; Rebone Mofulatsi and Adheesh Ori, both with Deloitte South Africa; Thomas Frankum, Deloitte UK and Switzerland; and Christoph Sohn, Deloitte Germany. Also, special thanks to Jennifer McHugh, Deloitte Touche Tohmatsu Limited.

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