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Global chemical industry mergers and acquisitions outlook 2024



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Introduction

As highlighted in our 2023 Global chemical industry mergers and acquisitions outlook (**2023 outlook**), the 2023 calendar year started with the industry facing headwinds on multiple fronts. These headwinds once again dampened merger and acquisition (M&A) activity in the industry, resulting in a decrease of almost 16% in the number of global M&A transactions from 2022, and reaching the lowest level in the last 10 years. Compared to the pre-COVID-19 five-year average (2015 – 2019), chemical M&A volumes decreased by approximately 26% in 2023 (figure 1 and 2).

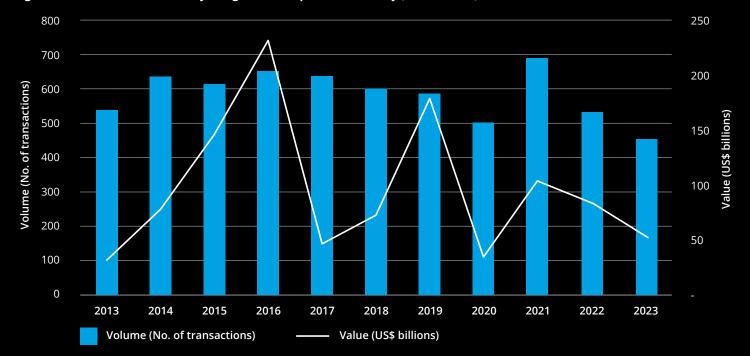


Figure 1: Global chemical industry mergers and acquisitions activity (2013 to 2023)

Figure 2: Total activity (2013 to 2023)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Volume (No. of transactions)	537	635	612	650	637	600	585	501	688	541	455
Value (US\$ billions)	31.8	77.8	145.8	231.1	46.4	72.4	178.3	34.6	103.6	84.6	53.0

Source: Deloitte Development LLC, analysis of data from S&P Capital IQ. Data is from January 1, 2013, to December 31, 2023.

While 2023 M&A activity within the chemical industry was not inspiring, it is important to point out that it did largely follow the broader trends seen in global M&A markets.¹ This suggests that the challenges faced by the chemical industry were not unique but rather reflective of broader economic and geopolitical conditions.

Interest rates largely stabilized in 2023 and it appears that major central banks

have slowed their restrictive interest rate increases as inflation has abated.² The US Federal Reserve increased the federal funds rate four times in 2023 for a total of 100 basis points, with its last increase coming in July 2023.³ Likewise, the European Central Bank (ECB) last interest rate increase came in September 2023, ending one of the ECB's fastest rate hike cycles that began in 2022.⁴ Despite the pause in rate increases and the relative rate stability, interest rates remain at an

elevated level not experienced in the last decade, keeping the cost of deal financing high and putting pressure on M&A activity.

Keeping to the trends experienced in 2022, the restrictive credit markets once again had a greater impact on potential private equity M&A participants, which saw a decrease in the number of M&A transactions by 21% in 2023, 29% lower than the pre-COVID five-year average (2015 – 2019) (figure 3).

Figure 3: Global chemical M&A - private equity buyers (2013 to 2023)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Volume (No. of transactions)	58	59	71	61	55	48	52	58	85	52	41
Value (US\$ billions)	3.8	9.4	4.8	2.8	5.5	21.1	7.9	6.9	16.0	9.8	13.3

Source: Deloitte Development LLC, analysis of data from S&P Capital IQ. Data is from January 1, 2013, to December 31, 2023.

Despite the decrease in overall private equity participation in the chemical M&A market in 2023, there were still some notable transactions during the year, proving that while completing deals was often difficult for private equity, it was not impossible. One such notable transaction was Apollo's US\$8.1 billion acquisition of Univar Solutions in March,⁵ one of the largest chemical deals in 2023. The transaction included a minority investment from a wholly owned subsidiary of Abu Dhabi Investment Authority, continuing a trend that we highlighted in our **2023 outlook** of private equity participants getting more creative and finding alternative sources of capital to get deals across the finish line. New platform deals were scarcer in 2023 and private equity add-ons to existing

platforms were often the preferred path. This allowed private equity to leverage both deal synergies and the current portfolio company's balance sheet, and cash flows to help finance the deal. Solenis' (a current portfolio company of Platinum Equity) US\$4.6 billion acquisition of Diversify in July was one example of this in 2023.6

Of all the aforementioned headwinds facing the chemical industry, none was a bigger impediment to M&A deal activity in 2023 compared to the lackluster revenue and earnings performance experienced by much of the industry. The slumping demand in the latter half of 2022 caused by customer destocking and slower manufacturing growth, as highlighted in our 2023 outlook, continued for many

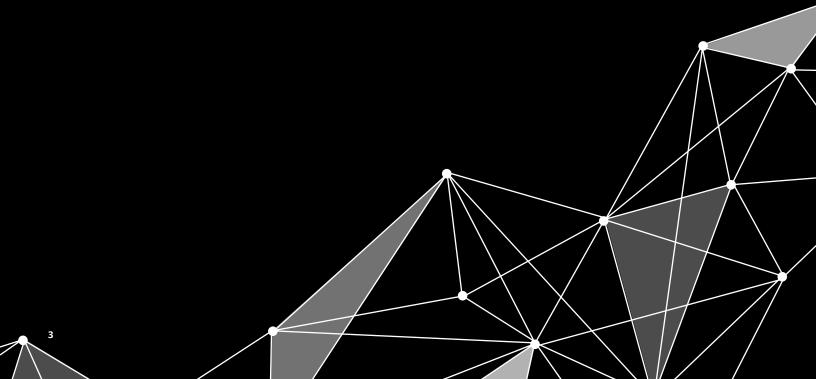
industry participants throughout the entirety of 2023.7 Chemical margins have continued to be under pressure due to less operating leverage and a challenging price environment in 2023, which has somewhat been offset by feedstock cost relief.8 Also similar to 2022, chemical companies spent most of 2023 inwardly focused on cost containment and improving working capital, with many also going through plant rationalization where they determined they could not be cost competitive.9

This slump in demand and the resulting impact on chemical company financial results was felt throughout nearly all chemical value chains, impacting M&A activity in all chemical sectors (figure 4).

Figure 4: Global chemical industry mergers and acquisitions by target sector (2013 to 2023)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Commodity chemicals	346	394	379	391	390	357	365	312	401	342	282
Specialty chemicals and materials	132	159	147	185	172	157	148	130	202	139	127
Fertilizers and agricultural chemicals	43	67	72	61	65	77	61	51	71	48	43
Industrial gases	16	15	14	13	10	9	11	8	14	12	3
Total	537	635	612	650	637	600	585	501	688	541	455

Source: Deloitte Development LLC, analysis of data from S&P Capital IQ. Data is from January 1, 2013, to December 31, 2023.



Despite this, there were still some notable transactions in the key chemical sectors in 2023:



Commodity chemicals

In the commodity chemicals sector INEOS was active, announcing two of the more significant acquisitions in the sector for 2023. In September, it announced the acquisition of Eastman's Texas City site, which includes a 600kt acetic acid plant, and in December it announced the acquisition of LyondellBasell's ethylene oxide and derivatives business and production facility at Bayport, Texas for US\$700 million.

Specialty chemicals & materials

While M&A activity in the specialty chemicals and materials sector was still down for the year, it fared better than other sectors, decreasing 9% in the number of M&A transactions from the 2022 total and decreasing 22% compared to the pre-COVID five-year average (2015 – 2019). Buyers tended to stick to acquisitions where they saw sustained long-term end-market tailwinds, despite the challenging current environment. DuPont's announcement in May of the US\$1.75 billion acquisition of Spectrum Plastics Group was one example of this, with Spectrum Plastics offering "specialized materials and solutions into attractive end markets with long-term secular growth trends."¹²

Fertilizers and agricultural chemicals

Despite ongoing geopolitical conflicts in Europe, demand for base agricultural fertilizers and nutrients remained steady, underpinned by relatively strong agricultural commodity prices. OCI Global (OCI) announced two significant transactions in December. The first transaction announced was with Abu Dhabi National Oil Company (ADNOC) in which ADNOC will acquire OCI's entire majority share in Fertiglobe plc for US\$3.6 billion plus an earn-out mechanism.¹³ Fertiglobe plc is one of the world's largest ammonia and nitrogen producers and exporters. OCI also entered into an agreement for the sale of its entire equity interest in Iowa Fertilizer Company LLC, (IFCO) to Koch Ag & Energy Solutions (KAES) for US\$3.6 billion.¹⁴

However, like what was observed in 2022, the challenging revenue and earnings environment has many chemical companies more hesitant in placing bigger bets on M&A deals, resulting in a decrease in M&A deals in excess of US\$1 billion in 2023 compared to 2022 (figure 5).

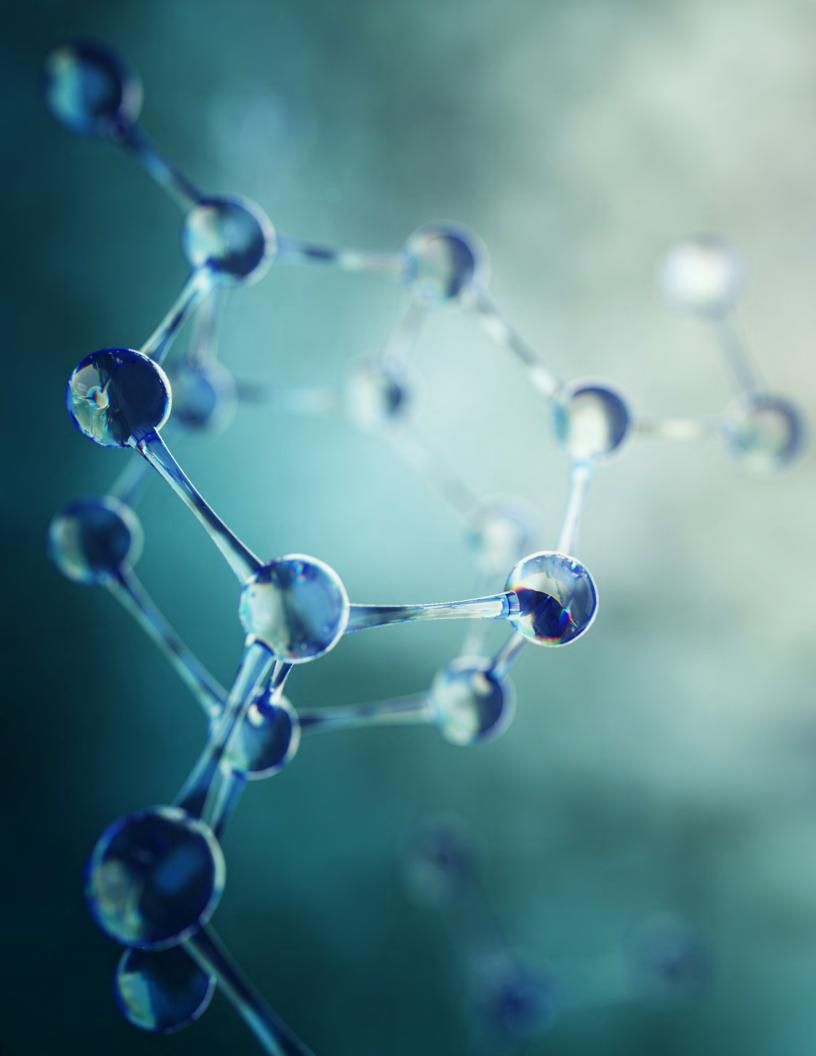
Figure 5: Activity over US\$1 billion (2013 to 2023)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Volume (No. of transactions)	8	13	16	12	13	16	14	8	30	14	11
Value (US\$ billions)	13.6	52.6	126.3	205.7	29.2	58.8	158.5	21.7	82.5	68.8	41.2

Source: Deloitte Development LLC, analysis of data from S&P Capital IQ. Data is from January 1, 2013, to December 31, 2023.

Coming off the lowest M&A volumes in the last decade and given the aforementioned headwinds, what is the appetite for M&A amongst chemical executives heading into 2024? We will explore the answer to this question in the following section.





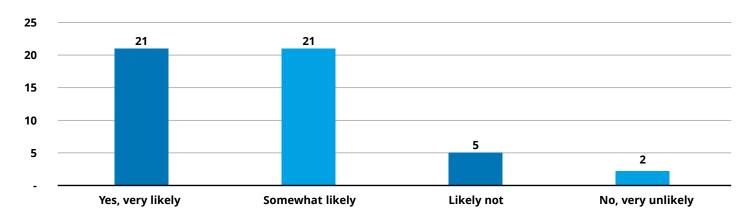
Outcomes of the chemical M&A survey

Our survey polled 49 executives at chemical companies across sectors and geographies between 11 January, 2024, and 26 January, 2024, to assess M&A sentiment and future M&A plans. Below is a summary of the results from the survey, and key insights from survey respondents.



Ouestion

Do you anticipate your company undertaking any mergers or acquisitions over the next 12 months?



While 86% of the chemical executives surveyed were at least *somewhat likely* to undertake a merger or acquisition in 2024, that is compared to 91% in last year's survey and 100% in the 2022 survey. Furthermore, those surveyed that answered *Yes, very likely* has decreased from 79% in the 2022 survey, to 65% in the 2023 survey, to 43% in this year's survey. These trends point to a clear sign that the chemical executives are less bullish on undertaking a merger or acquisition heading into 2024 in comparison to prior years.

Interestingly, the drivers of their company's acquisition strategy have remained fairly consistent over the last several years.

Expansion of portfolio/technical capability was the most-cited acquisition driver for the fourth year in a row. This was followed by geographic expansion for the second year in a row. For the second year in a row, meeting your company's sustainability / ESG goals or increase your ability to offer customers carbonneutral / sustainably produced products was cited as a driver of their M&A strategy by less than 20% of executives.

When asked which end-markets they view as the most attractive from an acquisition perspective, survey respondents have been fairly consistent over the last several years. Once again, *electronic materials* was selected as one of the most attractive end markets,

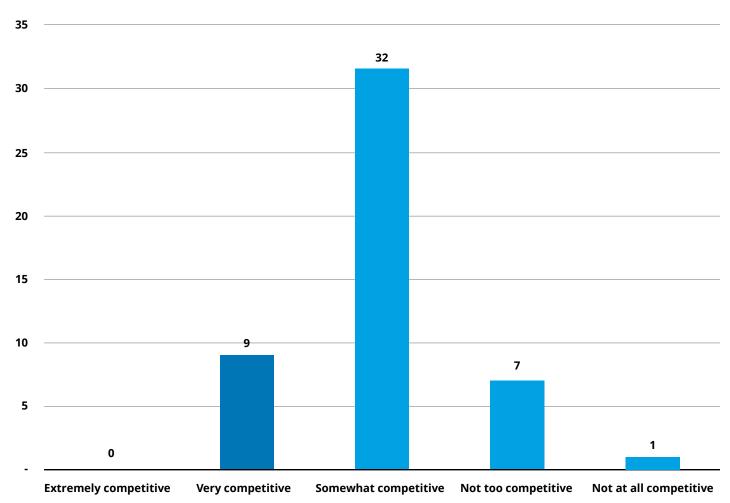
with nearly 30% of survey respondents ranking it in their top two choices.

Although popular in prior year surveys, both construction materials and health care / beauty / life sciences moved up in terms of attractive end markets in this year's survey, receiving a top two ranking by 24% and 26% of survey respondents, respectively. With some significant tailwinds in technology, life sciences, and construction / infrastructure spending, it is no surprise that these resulted in the most popular acquisition target end-markets, and we have seen several examples of chemical companies pursuing acquisitions in these end-markets in 2023.



Ouestion

How competitive do you believe the current climate is for making acquisitions?



The competitive sentiment amongst survey respondents stayed relatively subdued, with only 18% responding that the current acquisition climate is *very competitive* and no respondents that thought the current acquisition climate is *extremely competitive*, which was similar to response in last year's survey. However, this is down from our survey heading into 2022, in which 88% responded that they believed the acquisition climate was either *extremely competitive* or *very competitive*. This sentiment could be one reason why we have observed many chemical companies in 2023 pausing

or extending the timeline with potential carve-outs and divestitures, waiting for the competitive acquisition market to return.

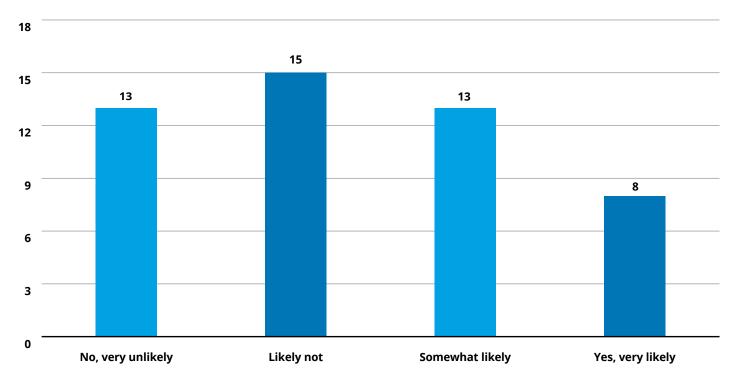
We also asked what chemical executives saw as the biggest hurdle to their companies participating in merger or acquisition activity in 2023. Continued price dislocation / valuation expectation gap between buyers and sellers received top marks as the biggest hurdle, noted by 37% of survey respondents, followed by a lack of quality acquisition opportunities in the market, from 27% of survey respondents.

However, both cost of lending / constrained capital markets and lack of internal capital / cash flow to support acquisitions were cited by a combined 20% of chemical executives as their biggest hurdle to participating in the M&A markets in 2023. Despite there being clear valuation gap between buyers and sellers and lack of quality M&A opportunities available, many chemical companies are simply not participating in the M&A market due to a lack of capital available (either internal or external).



Question

Do you anticipate your company undertaking any divestitures (including spin-offs) over the next 12 months?



For the fourth straight year, chemical executives surveyed were not as bullish on undertaking a divestiture as they were on undertaking a merger or acquisition. Chemical executives were similarly bullish on divestitures compared to last year, with 57% saying their company is either very likely or somewhat likely to undertake a divestiture over the next 12 months. Non-core portfolio pruning was once again the top-cited driver of company's current divestiture strategy, noted by 93% of survey respondents.

This was followed by *underperforming* assets which was cited by 60% of chemical executives as a driver of their company's current divestiture strategy. Given the financial stress experienced in the industry over the last 12 to 18 months, it is no surprise that chemical executives are assessing certain underperforming businesses and assets for potential divestiture. Interestingly, *non-production* assets was cited by 21% of survey respondents as a driver of their divestiture strategy, compared to only 7% last year

and 0% in the year before. This aligns with a trend we are observing in the industry of chemical companies attempting to monetize their infrastructure, such as tanks, pipelines, rail cars, terminals, and site service arrangements.

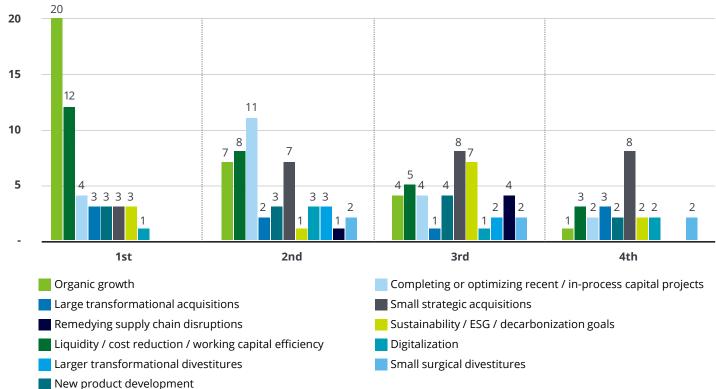






Question

What are your company's primary / top focus areas over the next 12 months?



Unsurprisingly, for the fourth year in a row, organic growth was selected as the top focus area over the next 12 months, with 20 respondents ranking it as their top priority and 31 respondents or 63% ranking it among their top three priorities for 2024. Like last year, liquidity / cost reduction / working capital efficiency finished as the second most-noted top focus area over the next 12 months with nearly 25% ranking it as their highest priority and over 50% ranking it as one of their top three priorities. As such, it is likely we will see chemical companies continue to focus their attention inward and turning around their often time fledging financial results, with less time focused on M&A.

Once again small strategic acquisitions was ranked as a top three priority by three-times more chemical executives compared to large transformational acquisitions, pointing to the trend continuing into 2024 of smaller tuck-ins or bolt-on acquisitions versus large transformational deals.

One positive change from the two prior surveys is that only 10% of survey respondents ranked remedying supply chain disruptions amongst their top three priorities. This is down from 23% last year and 27% the year before – an indication that the supply chain issues that have plagued many in the chemical industry since the pandemic has largely subsided.

While sustainability / ESG / decarbonization goals continue to get a lot of the headlines in the industry, it has been cited as a top three priority by less than 25% of survey respondents for two years in a row. This again points to the fact that while sustainability and achieving decarbonization goals are important priorities to chemical companies, it is a lower priority this year as many chemical companies focus on improving financial performance. In our survey, we also asked chemical executives on where they see chemical companies having the biggest impact in the energy transition

and decarbonization. Survey respondents overwhelmingly selected utilizing lowercarbon energy or materials in production and developing and/or commercializing products focused on circularity as their top choices, while investing in start-ups or other nascent technologies or products akin to traditional venture capital was only selected by seven executives, totaling less than 15% of our survey respondents. This confirms our expectation that chemical companies will continue to focus their sustainability and energy transition efforts by lowering the carbon impact of their own production and commercializing new lower carbon or circular products for customers through both formal and informal partnerships and/or feedstock and offtake agreements versus through traditional M&A.

Mergers and acquisitions activity by geography

Figure 6: Global chemical industry mergers and acquisitions by target country (2013 to 2023)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
United States	160	206	186	201	196	180	180	169	232	178	140
China	48	70	78	72	89	82	82	66	70	54	43
United Kingdom	27	35	33	41	33	29	30	28	42	30	23
Germany	37	44	37	38	41	28	40	23	45	31	19
India	20	17	23	28	15	28	21	10	27	17	24
Netherlands	6	9	11	19	8	21	9	13	11	7	5
Japan	14	15	20	12	11	15	14	10	22	11	19
Brazil	15	12	10	24	14	16	4	8	11	8	12
France	28	29	25	26	40	27	21	16	30	21	18
Canada	15	23	17	19	25	17	22	19	29	14	10
Other	182	198	189	189	190	174	184	158	198	170	142
Total	537	635	612	650	637	600	585	501	688	541	455

Source: Deloitte Development LLC, analysis of data from S&P Capital IQ. Data is from January 1, 2013 to December 31, 2023.

United States: The industry proves resilient, but a robust M&A market may still be slow to return

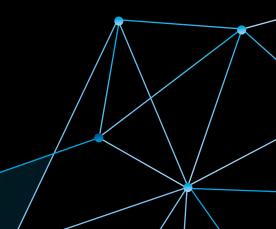
US chemical M&A volumes were down 21% in 2023, following a decrease from 2021 to 2022 of 22%. This resulted in 2023 being the quietest year in terms of M&A over the last decade, and 13% below the decade's next lowest (2013 with 160 deals) – but considering the factors at play, it is difficult to be surprised. Many of the same themes we wrote about last year continued to impact chemical dealmakers in the US, including a new interest rate environment, perception of a looming recession and geopolitical uncertainties, with the added uncertainty of what is expected to be a drawn-out US election cycle.

In addition, many US chemical companies' financial performance continued to be impacted by an inventory destocking cycle. As a result, for a second year US chemical companies prioritized cost optimization and working capital efficiencies over deal

making. There were only four deals over US\$1 billion in enterprise value, the largest being the aforementioned sale of Univar to Apollo Funds for US\$8.1 billion¹⁵ and Solenis' acquisition of Diversey Holdings for US\$4.6 billion¹⁶ (both occurring in the first quarter of 2023).

There are reasons however to be optimistic for a rebound in US chemical M&A activity in 2024. Relative to most other geographies, the US still holds a significant feedstock cost advantage and therefore it is expected that the US will continue to be an attractive M&A market for global chemical companies looking to increase their exposure to this low-cost production environment. While playing a smaller role in M&A deals since the fourth quarter of 2022 (with just 15 deals in the US in 2023), it is likely that private equity also plays a larger role in 2024. As fund managers push-up against

longer hold periods and bring portfolio companies to market and, as many expect, the Federal Reserve cuts its benchmark interest rate.¹⁷ Our M&A survey suggests North American chemical executives expect the same, with 89% indicating they were at least somewhat likely to undertake an acquisition in 2024.



China: 2023 - A cautious year for M&A deals but the future of high-end materials is bright

Although recovering from the pandemic, the global economy continues to be affected by various downward pressures (as noted previously), resulting in the relative slowdown of M&A activity in China's chemical industry. There were 43 transactions announced in 2023, marking a 20% decrease from 2022 levels. In 2023, the majority of acquirers remained strategic buyers and 67% of acquisition targets in the commodity chemicals sector, while specialty chemicals and materials and agricultural fertilizers, accounted for 21% and 10%, respectively. Within the commodity chemicals sector, new materials for construction and the automotive sector continue to be top investment end markets.

Despite the slower M&A market, opportunities within the Chinese chemical industry outweigh the challenges. With the steady recovery of the domestic economy, the effects of the real estate downturn are expected to ease. Furthermore, the comprehensive implementation of policies to promote stable growth are expected to take hold, major construction projects are expected to be expedited, and as a result, domestic demand for chemical products is expected to recover steadily. Although companies comprising China's chemical industry remained cautious in undertaking M&A activity in 2023, minority equity investments and acquisitions in the new materials adjacencies showed to be active. In December 2023, the Ministry of Industry and Information Technology (MIIT) proposed the Guidance Catalogue for the First Batch Application Demonstration of Key New Materials, 18 which further emphasized the promotion of high value new chemical products.

The Guidance Catalogue will promote China's chemical industry in gradually transforming from base commodity chemicals to value-added new specialty chemicals and materials. It is possible that a number of Chinese chemical enterprises extend their penetration into *stranglehold* technologies and materials. Meanwhile, under the *Beltand-Road* initiative, more strategic investment and collaboration is expected to take place between Chinese chemical enterprises and Middle Eastern countries.

Continental Europe: Still under pressure but has the bottom been reached on M&A activities?

Continental Europe experienced a significant decline in M&A transactions in the second half of 2022, and this trend continued in 2023. Sponsors have become increasingly selective in their acquisition pursuits due to a difficult transaction financing environment, and strategic investors see cash preservation and lower debt as being a preferred strategy in current lower demand cycle. As a result, a delay in bringing assets and potential carve-outs to market has been observed, and large corporates have been spending more time reviewing and preparing their portfolios for potential sales in order to focus on higher-growth and costadvantaged business.

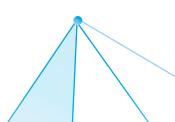
The European chemical industry is facing several challenges including weak demand, high energy costs, rising interest rates, the Russian-Ukraine conflict, Red Sea conflict, US Inflation Reduction Act, and inflation. During the pandemic, there were significant advance purchases throughout many chemical value-chains which has negatively impacted current production demand. Simultaneously, the automotive industry also experienced an extended slowdown due to delivery bottlenecks.

Now the auto industry is growing again but is still not at pre COVID levels.¹⁹ Furthermore, chemical imports can more easily compete, particularly with respect to more energyintensive products. From a regulatory and political perspective, this competitiveness may be further hampered by passage of the corporate sustainability due diligence directive (CSDDD) which requires large companies, including chemical producers and distributors, to perform due diligence around actual and potential adverse impacts on human rights and the environment²⁰ and includes potential penalties and civil liabilities. In addition, fragmented, conflicting and partially changing economic policy objectives (e.g., regarding power supply) across EU member states complicate implementing and executing target-oriented M&A strategies.

In 2023, the capacity utilization was below the long-term average, and the production of the chemical sector is decoupling from the manufacturing sector. As such, the industry might face another difficult year in 2024, with sales of the Continental European chemical industry potentially flat or further declining. In addition, the chemical industry is currently undergoing a major transformation in order to become climate neutral, circular, and digital at the same time. Declining sales and investment heavy transformations have resulted in many companies turning to cost optimization programs.

Private equity and cash-rich investors from Asia and the Middle East are expected to become key catalysts for the transformation process in the European chemical industry. M&A activity is expected to be comparatively low in early 2024, before a potential recovery in the second half of 2024, based on further economic certainty and debt markets.





Brazil: Favorable economic indicators drive higher M&A activity in face of competitive pressures

In 2023, the Brazilian GDP was forecast to grow at a rate of 3.1%, ^{21,22}, indicating a sustained economic recovery trajectory following the pandemic. This growth is accompanied by a reduction in inflation rates, which have fallen to 4.62%²³ from 5.79%²⁴ in 2022. Notably, the Brazilian Central Bank has lowered interest rates to 11.75%,²⁵ marking the lowest level since March 2022. Despite these trends, market expectations for 2024 indicate a moderate economic growth of 2%,²⁶ primarily due to climate-related challenges impacting the crucial agribusiness sector, which contributes significantly to Brazil's GDP.

According to the Brazilian Chemical Industry Association (Abiquim), the chemical industry in Brazil faced substantial challenges in 2023, projecting a deficit of US\$47 billion in chemical products, making it the sector's second-worst year on record.²⁷ It has been speculated that pricing practices, particularly as it relates to Asian-based imports, have been identified as a key factor contributing to this downturn, leading to the lowest national production volume in three decades and posing a serious threat to domestic manufacturing.²⁸

While overall M&A activity in the Brazilian market declined by 22% in 2023,²⁹ chemical M&A activity increased 50% from 2022. Discussions surrounding the potential sale of a portion of Braskem, a leading petrochemical company in Brazil, have attracted attention³⁰. Various press articles have mentioned that ADNOC made an offer totaling approximately US\$2.1 billion for the business, underscoring ongoing interest from international investors in Brazil's chemical industry.³¹

The Brazilian economy has exhibited resilience in the face of challenges, with notable improvements in key economic indicators. However, persistent issues within the chemical sector warrant attention, necessitating strategic interventions to address competitive pressures and bolster domestic production capabilities.

Despite uncertainties, the M&A landscape reflects continued interest and opportunities for strategic investments, particularly in industries such as chemicals, underscoring investor confidence in Brazil's long-term growth potential.

India: M&A poised for an upswing in 2024 postparliamentary elections

India's real GDP is estimated to grow 6.3% for the years 2023-24 and 2024-25 making it one of the fastest growing economies globally, and India's 2023 G20 presidency has demonstrated the country's important role in advancing multilateral policy priorities.³²

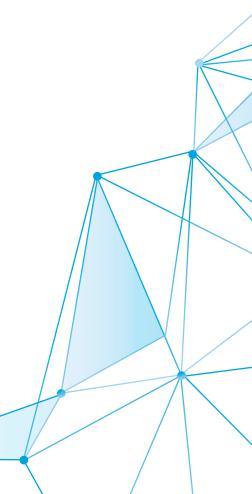
The chemical industry is of high significance. Not only is India the sixth largest chemicals producer in the world and the fourth in Asia but it also exports chemicals to more than 175 countries, accounting for 13% of India's total exports.³³ With increasing exports and domestic demand, India's chemical sector continues to grow at a rate of 1.2 to 1.5 times that of GDP, with an investment expectation of more than US\$87 billion in the coming decade, catering to more than 10% of the world's growth in petrochemicals.³⁴

The global industry is passing through challenges of volatile commodity prices due to heightened competition, geopolitical tensions, and uncertainty around crude oil supplies; however, India's chemical sector remains robust, driven by rising interest from global companies seeking to source from India and the sector's strategic capex

in advanced technology and capacity expansion. M&A activity within the industry grew 40% in 2023 compared to 2022.

The Indian government has instituted several policies to boost the chemical industry including 100% foreign direct investment (FDI) through automatic routes, PCPIR (Petroleum, Chemicals and Petrochemicals Investment Region) zones and set up of infrastructure such as over ten plastic production parks. Several reforms such as Jan Aushadhi Kendras making medicines available at affordable prices,³⁵ Production Linked Incentives (PLI) scheme,³⁶ and the rationalization of customs duty will continue to support the growth of the chemical industry.

With increased global sourcing and domestic demand, coupled with progressive government policies, India's chemical industry is poised for robust M&A activity, post elections expected in the middle of 2024.



Japan: Cross-border M&A appetite challenged by economic headwinds

During 2023, Japanese chemical companies took a hit to earnings on account of higher input prices resulting from geopolitical risks and other factors already discussed. Coupled with the continued weakness of the Japanese yen, large cross-border acquisitions were understandably curtailed. However, as we've noted in prior years, there is an appetite for cross-border acquisitions, with Nippon Steel's proposed US\$14.9 billion acquisition of US Steel³⁷ providing ample evidence. M&A activity in the chemical industry in Japan increased to 19 transactions in 2023, up from 11 in 2022; with almost all buyers originating from Japan.

While it is premature to state when crossborder activity will resume, macroeconomic factors - including currency markets - will be a key driver. One noteworthy chemical sector transaction was the acquisition of JSR Corp,³⁸ a major semiconductor parts supplier, by a government-sponsored fund. While we have yet to see much in the way of delistings of major chemical companies, the dual desire to address climate concerns and advance sector-wide restructuring may lead to others contemplating delistings as a mid- to long-term management play. While the Japanese M&A theme for 2023 core businesses, more of the same can be expected for 2024.

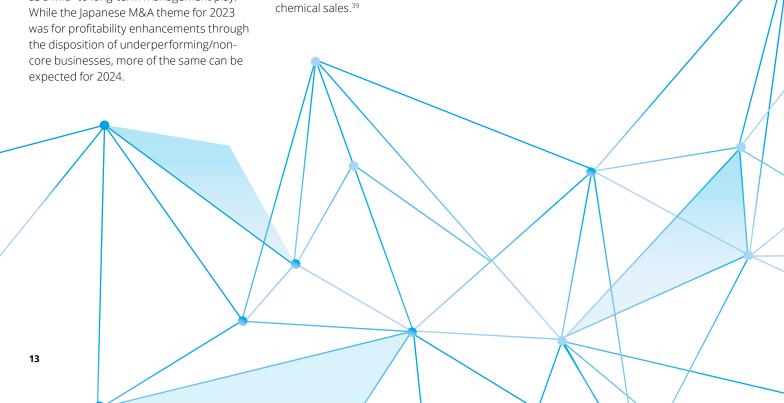
UK: Foreign interest remains strong, but overall M&A continued to decrease

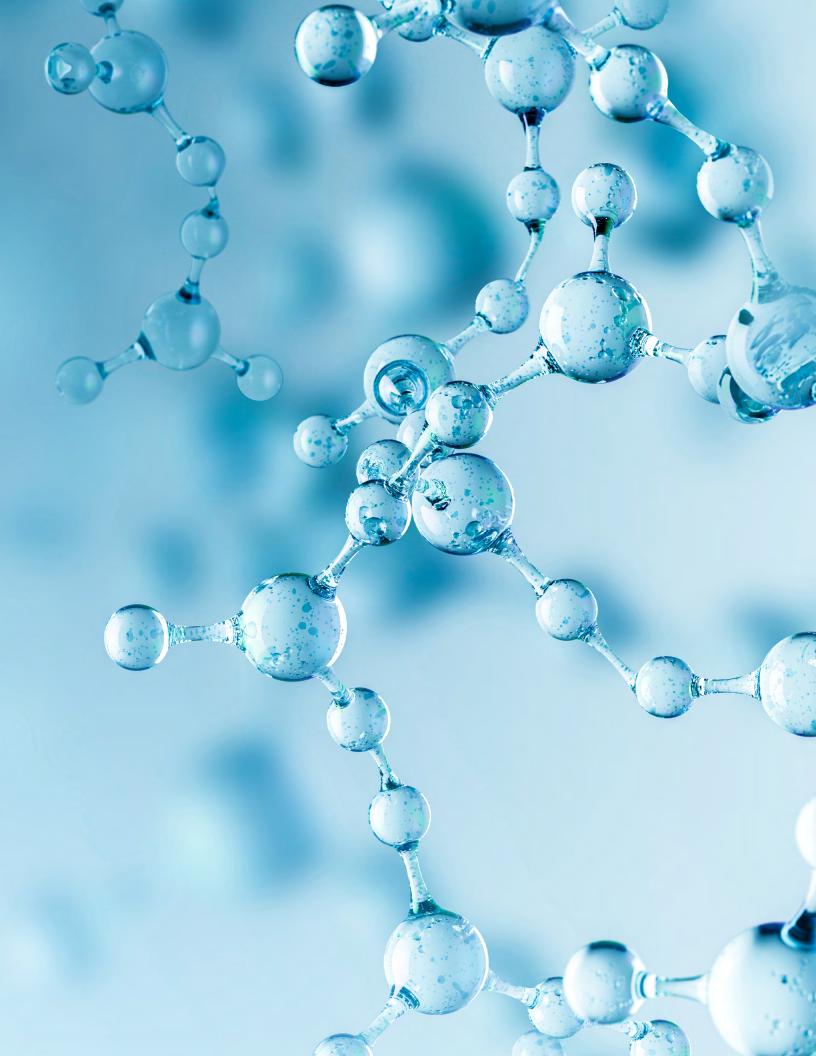
UK chemical M&A activity in 2023 saw a further decrease in deal volume compared to 2022 and 2021, reflecting heightened uncertainty in a period of geopolitical tensions, high inflation, rising interest rates and increased capital costs. Commodity chemicals dominated the space in both 2021 and 2022, and continued to be most active in 2023. Foreign interest in UK chemical companies remained strong, with potential investors from continental Europe and the US particularly active. UK corporates and investors were also active in 2023, with several domestic deals recorded throughout the year (approximately 35% of total).

Private equity activity remained restrained in 2023 reflecting continued uncertainty and difficult debt markets

The most prevalent M&A theme in 2023 continued to be sustainability and the ESG agenda, attracting a premium relative to more traditional assets. Other broad themes in the chemical industry include a rise in portfolio repositioning where several large corporates are looking to divest assets deemed to be non-core and/or non-performing, as well as an increase in health expenditure, which is driving pharma based chemical sales.³⁹

While it remains difficult to predict future deal volumes with any certainty, there are signs that buyers and sellers are beginning to recalibrate their expectations as interest rates stabilize, which should help narrow valuation gaps and potentially increase M&A activity in 2024. There is also some cause for tentative optimism as, amongst many other factors, dealmakers tend not to be inactive for extended periods of time.





Summary outlook for 2024 mergers and acquisitions activity

As highlighted in our **2023 outlook**, we entered the year with uncertainty and headwinds, and while chemical companies once again demonstrated their resiliency in 2023, they did so by focusing on their own financial health and sustaining organic growth where possible versus pursuing mergers and acquisitions. It appears that 2024 is starting in much the same way, leading to questions of whether 2024 will be the year that M&A rebounds in the industry or whether we will see another year of subdued deal making. It is likely that we will not see any meaningful uptick in chemical M&A activity until we see sustained financial strength and growth amongst industry participants.

We are starting to see some green shoots of better days ahead, leading to some optimism. For example, chemical production volumes may be poised to rebound in 2024 as chemical inventories are low and destocking is largely complete across most value chains. The ACC expects global chemical volumes to expand by 2.9% in 2024 compared to the 0.3% growth experienced in 2023. Despite the overall lower inventories, the industry is still facing a questionable demand backdrop as many economists expect lower economic growth in 2024 in many of the world's leading economies. Furthermore, many private equity hold periods are reaching the longest experienced in decades, leading many M&A participants to question if we will see an increase in the number of private equity exits in 2024. This may address hurdles with regards to a lack of quality acquisition opportunities in the market cited by executives in our survey. With many economists forecasting a loosening monetary policy from major central banks in the latter half of 2024, this could address another hurdle of the cost of lending and strained capital markets.

In general, we start 2024 with what appears to be a reduced M&A pipeline and appetite, and our chemical M&A forecast remains tempered until there is more clarity around improved financial performance in the industry. However, despite the current cyclical downturn, the long-term outlook for chemicals remains strong. Additionally, the fundamental hypothesis that the right M&A moves by chemical companies can create outsized returns remains intact—ultimately drawing the conclusion that the rebound in chemical M&A activity is simply a matter of *when*, not *if*.



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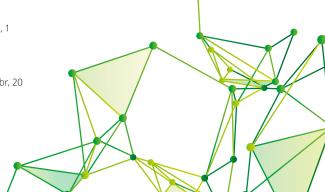
End notes

- Anirban Sen and Anousha Sakoui, "<u>Dealmakers see rebound after global M&A volumes hit decade-low</u>", Reuters, 21 December 2023.
- 2. Ira Kalish, Global economic outlook 2024, Deloitte Insights, 2024.
- 3. Michael Adams and Paul Katzeff, "Federal Funds Rates History 1990 to 2023", Forbes, 21 January 2024.
- 4. Balazs Korayni and Francesco Canepa, "ECB sticks to inflation fighting even as rate cuts loom", Reuters, 25 lanuary 2024.
- Apollo, "Univar Solutions to be Acquired by Apollo Funds for \$8.1 Billion Shareholders to Receive \$36.15 Per Share in Cash", press release, 14 March 2023.
- 6. Solenis, "SOLENIS COMPLETES ACQUISITION OF DIVERSEY FOR \$4.6 BILLION", press release, 5 July 2023.
- Sabri Ben-Achour, "Chemicals are a big business in the U.S., but here's why the sector is getting squeezed", Marketplace, 28 November 2023.
- 8. Saikeerthi, "Excess stock to drag chemical makers as demand falls short", Reuters, 23 October 2023.
- Alexander H. Tullo, "<u>Chemical firms are shutting plants after tough second quarter</u>", Chemical & Engineering News, 9 August 2023.
- INEOS, "INEOS announces the acquisition of the Eastman Texas City Site for ~\$500 million", press release, 28 September 2023.
- 11. INEOS, "INEOS announces the acquisition of the LyondellBasell Ethylene Oxide and Derivatives business and production facility at Bayport Texas for USD700 Million", press release, 8 December 2023.
- 12. DuPont, "<u>DuPont to Acquire Spectrum Plastics Group from AEA Investors</u>", press release, 2 May 2023.
- 13. ADNOC, "ADNOC to Acquire OCI's Stake in Fertiglobe", press release, 15 December 2023.
- OCI Global, "OCI Global Announces Agreement for the Sale of IFCO to Koch", press release, 18 December 2023.
- 15. Apollo, "Univar Solutions to be Acquired by Apollo Funds for \$8.1 Billion Shareholders to Receive \$36.15 Per Share in Cash."
- 16. Solenis, "Diversey to be acquired by Solenis for \$4.6 billion", press release, 8 March 2023.
- 17. Katy Gibson, "Goldman Sachs expects the Fed to cut interest rates 5 times this year, starting in March", CBS News, 15 January 2023.
- 18. Ministry of Industry and Information Technology, "Notice of the Ministry of Industry and Information Technology on Issuing the Guidance Catalogue for the First Batch of Application Demonstration of Key New Materials (2024 Edition)", 18 December 2023.
- Neil Winton, "<u>European Car Sales Growth Set To Accelerate As China Threat Looms</u>", Forbes, 10 September 2023.
- 20. European Council, "Corporate sustainability due diligence council and parliament strike deal to protect environment and human rights", press release, 14 December 2023.
- Leonardo Mello de Carvalho and Julia de Medeiros Braga, "GDP performance in the third quarter of 2023", IPEA, 7 December 2023.
- 22. IBGE, Gross Domestic Product, accessed 17 January 2024.
- 23. IBGE, Inflation, accessed 17 January 2024.

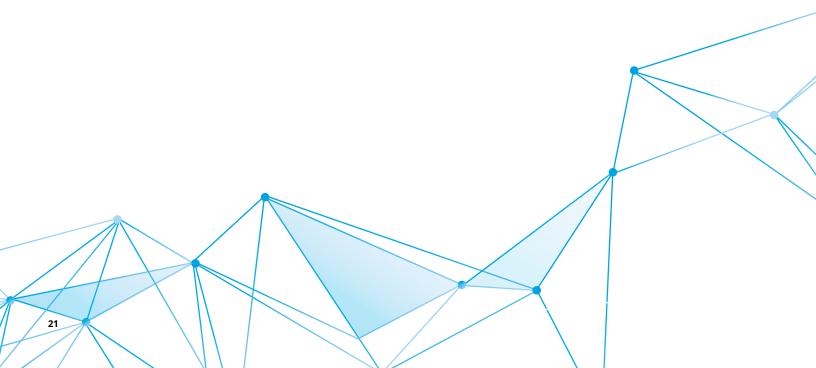
20

- Igor Ferreira, "Inflation rises 0.62% in December and closes 2022 with a high of 5.79%", Agencia IBGE, 1
 October 2023.
- 25. Banco Central Do Brasil, <u>Base Interest Rates</u> History, accessed 17 January 2024.
- 26. IPEA "<u>Ipea forecasts GDP growth of 3.2% this year and maintains its estimate for 2024 at 2.0%"</u>, Gov.br, 20 December 2023.





- 27. André Passos Cordeiro, "Brazilian Chemical Industry Outlook 2024", ABIQUIM, 8 January 2024.
- 28. Eder da Silva, Diego Antonio Albuixech Hrycylo and Alessandra de Souza Moura, "Foreign trade statistic report", ABIQUIM, 13 November 2023.
- 29. TTR Data, "Brazil Annual Report 2023", December 2023.
- 30. Braskem, "Notice to the market", press release, 18 September 2023.
- 31. Lucinda Pinto, "Adnoc submits non-binding proposal for control of Braskem in the amount of R\$ 10.5 billion", InfoMoney, 8 November 2023.
- 32. IMF, "IMF Executive Board Concludes 2023 Article IV Consultation with India", press release, 18 December 2023.
- 33. Ministry of Petroleum and Natural Gas, "Chemicals & Petrochemicals demand in India expected to nearly triple and reach USD 1 trillion by 2040", press release, 19 May 2023.
- 34. Ministry of Petroleum and Natural Gas, "Chemicals & Petrochemicals demand in India expected to nearly triple and reach USD 1 trillion by 2040"
- 35. Government of India, Pharmaceuticals & Medical Devices Bureau of India, accessed 17 January 2024.
- 36. Shivangi Acharya and Sarita Chaganti Singh, "India plans over \$2 billion in incentives for new manufacturing sectors", Reuters, 20 September 2023.
- 37. Nippon Steel Corporation, "Acquisition of US Steel", 18 December 2023.
- 38. Sam Nussey and Tim Kelly, "Japan-backed fund to buy chip materials maker JSR for \$6.4 billion", Reuters, 26 June 2023.
- 39. IBIS world, "Chemical product manufacturing industry", accessed 17 January 2024.
- Joesph Chang "US chemical volumes to rebound slightly in 2024 with destocking mostly over ACC economist", ICIS, 28 November 2023.
- 41. Martha Gilchrist Moore, "ACC Year-End Situation & Outlook (November 2023) American Chemistry Council", American Chemical Council, 27 November 2023.
- 42. S&P Global Market Intelligence, "Private equity buyout funds show longest holding periods in 2 decades" accessed 17 January 2024.
- 43. Ira Kalish, Global economic outlook 2024, Deloitte Insights, 2024.





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