INDUSTRY DEEP DIVE

What's behind the pharmaceutical sector's M&A push

There are lessons for other industries in the way pharma companies use mergers to innovate, work more efficiently, and bolster product portfolios.

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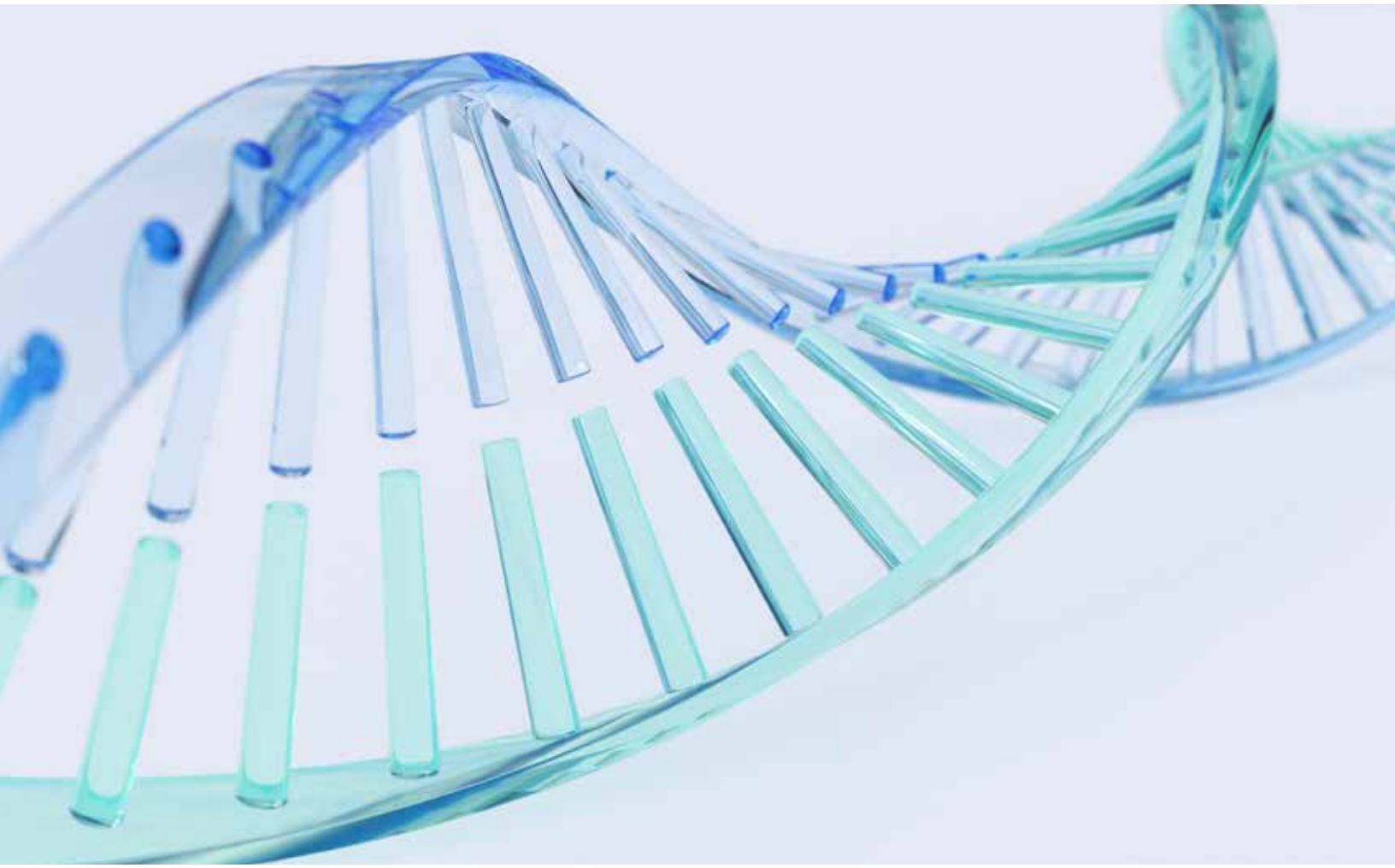


The passage of US tax reform in late 2017 led to speculation that merger-and-acquisition activity would soon surge among pharmaceutical companies, due in part to tax-cut benefits accruing to sellers. Indeed, that has come to pass: in the first half of 2018, there were 212 deals in the sector worth more than $200 billion, up from 151 such deals in the year-earlier period.[1]

That is impressive growth—but when viewed in a larger strategic context, such activity is not so surprising. The pharmaceutical sector's behavior is not unlike that in similarly acquisitive industries, like telecommunications, media, and energy, where new technologies are altering the cost of doing business and pushing companies to continually look outside for innovation. In this context, Big Pharma's high-volume dealmaking becomes the norm rather than the exception. And tax reform takes its place as just the latest in a series of market forces (blockbuster drugs, biotechnology, and so on) that have altered the way pharmaceutical companies have thought about and pursued dealmaking over the past decade or more.

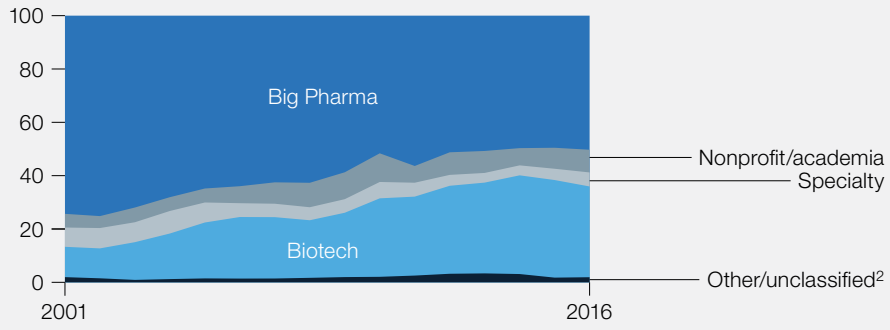
Over time, we and our colleagues have studied trends in the pharmaceutical industry and considered the questions: What are the perennial drivers of M&A in this sector, and how might these variables change in the coming months and years? In principle, there are three core motivations for pharmaceuticals executives to do deals—motivations that are illustrative for companies in other sectors as well.

M&A as a source of innovation

Large pharmaceutical companies have used M&A to bolster their innovation for a long time, and that isn't likely to change any time soon. Previous McKinsey research has shown that the share of revenues coming from innovations sourced outside of Big Pharma has grown from about 25 percent in 2001 to about 50 percent in 2016 (Exhibit 1). The

Exhibit 1 **The share of revenues coming from innovation sources outside of Big Pharma is rising.**

Revenues of all novel products by originator type,[1] % share

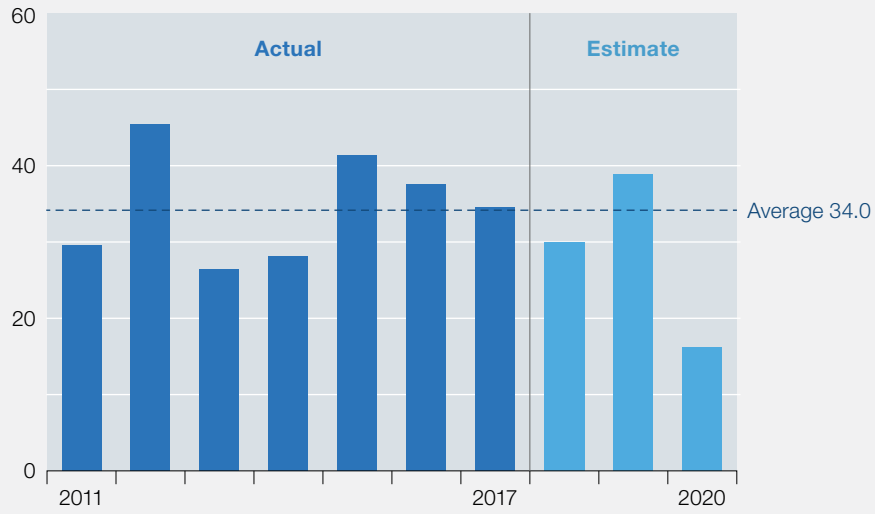


[1] New-molecular-entity (NME) compounds launched in a given year cumulated across half of the remaining exclusivity period (7–8 years), $ billion (3-year walking average). Includes all innovative compounds classified as NME or biologics license application, excluding generics, biosimilars, and new-drug-application products.
[2] Includes chemicals, consumer, generic, and unclassified companies.

Source: EvaluatePharma; Pharmaprojects; McKinsey analysis

Exhibit 2 **The total value of revenues at risk from patent expires over the next 3 years, for the top 25 pharmaceutical companies, is roughly $85 billion.**

Top 25 pharmacos worldwide, revenue at risk due to patent expirations,[1, 2] $ billion



[1] Measured as the sum of drug revenue from the year prior for all drugs with commercially relevant patent expirations in each year.
[2] Year of drug-patent expiration refers to the date of expiration of the first commercially significant patent in the drug's relevant key market.
Source: EvaluatePharma

development of a new drug requires high early-stage investment for what is often a low probability of success. At the same time, late-stage trials also require high investment and an ability to navigate complicated regulatory pathways—capabilities that larger pharma companies typically have. These dynamics create an industry profile in which smaller, creative companies end up funding innovation. Once their research is more advanced, larger pharmaceutical companies enter the picture, looking for the next "new" thing and ponying up the resources required to fund expensive late-stage trials and large commercial marketing campaigns. Regardless of trends, innovation in this industry is—and will remain—fragmented.

This past year, industry exuberance about several emerging classes of drugs prompted pharmaceutical companies to seek out acquisition targets. The median premium for the 16 publicly traded pharmaceutical companies acquired in the first half of this year was about 60 percent. The median premium for the six deals that took place in the first quarter was about 90 percent. Those first six deals primarily involved companies that have targeted immuno-oncology treatments and drugs to combat rare diseases—two medical fields that have attracted a lot of industry attention lately. For instance, Celgene acquired Juno at a 91 percent premium relative to the target company's stock price on January 16, 2018, the last day of trading before deal rumors emerged.

More generally, pharmaceutical companies' portfolios and pipelines continually need refreshing to account for inevitable declines in revenue when

patents on brand-name drugs expire and companies lose the right to manufacture and market them exclusively. It can be challenging to accurately predict patent-expiration dates, but consensus forecasts suggest that the total value of revenues at risk from patent expiries over the next three years, for the top 25 pharmaceutical companies, is roughly $85 billion (Exhibit 2).

This is a considerable sum, but it is still less than the revenues companies lost because of patent expirations in any average three-year period this decade. Additionally, pharmaceutical companies rarely wait until they've arrived at a patent cliff before adding to their pipelines. So, in isolation, this factor should not result in a significant increase in dealmaking activity compared with the past few years.

M&A to unlock synergies

Another motivation for M&A is to capture synergies by scaling up. Takeda, for instance, acquired Shire in May and expects to generate annual cost synergies of at least $1.4 billion three years after completion of the deal because of the companies' complementary product portfolios and organizational structures.[2]

Given the significant financial and operational gains possible from consolidation, the motivation for pursuing such deals isn't likely to change. Indeed, to gauge the future opportunity, we classified midsize and large pharmaceutical and biotech companies by margins and analyzed them.[3] The margin spread was broad: pharmaceutical companies with annual revenues exceeding $1 billion have EBITDA[4] margins ranging from under 20 percent to more than 50 percent, and biotech companies with annual revenues exceeding $1 billion have EBITDA margins ranging from about 30 percent to more than 50 percent. The results suggest that companies with high margin spreads have a tremendous opportunity to capture synergies by acquiring subscale portfolios.

Our research did not delve into specifics of value creation, but we did note that in the early 2000s, when overcapacity was widespread across the sector, the companies that made the biggest deals created the most value; synergies paid for the deal premium, and then some. More recently, however, the pharmaceutical companies that have been more selective in their dealmaking, and those that have supplemented even small deals with partnerships and licensing agreements have created the most value. The premium on innovation is big, and those who place the most bets are rewarded.

M&A to realign portfolios

Large pharmaceutical and biotechnology companies often engage in dealmaking to realign their portfolios—whether because their strategies have changed and they are looking to bolster their commercial pipelines or to jettison assets acquired in past deals for which they are no longer the best owner. In this regard, recent US tax reform may make it more attractive for US–based

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pharmaceutical companies to divest noncore assets now relative to prior years. Our colleagues have estimated that the after-tax proceeds from a divestiture could increase by about 23 percent for a typical business, because of lower taxes on the proceeds to the seller, as well as an increase in valuation resulting from a decline in after-tax cash flows.[5] We're already seeing some large health-care companies carve out nonstrategic assets from their portfolios.

In pharma, as in other industries, competition for the most compelling and innovative assets is likely to remain fierce and spur motivations for merger deals. Strategic acquirers are likely to continue to be aggressive about bringing in new innovations—through early licensing and partnership agreements, for instance—as a path to continued growth.

[1] Data are from Dealogic.com. It is important to note that M&A activity as measured by deal value can be volatile and skewed significantly by a single large deal. For instance, the recent announcement of a $62 billion deal between Takeda and Shire has significantly changed today's definition of "deal value" in the industry compared with the sector's definition of deal value a few years ago, when fewer megadeals were being conducted.

[2] "Proposed acquisition of Shire plc by Takeda," May 8, 2018, takeda.com.

[3] Note that this analysis should be considered "back of the envelope" as some variables associated with margin differential (for example, pricing, investments in a major product launch, and so on) may not be sustainable.

[4] Earnings before interest, taxes, depreciation and amortization.

[5] Obi Ezekoye, Jannick Thomsen, and Andy West, "Understanding how US tax reform will affect divestitures," *McKinsey on Finance*, April 2018, McKinsey.com.

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