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## Value Implications of Corporate Branding in Mergers

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## Report Summary

Mergers are central to corporate growth strategies but they are disruptive events that cause customers, employees, and investors to reassess their relationship with the merged entity. The choice of corporate branding is an important strategic decision in mergers as it provides a means to communicate context-appropriate positioning and messaging for the merged entity and can assist in securing the ongoing loyalty of customers, employees, and investors—the three key constituencies whose ongoing loyalty largely determines the success or failure of a merger.

Most academic research on mergers has focused on the role and impact of the internal resources of the merging organizations on post-merger financial performance. In this report, Natalie Mizik, Jonathan Knowles, and Isaac Dinner take an external resource perspective and explore the value implication of corporate branding in mergers, both at the merger announcement time and in the years following merger completion.

Using a sample of 216 large mergers undertaken in the U.S. during 1997—2006, they classify merger transactions into three groupings according to the post-merger corporate branding: acquisition (the identity of one of the merging companies is discarded and it is rebranded with the other firm's name and symbol), business-as-usual (both firms continue to operate under their own corporate names and symbols), and fusion (elements of both corporate brands are maintained in the new brand). They undertake event study and time-varying calendar-time portfolio analyses to assess potential differences in the value implications of corporate branding in mergers.

They find significant differences in the immediate market reaction to the merger announcements and significant differences in the post-merger performance across the three corporate branding strategies. Firms using the more expedient and cheaper acquisition and business-as-usual branding strategies underperform firms choosing the more sophisticated and expensive fusion branding. Fusion-branded mergers do not experience negative market reaction at the time of the merger announcement, and the researchers find no systematic negative future-term adjustment in the valuation of these firms. Surprisingly, the market is better able to recognize the negative consequences of acquisition-branded mergers early on: the valuation of these firms is adjusted immediately at the time of the merger announcement, and there is no significant future-term valuation adjustment following the merger completion. Only the business-as-usual branded mergers experience a significant post-merger negative adjustment in valuation: for them, the initial negative reaction to the merger announcement is compounded by further negative adjustment in the subsequent years. These findings suggest that investors appreciate the clarity of the acquisition and fusion strategies and are able to accurately impound their value impact. But they initially have difficulty in properly pricing (i.e., they over-value) the business-as-usual branded mergers.

The authors discuss and assess the signaling and the market-based asset management roles of corporate branding in mergers. Their findings favor the asset-management explanation: corporate branding is an important tool for managing market-based assets and relationships with the firm's key stakeholders.

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Academics and practitioners have long recognized brands as valuable intangible assets. When managed effectively, brands can play a significant role in creating value for organizations and their customers. Academic research on branding has provided valuable insights into key issues such as the measurement of brand equity (Ailawadi, Lehmann and Neslin 2003; Fischer 2007; Goldfarb, Liu and Moorthy 2009; Kamakura and Russell 1993; Srinivasan, Park and Chang 2005), brand portfolio management (Erdem 1998; Erdem and Sun 2002; Rao, Agarwal and Dahlhoff 2004), brand naming (Leclerc, Schmitt and Dube 1994; Lowrey and Shrum 2007; Peterson and Ross 1972), brand extensions (Aaker and Keller 1990; Bottomly and Holden 2001; John and Loken 1993; Keller and Aaker 1992; Lane and Jacobson 1995), and brand valuation (Barth et al. 1998; Fisher 2007; Mizik and Jacobson 2009).

As noted by Bahadir, Bharadwaj and Srivastava (2008), most of the academic research on branding has focused on brand management under conditions of organizational steady state—that is, situations in which no disruptive changes are occurring to company management, strategy, or business ownership. The last few decades, however, have been characterized by consolidation and high levels of merger and acquisition (business combinations) activity in many industries. Mergers are central to corporate growth but they are disruptive events that cause customers, employees, and investors to reassess their relationships with the new merged entity. The choice of corporate branding is an important strategic decision in business combinations as it provides a means to communicate context-appropriate positioning and messaging for the merged entity and can assist in securing the ongoing loyalty of customers, employees, and investors. The loyalty of these three constituencies is critical to the financial success of a merger.

Most academic research on mergers has focused on the role and impact of internal resources of the merging organizations. In contrast, we focus on an important external dimension of mergers—the choice of corporate branding. We argue that the corporate brand serves as a powerful vehicle for communicating the positioning, identity, and strategic intent of the merged company. It helps shape the perceptions and expectations of the new entity, influencing the

ensuing behavior of customers, employees, and investors and thus impacting the financial success or failure of a merger. We seek to examine whether corporate branding decisions are value-relevant and when branding-related information is priced into the merger valuation. This research topic is important given the continuing popularity of mergers as a component of corporate growth strategy and the persistent evidence that, in aggregate, mergers destroy value (King et al. 2004).

Using a sample of 216 large mergers undertaken during 1997–2006, we classify merger transactions into three groupings according to the post-merger corporate branding strategy selected: acquisition (one of the merging companies is rebranded with the other firm's name and symbol), business-as-usual (both firms continue to operate in the market under their own names and symbols), and fusion (elements of both corporate brands are maintained in the new brand). We undertake event study and time-varying calendar-time portfolio analyses to assess the value implications of corporate branding in mergers.

We find significant differences in the immediate market reaction to merger announcements across our branding groups: firms undertaking the more expedient acquisition and business-as-usual branding experience significant negative market reaction at the time of the merger announcement, whereas firms using fusion branding do not. Importantly, we also find significant differences in the post-merger returns across the three corporate branding types. Portfolios containing business-as-usual-branded mergers underperform the market following the merger, whereas portfolios of fusion and acquisition-branded mergers do not. Overall, the immediate and the long-term value implications of fusion branding are significantly more positive than those of acquisition and business-as-usual branding.

To the best of our knowledge, our study is the first to systematically examine the value implications of corporate branding strategies in mergers. It contributes to the marketing literature by demonstrating the value-relevance of corporate branding at the time of major structural changes in organizations (i.e., beyond the steady-state operating conditions). Our findings

provide insight into a signaling versus a market-based asset management role of corporate brands. The rest of the paper is organized as follows: first, we review relevant literature on mergers and discuss theories and factors advanced to explain post-merger performance. Next, we discuss the branding options available to the management of merging companies and outline the advantages and disadvantages of each. We then present our research hypotheses, methodology, data sources, and the results. We conclude with a discussion of the theoretical and practical implications of our findings, limitations, and opportunities for future research.

### **Mergers, Branding, and Corporate Name Changes**

Although M&A activity is cyclical, mergers represent a key tool for corporate growth strategy. They remain popular in down and up markets. According to Thomson Financial, the merger volume in 2007 hit \$1.57 trillion in the United States and \$1.78 trillion in Europe (*New York Times*, December 21, 2007).

The definition of a merger in corporate law differs from the common usage of this term in business practice. In its strict legal meaning, a merger is a combination of two (or more) corporations when only one (the survivor) continues to exist while the other (the decedent) transfers all its assets and liabilities to the survivor and ceases its legal existence. Such business combinations are often referred to as “acquisitions” in business practice. The strict legal definition of an acquisition, however, refers to a purchase of one company by another through the purchase of a substantial portion of its stock or assets. A merger may or may not follow an acquisition. Further, corporate law distinguishes a merger from a consolidation, which occurs when corporations combine and each ceases its legal existence and they join together to create a new corporation, a successor. Consolidations are often referred to as a “merger” or a “merger of equals” in business practice and are rare.

Distinguishing mergers, acquisitions, and consolidations in practice is difficult. The legal and financial arrangements often have nothing to do with how the combined company will operate, who will lead it, and which of the merging entities will dominate in the future. Legal or

tax considerations often drive the legal format of a business combination. The PR and managerial positioning of the deal is also often uninformative. Because getting acquired has a negative connotation, labeling an acquisition “a merger” makes it appear more palatable to shareholders and stakeholders.

A prominent example of such a situation is Daimler-Benz’s takeover of Chrysler in 1998. The deal was legally structured as an acquisition, but it was declared a merger of equals by both firms’ management teams and the media. Two years later, when Chrysler’s investors realized the German executives never intended to live up to their promise of a “merger of equals,” they sued the company for \$22 billion, claiming that the takeover was sold to them as a merger-of-equals in order to keep down the acquisition price. In August 2003, DaimlerChrysler agreed to settle this class action lawsuit for \$300 million.

### **Mergers and firm performance**

Firms engage in mergers to grow, diversify, gain access to new markets and resources, integrate vertically, acquire R&D and patents, avoid direct competition, and reduce overcapacity. The economics literature emphasizes efficiency-related motives for mergers, including economies of scale and scope, leveraging various synergies across merging entities, attempts to create market power by forming monopolies or oligopolies, and self-serving attempts by management to expand its span of managerial responsibilities and associated benefits (Andrade, Mitchell and Stafford 2001; Jarrell, Brickley and Netter 1988; Jensen 1993).

Research in finance has focused on studying the financial consequences of mergers. Early research employed short-window event studies to examine stock market reaction to merger announcements. These studies generated two main findings: (1) shareholders of the acquiring firm earn, on average, zero or, in some cases, a small negative abnormal return; and (2) target company shareholders benefit from mergers and accrue wealth gains at the time of the announcement. Mulherin and Boone (2000) and Boone and Mulherin (2007), for example, report a small (but insignificant) negative abnormal return for acquiring shareholders and a 20%

positive abnormal return for the shareholders of the target firm in the three-day window around the merger announcement date. Andrade, Mitchell and Stafford (2001), Jarrell, Brickley and Netter (1988), and Jensen and Ruback (1983) report similar findings.

More recently, research in finance has begun to examine the longer-term financial consequences of mergers using long-horizon event studies. If investors are unable to impound the full value implications of a merger at the time of its announcement then the initial stock price reaction will not reflect the entire wealth effect of the event at the time of the announcement and a systematic long-term price adjustment may occur. Indeed, long-horizon research documents a long-term negative post-merger stock price drift. Over time, this negative stock price drift overwhelms any positive initial gains of the target firms, resulting in a net negative overall value effect of mergers. For example, Mitchell and Stafford (2000) and Andrade, Mitchell and Stafford (2001) show that at the date of the announcement, the acquirer experiences a -0.7% abnormal return and the target firm a 16% positive return. In the subsequent three years, however, the equally weighted average abnormal returns to the shareholders of the merged entity are -5.0%. Agrawal, Jaffe and Mandelker (1992) report a similar finding of negative long-term returns: the return to the merged entity is -2% after one year, -7% after three years, and -10% after five years following the completion of a merger. Based on a review of 93 studies across the economics, finance, and management literature, King et al. (2004, p.195) conclude that “acquisitions either have no significant effect or a modest negative effect on an acquiring firm’s financial performance in the post-announcement period.”

These findings raise important questions: If, in aggregate, merger transactions fail to create wealth, why do they remain so popular and what helps distinguish successful mergers from failures? Our study focuses on the latter question.

### **The role of tangible and intangible assets in merger performance**

Multiple explanations have been advanced to explain the overall negative performance of mergers. Research in economics and finance has focused on the misalignment of managers’ and

shareholders' interests (agency theory: Jensen 1986; Kroll et al. 1997), management overconfidence (hubris theory: Roll 1986), and the impact of transaction-specific variables, such as whether the merger is friendly or hostile, vertical or horizontal, and how it is financed (Travlos 1987; King et al. 2004). Management literature has focused on the market relatedness of the merging companies as a determinant of post-merger performance (Lubatkin 1987; Andrade, Mitchell and Stafford 2001), resource complementarity of the two firms (Harrison, Hitt and Hoskison 2001), and absorptive capacity (Zahra and George 2002).

In reviewing these alternative theories and explanations and empirical evidence, King et al. (2004, p. 198) conclude that “despite decades of research, what impacts the financial performance of firms engaging in M&A remains largely unexplained,” and suggest “researchers simply may not be looking at the ‘right’ set of variables as predictors of post-acquisition performance” (p. 197). Indeed, most of the merger research has focused on the tangible asset components of mergers and synergies of resources, manufacturing, distribution, and product portfolios. Lev (2001), however, has pointed out the dramatic shift in the production function of companies toward greater reliance on intangible assets as the major source of value creation and growth.

In the M&A context, the growing importance of intangible assets is evident in the increase of the transaction price relative to the book value of acquired companies. For example, P&G paid \$58.6 billion for Gillette in June 2005. This price represented more than a ten-times multiple of Gillette's less than \$5 billion book value (\$0.9 billion of net working capital and \$3.6 billion of net property, plant, and equipment). Kraft paid almost a ten-times multiple to acquire Cadbury plc in March 2010: the purchase price of \$21.8 billion offered for a company with tangible book assets of less than \$3 billion (negative \$0.5 billion of net working capital and \$3 billion of net property, plant, and equipment).<sup>1</sup> Bahadir, Bharadwaj and Srivastava (2008) report that in the SEC filings following mergers, brand value was recognized in half the merger

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<sup>1</sup> Cadbury also had \$6.1 billion in goodwill and other intangible assets on its balance sheet.



transactions they examined; the recognized brand value ranged between 1% and 50% of the merger transaction amount.

### **Marketing research on mergers**

Despite the widespread acknowledgment of the importance of marketing-related factors for merger success (Becker and Flamer 1997), surprisingly little has been written about the marketing factors in mergers (Homburg and Bucerius 2005). Marketing literature has almost exclusively looked at mergers from a resource-based perspective, focusing on internal resources and the levels and effectiveness of marketing capabilities. For example, Capron (1999) and Prabhu, Chandy and Ellis (2005) examine the impact of mergers on innovation. Homburg and Bucerius (2005) study how the extent and speed of marketing integration affects post-merger performance. Capron and Hulland (1999) examine the redeployment strategies for brand portfolios, sales forces, and marketing expertise following mergers. Sorescu, Chandy and Prabhu (2007) focus on the level of marketing capabilities and find that product capital (i.e., a combination of product development and deployment capabilities) is a significant predictor of positive shareholder value creation in M&A activity in the pharmaceutical industry. Swaminathan, Murshed and Hulland (2008) consider the impact of strategic complementarity (strategic emphasis alignment) on merger performance.

In contrast, little attention has focused on the external dimensions of mergers. Questions related to how mergers affect market-based assets such as brand equity, customer satisfaction, and customer retention are largely not addressed. This lack of research on external factors and stakeholders in mergers is surprising as studies have shown maintenance of the revenue growth factors is a more powerful determinant of post-merger business performance than cost reductions and efficiency gains (Capron 1999; Capron and Hulland 1999; Homburg and Bucerius 2005).

Mergers are known to change customer attitudes and perceptions of a firm and its products and to increase customer defection rates (Bekier and Shelton 2002). Increased churn reflects customer uncertainty over their future relationship with the merged firm and reaction to

declines in service quality (Urban and Pratt 2000). Only a few studies, however, have considered related issues. Swaminathan, Groening and Mittal (2007) explore the extent to which a dual-goal strategy of focusing on customer satisfaction and firm efficiency in a merger context results in stronger post-merger performance. Lambkin and Muzellec (2008) use case studies and historical analysis to examine post-merger branding in the banking industry and its implications for brand equity.

We seek to contribute to marketing research in this area by focusing on the choice of corporate branding in mergers and its value implications. Corporate brands are valuable market-based assets that undergo deliberate and often dramatic transformation following a merger. They can change their meaning, image, identity, personality, and values and, as a result, can prompt customers and employees to reevaluate their relationships and commitments.

### **Corporate name changes**

Because mergers often entail renaming and rebranding of one or both of the merging entities, research on the performance implications of corporate name changes is directly related to our study. Most studies examining corporate name changes have relied on the event study methodology and focused on estimating the magnitude of the share price reaction at the time of name change announcement. These studies generally report a positive market response to corporate name changes. For example, Karpoff and Rankine (1994) study 147 firms that changed their corporate names between 1979 and 1987 and report positive but statistically weak effects on stock prices. Bosh and Hirschey (1989) study 79 firms during 1979-1986 and find positive market reaction to announcements of corporate name changes in their sample. The documented effect is strong for firms that have previously undergone major corporate restructuring and is weak for other firms. Horsky and Swyngedouw (1987) undertake an event study to examine 58 corporate name changes that occurred between 1981 and 1985. They conclude that market reaction to a new corporate name is positive, but suggest the new name per se does not increase demand for the firm products. Rather, the name change serves as a signal of managerial

commitment and a sign that the company is undertaking other organizational changes aimed at improving firm performance thoughtfully and deliberately (e.g., changes in product offerings, management structure).

### **Corporate Branding and Mergers**

Mergers are disruptive and transformative corporate events. They inevitably involve organizational restructuring, changes to the management team and product offerings. Mergers often also entail a rationalization of the combined portfolio of products and services, reconfiguration of distribution arrangements, and attrition of employees and customers. The uncertainty and changes a merger creates have major implications for the customers, employees, and investors of the merging companies.

The choice of the corporate brand for the new merged entity is important because it communicates the strategic rationale for the merger and the future intent of the merged entity. Corporate branding informs about managerial mindset and future behavior. It can reduce uncertainty and help customers and employees make inferences and form better expectations, potentially mitigating some of the disruptive effects of a merger. The choice of corporate branding strategy might also be a reflection of the internal strategy for integration and restructuring undertaken by the merging firms and investors may use it as a signal of management commitment to successful integration.

### **Branding options in mergers**

Managers of the merging firms have several alternatives for branding the merged entity. They can choose to use the elements of either or both of the merging companies' identities (name and symbol), or they can create an entirely new identity. We distinguish three main corporate brand strategy types, which we label as follows:

*Acquisition* – the identity of one of the merging companies is discarded entirely and all its operations and products are rebranded with the name and symbol of the other firm;

*Business-as-Usual* – the corporate brand identities of both companies are maintained and they continue to operate under their own names and symbols in the product market; and

*Fusion* – elements of both merging brands are maintained in the new brand.<sup>2</sup>

Each of these branding strategies communicates a fundamentally different message about the merger and offers different perceived benefits, costs, and risks to customers, employees, and investors.

### **1. Acquisition Branding**

Acquisition branding has the advantage of simplicity and expediency. When one of the firms has a stronger reputation than the other company, customers and employees of the less reputable firm may view acquisition branding as an upgrade. Investors may appreciate the clarity this corporate branding provides about who is in charge and what the new entity stands for, making its valuation less uncertain. Acquisition branding communicates the benefits of the scale and presence that can be achieved through the adoption of a single, well-known, unified identity across the range of the merged operations. It is an effective strategy for consolidating market power and in circumstances where opportunities exist for cross-selling and bundling products and services. In addition, acquisition branding sends a message of increased strength and power to the competitors and business partners, encouraging them to shift to a more cooperative mode.

The downside of this strategy is that it fully discards all brand equity and associated goodwill of the customers and employees of the acquired firm. It creates a clear sense that there is a winner and a loser in the merger transaction. Unless handled sensitively and proactively, this corporate branding strategy carries higher risks of disenfranchising the customers and employees of the acquired company who may feel that their past history and relationship with the firm is

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<sup>2</sup> An entirely new brand name and symbol can also be chosen for the new merged entity (e.g., Bell Atlantic and GTE combining to form Verizon) and arguments can be made for and against this strategy belonging to fusion set of branding strategies. This strategy is rare. Our data set includes only three cases in which the merged entity created an entirely new brand identity (name and symbol), and we choose to keep these cases with the rest of the fusion branding cases. This choice, however, does not affect our findings.

being disregarded and/or erased. Acquisition branding comes with the greater risk that some customers and employees of the acquired company will defect.

Indeed, corporate brand and brand loyalty are important not only to customers but also to employees and management. Corporate brands communicate the identity, vision, and ideas, promote corporate alignment around common values and goals, help establish the norms of the corporate citizenship, energize and engage the employees. Corporate brands promote emotional and intellectual engagement at work. Employee engagement is important as it positively affects productivity and firm performance (Bowen and Ostroff 2004; Harter, Schmidt and Hayes 2002; Ostroff 1992). Acquisition mergers tend to negatively affect employee morale: acquisitions double the turnover of senior management teams (Hambrick and Canella 1993; Krug and Shill 2008; Walsh 1988), stifle employment and wages at the plant and firm levels (Lichtenberg and Siegel 1987, 1990) and at the individual employee level (Siegel and Simons 2010).

Under the acquisition branding, both customers and employees of the acquired firm may feel they are now in a new relationship that is not of their conscious choosing and thus are more likely to use the opportunity to explore alternatives.

## **2. Business-as-Usual Branding**

Business-as-usual is a sound strategic choice when the merger is predicated on strategic or operational benefits rather than explicit synergies in the customer bases of the merging firms. Under business-as-usual mergers, customers are unaffected and may be completely oblivious to the ownership change (e.g., Gillette becoming a part of P&G). Employees in business-as-usual mergers are also typically less affected than those in acquisition mergers. The target firm disappears for investors but its brand lives on for consumers and employees.

From the investors' point of view, business-as-usual transactions are a low-risk strategy for diversification and reducing competitive pressures in the market, expanding the portfolio of products and customers while potentially achieving some cost reductions through shared

infrastructure. The existing brand equity of the target company is maintained, but no significant leverage of the customer base is sought after in the business-as-usual merger.

Business-as-usual branding sends a strong message about continuity and suggests the merger is a portfolio transaction whose benefits lie in strategic, financial, or operational synergy (e.g., sharing distribution channels). That is, the value creation opportunities lie in rationalization of the operational infrastructure (manufacturing, supply chains, and support functions) or reduced competition rather than in migration of customers to a relationship with a new brand.

The main downside of the business-as-usual branding is its high ongoing marketing cost for maintaining two distinct corporate brands. The two customer bases of the merging firms remain segregated (segmented) and are served by separate entities. Further, because business-as-usual branding does not convey unity, it may also be less conducive for the post-merger integration of the merged entities, impeding the flow of potential benefits from operational or supply chain integration.

### **3. Fusion Branding**

The fusion branding creates something new by explicitly combining the equities from the merging companies, such as their corporate names (e.g., Thomson Reuters) or their symbols (e.g., United and Continental Airlines merger, Table 1). This corporate branding communicates continuity and fusion of the two entities and presents the merger as a transformative event for both firms.

The messaging fusion branding communicates is more nuanced and can be better tailored than that of acquisition and business-as-usual branding. Acquisition branding communicates that the merger is about economies of scale and dominance of one entity over the other. The messaging of a business-as-usual branding is not directed toward consumers, but it speaks to employees and investors about risk reduction through a diversification strategy. In contrast, fusion branding communicates to all stakeholders that the merger is about the combination of the capabilities and cultures of the two companies.

Research on co-branding at the product brand level suggests that a combination of two hitherto distinct identities can result in a new identity retaining positive associations of the original entities and enhance the overall perceptions. Co-branding works best in practice when a product or service is brought to market by two brands with complementary associations (Ford/Eddie Bauer, Nike/Apple). Co-branding can improve the attribute profile of the new product or service and enhance the position of the parent brands within their original categories (Kumar 2005). These benefits, however, are contingent on the two brands having sufficiently similar profiles that the logic for their association is clear (Geylani, Inman and Hofstede 2005).

As such, fusion branding requires more careful planning and research and, usually, greater consideration and deliberation than acquisition or business-as-usual strategies. The advantage of fusion branding is that it sends a unique signal to customers, employees, and investors that senior management teams of both firms have actively considered their interests and have a superior understanding of and commitment to working together on making the merger a success.

The disadvantage of the fusion branding is that it is initially more costly to implement. Under fusion, all operations of the merging entities need to be rebranded as compared to the partial rebranding required under acquisition (i.e., only one entity is rebranded) and very limited rebranding (if any) required under business-as-usual. As such, fusion branding typically entails a higher initial marketing cost to the merging firms. Fusion may also be more difficult for the investors to value initially because its success requires a buy-in from the employee and customer bases of both merging firms.

In summary, acquisition branding is the most taxing strategy from the customer and employee perspective, but it makes a strong and clear statement of strategic and operational intent of the new merged entity and thus facilitates better valuation by investors (i.e., they have less uncertainty and can better price it). Business-as-usual is the least disruptive strategy for customers and employees. It has low immediate rebranding costs but is the most costly in the

long run (as both corporate brands are maintained) and the least conducive for post-merger integration of the merged firms. It is, in a sense, an additive transaction maintaining the customer bases (and their cash flow streams) and employees segregated and as a result entailing fewer integration contingencies. As such, it should also be easy to value for the investors. The fusion strategy, although inclusive and potentially appealing to customers and employees, is the riskiest and most uncertain from the investors' perspective. Because fusion requires a buy-in from the customers and the employees of both firms, it can be more difficult to value initially, until the success of the merger with customers and employees is manifest. In addition, fusion has the highest initial marketing costs, as operations of both merging entities are rebranded following the merger. Table 1 presents examples of these branding strategies from the airline industry and examples of variations in fusion branding.

### **Hypotheses**

The choice of corporate branding in mergers can be value-relevant (i.e., affect market valuation) for two reasons. First, branding can contribute directly to a merger success through its impact on value-generating market-based assets. Effective branding can help the merged entity enhance and/or preserve brand equity and customer equity of the merging firms, expand appeal of its products to new segments, and generate new incremental value to customers and employees through improved image and better marketing of firm products. Superior returns for investors are a direct reflection and consequence of this expected new value creation. Second, the choice of the branding strategy in mergers can serve as a signal to the investment community of how well the involved companies have thought through the merger transaction and post-merger integration. It can also signal the strategic direction and vision, managerial intent, and commitment to successful integration of the merging organizations into a single new entity. The



signaling and market-based assets management effects are not mutually exclusive and might in fact be present simultaneously.<sup>3</sup> We discuss their implications to form our hypotheses.

The acquisition branding strategy discards all brand equity and the embedded customers' and employees' goodwill of the target firm. Business-as-usual branding preserves the brand equity of both firms but does not seek to enhance it and does not capitalize on potential synergies. Fusion branding seeks to preserve, enhance, and leverage brand equity of both merging firms. From the market-based assets perspective, fusion branding potentially has the most positive value implications, followed by business-as-usual and acquisition branding strategies. From the signaling perspective, fusion is the strongest and most credible (since it is the most expensive) signal of managerial commitment, followed by acquisition and business-as-usual branding. In addition, fusion lends itself to a more nuanced communication and as such is a more effective vehicle for delivering context-specific messaging to customers, employees, and investors. The greater flexibility inherent in the fusion branding means that it can be tailored to suit the specific business context of a given merger and allow for more customized message development. As such, both the signaling and the market-based assets perspective favor fusion branding:

***Hypothesis 1: The immediate market reaction to merger announcements is more positive for acquirer firms pursuing fusion corporate branding than for the other firms.***

If the market primarily focuses on the implications of corporate branding for market-based assets, its reaction to acquisition branding will be most negative. If the market views the choice of corporate branding strategy simply as a reflection of the internal strategy of integration and re-structuring (i.e., if corporate branding serves a purely signaling role and the branding per se does not affect the stakeholders, market size, or favorableness of response) and the chosen integration strategy is the sole factor explaining merger performance, the market's reaction to business-as-usual branding will be mostly negative.

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<sup>3</sup> Past research seeking to distinguish between the signaling and the demand-shifting explanations of market reaction to corporate name changes, however, tends to favor and provide better support for the signaling role of corporate name changes (e.g., Horsky and Swyngedouw 1987).

Hypothesis 1 focuses on the immediate market reaction to a merger announcement. If the market is efficient in forming expectations about customer and employee response and can correctly anticipate future financial consequences of the merger then the initial market reaction will fully reflect the unbiased expectation of the future merger performance. Under the assumptions of market efficiency and full information, this reaction will be complete. That is, no future-term systematic adjustment in the valuation of the merged entity will occur.

However, as we discussed earlier, past studies have consistently documented a significant downward adjustment in the valuation of firms undertaking a merger (e.g., -7% in 3 years post-merger completion, Agrawal, Faffe and Mandelker 1992). Researchers have interpreted this evidence to suggest the market might not be able to properly price mergers at the time they occur and is on average overly optimistic about the prospects of the merged entity. This initial optimism is corrected over time with systematic downward adjustment in the valuation of the merged firms. Further, some past research suggests the market has difficulty in pricing certain types of strategic decisions and intangible assets (e.g., Daniel and Titman 2003; Eberhart, Maxwell and Sidique 2004). Corporate brand might be one of such assets. To the best of our knowledge, however, research has not explicitly considered whether the initial optimism and overvaluation of mergers and the subsequent downward correction might be associated with the choice of corporate branding strategy.

If the market is not fully efficient and cannot properly anticipate implications of branding strategy in mergers, a future-term adjustment in the market valuation of the merged entity may occur to correct the initial mis-valuation. The market might not fully appreciate the value of the market-based assets and the implications of corporate branding for customers and employees and thus cannot accurately forecast their response. That is, rather than reacting immediately when the branding choice is revealed, the market might wait to observe customer and employee reaction and the resulting impact on cash flows before adjusting the valuation of the merged enterprise.

But it might take a long time for customers to react to a merger. Although investors and employees might be informed about impending changes, customers often come to learn about the merger and merger-related rebranding with a delay, often only after they observe its implementation. As such, customer attitudes will not be immediately apparent. Indeed, it can take several months or years for rebranding to be fully implemented in practice. As time passes and investors observe customer and employee reaction and the regular financial reports coming from the merged entity, they might adjust their initial valuation based on this new incoming information. If the market does not appreciate the implications of corporate branding for the customers and employees, a systematic future-term adjustment of firm valuation might occur and this adjustment will likely be negative for firms undertaking acquisition corporate branding (discarding all brand equity of the target), with firms choosing business-as-usual branding (fully preserving brand equity) or fusion branding (seeking to preserve and enhance brand equity) showing positive adjustment.

A systematic adjustment, however, may also occur if the market correctly anticipates the implications of branding for employees and customers early on but does not fully appreciate its implications for post-merger integration (i.e., branding as a signal of commitment is ignored) or for the differences in the costs of pursuing a particular corporate branding strategy. That is, it might inappropriately discount the future ongoing marketing costs of business-as-usual corporate branding and/or overestimate the benefits of the post-merger integration (which might be more difficult to realize in the case of business-as-usual branding than with acquisition or fusion branding). In this case, we would observe the firms undertaking business-as-usual branding realizing a more negative post-merger adjustment than firms undertaking acquisition and fusion branding.

If the market does not fully appreciate the future-term implications of corporate branding, we would observe differential valuation adjustment following a merger. We cannot postulate a priori whether the lack of appreciation of merger impact on the stakeholders (customer base and

employees) or the ease of integration and disregard of on-going costs is driving the post-merger underperformance. We do not have established theory to guide us. Under both explanations, however, fusion would fare well and we can hypothesize the following:

***Hypothesis 2: Merged firms adopting fusion branding realize more positive abnormal returns in the post-merger period than the other firms.***

By carefully examining the pattern of the post-merger valuation adjustment and the differences across our three groupings, if any exist, we might gain insight into the market's failure to properly value corporate branding in mergers: is it associated with the market's inability to appreciate brand impact on firm stakeholders and market-based assets, or with its inability to properly interpret the signal regarding post-merger integration and/or future costs?

## **Methodology**

### **Event study analysis**

Under Hypothesis 1, we would observe a more positive market reaction to merger announcements for firms pursuing an fusion branding strategy. We can test Hypothesis 1 using standard event study methods (MacKinlay 1997; Srinivasan and Bharadwaj 2004). Our events of interest are public announcements of the proposed merger. That is, we can compute abnormal stock returns at the time of merger announcement and assess differences across our branding strategy groups. A finding of differential market reaction would constitute evidence that the market expects different future performance for merging firms depending on their branding strategies.

We proceed as follows: we compute the abnormal stock return (AR) for firm  $i$ , day  $t$  as  $AR_{it} = Ret_{it} - E[Ret_{it}]$ , where (1)  
 $Ret_{it}$  is the raw return for firm  $i$  on day  $t$  and  $E[Ret_{it}]$  is the expected return. We use the pre-announcement period beginning 12 months (252 trading days) before and ending one month (21 trading days) before the merger announcement date and the Fama and French (1993) three-factor asset pricing model augmented with the momentum factor (Carhart 1997) to compute expected

returns. That is, we first estimate the following model for each acquirer firm  $i$  and each merger announcement  $q$  in the  $[-252; -21]$  window preceding a merger announcement:

$$\text{Ret}_{it} - \text{RiskFree}_t = \alpha_{qi} + \beta_{\text{mkt},qi}(\text{RetMkt}_t - \text{RiskFree}_t) + \beta_{\text{SMB},qi}\text{SMB}_t + \beta_{\text{HML},qi}\text{HML}_t + \beta_{\text{UMD},qi}\text{UMD}_t + \varepsilon_{it}, \text{ where} \quad (2)$$

$\text{RiskFree}_t$  is the risk-free rate,  $\text{RetMkt}_t$  is the market return,  $\text{SMB}_t$  is the difference in returns between small and large firms,  $\text{HML}_t$  is the difference in returns between high- and low-value firms, and  $\text{UMD}_t$  is the Carhart (1997) momentum factor.

Next, we use the estimates of market ( $\hat{\beta}_{\text{mkt},qi}$ ), SMB ( $\hat{\beta}_{\text{SMB},qi}$ ), HML ( $\hat{\beta}_{\text{HML},qi}$ ), and UMD ( $\hat{\beta}_{\text{UMD},qi}$ ) risk factor loadings to compute abnormal returns ( $AR_{it}$ ) for each firm  $i$  and day  $t$  in the event window around the merger announcement  $q$ , as the difference between the actual and expected return. We aggregate  $AR_{it}$  over the duration of the event window to compute cumulative abnormal returns (CAR) for each firm  $i$  and event window  $[t_1; t_2]$  as follows:

$$\text{CAR}_{iq}(t_1, t_2) = \sum_{\tau=t_1}^{t_2} AR_{i\tau}. \quad (3)$$

We report two tests of significance for the average group CARs (both are common in the literature), standard t-test and Corrado (1989) non-parametric event study rank test statistic  $\theta$ :

$$\theta = \frac{1}{N} \sum_{i=1}^N \frac{K_{i0} - \frac{t_2 - t_1 + 1}{2}}{s(K)}, \text{ where } s(K) = \sqrt{\frac{1}{t_2 - t_1} \sum_{\tau=t_1+1}^{t_2} \left( \frac{1}{N} \sum_{i=1}^N \left( K_{i\tau} - \frac{t_2 - t_1 + 1}{2} \right) \right)^2}, \text{ and} \quad (4)$$

$K_{it}$  is the rank of the abnormal return of security  $i$  at the event time period  $t$ ,  $N$  is the number of securities in the group, and  $\theta$  is distributed standard normal.

### **Calendar portfolio analysis with time-varying risk factor loadings**

Hypothesis 2 proposes that, following a merger completion, firms undertaking an fusion branding strategy will realize more positive abnormal returns than the other firms. It can be tested using the calendar-time portfolio approach. The calendar-time portfolio approach is the traditional and most conservative method for assessing delayed market reaction. It is advocated by Fama (1998) and is “robust to the most serious statistical problems” (p. 291, Mitchell and

Stafford 2000). This method is particularly appropriate for empirical situations in which events are clustered in time and cross-sectional dependency might be present (mergers tend to come in waves). Sorescu, Shankar and Kushwaha (2007) were the first to use the calendar-time portfolio approach in marketing literature, and we closely follow its implementation (as per their Appendix B).

The calendar-time portfolio approach involves creating a portfolio of securities based on some attribute of interest, estimating a risk model for the portfolio, and testing for the significance of the intercept in the estimated risk model. Securities are placed into the research portfolio after the information about the attribute of interest becomes public and the market has had sufficient time to react to this new information (typically just a few days). Securities are held in the portfolio for various time periods ranging from days to months and years depending on the researcher's beliefs about the duration of time it takes for the market to fully incorporate all relevant information into the security valuation and to correct the initial mis-pricing. To assess the significance of the valuation adjustment, a risk model is fitted to the time series of portfolio returns. For example, a Fama-French (1993) portfolio model augmented with Carhart's (1997) momentum factor has the following form:

$$\text{Ret}_{pt}-\text{RiskFree}_t = \alpha_p + \beta_{\text{mkt},p}(\text{RetMkt}_t-\text{RiskFree}_t) + \beta_{\text{SMB},p}\text{SMB}_t + \beta_{\text{HML},p}\text{HML}_t + \beta_{\text{UMD},p}\text{UMD}_t + \varepsilon_{pt}. \quad (5)$$

The intercept in model (5) reflects the average return not explained by the risk profile of portfolio p, and is interpreted as an abnormal return due to the attribute used to form portfolio p. If a significant  $\alpha_p$  is found, it is said that the market initially did not correctly impound the value implications of the signal contained in the information set used to form portfolio p. By varying the portfolio formation rules, the researcher can assess the impact of alternative factors on the observed phenomena. Under the efficient markets hypothesis, the stock market should impound all value-relevant public information into the stock valuation and the future stock returns should not be associated with any past information. Under efficient markets, no mispricing exists and the intercept in equation (5) should not differ from zero.

Recent research in finance has highlighted issues with the basic calendar portfolio method. Specifically, it has questioned the assumption that the portfolio risk factor loadings are constant over time. Barber and Lyon (1997), for example, note that this assumption is not plausible, as portfolio risk characteristics might change over time. Indeed, the risk characteristics of a portfolio can change over time for two reasons. One, portfolio rebalancing (some securities being added and some removed from the portfolio over time) changes the composition of securities and, as a result, the risk profile of the portfolio also changes. Two, the risk factor loadings might change over time for a portfolio even if no rebalancing occurs, because risk factor loading may vary over time. These considerations suggest the risk factor loadings should be modeled as time varying (Fama 1998). Some empirical evidence suggests significant biases in estimation of abnormal returns might result if this heterogeneity in the risk factor loadings is not properly modeled (Ang and Kristensen 2009; Jacobson and Mizik 2009).

In light of this evidence, we explicitly model time-varying risk factor loadings in our calendar-time portfolio approach. Specifically, we first follow the standard approach for forming a calendar-time portfolio as described, for example, in Sorescu, Shankar and Kushwaha (2007). That is, we create our three portfolios as follows. Three days after the date of the merger completion (which typically occurs three to five months after the merger announcement), we place the security into one of the three portfolios based on the observed branding strategy (acquisition, business-as-usual, or fusion). We hold the security in the portfolio for three months, six months, and one, two, three, and five years, and estimate equation (6), which allows for time-varying risk factor loadings and high-frequency data correction:

$$\text{Ret}_{pt}-\text{RiskFree}_t = \alpha_p + \sum_{q=1}^Q \sum_{\tau=0}^T [\beta_{\text{mkt},pq\tau}(\text{RetMkt}_{t-\tau}-\text{RiskFree}_{t-\tau}) + \beta_{\text{SMB},pq\tau}\text{SMB}_{t-\tau} + \beta_{\text{HML},pq\tau}\text{HML}_{t-\tau} + \beta_{\text{UMD},pq\tau}\text{UMD}_{t-\tau}] + \varepsilon_{pt}, \text{ where} \quad (6)$$

$Q_q$  is a set of indicator variables equal to 1 when the rebalancing period is  $q$  and zero otherwise, and the other variables are defined as previously.  $\alpha_p$  is the intercept in model (6). It reflects the estimate of abnormal return for portfolio  $p$ .

This specification accounts for the varying portfolio risk associated with rebalancing (i.e., the firms in the portfolio change every time new mergers are completed and their stock is added or removed from the portfolio) and accommodates potential time-based variation in risk loadings. This model implicitly assumes the risk factor loadings are stable over short periods and treats them as constant for the duration of period  $q$ .

Further, model (6) incorporates the Lewellen and Nagel (2006) correction for estimation with high-frequency data. Lewellen and Nagel (2006) advocate including both current and lagged risk factors into the risk model when using high-frequency data. They observe that although daily data allow for more precise estimates, non-synchronous prices (i.e., a delay in a response to common effects) can have a significant impact on the estimation of short-window risk covariates. Because we use daily data, following Lewellen and Nagel (2006), we include both current and lagged risk factors in our models.

## **Data**

We use several sources to compile our dataset for analyses. We obtain daily stock returns data from 1996 to 2009 from the CRSP database. Fama and French daily risk factors come from Kenneth French's web data library. We use the Capital IQ database to compile a set of merger transactions announced during 1997–2006. To be included in our dataset, both parties to the merger transaction had to be publicly traded U.S. companies. The Capital IQ database designates an acquirer and a target for merger transactions, and we use these designations for our data presentation and tests. We searched secondary data sources (company websites, press releases, media reports) to establish the pre- and post-merger corporate branding (names and symbols), and classify mergers into our three branding groupings. To ensure the correctness of our pre- and post-merger corporate branding data and the resulting classifications, we sent surveys to the



companies and followed up with those responding with a telephone interview to confirm our data. We initially focused on the largest transactions (>\$25b) and were able to obtain data and retain 65% of them for our study dataset. As we moved to smaller-size transactions, our ability to find pre-merger branding information (particularly for brand symbols) and the response rates declined notably (e.g., we secured only 49% of all transactions over \$10b in our data sample). We continued compiling data for smaller-size mergers until the response rates dropped significantly and the search and follow-up costs became prohibitive. This process generated 216 merger transactions that fit our criteria for inclusion and had complete pre- and post-merger returns data available for analyses. Almost all mergers in our dataset were friendly transactions. Only four cases are tagged as “hostile” or “friendly to hostile” in the Capital IQ database.

Of the 216 mergers in our sample, 119 chose acquisition, 53 chose business-as-usual, and 44 chose fusion branding. In three cases, the merged entity created a completely new brand identity. We added these three cases to the fusion branding group, but our findings are not sensitive to this choice.<sup>4</sup> Descriptive statistics for our data sample are presented in Table 2, following References. Table 2 Panel A presents descriptive statistics for merging firms before the merger transaction. These data come from the last annual report filed prior to the merger. Table 2 Panel B presents descriptive statistics for the merged firms. These data come from the first post-merger annual report filed by the merged firm. As Table 2 Panel B shows, we see no significant differences in Net Income, Sales, Assets, Book-to-Market, and the relative Asset and Market Cap ratios of target and acquirer firms across our three strategy types. The Market Cap of firms undertaking business-as-usual branding tends to be somewhat lower than that of firms undertaking acquisition and fusion branding. We control for these differences in our tests and find they do not drive and do not affect our findings.

One notable difference across the three groupings is in their propensity to explicitly acknowledge their intended future branding strategy at the time of the initial merger

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<sup>4</sup> We tested the sensitivity of our results to the inclusion of these three observations and undertook all tests including and excluding the three “brand new” post-merger brands. We found no differences in results.

announcement. Only 11% of firms undertaking acquisition branding and 13% undertaking business-as-usual branding explicitly referenced their corporate branding decision in the merger announcement. In contrast, 39% of firms choosing fusion branding discuss their branding in the merger announcement. These differences in the propensity to discuss corporate branding as part of the merger announcement are statistically significant ( $p=.01$ ), but we control for these differences and find they do not drive and do not affect our findings.

Table 2 Panel C presents the distribution of our mergers data across industrial sectors. We note a significant difference in the proportion of firms choosing acquisition branding in horizontal mergers (i.e., involving two firms with the same 2-digit SIC). Again, as we discuss later, we control for these differences and find they do not affect our results.

## **Results**

### **Immediate market reaction to merger announcement: event study**

We compute and test cumulative abnormal returns to the acquirer and target firms for several alternative event windows to allow for information leakage prior to the event and for post-event adjustment periods of various lengths. In line with past research (Boone and Muhlerin 2007; Muhlerin and Boone 2000), we find significant positive average cumulative abnormal returns of 20.77% accruing to the target firms in the  $[-1; 1]$  event window at the time of the merger announcement. We find no differences across our three branding groups:  $[-1; 1]$  CARs to the target firms in the acquisition-branded mergers are 20.96%, they are 20.03% in the business-as-usual, and 20.98% in the fusion-branded mergers. These findings are consistent across alternative definitions of event windows.

Table 3 presents the results of our event study analyses for the acquirer firms and tests of Hypothesis 1. Consistent with past research, we find small negative but statistically significant market reaction to the merger announcement for our sample of acquirer firms as a whole (Table 3, Column 0). The acquirer firms realize about 2% negative return around the announcement date. The implied statistical significance of these returns appears greater with non-parametric

Corrado than with standard t-test. Careful examination of the distributional properties of abnormal returns in our data reveals normality of the mean and skewness, but higher than normal kurtoses in the data. Thus, t-stats somewhat underestimates the significance (are conservative), and exercising prudence, we base our subsequent discussions on these more conservative tests.

Importantly, Table 3 shows that significant differences exist in the market reaction to merger announcements and these differences are associated with the choice of post-merger corporate branding. In the days immediately surrounding the merger announcement, acquirer firms undertaking a merger and pursuing acquisition branding realize significant negative returns of -2.8% in the [-1; 1] event window. Acquirer firms pursuing business-as-usual branding also realize significant but somewhat less negative returns of -1.8% in the [-1; 1] event window. We observe no negative market reaction to mergers pursuing an fusion strategy: the cumulative abnormal returns to these firms are not significantly different from zero.

We test the sensitivity of our findings to alternative event window definitions. Some information leakage might occur prior to major corporate announcements. Thus we also examine event windows spanning few days prior to the merger announcement, but we do not find any significant leakage effects. Table 3 presents CARs for [-5; 5] and [-10; 1] event windows. The CARs in these alternative event windows do not differ significantly from those discussed above: acquisition- and business-as-usual-branded merger announcements generate significant negative returns; fusion-branded mergers do not.

As we discussed earlier in the data section, not all merger announcements explicitly acknowledge future corporate branding in the initial merger announcement, and the propensity to discuss branding is much greater for firms undertaking an fusion branding strategy. Is it possible that the mere acknowledgement of the future branding drives the differences across our three groupings? We test for this possibility and find the answer is no. Simply discussing the choice of corporate branding in the merger announcement does not affect the market reaction: across our

alternative event windows, the p-values for acknowledging branding in the merger announcement average around .60.

Indeed, information about branding might not be available to the market on the day of merger announcement for some firms but might be revealed later. We searched secondary data sources to establish the timing of brand strategy announcements for these firms. In most cases, we were able to find intended corporate branding mentioned in the media shortly after or within just a few days of the initial merger announcement. However, branding was likely discussed even sooner than the dates we identified: we do not have access to transcripts of interviews and discussions in the non-print media, but the officers of the merging firms are often interviewed and appear in business TV programs before reports appear in press.

To allow for a longer window for branding information disclosure, we extend our event study tests to one and two weeks (5 and 10 days) post-announcement. Table 3 presents [-5; 5] and [-1; 10] event window CARs. Both are consistent with the findings we observe in other event windows: CARs for fusion-branded mergers are not significantly different from zero, and CARs for acquisition and branding-as-usual mergers are significantly negative. The pattern of our findings—firms undertaking acquisition branding realizing the lowest and firms undertaking fusion branding realizing the highest returns—is consistent with the market-based assets rather than signaling explanation for the observed market reaction.

We assess the statistical significance of differences in CARs across our branding groups by (1) comparing group means and (2) in a regression setting (as, e.g., in Tellis and Johnson 2007) controlling for industry affiliation, size, relative size of the acquirer and the target, profitability of the target, profitability of the acquirer, horizontal versus vertical merger, availability of the branding information in the merger announcement. Both methods generate similar results (presented in the last four columns of Table 3 as p-value for mean difference [p-value for mean difference conditional on control variables]). Consistent with Hypothesis 1, the value implications of fusion branding are significantly more positive than those of other

strategies (Table 3, last column). Further, across all event windows, we find significantly more negative market reaction to acquisition than to fusion branding. The differences in the market reaction to fusion and business-as-usual branding are notably weaker.

### **Delayed market reaction: time-varying calendar-time portfolio analysis**

Figure 1 presents raw calendar portfolio returns (3-year hold) for our three branding portfolios. It tracks the investment of \$1,000 into each of the portfolios for the duration of our study period and depicts the value of each portfolio at different points in time. The compositions of portfolios change throughout the study period as new mergers are completed and we place equities into their respective portfolios for a three-year period. At the end of the three-year post-merger period, we remove the respective equity from the portfolio. Merged firms undertaking fusion branding realize more positive returns than firms undertaking acquisition and business-as-usual branding. Raw returns, however, are not appropriate for testing the differences in portfolio returns as differences in the risk profiles of the portfolios we designed might drive some of the differences we observe in Figure 1. As such, before conducting our tests, we need to adjust raw returns for differences in risk.

Figure 2 presents average buy-and-hold risk-adjusted (i.e., abnormal) stock returns for firms in our sample. All mergers are aligned at time zero by the date of merger completion, and their abnormal stock returns are tracked from three days after to three years after merger completion (our returns data extend for only 3 years past our mergers' sample period). We observe immediate separation of average fusion merger returns as they track into the positive return region. Three years after the merger, firms undertaking fusion branding realize on average a 13% positive abnormal return. Acquisition and business-as-usual average abnormal returns immediately edge into the negative area. One year after the merger completion, the business-as-usual mergers realize greater negative returns than the acquisition mergers, and the difference between the two continues to grow over the subsequent years. Three years after a merger, firms undertaking business-as-usual branding realize on average a -30% return, and firms undertaking

acquisition branding realize a -18% abnormal return. This pattern suggests business-as-usual mergers might underperform acquisition mergers in the long run, but this underperformance is not apparent until several years after the merger completion.

Although insightful as an illustration, the buy-and-hold abnormal returns presented in Figure 2 do not directly control for potential cross-sectional dependency and clustering of merger events. Cross-sectional dependency, if present and not explicitly modeled, might lead to erroneous inferences about the significance of estimated effects. Calendar-time portfolio analyses are the most conservative and traditional of the methods for successfully dealing with the issue of potential cross-sectional dependency advocated, for example, by Fama (1998) and Mitchell and Stafford (2000). Thus we compute our portfolio returns for various holding periods (e.g., our 3-year hold raw portfolio returns are depicted in Figure 1) and estimate equation [6]. We present the results of Hypothesis 2 tests in Table 4.

For all alternative holding periods we examine (3 and 6 months, 1, 2, 3, and 5 years), the abnormal returns are negative for firms undertaking acquisition branding and positive for firms undertaking fusion branding, but not significant in both cases. This finding indicates the market correctly prices the choice of branding strategy undertaken by firms pursuing fusion and acquisition branding strategies. The differential between these two portfolios, however, is significant with one-year holding period ( $p=.04$ ).

Interestingly, we observe significantly negative abnormal stock returns to firms pursuing business-as-usual branding. These negative abnormal returns become more significant at longer holding periods: we obtain significantly negative estimates of daily abnormal returns for the time-varying calendar portfolios containing business-as-usual-branded mergers with two-, three-, and five-year holding periods. In other words, the negative implications of business-as-usual mergers take long time to manifest. This finding indicates the initial negative reaction to business-as-usual merger announcements we document in the event study is not complete. The post-merger negative adjustment we find implies the market does not fully appreciate all

negative consequence of a business-as-usual merger and it takes a long time after merger completion to recognize and correct the initial mis-valuation. The abnormal portfolio returns for business-as-usual-branded mergers are significantly negative compared to fusion-branded mergers for one-, two-, three-, and five-year holding periods. The business-as-usual-branded mergers also significantly underperform acquisition-branded mergers at two- and three-year holding periods.

To summarize, we find full support for our Hypothesis 2: fusion branding has significantly more positive value implications in mergers than business-as-usual and acquisition branding. We undertook several sensitivity tests to assess the impact of other factors. For example, we tested whether other factors, such as, industry affiliation, size, relative size of the acquirer and the target, profitability of the target, profitability of the acquirer, horizontal versus vertical merger, availability of the branding information in the merger announcement, etc. can explain the observed phenomena and found that they cannot.

We also examined differences in risk profile of our portfolios. The positive value of fusion branding does not appear to stem from a higher risk profile of fusion-branded firms. Contrary to our expectations, we do not find a higher risk profile for fusion portfolios. In fact, for all holding periods, the total portfolio risk is lower for fusion portfolios than for corresponding business-as-usual or acquisition portfolios. Table 5 presents the risk measures for total, systematic, and idiosyncratic risk in our portfolios. The pattern of other risk components is mixed: acquisition portfolios tend to have the highest total risk in portfolios with longer holds and business-as-usual with shorter holds; the systematic risk is higher for business-as-usual in shorter-hold portfolios and for fusion in longer-hold portfolios; the idiosyncratic risk is higher for business-as-usual in short- and long-hold portfolios and for fusion in medium-hold portfolios.

The pattern of our findings is consistent with the stock market correctly pricing the implications of corporate branding for the market-based assets in cases of acquisition and fusion branding strategies. We find that the market is overly optimistic about the prospects of firms

choosing business-as-usual branding, perhaps failing to recognize the higher long-term marketing costs and/or lower capacity for merger integration under the business-as-usual corporate branding.

## **Discussion**

Our results show that corporate brand strategy in mergers is highly value-relevant. We find significant differences in the immediate market reaction to merger announcements depending on the choice of corporate branding. We also find differences in systematic post-merger adjustment of firm valuation, and this adjustment is associated with the choice of corporate branding.

Consistent with our hypotheses, fusion branding exhibits significantly more positive value implications than acquisition and business-as-usual branding. Surprisingly, we find the market is better able to recognize the negative consequences of acquisition-branded mergers early on: the valuation of these firms is adjusted immediately at the time of the merger announcement and we find no significant future-term adjustment following the merger completion. We find a significant post-merger negative adjustment in valuation only for the business-as-usual-branded mergers: the initial negative reaction to a merger announcement is followed by a subsequent negative adjustment. That is, we find that investors appreciate the clarity of the acquisition and fusion strategies but initially have difficulty in properly pricing (i.e., they over-value) the business-as-usual-branded mergers.

Interestingly, we find that fusion-branded mergers do not generate immediate negative market reaction at the time of the merger announcement, and we find no systematic negative future-term adjustment in the valuation of these firms (although we find a positive post-merger drift, it is not significant). As such, our findings for this group of firms differ significantly from findings reported in past research for mergers in general and from the two other groupings of mergers we examine.

To illustrate the aggregate effect of the corporate branding choice in mergers, Figure 3 depicts the total average buy-and-hold abnormal return to the acquirer firms in our three



branding strategy groups. That is, we track the return for three years starting from day -1 before the merger announcement and covering the period of initial market reaction (our event study period), the period between the announcement and merger completion (which is typically 3–5 months), and the post-merger adjustment (depicted in Figure 2). The chart shows a similar downward-trending pattern of average returns for all three portfolios in the initial few months after the merger announcement, with the eventual clear separation of the fusion from the acquisition and business-as-usual branding groups. While the average return for fusion stays around zero, the other two groups trend down.

Our findings have several important implications. First, they show a merit in examining a broader set of strategic variables in mergers. Our study highlights significant value implications of corporate branding: firms striving to maintain and leverage the equity of the merging companies' brands with customers, employees, and investors may be better positioned to achieve success in a merger. Our findings have potential managerial implications. As Hsu, Fournier and Srinivasan (2010) suggest, companies may be rather myopic in their approach to branding as they view it in narrowly internal and operational terms. As a consequence, they are rarely deliberate in selecting brand portfolio strategies and often do so in an ad hoc manner. Our findings suggest such attitudes and decision-making approaches are unwise: the more expedient acquisition and business-as-usual branding strategies are associated with inferior performance compared to firms choosing more sophisticated and thoughtful fusion branding.

We see several interesting directions for future research. With increased availability and proliferation of better data in recent years, future research may be able to construct larger datasets and explore industry-specific differences in the value-relevance of corporate branding. Future research can also explore the antecedents of the corporate branding choice and the internal decision-making process for choosing a specific post-merger branding. One interesting future research direction can further explore the relative impact of the signaling versus demand-shifting and market-based assets effects of corporate brands. That is, studies can investigate

whether the choice of corporate branding significantly impacts the fundamentals of an operating business. Under the market-based assets interpretation, corporate branding strategy would significantly affect post-merger performance through its impact on fundamental performance drivers indicative of the quality of the company's franchise with its customers, employees, and investors (e.g., changes in customer attitudes, preference, loyalty, brand equity, employee engagement, investor confidence). Such research can generate insights into the role of corporate branding in securing the ongoing loyalty of customers and employees versus communicating the rationale and future vision of the merged entity to the investor community. Additional research can further examine the relative impact of these related effects.

### **Conclusion**

Mergers are disruptive events with major organizational implications. Corporate branding can help mitigate some of the uncertainty caused by a merger by clarifying the intent of the merger to the customers, employees, and investors. Branding is an important tool for managing market-based assets and relationships with key stakeholders as it allows companies to communicate context-appropriate messaging to customers, employees, and investors—the three key audiences whose ongoing loyalty largely determines the success or failure of a merger.

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Table 1. Examples of Branding Choice in Mergers

Table 1. Panel A. Three Merger Branding Strategies in the Airline Industry

	Firm 1 Branding	Firm 2 Branding	Resulting Branding
Acquisition Branding	 Delta Airlines	 Northwest Airlines	 Delta Airlines
Business-as-Usual Branding	 Alaska Airlines	 Horizon Air	 Alaska Airlines
Fusion Branding	 UNITED	 Continental Airlines	 UNITED

Table 1. Panel B. Examples of Fusion Branding in Mergers

	Firm 1 Branding	Firm 2 Branding	Resulting Branding
Mixture of Symbol and Name	 BOEING®	 MCDONNELL DOUGLAS	 BOEING®
Mixture of Names	 Anheuser-Busch	 !nBev	 AB InBev
New Brand Entity	 Bell Atlantic	 GTE	 verizon



**Table 2. Descriptive Statistics**  
**Table 2 Panel A. Pre-Merger Characteristics of Merging Firms**

	Mean	Std. Err.	10 <sup>th</sup> Prct.	Median	90 <sup>th</sup> Prct.
<b>Target Firms</b>					
Net Income (\$M)	426.1	80.5	-47.8	34.7	1,691.0
Sales (\$M)	5,459.4	704.9	120.7	904.5	16,383.0
Assets (\$M)	22,237.4	5,239.8	149.0	1,006.9	50,257.0
Market Cap (\$M)	9,687.8	1,239.7	153.0	1,414.7	33,551.2
Book-to-Market	.408	.031	.098	.373	.753
<b>Acquiring Firms</b>					
Net Income (\$M)	1,166.0	607.7	-591.0	371.5	7,356.0
Sales (\$M)	24,308.4	2,238.1	1,491.9	13,704.1	58,934.0
Assets (\$M)	97,099.1	15,684.7	1,991.7	22,154.0	186,513.6
Market Cap (\$M)	47,173.1	4,710.3	826.9	15,801.8	150,855.6
Book-to-Market Ratio	.542	.030	.171	.470	.971

**Table 2 Panel B. Post-Merger Characteristics of Firms by Corporate Branding Type**

	Acquisition N=119			Business-As-Usual N=53			Fusion N=44			Difference across Strategy Types
	Mean	Median	Std. Err.	Mean	Median	Std. Err.	Mean	Median	Std. Err.	p-value
Net Income (\$M)	1630	341	644	1059	300	276	10*	1132	2437	.59
Sales (\$M)	24966	11232	3234	17051	7954	2716	31264	21121	5617	.10
Assets (\$M)	110734	21143	25261	39176	15025	11761	129413	47351	30177	.10
Market Cap (\$M)	51554	15704	6992	27270	8724	5680	59119	29836	10791	.05
Book-to-Mkt	.526	.458	.041	.596	.565	.068	.522	.466	.056	.60
Target/Acquirer Pre-merger Assets Ratio	.188	.130	.239	.190	.130	.176	.257	.230	.275	.65
Target/Acquirer Pre-merger Mkt Cap Ratio	.396	.175	.656	.427	.160	.768	.360	.170	.537	.86
% mergers with branding explicitly mentioned in the merger announcement		11%			13%			39%		<.01

\* The low mean of the Net Income for fusion corporate branding group is driven by the data coming from the TWX/AOL merger. The merged firm took a \$99 billion write-down on goodwill following the merger.

**Table 2 Panel C. Sample Distribution across Industrial Groupings**

	Acquisition	Business As Usual	Fusion
Agriculture, Forestry, and Fishing	.0%	1.9%	.0%
Mining	4.2%	1.9%	9.1%
Construction	.0%	.0%	.0%
Manufacturing	47.9%	41.5%	31.8%
Transportation, Communications, Electric, Gas, and Sanitary Services	12.6%	9.4%	22.7%
Wholesale Trade	.8%	.0%	.0%
Retail Trade	6.7%	15.1%	.0%
Finance, Insurance, and Real Estate Services	12.6%	13.2%	29.5%
Public Administration	15.1%	17.0%	6.8%
	.0%	.0%	.0%
<b>Total:</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
% mergers where target and acquirer come from the same 2-digit SIC	68%	48%	43%

**Table 3. Event Study Analyses**

This table presents the results of Hypothesis 1 tests for acquirer firms across alternative event windows. The data are presented as % cumulative abnormal returns in the respective event window with day=0 set on the day of the merger announcement release. The last four columns present p-values for simple mean difference tests across our branding groups and the p-values for mean difference tests conditional on control variables are shown in brackets. The data are presented as \*\* denotes one-tail t-test significance at the 1% level; \* denotes one-tail t-test significance at the 10% level.

Event Window	Corporate Branding				Mean difference, p-value			
	(0) All Firms (N=216)	(1) Acquisition (N=119)	(2) Business- as-Usual (N=53)	(3) Fusion (N=44)	(1) vs. (2)	(1) vs. (3)	(2) vs. (3)	(3) vs. (1)& (2) combi ned
<b>[0; 1] window</b>	<b>-1.259**</b>	<b>-1.821**</b>	<b>-1.201*</b>	.176	.50	.04	.22	.05
Std error	.376	.520	.728	.789	[.88]	[.02]	[.06]	[.02]
t-stat	-3.35	-3.50	-1.65	.22				
Corrado $\theta$	-6.42	-5.29	-3.69	1.60				
<b>[-1; 1] window</b>	<b>-2.034**</b>	<b>-2.830**</b>	<b>-1.829*</b>	-.147	.36	.02	.20	[.03]
Std error	.440	.600	.924	.846	[.47]	[.03]	[.14]	[.04]
t-stat	-4.62	-4.71	-1.98	-.17				
Corrado $\theta$	-6.28	-5.94	-3.08	-1.18				
<b>[-5; 5] window</b>	<b>-2.134**</b>	<b>-3.155**</b>	<b>-1.726*</b>	.123	.25	<.01	.22	.02
Std error	.512	.687	1.089	1.019	[.22]	[.01]	[.17]	[.02]
t-stat	-4.17	-4.59	-1.59	.12				
Corrado $\theta$	-4.64	-5.20	-1.67	-.59				
<b>[-10; 1] window</b>	<b>-2.035**</b>	<b>-3.188**</b>	<b>-1.551*</b>	.483	.17	<.01	.15	<.01
Std error	.475	.655	.963	.879	[.43]	[.02]	[.14]	[.03]
t-stat	-4.28	-4.87	-1.61	.55				
Corrado $\theta$	-5.59	-5.92	-2.75	.42				
<b>[-1; 10] window</b>	<b>-2.105**</b>	<b>-3.123**</b>	<b>-1.902*</b>	.385	.29	<.01	.09	<.01
Std error	.464	.627	1.000	.836	[.31]	[.01]	[.13]	[.02]
T-stat	-4.54	-4.98	-1.90	.46				
Corrado $\theta$	-5.94	-5.70	-2.83	-1.02				

**Table 4. Time-Varying Calendar-Time Portfolio Analyses**

This table presents the results of Hypothesis 2 tests using the calendar-time portfolio approach with time-varying risk factor loadings and high-frequency data correction. The data are presented as % daily abnormal returns estimated using model [6]. \*\* denotes two-tail significance at the 1% level; \* denotes two-tail significance at the 5% level.

Holding Period	Strategy Types				Spread Tests, p-value			
	All Firms (216 firms)	(1) Acquisition (119 firms)	(2) Business-as-Usual (53 firms)	(3) Fusion (44 firms)	(1) vs. (2)	(1) vs. (3)	(2) vs. (3)	(3) vs. (1) and (2) combined
<b>3 Months Alpha (%)</b>	.0153	.0191	-.0315	.0714	.40	.36	.17	.16
std error	.0228	.3166	.0557	.0489				
p-value	.50	.55	.57	.14				
<b>6 Months Alpha (%)</b>	<b>-.0330*</b>	-.0330	-.0519	.0029	.64	.35	.28	.20
std error	.0162	.0214	.0382	.0336				
p-value	.04	.12	.17	.93				
<b>1 Year Alpha (%)</b>	-.0102	-.0235	-.0172	.0320	.82	<b>.04</b>	<b>.08</b>	<b>.02</b>
std error	.0117	.0155	.0237	.0219				
p-value	.38	.13	.47	.15				
<b>2 Years Alpha (%)</b>	-.0124	-.0088	<b>-.0475**</b>	.0162	<b>.06</b>	.25	<b>.01</b>	<b>.07</b>
std error	.0095	.0123	.0164	.0189				
p-value	.19	.47	.00	.39				
<b>3 Years Alpha (%)</b>	-.0079	-.0078	<b>-.0376**</b>	.0184	<b>.08</b>	.15	<b>.01</b>	<b>.04</b>
std error	.0076	.0104	.0138	.0150				
p-value	.30	.45	.01	.22				
<b>5 Years Alpha (%)</b>	-.0080	-.0072	<b>-.0289*</b>	.0089	.15	.25	<b>.02</b>	<b>.08</b>
std error	.0064	.0087	.0127	.0109				
p-value	.21	.41	.02	.41				

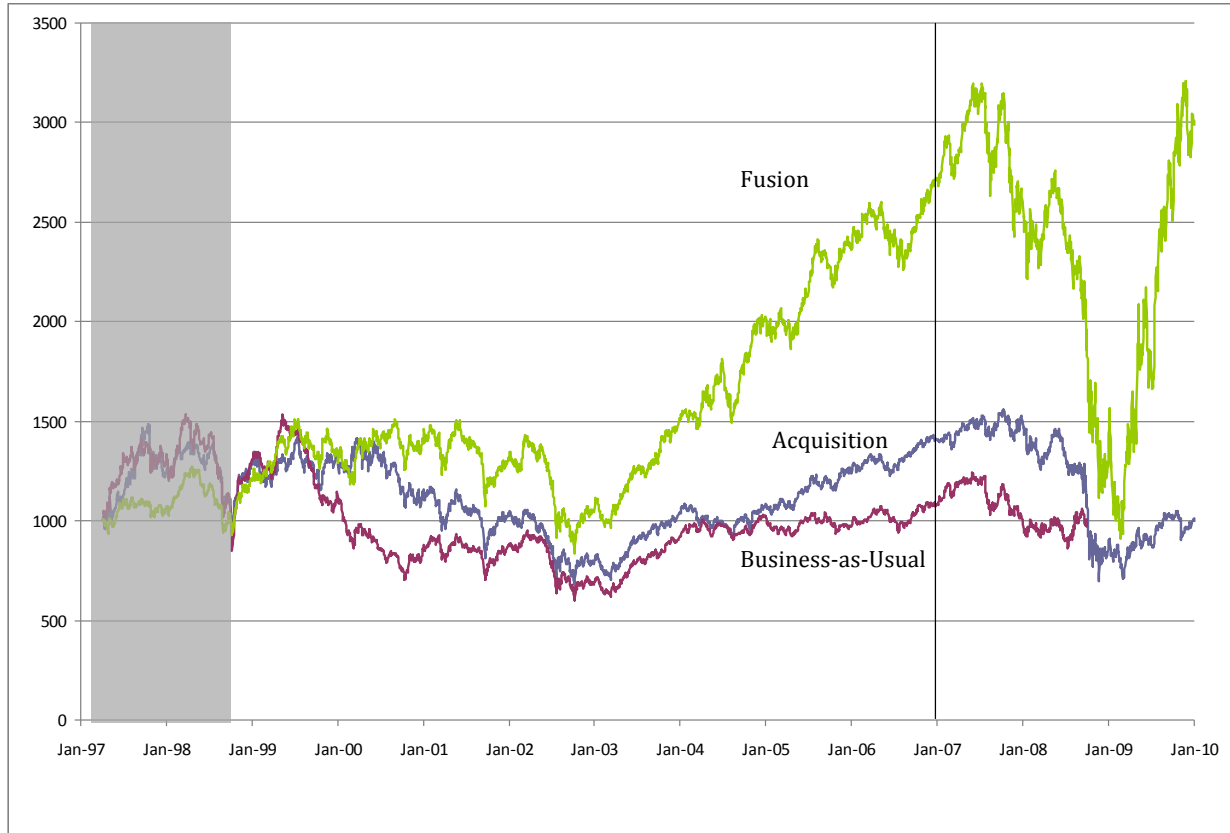
**Table 5. Risk Profile of the Branding Portfolios**

This table presents the measures of total, systematic, and idiosyncratic risk for our portfolios. Total risk is measured as portfolio return variance. Systematic risk is measured as market Beta estimate. Idiosyncratic risk is measured as the standard deviation of the residuals from the regression of portfolio return on the four-factor asset pricing model.

<b>Holding Period</b>	<b>Total</b>	<b>Acquisition (N=119)</b>	<b>Business- as-Usual (N=52)</b>	<b>Designer (N=44)</b>
<b>3 Months</b>				
Total Risk	.0005114	.0005641	.0006657	.0005431
Systematic Risk	1.0363	1.019234	1.1367	1.06521
Idiosyncratic Risk	.0109113	.0151205	.0203117	.0169306
<b>6 Months</b>				
Total Risk	.0005759	.000552	.0005887	.0005346
Systematic Risk	1.0592	1.05396	1.04192	1.15345
Idiosyncratic Risk	.0081029	.0104704	.0157615	.0154303
<b>1 Year</b>				
Total Risk	.0006966	.0006360	.00049794	.0004880
Systematic Risk	1.063225	1.06546	.9851865	1.1279979
Idiosyncratic Risk	.0063027	.0082812	.01092	.0116868
<b>2 Years</b>				
Total Risk	.0009823	.0008152	.0004569	.0007999
Systematic Risk	1.0077	.981534	.93814	1.17263
Idiosyncratic Risk	.0066441	.008195	.0081986	.0132548
<b>3 Years</b>				
Total Risk	.00121	.00104	.0005009	.0008678
Systematic Risk	1.0199575	1.026494	.902280187	1.150734
Idiosyncratic Risk	.0049145	.0068005	.0081037	.0100837
<b>5 Years</b>				
Total Risk	.00154	.00131	.0007690	.0008647
Systematic Risk	1.0043754	1.028769	.9055963	1.0585266
Idiosyncratic Risk	.0039664	.0056628	.0080490	.0063513

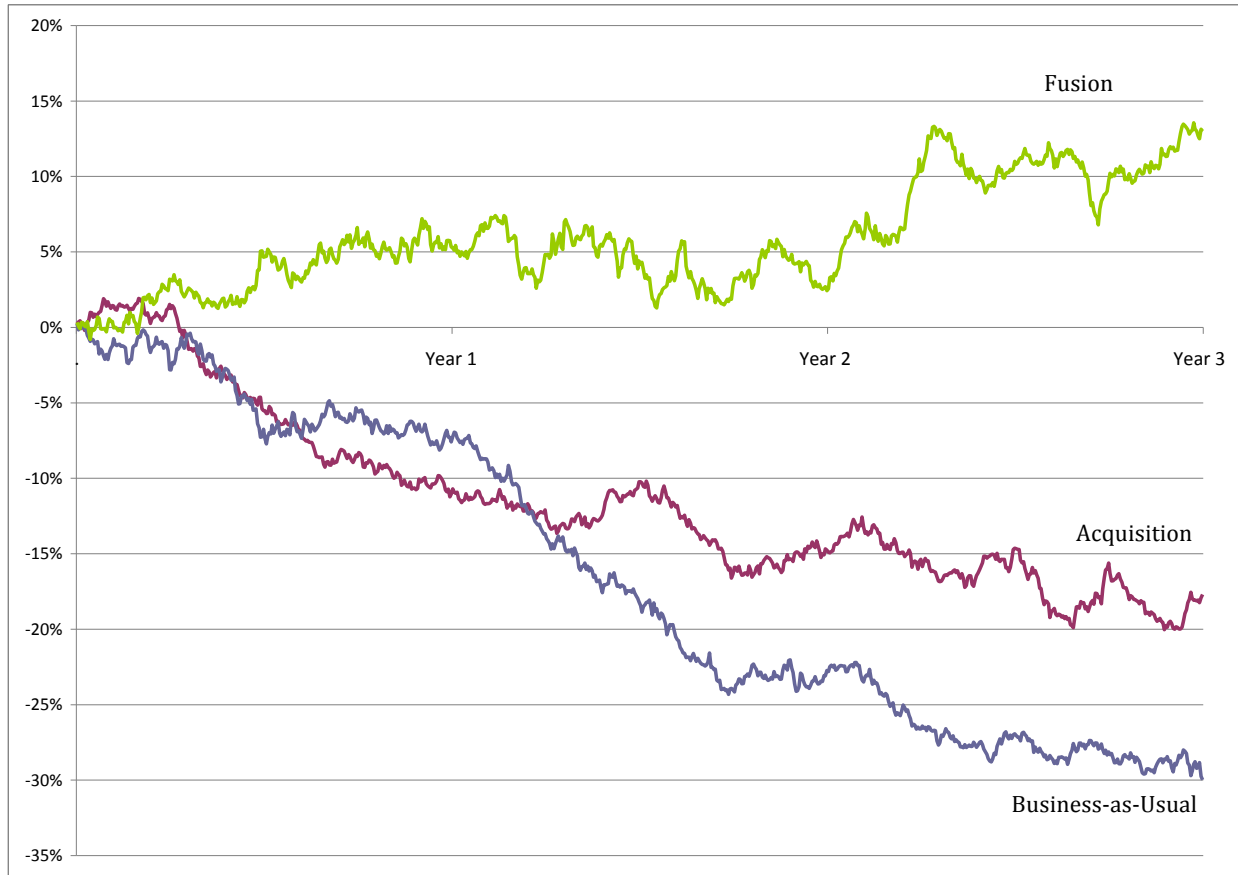
### Figure 1. Raw Calendar Portfolio Returns for Branding Portfolios

This figure presents raw calendar portfolio returns (3-year post-merger hold) for the three corporate branding strategies. The shaded area of the chart highlights the initial 18-month period when we have a small number of equities in the portfolios. The vertical line at year-end 2006 represents the end of our merger data sample; that is, new mergers are not entering our portfolios past 2006. Our last business-as-usual branded merger occurs in September 2005 and as a result, our observation of business-as-usual portfolio return series ends in September 2008.



### Figure 2. Post-Merger Buy-and-Hold Abnormal Returns

This figure presents the average abnormal buy-and-hold returns for the three branding strategies for the 3-year period beginning 3 days after the merger completion date.



### Figure 3. Total Buy-and-Hold Abnormal Returns

This figure presents the average abnormal buy-and-hold returns for the three branding strategies for the three-year period beginning from day -1 before the merger announcement. It covers the periods of (1) the initial reaction to the merger announcement, (2) the period between the announcement and the merger completion (which varies across firms and typically lasts just a few months), and (3) the post-merger period.

