It wasn’t very long ago that uttering “growth” in the same breath as “technology” would have been redundant. As industries go, technology was the grand master of growth. Today, it’s a different ball game, for individual companies as well as the industry as a whole.

The economic trajectory for technology looks much like GDP, with a projected annual growth rate from 2013 to 2018 of 3.4 percent, according to IDC. Especially in many large, mature segments, growth will most likely be lukewarm (about 1.3 percent for servers and 2.4 percent for networking), if not downright chilly (laptops down 1.2 percent and desktop PCs down 2.7 percent). Nor is there any sign of a “next big thing,” like the smartphone wave—which is already cooling—to drive growth at the $50 billion-plus level. Innovation in the Internet of Things, big data, and other areas will unlock growth, but not enough to ignite the broader industry or satisfy the double-digit growth expectations that many investors still hold. In some cases, these areas are already cannibalizing revenue streams.

For large technology companies, size has become a challenge in itself: it’s hard to grow organically at 10 percent or more when you’re a $10 billion or larger company. Many of the largest companies can no longer rely on a single flagship product or market segment to generate sufficient growth. The problem is magnified for these companies because as current growth slows, they become less attractive to the very pools of talent—creative and technical—that they need to drive the next wave of innovation and growth. The drift toward maturity, and even stagnation, becomes harder to escape. And yet, despite these new challenges, the pressures to create value for shareholders and potential investors are unrelenting.

Indeed, activist investors have increasingly been targeting the technology sector. Their efforts—including proxy battles, board nominations, and other actions—numbered 42 in 2013, up from 21 in 2009, as reported by S&P Capital IQ. Since 2005, instances of activist engagement have escalated 25 percent each year. Investors want a greater say not only in company strategy, leader-
ship, and the way cash is managed but in capital allocation, financial policy, and the role of portfolio assets.

Recent and proposed corporate splits (some prompted by activist investors) are clear signs of the pressures that technology companies are living under. For some companies, a breakup is the best way—if not the only way—to unlock the growth potential in segments of the portfolio. More than that, it’s also an important way to drive value in the legacy core business—through such means as cost and profit optimization, capital allocation, and consolidation. The proposed breakups of HP and Symantec, as well as eBay’s spinoff of PayPal, may well signal a trend to raise shareholder value by separating businesses into smaller, nimbler, and more narrowly focused units. Leading technology investor Marc Andreessen put it bluntly: “If they’re more than 20 years old, then [companies will] probably benefit from being broken up, and many of them will probably be forced to break up if they don’t do it voluntarily.”

But breakups aren’t the only response to pressure: M&A activity has also been rising. A raft of deals made or announced during the first three quarters of 2014—including deals between Facebook and WhatsApp, SAP and Concur, and Lenovo and Motorola—totaled more than $70 billion.

Companies need to deal with these new market pressures proactively. Whether it means breaking up, acquiring, or merging—or finding internal opportunities to invest or optimize—they need to take a systematic approach to creating value in the market. That means assessing where they are today, determining where they should be tomorrow, and defining the path that will get them there.

Pulse Check: TSR and Portfolio Diversity

One important measure of a winning company is its total shareholder return (TSR). TSR is the shareholder’s true bottom-line return from capital gains and cash flow contribution. But another way of viewing TSR is as the sum of the company’s business strategy, financial strategy, and investor strategy. Together, these strategies should produce value-creating growth that yields differentiated returns for investors.

In terms of TSR performance, the majority of large-cap companies finished in the bottom half of all technology companies in The 2014 TMT Value Creators Report: Productivity and Growth—Winning the Technology Disruption Battle (BCG report, December 2014). Small-cap companies performed better, on average, than did large-cap companies.

When we consider value creation within a company, it’s natural to look at its portfolio of businesses. Many companies believe that the way to conquer market challenges is by constantly expanding their portfolio. But is that, in fact, the right approach? Does the pursuit of portfolio diversity support—or hinder—value creation?

When we analyze the TSR performance of publicly held technology companies in relation to their portfolio diversity, the distinction between large-cap and small-cap companies fades. (See the exhibit below.) The clear takeaway is that regardless of company size, the more diverse the portfolio, the more difficult it is to generate high TSR—and the greater the set of management skills a company needs in order to handle that diversity. Companies must therefore be more deliberate and more explicit in rationalizing each element of their portfolio.

Portfolio Archetypes

Throughout many sectors of the technology industry, companies should target one of four specific portfolio archetypes that help define strategy and clarify the position they seek to occupy. With their various business lines, some companies might correspond to more than one archetype, but their primary sources of competitive advantage come from one of the following four:

• **Stack builders** are committed to developing an integrated product or solution in a particular area—for example, networking equipment or mobile devices—
and they often provide the different layers of the stack, such as operating systems, hardware, applications, and even services. Successful stack builders develop a comprehensive portfolio that offers an end-to-end solution for their customers. Notable stack builders include Microsoft, Cisco Systems, Samsung, and Apple.

- **Stack orchestrators** typically own a critical portion of the stack while cultivating an ecosystem of partners that enhance the end-to-end offering and experience. Orchestrators seek to capture value by owning a strategic control point in the chain. Good examples are Amazon.com and its Web services business, Google, Salesforce.com, and Red Hat. Successful stack orchestrators develop collaborative partnerships with relevant players. Other companies in Google’s ecosystem, for instance, create apps or make devices that use the Android operating system.

- **Point solution players** provide specific hardware, software, or services, and they focus narrowly on a best-of-breed solution in a specific area that can be deployed across multiple platforms or ecosystems. To be successful, point solution players differentiate themselves with their product or service, making it preferable to the comparable product or service offered by a stack builder. Point solution players are disciplined in their focus, resisting the temptation to broaden what they provide. Among the companies representing this archetype are Adobe Systems, Palo Alto Networks, and Seagate Technology.

- **Low-cost and low-scale consolidators** produce components or designs for other products, or hardware in low-margin categories—either for their own brand or on a white-label basis. Such companies distinguish themselves in their operational efficiencies or flexible manufacturing systems. Exemplars include Lenovo, Huawei, and Vizio.

To maximize value creation, we believe it’s vital that every company be explicit in

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**Portfolio Diversity Generally Does Not Pay**

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<tr>
<th>TSR, 2009–2013 (%)</th>
<th>Median = 76%</th>
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<td>40</td>
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<td>High diversity</td>
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Median = 11.8%

Sources: S&P Capital IQ, BCG ValueScience Center, BCG analysis.
Note: TSR = total shareholder return.
choosing where (and where not) to compete—and about how to compete. To embark on a path to profitable growth and healthy shareholder returns, a company must define and commit to a strategy for the long haul—in industry terms, that generally means three years, or what amounts to a full strategy cycle. All growth decisions, whether organic or inorganic, should align with the company’s archetype.

**Resize, Reform, Rejuvenate**

How do you go about creating a strategic roadmap for your company? Start by assessing your current position. Analyze your recent TSR, portfolio mix, and core capabilities. Decompose the sources of value creation across your business lines to determine the value drivers that will make a difference in your performance. Evaluate your talent pool. Conduct a beliefs audit to understand employee and leadership perceptions of the company’s performance and prospects.

Next, define your desired future state. Which strategic archetype do you aspire to, and what strategic choices and type of portfolio are right for it? In weighing your choices, consider market dynamics. For example, are you currently being rewarded or punished for the diversity of your portfolio? Are you in a market that rewards low-cost or low-scale consolidators that return cash to shareholders, but your cost base or capital allocation needs reforming? Will your market reward a more integrated portfolio or a best-of-breed portfolio?

Now it’s time to develop a plan to close the gap between your current and future state—and execute it. Decide which of three strategic levers to apply—resize, reform, or rejuvenate—and in what sequence. It is preferable to do this proactively, before the market grows impatient and forces choices and trade-offs that may constrain your options.

- **Resize.** Companies facing stagnation or outright decline should consider resizing—splitting up, spinning off, or divesting or selling one or more businesses. But resizing can apply to any company that needs to regain competitiveness, either by exiting businesses that no longer conform to its strategic archetype or augmenting its offerings to emphasize the areas with the greatest potential and alignment, either organically or through M&A additions.

- **Reform.** Regardless of portfolio mix, companies should sharpen operations to pave the way to growth. This includes reducing costs through operational initiatives, improving the effectiveness of support functions, and refining the organizational structure for efficiency. If selling a business is part of the plan, a company might maximize its value by first honing its efficiency.

- **Rejuvenate.** Companies seeking the next level of growth are ripe for rejuvenation. Fueling growth might be as straightforward as instituting a new pricing model or go-to-market strategy. It might call for doubling down on R&D capabilities or expanding alliances and joint ventures to extend market reach. Or a company might focus on the people side—attracting and retaining talent to align with the new strategy or enhancing the culture to create a better fit for the new generation of technical talent.

Certainly not all companies need to apply all strategic levers. But to illustrate how the three can be applied—with dramatic results—consider Nokia. As recently as July 2012, analysts were sounding the death knell for the company that was once the world’s largest mobile-phone maker. Nokia executives first resized by divesting Nokia’s largest business—mobile devices. And they bought out Siemens’ 50 percent share of the two companies’ joint venture, Nokia Siemens Networks. They reformed by designing a new corporate structure better aligned to their retained businesses and areas of focus, and they initiated a series of operational efficiency improvements. Finally, the company rejuvenated its business by putting in place a new management team and portfolio strategy. The market rewarded Nokia with a steadily rising share price and an enterprise value that has
grown twelvefold since bottoming out only two-and-a-half years ago. (For more on how companies can activate large-scale transformation, see *Transformation: The Imperative to Change*, BCG report, November 2014.)

The breakups and combinations in the technology industry appear to signal the early stages of a broader industry reorganization that will result in a shakeup among winners and losers. The winners will be those that clearly define their target archetype, link it to their strategic objectives, and proactively apply the resize, re-form, and rejuvenate levers in an appropriate sequence—all with TSR in mind.

Companies that are thoughtful and proactive about their strategy—and that communicate it effectively with customers and investors—position themselves for sustainable growth. Rather than being constrained by an ever-narrowing set of options, they will be shaping their future—and ensuring that they are always one big competitive step ahead in the ever-shifting industry landscape.

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