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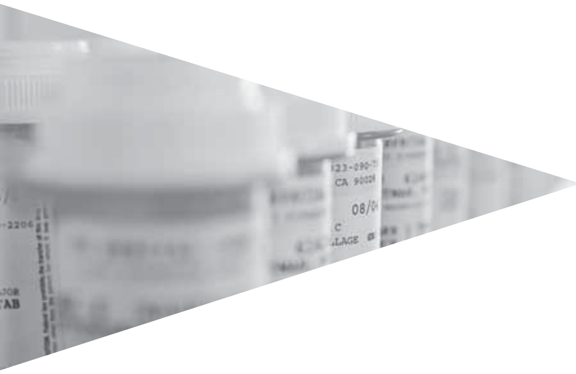
Perspectives from the
Ernst & Young
Global Life Sciences Center

Prescriptions



Closing the gap?

Big pharma's growth challenge and implications for deals

The challenge: pharma's growth gap

As big pharma companies drew inexorably closer to the patent cliff – and grew increasingly aware that their existing pipelines were insufficient to fill the ensuing revenue gaps – it became imperative to find additional ways to boost shareholder value to meet investors' expectations. In particular, these firms needed to find new sources of growth beyond their current drug portfolios.

In recent years, big pharma companies have undertaken numerous measures to drive shareholder value. In addition to fervent cost-cutting, they have downsized operations, spun off assets, restructured R&D, repurchased stock and increased dividends. These efforts will continue, but they are not, by themselves, a sustainable long-run solution. At some point, companies run out of fat to trim – and risk cutting into muscle and bone instead. Stock repurchases and raising dividends work in the short run – the 16 largest big pharma companies delivered total shareholder returns of more than 17% in 2012 – but ultimately require increasing operating cash flow. In the long run, therefore, big pharma inevitably needs revenue growth to create shareholder value in a sustainable way.

Growth, of course, hasn't been easy to come by. With anemic sales growth in developed markets, companies have looked to emerging markets as a key part of the solution. However, this strategy presents its own challenges. Emerging markets have slowed in recent quarters, exacerbating the growth gap. Stagnation in the Eurozone has hurt even more.

Just how big is pharma's growth gap? Prior to 2010, big pharma (defined as the 16 largest US, European and Japanese companies – see Appendix for details) generally kept pace with the global drug market. That changed in 2011, when the overall drug market grew faster than big pharma – a difference of about US$20 billion – and 2012, when we expect the gap to widen further to US$50 billion primarily due to the patent cliff. We expect big pharma to fall even further behind in the years ahead. The gap between IMS Health's global drug market forecast (4% CAGR) and analysts' estimates of big pharma sales widens steadily over the next several years. As shown in the chart on page 3, this gap is projected to reach US$100 billion by 2015.

This inevitably leads to two questions:

- Where will growth come from?
- What else can pharma companies do to boost shareholder returns?

Let's examine these questions and explore the challenges companies face in developing sustainable answers.

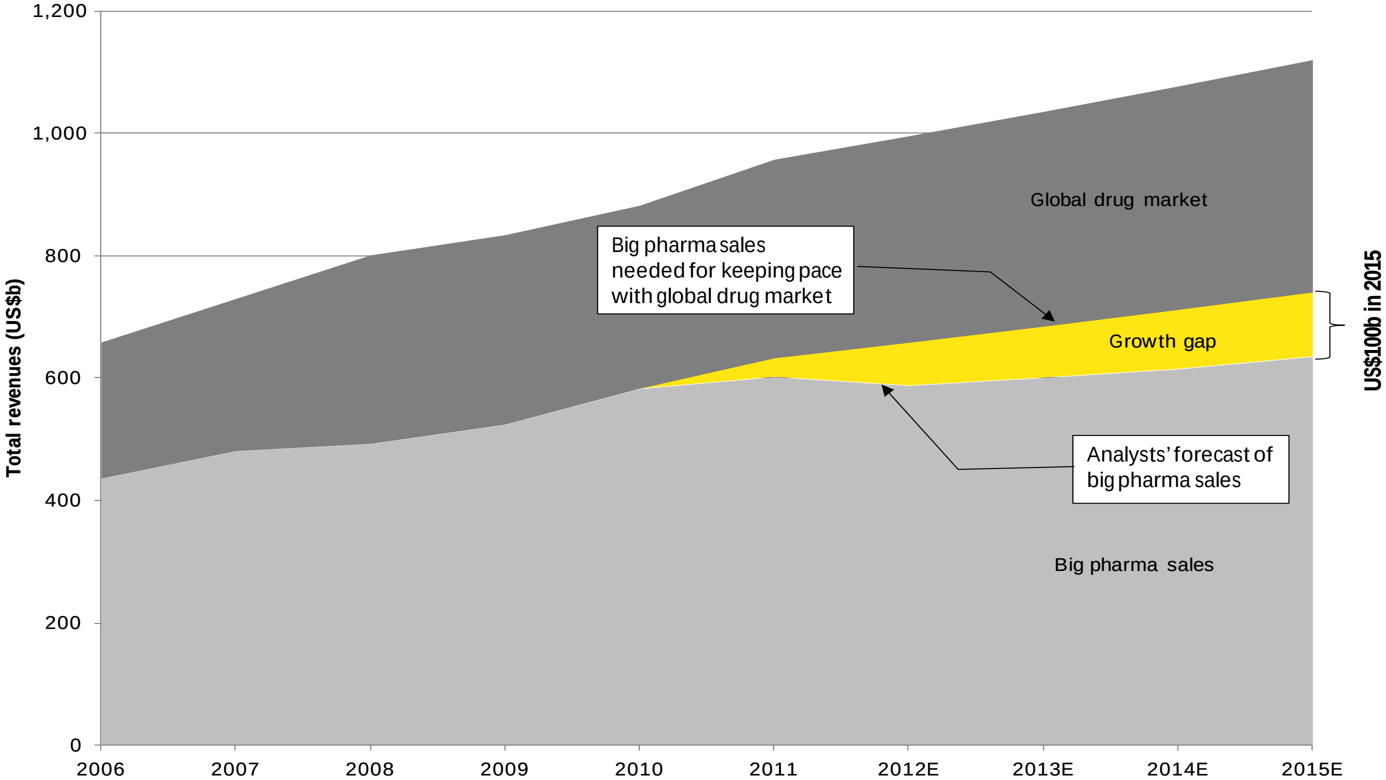
No easy answers: the firepower gap

Answering these questions requires an appreciation of the current context in which pharma operates. Specifically, pharma's attempts to fill the growth gap will be made more difficult by a second gap that the industry faces: the firepower gap. We define "firepower" as a company's capacity for conducting M&A deals.

With sources of organic growth under pressure, as discussed earlier, a potential solution is to seek inorganic growth through transactions. However, the capacity of big pharma to conduct deals has diminished in recent years – particularly relative to other industry players. Deals inevitably have to be funded through some combination of cash, stock and debt, and each of these potential currencies is now under increased pressure:

1. Cash: Big pharma has less cash for deals because the patent cliff and pricing pressures have diminished operating cash flows and because of its spending on prior transactions, stock repurchases and dividends.
2. Debt: In recent years, big pharma companies have taken on much more debt, in part to fund some of the mega-mergers of recent years as well as to finance dividend increases and stock buyback programs. The industry's debt-to-equity ratio has risen from 9% to 18% over the past five years. From a capital structure perspective,

Big pharma's big growth gap



Source: Big pharma sales, Capital IQ; Global drug market sales, IMS Health

this is a positive development, since these firms have historically been under-leveraged as compared to similar-sized companies in other industries. However, since they have already assumed large amounts of debt, they have less flexibility for financing future deals.

3. Stock: Relative to cash and debt, equity is a somewhat more volatile measure – a company's stock price fluctuates on a daily basis – meaning that short-term stock market performance is less relevant than longer-term shifts. For instance, while the stock prices of big pharma companies recovered somewhat in 2012 along with the broader stock market, a longer-term perspective reveals that the stock prices of these firms have fallen significantly since 2006 – despite attempts to support share prices with measures such as stock repurchases and dividends. Short-term blips notwithstanding, big pharma's capacity to use stock as a currency is significantly diminished compared to a few years ago.

To quantify the impact of these shifts, we have developed the Ernst & Young Firepower Index – a measure of companies' capacity for conducting M&A deals. A company's firepower is diminished as its market value and cash and equivalents fall or as its debt level rises. (For more details on the methodology and assumptions behind the Index, refer to the Appendix.)

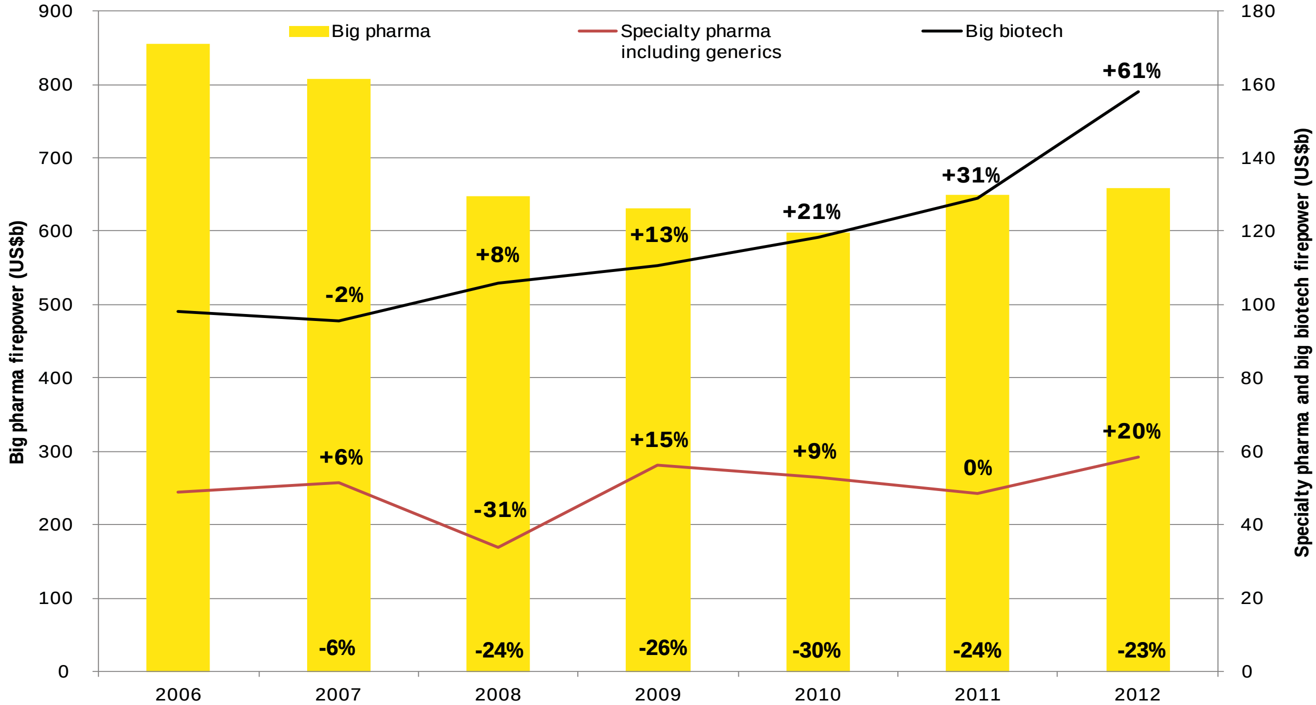
As might be expected, big pharma's firepower has fallen markedly in recent years – we estimate that, for the 16 largest US, European and Japanese pharma companies by revenue, firepower declined by 23% between 2006 and 2012. Even as big pharma's firepower has shrunk, however, the next tier of companies – specialty pharma and big biotech firms with 2012 revenues between US$1 billion and US$20 billion – has seen its firepower increase. In 2012, the firepower of big biotech increased by a whopping 61% relative to 2006, on the strength of premium pricing power and no generic exposure. Specialty pharma's firepower increased by a relatively modest 20%, reflecting rising strength of generics offset to some extent by patent expirations of a few major brands. The net result of these shifts is that big pharma's share of the combined firepower of these three segments has fallen steadily in recent years, from 85% in 2006 down to 75% in 2012. This shift in firepower – from big pharma to big biotech and specialty pharma – has powerful implications.

The loss of firepower may already be manifesting itself in deal trends. M&A data tend to be lumpy for many reasons – a single megadeal can skew the numbers in any given year, companies often become less active after making significant purchases, and a number of firms have been hoarding cash in an uncertain economic climate. To smooth out this year-to-year volatility, we compared M&A patterns across two three-year periods: 2007-09 and 2010-12. Our analysis reveals that M&A deals by big pharma accounted for 86% of the total value of deals between 2007 and 2009 but fell to 59% of the value of deals in the 2010-12 period.

Conversely, big biotech and specialty pharma (including generics) companies are increasingly "punching above their weight" and competing with big pharma companies for assets. During the same time frame, the share of M&A deals increased from 4% to 10% for big biotech, from 2% to 15% for specialty pharma and from 8% to 16% for generics companies.

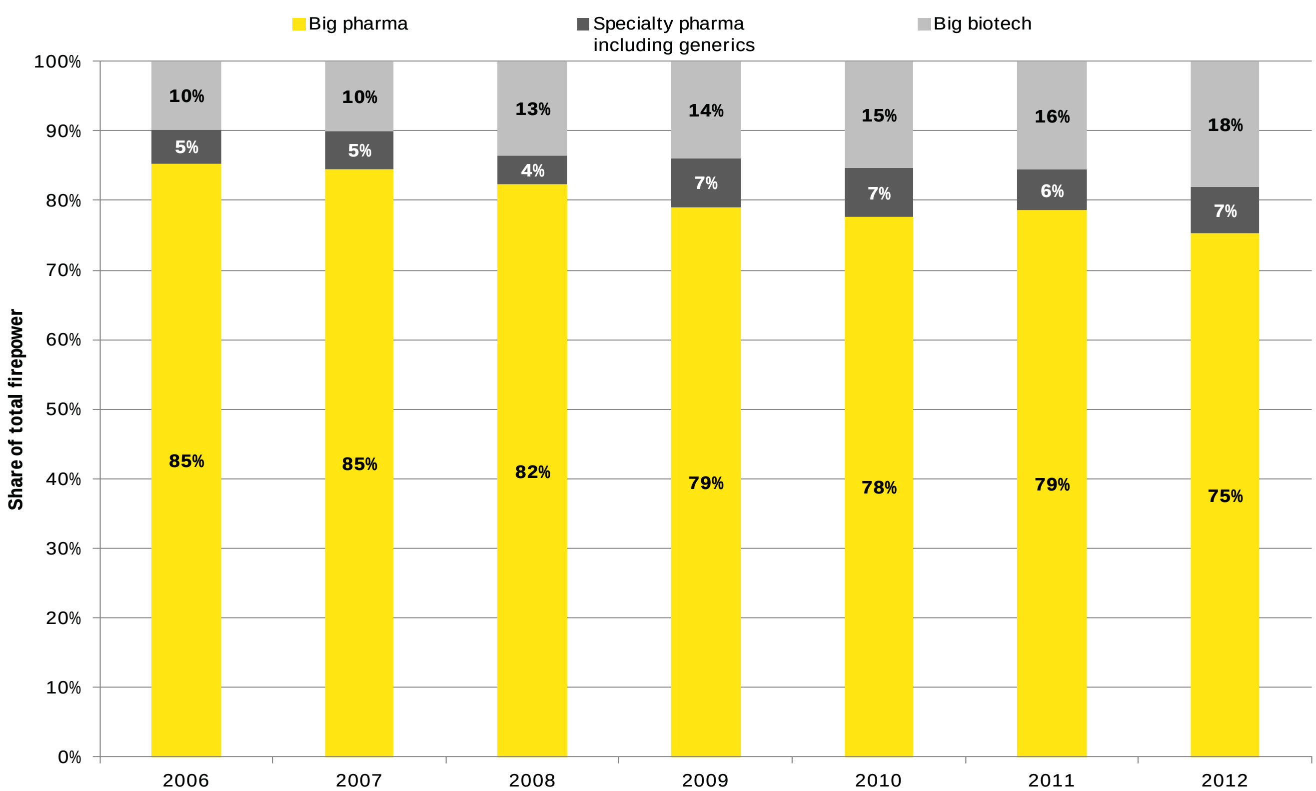
What do these changes in firepower imply for the size of targets that companies can pursue? Only a handful of big pharma companies now have the firepower to pursue M&A targets above US$60 billion. However, the pool of potential suitors (from big pharma as well as the big biotech, specialty pharma and generics segments) that could pay up to US$20 billion has swelled. While this may have limited significance given all the other factors that go into acquisition decisions, the relative increase in demand for assets in the US$5 billion-US$20 billion range could raise premiums (the acquisition price relative to the price before a deal) for such targets. Conversely, for those with the highest valuations, fewer potential buyers could dampen premiums.

Firepower has decreased for big pharma but increased for specialty pharma and big biotech



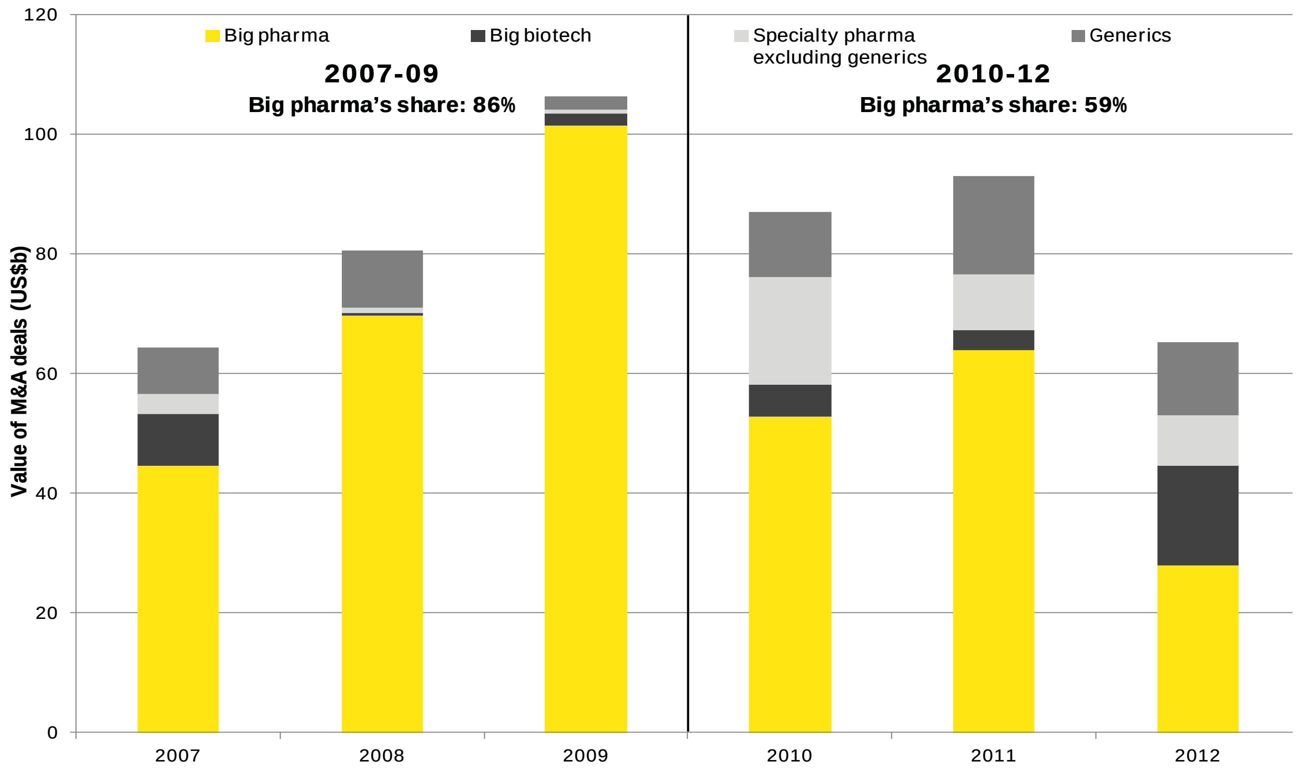
Source: Ernst & Young based on company financial report data as reported in Capital IQ. Data labels show percent change in firepower relative to 2006.

Big pharma's share of firepower has fallen steadily



Source: Ernst & Young based on company financial report data as reported in Capital IQ. "Total firepower" refers to the combined firepower of big pharma, specialty pharma and big biotech.

With less firepower, big pharma is getting crowded out of M&A deals



Source: Ernst & Young, Capital IQ and IMS Research. Data for 2012 are for January–November.

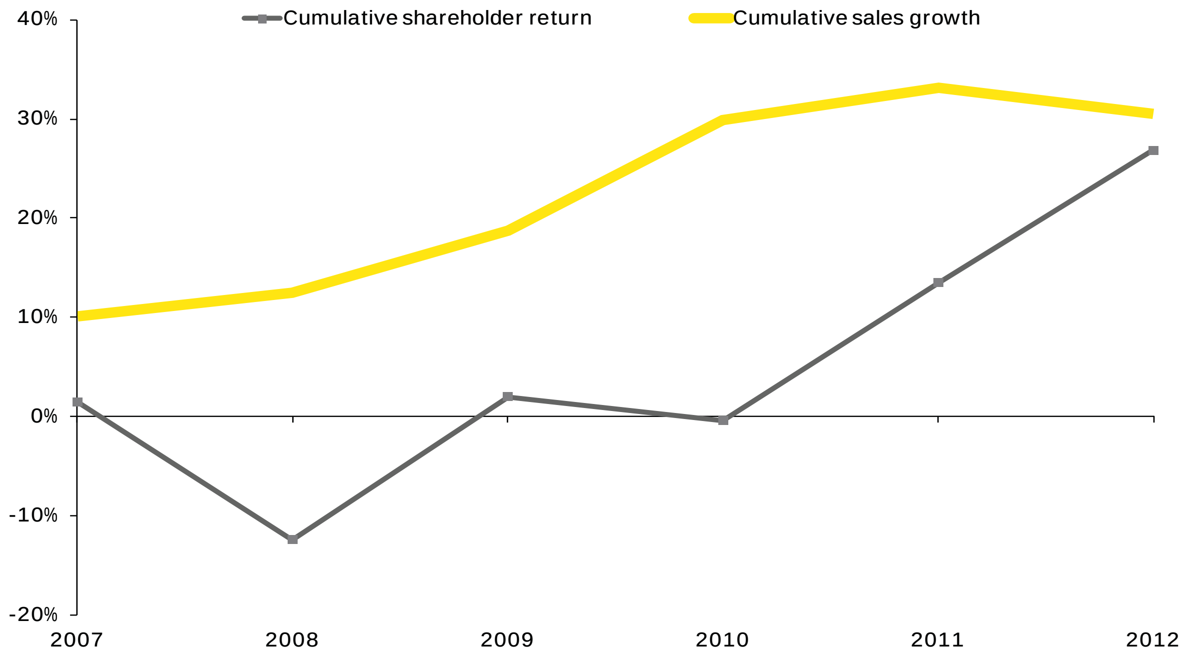
Implications for big pharma

For big pharma, the trends outlined earlier in this paper have two major implications: build firepower and use it wisely to chart a path to sustainable growth. To prepare for a world of increased competition – often from a fast-growing cadre of relatively smaller companies – and higher prices for the most attractive assets, big pharma will need all the firepower it can get. With sources of organic growth strained, deals can provide part of the answer, but it will be increasingly imperative to deploy relatively scarce resources efficiently.

Strategies for big pharma to consider include the following:

1. Free up cash, boost firepower. To build firepower, pharma companies will need to free up cash. This can be achieved in several ways. Divestitures can be used to spin off non-strategic assets and boost firepower. Companies could also free up cash by deploying their existing capital more efficiently. Investments in working capital projects often have immediate returns, generally paying for themselves in less than a year.
2. Acquire growth, fill the gap. It's not enough to build firepower. Companies will also need to deploy their firepower effectively to find new sources of growth. As discussed earlier, big pharma is forecast to grow well below the 4% estimated global growth rate. But biotech and specialty pharma are forecast to grow twice as fast. By 2015, the top 10 biotech and specialty pharma companies are projected to have aggregate revenues of US$100 billion. Conveniently, this is just enough to plug big pharma's growth gap.
3. Watch what you pay for. To deploy firepower effectively, big pharma companies will also need to be more selective in their deal making. In an environment of constrained resources and elevated premiums, buying the right assets at the right price is all the more critical. This raises the importance of thorough due diligence and accurate valuation.
4. Integration matters. To conserve firepower, companies will need to pay careful attention to how well their deals are executed. This includes careful advance planning to develop an integration roadmap so that synergies and growth goals are realized.
5. Use creative deal structures. Given escalating prices for the best assets and constrained firepower for many players, a growing number of acquisitions and alliances are being structured to include features such as contingency-based payments and new forms of collaboration to reduce duplicative efforts. Creative structures such as these can help preserve firepower.

Big pharma: cumulative sales growth and shareholder returns



Source: Company reports and Capital IQ. "Cumulative shareholder return" represents change in market capitalization, dividends and stock buybacks from January 2007 through 28 November 2012.

Outlook for deals

What does all this mean for the deal environment? What are we likely to see in the coming months and years? We expect some combination of the following trends:

1. **A more competitive and complex deal environment.** The deal space will become more crowded with buyers from the big biotech, specialty pharma and generics segments increasingly likely to compete with big pharma for desirable assets. The changes in firepower of big pharma companies relative to that of big biotech, specialty pharma and generics firms have reduced the number of acquirers that can pursue targets larger than US$60 billion in size; consequently, we foresee more competition for bolt-on deals.
2. **Higher premiums, greater selectivity.** A more competitive deal environment is likely to translate into high premiums for the most desirable assets. But limited resources means that big pharma companies, in particular, will need to be more selective about the companies they pursue. The bottom line is that the right assets will command higher prices and challenge returns on investment.
3. **More divestitures.** As pharma companies look for ways to boost firepower and sharpen their strategic focus, expect more divestitures of non-strategic or underperforming businesses. Both corporate and private equity investors are likely acquirers of these assets.
4. **More offshore deals by US companies.** The need to increase firepower will drive pharma companies to look for attractive acquisitions everywhere. For US buyers, high tax rates in the US may increase the attractiveness of using offshore cash reserves to buy non-US companies.
5. **More emerging markets deals.** With 2012 emerging market sales growth rates for big pharma declining by an estimated 50%, several companies' ambitious 2015 targets now appear elusive. Closing this gap will require more deals in emerging markets.

Conclusion

Even as its revenues have diminished in recent years, big pharma has managed to deliver robust shareholder returns through measures such as increased dividends and share repurchases. But such measures cannot be sustained without strong cash flows. With sales declining for the first time in 2012, it is only a matter of time before shareholder returns follow suit – unless pharma can find new sources of growth.

With few options for organic growth, pharma needs transactions – for which it needs firepower. More than ever, measures to boost and conserve firepower are vital.

Appendix: methodology and definitions

The Ernst & Young Firepower Index

The Ernst & Young Firepower Index measures companies' capacity to fund transactions based on the strength of their balance sheets. The Index has four key inputs:

- Cash and equivalents
- Existing debt
- Credit lines and debt capacity
- Market capitalization

Underlying the Index are the following assumptions:

- A company will not acquire targets that exceed 50% of its existing market capitalization.
- The debt/equity ratio of the combined entity created by a transaction cannot exceed 30%.

While some pharma companies have historically made acquisitions that go beyond these upper limits, our intent is to apply a uniform methodology to measure relative changes in firepower.

The Index measures capacity to conduct M&A transactions financed with cash or debt. It does not measure the ability to conduct stock-for-stock transactions. However, increases in a company's stock price do boost its firepower under the Index's formula, since increased equity raises the amount of debt that the company can borrow to finance transactions.

While the Firepower Index and this report focus on M&A, it is important to acknowledge that licensing will continue to be an important part of big pharma's transactions strategy. However, M&A is more relevant to this analysis than in-licensing, since acquiring companies with commercialized products has a more immediate impact on pharma's revenue gap than does in-licensing pipeline assets.

Big pharma

In this report, we include 16 companies in the “big pharma” category:

- Pfizer Inc.
- Johnson & Johnson
- Merck & Co., Inc.
- Abbott Laboratories
- Bristol-Myers Squibb Company
- Eli Lilly and Company
- Novartis AG
- GlaxoSmithKline plc
- AstraZeneca PLC
- Sanofi
- Roche Holding AG
- Bayer AG
- Astellas Pharma, Inc.
- Daiichi Sankyo Company, Limited
- Eisai Co., Ltd.
- Takeda Pharmaceutical Company Limited

Big biotech

We include the following companies in the “big biotech” category:

- Amgen Inc.
- Biogen Idec
- Celgene Corporation
- Gilead Sciences, Inc.
- Novo Nordisk A/S
- Alexion Pharmaceuticals, Inc.
- Regeneron Pharmaceuticals, Inc.
- Vertex Pharmaceuticals, Inc.
- Onyx Pharmaceuticals, Inc.
- BioMarin Pharmaceutical, Inc.
- Seattle Genetics, Inc.

Specialty pharma

We include the following companies in the “specialty pharma” category:

- Allergan, Inc.
- Teva Pharmaceutical Industries Ltd.
- Watson Pharmaceuticals, Inc. (new name effective 2013 is Actavis)
- Mylan Inc.
- Shire plc
- Valeant Pharmaceuticals International, Inc.
- Merck KGaA
- UCB
- Forest Pharmaceuticals, Inc.
- Hospira, Inc.
- Endo Health Solutions
- Jazz Pharmaceuticals plc
- Perrigo Company

This list includes generics companies, which are broken out separately in some charts.

Total shareholder return

Total shareholder return is defined as the sum of market capitalization appreciation, share repurchases and dividend payments. Returns are calculated annually.

Contacts

Glen Giovannetti
Global Life Sciences Leader
glen.giovannetti@ey.com
+1 617 585 1998

Patrick Flochel
Global Pharmaceutical Leader and
EMEIA Life Sciences Leader
patrick.flochel@ch.ey.com
+41 58 286 4148

Jeffrey Greene
Global Transactions Advisory Services Leader, Life Sciences
jeffrey.greene@ey.com
+1 212 773 6500

Andrew Forman
Principal author
Global Transactions Advisory Services, Life Sciences
andrew.forman@ey.com
+1 732 516 4698

Gautam Jaggi
Global Life Sciences Center Lead Analyst
gautam.jaggi@ey.com
+1 617 585 3509

Iain Scott
Global Life Sciences Center Lead Analyst
Iscott1@uk.ey.com
+44 20 7951 8904

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