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Table of contents

Bias Busters

In this new series for senior finance executives, we highlight the cognitive and organizational biases that get in the way of good decision making. We also offer effective ways to respond.

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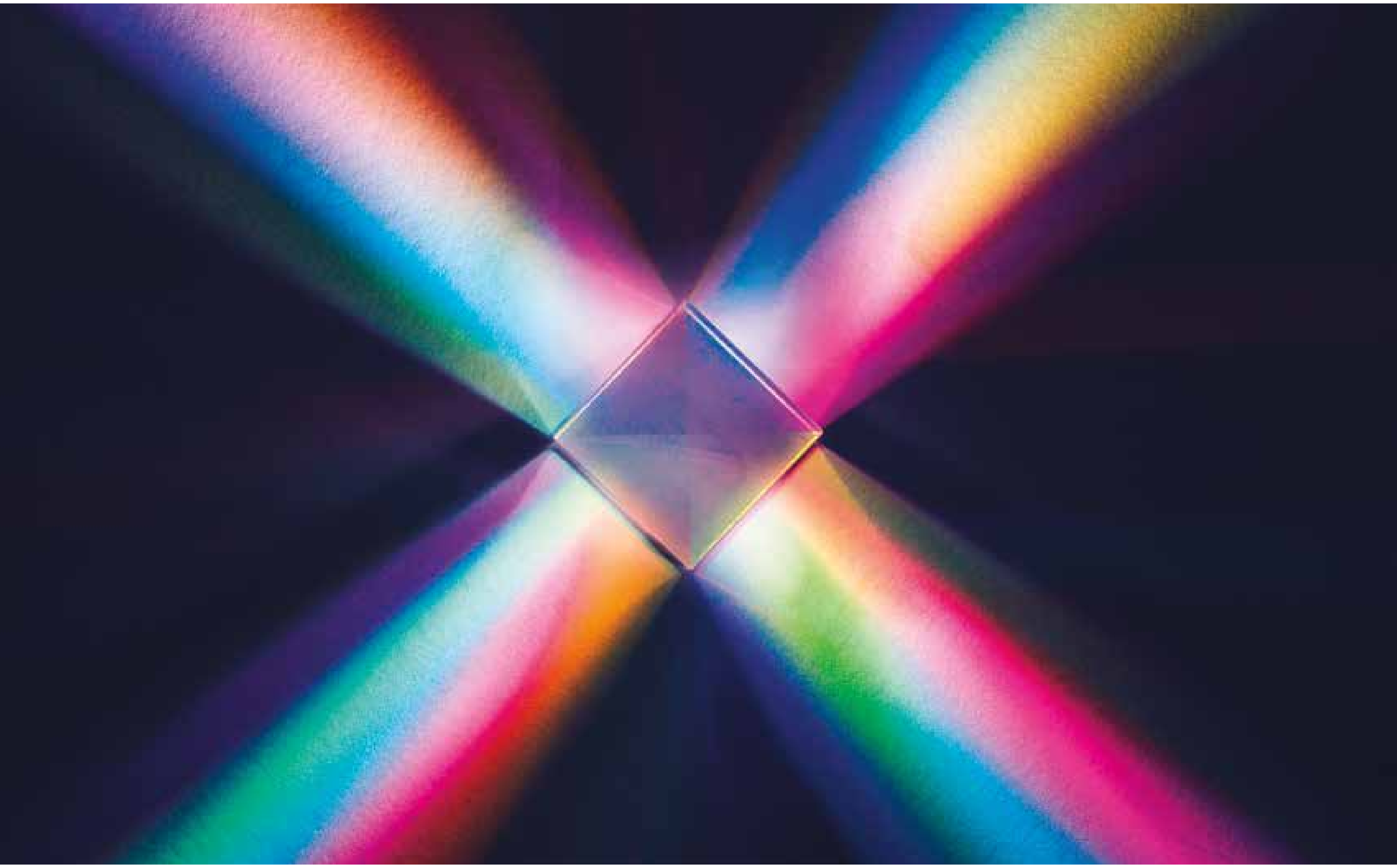
Seeing your way to better strategy

Viewing strategy choices through four lenses—financial performance, markets, competitive advantage, and operating model—can help companies debias their strategic dialogues and make big, bold changes.

Kevin Laczkowski, Werner Rehm, and Blair Warner



When executives gather in the strategy-planning room, they're aiming to identify and prioritize the big, bold choices that will shape the future of the company. Many times, however, their choices get watered down and waylaid.

Companies that hold no conviction about priorities too often spread resources evenly across multiple projects rather than targeting a few projects with the potential to win big. Those companies seeking to escape slowing growth in their core businesses sabotage themselves by chasing new markets without critically evaluating if or how they can win.

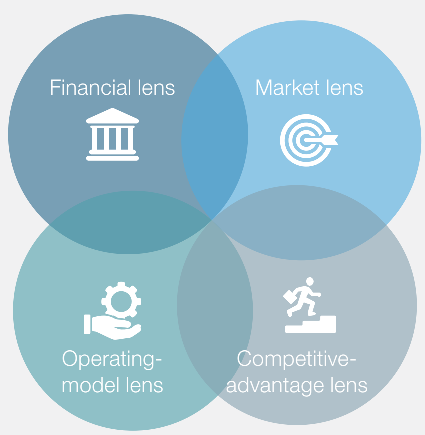
To avoid this fate, companies should examine their strategic choices through four critical, interdependent lenses—the company's financial performance, market opportunities, competitive advantage, and operating model (exhibit).

Executives tend to overemphasize the first two—viewing choices strictly in the context of financial and market opportunities—because those lenses represent critical inputs into the business case. But knowing what it will take to meet or beat financial expectations and which markets are profitable won't do much good if the company doesn't have the assets or capabilities required to win in those markets. Nor will it do much good if the company lacks the people, processes, and organizational structure to implement the proposed strategy successfully.

By viewing strategy choices through *all four lenses*, executives can identify and prioritize the big moves that will lead companies to new markets and growth opportunities, or the steps they can take to consolidate the core. When combined, the lenses provide a clear, balanced, holistic view of not just

Exhibit **Companies should view strategy through four interdependent lenses.**

Value-creating strategy choices



What is required to create value in the business?
- A benchmark of financial performance against peers
- An assessment of impact on value from growth and ROIC[1] improvement
- A momentum case

Am I playing in profitable markets that will deliver growth over time?
- Structural attractiveness of markets
- Profit pools and pockets of growth
- Impact of trends and disruptions
- Adjacent markets in existing value chains or new ones

Do I have an organization that can deliver?
- Resource allocation
- Funding sources
- Capabilities and talent
- Performance management

What does it take to win in these markets?
- Market position and trajectory relative to competitors and potential disruptors
- Requirements to shape industry conduct
- Ownership advantages in the portfolio
- Ability to compete in adjacent markets

[1] Return on invested capital.

the opportunities in play but also what it will take to capture them. This kind of objective strategy diligence can improve conversations in the strategy room—and, ultimately, kick corporate performance into a higher gear.[1]

The financial lens

Most companies necessarily initiate their strategy processes with a look at their financial performance. The financial lens can help them incorporate an outside view into these discussions and develop an objective baseline for assessing the feasibility of long-term targets.[2]

A company can use standard valuation methods to estimate what performance levels it must achieve in the long term to justify today's value. If the company performs at these expectations, shareholder returns would roughly equal the cost of equity, compensating investors for their opportunity cost of capital.[3] This, however, is not value creation—it is simply the lowest threshold by which leaders can say their strategy was successful.

To create value, companies must deliver returns above and beyond the cost of capital, or they must deliver returns that exceed those of peers. Thus, executives should also use benchmarks to figure out how the company must perform to move well beyond that threshold—delivering top-quintile returns to shareholders, for instance. An objective look at peers' performance will help companies develop a meaningful three- to five-year plan for how to earn excess returns. Companies can learn a lot from this benchmarking exercise: perhaps high returns in the past were the result of a run-up in multiples in the market and, hence, expectations but not actual performance.

To anchor those perspectives in current company performance and market position, it is critical for teams to develop a market-momentum case (MMC).[4] Using external market data and peer-performance benchmarks, an MMC gives a company a holistic view of how financial performance will be affected if the company follows its current trajectory relative to market growth, cost evolution, and pricing dynamics without taking any countervailing actions. The end result is an objective baseline for performance that allows executives to conduct an unbiased assessment of how to prioritize new initiatives (and big moves) without counting on them in the base plan.

By assessing implied performance, aspirations for performance, and an MMC, strategy and finance professionals can arm themselves with the information required to start meaningful, objective discussions on value creation: How does the company need to perform to achieve superior returns, and how would the company perform if it remained in steady state?

The market lens

Most companies are seeing slow growth in core businesses and wishing they were in higher-growth, higher-margin businesses. In some cases, the slowing core business may even be under attack. For instance, a low-cost entrant might destroy incumbents' economic profit in a certain segment, as happened in markets as diverse as those for aluminum wheels and children's electronic toys. In today's fast-moving business environments, many companies start from a baseline of deteriorating profit, not slightly increasing earnings. This creates urgency to make big moves into new markets or to block attackers.

The market lens provides a means by which companies can identify pockets of growth within existing segments and beyond, then assess them against strategic options.[5] The critical factor here is granularity; executives should quantify and validate shifts in profit pools in relevant markets given trends that are visible now. One consumer-

Executives should quantify and validate shifts in profit pools in relevant markets given trends that are visible now.

apparel company, for instance, examined absolute dollar growth in the product markets it operated in. It assessed growth by channel and by region. The differences were striking. In some geographies, demand was expected to continue to grow mostly in brick-and-mortar stores for at least five years, with a significant price premium for high-end products. In other geographies, online channels were capturing profits much more rapidly than expected. Using the market lens, the strategy team recognized the need to allocate resources in product development and marketing for high-end products in brick-and-mortar stores in certain regions, as well as in more localized, lower-cost production in others. By running the analysis in this granular way, it could capture better profit in all regions, leading to above-average growth.

Additionally, strategy and finance leaders should always examine adjacent markets, which may be not only attractive segments for growth but also breeding grounds for potential future competitors. Many times, the adjacencies are obvious, as in online retailers' continued push into industrial distribution for small and medium-size businesses, or in technology companies' moves into software-as-a-service businesses. Other times, they are not as obvious—for instance, in raw-materials companies selling consumer goods.

After conducting the requisite analyses of markets, strategy teams should be able to address two key questions: In which market segments will we be able to grow profitably over time? What additional attractive markets should be considered?

The competitive-advantage lens

Most companies face a critical strategic choice in the planning room: Are we better off consolidating the core, where growth is slower, or can we realistically enter new high-growth, high-profit markets and win? But given time pressures, innate biases, and other factors, executives typically fall short in their consideration of assets, capabilities, and investments required to compete more effectively against rivals. As a result, companies end up chasing unattainable growth and underinvesting relative to what it would take to win.

The competitive-advantage lens can help executives identify whether a company has what it will take to win in current markets and those going forward, or whether a big change is required to capture value. An honest assessment of current capabilities should inform how the company chooses to play in its markets, as well as identify partnerships or acquisitions that may be necessary.

In the wake of new realities such as digitization and the fact that many industries are reaching the limits of consolidation, the competitive-advantage lens is more important than ever. Take as an example the notion of building a digital platform, a goal shared by many executives these days: What competitive advantage will the platform provide? What sort of market share does it need to capture to be considered a winner and not just average? Is an ecosystem of third-party players required for the digital platform to succeed, or can this be done organically—and will the company be able to do it quickly enough to become the preferred platform for its customers?

The analyses and insights here are typically based more on firsthand caseload expertise than on industry databases or reports. Interviews with sales teams and postmortems on deals that went awry can be very insightful, as can customer and supplier surveys. There is a lot at stake in gaining these perspectives. The apparel company mentioned earlier discovered that competitors still owned brick-and-mortar stores in certain markets in which the apparel company worked only through online partners. The competitors' sales representatives in these markets had special training and a structured sales approach that allowed them to collect information on customer preferences—for instance, the shapes, colors, and sizes customers wanted to see in the next season's designs. This gave competitors a leg up in product development that the apparel company no longer had. The essential competitive advantage in these high-growth markets was real-time customer insights fed back into a rapid product-development cycle. The apparel company learned, therefore, that it had to continue to invest in brick-and-mortar stores to recapture this advantage, even in markets driven by online sales.

The operating-model lens

Companies routinely take for granted the impact of their operating models on their strategy choices. They maintain the status quo rather than asking whether they have the people, processes, technologies, and other critical components required to make big moves. The operating-model lens, then, is essential for understanding whether a company is set up for future success. Indeed, a company's approach to resource allocation, talent management, organizational design, and performance management can either reinforce or defeat strategic objectives. Consider the following talent- and performance-management-related examples.

A pharmaceutical company estimated that more than one-third of its cash flow would come from Asia within five to seven years. That outcome never materialized, however: senior management had stationed fewer than 10 percent of the company's sales representatives in Asia, and all were focused on maintaining current sales and profit, not on expanding sales according to the strategic plan. An analysis of the growth opportunity at stake (in dollars) versus the number of full-time employees allocated to the region over the prior five years revealed the degree of underinvestment. Senior management decided to hire heavily in Asia.

Meanwhile, rather than prescribe performance metrics from the top down—ordering, for instance, that no one can have more than a 1 percent increase in cost in the next fiscal year—a retail company picks two or three "growth cells" each year that get twice the relative marketing budget (among other investments) compared with other areas of the business. As a result, strategy discussions are now focused solely on which cells should be designated for accelerated growth, rather than minutiae about the budget.

■ ■ ■

Companies need to look at more than just financial opportunities when embarking on a new strategy or implementing a transformation program. They need to follow a due-diligence process for strategy, in the same way they would dispassionately and holistically vet critical M&A. Such a process can counter innate biases that lead to indecision or incremental rather than bold moves. The four interrelated lenses we have described provide a road map for ensuring that a strategy plan is supported by the right investments and changes in operating model. ■

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[1] Chris Bradley, Martin Hirt, and Sven Smit, "Eight shifts that will take your strategy into high gear," *McKinsey Quarterly*, April 2018, McKinsey.com.

[2] *Strategy & Corporate Finance blog*, "When doing strategy, make yourself an outsider," blog entry by Chris Bradley, February 13, 2018, McKinsey.com.

[3] If a company produces exactly the expected cash flows, the returns to shareholders (including dividend payouts) will be the discount rate used to value the company.

[4] Werner Rehm and Anurag Srivastava, “Are your strategy discussions stuck in an echo chamber?,” *McKinsey on Finance*, April 2018, McKinsey.com.

[5] Mehrdad Baghai, Sven Smit, and S. Patrick Viguerie, “The granularity of growth,” *McKinsey Quarterly*, May 2007, McKinsey.com.

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What have we learned from the 2008 credit crisis?

Ten years after the Great Recession, any new downturns look to be more localized. But there are risks to be aware of.

Susan Lund

The ingredients of the world's worst financial crisis in 70 years, we now know, had been simmering for some time, mercurial and unattended. Even before the global credit crisis exploded in September 2008, obliterating storied financial institutions and enveloping financial markets, factories, and homeowners, the formative elements of the Great Recession were in plain view. Simply put, surplus global liquidity, combined with an interconnected global financial system, had helped set the conditions for a massive housing bubble.

Banks gave out mortgages at very low interest rates to increasingly risky borrowers. Trillions of complex, opaque derivative securities were built atop these underlying mortgage assets, and investors around the world bought them. Households were borrowing more than they could afford, and when the economy fell into a recession and people lost jobs, they defaulted on their mortgages and set off a catastrophic global crisis. Banks had only a thin layer of equity capital to withstand the accumulating losses on their balance sheets. As more and more mortgages fell into default, banks faced losses that pushed them into a solvency crisis.

The rest, as they say, is history. The question now, ten years after the credit crisis, is: What lessons have we learned? Could we see a repeat of the same pattern—a real-estate bubble that fuels a banking crisis that spreads across the world? History shows us that real-estate bubbles and banking crises go hand in hand and have plagued countries throughout history. It would be foolish to say that this combination couldn't rear its ugly head again, but it is worth noting how the landscape has changed since 2008.

Most notably, the global financial system is less interconnected than it was. The average amount of money crossing borders has shrunk by about half since 2007. Banks have sold foreign assets; they have exited some foreign markets. Before the crisis, two-thirds of German banking assets would have been outside Germany; today only about a third are.

Banks are more stable: they hold more capital and liquid assets, they are subject to a host of new regulations, and they have reduced the risk on their balance sheets in regard to the assets they hold and the activities, like proprietary trading, that they engage in. In addition, the complex derivatives that allowed the crisis to ripple across the global system have shrunk substantially.

Overall, the minders of the global financial system did well in responding to the 2008 crisis. They battened down the hatches, managed over time to restore trust in institutions, and created a stronger financial system to guard against those particular risks. But old risks remain, and new ones have arisen.

Overall, the minders of the global financial system did well in responding to the 2008 crisis. But old risks remain, and new ones have arisen.

Increase in corporate, government, and household debt

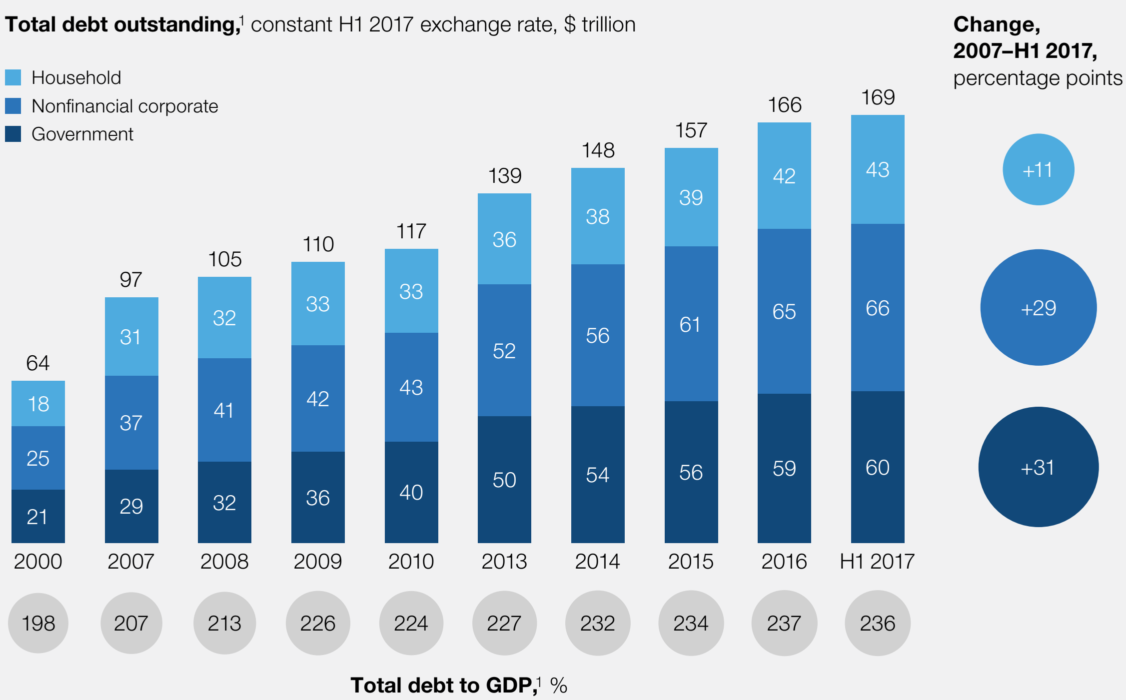
In contrast to postcrisis expectations, the total amount of debt in the world has continued to grow rather than decline. In absolute terms, the world has $72 trillion more debt than there was in 2007, on the eve of the crisis. Government debt has grown rapidly in advanced economies (exhibit).

Prior to the credit crisis, governments around the world owed some $32 trillion; now they owe about $60 trillion. The recession reduced tax revenues and increased social-welfare payments for things like unemployment, a situation that put a big dent in government fiscal balances. And around the world, governments, to one extent or another, provided financial support to the banking system and other critical industries. All of that has made governments more indebted than ever before.

At the same time, companies have borrowed almost as much as governments have borrowed. Globally, nonfinancial corporate debt is even larger than sovereign debt. The growth of corporate debt in developing countries poses a particular risk when interest rates rise and debt is denominated in

Exhibit

Global debt has continued to swell since the financial crisis but has remained stable relative to world GDP since 2014.



Note: Figures may not sum to listed totals, because of rounding.

[1] Includes household, nonfinancial corporate, and government debt; excludes debt of the financial sector. Estimated bottom up using data for 43 countries from Bank for International Settlements and data for eight countries from McKinsey's analysis.

Source: Bank for International Settlements; McKinsey Global Institute analysis foreign currencies. If the local currency depreciates, companies might be caught in a vicious cycle that makes repaying or refinancing their debt difficult.

Real-estate bubbles and mortgage risk

Households in the United States borrowed too much before the crisis—but so did households in other countries, a pattern that was somewhat overlooked. Ireland, Spain, and the United Kingdom all experienced real-estate bubbles that were similar to or larger than those in the United States. Over the past ten years, households in those four countries have reduced their debt levels substantially.

Australia, Canada, Norway, South Korea, and Sweden all have household debt, relative to GDP, at levels similar to—or higher than—that of the United States at the peak of the crisis. A common thread among them? Continued growth in housing prices has prompted more household borrowing through mortgages. Real-estate prices have soared to new heights in sought-after markets like Shanghai, Sydney, and Vancouver. Even in the United States, pockets of risk remain in the mortgage market. Roughly half of all new mortgages are coming from nonbank lenders that have significant liquidity risks.[1] It is not the same "shadow banking" entities that we saw before the 2008 crisis, but the situation still bears watching as these entities become a significant part of the market.

China's rapid growth and debt

Over the past ten years, China's debt, in absolute terms, has more than quadrupled in size—from \$5.8 trillion to \$32.4 trillion. The country's ratio of debt to its GDP is now near to or higher than that of economies like Canada, Germany, and the United States. One thing we know from financial crises around the world is that whenever there is rapid growth in credit, there is a high likelihood that lending standards have fallen, and that underwriting is not as strict as it should be. And so we can see some potential risk in China's debt: much of it is related to real estate. If the market were to go into reverse, we could see many defaults. Additionally, about one-fourth of loans are from China's own type of shadow-banking entities—for instance, wealth-management funds and other vehicles outside of the banking system. This combination of an over-extended property sector and unsustainable finances of local governments could eventually combust. Of course, China's government has ample fiscal capacity to bail out the financial system in the event of rising loan defaults, but the debt overhang could slow China's growth and have repercussions for the global economy.

■ ■ ■

The good news? If any one of these potential bubbles were to burst, it might cause pain for a subset of investors and lenders, but none seems poised to produce a 2008-style meltdown. These run-ups would tend to be localized, and crashes would be less likely to cause worldwide collateral damage. The likelihood of contagion has been greatly reduced by the fact that the market for complex securitizations, credit-default swaps, and the like has largely evaporated.

But if 2008 taught us anything, it is the importance of being vigilant when times are still good. ■

[1] You Suk Kim et al., "Liquidity crises in the mortgage market," *Brookings Papers on Economic Activity*, Spring 2018, pp. 347–13, brookings.edu.

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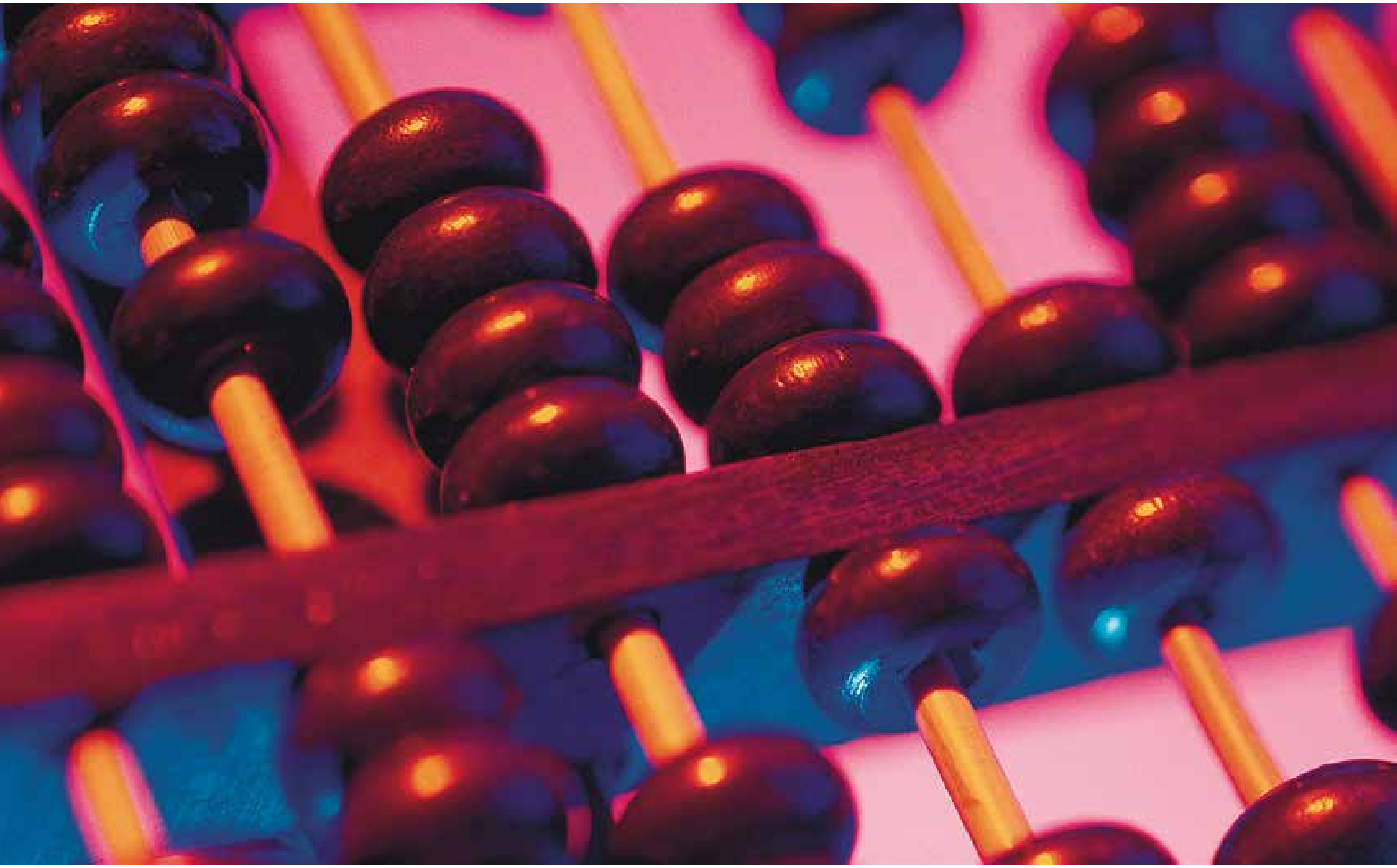
A welcome change in lease-accounting rules

New rules will mean better estimates for investors, but they should have little to no effect on how companies operate and create value.

Prateek Gakhar, Jyotsna Goel, and Werner Rehm



For decades, investors, credit-rating agencies, and analysts assessing the relative performance of companies with large portfolios of leases have capitalized off-balance-sheet leases as assets rather than expenditures.

Now, after much deliberation,[1] the rules are catching up to common practice: in 2019, all leases longer than 12 months will have to be recognized on balance sheets as "right of use" assets and corresponding financial liabilities under both International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (GAAP).

As a result, lease-intensive industries, such as retail, travel, and transportation and logistics, face changes. Reported debt for such players (and consequently, reported assets and invested capital) could increase by 30 percent to 60 percent (exhibit). No materially new information will be disclosed, but at a high level, the change in rules will make it easier for investors and analysts to compare performance across companies.

Some inconsistencies remain, however. For example, the International Accounting Standards Board and the Financial Accounting Standards Board both require that companies recognize the liability of future lease payments over initial lease periods, as well as recognize an offsetting right-of-use asset for all leases. With some exceptions, such as the exclusion of small-value leases under IFRS, balance sheets should be comparable. The income statement, however, presents a new issue. Under IFRS, all lease payments will have to be split into depreciation and interest charges, neatly separating operating expenses and finance costs in both the profit-and-loss and cash-flow statements. By contrast, US GAAP will still recognize the concept of an operating lease, and companies will record lease expenses for them fully in the operating-expenses portion of the two statements.

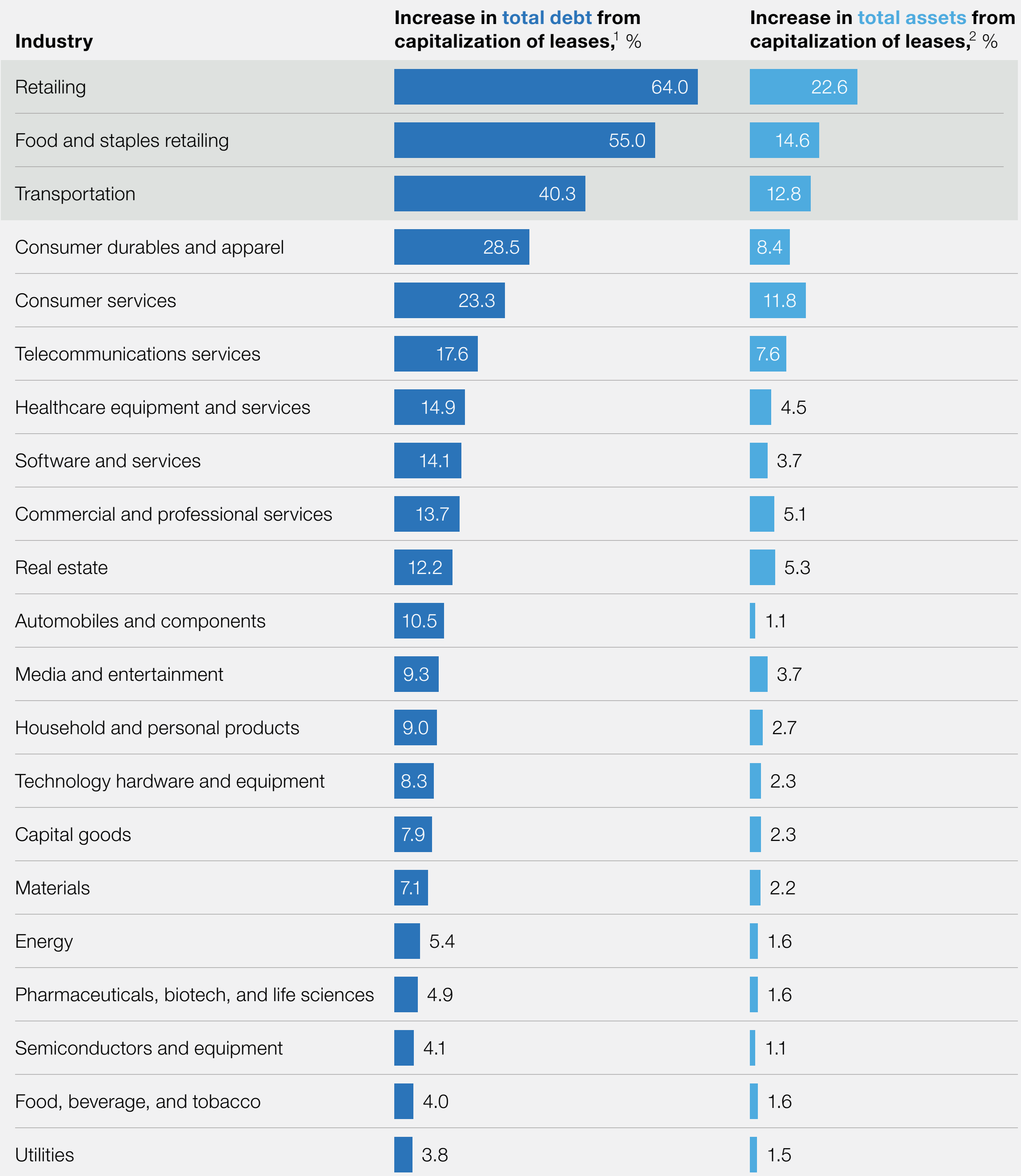
As a result, investors and analysts wanting to compare companies' return on capital, EBITDA, EBITA, margins, and enterprise-level multiples will still have to restate the data for businesses reporting under US GAAP. They will have to add back the implied interest cost to reported operating profits to make them fully comparable. This should not be a difficult task.

Clearly, financial analysts will also need to take care when benchmarking performance over longer time frames, making sure to restate pre-rule-change financial data as best as they can to be consistent with post-rule-change standards. This will be the only way to draw meaningful conclusions from analyses over long time frames.

At a high level, the change in rules will make it easier for investors and analysts to compare performance across companies.

Exhibit

The effect of lease capitalization on debt is concentrated in retail and transportation.



Note: FY 2017; n = ~2,600 US companies with market capitalization >$100 million in 2018.

[1] Calculated as total present value of lease payments divided by total debt.

[2] Calculated as total present value of lease payments divided by total assets.

Source: Corporate Performance Analytics by McKinsey

For executives in industries with extensive leasing portfolios, the message is also clear: these changes in accounting rules, by themselves, warrant no shift of real-estate or financing strategies. As we've outlined in earlier research,[2] accounting-rule changes that don't require companies to disclose more information don't reveal new insights that might lead investors to change their assessments of a company's value. We've seen no revaluation when stock options were expensed or when goodwill accounting changed to then-new rules.

Investors understand that cash flows don't automatically change when the rules do—and that's what matters, ultimately. ■

[1] The Financial Accounting Standards Board and the International Accounting Standards Board have been discussing the rule change since 2006, seeking to align both sets of standards.

[2] See Timothy Koller and Werner Rehm, "Why accounting rules shouldn't drive strategy," February 2007, McKinsey.com, and Werner Rehm, "Leasing: Changing accounting rules shouldn't mean changing strategy," April 2011, McKinsey.com.

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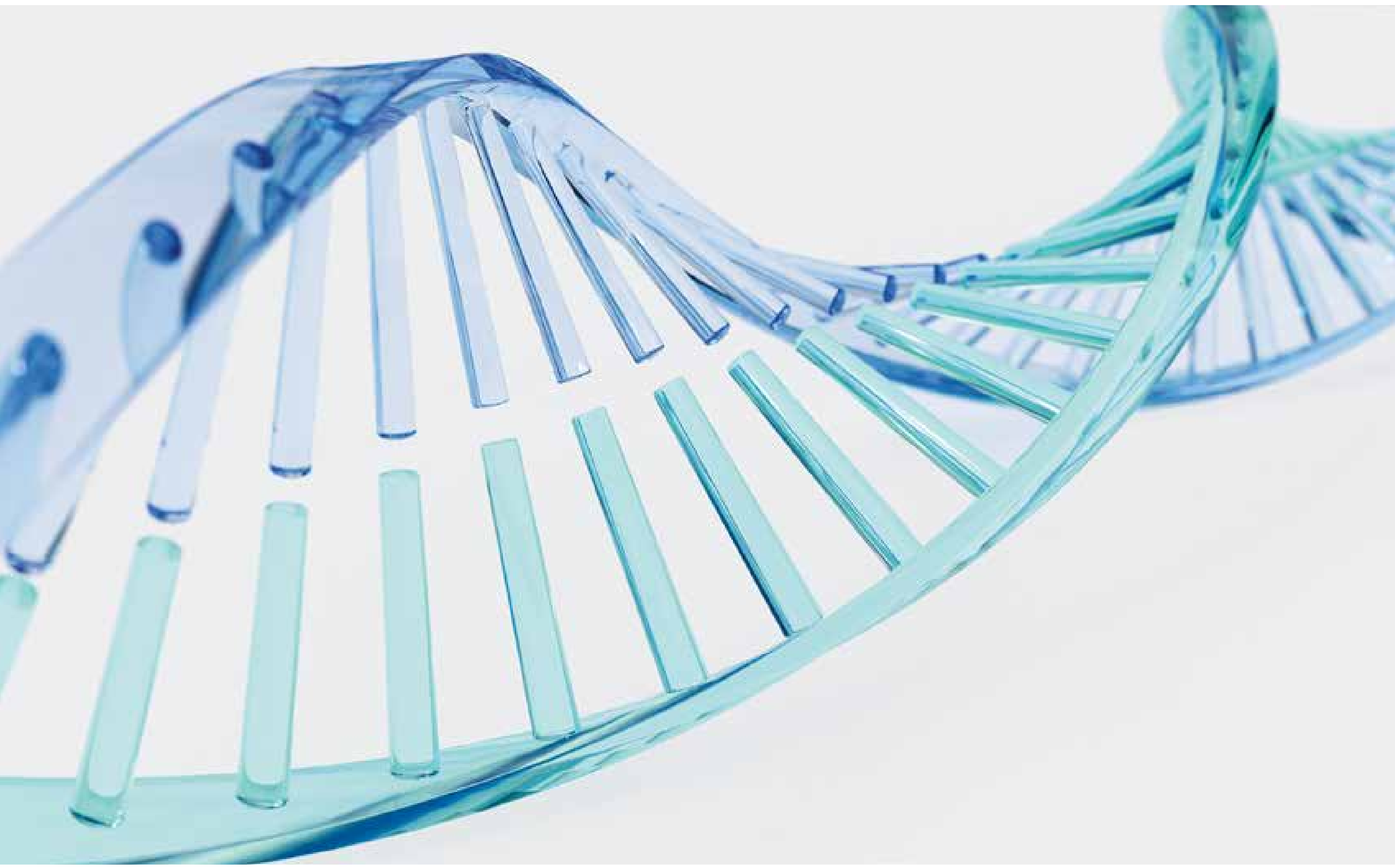
INDUSTRY DEEP DIVE

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.

Roerich Bansal, Ruth De Backer, and Vikram Ranade



The passage of US tax reform in late 2017 led to speculation that M&A activity would soon surge among pharmaceutical companies, in part because of 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 look outside continually for innovation. In this context, Big Pharma's high-volume deal making 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, biotech, and so on) that have altered the way pharmaceutical companies have thought about and pursued deal making over the past decade or more.

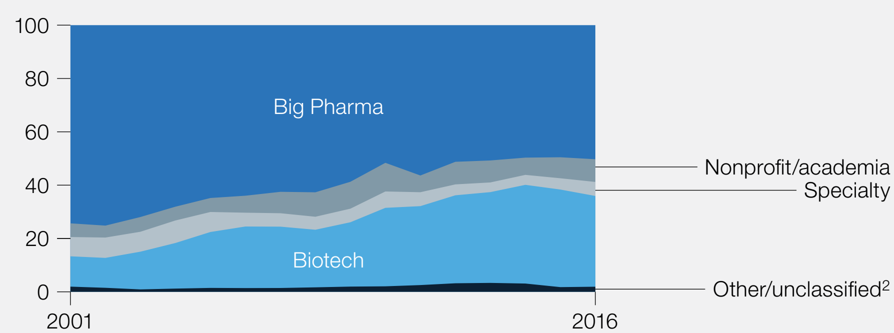
Over time, we and our colleagues have studied trends in the pharmaceutical industry and considered the questions: What are the perennial drivers of M&A in this sector, and how might these variables change in the coming months and years? In principle, there are three core motivations for pharmaceuticals 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 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 compounds or with biologics license applications, excluding generics, biosimilars, and new-drug-application products.
[2] Includes chemicals, consumer, generic, and unclassified companies.

Source: EvaluatePharma; Pharmaprojects; McKinsey analysis

The premium on innovation is big, and those who place the most bets are rewarded.

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 pharmaceutical 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 Therapeutics 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 need continual 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 predict patent-expiration dates accurately, but consensus forecasts suggest that the total value of revenues at risk from patent expirations 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 have arrived at a patent cliff before adding to their pipelines. So, in isolation, this factor should not result in a significant increase in deal-making activity compared with the past few years.

M&A as a way to unlock synergies

Another motivation for M&A is to capture synergies by scaling up. Takeda Pharmaceutical, 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 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 deal making, 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.

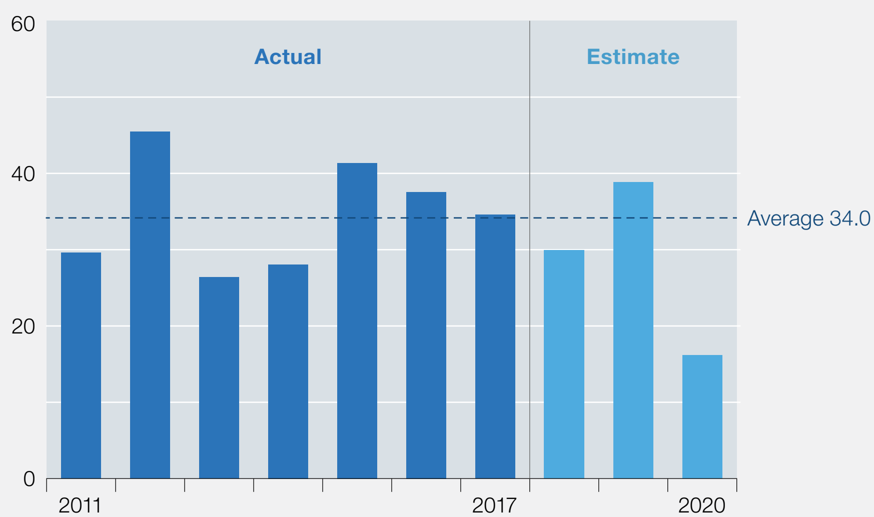
M&A as a way to realign portfolios

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

Exhibit 2

The total value of revenues at risk from patent expirations over the next three years, for the top 25 pharmaceutical companies, is roughly $85 billion.

Top 25 pharmaceutical companies worldwide, revenue at risk because of patent expirations,[1] $ billion



[1] Measured as the sum of drug revenue from the year prior for all drugs with commercially relevant patent expirations in each year. 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

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.[4] We are already seeing some large healthcare 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, on 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 Pharmaceutical and Shire has significantly changed today's definition of "deal value" in the industry compared with the sector's definition a few years ago, when fewer megadeals were being conducted.

[2] "Proposed acquisition of Shire plc by Takeda," Takeda Pharmaceutical, 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] 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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BIAS BUSTERS

Despite their best intentions, executives fall prey to cognitive and organizational biases that get in the way of good decision making. In this series, we highlight some of them and offer effective ways to respond.

Our topic this time?

Taking the ‘outside view’

Tim Koller and Dan Lovallo

The dilemma

You’re the head of a major motion-picture studio, and you must decide whether to green-light a movie project. You need to predict whether it will be boffo (a box-office hit) or a bust. To make this decision, you must make two interrelated forecasts: the costs of production and potential box-office revenue.

Production costs are easy, you think: you know the shooting days, specific location costs, and computer-generated-imagery costs. You can enter these into a spreadsheet that reflects the film’s production plan. Potential box-office revenue is harder to predict, but you know roughly how many screens the film will be on during opening weekend, how “hot” your stars are right now, and how much you’re going to spend on advertising.

Do you have enough data to make a decision? Maybe. Are the data enough to make the right decision? Probably not. Research shows that film executives overestimate potential box-office revenue most of the time.

The research

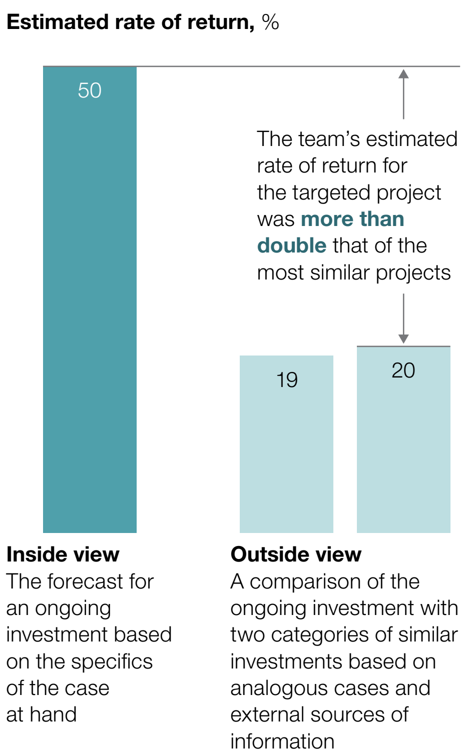
That’s because film executives often take what Nobel laureate Daniel Kahneman and colleagues refer to as the “inside view.”[1] They build a detailed case for what is going to happen based on the specifics of the case at hand rather than looking at analogous cases and other external sources of information. (If they do look at other data, it's often only after they've already formed impressions.) Without those checks and balances, forecasts can be overly optimistic. Movie projects, large capital-investment projects, and other initiatives in which feedback comes months or years after the initial decision to invest is made often end up running late and over budget. They often fail to meet performance targets.

The remedies

One way to make better forecasts, in Hollywood and beyond, is to take the "outside view," which means building a statistical view of your project based on a reference class of similar projects. Indeed, taking the outside view is essential for companies seeking to understand their positions on their industries' power curves of economic profit.[2] To understand how the outside view works, consider an experiment performed with a group at a private-equity company. The group was asked to build a forecast for an ongoing investment from the bottom up—tracing its path from beginning to end and noting the key steps, actions, and milestones required to meet proposed targets. The group's median expected rate of return on this investment was about 50 percent. The group was then asked to fill out a table comparing that ongoing investment with categories of similar investments, looking at factors such as relative quality of the investment and average return for an investment category. Using this outside view, the group saw that its median expected rate of return was more than double that of the most similar investments (exhibit).

Exhibit

Private-equity teams built a more accurate forecast using the outside view.



The critical step here, of course, is to identify the reference class of projects, which might be five cases or 500. This process is part art and part science—but the overriding philosophy must be that there is "nothing new under the sun." That is, you can find a reference class even for groundbreaking innovations—something music company EMI (of the Beatles fame) learned the hard way.

In the 1970s, EMI entered the medical-diagnostics market with a computed-tomography (CT) scanner developed by researcher and eventual Nobel Prize winner Godfrey Hounsfield. The company had limited experience in the diagnostics field and in medical sales and distribution. But based on an inside view, senior management placed a big bet on Hounsfield's proprietary technology and sought to build the required capabilities in house.

It took about five years for EMI to release its first scanner; in that time, competitors with similar X-ray technologies as well as broader, more established sales and distribution infrastructures overtook EMI. In seeking to do everything alone, EMI suffered losses and eventually left the market. Building a reference class would have allowed the company not only to predict success in the market for CT scanners but also to develop a more effective go-to-market strategy.[3]

Compared with EMI's situation, finding a reference class for a film project might seem like a no-brainer: you figure there will be lots of movies in the same genre, with similar story lines and stars, to compare with the focal project. And yet, when we asked the head of a major motion-picture studio how many analogues he typically used to forecast movie revenue, he answered, "One." And when we inquired about the most he had ever used, he said, "Two." Research shows that using the correct reference class can reduce estimation errors by 70 percent.[4]

Companies often think it's too hard and too time-consuming to build a reference class, but it isn't. In an effort to improve the US military's effectiveness in Iraq in 2004, Kalev Sepp, a former special-forces officer in the US Army, built a reference class of 53 counterinsurgency conflicts with characteristics of the Iraq war, complete with strategies and outcomes. He did this on his own in little more than 36 hours. He and his colleagues subsequently used the reference class to inform their decisions about critical strategy and policy changes. Other organizations can do the same—learning as much from others' experiences as they do from their own. ■

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1 Daniel Kahneman and Dan Lovallo, "Timid choices and bold forecasts: A cognitive perspective on risk taking," *Management Science*, January 1993, Volume 39, Number 1, pubsonline.informs.org.

2 The power curve is a global distribution of companies' economic profit. For more on this concept, see *Strategy & Corporate Finance blog*, "Is your strategy good enough to move you up on the power curve?," blog entry by Martin Hirt, January 30, 2018, McKinsey.com.

3 John T. Horn, Dan P. Lovallo, and S. Patrick Viguerie, "Beating the odds in market entry," *McKinsey Quarterly*, November 2005, McKinsey.com.

4 Bent Flyvbjerg, Massimo Garbuio, and Dan Lovallo, "Delusion and deception in large infrastructure projects: Two models for explaining and preventing executive disaster," *California Management Review*, Winter 2009, Volume 51, Number 2, journals.sagepub.com.

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BIAS BUSTERS

Despite their best intentions, executives fall prey to cognitive and organizational biases that get in the way of good decision making. In this series, we highlight some of them and offer effective ways to respond.

Our topic this time?

Being objective about budgets

Tim Koller, Dan Lovallo, and Olivier Sibony

The dilemma

It has been another long, exhausting budget meeting. You reviewed the presentations, challenged every number, explored every assumption. In the end, you raised targets a little, but, if you're honest, you have to admit it: next year's targets are not very different from the ones the business units proposed at the beginning of the budget process, which, in turn, are not very different from the latest forecasts for this year. What happened?

The research

You were likely the victim of anchoring. It's a psychological phenomenon in which a number sticks in your mind and influences you, even if you think you're disregarding it, and even when the numbers seem irrelevant. It happens every day—inside and outside the strategy-planning room.

Consider this example: a group of people was asked two questions. First, "Was Gandhi younger or older than nine when he died?" And then, "How old do you think Gandhi was when he died?" A separate group was also asked two questions. First, "Was Gandhi younger or older than 140 when he died?" And then, "How old do you think Gandhi was when he died?" Both reference-point numbers in the questions are ridiculous, of course, but those anchors affected how people responded. The first group said Gandhi died when he was 50, and the second group said he died when he was 67. In reality, Gandhi was 78 when he was assassinated.

In the context of business, anchors can similarly make business-unit leaders believe their plans and investments are changing significantly over time when in fact they remain relatively fixed (exhibit).

The remedies

An anchor is such a powerful influence that only another anchor can overcome it. Reanchoring replaces the number in your head with one grounded in a different set of facts. To see how it works, imagine you're charged with setting your company's sales targets for several different regions. You could take the following steps to reanchor yourself:

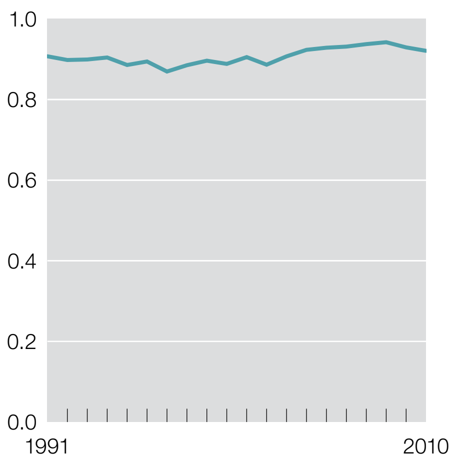
- *Set some fact-based, nonhistorical criteria for determining sales targets.* These might include, for instance, market growth over a set period, the company's current market share, and the number of sales representatives in your company compared with competitors. You don't have to include every single factor, but you should make sure that objective data can be found to document the criteria you've set. History (for example, this year's sales targets) should not be a factor—it already has enough weight as an anchor.

- *Build and calibrate a forecasting model based on these criteria.* The goal here is to answer a question: If you did not know what your sales targets were this year and were relying only on the criteria you defined, what would the targets for next year be? There are many techniques you can use to answer this question; you could, for instance, perform a simple regression analysis using only a few of the variables you've identified. Just remember that you're not trying to make absolute predictions; the model only needs to be directionally correct in most cases. If the model's output is within 10 percent of historical numbers in two-thirds of sales territories, for instance, you probably have something precise enough.

- *Use the model as a second anchor.* Now you can use the model's output to change the dynamics of the target-setting discussion. For instance, a budget meeting likely used to start with, "You're on track to deliver 100 units this year, and you're aiming for 103 next year, but I'm sure you can do better." Now, you can change the

Exhibit **Despite self-perceptions, executives are slow to shift resources between and among business units.**

Relative business-unit year-to-year capital-expenditure correlations,[1]
correlation index, 1991–2010



[1] Sample size of 1,508 registered multibusiness companies with revenues above $1 billion. Each year's proportion of a company's capital expenditures in each business unit was correlated to the previous year's figure.

Source: McKinsey analysis

conversation to: “You’re aiming for 103 units, but the model tells me you have the potential to aim for 120—let’s talk.” Of course, this is going to be a longer conversation. But for each sales territory in which the two anchors are far apart, there will likely be one or two where the anchors are very close (that is, incoming targets will be close to the model’s output). These discussions can be expedited, which will save discussion time for the difficult cases.

Variations of this reanchoring approach can be used in any target-setting or resource-allocation process where you want to challenge the status quo. It focuses debate where debate is really needed and helps reduce the inertia that anchoring induces.

It’s not a panacea: at the end of the day, you will still have to make tough decisions. But reanchoring will help make difficult conversations considerably more productive. ■

Parts of this article were adapted from “Is your budget process stuck on last year’s numbers?” by Dan Lovallo and Olivier Sibony, March 2014, McKinsey.com.

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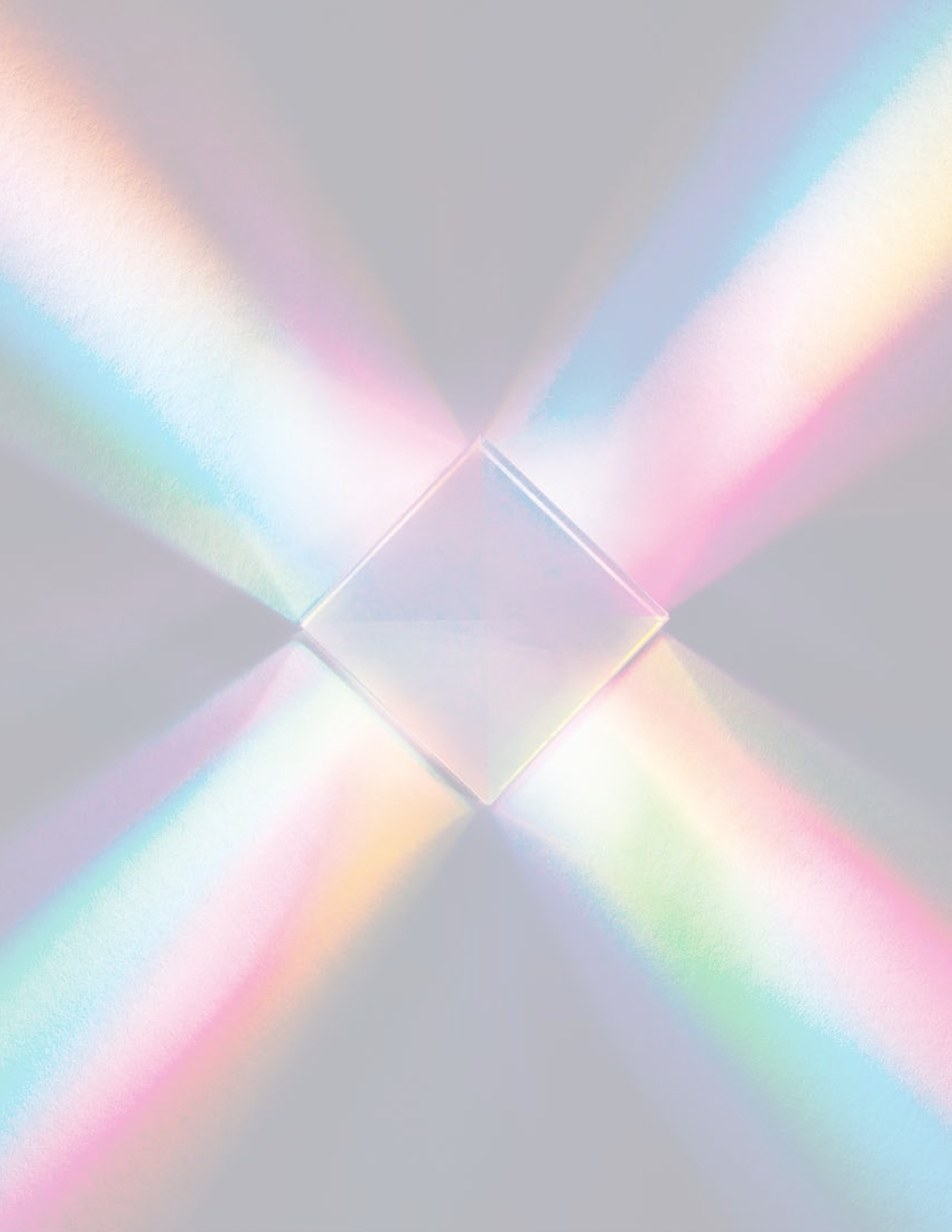

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