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Negotiating a better joint venture

As important as it is to secure the right terms for a shared enterprise, it is just as critical to form a sustainable relationship.

Eileen Kelly Rinaudo and Jason Roswig

In the fast-paced world of deal making, joint ventures (JVs) are a conundrum. Slow in the making, often with complicated structures and shared management teams, they seem out of place in a volatile era marked by buzzwords that hype agility and nimble strategic moves. Yet there they are, more than 1,500 JV deals completed annually over the past ten years, including around 10 percent of them characterized as large JVs, with an initial value of more than $250 million. Their volume seems likely to endure—more than two-thirds of executives surveyed in 2014 reported that they expect to do more JVs in the future.[1]

But JVs are not always embraced without reservation. In fact, we encounter many executives who express significant concerns, often when they're wrapped up in the uncertainty of JV negotiations. Given how much longer those negotiations can last compared to traditional acquisitions, this is both understandable and alarming. One global conglomerate we've observed advises its US-based headquarters to expect JV negotiations to last three to six times longer than M&A negotiations. That's a long time for doubt to creep in, particularly if the competitive context justifying a venture might shift in the meantime.

How can executives build healthier partner relationships to give future JVs the best odds of success? Our review of a series of long-standing partnerships—supported by our 2014 survey and a series of structured interviews with JV partners[2]—identified three principles that made a difference in deal negotiations: investing more time and effort up front, working harder to cultivate and sustain the JV relationship, and standardizing key processes and learning mechanisms.

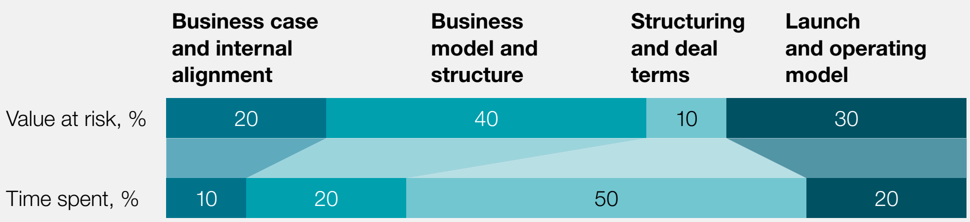
Invest more up front

As business negotiations go, JVs are marathons, not sprints. In their rush to complete a deal quickly and begin capturing value, inexperienced JV planners neglect the foundational steps of planning. Commonly, they jump too quickly into high-stakes discussions on specific deal terms such as how ownership is divided, who nominates key leaders, and what intellectual-property protections will be put in place. What they leave aside is an explicit understanding of how well those terms match the objectives of the deal.

In fact, most companies need to invest more time in the early phases of deal planning and preparing for negotiations. Our research has shown that many planners focus more than half of their negotiating time hammering out specific deal terms that should be addressed late in negotiations and only 20 percent of their time on the JV structure and business model, which should be addressed first. In contrast, those same planners believe that the phases of the process devoted to internal alignment and the business model represent 60 percent of the total value at risk, while the phase devoted to deal terms accounts for only 10 percent (Exhibit 1).

That disconnect between time spent and value derived reinforces damaging habits. Deal terms are important, but they are difficult to correctly perceive and negotiate without a clear articulation of broader issues including deal objectives, market considerations, and walk-away points. Negotiators who lack that foundation are poorly prepared to discuss deal terms. The cost can often be measured in time. For example, negotiations slow considerably when negotiators fixate on specific, preconceived deal terms even though other solutions could also work or when they belabor negotiations on all possible considerations instead of covering the most likely ones. Cost can also be measured by long-term damage to the JV. When negotiators fail to examine a potential partner's deeper motives or to consider the regulatory landscape fully, companies can end up with deal terms that don't adequately govern an agreement—and that can carry substantial costs.

Exhibit 1 **Joint-venture planners spend more time on phases of negotiation that create less value.**



Source: McKinsey analysis

For example, after a European company formed a JV to manufacture equipment in China, it unexpectedly learned that local regulators would compel it to transfer a larger equity stake to its Chinese partner, which threatened the deal's feasibility. If the European company's negotiators had conducted a more rigorous up-front process, they likely would have discovered that requirement. Instead, the venture's launch was delayed, and the European company's governance rights were diminished—consequences that might have been avoided.

Companies can avoid or at least mitigate such problems by investing more time in the early stages of planning. One US agricultural company requires extensive up-front business planning to confirm internal alignment and identify the motives of each counterparty. Planners there credit their rigorous preparation phase for making negotiations smoother.

That's consistent with our experience. We've found that companies benefit when they set up internal checks and balances to ensure that these foundational issues are articulated and confirmed internally before negotiations with partners begin in earnest. They should also engage potential partners in early discussions to confirm that they all agree on the goals of a joint endeavor, on their expectations of changes in the market over time, and on how the JV should plan to adapt as the market evolves. One global energy company learned this lesson the hard way when its partners in an existing JV objected that a new venture completed by the energy company would, over time, hurt the existing JV's business prospects. As a result, a foreign court ordered the energy company to pay extensive damages for an initiative that never even launched.

For most companies, a good starting point is for planners to force a tough and thorough self-review to identify their own objectives, goals, and—even more difficult—their strengths and weaknesses as JV partners. Where possible, they should also convince a potential partner's leadership to do the same, lest they get mired in internal misconceptions in the future.

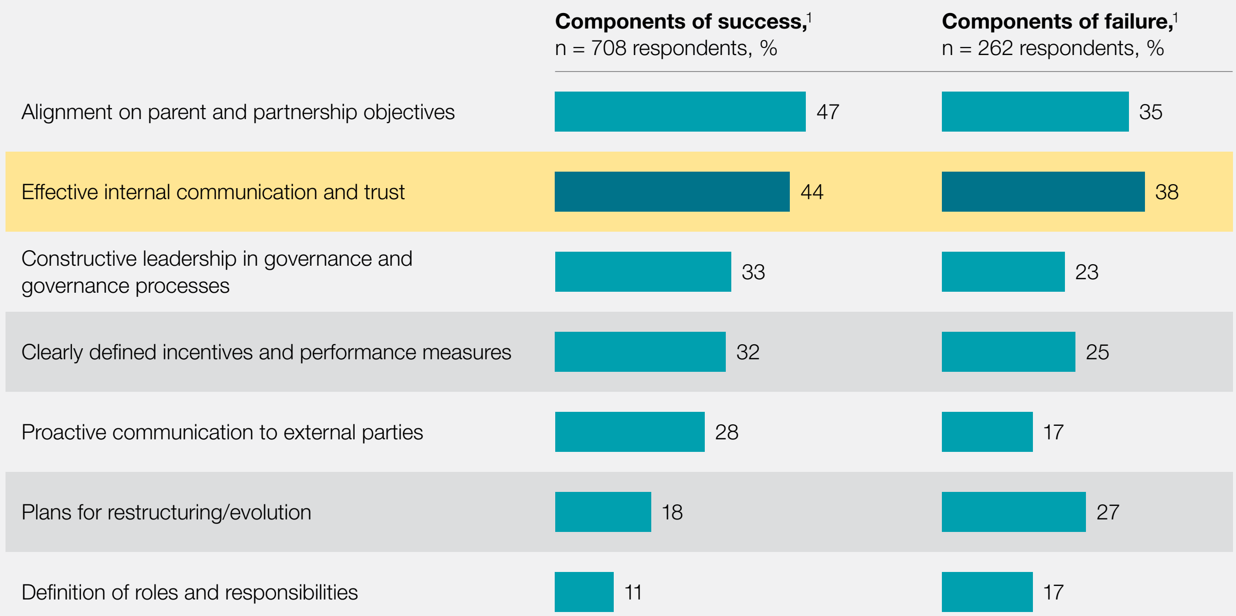
Cultivate a trusting relationship

Negotiating JVs differs from negotiating mergers or acquisitions because the end goal is a sustainable, ongoing, trust-based relationship, not a one-time deal. Not surprisingly, a significant portion of our survey's respondents indicated that the level of honesty and trust between the parent companies had a significant impact on the partnership's overall success (Exhibit 2).

Positive initial meetings are important to establishing trust, but planners need to do more. Regular and ongoing business and social interactions with critical parent leadership-

For most companies, a good starting point is to force a tough and thorough self-review to identify their own objectives, goals, and—even more difficult—their strengths and weaknesses as JV partners.

Exhibit 2 **Success and failure in joint ventures often hinge on trust and communication.**



[1] Most selected by respondents from a list of 10 components.

Source: McKinsey analysis

team members, including management off-site events and frequent, engaged board meetings, can help maintain trust and communication, reveal the breadth of motivating factors that influence a partner, and nurture a strong relationship even after negotiations conclude. As one energy executive observed, it is frequently only after many hours together in a “smoky room,” spread over the days, weeks, and months of negotiation, that the true motives of potential partners become clear. Understanding partner motives and securing mutual commitment to a deal beyond its financials will help ensure that all parties share the same expectations of ongoing JV operations.

In our interviews, numerous executives expressed concern about nontraditional objectives that may be motivating potential JV partners. These include sharing capital to upgrade facilities, achieving a relationship with a previously inaccessible third party, or increasing employment opportunities for a specific region. Such objectives often work to the disadvantage of a JV partner, as managers at a global conglomerate discovered. They negotiated a deal with a regional player that included transferring core technology into the JV in order to qualify for lucrative government contracts. Conglomerate executives at first applauded the deal, though the planners expressed concern that their partner’s motives might not be consistent at all levels of its organization. The venture subsequently reached a tipping point when, during an industry conference, the regional company’s senior executives boasted that they would start selling products based on the global conglomerate’s technology, but at a fraction of the price. This forced deal teams on both sides to revisit the partnership's objectives to reaffirm the relationship's durability.

Negotiators who understand a partner's motivation, business needs, and capabilities well before closing a deal will be better positioned to establish a strong, candid relationship with shared, explicit expectations. Thorough research can highlight things that wouldn't necessarily surface during negotiations but that could affect the partner's involvement with the JV. For example, one energy company avoided a potential misstep after scrutinizing a partner company's relationships with distributors before coinvesting in a local manufacturing operation. That analysis made it clear that the partner company's CEO intended to use his own distribution company to exclusively channel products into a lucrative sales territory. After the energy company escalated its concerns, its partner moved ahead with the venture anyway but did not use the CEO's distribution company.

Standardize processes and learning mechanisms

Unlike dedicated M&A teams that develop negotiating skills over multiple deals, JV teams tend to change from deal to deal, often due to shifting team-member roles and responsibilities or low JV deal flow. That creates little institutional memory around key processes, approaches for managing critical issues, and even partnership-specific negotiating skills. All of these things can be proactively managed, even if deal terms cannot.

Yet our survey of JV practitioners found that less than a quarter have a JV design-and-implementation playbook—the kind of simple tool that most companies with M&A programs have had for years to reduce strain for the internal team and to ease discussions with potential partners. Without that kind of institutional knowledge, inexperienced teams often see JV negotiations as zero-sum games; they rigidly calculate wins and losses on every negotiating point. That leaves them with little flexibility to appreciate the needs of a partner interested in entering into a commercial agreement or reaching consensus on the terms of a mutually beneficial JV. The result can be a weak or ineffective deal. For example, one global company faced challenges investing in a regional JV because it focused too emphatically on legalistic deal terms to protect its own interests. That created an adversarial tone in the negotiations and undermined the collaboration needed to allow both companies and the JV to succeed. It also prolonged the process, to the frustration of the JV partners.

For most JVs, long-term success also requires an agreement process that is transparent and follows patterns of conversation established from the outset. At its core, this simply means communicating with all parties about how, when, and what to communicate. The eventual pattern of communication may vary from deal to deal, and not all parties will like it. That's OK. Just laying it out keeps expectations aligned, focuses conversations, and reduces time-consuming delays. Otherwise, internal approval processes can cause bottlenecks, and not having the right people in the room can bring momentum to a standstill.

Standardized processes are especially helpful once a deal is under way, when adapting and restructuring can strengthen a partnership and increase financial returns—as long as the relationship is strong and the process has clearly allowed for adaptation. One aerospace partnership ensured all parties continued to agree on the goals of the JV by contractually committing to a standardized annual evaluation process. This included valuing each partner's contributions to ensure that the risks and rewards for each partner remain consistent with the original objectives of the deal. In the event that one partner's contributions did not match the other's, the terms of the agreement required the lagging partner to increase its contribution. Together with a management team in which the CEO position is swapped on a regular basis, both partners have been able to maintain a decades-long relationship.

■ ■ ■

With so many companies planning to increase their JV activity in coming years, it's worth investing the time in negotiations and planning to ensure the value of these ventures. ■

[1] Eileen Kelly Rinaudo and Robert Uhlaner, "Joint ventures on the rise," *McKinsey on Finance*, November 2014, McKinsey.com. This McKinsey Global Survey was in the field from March 11 to March 21, 2014, and garnered 1,263 responses from C-level and senior executives representing the full range of regions, industries, company sizes, and functional specialties. Of them, 982 executives had personal experience leading or managing joint ventures.

[2] We interviewed 45 joint-venture managers.

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Managing the market's reaction to M&A deals

Announcement effects are a good instant measure of market sentiment but a poor indicator of longer-term value creation.

Werner Rehm and Andy West

Nothing supports the integration of a major acquisition like the sense that the market has blessed it. Managers watch their company's share price closely in the days following the public announcement of a deal, if only to reassure themselves that they didn't overpay and that their efforts to value synergies, plan communications, and navigate legislative hurdles didn't overlook anything.

This use of announcement effects as a gauge of M&A's success persists among both practitioners and academics. Yet the market's immediate response to a deal is an imperfect measure of its long-term value. In fact, we've found no correlation between the announcement effects of a deal and its excess total return to shareholders (TRS) two or more years later (exhibit). Among M&A deals large enough to elicit investor reactions that show up in share prices,[1] one-third of the companies that see a positive reaction to the announcement go on to have a negative TRS after two years. Even more striking, more than half of the companies that initially see a negative reaction go on to earn a positive TRS over the longer term.

The right way to interpret announcement effects is to view them as an indication of the market's current best understanding of the deal, given the information investors have. If they don't respond with the expected enthusiasm, managers can learn from the market's response and adapt their communications with investors and the board.

Otherwise, the best approach is to focus on ensuring that the deal creates the value its advocates anticipated in the first place.

Why announcement effects persist

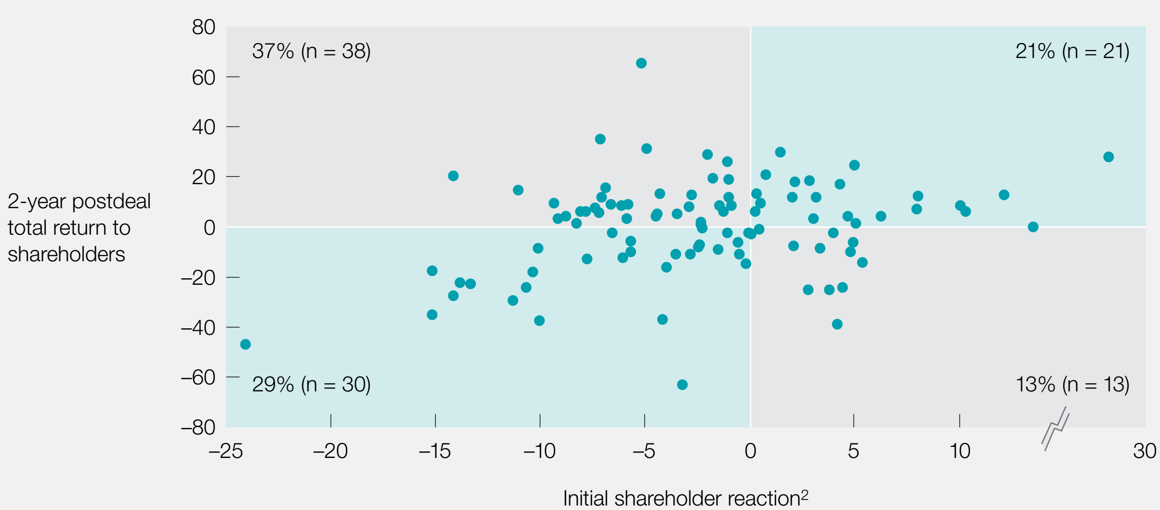
Short-term event studies, which assume that capital markets operate efficiently, first appeared in 1969.[2] Boards, management teams, equity analysts, and the business press have since widely accepted them as a measure of performance in M&A. Thousands of scholarly publications, including as many as 150 peer-reviewed studies that use announcement effects as a metric for M&A's impact, have reinforced that perception. In fact, academic-literature reviews conducted by different researchers almost unanimously find that short-term event studies are the predominant technique for measuring the performance of M&A—especially in finance journals, but also in scholarly management publications.[3]

Still, even academic researchers disagree about how well short-term stock movements predict a deal's ability to create value. One primary reason for the inconclusiveness of the results is the absence of a standard for measuring long-term success. Most scholars who have explored the topic do not look at long-term excess returns to shareholders. Instead, they rightly consider other metrics (such as increasing cash flow) to gauge improvements in operating performance.[4] After all, markets can change for many reasons after a deal. Announcement effects therefore persist largely as an easy shorthand in the face of consider-

Exhibit

M&A announcement effects are an unreliable indicator of long-term value.

Acquirer announcement effect vs returns 2 years after deal (n = 102)[1]



[1] Among M&A deals large enough to elicit investor reactions that show up in share prices, defined as deals worth 30 percent or more of acquirer's market capitalization.
[2] Normalized deal value added = market-adjusted return for acquirer.

Source: Dealogic; analysis of data provided by McKinsey Corporate Performance Analytics, a McKinsey Solution

The more skeptical the investors' reaction, the more important it is for managers to focus both on integrating a deal effectively and on the core business as it digests change.

able uncertainty about potential industry effects that could affect the value of a deal, for better or worse, in the years after it's announced.

This long-term uncertainty about markets and management execution is the heart of the matter. Even the most efficient markets can react only to what investors know on any given day—and the value of M&A deals accrues over years. At the time a deal is announced, investors assess its risks and rewards by considering the information they have in hand. Of course, their assessment could be different from management's.

When the two are aligned, acquisitions with a clear deal rationale get rewarded. For instance, in the pharmaceutical industry last year, investors responded positively to the announcement of only 5 out of the 11 deals valued at more than $5 billion. A simple estimate of the present value of cost synergies exceeded the premium paid for each of these deals. The industry's history shows that these kinds of synergies will probably be realized, so investors see the reward and assess the risk as relatively low. In contrast, investors seem more cautious about deals that need revenue or tax synergies to create value.

Not surprisingly, we've found that deals have about a 50 percent chance of long-term success when the market was initially skeptical. After all, a large acquisition is a large bet that can go either way, depending primarily on execution.

What to do

Whether the initial market reaction to a deal is positive or negative, managers should redouble their efforts to explain a deal's value to the board, to increase transparency in communications with investors, and to execute the integration correctly.

Educate the board. Directors need to understand the value-creation thesis and how the company will pursue it. For instance, board members should ask whether a deal's value comes from buying a great performer for a low price or reflects the benefits of significant restructuring. Most important, the board should not consider the accretion or dilution of earnings per share to be a key indicator of a deal's value. If it understands the value-creation thesis and stands behind management in the long-term plan, it will support the deal even if shareholders are initially skeptical about some aspects of the strategy.

Increase transparency with investors. If the initial reaction is negative, managers should probably think about communicating synergies in more detail, identifying actions they will take to capture those synergies, and clearly articulating the aspiration for the combined company's performance in a few years. And they should anticipate certain questions. What does management think the combined return on invested capital and margin will be in a few years? What's the overall performance goal, and how will the company report progress toward it? Answering such questions might not win over skeptics immediately but will give shareholders confidence as the company works toward its long-term targets. In this journey, managers may want to emphasize what's changed by giving concrete examples of potential synergies. For instance, Merck still communicates the number of Schering Plough sites it has shut down since it acquired the company in 2009.

Focus on integration. The complexity of large deals can be a distraction for investors as well as for managers. The more skeptical the investors' reaction, the more important it is for managers to focus both on integrating a deal effectively and on the core business as it digests significant change. That means emphasizing the value a deal will create in the context of the combined organization—not just on its own—and allocating management time accordingly.

Revisiting synergies in light of the core business, for example, can ensure that efforts to capture them don't compromise its performance. And divvying up activities among managers allows them to be more thoughtful about where they spend their time. That's especially true of CEOs, since they will probably have to delegate some responsibilities to senior executives to act on their behalf. These arrangements should include clear but separate governance processes during the integration period so that some executives can focus on the deal and others on the core business. ■

[1] For the purposes of this article and our analysis, this includes deals worth 30 percent or more of the acquirer's market capitalization.

[2] Eugene Fama et al., "The adjustment of stock prices to new information," *International Economic Review*, 1969, Volume 10, Number 1, pp. 1–21.

[3] See, for example, Degenhard Meier and Maurizio Zollo, "What is M&A performance?," *Academy of Management Perspectives*, August 2008, Volume 22, Number 3, pp. 55–77; Margaret Cording et al., "Measuring theoretically complex constructs: The case of acquisition performance," *Strategic Organization*, 2010, Volume 8, Number 1, pp. 11–41; Olimpia Meglio and Annette Risberg, "The (mis)measurement of M&A performance: A systematic narrative literature review," *Scandinavian Journal of Management*, December 2011, Volume 27, Number 4, pp. 418–33; Arindam Das and Sheeba Kapil, "Explaining M&A performance: A review of empirical research," *Journal of Strategy and Management*, 2012, Volume 5, Number 3, pp. 284–330; and Mathew Allen, Jeffrey Harrison, and Derek Oler, "Event studies and the importance of longer-term measures in assessing the performance outcomes of complex events," University of Richmond, February 2005.

[4] Meier and Zollo (2008) found that while 40 percent of the papers they analyzed used the announcement effect, only 6 articles (not even 7 percent) analyzed both short- and long-term stock performance. Similarly, Cording and her fellow authors (2010) found that only 7 percent of the articles they analyzed (8 in all) focused on short-term event studies and long-term stock performance, while 50 percent (56 articles in total) focused solely on studies of short-term events.

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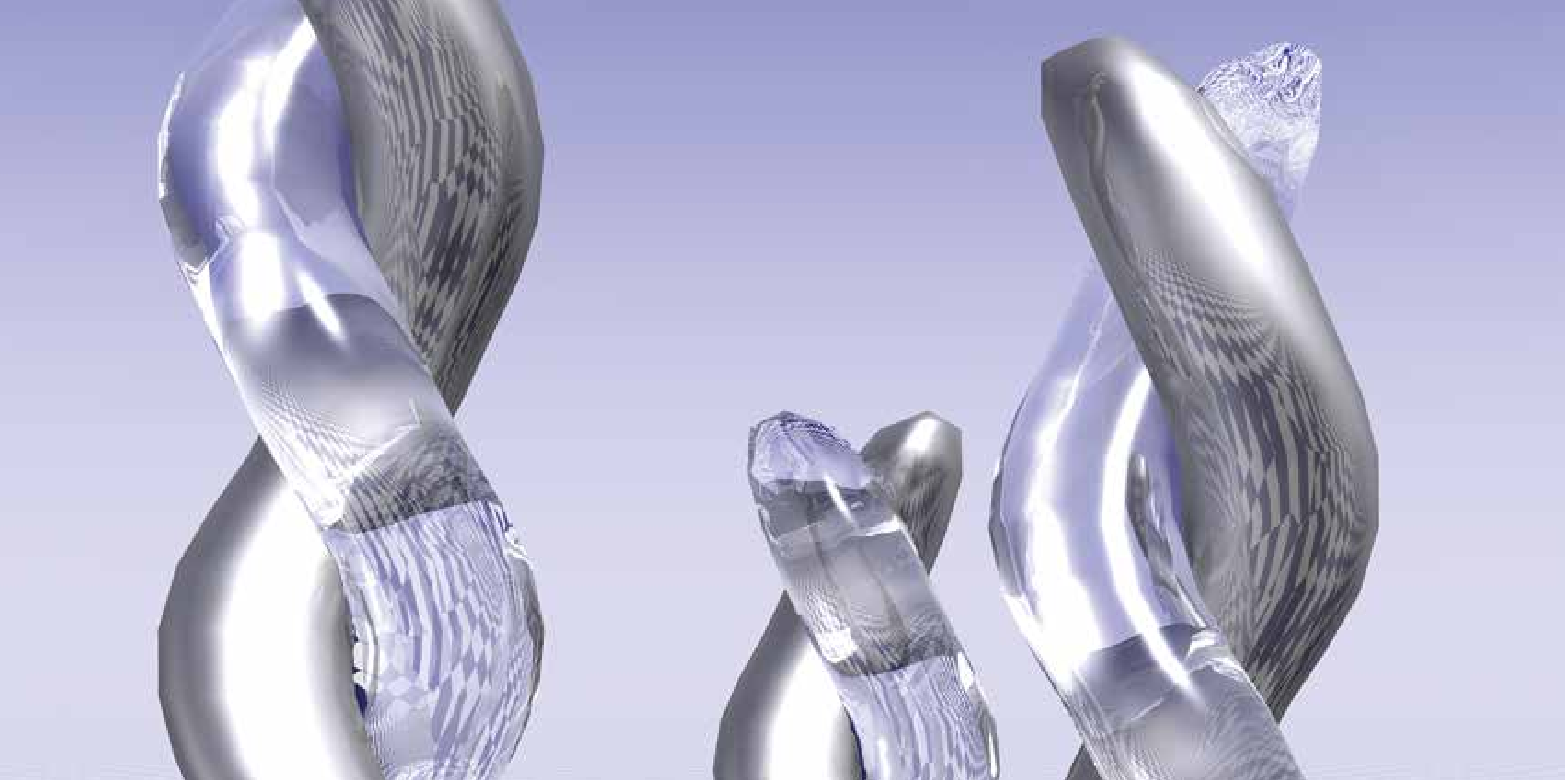

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Creating value from M&A—advantage Asia?

Differences in the market's response to deal announcements reflect how deals are funded as much as expected performance.

Anushree Awasthee and David Cogman

The total value of corporate M&A activity in Asia[1] is substantially less than in the United States and until recently also lagged behind Europe. Equating experience with ability, many Asian companies assumed that their meager track record relative to Western companies would lead the capital markets to take a skeptical view of their deals.

It's an assumption we often still encounter among Asian deal makers who hesitate around M&A decisions—and it's unwarranted. Deal-making experience has grown with the hectic volume of activity in the region since 2012. Volume in Asia virtually matched that of Europe in 2015, comprising nearly a third of global M&A activity.[2] And a closer look at announcement effects[3] finds that capital markets have long ago put aside their skepticism about Asian deals.

For one, they have more consistently rewarded Asian acquirers, on average, than Western acquirers for the value their deals are expected to create. In 10 of the 16 years since the turn of the millennium, the average deal value added (DVA)[4] for Asian acquirers was positive, compared with just 6 of the 16 years for acquirers in Europe and only 3 for those in the United States.

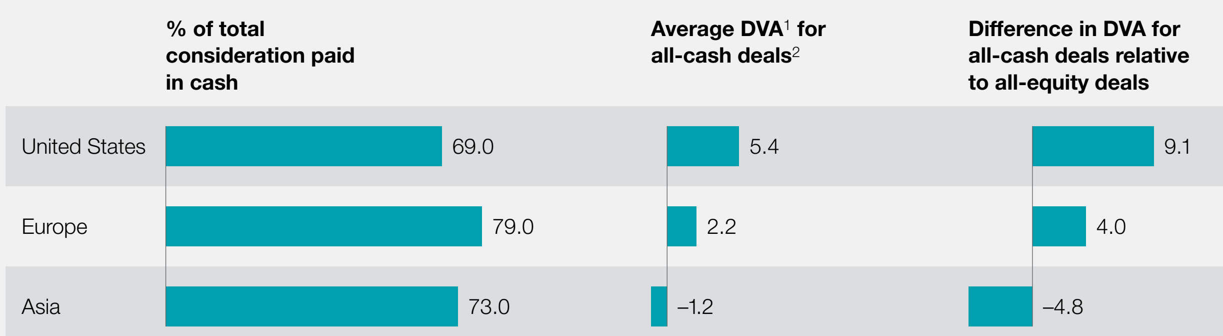
For another, differences in the market's response to deal announcements in different regions reflect how deals are funded as much as expected performance. Deals in the United States have, overall, enjoyed a 9.7 percent increase in DVA since 2010, which is far higher than the 2.9 percent increase in Europe and the 1.7 percent increase in Asia. But this difference largely reflects the market's response to the use of cash or equity in the different regions. While US and Asian acquirers tend to use almost the same amount of cash—and all three regions have used more cash since 2009 as quantitative easing made cash cheaper—equity markets have rewarded US cash deals much more aggressively (Exhibit 1).

This is in large part because US companies have found themselves cash rich, with an estimated $2 trillion on US balance sheets kept offshore mostly to defer the tax liabilities of repatriating it.[5] The capital markets are effectively rewarding US companies for reducing their cash holdings. Stock-only deals are not affected by this and offer a more useful point of comparison for investor expectations of M&A in different regions. It is here that Asian companies have done the best, with an average DVA that has been positive even when that of other regions was not (Exhibit 2).

It is important to remember that these numbers do not measure deal success: they just tell us whether the equity markets expected the deals to create value when they were announced. Why, then, did the markets have such a positive view of Asian acquirers, given the widely held belief that they lack the experience of their US or European counterparts?

One possible reason is that if investors perceived Asian companies to lack experience, they didn't see it as a negative. Instead, they may have expected it to lead Asian companies to avoid risky deals that companies in other regions might have executed. Another possibility is that their options for creating value are simply different: a Chinese acquirer of a German company might be able to reduce costs by relocating manufacturing in a way that a US

Exhibit 1 **Markets responded more positively to the all-cash deals of US acquirers than those of European or Asian acquirers from 2010 to 2015.**

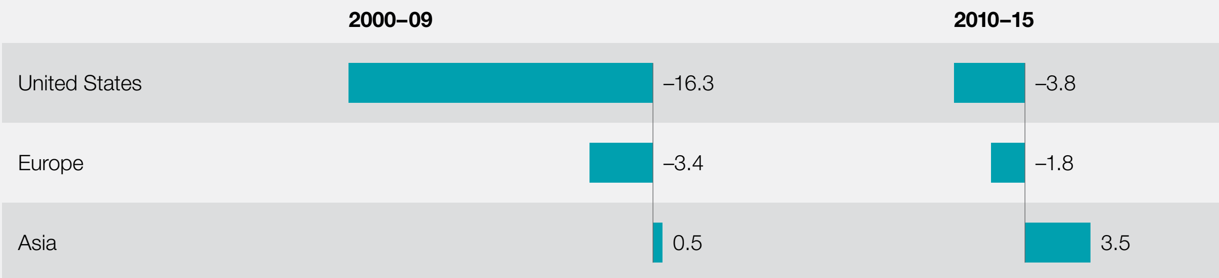


[1] Deal value added.
[2] For M&A involving publicly traded companies; defined as combined (acquirer and target) change in market capitalization, adjusted for market movements, from 2 days prior to 2 days after announcement, as % of transaction value.

Source: Datastream; Dealogic; McKinsey analysis

Exhibit 2 **Investors have long responded better to all-stock deals in Asia than elsewhere.**

Average DVA[1] index for all-stock deals,[2] %



[1] Deal value added.
[2] For M&A involving publicly traded companies; defined as combined (acquirer and target) change in market capitalization, adjusted for market movements, from 2 days prior to 2 days after announcement, as % of transaction value.

Source: Datastream; Dealogic; McKinsey analysis

acquirer could not, or perhaps would gain more from the new sales channels.

Whatever the reason, Asian acquirers hesitating over how capital markets will view an acquisition should take some degree of comfort from these numbers. It is impossible to say how equity markets will view any individual deal, but in general, they do not lack confidence in Asian companies' ability to create value from acquisitions. ■

[1] Our analysis is based on unweighted regional data from Australia, China, India, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand, and Vietnam.
[2] Werner Rehm and Andy West, "M&A 2015: New highs, and a new tone," December 2015, McKinsey.com.
[3] The change in the acquirers' and targets' market capitalization directly before and after deals are announced.
[4] For M&A involving publicly traded companies, deal value added is defined as the combined (acquirer and target) change in market capitalization, from two days prior to two days after the announcement of a deal, adjusted for market movements as a percent of transaction value.
[5] See Richard Rubin, "US companies are stashing $2.1 trillion overseas to avoid taxes," *Bloomberg*, March 4, 2015, bloomberg.com; and "The risks and rewards of a US tax on offshore cash," *Financial Times*, February 4, 2015, ft.com.

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How share repurchases boost earnings without improving returns

Some actions that boost earnings per share don’t create value for shareholders. Share repurchases are generally a wash.

Obi Ezekoye, Tim Koller, and Ankit Mittal

Of all the measures of a company’s performance, its earnings per share (EPS) may be the most visible. It’s quite literally the “bottom line” on a company’s income statement. It’s the number that business journalists focus on more often than any other, and it’s usually the first or second item in any company press release about quarterly or annual performance. It’s also often a key factor in executive compensation.

But for all the attention EPS receives, it is highly overrated as a barometer of value creation. In fact, over the past ten years, 36 percent of large companies with higher-than-average EPS underperformed on average total return to shareholders (TRS). And while it’s true that EPS growth and shareholder returns are strongly correlated, executives and naïve investors sometimes take that relationship too seriously. If improving EPS is good, they assume, then companies should increase it by any means possible.

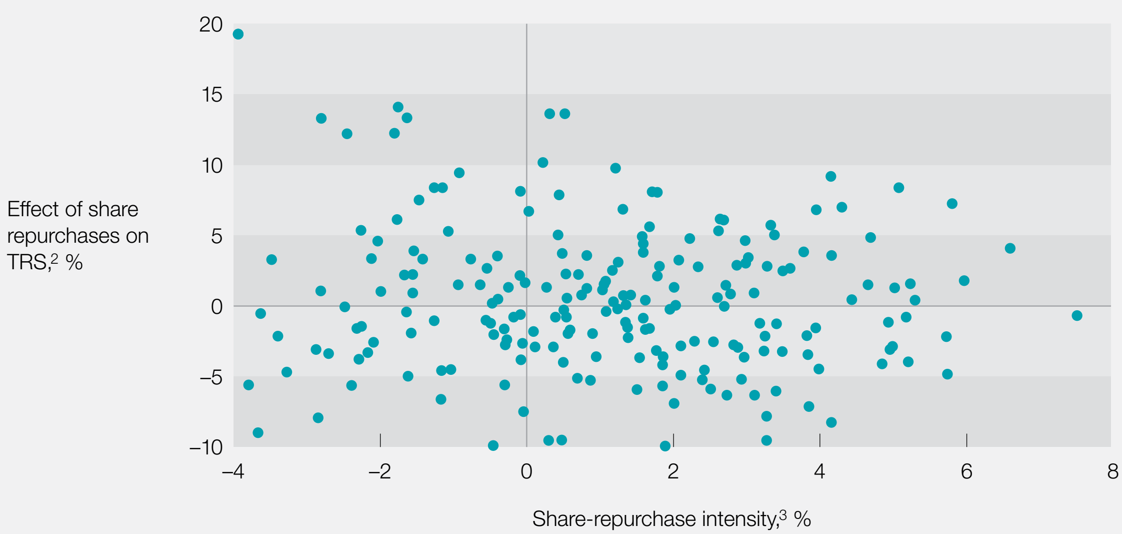
The fallacy is believing that anything that improves EPS will have the same effect on value creation and TRS. On the contrary, the factors that most influence EPS—revenue growth, margin improvement, and share repurchases—actually affect value creation differently. Revenue growth, for example, can increase TRS as long as the organic investments or acquisitions behind it earn more than their cost of capital. Margin improvements, by cutting costs, for instance, can increase TRS as long as they don't impede future growth by cutting essential investments in research and development or marketing.

For example, to improve EPS, managers at one company committed to an aggressive share-buyback program after several years of disappointing growth in net income. Five years later, managers had retired about a fifth of the company's outstanding shares, increasing its EPS by more than 8 percent. Yet the company was merely retiring shares faster than net income was falling. Investors could see that the company's underlying performance hadn't changed, and the company's share price dropped by 40 percent relative to the market index.

Share repurchases seldom have any lasting effect on TRS—and that often comes as a surprise to managers and investors alike. Given how often we hear executives advocate share repurchases because of their effect on EPS—and make the occasional argument for taking on debt to execute them—it is worth exploring the relationship between buybacks, EPS, and shareholder returns. We'll begin by examining the empirical evidence

Exhibit 1 **There is no correlation between share-repurchase intensity and TRS.**

Effect of share repurchases on total return to shareholders (TRS) vs repurchase intensity, 2004–14[1]



[1] Based on sample set of more than 250 nonfinancial S&P 500 companies.
[2] Effect of share repurchases on TRS is measured by residuals of multivariate regression. Variables are share-repurchase intensity and economic-profit growth. Economic-profit growth is a measure that combines earnings growth and return on capital (relative to cost of capital). This regression shows effect of share-repurchase intensity is not statistically significant.
[3] Difference between EPS growth and net income growth used as proxy for degree of share-repurchase intensity.

Source: Analysis of data provided by McKinsey Corporate Performance Analytics, a McKinsey Solution and then look at the logic behind so many decisions to repurchase shares.

Misguided math

Companies that repurchase shares when prices are low can create value for those shareholders who don't sell if the share price rises as a result. As our prior research has found, however, most companies don't time these purchases well.[1] Rather, we find that many executives have come to believe that share repurchases create value just by increasing EPS. The logic seems to be that earnings across a smaller number of shares mathematically increases EPS, and if EPS increases and the price-to-earnings (P/E) ratio stays constant, then a company's share price must increase.

The empirical evidence disproves this. For while there appears to be a correlation between TRS and EPS growth, little of that is due to share repurchases. Much of it can be attributed to revenue and total earnings growth—and especially to return on invested capital (ROIC), which determines how much cash flow a company generates for a given dollar of income. All else being equal, a company with higher ROIC will generate more cash flow than a similar company with lower ROIC. But without the contribution of growth and ROIC to TRS, there is no relationship between TRS and the intensity of a company's share repurchases (Exhibit 1).[2]

That's because it's the generation of cash flow that creates value, regardless of how that cash is distributed to shareholders. So share repurchases are just a reflection of how much cash flow a company generates. The greater the cash flow, the more of it a company will eventually need to return to shareholders as dividends and share repurchases.

The error in valuing repurchases in isolation

The idea that share repurchases create value by increasing EPS also errs in its failure to consider other possible uses of the cash, such as paying dividends, repaying debt, increasing cash balances, or investing in new growth opportunities. What matters is the effect of a share repurchase relative to those other actions, not the effect of the repurchase on its own.

Repurchase versus dividend

Consider the effect of a hypothetical company using cash to repurchase shares relative to using it to pay an equivalent dividend. The company earns $100, has a P/E ratio of 15, and makes no investments, so managers can distribute the earnings as dividends or as share repurchases (Exhibit 2).

If the company pays out its earnings as dividends, its value will be $1,500. Shareholders will also have received $100, so the total value to the share-

The idea that share repurchases create value by increasing EPS also errs in its failure to consider other possible uses of the cash, such as paying dividends, repaying debt, increasing cash balances, or investing in new growth opportunities.

Exhibit 2 **There is no difference in value between share repurchases and dividends.**

Share repurchases vs dividends

		Base year	Repurchase shares	Dividends
Earnings per share (EPS)	Net income	100.0	100.0	100.0
	Number of shares	100.0	93.8	100.0
	EPS	**1.00**	**1.07**	**1.00**
Total company valuation	P/E	15	15	15
	Equity value		1,500	1,500
	Dividends		0	100
	Share repurchases		100	0
	Equity value plus distributions		1,600	1,600
Per-share valuation	Value per share		16.00	15.00
	Dividends per share		0.00	1.00
	Value per share plus dividends		16.00	16.00

holders is $1,600. On a per-share basis, the share price will be $15. Since each share will also have received $1 in dividends, the total value and cash per share will be $16.

If the company pays out its earnings by repurchasing shares, its total value will remain the same, $1,500, and shareholders as a whole will have received the same amount of cash, $100. On a per-share basis, for those shareholders who don't sell, each remaining share will increase in value to $16 because the earnings are now divided by a smaller number of shares. For an individual share, this is economically equivalent to having a share worth $15 plus cash of $1 from a dividend.

The mechanical effect on EPS is irrelevant. If the company pays a dividend, shareholders retain their shares and receive cash. If the company repurchases shares, the selling shareholders receive cash and the remaining shareholders have shares with higher value (but they don't receive any cash). Overall, there is no change in value, just a change in the mix of shareholders.

Repurchase versus debt reduction

Comparing the effect of using cash to repurchase shares with using it to pay down debt is more complex. The reason is that when the company pays down debt, its capital structure, cost of capital, and P/E ratio change. Yet because the enterprise value of the company stays the same, so does the value to shareholders.

In this comparison, suppose our hypothetical company has $200 of debt in the base year

(Exhibit 3). In that base year, the company's enterprise value is $1,500 and its equity value is $1,300. Note that the enterprise value divided by after-tax operating profits is now different from the P/E ratio, at 15.0 and 13.8 times, respectively. The P/E ratio is lower because the higher leverage increases the riskiness of the equity, leading to a higher cost of equity.

If the company repurchases shares, the enterprise value and equity remain the same as in the base year. In addition, shareholders receive $100 in share repurchases, so collectively, the shareholders will have $1,300 in equity value plus $100 of cash, for a total of $1,400. The remaining shares outstanding will be worth $14 per share.

Exhibit 3

A higher EPS from repurchases is offset by the lower risk from repaying debt.

Share repurchases vs paying down debt

		Base year	Repurchase shares	Pay down debt
Earnings per share (EPS)	After-tax income from operations	100.0	100.0	100.0
	After-tax interest expense	(6.0)	(6.0)	(3.0)
	Net income	94.0	94.0	97.0
	Number of shares	100.0	92.9	100.0
	EPS	**0.94**	**1.01**	**0.97**
Total company valuation	Enterprise value/after-tax operating income	15	15	15
	Enterprise value	1,500	1,500	1,500
	Debt	(200)	(200)	(100)
	Equity	1,300	1,300	1,400
	Dividends		0	0
	Share repurchases		100	0
	Equity value plus distributions		1,400	1,400
Per-share valuation	Value per share	13.00	14.00	14.00
	Dividends per share		0.00	0.00
	Value per share plus dividends		14.00	14.00
	P/E	**13.8**	**13.8**	**14.4**

If the company pays down debt instead, the enterprise value remains the same, but the equity value increases by $100. Note that the enterprise value doesn't change because the operating cash flows of the company have not changed. However, the value of the equity increases by the amount of cash retained and used to pay down debt. The value of the company to all the shareholders is the same as the sum of equity value and cash distributed in the share repurchase, or $1,400.

The equity value of $1,400 divided by a net income of $97 produces a P/E ratio of 14.4. Note that the P/E ratio in the base year, as well as in the share-repurchase scenario, was lower, at 13.8. The increase in the P/E ratio is due to the declining leverage, leading to less risky equity and a lower cost of equity.

On a per-share basis, repurchasing shares increases EPS, in this case from $0.94 to $1.01, but the increase in EPS is offset by the lower P/E ratio relative to the scenario of paying down debt. On the off chance that a company might borrow cash to repurchase shares, for example, it would increase a company's EPS because the effect of reducing the share count is larger than the reduction in net income due to additional interest expense. However, with its increased debt,

Exhibit 4 **Investing at an attractive return will always create more value than repurchasing shares, but it may take longer.**

Share repurchases vs investment

		Base year	Repurchase shares	Invest
Earnings per share (EPS)	Net income	100.0	100.0	115.0
	Number of shares	100.0	92.9	100.0
	EPS	**1.00**	**1.08**	**1.15**
Total company valuation	Enterprise value/after-tax operating income	15	15	15
	Enterprise value	1,500	1,500	1,725
	Debt	0	0	0
	Equity	1,500	1,500	1,725
	Share repurchases		100	0
	Equity value plus distributions		1,600	1,725
Per-share valuation	**P/E**	**15.0**	**15.0**	**15.0**
	Value per share	15.00	16.16	17.25

the company's equity would be riskier and, all else being equal, its P/E ratio would decline—offsetting the increase in EPS.

Repurchase versus investing

Finally, consider what happens when, instead of repurchasing shares, our hypothetical company invests that same amount of cash, $100, back in the business. Assuming it earns a return of 15 percent, which exceeds its cost of capital, its income would increase by $15 (Exhibit 4).[3]

Assuming the enterprise-value multiple remains constant at 15 times, the enterprise value and equity value will increase to $1,725—which is more than the sum of the equity value and the cash paid out in the share-repurchase case. The EPS is also higher in the investment case.

Investing at an attractive return on capital will always create more value than repurchasing shares, but it doesn't always do so as quickly. In this simple example, we've assumed that the company earned an immediate 15 percent return on its investment. That's often not realistic, since there will be a lag between when a company invests and when it realizes a return. For example, if the company didn't earn a return until year three, its EPS for the first two years would be higher from share repurchases than it would be from investing. This explains the temptation to repurchase shares instead of investing. With a share repurchase, the effect on EPS is immediate, and with investing, it is delayed. Disciplined managers won't fall for the short-term benefit at the expense of long-term value creation.

■ ■ ■

Improving a company's earnings per share can improve its return to shareholders. But the contribution of share repurchases is virtually nil. ■

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1 Bin Jiang and Tim Koller, "The savvy executive's guide to buying back shares," October 2011, McKinsey.com.
2 Based on a multivariate regression, there was no statistical relationship between total return to shareholders and share-repurchase intensity after taking into consideration growth in economic profit. Growth in economic profit incorporates both total earnings growth and return on invested capital.
3 We've eliminated debt to simplify this example.

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Fundamental Finance

The long and the short of stock-market volatility

Short-term measures of volatility can fluctuate wildly. But over the long term the market has been remarkably stable.

Marc Goedhart and Darshit Mehta

Markets are volatile. Or are they? After bouncing around 2,100 for six months, the S&P 500 began to swing more dramatically last August. With 100- to 200-point shifts between a high of about 2,100 and lows approaching 1,800, the index has been erratic for some time. That has many managers—as well as many analysts and investors—pondering whether the markets have entered an era of structurally higher volatility relative to the previous century.

Thus far, that doesn't appear to be the case. Despite those dramatic swings in share price, the volatility companies have actually experienced over intervals of five years is still far below the peak levels of 2010, the late 1980s, or the mid-1970s. In fact, today five-year volatility is lower than the average over the past 50 years (Exhibit 1), though the measurement period can have a big effect (Exhibit 2). Admittedly, the peaks and troughs of volatility have been more extreme since the 1990s. But over longer time frames of five years and more, this hasn't translated into a systematic increase, and there is no indication that stock markets have reached a new, higher level of long-term volatility. Even a short-term, forward-looking volatility index such as VIX is still below 17 percent, only slightly higher than the 15 percent average of the past 50 years.

That's good news for managers making corporate-investment decisions—if they can distance themselves from short-term or forward-looking measures of volatility for the stock market as a whole. These are unlikely to be meaningful indicators of actual long-term risks for their specific businesses.

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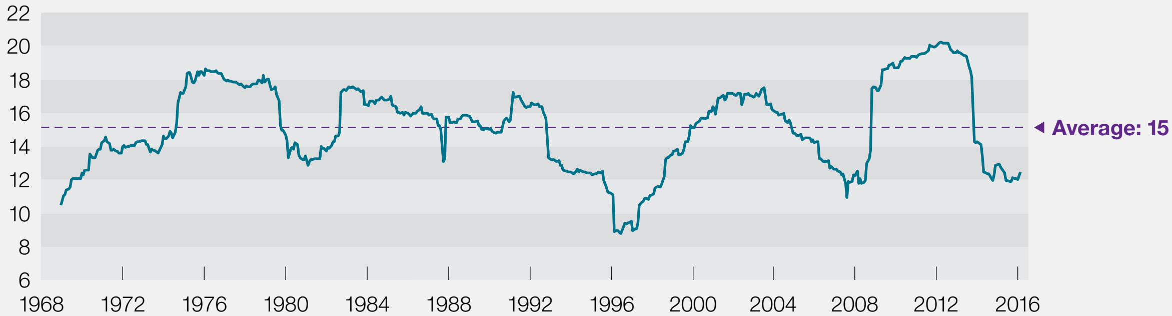
Exhibit 1 **Recent volatility has been near historic lows.**

S&P 500 annualized 5-year volatility of daily returns,[1] %

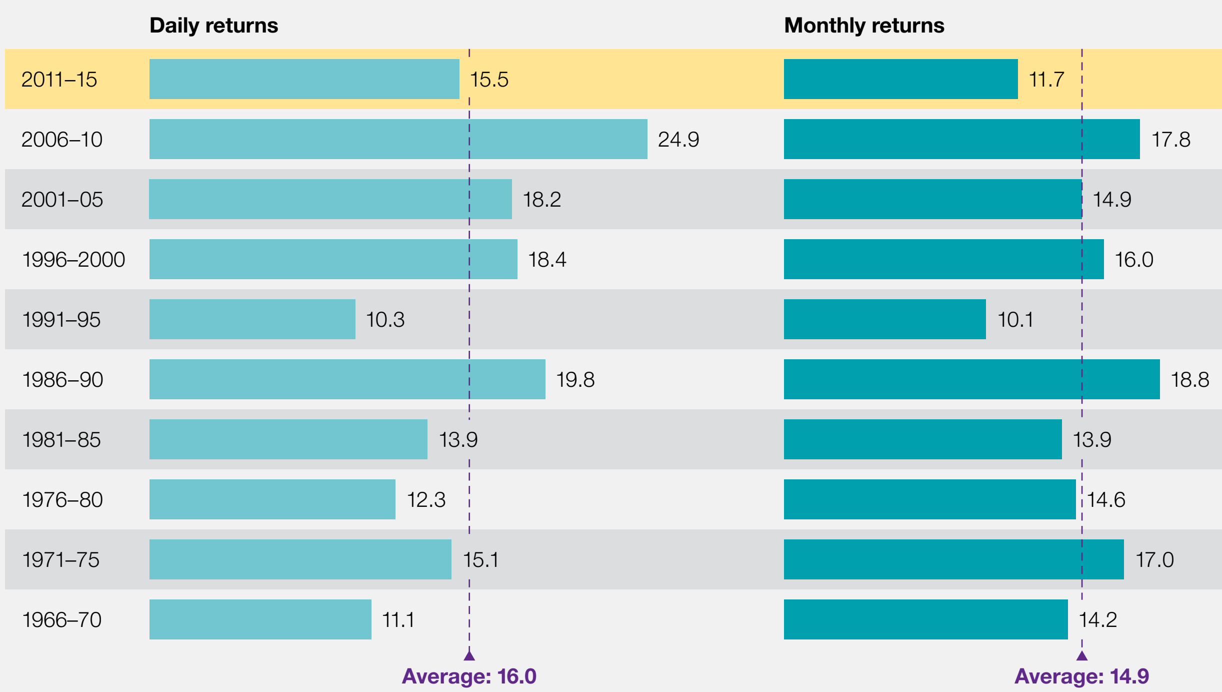


[1] Volatility for each month is calculated based on standard deviation of last 60 monthly returns. Monthly prices are annualized for 12 months; returns are calculated by taking price as on 30th of each month—eg, for Apr, returns are calculated as price on (Apr 30/Mar 30) – 1.

Source: Analysis of data provided by McKinsey Corporate Performance Analytics, a McKinsey Solution

Exhibit 2 **Volatility varies by the period of measurement.**

S&P 500 annualized 5-year volatility of returns, %



Source: Analysis of data provided by McKinsey Corporate Performance Analytics, a McKinsey Solution

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