To Buy or Not To Buy

A Checklist for Assessing Mergers & Acquisitions

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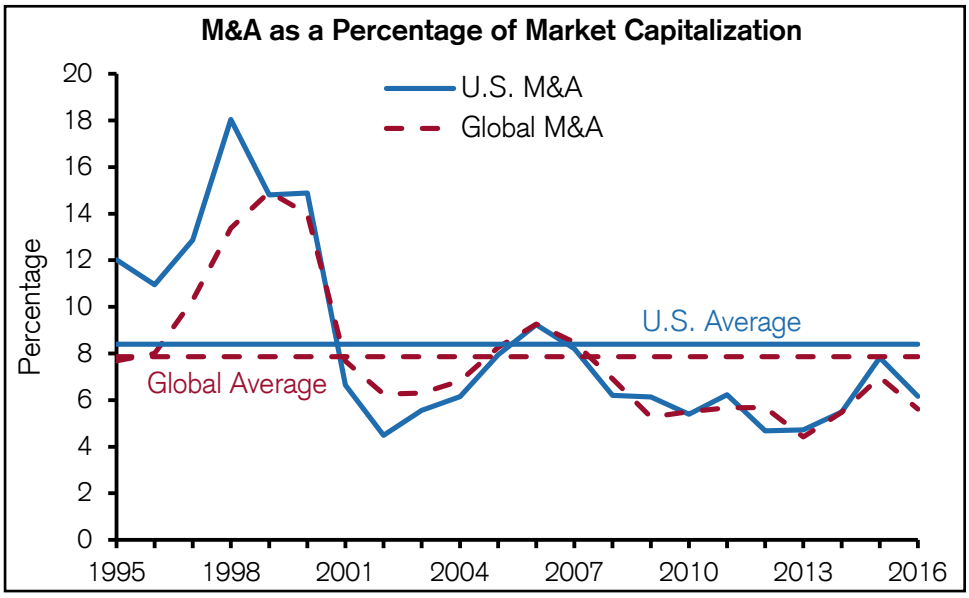


Source: Thomson Reuters, World Bank.

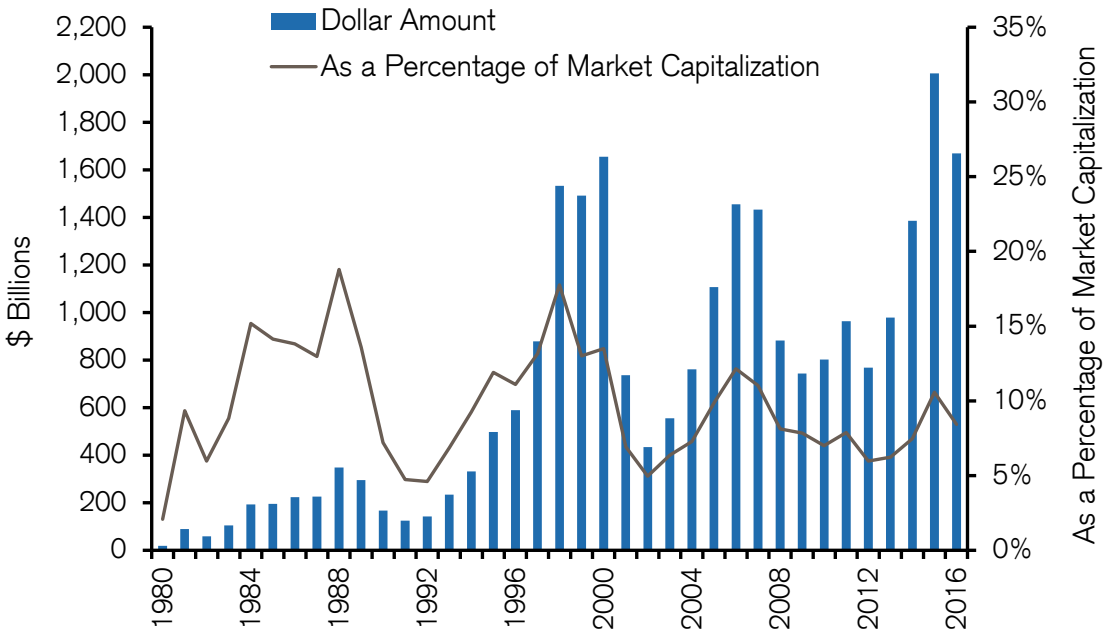
- Companies spend more on mergers and acquisitions (M&A) than any other alternative for capital allocation.
- Empirical analysis shows that M&A creates value in the aggregate, but that the seller tends to realize most of that value.
- While the market's initial read of a deal is not perfect, there does not appear to be a bias.
- Careful studies show that value creation is largely independent of EPS accretion or dilution.
- Buyers see their stock rise when the present value of synergies exceeds the premium they pledge to the seller.
- The form of financing and category can send signals about a deal's merit.
- We suggest answering four questions in order to assess mergers and acquisitions: How material is the deal? What is the market's likely reaction? How did the buyer finance the deal? Which strategic category does it fall into?

Introduction

Companies spend more on mergers and acquisitions (M&A) than any other alternative for capital allocation.[1] For many companies, M&A is the most significant and costliest course to redistribute corporate resources and pursue strategic goals. Since 1995, M&A volume has averaged 8 percent of the equity market capitalization in the U.S. and the world. As a result, nearly all companies and investment portfolios will feel the effect of M&A at some point.

Exhibit 1 shows the dollar amount of M&A, as well as M&A as a percentage of market capitalization, from 1980 to 2016. M&A tends to follow the stock market closely, with more activity when the stock market is up.[2] Volume in 2016 was down 17 percent versus that of 2015, but remained strong in a historical context. The outlook for 2017 is also robust.[3]

Exhibit 1: U.S. Mergers and Acquisitions, 1980-2016

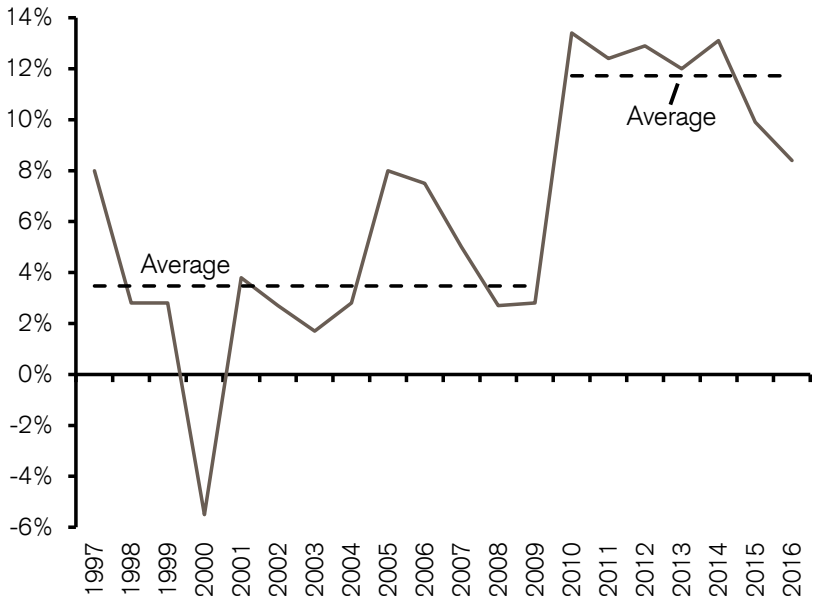


Source: Thomson Reuters.
Note: Dollar amounts are not inflated. U.S. announced domestic mergers; excludes debt tender offers, equity carve-outs, exchange offers, loan modifications, and open market repurchases.

Companies that act early in an M&A cycle tend to generate higher returns than those that act later. The first movers enjoy the benefits of a larger pool of targets and cheaper valuations than companies that buy later in the cycle. Cheap and accessible financing prompts action by buyers at the end of the cycle. So do bandwagon effects, or what Warren Buffett, chairman and chief executive officer of Berkshire Hathaway, calls the "institutional imperative."[4]

Empirical analysis shows that M&A creates value in the aggregate, but that the seller tends to realize most of that value.[5] Exhibit 2 shows a measure that McKinsey & Company, a consulting firm, calls "deal value added." Deal value added is the percentage change in the combined market capitalizations of the buyer and seller from two days before to two days after the deal is announced. This has averaged about 6 percent over the past 20 years. Deal value added was 8 percent in 2016 and has averaged near 12 percent since the financial crisis. That the sellers realize most of the deal value added suggests that the buyers generally pay a full price for the companies they acquire.

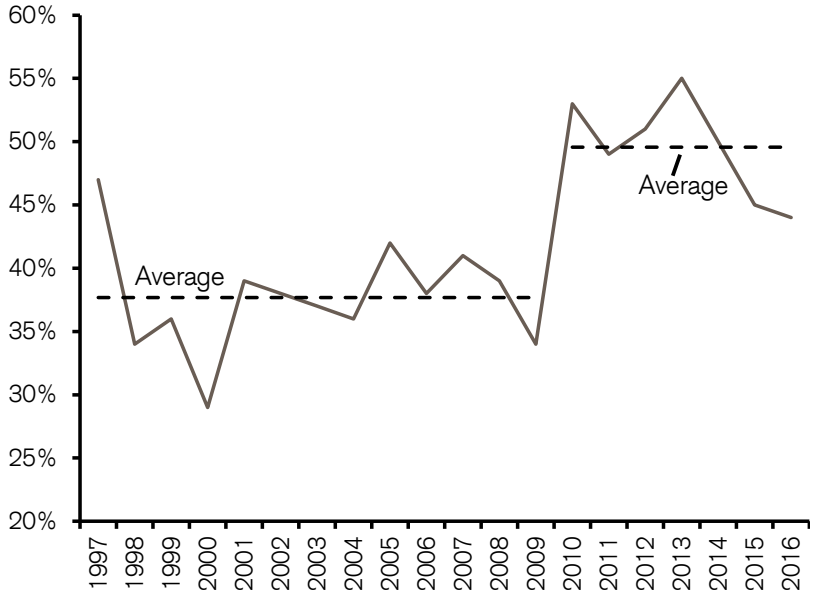
Exhibit 2: Average Deal Value Added, 1997-2016



Source: Richard Dobbs, Marc Goedhart, and Hannu Suonio, "Are Companies Getting Better at M&A?" McKinsey on Finance*, Winter 2007, 7-11; David Cogman, "Global M&A: Fewer Deals, Better Quality,"* McKinsey on Finance, *Spring 2014, 23-25; David Cogman, McKinsey & Company.*

Exhibit 3 shows McKinsey's calculation of the percentage of deals that create value for buyers. A buyer creates value if its stock goes up relative to the market around the announcement date. This has averaged 42 percent over the past 20 years, with an average of 38 percent from 1997-2009 and 50 percent from 2010-2016. The figure was below 50 percent in 2015 and 2016.

Exhibit 3: Percentage of Deals That Create Value for Buyers, 1997-2016



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Note: The percentage that creates value is 1 minus the percentage of overpayers (POP). POP is McKinsey's calculation of the percentage of transactions in which the relative price movement of stocks was negative for the acquirer from two days prior to two days after the announcement.

Alfred Rappaport, a professor emeritus at the Kellogg School of Management, and Mark Sirower, a principal with Deloitte Consulting, explain why creating value through M&A is so challenging for a buyer.[6] First, if the premium is too large the buyer cannot recoup its investment even if the deal makes strategic sense. Second, often competitors can replicate the benefits of a deal or take advantage of the buyer's lack of focus as it goes through an integration process. Third, M&A requires payment up front for benefits down the road. This makes investors legitimately skeptical. Finally, M&A deals are generally costly to reverse.

One comment we hear consistently from executives is that the stock market is short-term oriented and fails to recognize the virtue of the announced deal. Mark Sirower and his colleague, Sumit Sahni, studied this assertion. Exhibit 4 summarizes their findings, which are based on an analysis of more than 300 deals.[7]

The first observation is that about one-third of the deals (103 of 302) result in a stock price for the buyer that is initially higher, net of the market's change. This is consistent with past studies. Next, there is a clear correlation between the size of the premium the buyer paid, as seen in the column on the right, and the announcement return, located in the middle column. Small premiums lead to positive returns and high premiums generate negative returns.

Exhibit 4: The Stock Market Takes a Long-Term View When It Judges M&A

Stock Reaction	Number of Deals	Announcement Return	One-Year Return	Premium
Persistent positive	52	5.6%	33.1%	25.8%
Initial positive	103	5.7%	4.9%	30.7%
Full sample	302	-4.1%	-4.3%	35.7%
Initial negative	199	-9.2%	-9.0%	38.4%
Persistent negative	133	-10.3%	-24.9%	40.5%

Source: Mark L. Sirower and Sumit Sahni, "Avoiding the 'Synergy Trap': Practical Guidance on M&A Decisions for CEOs and Boards," Journal of Applied Corporate Finance*, Vol. 18, No. 3, Summer 2006, 85.*

Sirower and Sahni revisited the deals one year later to test the accuracy of the market's initial reaction. Deals that were initially positive stayed positive overall, with a one-year total shareholder return of 4.9 percent. More than half (52 of 103) of the deals that were initially positive remained positive. Deals that were negative stayed so on average, with a total shareholder return of -9.0 percent. Two-thirds of the negative deals (133 of 199) continued to be negative.

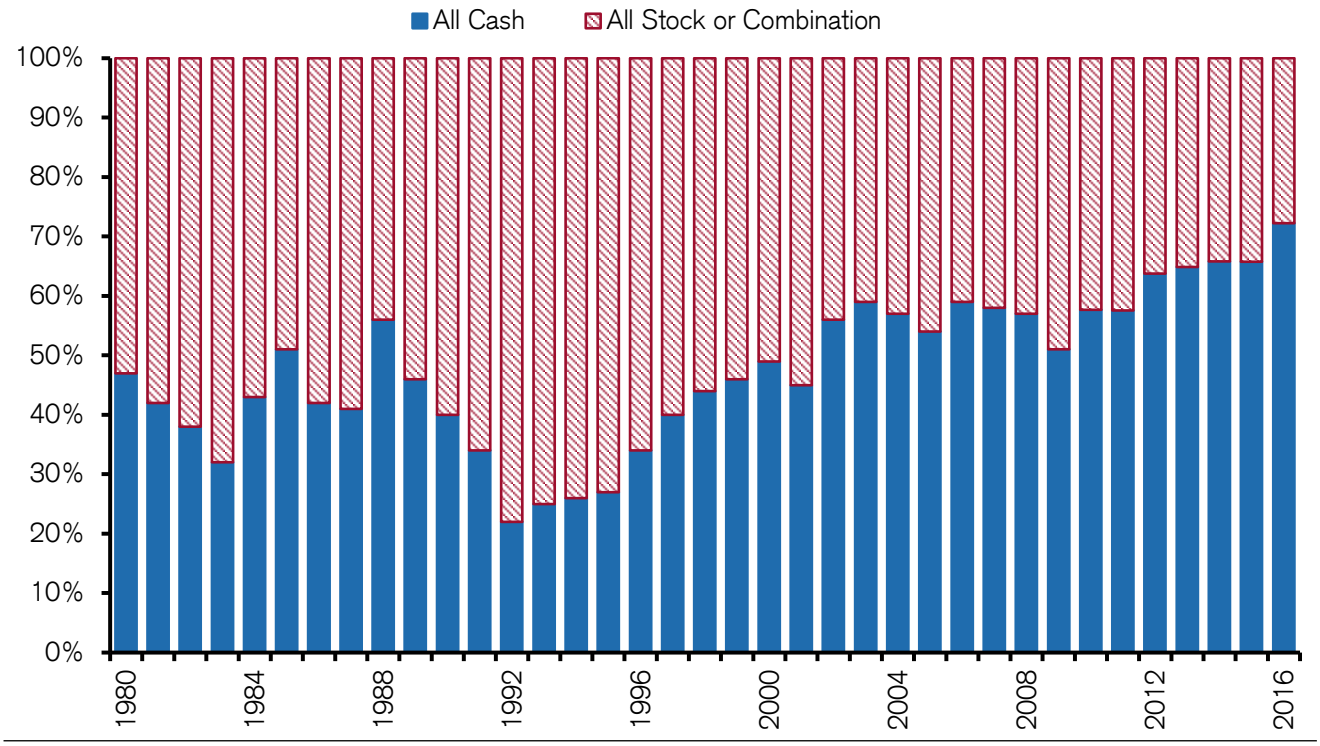
This suggests that while the market's initial reaction is not perfect, there does not appear to be a bias. Indeed, if there is a bias it is that the market's reaction is too optimistic, as one-half of the positive deals turned negative but only one-third of the negative deals turned positive.[8]

The story for buyers should not come across as too dour. There are ways to improve the likelihood of a deal being successful. One factor that can work in favor of buyers is the source of financing. Research shows that the stock market likes cash deals more than stock deals.[10] There are a number of plausible explanations for this. First, you can think of a deal financed with stock as two separate transactions: the buyer sells stock to the public and then uses the proceeds to acquire the target. Managements generally sell stock when it's expensive, providing the market with a negative signal.

Second, the buyer takes on all of the deal's risk and reward in a cash transaction. The buyer shares the risk and reward with the seller in a stock-for-stock deal. A stock deal is a weaker signal of conviction than a cash deal.[11]

Exhibit 5 shows the mix between deals that are all cash and those that are all stock or a combination of cash and stock from 1980 to 2016. In recent years, cash deals have been a higher percentage of the total than the long-term average. This reflects sizable cash balances, good access to the debt markets, and the perception of many executives that the stocks of their companies remain undervalued.

Exhibit 5: All Cash Deals and All Stock or Combination Deals, 1980-2016



Source: Patrick A. Gaughan, Mergers, Acquisitions, and Corporate Restructurings – Fifth Edition *(Hoboken, NJ: John Wiley & Sons, 2011), 577; FactSet; Credit Suisse.*

Another empirical finding is that not all types of deals have the same chance of success. Peter Clark and Roger Mills, finance experts who focus on M&A, found that deals they call "opportunistic," where a weak competitor sells out, succeed at a rate of around 90 percent. "Operational" deals, or cases where there are strong operational overlaps, also have an above-average chance of success. The rate of success varies widely for "transitional" deals, which tend to build market share, as the premiums buyers must pay to close those deals can be prohibitive. Finally, the success rate of "transformational" deals, large leaps into different industries, tends to be very low.[9]

Analysis of the motivation for M&A also reveals a role for management hubris. This creates heated bidding among potential buyers and leads to what economists call the "winner's curse."[12] The winner's curse describes a case when a company is the "winner" by bidding the highest price for a target but suffers from a "curse" because it overpays.

Companies spend more on M&A than any other capital allocation alternative. Clearly, executives do deals in an effort to improve their company's strategic and financial position. But volumes of research show that the primary winners are the sellers, not the buyers. This is consistent with competitive and efficient markets, where it is common for sellers to earn the economic rents.

The empirical research also shows that the stock market is reasonably good at assessing the merit of a deal. As a group, investors have to judge whether the buyer will get more than what it pays for. While the market does not always get it right, an encouraging point for active investors, there does not appear to be a systematic bias.

Certain factors can improve the probability of success from the buyer's point of view. Having a deal that makes strategic and financial sense is vital. Analysis of deal types can help identify deals with a higher probability of success. How a company pays for a deal is also instructive. Cash deals fare better than stock deals.

We now present a checklist for M&A analysis, which provides a consistent, rigorous, and sound way to assess the merit of a deal. To illustrate the concepts, we include our study of 126 deals announced in 2015 and 2016 between public U.S. companies where the buyer had a market capitalization of $500 million or more. The checklist is useful for investment managers, sell-side analysts, and companies that seek to create shareholder value. We finish our discussion with two detailed case studies. The appendix lists all of the deals in our sample.

The M&A Checklist

Investors should answer the following questions when companies announce a deal:[13]

- ☐ How material is the deal for the shareholders of the buying and selling companies?
- ☐ What is the stock market's likely reaction?
- ☐ Is the buyer sending a signal by choosing to pay with stock or cash?
- ☐ What strategic category does the deal fall into?

How Material Is the Deal?

The first question is whether the deal is likely to have a material impact on shareholder value. Shareholder value at risk (SVAR) measures the potential risk to shareholders of the buyer in the event that synergies do not materialize. SVAR provides an immediate and accurate assessment of how much a deal is likely to affect the shareholders of the buyer.

Since SVAR is a percentage measure of the acquirer's potential downside, it quantifies the extent to which a company is risking the firm's value on the deal. Low SVARs suggest limited upside or downside for the buyer. High SVARs may portend large changes in the buyer's stock price.[14]

To calculate SVAR you need to determine the premium the buyer pledges and how the buyer intends to pay for the deal. For a cash deal, the SVAR is simply the premium divided by the equity market capitalization of the buyer. In a stock-for-stock deal, the SVAR is the premium divided by the combined market capitalizations of the buyer and seller (including the implied premium).

Here's a simple example. Assume the equity market capitalization is $2,000 for the buyer and $800 for the seller. The buyer bids $1,000 in cash for the seller, representing a premium of $200, or 25 percent.

The SVAR is $200 divided by $2,000, or 10 percent. In other words, the $200 premium is a wealth transfer from the buyer to the seller if the combined businesses realize no synergies.

What if the deal is financed with stock instead of cash? Generally the seller receives a ratio of shares of the buyer. That means that if there are no synergies, the seller won't receive what the buyer has pledged.

The SVAR in this case is the $200 premium divided by $3,000, or 6.7 percent. The SVAR in a stock-for-stock deal is always lower than that for a cash deal because the seller becomes an owner in the combined firm and thus assumes a portion of the risk.[15]

Premium at risk measures the risk that a seller assumes if there are no synergies. In a cash or fixed-value deal, the seller's risk is only the probability of the deal falling through. In a fixed-share offer, the value the seller ultimately receives is a function of the buyer's stock price. If the market perceives that the buyer is overpaying, it will drive the buyer's price down and hence reduce the acquisition value proportionately.

To continue with our example, the premium at risk is zero for a cash deal. The premium at risk for a stock deal is 33.3 percent because the seller will not receive the full premium in the case that no synergies materialize.

After the deal closes, the seller owns one-third ($1,000 of $3,000 proposed combined value) of the new entity. But since there are no synergies, the merged company is still worth $2,800 (the original market value of the seller and the buyer). The seller's value, then, is one-third of $2,800, or $933.33. The seller realizes only 66.7 percent of the premium ($133.33/$200), and 33.3 percent is the premium at risk.

If the SVAR is material, you need to spend time assessing the deal carefully. But if the SVAR is small, you know that the economic impact of the deal is modest. Exhibit 6 shows the SVARs for eight recent deals. The acquisitions at the top have large SVARs and are very material. The deals toward the bottom have small SVARs and hence are much less material.

Exhibit 6: Shareholder Value at Risk (SVAR) for a Sample of Recent Deals

Buyer	Target	Shareholder Value at Risk
Harris Corp.	Exelis	13.1%
Alexion Pharmaceuticals	Synageva BioPharma Corp.	12.8%
Revlon	Elizabeth Arden	8.6%
Alaska Air Group	Virgin America	6.7%
Danaher Corp.	Pall Corp.	6.6%
Global Payments	Heartland Payment Systems	5.3%
Schlumberger NV	Cameron International Corp.	4.5%
Salesforce.com	Demandware	1.8%

Source: Company disclosures and Credit Suisse.

The average SVAR for our sample of deals was 5.5 percent and the median was 3.2 percent. The range of SVARs was from -1.1 percent to 27.6 percent. The average premium at risk was 16.1 percent, the median was 9.3 percent, and the mode was zero.

What Is the Stock Market's Likely Reaction?

A.T. Kearney, a consulting firm, surveyed investor relations professionals about the metric they believed that stakeholders, including executives, sell-side analysts, and investors, care about most in assessing M&A. Three-quarters of the respondents said that stakeholders place a "strong emphasis" on earnings per share (EPS) accretion or dilution. EPS accretion or dilution was deemed to be, by far, the most important metric.[16]

This perception has no empirical foundation. Careful studies show that value creation is largely independent of EPS accretion or dilution.[17] Most announced M&A deals today are accretive to the EPS of the buying company. This reflects a change in the accounting rules in 2005 that eliminated the amortization of goodwill, which used to be a drag on earnings, as well as the fact that low prevailing interest rates provide companies with a cheap source of funding. EPS accretion or dilution provides little or no insight because value creation is based on cash flows rather than accounting measures, and the cost of capital rather than the funding source.

Exhibit 7 shows this with a sample of 95 of the M&A deals we analyzed. The columns categorize deals based on whether the company said it would be immediately accretive or dilutive to EPS. The column on the right shows that 86 percent of the deals are accretive. The rest, found in the center and left columns, are neutral or dilutive.

The rows show the one-day abnormal return for the buyer on the day of the announcement. An abnormal return is the difference between the total shareholder return and the expected return. A stock's expected return reflects the change in the S&P 500 index with an adjustment for risk. We define a neutral reaction as up or down less than 100 basis points.

Roughly three-fourths of the deals have a neutral or negative impact on shareholder value, as the top and middle rows show. The bottom row reveals that 27 percent of the deals in this sample created shareholder value. The box in the upper right corner shows that almost half of the deals in our sample add to EPS but subtract from value.

Exhibit 7: Anticipated Earnings per Share Effect and Buyer Stock Price Reaction

Buyer Reaction	Anticipated EPS Effect: Dilutive	Neutral	Accretive
Down	**4**	**2**	**45**
Neutral	**3**	**0**	**15**
Up	**3**	**1**	**22**

Source: Company data, FactSet, and Credit Suisse.

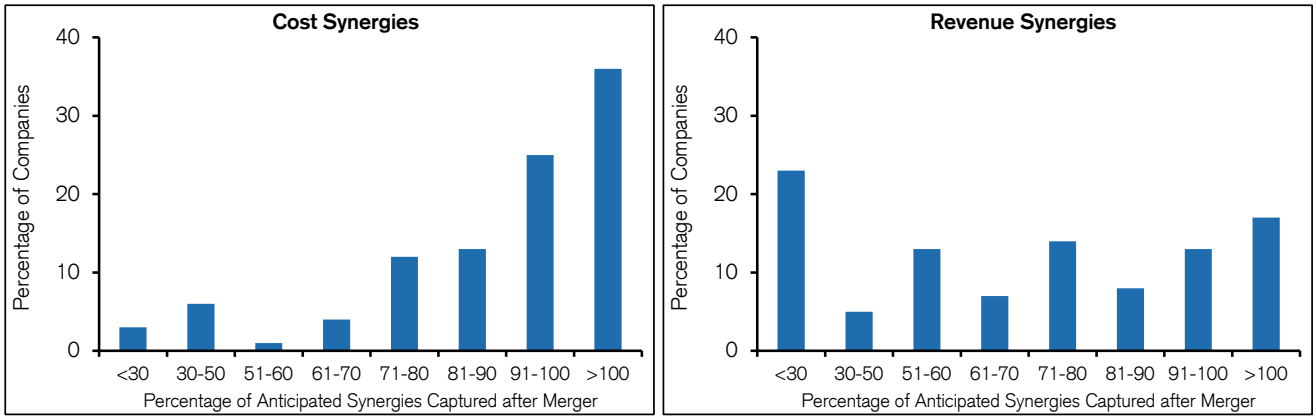
So how do you assess a deal's economic impact on the buyer? Mark Sirower provides a simple formula to determine whether a deal will add value:[18]

Net present value of the deal for the buyer = present value of the synergies – premium

The formula says that a deal is good for the buyer if it gets more than what it pays for. The underlying premise is that the seller's stock price, pre-deal, accurately reflects the present value of the company's future free cash flow. The deal creates value for the buyer only if the synergies from putting the businesses together exceed the premium for control the buyer must pay to close the deal. This equation provides more insight into a deal's economic virtue than a superficial metric such as accretion to EPS.

Let's take a closer look at the terms in the equation. McKinsey surveyed corporate executives about how successful they were in capturing the synergies they anticipated. Exhibit 8 shows the results. There is a clear difference between cost synergies, costs companies save by removing redundancies, and revenue synergies, the anticipated increase in sales from combining businesses. Other forms of synergies have played a less substantial role historically.[19]

Exhibit 8: Cost Synergies Are More Reliable Than Revenue Synergies



Source: Scott A. Christofferson, Robert S. McNish, and Diane L. Sias, "Where Mergers Go Wrong," McKinsey on Finance*, Winter 2004, 1-6.*

Cost synergies are much more reliable than revenue synergies. About one-third of the executives in the survey said that their company achieved all or more of the anticipated cost synergies, while one-quarter of the companies overestimated their cost synergies by 25 percent or more. But roughly 70 percent of mergers fail to deliver the anticipated revenue synergies. Common challenges companies cite for synergy realization include delays in implementing planned actions, underestimation of costs and complexities, and flat-out overestimation of synergies.[20]

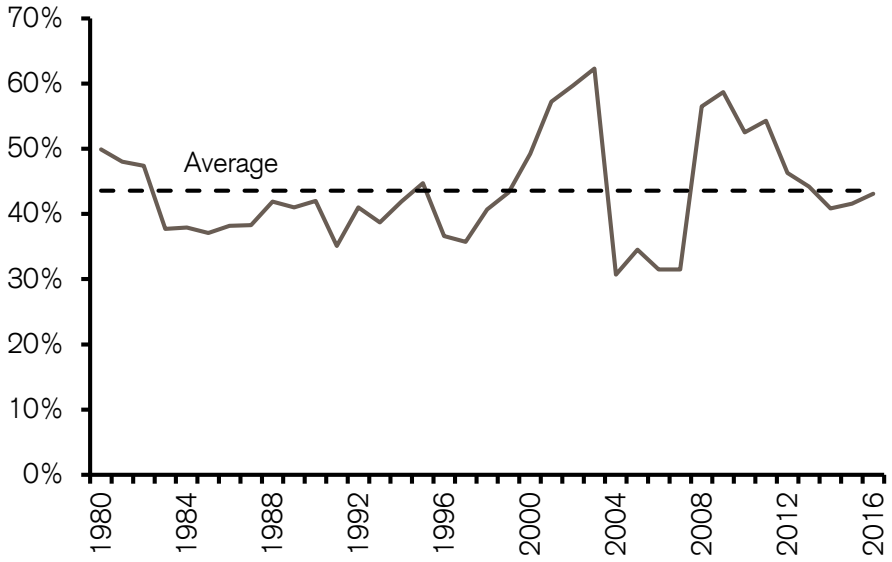
Today, it is reasonably common for executives to articulate the anticipated benefit of synergies. Managements provided an estimate of synergies in about 60 percent of the deals in our sample.

You need to take two steps to translate a synergy estimate into the present value of synergies. First, you need to assume that the company pays taxes on the gross synergy amount. For example, if a buyer says that it anticipates synergy of $100 and the company's tax rate is 30 percent, the after-tax value of the synergy is $70 ($100 * (1 – 0.30)). Second, you can capitalize the synergy into perpetuity by dividing it by the cost of capital. If we assume our buyer's cost of capital to be 7 percent, the present value of synergies is $1,000 ($70/.07).

The next part of the analysis is to determine the premium for control. The premium is the difference between the price a buyer is willing to pay and the prevailing market price prior to any anticipation of a deal. For example, if a stock is trading at $100 and a buyer offers $140, the premium is 40 percent ($40/$100).

Exhibit 9 shows the average deal premium from 1980 to 2016, with each deal receiving an equal weight. While the premium is generally straightforward to calculate for an individual transaction, the series of premiums over time is difficult to aggregate. The current average premium is 43 percent, very close to the long-term mean. Contested deals tend to lead to higher premiums.[21]

Exhibit 9: U.S. Average Deal Premium, 1980-2016

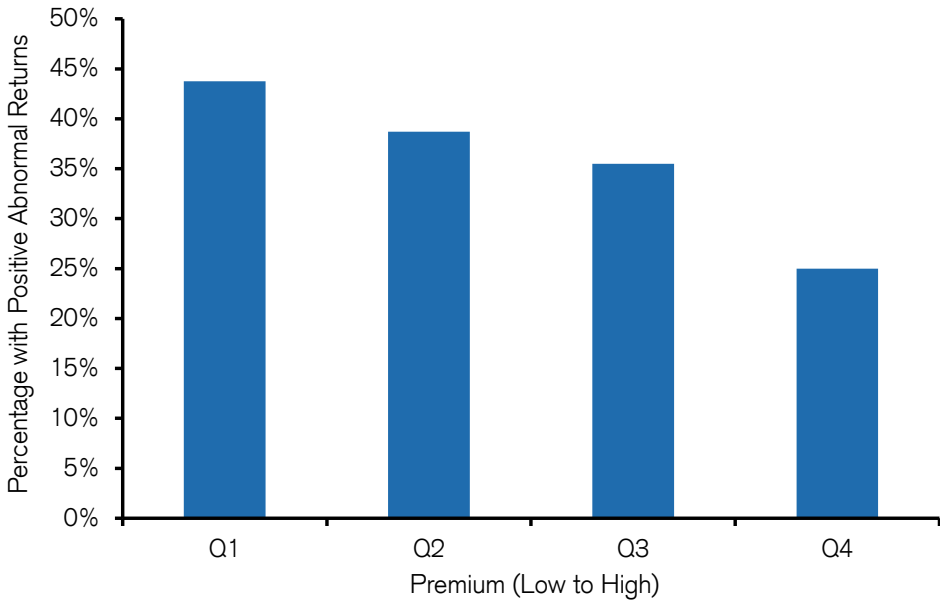


Source: Patrick A. Gaughan, Mergers, Acquisitions, and Corporate Restructurings – Sixth Edition *(Hoboken, NJ: John Wiley & Sons, 2015), 605; Thomson Reuters; Credit Suisse.*

Exhibit 4 showed a direct relationship between the magnitude of the premium and value creation for the buyer. This stands to reason. The larger the premium the buyer offers, the greater the synergies need to be to add value for the buyer. Lower premiums establish a lower bar for creating value. Recent research shows that overbidding is common.[22]

We ranked the premiums offered in quartiles for the companies in the sample. Exhibit 10 shows that the quartile with the lowest premium was the most likely to deliver positive abnormal returns for buyers in the three days after the announcement. Our research supports the notion that deals with small premiums have better initial market reactions than deals with large premiums do.

Exhibit 10: Value Creation for Buyers Based on Premium Paid



Source: Company data, FactSet, and Credit Suisse.

We used Sirower's formula to assess the deals in our sample. We used the synergy estimates that the companies shared in their press releases. We calculated the premium taking into account stock price movement related to rumors prior to the announcement. We had full information for 78 deals.

A naïve analysis might anticipate that deals accretive to EPS create value, and that dilutive deals destroy value. That heuristic provides woeful guidance. Just 27 percent of accretive deals in our sample create value, and 60 percent of dilutive deals are neutral or positive.

Does the value creation formula do better? Exhibit 11 shows that the formula correctly predicts the buyer's excess return 39 percent of the time, markedly better than the simple EPS heuristic. If we focus solely on value change, the formula is accurate just under one-half of the time. Note that we accept management's estimate of synergy without question, and capitalize them into perpetuity. As a result, the formula tends to reflect management optimism.

When we combine the evidence that many companies fail to realize the synergies they hope for and that overbidding is common, it comes as no surprise that for roughly one-half of the deals the formula predicts value creation and the reality is value destruction. In other words, the market does not believe the projections of synergies that executives suggest.

Exhibit 11: Anticipated Buyer Reaction Given Present Value of Synergies and Premium Pledged

Buyer Reaction \ Anticipated Buyer Reaction	Destructive	Neutral	Creating
Down	**9**	**7**	**25**
Neutral	**0**	**4**	**7**
Up	**8**	**2**	**16**

Source: Company data, FactSet, and Credit Suisse.

Is the Buyer Sending a Signal by Choosing To Pay with Stock or Cash?

Investors must next consider how a company pays for a deal. Whether a buyer uses cash, stock, or a combination can send a signal to the market. There are cases where buyers may use stock because of the size of the transaction or for tax reasons. The key question is whether the buyer gets more than it pays for. That said, the empirical evidence shows that the market responds more favorably to cash deals than to stock deals.[23]

One potential explanation is that in cash deal the buyer takes all of the risk and enjoys all of the reward. So paying with cash indicates the buyer is confident that the deal will create value. A buyer that uses stock shares the risk and reward. A buyer that is unsure whether it can capture the synergies that premium demands can hedge its position by issuing stock.

The relatively poor reception to stock deals is also consistent with the hypothesis that managers issue stock when they believe that their stock is overvalued. Issuing stock is dilutive for current shareholders and indicates that management does not believe its stock is undervalued.[24]

Of the deals we analyzed, 44 percent were financed with cash, 21 percent with stock, and 35 percent with a combination of cash and stock. For the cash deals, the buyer's stock had positive abnormal returns 51 percent of the time with an average abnormal return of 0.7 percent 5 days after the deal was announced. For the stock deals, the buyer's stock had negative abnormal returns 70 percent of the time with an average abnormal return of -3.9 percent 5 days after the deal was announced. The combination deals also had negative abnormal returns 70 percent of the time with an average abnormal return of -4.1 percent 5 days after the deal was announced.

What Strategic Category Does the Deal Fall Into?

Clark and Mills developed four categories for deals and provided different success rates for each. These are summarized in exhibit 12. Knowing which category a deal is in can help determine the probability of success.

Exhibit 12: Probability of M&A Success Based on Type of Deal

Success Rate	Category	Type	Description	Example(s)	Success Threats (Ex-Pricing, Phase)
87-92	Opportunistic	Bottom-trawlers	Dying competitor signals exit, advantage to fast, cash bidders	Marconi, Palm	Obsolescence, incompatible technologies
80-85	Operational	Bolt-ons	Fills void in acquirer's existing product/service offer, quickly	P&G/Pantene	Hidden integration difficulties cancel timing advantage
65-70	Operational	Line extension equivalents	Next generation/different variant of existing product/service	Volkswagen/Skoda	Actual synergies limited to scale, insufficient to cover APP
55-60	Transitional	Consolidation -- mature	Same industry contraction: scale, overhead synergies	Pharma, telecoms	Overestimation of market share gain importance
40-45	Operational	Multiple core-related complementary	Logical complements to present offer: products/channels/areas Two or more related elements	Disney/ABC; P&G/Gillette; Coty/Avon	Mistaken judgment of development potential (r-synergies)
37-42	Transitional	Consolidation -- emerging	Same industry contraction: Picking winners	ABC Capital Cities/Dumont	Overstated premiums (APP) based on target's prior performance
30-35	Operational	Single core-related complementary	Similar to complementary but one or less related elements	Daimler Chrysler	Exaggerated benefits attributed to target in 'marriage made in heaven'
20-25	Transformational	Lynchpin strategic	Major change in emphasis in acquiring company's business mix and forward strategy	IBM/PwC Consulting	Dependent on extraordinary acquiring company
15-20	Transformational	Speculative strategic	Radical, high-risk experimentation with company's business mix and model	AOL/TW; Vivendi (Messier)	CEO's imagined vision inconsistent with market realities

Based on Peter J. Clark and Roger W. Mills, Masterminding the Deal: Breakthroughs in M&A Strategy and Analysis *(London: Kogan Page, 2013), 148-149.*

Roughly 9 out of 10 opportunistic deals succeed. Operational deals are more nuanced. About 80 percent of bolt-on deals add value, but only 40 percent of those that combine "logical complements add value." Transitional deals add value a modest majority of the time when they help consolidate a mature industry, but they destroy value a modest majority of the time when they help consolidate an emerging industry. Finally, transformational deals, where a company shifts its business emphasis altogether, rarely create value. Clark and Mills summarize the problem when they write that the "CEO's imagined vision [is] inconsistent with market realities."

Summary

Here are the main points the checklist helps you discern. EPS accretion or dilution provides little or no guidance for assessing value creation. The buyer creates value when the synergies it realizes by combining with the seller exceed the premium for control that it pays to the seller. Companies are commonly overly optimistic about the synergies they can capture, and experience shows that cost synergies are more reliable than revenue synergies. Low premiums tend to be good because there is a lower bar to clear to create value.

How the buyer pays for the deal can provide a signal to the market. Research shows that cash deals generally lead to positive excess returns for the buyer and that stock deals have negative excess returns. Finally, the motivations to do deals fall into various categories. A high percentage of opportunistic deals create value and a low percentage of transformational ones do.

Case Studies

Expedia, Inc. Acquires Orbitz Worldwide, Inc.

On the morning of February 12, 2015, Expedia, Inc., an online travel company, announced it had agreed to acquire Orbitz Worldwide, Inc. for $12 per share in cash, a 37 percent premium. Orbitz is also in the online travel business. Expedia's retail bookings were roughly four times larger than those for Orbitz in the full year prior to the deal announcement. Expedia's stock closed at $78.20 the day before deal was disclosed, and Orbitz traded at $8.70 prior to the news that a deal was imminent. The deal was expected to be accretive to Expedia's earnings per share.

☑ How material is the deal for the shareholders of the buying and selling companies?

The shareholder value at risk (SVAR) for Expedia shareholders is 4.0 percent, which we calculate as the $360 million premium divided by Expedia's market capitalization of $8.9 billion. (See exhibit 13.) This compares to an average SVAR of 5.5 percent for the deals we examined.

The premium at risk for Orbitz shareholders is zero because this is a cash deal. Orbitz shareholders had to worry only about the probability of regulatory approval for the deal.

Exhibit 13: Acquisition Details between Expedia, Inc. and Orbitz Worldwide, Inc.

Buyer Seller	Expedia Orbitz
Shareholder Value at Risk (SVAR)	
Premium	360
Buyer's market capitalization	8,895
Seller's market capitalization	969
SVAR	4.0%
Premium at Risk	0.0%
Value Creation	
Premium	360
After-tax annual synergies	60
Cost of capital	6.4%
Capitalized value of synergies	943
Synergies - Premium	583
Buyer anticipated change	6.6%
Seller anticipated change	37.1%
EPS impact	Accretive

Source: Company data, FactSet, and Credit Suisse.
Note: Figures are in millions of U.S. dollars.

☑ What is the stock market's likely reaction?

Expedia executives said that they expected about $75 million in annual cost synergies from combining Expedia and Orbitz. Assuming a tax rate of 19.7 percent, the after-tax annual synergies are $60.2 million. We then capitalize that at the cost of capital of 6.4 percent to arrive at a value of $943 million.

The premium is $360 million, which is the bid amount minus the pre-bid stock price times the shares outstanding for Orbitz ($12 - $8.70 * 109 million). We can see quickly that the synergies exceed the premium.

The net present value of the deal for Expedia equals the present value of the synergies minus the premium. Plugging in the figures, we see that the value creation is $583 million ($943 million in synergies - $360 million premium). Since this is a cash deal, that value goes to Expedia shareholders.

The formula suggests that Expedia shares will rise 6.6 percent ($583 million/$8.9 billion) and that Orbitz shares will gain more than 35 percent to the $12 per share bid price. In reality, the shares of the selling company rarely increase the full amount that the model suggests because of the time to close the deal and some regulatory risk. Arbitrageurs generally step in to assume those risks.

☑ Is the buyer sending a signal by choosing to pay with stock or cash?

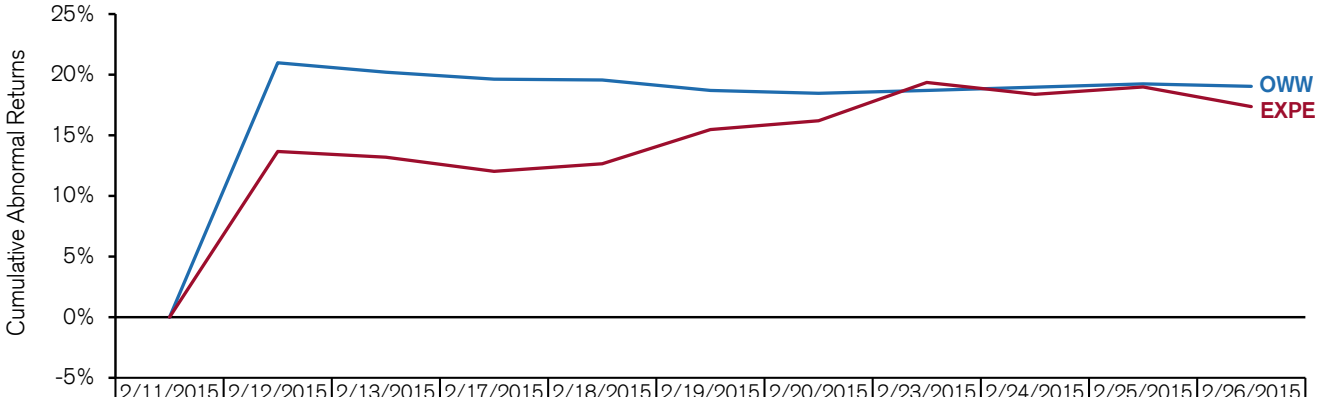
This is a cash deal, which is a signal that Expedia's management believes the acquisition will add value.

☑ What strategic category does the deal fall into?

Last, we look at the motivation for the deal. This is a transitional acquisition because Expedia is buying a smaller rival in the same industry. As the industry is at a mature stage, the probability of success is greater than 50 percent.

How did things turn out? Exhibit 14 shows the abnormal returns of Expedia and Orbitz relative to the S&P 500 index for the 10 trading days following the announcement. We calculate all returns relative to the value at the close the day before February 12, 2015, the day of the announcement.

Exhibit 14: Returns for Expedia, Inc. and Orbitz Worldwide, Inc. Shareholders Versus the S&P 500



	2/11/2015	2/12/2015	2/13/2015	2/17/2015	2/18/2015	2/19/2015	2/20/2015	2/23/2015	2/24/2015	2/25/2015	2/26/2015
OWW	0.0%	21.0%	20.2%	19.6%	19.6%	18.7%	18.5%	18.7%	19.0%	19.2%	19.0%
EXPE	0.0%	13.7%	13.2%	12.0%	12.6%	15.5%	16.2%	19.4%	18.4%	19.0%	17.4%

Source: Company data, FactSet, and Credit Suisse.

We see that Expedia's price rose much more than the formula suggested it would. Following the announcement, the abnormal returns were 13.7 percent for 1 day, 12.0 percent for 3 days, and 15.5 percent for 5 days. Orbitz shareholders fared well, with abnormal returns of roughly 20 percent. The deal closed in September 2015 after the Justice Department said it would not challenge the combination.

Centene Corporation Merges with Health Net, Inc.

Prior to the stock market open on July 2, 2015, Centene Corporation and Health Net, Inc. announced a unanimous agreement to merge. Centene, a health insurer based in the Midwest, sought Health Net to strengthen its position on the West Coast. Centene offered Health Net shareholders 0.622 shares of Centene common stock and $28.25 in cash for a total consideration of $78.57, a premium of 21 percent. Centene's stock closed at $80.90 and Health Net traded at $65.06 the day before deal was disclosed. The deal was expected to be accretive to Centene's earnings per share.

☑ How material is the deal for the shareholders of the buying and selling companies?

The shareholder value at risk (SVAR) for Centene shareholders is 7.7 percent, which we calculate as the $1,040 million premium divided by Centene's market capitalization of $9.6 billion plus the $3.9 billion portion of the offer that is in stock. (See exhibit 15.) This compares to an average SVAR of 5.5 percent for the deals in our sample.

The premium at risk for Health Net shareholders is 28.7 percent. Here's the way to think about it. If the merger realizes no synergies, Centene's shares will decline 7.7 percent (the definition of SVAR). The stated bid is for $78.57, with $28.25 of that value in cash and $50.32 in stock (0.622 * $80.90), a premium of $13.50 versus Health Net's closing price of $65.06. If Centene's stock were to decline 7.7 percent, the value of the stock portion of the bid would decline to $46.45 (0.622 * $80.90*(1-0.077). Since the cash portion remains the same, the bid would now be worth $74.70, a premium of $9.64. So $3.86 of the $13.50 premium, or 28.7 percent, is at risk in the case that no synergies are realized.

Exhibit 15: Merger Details between Centene Corporation and Health Net, Inc.

Buyer Seller	Centene Health Net
Shareholder Value at Risk (SVAR)	
Premium	1,039
Buyer's market capitalization	9,620
Seller's market capitalization	5,005
SVAR	7.7%
Premium at Risk	28.7%
Value Creation	
Premium	1,039
After-tax annual synergies	86
Cost of capital	7.4%
Capitalized value of synergies	1,004
Synergies - Premium	-36
Buyer anticipated change	-0.3%
Seller anticipated change	20.5%
EPS impact	Accretive

Source: Company data, FactSet, and Credit Suisse.
Note: Figures are in millions of U.S. dollars.

☑ What is the stock market's likely reaction?

Centene executives said that they anticipated $150 million in annual cost synergies "by the end of year two" from combining the health insurers. Assuming a tax rate of 42.9 percent, the after-tax annual synergies are $85.7 million. We then capitalize that at the cost of capital of 7.4 percent to reach a value of $1,155 million. Since the synergies will not be realized until two years after the deal closes, we discount that value back at the cost of capital to arrive at a synergies number of $1,005 million ($1,155 million/1.074^2).

The premium is $1,040 million, which is the bid amount minus the pre-bid stock price times the shares outstanding for Health Net ($78.57 - $65.06 * 77 million). We can see that the premium exceeds the synergies.

The net present value of the deal for Centene equals the present value of the synergies minus the premium. Plugging in the figures, we see value destruction of $35 million ($1,005 million in synergies - $1,040 million premium). Since this is a cash and stock deal, Centene shareholders suffer and Health Net shareholders are not expected to receive the full value pledged.

The formula suggests that Centene shares will fall a modest 0.3 percent and that Health Net shares will rise about 20 percent. Because about two-thirds of the bid value is in stock, the buyer and seller share the risk of failing to realize the synergies.

☑ Is the buyer sending a signal by choosing to pay with stock or cash?

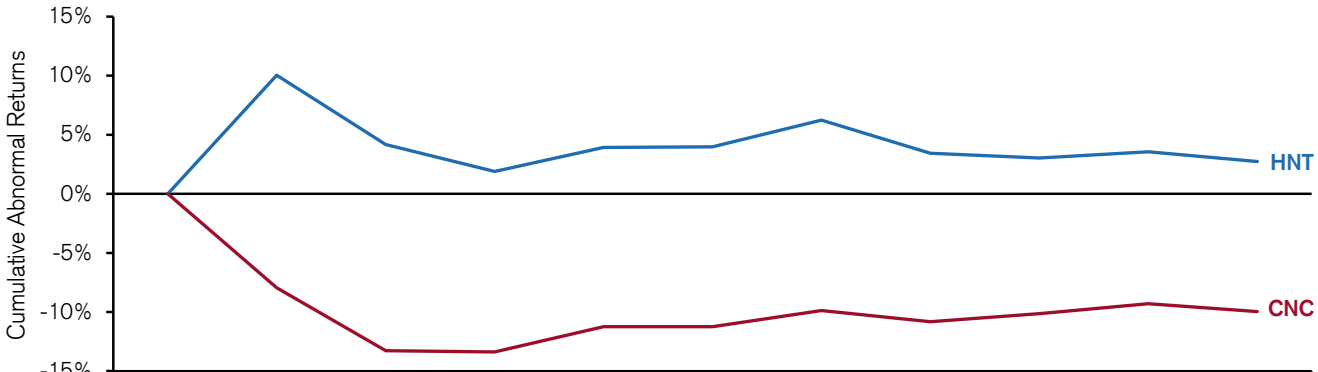
In our sample, the success rate of deals financed with a combination of stock and cash is lower than that of deals funded solely with cash. The stock and cash terms reduce Centene's shareholder value at risk.

☑ What strategic category does the deal fall into?

This is a transitional acquisition, combining two health insurance companies. One of the principal risks involved in a deal of this type is overestimation of the importance of market share gains.

How did things turn out in this case? Exhibit 16 shows the abnormal returns of Centene and Health Net relative to the S&P 500 index for the 10 trading days following the announcement. We calculate all returns relative to the value at the close of the day before July 2, 2015, the day of the announcement.

Exhibit 16: Returns for Centene Corporation and Health Net, Inc. Shareholders Versus the S&P 500



	7/1/2015	7/2/2015	7/6/2015	7/7/2015	7/8/2015	7/9/2015	7/10/2015	7/13/2015	7/14/2015	7/15/2015	7/16/2015
HNT	0.0%	10.0%	4.2%	1.9%	3.9%	4.0%	6.2%	3.4%	3.0%	3.6%	2.7%
CNC	0.0%	-8.0%	-13.3%	-13.4%	-11.2%	-11.3%	-9.9%	-10.8%	-10.1%	-9.3%	-10.0%

Source: Company data, FactSet, and Credit Suisse.

Centene's price dropped much more than the formula suggested it would. Following the announcement, the abnormal returns for Centene's stock were -8.0 percent for 1 day, -13.4 percent for 3 days, and -11.3 percent for 5 days. Health Net shareholders did better but did not realize the premium suggested by the merger agreement. Abnormal returns for Health Net's stock were 10.0 percent for 1 day, 1.9 percent for 3 days, and 4.0 percent for 5 days.

Appendix

Exhibit 17: Description of Deals

Buyer	Seller	Announcement Date	Shareholder Value at Risk	Premium at Risk	Premium (Percent)	Premium ($ Millions)	Capitalized Synergies (After-Tax)	Earnings per Share Effect	Deal Financing	1-Day Abnormal Return (Buyer)	3-Day Abnormal Return (Buyer)	5-Day Abnormal Return (Buyer)
AmerisourceBergen Corp.	MWI Veterinary Supply	1/12/2015	0.9%	0.0%	8.2%	185.3	302.4	Accretive	Cash	-1.6%	0.3%	0.3%
Rock-Tenn Co.	MeadWestvaco Corp.	1/26/2015	-0.8%	50.4%	-1.6%	-120.3	2,126.5	Accretive	Stock	5.8%	6.7%	6.6%
Energy Transfer Partners LP	Regency Energy Partners LP	1/26/2015	3.8%	31.9%	13.2%	1,266.6	NA	Accretive	Combination	-6.7%	-7.3%	-3.5%
SS&C Technologies Holdings	Advent Software	2/2/2015	2.7%	0.0%	5.7%	124.1	338.1	Accretive	Cash	-2.9%	7.2%	6.7%
Pfizer	Hospira	2/5/2015	2.1%	0.0%	38.9%	4,263.9	8,818.9	Accretive	Cash	2.0%	2.9%	5.7%
Harris Corp.	Exelis	2/6/2015	13.1%	15.5%	34.1%	1,127.5	754.7	Accretive	Combination	10.0%	9.1%	9.6%
Expedia	Orbitz Worldwide	2/12/2015	4.0%	0.0%	37.1%	359.8	943.3	Accretive	Cash	13.7%	12.0%	15.5%
Hewlett-Packard Co.	Aruba Networks	3/2/2015	2.2%	0.0%	34.2%	690.4	NA	Accretive	Cash	-9.8%	-8.8%	-9.7%
PacWest Bancorp	Square 1 Financial	3/2/2015	-0.1%	14.5%	-0.7%	-5.5	49.1	Dilutive	Stock	-2.9%	-2.0%	1.7%
AbbVie	Pharmacyclics	3/5/2015	2.2%	7.9%	13.0%	2,277.1	NA	Accretive	Combination	-5.8%	-6.6%	-2.1%
Alcoa	RTI International Metals	3/9/2015	7.4%	22.2%	49.9%	418.3	908.0	NA	Stock	-5.9%	-4.1%	-5.2%
Lexmark International	Kofax Ltd.	3/24/2015	12.8%	0.0%	46.7%	322.5	270.2	Accretive	Cash	7.9%	7.9%	5.1%
Fortune Brands Home & Security	Norcraft Cos.	3/30/2015	0.6%	0.0%	11.4%	45.0	NA	Accretive	Cash	4.7%	5.5%	5.5%
Crestwood Equity Partners LP	Crestwood Midstream Partners LP	5/6/2015	10.8%	73.4%	17.2%	518.9	265.4	Dilutive	Stock	-15.5%	-23.1%	-20.1%
Alexion Pharmaceuticals	Synageva BioPharma Corp.	5/6/2015	12.8%	10.9%	135.7%	4,828.5	1,479.4	NA	Combination	-7.7%	-4.3%	-4.9%
Microchip Technology	Micrel	5/7/2015	0.3%	0.0%	3.1%	23.9	NA	Dilutive	Cash	0.2%	3.5%	4.4%
Noble Energy	Rosetta Resources	5/11/2015	2.6%	9.5%	37.8%	547.6	NA	Accretive	Stock	-5.6%	-6.8%	-9.1%
Verizon Communications	AOL	5/12/2015	0.3%	0.0%	17.4%	580.4	NA	Accretive	Cash	-0.2%	-0.1%	-1.1%
Danaher Corp.	Pall Corp.	5/13/2015	6.6%	0.0%	28.1%	2,974.3	214.9	Accretive	Cash	3.2%	4.2%	3.1%
Ascena Retail Group	ANN	5/18/2015	13.8%	16.1%	21.4%	381.0	848.3	Accretive	Combination	-1.4%	4.3%	5.9%
Vanguard Natural Resources LLC	Eagle Rock Energy Partners LP	5/21/2015	4.6%	24.8%	22.9%	83.0	NA	Neutral	Stock	3.1%	4.1%	2.3%
CVS Health Corp.	Omnicare	5/21/2015	0.3%	0.0%	3.6%	326.5	NA	Accretive	Cash	2.1%	2.6%	2.3%
Charter Communications	Time Warner Cable	5/26/2015	19.3%	60.1%	19.7%	9,522.0	6,100.3	Accretive	Combination	3.3%	0.8%	2.7%
Intel Corp.	Altera Corp.	6/1/2015	0.9%	0.0%	10.5%	1,550.6	NA	Accretive	Cash	-1.8%	-5.4%	-7.0%
OPKO Health	Bio-Reference Laboratories	6/4/2015	5.3%	14.3%	59.5%	545.0	NA	NA	Stock	-14.2%	-10.9%	-15.4%
Standard Pacific Corp.	The Ryland Group	6/14/2015	3.0%	48.1%	6.6%	131.7	249.4	Dilutive	Stock	6.4%	4.0%	4.8%
Centene Corp.	Health Net	7/2/2015	7.7%	28.7%	20.8%	1,039.3	1,000.3	Accretive	Combination	-8.0%	-13.4%	-11.3%
MPLX LP	MarkWest Energy Partners LP	7/13/2015	20.7%	82.4%	31.6%	3,526.7	NA	NA	Combination	-15.5%	-16.3%	-21.7%
BorgWarner	REMY International	7/13/2015	2.4%	0.0%	43.7%	289.1	NA	Accretive	Cash	0.4%	-1.9%	-6.4%
Celgene Corp.	Receptos	7/14/2015	0.8%	0.0%	12.0%	783.2	NA	Dilutive	Cash	7.0%	8.7%	10.4%
St. Jude Medical	Thoratec Corp.	7/22/2015	1.5%	0.0%	10.3%	320.9	NA	Accretive	Cash	0.2%	-1.3%	-1.8%
Team Health Holdings	IPC Healthcare	8/4/2015	7.8%	0.0%	37.3%	379.5	344.0	Accretive	Cash	-4.0%	-1.5%	-6.1%
International Business Machines Corp.	Merge Healthcare	8/6/2015	0.1%	0.0%	31.8%	170.1	NA	NA	Cash	0.4%	-0.1%	0.2%
Shenandoah Telecommunications Co.	NTELOS Holdings Corp.	8/10/2015	4.9%	0.0%	26.5%	43.1	NA	NA	Cash	20.0%	15.6%	15.6%
Berkshire Hathaway	Precision Castparts Corp.	8/10/2015	3.2%	0.0%	21.2%	5,663.5	NA	NA	Cash	-1.1%	-1.7%	-1.3%
CVR Partners LP	Rentech Nitrogen Partners LP	8/10/2015	10.9%	35.6%	32.9%	131.8	179.1	Accretive	Combination	-4.0%	5.2%	5.5%
Envestnet	Yodlee	8/10/2015	10.4%	13.4%	51.5%	192.4	NA	Accretive	Combination	-34.1%	-21.4%	-24.7%
BB&T Corp.	National Penn Bancshares	8/17/2015	1.0%	4.2%	19.2%	293.7	800.5	Accretive	Combination	0.0%	-0.6%	-0.9%
Liberty Interactive Corp.	zulily	8/17/2015	3.1%	0.0%	49.2%	413.3	NA	NA	Cash	-2.2%	-2.5%	-1.3%
The Southern Co.	AGL Resources	8/24/2015	5.2%	0.0%	37.9%	2,178.4	NA	Accretive	Cash	-3.5%	-4.3%	-4.8%

Source: Company data, FactSet, and Credit Suisse.

Exhibit 17: Description of Deals

Buyer	Seller	Announcement Date	Shareholder Value at Risk	Premium at Risk	Premium (Percent)	Premium ($ Millions)	Capitalized Synergies (After-Tax)	Earnings per Share Effect	Deal Financing	1-Day Abnormal Return (Buyer)	3-Day Abnormal Return (Buyer)	5-Day Abnormal Return (Buyer)
Schlumberger NV	Cameron International Corp.	8/26/2015	4.5%	9.8%	56.3%	4,576.1	3,801.0	Accretive	Combination	-9.0%	-4.5%	1.0%
XPO Logistics	Con-way	9/9/2015	21.3%	0.0%	34.0%	690.8	690.0	Accretive	Cash	-12.1%	-9.7%	-10.9%
DENTSPLY International	Sirona Dental Systems	9/15/2015	-0.3%	42.0%	-0.7%	-39.6	831.8	Accretive	Stock	-3.5%	-1.5%	-1.2%
comScore	Rentrak Corp.	9/29/2015	2.8%	31.1%	9.9%	66.0	154.4	Dilutive	Stock	8.3%	10.5%	9.8%
Microsemi Corp.	PMC-Sierra	10/19/2015	8.7%	13.5%	18.2%	359.8	829.8	Accretive	Combination	-5.5%	-5.5%	-5.5%
Western Digital Corp.	SanDisk Corp.	10/21/2015	13.3%	17.4%	20.4%	3,007.4	4,028.8	Accretive	Combination	-6.8%	-14.3%	-19.0%
Western Refining	Northern Tier Energy LP	10/26/2015	6.0%	22.5%	14.0%	314.6	69.4	Accretive	Combination	-1.1%	-3.2%	-1.9%
Duke Energy Corp.	Piedmont Natural Gas Co.	10/26/2015	2.8%	0.0%	42.1%	1,408.3	NA	Accretive	Cash	-1.9%	-3.3%	-3.2%
Snyder's-Lance	Diamond Foods	10/28/2015	5.1%	25.7%	16.0%	175.4	864.9	Accretive	Combination	-8.5%	-1.9%	0.6%
KeyCorp	First Niagara Financial Group	10/30/2015	2.5%	22.3%	9.8%	361.3	2,865.2	Accretive	Combination	-6.5%	-5.8%	-3.7%
Endurance International Group Holdings	Constant Contact	11/2/2015	10.7%	0.0%	22.6%	189.7	311.0	NA	Cash	-18.7%	-12.0%	-0.9%
Targa Resources Corp.	Targa Resources Partners LP	11/3/2015	10.4%	67.2%	18.4%	1,035.1	NA	Accretive	Stock	-13.0%	-13.7%	-16.7%
Expedia	HomeAway	11/4/2015	3.0%	14.5%	18.2%	559.7	NA	Accretive	Combination	2.4%	-2.8%	-3.3%
Weyerhaeuser Co.	Plum Creek Timber Co.	11/8/2015	6.0%	35.1%	20.7%	1,449.6	1,004.0	Neutral	Stock	-1.8%	-0.6%	0.6%
The Kroger Co.	Roundy's	11/11/2015	0.2%	0.0%	65.1%	70.1	418.6	Accretive	Cash	-0.4%	-1.0%	0.5%
Marriott International	Starwood Hotels & Resorts Worldwide	11/16/2015	-0.3%	37.7%	-0.7%	-82.6	1,436.1	Accretive	Combination	-0.4%	-3.9%	-4.1%
ON Semiconductor Corp.	Fairchild Semiconductor International	11/18/2015	5.5%	0.0%	11.9%	244.7	883.2	Accretive	Cash	-10.3%	-8.2%	-6.5%
Pinnacle Foods	Boulder Brands	11/24/2015	1.1%	0.0%	9.2%	57.1	397.3	Accretive	Cash	-1.5%	3.2%	0.9%
American Homes 4 Rent	American Residential Properties	12/3/2015	1.2%	15.0%	8.7%	49.0	NA	NA	Stock	-3.9%	-5.3%	-3.1%
BBCN Bancorp	Wilshire Bancorp	12/7/2015	3.9%	41.0%	10.4%	96.6	233.6	Accretive	Stock	-0.6%	-1.5%	-4.1%
Newell Rubbermaid	Jarden Corp.	12/14/2015	7.8%	41.6%	14.0%	1,619.9	3,585.8	Accretive	Combination	-7.5%	-3.7%	-0.9%
Global Payments	Heartland Payment Systems	12/15/2015	5.3%	15.9%	18.7%	585.8	927.1	Accretive	Combination	-9.6%	-8.7%	-9.7%
Thermo Fisher Scientific	Affymetrix	1/8/2016	0.7%	0.0%	52.0%	383.0	526.6	Accretive	Cash	0.5%	1.3%	1.0%
Microchip Technology	Atmel Corp.	1/13/2016	2.2%	5.4%	6.1%	197.9	1,194.3	Accretive	Combination	1.4%	0.0%	2.8%
Huntington Bancshares	FirstMerit Corp.	1/26/2016	8.3%	24.8%	31.0%	790.0	2,872.5	Accretive	Combination	-9.9%	-4.5%	-5.2%
Chemical Financial Corp.	Talmer Bancorp	1/26/2016	-1.1%	45.0%	-2.2%	-23.6	NA	Accretive	Combination	-1.0%	1.4%	3.9%
Dominion Resources	Questar Corp.	2/1/2016	1.9%	0.0%	22.6%	806.0	NA	Accretive	Cash	-2.7%	-2.6%	-0.3%
MKS Instruments	Newport Corp.	2/23/2016	17.2%	0.0%	52.9%	307.1	271.4	Accretive	Cash	-3.6%	-2.4%	-1.0%
ARMOUR Residential REIT	JAVELIN Mortgage Investment Corp.	3/2/2016	1.9%	0.0%	19.0%	13.5	NA	Accretive	Cash	1.6%	3.5%	5.6%
Brocade Communications Systems	Ruckus Wireless	4/4/2016	8.0%	14.4%	44.3%	397.5	NA	Accretive	Combination	-13.4%	-8.8%	-7.8%
Annaly Capital Management	Hatteras Financial Corp.	4/11/2016	1.4%	9.2%	11.1%	150.3	NA	Accretive	Combination	0.4%	-1.1%	-0.8%
First Cash Financial Services	Cash America International	4/28/2016	0.2%	42.1%	0.5%	4.9	489.4	Accretive	Stock	0.8%	-4.9%	-1.0%
Oracle Corp.	Textura Corp.	4/28/2016	0.1%	0.0%	30.7%	160.0	NA	NA	Cash	-0.3%	-0.6%	-1.5%
Quintiles Transnational Holdings	IMS Health Holdings	5/3/2016	-0.7%	51.5%	-1.2%	-110.7	1,237.6	Accretive	Stock	-1.8%	-5.7%	-2.3%
Pfizer	Anacor Pharmaceuticals	5/16/2016	0.8%	0.0%	55.0%	1,579.9	NA	Dilutive	Cash	-0.3%	-0.2%	1.3%
Range Resources Corp.	Memorial Resource Development Corp.	5/16/2016	4.6%	31.3%	17.1%	475.4	NA	Accretive	Stock	-11.3%	-7.9%	-4.2%
Thermo Fisher Scientific	FEI Co.	5/27/2016	0.9%	0.0%	13.7%	528.0	596.9	Accretive	Cash	0.2%	0.0%	0.8%
Salesforce.com	Demandware	6/1/2016	1.8%	0.0%	56.3%	1,027.0	NA	Dilutive	Cash	-0.5%	-1.6%	-1.7%
Zimmer Biomet Holdings	LDR Holding Corp.	6/7/2016	1.7%	0.0%	63.9%	421.5	NA	Dilutive	Cash	-1.9%	-2.1%	-1.4%
Westlake Chemical Corp.	Axiall Corp.	6/10/2016	8.6%	0.0%	27.9%	507.5	635.4	Accretive	Cash	4.5%	0.0%	-0.6%
Cavium	QLogic Corp.	6/15/2016	5.7%	12.4%	16.0%	180.0	256.4	Accretive	Combination	-18.0%	-18.0%	-19.0%
Revlon	Elizabeth Arden	6/16/2016	8.6%	0.0%	50.4%	140.5	1,273.9	NA	Cash	7.1%	2.8%	6.1%
Pfizer	Medivation	8/22/2016	1.1%	0.0%	21.4%	2,366.2	NA	Accretive	Cash	-0.4%	-0.1%	0.1%

Source: Company data, FactSet, and Credit Suisse.

Exhibit 17: Description of Deals

Buyer	Seller	Announcement Date	Shareholder Value at Risk	Premium at Risk	Premium (Percent)	Premium ($ Millions)	Capitalized Synergies (After-Tax)	Earnings per Share Effect	Deal Financing	1-Day Abnormal Return (Buyer)	3-Day Abnormal Return (Buyer)	5-Day Abnormal Return (Buyer)
Nexstar Broadcasting Group	Media General	9/28/2015	22.1%	26.5%	29.7%	423.2	395.1	Accretive	Combination	2.7%	7.4%	3.6%
Walgreens Boots Alliance	Rite Aid Corp.	10/27/2015	3.0%	0.0%	48.0%	2,963.6	1,073.4	Accretive	Cash	6.6%	-7.3%	-5.2%
The Dow Chemical Co.	E.I. du Pont de Nemours & Co.	12/11/2015	-1.0%	49.2%	-2.0%	-1,179.8	4,534.6	NA	Stock	13.0%	8.3%	0.7%
Abbott Laboratories	Alere	2/1/2016	2.9%	0.0%	50.5%	1,621.6	4,224.0	Accretive	Cash	1.6%	1.8%	1.8%
Lions Gate Entertainment Corp.	Starz	2/4/2016	16.2%	45.6%	21.2%	568.6	NA	NA	Combination	-0.9%	-22.0%	-21.6%
AMC Entertainment Holdings	Carmike Cinemas	3/4/2016	21.7%	0.0%	19.5%	120.2	346.8	NA	Cash	4.7%	11.4%	12.8%
Coherent	Rofin-Sinar Technologies	3/16/2016	13.3%	0.0%	41.9%	273.4	256.5	Accretive	Cash	3.0%	4.6%	3.7%
The Sherwin-Williams Co.	The Valspar Corp.	3/20/2016	8.7%	0.0%	34.8%	2,304.6	2,195.3	Accretive	Cash	-5.4%	-1.4%	-1.9%
Alaska Air Group	Virgin America	4/4/2016	6.7%	0.0%	46.5%	682.6	1,941.7	Accretive	Cash	-3.5%	-2.7%	-2.5%
Cousins Properties	Parkway Properties	4/29/2016	6.3%	55.1%	13.0%	224.0	196.5	NA	Stock	-2.7%	0.3%	-0.3%
Ares Capital Corp.	American Capital Ltd.	5/23/2016	1.2%	26.9%	2.1%	78.2	NA	Accretive	Combination	-2.2%	-3.1%	-4.0%
Great Plains Energy	Westar Energy	5/31/2016	16.5%	21.0%	13.4%	1,002.6	NA	Neutral	Combination	-5.8%	-8.6%	-8.9%
Microsoft Corp.	LinkedIn Corp.	6/13/2016	1.9%	0.0%	49.5%	7,659.6	NA	Dilutive	Cash	-1.8%	-2.4%	-1.5%
Tesla Motors	SolarCity Corp.	6/21/2016	1.9%	7.9%	31.1%	647.9	NA	NA	Stock	-10.2%	-9.0%	-5.1%
F.N.B. Corp.	Yadkin Financial Corp.	7/21/2016	3.1%	34.4%	9.9%	130.3	NA	NA	Stock	-8.8%	-9.1%	-8.7%
Analog Devices	Linear Technology Corp.	7/26/2016	12.6%	15.3%	23.9%	2,768.5	1,343.7	Accretive	Combination	3.8%	6.0%	5.6%
Oracle Corp.	NetSuite	7/28/2016	0.8%	0.0%	19.0%	1,402.1	NA	NA	Cash	0.5%	0.3%	-0.4%
Mid-America Apartment Communities	Post Properties	8/15/2016	4.6%	32.3%	16.6%	551.3	364.0	NA	Stock	-5.1%	-7.0%	-7.5%
Cintas Corp.	G&K Services	8/16/2016	2.7%	0.0%	18.7%	303.6	1,023.1	NA	Cash	5.7%	6.1%	6.4%
United Bankshares	Cardinal Financial Corp.	8/18/2016	0.3%	23.2%	1.5%	12.8	NA	Accretive	Stock	0.0%	-0.6%	-0.1%
Berry Plastics Group	AEP Industries	8/25/2016	3.0%	5.0%	41.8%	164.4	553.8	Accretive	Combination	5.0%	3.8%	5.0%
Danaher Corp.	Cepheid	9/6/2016	2.4%	0.0%	54.0%	1,356.5	NA	Accretive	Cash	-2.4%	-2.8%	-2.7%
Eldorado Resorts	Isle of Capri Casinos	9/19/2016	23.9%	37.6%	36.7%	256.7	188.3	Accretive	Combination	-2.9%	-2.7%	1.6%
Tessera Technologies	DTS	9/20/2016	9.0%	0.0%	23.8%	145.7	116.0	Accretive	Cash	5.3%	12.8%	12.4%
Lennar Corp.	WCI Communities	9/22/2016	2.0%	3.7%	36.9%	167.0	NA	NA	Combination	-0.5%	-0.2%	-1.1%
CBOE Holdings	BATS Global Markets	9/26/2016	0.8%	26.7%	2.2%	64.9	546.9	Accretive	Combination	-4.7%	-5.9%	-7.9%
AT&T	Time Warner	10/22/2016	7.6%	14.6%	35.3%	21,576.4	14,979.4	Accretive	Combination	-1.8%	-6.6%	-7.4%
Rockwell Collins	B/E Aerospace	10/23/2016	8.4%	20.5%	22.5%	1,157.2	1,994.2	Accretive	Combination	1.0%	-4.4%	-1.5%
CenturyLink	Level 3 Communications	10/31/2016	18.7%	47.4%	31.1%	5,640.2	10,783.7	NA	Combination	0.9%	0.6%	1.8%
American Axle & Manufacturing Holdings	Metaldyne Performance Group	11/3/2016	27.6%	30.5%	52.5%	504.7	1,147.9	Accretive	Combination	-17.1%	-19.2%	-21.5%
Windstream Holdings	EarthLink Holdings Corp.	11/7/2016	1.1%	47.3%	2.3%	13.3	532.0	NA	Stock	6.9%	3.8%	-4.2%
Regency Centers Corp.	Equity One	11/14/2016	4.4%	38.4%	12.8%	516.4	332.7	NA	Stock	-4.8%	-7.3%	-6.7%
Tesoro Corp.	Western Refining	11/17/2016	5.3%	26.3%	22.3%	737.0	2,358.6	NA	Combination	0.2%	-2.7%	-1.6%
WellCare Health Plans	Universal American Corp.	11/17/2016	1.3%	0.0%	12.5%	72.2	16.9	Accretive	Cash	0.2%	0.7%	4.3%
First Interstate BancSystem	Cascade Bancorp	11/17/2016	4.6%	33.3%	10.8%	45.1	NA	NA	Combination	0.3%	-0.6%	-0.6%
Symantec Corp.	LifeLock	11/20/2016	2.0%	0.0%	15.7%	300.9	216.7	NA	Cash	2.5%	3.6%	3.0%
MACOM Technology Solutions Holdings	Applied Micro Circuits Corp.	11/21/2016	3.2%	14.8%	15.3%	95.0	NA	Accretive	Combination	-5.1%	0.6%	1.2%
Sunoco Logistics Partners LP	Energy Transfer Partners LP	11/21/2016	-0.2%	71.1%	-0.2%	-44.5	2,328.4	NA	Stock	-7.4%	-9.4%	-10.7%
Parker-Hannifin Corp.	CLARCOR	12/1/2016	3.3%	0.0%	17.8%	610.1	910.9	Accretive	Cash	3.7%	2.2%	2.0%
Teleflex	Vascular Solutions	12/2/2016	0.2%	0.0%	1.6%	15.8	457.0	Accretive	Cash	4.4%	4.1%	4.9%
Consolidated Communications Holdings	FairPoint Communications	12/5/2016	5.0%	28.1%	21.9%	100.6	348.0	NA	Stock	-4.8%	-5.3%	-7.2%
Synchronoss Technologies	Intralinks Holdings	12/6/2016	4.5%	0.0%	15.4%	99.9	173.2	NA	Cash	-13.7%	-20.4%	-20.8%
Simmons First National Corp.	Southwest Bancorp	12/14/2016	4.9%	18.9%	27.7%	123.0	155.1	Accretive	Combination	-4.9%	-4.7%	-3.9%

Source: Company data, FactSet, and Credit Suisse.

Endnotes

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[8] In an earlier paper, Mark Sirower and Stephen O'Byrne, a consultant, come to a similar conclusion: "These findings suggest that the market's immediate response to the announcement of an acquisition provides an 'unbiased' forecast—that is, neither too pessimistic nor too optimistic, on average—of the long-run effect of the acquisition on the acquiring firm's value." See Mark L. Sirower and Stephen F. O'Byrne, "The Measurement of Post-Acquisition Performance: Toward a Value-Based Benchmarking Methodology," *Journal of Applied Corporate Finance*, Vol. 11, No. 2, Summer 1998, 107-121.
[9] For a similar analysis, see Joseph L. Bower, "Not All M&A's Are Alike—and That Matters," *Harvard Business Review*, March 2001, 92-101. Bower's categories include reducing overcapacity, geographic roll-up, product or market extension, research and development, and industry convergence. In Werner Rehm, Robert Uhlaner, and Andy West, "Taking a Longer-Term Look at M&A Value Creation," *McKinsey Quarterly*, January 2012, McKinsey does a similar exercise. Their categories include programmatic, tactical, organic, large, and selective.
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[11] Here's an example. Assume a buyer has a market capitalization of $2,000 and a seller has a pre-deal market capitalization of $800. Say that the buyer bids $1,000 (a $200 premium, or 25 percent) in cash but that the true synergy is $400. The value of the buyer would rise to $2,200 as the synergy exceeds the premium by $200. Now assume the same starting point but that the buyer is using stock for the deal. The buyer will end up with two-thirds percent of the combined entity, and two-thirds of the $200 in additional value will flow to the buyer and one-third will go to the seller.
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[15] The other way to think of it is that the beginning value of both companies is $2,800 ($2,000 for the buyer and $800 for the seller). The buyer bids $1,000 but there are no synergies. So the value remains $2,800. Since the buyer owns two-thirds of the remaining firm ($2,000/$2,000 + $1,000), its value is now $1,866.66 ($2,800 * 2/3), down 6.7 percent. The seller's value is $933.33 ($2,800 * 1/3).
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[24] Rappaport and Mauboussin, 162.

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