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Chemicals Practice

Beating the cycle: Building resilience in chemicals

Economic downturns take their toll—and chemical companies are no exception. Our research finds companies that increased resilience in the last downturn made bold moves.

by Obi Ezekoye, Avinash Goyal, Laura Millroy, and Georg Winkler

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The global economic outlook has become decidedly more volatile. Some of the reasons include trade tensions between China and the United States, long-standing tensions in the Middle East, the looming anxieties of Brexit, and the rise of hardline economic nationalism. And while no one knows exactly when the next economic downturn will occur, such events tend to be cyclical.

Chemicals is often referred to as the industry of industries, as its products flow into nearly every category of business. This means that chemical companies are significantly affected by economic slowdowns. Therefore, we set out to determine which companies fare better in times of economic crisis and why. Of course, an economic downturn isn't the only challenge chemical companies face. An increased focus on sustainability, activist shareholders, and changing consumer tastes and preferences are major issues that require their own answers. Our research, however, focused on how to weather the economic effects of recessions.

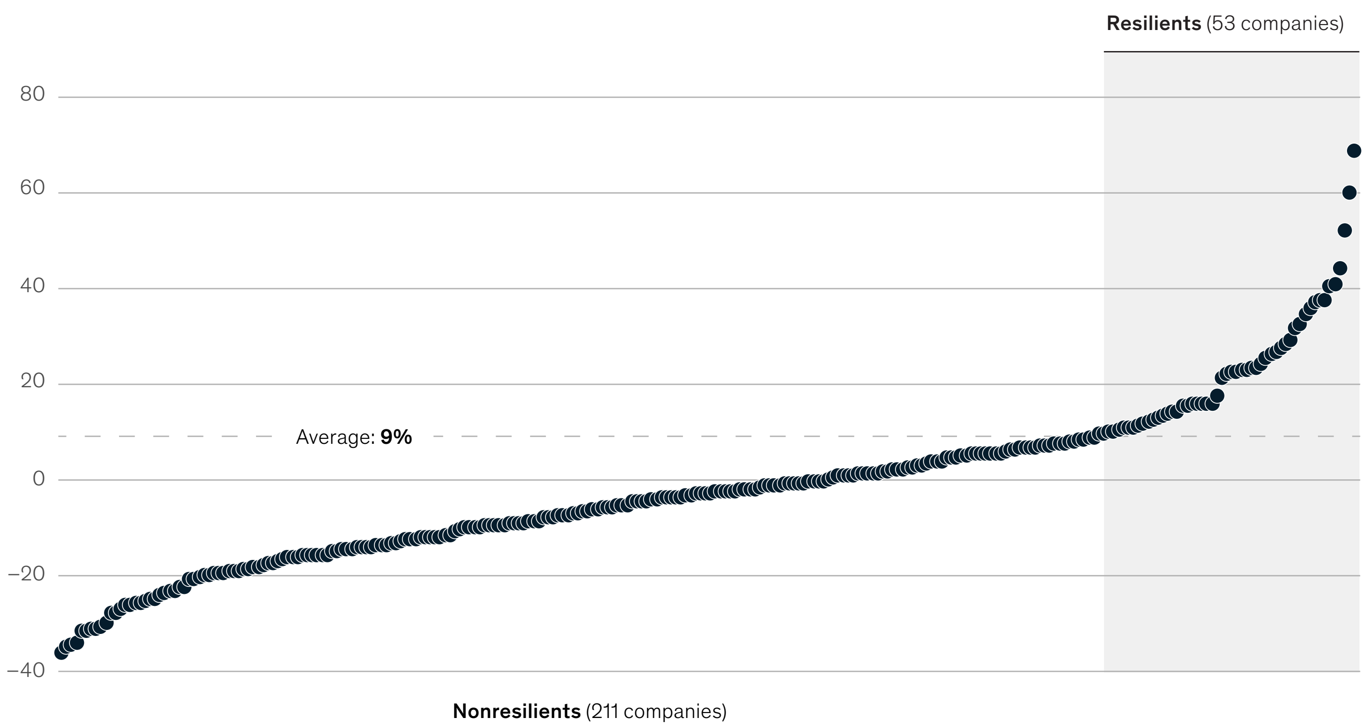
As expected, not every organization fares the same during an economic downturn. We analyzed the paths of the 264 largest publicly listed chemical companies worldwide and found that during the 2007–09 downturn, about 20 percent of those companies performed materially better than the rest (Exhibit 1).[1] We refer to these companies as "resilients"—industry leaders that can weather conditions that weaken their competitors. Based on what we learned, we assembled a resilience playbook that chemical companies can adopt to stay ahead of the curve.

[1] As previously mentioned in Martin Hirt, Kevin Laczkowski, and Mihir Mysore, "Bubbles pop, downturns stop," *McKinsey Quarterly*, May 2019, McKinsey.com.

Exhibit 1

Few companies proved to be resilient through the last economic downturn.

Total shareholders return for 264 largest publicly listed chemical companies, 2007–11, %



Source: Capital IQ; McKinsey analysis

What resilient companies did differently

Industry effects matter, but they are not the deciding factors—every industry has resilients. For example, we found gaps in performance between resilient and nonresilient companies in industries such as petrochemicals, catalysts, and coatings. Generally speaking, resilient companies took action in areas where their competitors did not.

As part of our research, we compared the total shareholder returns performance of resilient chemical companies to the median S&P 500 companies and nonresilient players from 2007 to 2018 (Exhibit 2). Not only did the resilients perform better in the downturn and during recovery, but they were also able to maintain this advantage and outperform their peers in the growth phase.

We determined that resilient companies distinguished themselves by taking five decisive actions:

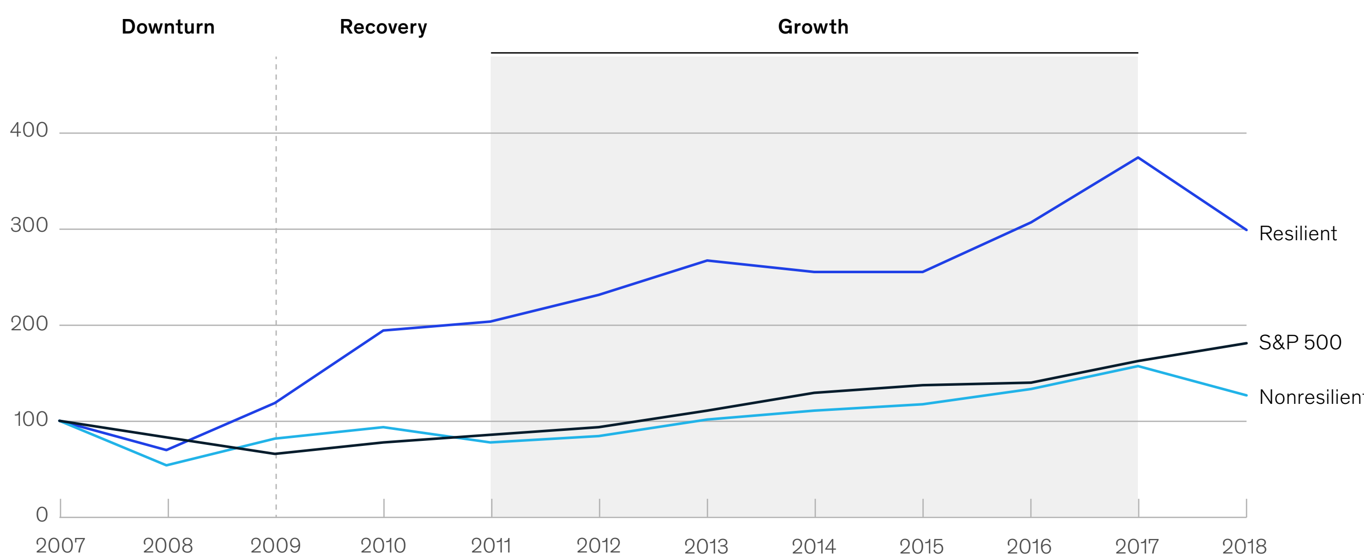
1. preparing the balance sheet ahead of time
2. staying focused on economic profit—even in a downturn
3. cutting costs quickly and keeping them under control
4. restructuring proactively and decisively
5. divesting in the downturn, then acquiring at lower rates early in the recovery

What is immediately evident from this list is that resilience is not informed just by what companies do during a downturn but also how they prepare beforehand—and how they act afterward. Increased

Exhibit 2

While the last economic downturn was severe, some companies flourished.

Total shareholders return, indexed to 100 (FY 2007)

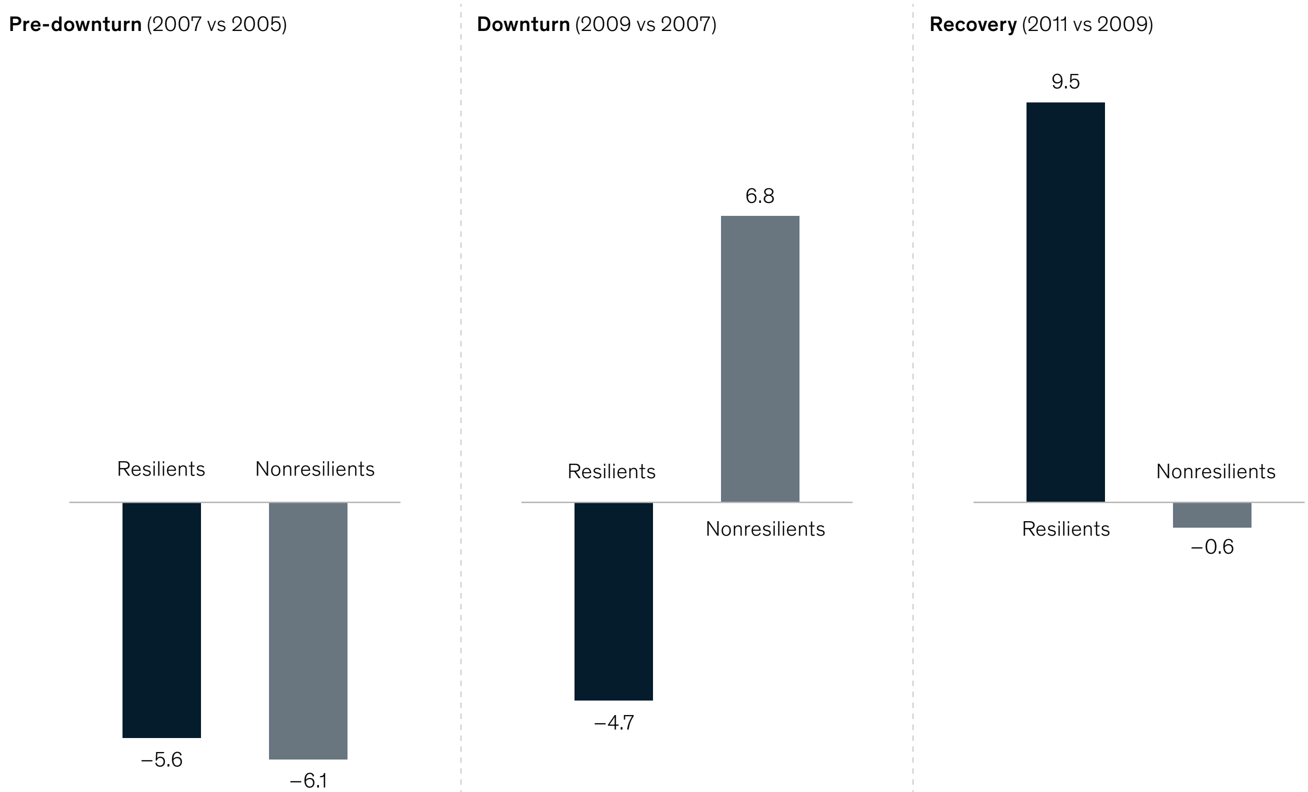


Source: CPAnalytics; McKinsey analysis

Exhibit 3

Resilients prepared their balance sheets ahead of time.

Change in operating costs,[1] leverage (total debt divided by total common equity), percentage points



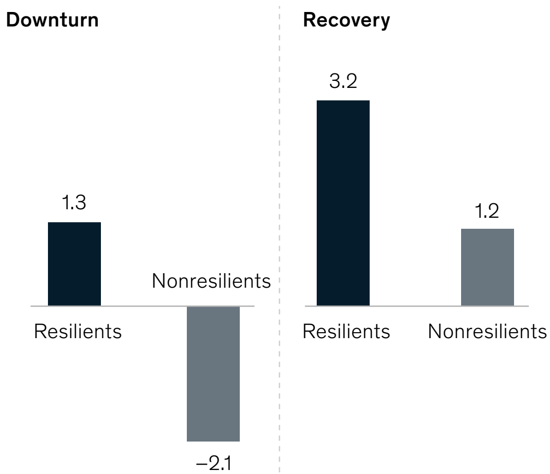
[1] Operating cost calculated as revenue minus EBITA.
Source: CPAnalytics; Capital IQ; McKinsey analysis

The most successful companies moved decisively and ahead of the downturn. As a result, they suffered fewer losses, gained an advantage over competitors during the recovery, and kept that advantage during the ensuing growth phase.

Exhibit 4

Resilients flourished during both downturn and recovery.

Economic profit, percentage of point change (as % of revenues) in downturn (2009 vs 2007) and recovery (2011 vs 2009)

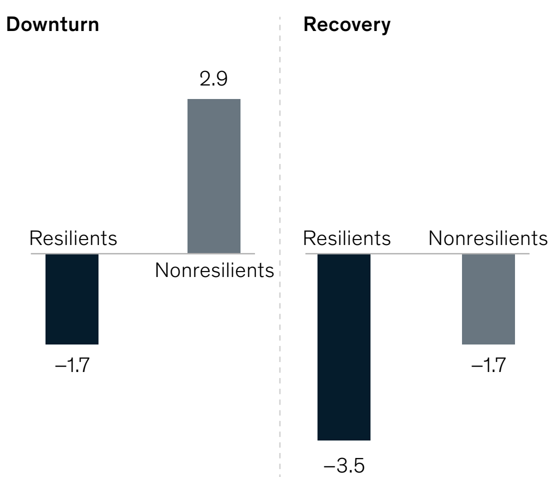


Source: CPAnalytics; Capital IQ; McKinsey analysis

Exhibit 5

Resilients were more conscious of costs than their peers.

Operating costs,[1] percentage of revenue, change in downturn (2009 vs 2007) and recovery (2011 vs 2009)



[1] Operating cost calculated as revenue minus EBITA.
Source: CPAnalytics; Capital IQ; McKinsey analysis

resilience pays off in every stage of this cycle. The most successful companies moved decisively and ahead of the downturn. As a result, they suffered fewer losses, gained an advantage over competitors during the recovery, and kept that advantage during the ensuing growth phase.

Preparing the balance sheet ahead of time

Attending to the balance sheet is best done during times of economic stability and can better enable flexibility when and where it matters. Resilient companies that reduced leverage before and during the downturn used the increased headroom for investments during the recovery phase, while other companies struggled (Exhibit 3). As a result, the gap of approximately one percentage point before the downturn widened to more than ten percentage points during downturn and recovery, revealing significant differences in investment strategies. Resilients also increased their cash balances significantly during the last downturn.

Staying focused on economic profit—even in a downturn

Despite the economic downturn, resilients managed to increase profits, whereas nonresilients faced declining profits. This trend continued during the recovery, as resilients increased their share of profits approximately two percentage points faster than their peers (Exhibit 4).

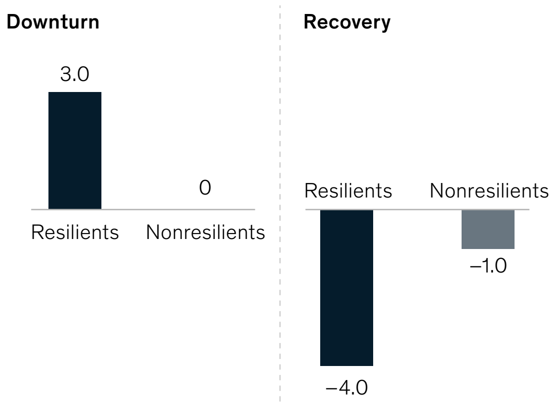
Cutting costs quickly and keeping them under control

Resilients managed to reduce costs quickly during the downturn, and they were also able to keep them low as they moved into recovery. While no one knows when a downturn will occur, it's fair to say that resilients were prepared earlier and made moves faster (Exhibit 5).

Exhibit 6

Resilients restructured decisively.

Restructuring charges,[1] % of EBITDA change in downturn (2009 vs 2007) and recovery (2011 vs 2009), percentage point



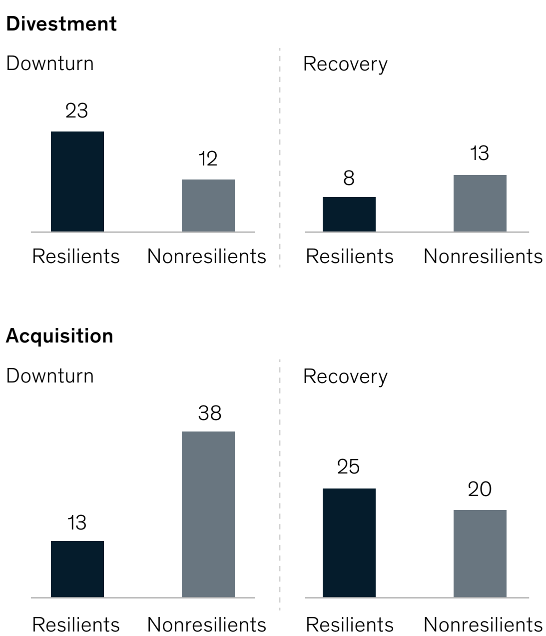
[1] Below the line restructuring charges as per financial reporting. Restructuring cost for resilient players were on average 5% of EBITDA in 2019, compared with 2% of EBITDA for the nonresilients.

Source: CPAnalytics; Capital IQ; McKinsey analysis

Exhibit 7

Resilients divested in the downturn.

Inorganic activities,[1] % by type of activity



[1] Announced deals above $10 million (excluding withdrawn or cancelled deals) for target chemical industry.

Source: CPAnalytics; Capital IQ; McKinsey analysis

Restructuring proactively and decisively
Resilients made quicker and more impactful restructuring decisions during the downturn. Compared with their nonresilient peers, they invested earlier in efforts that helped them adjust to the new economic landscape (Exhibit 6).

Divesting in the downturn, then acquiring at lower prices during the recovery
While resilients already entered the trough with more financial flexibility, they also created more flexibility by divesting suitable businesses in the downturn. Resilients increased their acquisition activity during the recovery when prices were cheaper than at the peak, using their deeper cash reserves to acquire assets while their peers were selling off at lower prices (Exhibit 7).

What will be different the next time?

At the time of writing this article, the most recent financial crisis lies ten years behind us. And while that might not seem like a lot of time, the world has changed significantly during those ten years. In 2008, for example, the iPad did not exist, Netflix only shipped DVDs, and Amazon had fewer than 30,000 employees in the United States (compared with almost 650,000 in 2018).[2] It begs the question: What will the world look like during the next economic crisis?

Three factors will likely affect chemical companies during the next downturn.

Geopolitical challenges
Uncertainty around political stability results in volatility and pressure in the market. For example, trade tensions create uncertainty in demand sectors for chemical products. China's slowing demand and increased local production have put pressure on traditional exporting regions and could lead to a further regionalization of the chemical industry.

[2] Number of Amazon.com employees from 2007 to 2018, Statista, August 19, 2019, statista.com.

In addition, regulatory changes and societal expectations will fundamentally change the chemical sector—for example, the impact of decarbonization and the transition to a more circular economy.

Individually, each of these events could have far-reaching repercussions. Taken together, they might foretell an even more seismic change.

Operations on 'the edge' of traditional cost opportunities

Traditional cost-reduction programs are at their limits. What supported resilience in the previous downturn has now pushed operations closer to the edge—and will no longer be sufficient the next time around. Further improvements in resilience will require more than what traditional levers offer to improve agility, flexibility, and productivity.

Rather than simply cutting costs, resilient companies have protected their R&D expenses; stepped up innovation in how they produce, distribute, and manage waste; and changed to agile practices and organizations.

Digitalization of chemical companies

The accelerating pace of digitalization has changed competitive dynamics in significant ways, and the gap in capabilities between digital leaders and trailing companies has only become more pronounced. As a result, the next downturn will present significant challenges.

Many chemical companies have started to invest in developing digital and analytics capabilities, in part as a response to the need for agile practices. Digital leaders will be able to rely on these capabilities to become more resilient while late-starting players run the risk of falling further behind. Therefore, they might seek to cut back on these initiatives as cost pressure increases.

The resilience playbook for chemical companies

The fundamentals are relevant when preparing for the next downturn, but companies must still adjust their approach to take emerging trends or factors into account. Based on our analysis of the past decade, we see four ways chemical companies can increase their resilience.

Reshape the portfolio. The old adage still holds true: buy low and sell high. Our research shows that resilient companies sell early and buy during the recovery period. Therefore, executives should review their business portfolio to align with business strategy. They will need to identify which assets are core, which ones aren't, and which ones should be sold. Further action can be taken to increase the debt-to-equity ratio and review nonoperating assets.

Accelerate functional excellence with digital and analytics. Digital capabilities are integral to managing the next crisis with as much momentum as possible and then coming out ahead. Players that apply digital at scale are more likely to see significant impact, especially in functional areas. In manufacturing, for example, digital technologies can help increase yield and throughput and lower the cost of energy. This means that chemical companies can produce more in the upturn, and that they can produce the same amount with fewer shifts and input materials and less energy in the downturn. On the commercial front, companies can use dynamic pricing to achieve better margins—for example, parachuting prices when raw materials prices decline. Additional losses can also be avoided by more quickly identifying customers at risk of churning.[3]

These capabilities—and the impact they deliver—can give digital leaders a significant advantage during the next downturn. For example, companies can use improved yield and throughput to reduce

[3] For more on improving functional excellence using digital and analytics, see Dennis Ducro, Olivier Noterdaeme, Malgorzata Sliczna, Ken Somers, and Joris Van Niel, "A guidebook for heavy industry's digital journey," June 2019, McKinsey.com.

shifts, close lines, or consolidate production in fewer sites. They can also use their superior speed, granularity, and precision in pricing to better protect margins.

Turn around underperforming businesses. Executives should be prepared to cut early and cut decisively. It takes rigor and speed to manage the turnaround process successfully. Therefore, turnarounds should include all functional levers across industries, including commercial, manufacturing, supply chain, procurement, and general and administrative. Successful turnarounds also require full transparency across the entire business, efficient and speedy decision making, and rigorous performance management.

Ensure a strong cash position. Today's chemical companies have, on average, a better cash position than during the last downturn—but that should not be reason for complacency. Instead, companies should investigate which levers to pull to improve their balance sheet, such as the sale of unproductive assets or efforts to reduce operating expenses, among other opportunities. Each individual player should ensure that it creates and maintains a strong cash position to avoid being left behind in the next downturn. Executives should optimize net working capital and scrutinize capital expenditures. The stronger cash position can then be deployed to support agile portfolio moves during the recovery.

Increasing resilience for a downturn does not need to be a doomsday scenario. Rather, it should be seen as a preemptive effort to raise awareness among leaders on the benefits afforded to the organization. The actions taken by resilient chemical companies will require alignment across the organization, as well as focused and rigorous execution. It is our hope that the research presented here will help stave off the effects of the next downturn when it inevitably occurs.

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