

Pharmaceutical: Getting Back Its Luster

The pharmaceutical industry, once the darling of investors, has lost its luster. From 2000 to 2009, revenue grew at a compound annual rate of 9 percent but the P/E ratio fell by more than half, and billions of dollars were lost in shareholder value. What caused such a rapid and oh-so-public fall from grace? The Great Recession? Not entirely. While external forces have contributed to the industry's plight, many of the constraints are from within.

Investors are not alone in noticing pharma's fall from grace as news of the industry's problems have filled the headlines. In early March, Morgan Stanley raised the conversation to a fever pitch in an article, "Downgrading to Cautious," as it warned about the performance of Europe-based multinational pharma leaders.

From a dearth of new products, looming patent expirations, high operating costs and increasingly restrictive regulations to the less-than-favorable economics of a growing generic product portfolio, the problems have been endemic. Even as companies struggled to stay on top following the recession, they have had limited success.



Vertical View

In a recent A.T. Kearney study of pharma's financial and operating performance over the past 10 years, we found an industry reading the writing on the wall—trying to boost profitability with a series of performance-improvement initiatives—but with limited impact on the bottom line. Our study focused on the leading pharmaceutical and biopharmaceutical companies that account for more than 75 percent of industry revenues.¹ This article highlights our findings and offers recommendations for not only how the industry can get back on its feet in the short term, but also how it can prepare for longer-term competitiveness.

But the sacred cow of the pharmaceutical industry, the engine for value creation, soon found itself in the cost-cutting crosshairs. In the latter half of the decade, both Pfizer and Merck closed research facilities and cut budgets well into the billions of dollars. Thousands of research jobs vanished.

*For a time, **R&D stayed below the radar.** But the sacred cow of the pharmaceutical industry soon found itself **in the cost-cutting crosshairs too.***

Running Hard to Stand Still

Almost every quarter over the past 10 years, yet another leading pharma company's cost-cutting efforts appeared in the headlines. The industry was clearly running hard. Between 2003 and 2008, Pfizer rationalized 45 of its 93 facilities and eliminated more than 10,000 positions, including 20 percent of its sales force. In 2004, Bristol-Myers Squibb announced it was outsourcing its non-core functions—which cut its back-office costs by 35 percent—then slashed a massive \$400 million in supply-chain costs three years later. AstraZeneca reduced headcount by 15 percent. Last year Merck, announced the closure of eight facilities.

Many of these cuts directly targeted administration and operations, then moved on to the armada of sales forces. For a time, research and development (R&D) stayed below the radar.

The cutbacks did not take place in a vacuum, but were coupled with one of the greatest periods of consolidation in the industry's history. With reductions in overhead and new economies of scale, large and mid-size deals combined were expected to deliver upwards of \$20 billion in operational savings. Despite these efforts, economic returns continued to elude pharma companies and their shareholders. Neither focused corporate initiatives nor merger activities were having the desired effect.

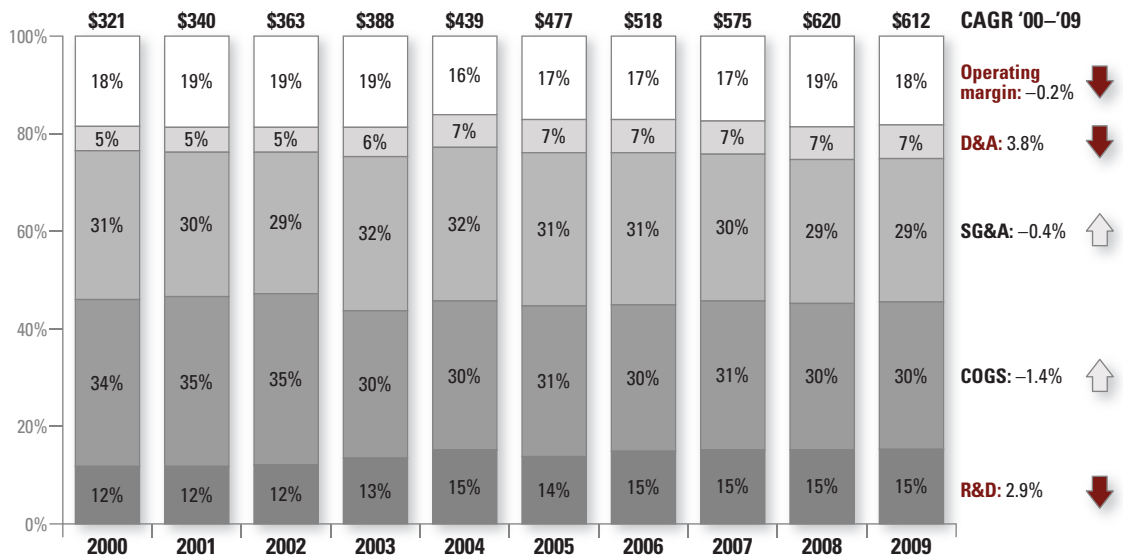
So we looked for other reasons—turning our attention to the industry's operating cost structure. Figure 1 illustrates the cost structure in the areas of selling, general and administrative expenses (SG&A), cost of goods sold (COGS), and R&D. The findings are perhaps most striking in their year-over-year consistency.

¹ The team analyzed operating and financial data from the period 2000 to 2009 for the following industry leaders: Pfizer, Wyeth, J&J, Bayer, Roche, Novartis, GlaxoSmithKline, Sanofi-Aventis, AstraZeneca, Abbott, Merck, Schering-Plough, Bristol Myers Squibb, Eli Lilly, Takeda, Amgen, Genentech, Baxter, Teva, Astellas, Daiichi, Novo Nordisk, King, Watson, Forest, Biogen, Genzyme, Elan, Celgene, Gilead and Allergan. For certain charts, the team used a subset of these companies.

FIGURE 1

The pharmaceutical industry's lost decade (2000-2009)¹

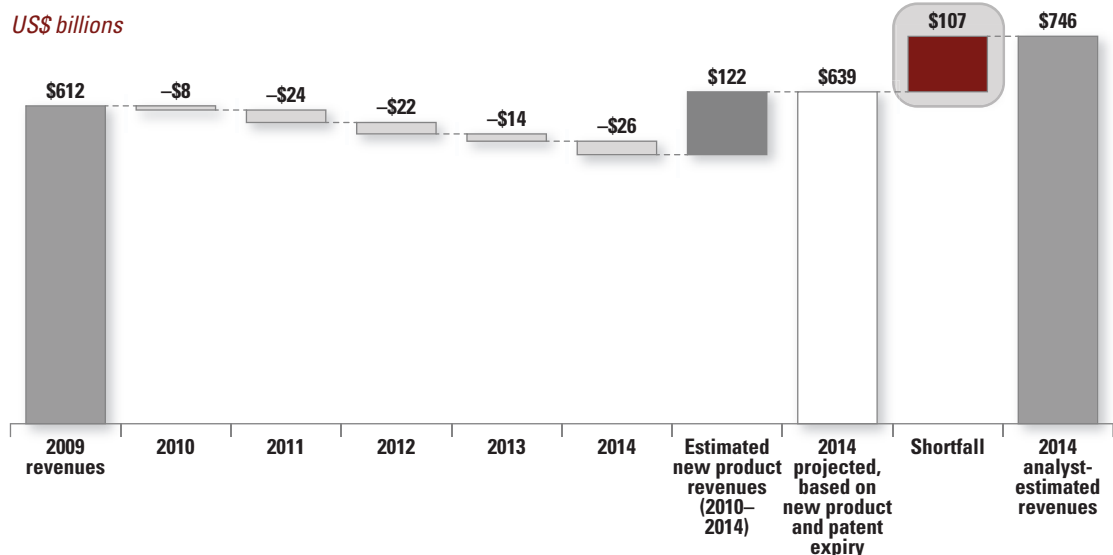
Industry operating cost structure (US\$ billions)



¹ Findings are based on sample population: Pfizer, Wyeth, J&J, Bayer, Roche, Novartis, GlaxoSmithKline, Sanofi-Aventis, AstraZeneca, Abbott, Merck, Schering-Plough, Bristol-Myers Squibb, Eli Lilly, Takeda, Amgen, Genentech, Baxter, Teva, Astellas, Daiichi, Novo Nordisk, King, Watson, Forest, Biogen, Genzyme, Elan, Celgene, Gilead and Allergan.
 Note: CAGR is compound annual growth rate; D&A is dosage and administration; SG&A is selling, general and administrative expenses; COGS is cost of goods sold; R&D is research and development; due to rounding, some columns may not add up to 100%.
 Sources: BioPharm Insight, industry analysts reports, A.T. Kearney analysis

FIGURE 2

The patent expiration cliff still looms with \$107 billion shortfall¹



¹ Findings are based on sample population: Pfizer, Wyeth, J&J, Bayer, Roche, Novartis, GlaxoSmithKline, Sanofi-Aventis, AstraZeneca, Abbott, Merck, Schering-Plough, Bristol-Myers Squibb, Eli Lilly, Takeda, Amgen, Genentech, Baxter, Teva, Astellas, Daiichi, Novo Nordisk, King, Watson, Forest, Biogen, Genzyme, Elan, Celgene, Gilead and Allergan.
 Sources: BioPharm Insight, industry analysts reports, A.T. Kearney analysis

Vertical View

While the industry staved off the impending threats to profitability, all of its efforts have yielded little incremental improvement, essentially resulting in a lost decade.

The future appears equally challenging. The patent expiration cliff still looms. In the existing product portfolio of the largest companies and the current new product pipeline, we see about a \$100 billion shortfall in projected topline revenue to maintain historic industry growth rates (see figure 2 on page 73). While market analysts project nearly \$750 billion in global industry revenue by 2014, this target will be difficult to achieve given the product pipeline and the impact on revenue as products go off patent. Furthermore, we have not considered reduced pricing from U.S. health-care reform, or the cost-cutting initiatives in Europe. Also, there is no guarantee that offset-

ting \$122 billion in new products will pass regulatory approval.

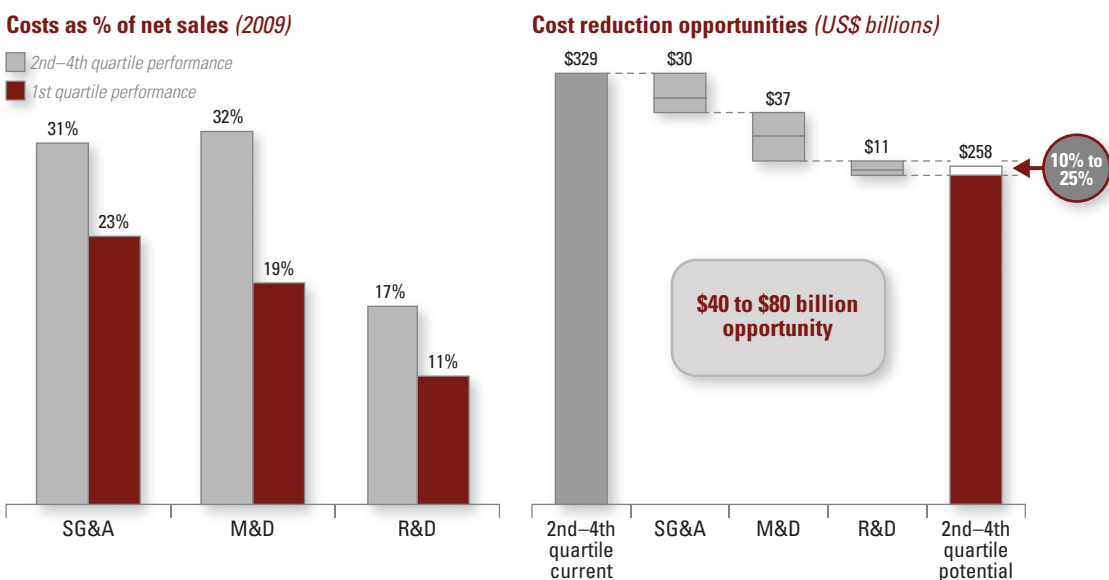
The days of 9 percent sales growth appear to be gone, and the decline of the P/E ratio from 33 to 13 clearly reflects this \$100 billion gap.

Running Smarter

Hand it to the industry for understanding that costs must be cut and squarely positioning the major cost centers—R&D, manufacturing and supply-chain, and SG&A. There is still room for improvement, however, as no single company was a top performer across all three areas. By crafting a more focused strategic campaign and leveraging best-in-class practices, our analysis suggests that the industry could trim another \$40 billion to \$80 billion in operating costs (see figure 3).

FIGURE 3

The pharmaceutical industry could trim another \$40 to \$80 billion in operating costs¹



¹Findings are based on sample population: Pfizer, J&J, Bayer, Roche, Novartis, GlaxoSmithKline, Sanofi-Aventis, AstraZeneca, Abbott, Merck, Bristol-Myers Squibb, Eli Lilly, Amgen, Novo Nordisk and Gilead.

Note: SG&A is selling, general and administrative expenses; M&D is manufacturing and distribution; R&D is research and development.

Source: A.T. Kearney analysis

The focus is still on the three areas, but in a new way:

- Manufacturing and supply chain: improving operating asset effectiveness
- SG&A: flexing resource models
- R&D: generating more with less

Making Operating Assets Work Harder

Despite the attention R&D receives, pharmaceutical manufacturing and supply-chain costs constitute the largest element on the industry's P&L, accounting for nearly 30 percent of every sales dollar. Activities in this area run the gamut,

from planning and sourcing, to making, assuring and delivering products to the patient, and all of the corresponding costs along the way. Furthermore, these activities garner some of the greatest scrutiny and liability as safety concerns grow with each highly publicized recall. Industry efforts to manage costs within manufacturing and the supply chain have focused on merging, restructuring, Six Sigma and lean improvements, site closures, and low-cost-country sourcing, but with limited impact on the overall cost structure.

In addition, over the past decade, the productivity of operating assets has remained largely unchanged. Few companies have succeeded in improving their operating asset effectiveness (OAE). As figure 4 illustrates, just four of the large pharmaceutical companies in our sample succeeded in raising this metric over the past 10 years. Those shaded in garnet represent companies showing improvement; those in gray represent laggards.

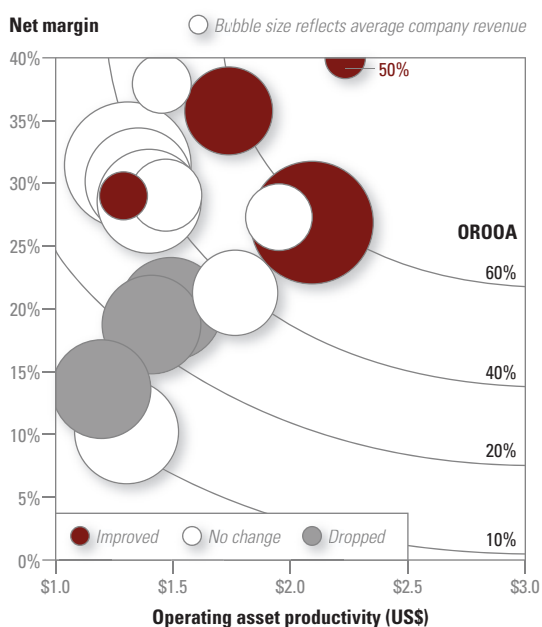
Cost transparency. With all of the transparency required by regulators as firms coax a product from discovery through clinical trials and on to production, one might expect a high level of knowledge of the costs. This is not always so. Operational costs are often bundled, prices are mired in cumbersome language that makes data capture difficult, and the contributory costs to produce a single product are misunderstood. In our experience, only best-in-class companies have a detailed and consistent understanding of their cost structures.

Performance management in operations. Whether it be savings in procurement, efficiency targets in manufacturing or improved service levels in logistics, common and publicized metrics can help isolate and resolve performance issues. Leading organizations spend considerable time debating and developing these metrics, and tailoring them for each essential

FIGURE 4

Four of the largest pharmaceutical companies improved their operating performance

Pharmaceutical OROOA performance (2009)^{1,2}



¹Findings are based on sample population: Pfizer, Wyeth, J&J, Bayer, Roche, Novartis, GlaxoSmithKline, Sanofi-Aventis, AstraZeneca, Abbott, Merck, Schering-Plough and Bristol-Myers Squibb.

²OROOA is operating profits divided by operating assets; OROOA balances revenue growth with profitability, expense management and asset management.

Sources: BioPharm Insight, industry analysts reports, A.T. Kearney analysis

Vertical View

aspect of their operations. The additional time spent up front often makes performance issues (whether from inflationary commodity pressures or diminishing supplier service levels) easier to solve because the signals are recognized sooner before problems become unwieldy. Furthermore, a keen understanding of internal metrics facilitates more accurate benchmarking against competitors.

Improved returns on network operating assets. With so much capital invested in sophisticated production facilities, the industry should expect more from its investments. Rigorous analytics renew the tough questions that otherwise never quite get fully answered: Should we make or buy? Is consolidation in our best interest? Should we outsource? If so, where? How do we mitigate the risks to supply and quality? And are we deploying our capital and human assets efficiently? In our recent work, we supported a global supply-chain optimization effort to evaluate a company's distribution network across Europe, the Middle East and Africa.

We found significant opportunities to improve customer service levels, reduce obsolescence and rationalize superfluous assets. The linchpin in the analysis was the development of a sound data set and advanced analytics.

Finance and operations collaboration. With so much expense (and liability) in production, there is power in the strong, ongoing collaboration between finance and operations. Many of the bottom-line targets financial managers are aiming for reside in the oft-overlooked supply-chain arena. For example, discussions about more accurate supply-chain information inspired one organization to rationalize unprofitable brand lines and unnecessary facilities. Although it may sound counterintuitive to cut

products in an industry struggling with growth, products should not come at the expense of profits unless there is a strategic benefit.

SG&A: Flexing Resource Models

Not surprisingly, as the top line declines and the pressure to capitalize on merger synergies mounts, administrative functions quickly move to the front of the improvement queue. After all, in this version of musical chairs, if you're not

In this version of musical chairs, if you're not finding, making or selling the product, it's hard to find a seat at the table.

finding, making or selling the product, it's hard to find a seat at the table. While cost-cutting efforts have reduced sales and administrative costs and improved efficiencies—bringing the industry's SG&A margin to approximately 30 percent—a substantial \$20 billion gap remains between first-quartile SG&A competitors and the industry average. Where to find \$20 billion? We have a few ideas:

Global shared services. While other industries have centralized, standardized and harmonized their core and non-core capabilities, few pharma companies have done so. Yet the benefits are real. Global and regional shared services can create economies of scale and skills across multi-functional service centers,

encourage growth, reduce costs and improve services. And industries that aggressively pursue shared services are more productive and offer a better employee experience.

Outsourcing. Outsourcing also has a host of benefits, including enabling growth, reducing costs and improving operations. By outsourcing non-core functions, companies can increase their focus on their core businesses, standardize processes, implement best practices and tap into new talent pools; and through near-shore and offshore labor arbitrage, the cost savings are sustainable. Scale economies will ultimately determine what can be consolidated and potentially outsourced. Of course, a number of risks must be managed.

For companies that have not embraced shared services or outsourcing, now is the time to pull the trigger.

Commercial model and effectiveness. All too often marketing efforts are duplicated at some level between global, regional and local marketing teams. Now, however, several organizations have taken their lead from consumer packaged goods companies and are adopting global marketing organizations. In doing so, teams in local markets are free to focus on improving market access and sales. Similarly, as sales models evolve toward consultative selling, companies not only gain a better understanding of customer needs—even as they evolve—but also of the ways in which healthcare professionals influence care along the entire continuum of care. The combination can improve a company's top line and lead to cost-structure advantages that the industry so desperately needs.

Doing More with Less in R&D

Few can ignore the underlying industry problem: an R&D system that is failing to deliver the same level of productivity seen in the latter

half of the 20th century. Although the industry has increased funding—research outlays rose from \$38 billion in 2000 to \$93 billion in 2009—the rate of discovery for new molecular and biological entities has declined.

Many of the problems are rooted in regulatory and quality issues. In the race for discovery, safety protocols have been breached. As a result, the industry unwittingly exacerbated its problems. Since 2002, product safety announcements targeted drugs such as Albuterol, Vioxx, Bextra, Heparin, Accutane and Meridia, along with a range of antidepressants, and recalls are increasingly publicized. Whether caused by clinical or production issues, the FDA has sought to save face by slowing the regulatory approval process, increasing its scrutiny of efficacy and safety and thus further lengthening an already costly development process. Even after extensive trials were met, the FDA granted only provisional approvals, which resulted in additional post-development costs. In fact, between 2000 and 2006, the number of post-marketing commitments required by the FDA rose from 57 percent to 84 percent.

The new FDA hurdles are only one facet of the problem. The rising costs and resulting reform of healthcare are prompting greater analysis of pharmacoeconomics. The largest payors (namely Medicaid and Medicare) are demanding more tangible patient benefits to justify the price of prescribing a new product. The culmination of these issues is a less profitable industry as fewer drugs reach the market and those that do have a more costly development schedule.

Given these issues, a four-pronged approach should be considered in improving efficiency and reducing the R&D cost structure:

Tighten procurement governance. Gone are the days of the blank check for research expenditures; research has a cost and today

Vertical View

there is limited tolerance for spendthrifts. The problem is often attributed to mismatched goals. Procurement tends to focus solely on price and savings while research tends to ignore price and focus on product discovery. These goals do not have to be contradictory, however. Pharmaceutical companies need only to augment their existing governance models to align on mutually beneficial practices, with procurement reaching beyond price to assess total value as it recognizes that a service delay or quality issue has far-reaching consequences.

Build a global R&D footprint.

Where research is conducted is nearly as important as its duration. As development costs rise due to longer approval timelines and larger, more complex clinical studies, the cost of studies needs to be managed. Globalization provides a unique arbitrage opportunity. While European research associates earn 15 percent more than their United States counterparts, research associates in Asia can perform the same work at a 35 percent discount. Common procedures are less expensive as well: For example, a \$25 blood draw may be as little as \$2 in India—a 92 percent savings.

Further, offshoring is no longer constrained to administrative and manufacturing roles: The value of low-cost scientific research can be equally beneficial whether undertaken through strategic partnerships providing capable clinical research support or with established contract research organizations.²

Improve operations. Lean and Six Sigma principles can be applied to R&D not only to generate savings but also to reduce time-to-launch, paying particular attention to the protocol steps most implicated in study delays. For

example, studies have shown that contract negotiations account for 49 percent of study delays and patient recruitment another 41 percent. Streamlining clinical research can reduce both the time taken prior to launch and operating expenditures.

Improved efficiency in the discovery process, achieved by focusing research efforts, will

*Gone are the days of **the blank check for research expenditures**; research has a cost and today **there is limited tolerance for spendthrifts.***

also reduce costs. For example, as clinical studies progress into Phase II and Phase III of development, their scale, scope and costs increase. Improving the candidate evaluation process to reduce the number of molecular or biological entities that progress to Phase III will eliminate research with low risk-adjusted returns.


Narrow the therapeutic focus. Focus is key in the new age of pharma as companies vie for competitive advantage. The focus should be on specific disease profiles and increasing expertise in core competencies. One recent client was undertaking nearly 50 discovery programs, spreading its valuable resources thin along a wide range of research. We recommended cutting one-third of its programs and investing in a select group of highly probable winners. By doing so, the company cut cycle time by almost

² For more information, see "Make Your Move: Taking Clinical Trials to the Best Location" at www.atkearney.com.

10 percent and talent attrition by 15 percent, and substantially increased productivity.

Looking Forward to Recovery

The pharmaceutical industry is overdue for recovery. After nearly a decade of struggle, it's time to reflect on its strengths and early efforts and refocus on a more profitable tomorrow. Our research indicates the industry has \$40 billion to

\$80 billion in cumulative value outstanding that it can tap into—representing near- to mid-term operational improvements. Additionally, there are a number of strategic paradigm shifts that can prepare the industry for longer-term profitability. And while the recommendations in this article are by no means exhaustive, they are a good beginning for a full strategic, value-creating remedy for pharma companies ready to win back some of that long-lost luster. 

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