

Compass 2010

Global chemicals sector outlook

As the global chemicals sector emerges from one of the worst economic crises in history, industry executives are trying to assess the nature of the recovery and its durability. Many questions remain, most of them focused on end-market demand across North America, Europe, and Asia. Companies are taking a fresh look at their corporate strategies to test whether underlying assumptions still hold true. How will the chemical sector fare in 2010? What will the future hold for the next decade?

A panel of Deloitte member firm chemical sector leaders from around the world assembled to help answer some of these and other pressing questions. The participants included Tim Hanley, chemical sector leader, Deloitte Touche Tohmatsu (DTT) Global Manufacturing Industry, member firm specialists, Tom Marriott and Duane Dickson in the United States, Willem Vaessen in the Netherlands, and Kai Goebel in Germany.

Q: How would demand best be characterized at this stage of the economic recovery?

For 2010, gradual recovery in end markets is anticipated as demand regains its footing. With a sharp drop in demand in 2008, followed by a reduction of inventories in early 2009, the stage was set for a moderate rebound during the second half of 2009 — a rebound that was primarily due to restocking and government stimulus spending on infrastructure projects. Although global economies have benefited from stimulus money, it is unlikely to have a sustained positive impact on growth.

Underlying market demand has started to pick up, but is uneven across major end markets. There are some signs of optimism in the automotive industry in North America.¹ Although new car registrations are up in Europe for 2010 by 12.9 percent, they are not yet at the level needed to trigger a temperate recovery in the chemicals sector. The



European automotive industry represents more than 20 percent of the chemicals sector's end customers and a fluctuation in automotive sales can have a great impact on the revenue returns in the sector.²

Aviation, which is also a significant industry for the chemicals sector, is expected to be sluggish.³ There are good signs ahead for construction, an industry that employs new technologies and reacts to global megatrends including, for example, the use of green building materials that increase energy efficiency.⁴ The upswing in construction, due to public service construction projects allocated from the US\$3.6 trillion stimulus money injected into the global economy,⁵ should lift demand for the specialty chemicals sector. On another positive note, the electronics industry measured a 13.8 percent year-on-year sales increase⁶ and pharmaceuticals' projects an average 8 percent boost in sales⁷. But, while improving demand is encouraging, most major end markets are not expected to recover to 2007 levels until the middle of the decade or later (see Figure 1).⁸

On a regional basis, demand in the U.S. is, at best, flat. In Europe, there is a sense of uncertainty related to the economy, due to rising concerns over budget deficits in Portugal, Ireland, Italy, Greece, and Spain.⁹ This pressure is creating further uncertainty in the sector with little optimism for increased demand levels. If there is a source of strength in the sector, it is in the Asia-Pacific region, particularly China, as government stimulus has proven to be successful in mitigating the effects of the global recession. With China's injection of US\$586 billion in stimulus spending and the indirect impact on the chemicals sector, companies are questioning if they should be placing even bigger bets on China and the Asia-Pacific region. It is not surprising that China is leading the growth in the chemicals sector while the U.S. and European markets remain weak.

¹Original Equipment Suppliers Association (OESA): "Automotive supplier barometer" presentation, January 2010

²European Automobile Manufacturers' Association (ACEA): "New passenger car registrations, European Union," press release, February 16, 2010

³Aerospace Industries Association (AIA): "2009 Year end review and 2010 forecast," AIA Research Center, December 2009

⁴CIS: "Construction activity is expected to pick up in 2010 and beyond, led by developing countries, as well as green technologies," January 15, 2010

⁵DTT Manufacturing Industry: "Deloitte says more is needed to revitalize ailing automotive industry," March 2009

⁶ElectronicsWeekly.com: "2009 Outlook improves, growth expected in 2010," October 2, 2009

⁷Drug Topics: "Drug Topics' 2010 business outlook survey," December 11, 2009

⁸DTT Manufacturing Industry and Deloitte Research (United States) report: "The decade ahead:

Preparing for an unpredictable future in the global chemical industry," December 2009

⁹Reuters: "Three-way poker in Greek debt crisis," February 22, 2010

Figure 1: Global end-market revenues (US\$)

Global end markets	2007	2008	2009	2007 to 2009 growth	2014	Return to 2007 levels
Energy and petroleum (E&P)	\$2,606	\$3,356	\$2,036	-22%	\$2,985	2013
Automotive	\$2,022	\$1,909	\$1,705	-16%	\$2,252	2012
Electronics	\$219	\$220	\$199	-9%	\$257	2011
Printing	\$430	\$446	\$411	-4%	\$466	2011
Aerospace and defense	\$143	\$148	\$140	-2%	\$156	2010
Personal care	\$179	\$186	\$190	6%	\$234	n/a
Pharmaceuticals	\$810	\$850	\$875	8%	\$1,075	n/a

Source: IBIS estimates — revenues at constant prices using 2009 as base year.

Q: What are the key lessons from the downturn?

Companies that managed the downturn effectively were those that implemented and executed pre-existing contingency plans and also had the strategic instincts to act aggressively when demand began to decline. With 2010 heralding tighter management decisions and controls, executives have learned to better manage cash flow, liquidity, employment of capital, and to deploy flexible human capital strategies that will meet market demand. Companies now have the insight to focus recovery efforts based on the new, reset environment rather than one that anticipates a return to pre-recessionary levels. Because of this shift in strategy, chemical companies are rediscovering the importance of controlling structural costs and spending to preserve margins.

As executives plan for 2010 and beyond, significant attention is focused on developing agile and flexible business models that can withstand difficult business scenarios. During the downturn, many integrated and specialty chemical companies discovered that businesses they believed less sensitive to the business cycle performed at the same pace as their commodity businesses. This behavior has driven companies to take a very close look at their business portfolios to assess which businesses are positioned to thrive and create enterprise value in the new environment.

Having a keen understanding of market behavior in turbulent times can also be a valuable business tactic for driving the success of a company. In one instance, a company reacted quickly with price reductions early in the downturn, enabling it to maintain capacity utilization at optimal levels and deliver better results than their competitors.

Q: What are the key areas where chemical companies will make changes over the course of 2010?

Chemical companies are taking a close look at their overall business objectives and value propositions to help address some of the leading global megatrends. These include finding and using alternative energy solutions, combating the scarcity and improving the quality of water, reducing greenhouse gas emissions, improving agricultural yield to feed growing regional populations, increasing the safety and efficiency of infrastructure, and developing lightweight products with superior properties. By developing products that contribute to helping solve some of the world's biggest challenges, chemical companies see long-term opportunities for growth and brand recognition.

Over the last several years, the chemicals sector has removed process and organizational costs from the system. The downturn has forced companies to cut back even more, and now many have reached the point of diminishing returns. That said, some of the one-time cuts will return as the market normalizes. Companies will need to hire talent, unfreeze salaries, and pay bonuses. This will force a harder and more focused look at structural costs.

Companies will also need to address their capacity excess and competitiveness. Those with assets in the developed markets are being challenged by larger scale and more flexible capacities from the Middle East, China, and India. The assets in Western Europe and the U.S. are aging and more inflexible (with Western Europe having greater percentage of inflexible naphtha-based crackers). That apart with raw material and input prices rising, coupled with weak demand in the end markets, there is a squeeze on price and margin from both the customer and supplier side. Historically, the strategy has been to either reduce capacity utilization or adjust prices to counter the issue. But the lack of pricing power, due to industry overcapacity

and softness in western-market demand, coupled with the expectation for rising feedstock costs in 2010 render both of these measures shortsighted. Near-term solutions aside, companies will still need to take a hard look at capacities and rationalize especially in the western hemisphere. They will also need to handle the rise in energy costs to drive efficiency across manufacturing.

Transforming business models will likely move from a debate to reality in the 2010. During the year, companies will likely take steps towards restructuring and testing their business models to address new constraints and competitive realities. Establishing this capability will be necessary to survive over the long term. Yet, the broader question of who makes the first move remains unanswered. Will it be the chemical companies addressing new realities or will it be the private equity players looking for profitability and a new role in the industry given the emergence of low valuations and moderate cash positions?

Growing the customer base is another key objective. However, there are challenges associated with the changes resulting from the downturn. Chemical companies are recalibrating their value propositions to meet changing customer preferences. Portfolio management has taken on increased importance as companies with a combination of commodity and specialty businesses take a fresh look at those that should continue to run as specialty products and receive capital growth opportunities.

Q: How is the climate for M&A in 2010?

Although mergers and acquisitions (M&A) are a strategic priority in the chemicals sector, deals were down by approximately 40 percent in 2009 from the previous year.¹⁰ With the credit markets still under distress, companies are neither rushing nor able to make acquisitions. Yet, many are actively evaluating targets to complement their current mix of businesses. M&A activity should increase over the course of 2010 as credit markets improve and valuations become more attractive.

In 2010, integrated and specialty chemical companies will rationalize their portfolios while also evaluating capacities. Cash-strapped players, commodity, and some specialties stuck with sub-marginal production will look to sell negative value assets. Strategic buyers who emerged from the recession with strong balance sheets will be the primary dealmakers. However, the speed at which they move over the course of 2010 will underscore the success they can achieve through acquisitions.

Financial buyers are also expected to be active over the course of the next decade. However, their role may differ from the one played in the previous business cycle.

Then, they purchased assets, improved valuations, and exited profitably. Now, they will have the opportunity to accumulate from multiple players, albeit with the requirement of putting related assets together to be able to drive valuations. This may mean that private equity players could play a leading role in the restructuring of the industry. The year 2010 might also see greater collaboration between chemical companies and private equity players to solve problems instead of competing to buy assets.

In the Asia-Pacific region, companies are looking to expand their presence by growing their existing footprint rather than using acquisitions to increase market share. Although there are opportunities, it is more challenging to complete a transaction in Asia due to the risk involved and the intricacy of planning. Therefore, companies will be very cautious in pursuing acquisitions in the near term.

Q: How are leading specialty players going to combat commoditization?

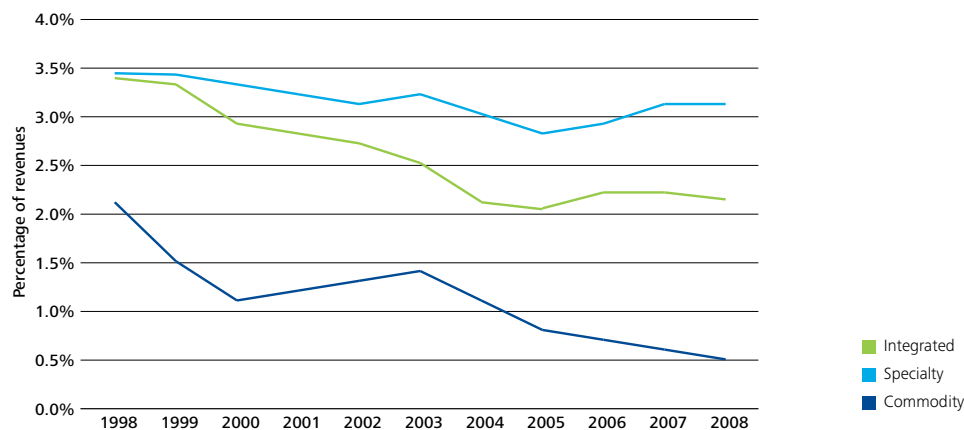
The downturn brought the reality of commoditization home to the specialty chemicals sector. Companies that believed they were less sensitive to cyclicalities have discovered they had been thinking wishfully. Leading companies today are addressing commoditization by re-evaluating strategy and tactics.

Through strategic initiatives, there is an increased focus on customer behavior. Enabled by deep insights into customer buying preferences, specialty companies are able to ruthlessly remove or recalibrate the cost of products or services to maintain margins and prices. Companies are also investing more time scanning the external environment for the optimal acquisition and divestiture opportunities and becoming more realistic about the need to divest businesses that would have greater value-creation potential under a different owner.

Through tactical initiatives, specialty companies will look to eliminate the concept of marginal contribution (except for short-term decisions). Shortening the time executives have to restructure businesses that fall short on a full-cost basis will add to the bottom line. Raising the hurdle rates on venture activities and evaluating or eliminating projects that cannot achieve cost of capital returns will increase profits. Learning to manage supply as a value-added distributor — owning or controlling what is competitively advantageous but declining to distribute products that customers may need, but not willing to pay premium to obtain, creates a strategic advantage. Providing high-demand, profitable services to customers, while eliminating those that are in low demand and less profitable will streamline the business.

¹⁰ ICIS: "Global chemical market to rebound in 2010," November 12, 2009

Figure 2: R&D as a percentage of revenues: 1998 to 2008



Source: Bloomberg data and DTT Global Manufacturing Industry analysis.

Q: To what extent is the chemical industry facing an innovation dilemma?

Although government stimulus was used as a source for funding research and development (R&D) programs in early 2009, chemicals sector R&D spending and its output have declined over the past two to three decades due to the large expense and long-term commitment needed to bring an idea to market (see Figure 2). As the sector continues to evolve and recover from the economic downturn, this trend could very well continue. In the United States, R&D spend for 2010 rose modestly, by 2.85 percent, but still lags behind R&D spending in 2008. In Europe, R&D budgets will continue to decline as a recovery is still underway. However, indicators forecast that developing countries, including Brazil, India, and China will lead R&D growth.¹¹

In addition to helping to solve some of the world’s major global issues, chemical companies are addressing the growing demand to focus R&D efforts on green chemistry. This is leading to the design of chemical products and processes that reduce or eliminate the use or generation of toxic substances across the life cycle from design to manufacture and use. Government grant money is being allocated to support some of these developments and is presenting the opportunity for chemical companies to partner with academia and niche technology entities to bring ideas to market.

R&D can be a challenging task for any company to manage — finding and delivering breakthroughs will likely require contrarian behavior. While most companies continue to cut R&D spending, either to protect margins or maintain R&D yields, there are companies focusing their

long-term business strategy on solutions critical to society. Over the next few decades, the keys to these innovation efforts will include efficiency in commercialization, plugging into a global innovation network, and focusing on key technology areas in energy, health care, and climate change.

Conclusion

The chemicals sector is expected to see only a modest uptick in growth in 2010.¹² Much depends on the performance of the end markets, particularly construction and automotive. Chemical companies will need to prepare for the next decade by using the lessons learned from the economic downturn to take a closer look at their overall business objectives and align their value propositions to address some of the leading global megatrends. Specialty companies will have to contend with the growing commoditization of their businesses. Adjusting to the new realities may mean divestiture of non-core assets. The innovation dilemma will continue to challenge companies, but provide much needed growth opportunities to meet future demands in energy, healthcare, and climate change. 2010 is the year when the chemicals sector needs to come to terms with new market realities. Change will take place on several fronts. Excess capacity may be rationalized to mitigate input price volatility and the nature of assets in the developed countries. Diminishing returns from cost-cutting measures may force structural change. Business models will be challenged and redefined to ensure new market realities are addressed. This year, the pace of portfolios restructuring will pick up and spur both strategic and financial M&A activities. The chemicals sector is at an inflection point — this makes 2010 an interesting year where new concepts, business models, and operating structures will show their importance to the vitality of the sector over the course of future decades.

¹¹ R&D: “2010 Global R&D funding forecast: An overview,” December 22, 2009
¹² Society of Chemical Industry: “Down but not out,” January 11, 2010

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