

Rethinking the Global Chemicals Supply Chain

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The chemicals supply chain has always been global, because certain raw materials can only be sourced from, made in or distributed to certain areas of the world. Chemical manufacturers' supply chains are oftentimes especially intricate, with many sourcing materials from one location, but manufacturing products with those materials in another and then distributing the end products to dozens of countries around the world. For example, Gaylord Chemical Company, a Louisiana-based manufacturer of environmentally safe, non-toxic solvents used in agriculture, microelectronics, pharma and other industries, serves customers in more than 40 countries because their products are difficult to manufacture in other locations due to the direct connection to the raw material source (Lincoln International advised Gaylord on its [October 2018 sale](#) to EagleTree Capital).

Today, [global competition](#)—especially from new players in Asia and the Middle East—is growing, with raw materials prices increasingly volatile because of political and economic uncertainty. Such trends are driving rapid consolidation in the sector, highlighted by the significant merger between Dow Chemical Company and DuPont, high M&A activity of multinational players, major investment efforts like the Sadara project, as well as various divestments of non-core assets. For the latter, the sale of Covestro's European system house business to HIG Capital is a good example (Lincoln International advised [Covestro AG](#) on its sale to HIG Capital in 2019).

Since 2011, China has the largest chemicals sector [globally](#) because of its relatively historically lax regulatory environment as well as the strong domestic demand, among others. However, COVID-19 as well as stricter government-imposed environmental regulations and ongoing US-China trade tensions has impacted its supply chain. COVID-19 also disrupted supply chains around the world, negatively weighing on the manufacturing of pharmaceuticals and medical supply products, in which chemicals and advanced materials play a key role.

Chemical products, like coatings, are often formulations of several globally sourced substances. If one component, such as an additive is not available, then the entire production can be stopped. As a result, the chemicals sector will most likely take steps to diversify its supply chain. This could take shape in the form of consolidating certain production activities and warehouses in China or elsewhere nearby, opening new regional manufacturing hubs around the world or the strict execution of a second source strategy, likely "on-shore" or "near-shore."

The decrease in demand across many industries during the pandemic is expected to meaningfully decrease the demand for chemicals and materials. Production of many durable goods, particularly automotive, has declined dramatically. Specialty

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materials going into commercial aerospace applications will also be impacted as the industry recovers from a sustained period of decreased travel. In response, many chemicals players have announced the reduction of capital expenditures, or the outright cancellation of upcoming projects. There have been some bright spots, however, such as paint sales for repair and remodeling projects and increased demand for chemicals and materials that support health, hygiene and medical applications.

STRATEGICS WILL PROACTIVELY FOCUS MORE ON SUSTAINABLE CHEMICAL INVESTMENTS

The growth of sustainable investment is not a new trend, but it's certainly a growing one—with new opportunities in the chemicals space. Strategics are likely to get ahead of certain, expected regulatory requirements by investing more heavily in sustainable chemical products.

Growth of Sustainable Investing

Globally, more than [2,100 organizations](#)—representing \$81 trillion in assets—have signed on to the UN's Principles for Responsible Investing, which commits asset owners and investment managers to more responsible investment practices.

For example, several global proposals to control pollution from per- and polyfluoroalkyl substances (PFAS), synthetic chemicals that do not break down in the environment, are in the works. Denmark, Luxembourg, the Netherlands and Sweden have proposed [Europe's first formal policy](#) to control PFAS as a class. The US has seen its [own versions](#) of such proposals, and the [UN Environment Program](#), meanwhile, is negotiating the terms of its Strategic Approach to International Chemicals Management program beyond 2020, when the current terms expire. Todd Haynes' November 2019 theatrical release of "Dark Waters" has further stirred the public's interest in PFAS, raising pressure on US lawmakers for further action.

One example of how strategics are responding to such policy shifts—along with the growing public push to more responsibly invest—is the [December 2019 deal](#) in which Green Fiber International, a California-based company that processes and recycles more than 4 billion plastic bottles annually, was acquired by Indorama Ventures, a Thailand-based global plastics and chemicals company looking to gain greater access to the US sustainability market (Lincoln served as the sell-side adviser to Green Fiber).

Riding the larger sustainability wave, the global bio-based chemicals market is also expected to pick up this year. In 2017, the market was valued at nearly \$9 billion and is expected to see a compound annual growth rate of almost [13% by 2025](#). As technological advancements support chemicals companies in shifting away from raw materials to bio-based ones, strategics will race to capitalize on such innovations. For example, Bioengineering company Genomatica [recently announced](#) that it used a renewable fermentation approach to create nylon-6, a polymeric material used to create products across various industries.

COATINGS: STILL A GROWING OPPORTUNITY

Coatings represent unique opportunities for investors because of their crucial role in various sectors including the healthcare, technology, construction and auto industries. Following the COVID-19 pandemic, we expect to see continued consolidation in coatings, especially among mid-sized and larger players, although certain targets may be less attractive if they are serving industries that experience sustained decreases in demand. In mid-2017, for example, Sherwin-Williams, the third-largest coating provider as of 2016, acquired Valspar to become the second largest global coating producer. We'll also expect that the major players will continue to "fight" for the small to mid-sized – often family-owned – specialists in highly competitive M&A processes. A good example therefore is the acquisition of Schmid Rhyner – a specialist in UV curing coatings for packaging materials – by the German specialty chemicals company Altana in 2019 ([Lincoln International advised Conzeta AG on the divestiture of this transaction](#)).

Investors typically pursue these transactions, which on average take place with multiples over 10x EBITDA, because they allow:

- The complementation of a product portfolio to create new solutions or packages
- Access to new customer groups or an increased share of wallet with key customers
- Access to innovative products or technologies, new knowledge and operational capabilities to enhance competitiveness
- Regional expansion—especially in Asia, where demand is growing
- High operational synergy potential

Looking ahead, the coatings subsector will focus on refinements in raw materials to make them compatible with more environmentally friendly formulations. Types of coating R&D initiatives that are working towards "smart coatings" include:

- Those applied to plastic that can be detected to facilitate recycling or stripping
- Ones that can protect product identities such as trademarks
- Sensor coatings with an antenna function
- Coatings that change color if an appropriate stimulus is present
- Coatings with photovoltaic activity
- Coatings that capture airborne pollutants such as formaldehyde

LINCOLN PERSPECTIVE:

Lincoln International sees four key dynamics impacting the chemicals sector in the near term:

- 1 A wider PE net:** Gone are the days when only chemicals-focused private equity funds entered the space. We expect to see more general PE funds investing in the sector, with chemicals companies trading into the double digits.
- 2 Increased Mid-Market M&A activity:** Major strategics in the market will increasingly focus on bolt-on acquisitions to withstand the high pressure of competition in their core sectors. On the other side, family-run businesses in the space will increasingly look to exit their businesses ahead of economic and political uncertainty as well as the increasing consolidation.
- 3 Carve-outs will continue to be in demand:** Motivated by continued high multiples—particularly in specialty chemicals—strategics will continue to pursue increased chemicals carve-outs. Strategics who have made acquisitions in the space will look to divest non-core and underperforming assets in a bid to boost profitability and further specialize.
- 4 Onshoring of Active Pharmaceutical Ingredients (APIs):** Increasing geopolitical tensions and the strain on key medical supply chain processes as a result of COVID-19 are driving companies to move towards onshoring chemicals that are critical to national security, such as APIs. The US outsources 72% of API production and there is bipartisan political support on the topic with concern expressed on both sides of the aisle (e.g., Rubio, Warren). As countries have implemented or threatened selective export bans on APIs and other medical products, the pitfalls of foreign dependence have been magnified, which is creating an environment conducive to further onshoring. There are opportunities for companies to utilize advanced manufacturing solutions to mitigate labor cost differentials in onshoring API production. For example, (the FDA's advanced manufacturing initiative continues to support these solutions).

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