

Legacy Divestitures: Motives and Implications*

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Abstract

This paper investigates “legacy divestitures,” the sale or spinoff of a company’s original, or “legacy” business. The central tension considered in this work is that the historical presence of a firm’s legacy business should simultaneously make that unit very interdependent with the company’s remaining operations and make the firm’s managers highly likely to take those same interdependencies for granted. Consistent with these predictions, the post-divestiture operating performance of firms that divest their legacy businesses falls short of that of firms that retain comparable legacy units, especially when the divested unit operates in the same industry as others of the divesting firm’s businesses. Newer CEOs are more likely to undertake legacy divestitures than their longer-tenured peers, and the most recently-appointed CEOs undertake the most costly legacy divestitures. In sum, this paper provides insights into how historical interdependencies create value in diversified firms, as well as the decision-making processes managers follow in overseeing these companies.

Keywords: legacy divestitures, diversification, corporate strategy

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Introduction

A firm’s original, or “legacy,” business plays a critical role in its functioning. As its oldest operation, a firm’s legacy business is a repository of key organizational routines, which are the product of accumulated knowledge and experiences and thereby guide corporate decision-making (March and Simon 1958, Cyert and March 1963, Nelson and Winter 1982). To the extent that firms grow and expand by building on their routines in a path-dependent manner, legacy businesses should exhibit deep and extensive interdependencies with their remaining operations (Leonard-Barton 1992, Teece et al. 1994). This is especially likely to be true when a firm diversifies to leverage the routines embedded in its legacy business in related areas of its portfolio (Penrose 1959, Chang 1996, Capron et al. 1998, Helfat and Eisenhardt 2004, Levinthal and Wu 2010).

At the same time, a firm’s legacy business is the unit whose importance is most likely to be overlooked by its managers. A major consequence of the path-dependent development of organizational routines is that the oldest routines will be the most tacit, and hence, the most likely to be taken for granted by managers (March and Simon 1958, Nelson and Winter 1982, Leonard-Barton 1992). Worse still, the very interdependencies emanating from a firm’s legacy business may be particularly difficult for external constituents to assess, contributing to the undervaluation of that company in the stock market (Lang and Stulz 1994, Berger and Ofek 1995, Litov et al. 2012). Thus, managers might actually view their firm’s legacy business as problematic rather than valuable.

An important implication of this discussion is that “legacy divestitures,” the sale or spinoff of a company’s legacy business, should be operationally costly to divesting firms in the short-run. Just as an organization’s “technical core” must be protected from environmental fluctuations (Thompson 1967), so too must a firm’s legacy business; any disruption of a firm’s legacy business will ripple through the business units with which it is so deeply interdependent. Nevertheless, managers might still choose to undertake legacy divestitures, simultaneously underestimating the historical importance of their firms’ legacy businesses while overestimating the value of investors’ favorable response to legacy divestitures (Kahneman and Tversky 1979).

The implications of the above-described ideas are tested using an original dataset of 300 diversified American companies, 56 of which divested their legacy businesses, between 1980 and 2000. The stock market responds favorably to announcements of legacy divestitures, especially when they

remove business units that operate in declining industries or when they are accompanied by corporate name changes that reflect the extent to which a firm is shifting away from its past. By contrast, in the four years following the completion of legacy divestitures, the operating performance of firms that divest their legacy businesses is lower than that of firms that retain comparable legacy units. This performance gap is larger and persists for longer among firms that divest legacy businesses operating in the same industry as other units in the divesting firms, as the interdependencies emanating from the legacy business may be the greatest in that instance. After this four-year dip, the operating performance of the divesting firms becomes equal to that of the retaining firms, and the divesting firms do not experience an incremental improvement in profitability beyond that level. Moreover, despite investors' initially favorable response to legacy divestiture announcements, the stock market performance of firms that undertake legacy divestitures ultimately begins to lag that of firms that retain comparable legacy businesses.

One explanation for these findings can be inferred from the characteristics of the CEOs running the divesting firms. New or recently-appointed CEOs should be the least likely to appreciate the importance of their firms' legacy businesses (Milliken and Lant 1991, Lant et al. 1992, Hambrick et al. 1993), yet the most strongly motivated by investors' expected favorable response to legacy divestitures (March and Shapira 1992, Boyle and Shapira 2012). As a result, they are more likely to be the managers who make flawed decisions in which they incur the short-run costs of, but realize no long-run benefits from, legacy divestitures. Consistent with these points, newly-appointed CEOs are significantly more likely to undertake legacy divestitures than their longer-tenured peers, and the most operationally-costly legacy divestitures are undertaken in firms overseen by CEOs with the shortest tenures in their firms.

In sum, this paper addresses the important phenomenon of legacy divestitures, shedding light on the locus of tacit knowledge within organizations. The fact that legacy divestitures are so operationally costly to the divesting firms provides evidence of how valuable the routines emanating from a firm's legacy business actually are. At the same time, the finding that managers, especially those who are recently-appointed, still choose to divest these units illustrates how the routines with the greatest value can come to be taken for granted within organizations. The key theoretical contribution of this study is therefore to draw on evolutionary economics and the behavioral theory of the firm to elucidate the origin and nature of the interdependencies that create value for diversified

firms. This research also yields insights into why managers' and investors' expectations of their firms' future performance might diverge from the actual outcomes these companies experience, and accordingly, how managers come to make corporate strategy decisions, even sub-optimal ones.

Theory and Hypotheses

Legacy Businesses

Organizational decision-making is guided by routines (March and Simon 1958, Cyert and March 1963), the “regular and predictable behavioral patterns of firms” (Nelson and Winter 1982: 14). Just as an individual's skills are rooted in his own knowledge and prior experiences, an organization's routines are embodied in its memory (Nelson and Winter 1982: 99), the outcome of its own knowledge and past experiences, as well as those of its individual members (Levitt and March 1988). As with the activities individuals perform, organizational routines are the building blocks of core competences, or “what firms do well” (Teece 1988, Prahalad and Hamel 1990). However, just as an individual may not be able to articulate the specific components of his skills (Polanyi 1958), organizational routines are analogously tacit (March and Simon 1958, Nelson and Winter 1982).

Thus, organizational routines appear to be characterized by two key features: they exhibit a strong degree of historical path dependence, yet they are tacit and frequently taken for granted by organization members. Indeed, as Leonard-Barton (1992: 114) puts it, “Core capabilities are part of the organization's taken-for-granted reality, which is an accretion of decisions made over time and events in corporate history.” Both of these traits are likely to manifest themselves quite strongly in the “legacy businesses” of diversified firms.

A firm's legacy unit is its original line of business, housing the organization's oldest routines, which makes it a key repository of knowledge. Because a firm develops its routines in a path-dependent manner, applying the knowledge embedded in its legacy business to other parts of the firm, the interdependencies between its legacy business and its remaining operations should therefore be quite strong (Leonard-Barton 1992, Teece et al. 1994). At the same time, the fact that the routines underpinning a firm's legacy business are the oldest makes them the most tacit and the most likely to be taken for granted, as the organization members in whom key knowledge resides may depart and organizational memory might fade (Nelson and Winter 1982: 115).

The juxtaposition of these two ideas yields the central tension considered in this paper: key interdependencies in a diversified firm might be overlooked precisely because of their historical pervasiveness within the organization. The empirical context in which this tension will be investigated in this paper is “legacy divestitures,” the sale or spinoff of a company’s legacy business.

Legacy Divestitures: Motives

Why might a manager choose to divest rather than retain his firm’s legacy business? As argued above, the fact that a firm’s legacy business is its oldest implies that its managers will be highly likely to take the interdependencies between that unit and the firm’s other segments for granted (March and Simon 1958, Nelson and Winter 1982, Leonard-Barton 1992, Teece et al. 1994). At the same time, this taken-for-grantedness might also make managers more likely to yield to external pressures to divest these units, which may loom larger than the more tacit benefits associated with the retention of their firms’ legacy businesses (Kahneman and Tversky 1979).

The external pressures driving managers to undertake legacy divestitures could, in fact, be quite strong. Legacy businesses are frequently concentrated in weak or declining industries, consuming a disproportionate amount of managerial time and attention (Harrigan 1980, Anand and Singh 1997) while simultaneously exerting a drag on these firms’ stock market valuations (Lang and Stulz 1994, Berger and Ofek 1995, Zuckerman 1999, Villalonga 2004a, 2004b, Litov et al. 2012). Interlake, originally a steel company that diversified into the aerospace and automotive industries, provides a good example of both of these problems. “‘For the last three years we’ve been trying to focus on our businesses that are technology-driven,’ said Frederick C. Langenberg, chairman and CEO. ‘It’s difficult to manage businesses with two different emphases.’ Securities analysts said the spinoff will make Interlake a more attractive investment. ‘The company’s good results from some of its operations have often been offset by iron and steel,’ said Christopher Westcott, metals and mining analyst at Tucker, Anthony & R.L. Day Inc.”¹

Additionally, because legacy units are companies’ original businesses, corporate names frequently derive from these operations. For example, General Cinema, which diversified into publishing, was originally a chain of movie theatres, and American Can, later in diversified financial services, was originally a can manufacturer. As a result, external constituents, such as analysts or

¹Source: “Interlake Inc. Sets Plan to Spin Off Iron, Steel Lines.” *Wall Street Journal*, 28 February 1986.

shareholders, may continue to associate a firm with its legacy business even if that company has diversified into different domains. The discrepancy between a firm's primary operations and those of its legacy business might further contribute to that company's undervaluation in the stock market. For example, American Brands changed its name to Fortune Brands following the divestiture of its legacy business, American Tobacco. With regard to this company's name change, Ronald Lieber of Fortune Magazine opined: "The rechristening itself was a good idea. Even though American Brands had been out of the U.S. tobacco business for two years, its name is still associated with tobacco... The new name should put an end to that source of confusion."²

From a behavioral perspective, this undervaluation is a good example of a shortfall in a firm's performance below an aspiration level set by a reference group, representing a stimulus that might prompt managers to change the firm's strategy (March and Simon 1958, Greve 2003). Corporate divestitures are an example of one such change. Divestitures improve managerial focus (Markides 1992, 1995, Comment and Jarrell 1995, John and Ofek 1995, Daley et al. 1997, Desai and Jain 1999, Berger and Ofek 1999), remove slow-growing or underperforming business units (Porter 1987, Kaplan and Weisbach 1992, Hayward and Shimizu 2006, Shimizu 2007, Berry 2010), and clarify external perceptions (Zuckerman 2000, Gilson et al. 2001, Bergh et al. 2008). These changes should signal to investors that the divesting company's long-term prospects will improve.

The last of these benefits may be pronounced when managers signal the extent to which they are separating from their firm's past by contemporaneously divesting their firm's legacy business and changing the company's name (Akerlof 1970, Milgrom and Roberts 1986, Fombrun and Shanley 1990, Tadelis 1999, Gioia et al. 2000, Lee 2001). For example, Charles Shoemate, chairman and CEO of CPC International, described his company's name change and divestiture of its legacy corn refining business as follows: "As CPC International, we already had the great brands, the worldwide presence, and the track record to make us a top food industry competitor. Now, having spun off our corn refining business, we are adding the advantage of total focus on branded foods. We want to make sure that the investment community takes note of our new name, Bestfoods, and our identity as the company that makes some of the world's greatest and best-loved brands."³

²Source: Lieber, Ronald B. "What? Fortune Makes Golf Balls? Studies in Corporate Nomenclature." *Fortune Magazine*, 9 December 1996.

³Source: "Bestfoods Celebrates Inauguration of Trading Under New Name; Stages 'Bullish' Event On Wall Street" *Business Wire*, 5 January 1998.

Investors typically respond favorably to the expected long-run benefits of divestitures, such that the divesting firm's stock market performance improves upon divestiture announcements (Miles and Rosenfeld 1983, Schipper and Smith 1983, Markides 1992, Lang et al. 1995). Because investors will expect similar long-term improvements in companies that undertake legacy divestitures, especially when the divesting firms are highly diversified and when the divested units operate in declining industries or perform poorly, investors should also react favorably to announcements of these transactions. This expected positive stock market response to legacy divestitures might therefore constitute a significant external impetus driving managers to undertake these transactions rather than to retain these units.

Hypothesis 1. Upon the announcement of a legacy divestiture, the stock market performance of a firm that divests its legacy business will exceed that of a firm that retains a comparable legacy business.

Certain managers may be more strongly motivated by investors' expected positive response to legacy divestitures than others. More specifically, CEOs often experience a great deal of pressure to produce strong results in the early years of their tenures (Finkelstein and Hambrick 1990, Hambrick and Fukutomi 1991, Ocasio 1994), potentially explaining why they are the most likely to implement major organizational changes (Miller and Friesen 1980, Wiersema and Bantel 1992, Hambrick et al. 1993, Bigley and Wiersema 2002, Shimizu and Hitt 2005). As a result, a new or recently-appointed CEO may feel the strongest urgency to divest his firm's legacy business to gain the benefit of the favorable stock market response that is expected to accompany that divestiture.

Put differently, new or recently-appointed CEOs are thought to be responsive to the "aspiration point" set by the stock market valuations of comparable firms (March and Shapira 1992). Per the above discussion, they may attempt to attain this aspiration point by divesting their firms' legacy businesses. This is especially likely to be true when these units operate in industries that face declining performance, as legacy divestitures eliminate legacy businesses from firms' portfolios altogether. By contrast, a CEO who has managed a firm for a longer period of time might instead be more responsive to the "survival point" where the firm's resources will be exhausted (March and Shapira 1992). To meet this survival point, such CEOs will instead retain their firms' legacy businesses and perhaps attempt to restructure internally, since these managers take a longer-term view

of their organizations and are less beholden to the short-term pressures associated with “keeping up” with their peers (Medvec et al. 1995, Boyle and Shapira 2012).

Similarly to the latter of these points, long-tenured CEOs may also display a disproportionate emotional attachment to their firms’ legacy businesses given their long histories with those units, so they may escalate their commitment to legacy businesses by opposing their divestitures (Staw 1981, Katz 1982, Miller 1991, Hambrick et al. 1993). Long-tenured CEOs may also be more beholden to the interests of individuals or coalitions within their firms, making it harder for them to implement major changes like legacy divestitures (Cyert and March 1963, Miller and Friesen 1980, Ocasio 1994). By contrast, CEOs with short tenures in their firms should be less constrained by either of these two organizational processes, making it easier for them to undertake legacy divestitures.

Taken together, these arguments suggest that in comparison to their longer-tenured counterparts, newer CEOs will be more likely to divest rather than retain their firms’ legacy businesses.

Hypothesis 2. The shorter the tenure of a company’s CEO, the more likely that manager will be to divest rather than retain his firm’s legacy business.

Legacy Divestitures: Implications

The taken-for-grantedness of legacy businesses, in combination with external pressure from investors favoring legacy divestitures, therefore helps to explain why managers (particularly those who are relatively new to their firms) might choose to divest rather than retain these units. Again, however, the very factor that might lead managers to minimize the importance of their firms’ legacy businesses and thus choose to divest them – the path-dependent development and application of tacit knowledge and organizational routines from a firm’s oldest business into the other units in its portfolio – should simultaneously generate significant interdependencies between legacy businesses and firms’ remaining operations (Leonard-Barton 1992, Teece et al. 1994).

Legacy divestitures remove business units that may be key repositories of organizational knowledge from the divesting firms. In so doing, the interdependent routines that link legacy businesses to these companies’ remaining operations will be broken. This implies that the functioning of these companies will be disrupted, which should be reflected in reduced short-term operating performance for these firms. By contrast, firms that retain their legacy businesses should experience no such

disruption, and hence, no such operational costs.

This argument is similar to the idea that in an open systems paradigm, organizations take steps to protect their “technical cores” from environmental fluctuations, as the mechanisms they put in place “provide the organization with some self-control despite interdependence with the environment” (Thompson 1967: 24). Analogously, a diversified firm’s retention of its legacy business shields the rest of the organization from the fluctuations that would ripple through its interdependent business units were the legacy business – the root of these interdependencies – to be divested.

In sum, the foregoing discussion suggests that after managers undertake legacy divestitures, their firms’ operating performance will fall short of that of firms that retain their legacy businesses.

Hypothesis 3. In the short-term following a legacy divestiture, the operating performance of a firm that divests its legacy business will be lower than that of a firm that retains a comparable legacy business.

Elaborating on this argument, the mechanism that underpins the above-hypothesized short-term operational costs associated with legacy divestitures is the disruption of taken-for-granted yet deeply-embedded routines that generate interdependencies between a firm’s legacy business and its remaining operations.

It is possible to shed light on the manner in which legacy divestitures disrupt these interdependencies by considering firms’ diversification paths. Firms diversify to utilize excess capacity of their core competences (Penrose 1959, Teece 1982, Helfat and Eisenhardt 2004, Levinthal and Wu 2010), such as shared capabilities or managerial talent, which are themselves rooted in organizational knowledge and routines. If a firm’s legacy business is in the same industry as others of that company’s business segments, the routines and relevant knowledge these units share should be more substantial than they are when the legacy unit operates in a different industry than others of that firm’s business segments (Rumelt 1974, 1982, Montgomery and Wernerfelt 1988, Chatterjee and Wernerfelt 1991, Montgomery and Hariharan 1991).

These points imply that interdependencies between a legacy business that is industrially-related to one or more of its parent firm’s remaining business units will be more significant than they are when a legacy business is industrially-unrelated to other business segments within that firm. Consequently, to the extent that the mechanism underpinning the operational costs associated

with legacy divestitures is indeed the disruption of deeply-rooted interdependencies, divestitures of industrially-related legacy businesses should be more disruptive and hence, more operationally costly to divesting firms than divestitures of industrially-unrelated legacy units (Bergh 1995).

Hypothesis 4. When a legacy business is industrially-related to other units in a firm, the operational cost associated with divesting rather than retaining that business will be greater than it is when a legacy business is industrially-unrelated to other units in a company.

Along similar lines, considering the role of managerial tenure makes it possible to shed light on the taken-for-grantedness of the routines embedded in firms' legacy businesses that generate interdependencies between these units and the remaining operations of the divesting companies.

Consistent with the discussion leading up to Hypothesis 2, the new or recently-appointed CEOs who are the most likely to undertake legacy divestitures may be precisely the managers who will take the importance of their firms' legacy businesses for granted, and hence, underestimate the magnitude of the operational costs associated with these transactions. A recently-appointed CEO will not have enough history in the firm to understand the interdependencies between the legacy business and the firm's remaining operations (Milliken and Lant 1991, Lant et al. 1992), nor will existing managers or employees within the company be able to explain the importance of these interdependencies, given their tacit nature (March and Simon 1958, Nelson and Winter 1982).

Additionally, newer CEOs tend to have more diverse information sources than their longer-tenured peers (Katz 1982, Finkelstein and Hambrick 1990, Miller 1991). While this kind of information-processing capacity is generally viewed favorably (Hambrick and Fukutomi 1991, Hambrick et al. 1993), a short-tenured CEO's reliance on external sources of information may limit, rather than enhance, his ability to evaluate the importance of the firm's legacy business, as an accurate assessment of that unit's importance to the firm might only be produced internally.

Thus, both of these points suggest that the most operationally-costly legacy divestitures will be undertaken by firms overseen by newer CEOs, who are precisely the managers that will be most likely to underestimate the importance of their firms' legacy businesses.

Hypothesis 5. The shorter the tenure of a company's CEO, the greater will be the operational cost associated with divesting rather than retaining that firm's legacy business.

Methods

Sample and Data

This paper analyzes firms' decisions to divest versus retain their legacy businesses using a sample of diversified American firms from 1980 to 2000, a period of intensive refocusing activity in the United States (Markides 1992, 1995, Comment and Jarrell 1995). Diversified firms are of interest in this study because they were the dominant organizational form during this time.

To generate the sample, a list of acquirers that bought targets with assets of at least \$10M between 1960 and 1979 was gathered from the Federal Trade Commission Statistical Report on Mergers. Foreign companies and firms that only made a single acquisition during this period were eliminated, leaving a sample of 300 American firms that were diversified by 1979. The rationale for this sampling process is that the data sources commonly used to identify diversified firms are relatively sparse in the early 1980s. Accordingly, conditioning the sample on firms that had previously made multiple acquisitions is the only logical way to identify firms that were broadly diversified by 1980. Moreover, this sample appears to be representative of the largest American companies of that time: of these 300 firms, 243 of them were in the Fortune 500 ranking in 1980.

The identification of firms' legacy businesses, and in turn, legacy divestitures, are two critical steps in this paper's data collection process. A legacy business is defined as the original business in which a company operated at the time of its founding, and every company can have one and only one legacy business. Under this definition, the legacy businesses of all 300 firms in the sample were hand-collected using the *International Directory of Company Histories* and annual reports through on-site library research, as no existing databases contain these data. I matched the qualitative historical information I had collected on the industries in which each of these legacy units operated to verbal descriptions of the industries to which SIC codes correspond, thereby assigning an SIC code to each legacy business. To the extent possible, I confirmed these matches using the SIC codes assigned to companies' business segments in the Compustat segment-level database.

Having identified the legacy businesses of the companies in the sample, the next step was to identify their legacy divestitures. To do this, detailed data, including industrial and financial information about the divested units, on all divestitures made by each of these companies between 1980 and 2000 were gathered from the FTC Report, M&A Magazine, SDC Platinum, and CCH

Capital Changes Reporter. I then identified the legacy divestitures in my sample by matching the qualitative historical information I had collected on firms' legacy businesses to the divestiture data. For example, the legacy business of Esmark, one company in the sample, was meat-packing. One of the divestitures undertaken by Esmark was a spinoff of SIPCO (Swift Independent Packing Company), its meat-packing business. Accordingly, that spinoff was coded as a legacy divestiture.

Of the 300 firms in the sample, 56 were identified as having divested their legacy businesses. The hypotheses in this paper make predictions comparing firms that divest their legacy businesses to firms that retain them. Thus, for each of the 56 firms that divested their legacy businesses, in the year of each legacy divestiture, I used a matched sample design, identifying a counterfactual set of firms that retained legacy businesses operating in the same industry (defined by its two-digit SIC code) as each of the divested legacy units. The advantage of this approach is that it allows me to implicitly control for a wide range of environmental factors that might otherwise influence the outcomes the divesting and non-divesting firms experience. For example, in 1994, Fortune Brands divested its legacy tobacco business, American Tobacco, which operated in the industry defined by SIC code 21. In that same year, three firms whose legacy businesses were also tobacco (Phillip Morris, Loews Corporation, and RJR Nabisco) each continued operating those segments. Following this process, I was able to identify 237 firms that retained legacy units operating in the same 2-digit SIC codes as the 56 divested legacy businesses.

Data on these 293 firms were gathered within the 21-year period between 1980 and 2000. I collected information on any name changes made by these companies from the CCH Capital Changes Reporter, and data on the characteristics of the CEOs and boards of directors from the Standard & Poors Register of Corporations, Directors, & Executives. Annual firm and segment financial data were gathered from Compustat, and stock market data from CRSP.

Empirical Strategy

Hypothesis 1 predicts that investors will respond favorably to announcements of legacy divestitures, such that the stock market performance of the divesting firms will exceed that of their comparable non-divesting peers. I conduct an event study to test this prediction.

Hypotheses 2 through 5 indicate that the factors influencing the operational consequences of legacy divestitures are closely intertwined with those driving managers' decisions to divest their

legacy businesses. Thus, it is necessary to account for the effects of non-random selection among the firms that *choose* to divest rather than retain their legacy businesses.

Heckman selection models are the appropriate empirical strategy to do this. These two-stage models account for the effects of non-random selection by representing in a first-stage regression (equivalent to a standard logistic model) a firm's decision to divest versus retain its legacy business in a given year, and then estimating in a second-stage regression the relationship between that divestiture and subsequent operating performance. To ensure identification of the model, it is necessary to include instruments in the first-stage regression, variables that are correlated with the decision to divest the legacy business but orthogonal to the unobserved errors in operating performance in the second-stage regression.

Key Variables

Consistent with the foregoing discussion, the primary empirical consideration in this study is a firm's decision to divest versus retain its legacy business. As such, Legacy Divestiture is an indicator variable taking the value one for firms that divest their legacy businesses⁴ and zero for firms that retain these units, both measured in the divestiture year.

Legacy Divestiture is the dependent variable in the first-stage regression of the Heckman selection model described above. Moreover, the predicted values of Legacy Divestiture from this first-stage regression serve as the key independent variable in the second-stage performance regression. Return on Sales (ROS) will be used to quantify the operational consequences of legacy divestitures predicted in Hypotheses 3, 4, and 5.⁵

Two instruments are used to identify this Heckman selection model: 3-Year Sales Growth in Legacy Industry (Colak and Whited 2007) and Major Exchange (Campa and Kedia 2002). 3-Year Sales Growth in Legacy Industry is calculated as the compounded growth in sales of all single-business firms operating in the industries in which each firm's legacy business operated over the three years leading up to each divestiture. Major Exchange is defined as an indicator variable taking

⁴No distinction is made between asset sales and spinoffs in the construction of this variable, and the results that follow are not sensitive to the mode of divestiture.

⁵The results that follow are robust to the use of asset-based measures of operating performance such as ROA or ROIC. However, ROS is a preferable representation because if the assets of legacy businesses were recorded at their book values or were written down over time, those businesses would contribute less to the parent company's assets than they would to its profits, yielding a potential alternative explanation for any observed decline in ROA or ROIC.

the value one if a firm's stock is listed on the NASDAQ, NYSE, or AMEX stock exchanges. These two variables appear to satisfy both of the requirements for appropriate instrumental variables.

First, beginning with 3-Year Sales Growth in Legacy Industry, firms divest business units, legacy or not, when they have better opportunities elsewhere in their portfolios (Capron et al. 2001, Helfat and Eisenhardt 2004, Berry 2010, Levinthal and Wu 2010). Thus, the slower-growing the industry in which a legacy business operates, the more likely its parent company will be to divest that unit, and vice versa, implying that 3-Year Sales Growth in Legacy Industry will be negatively correlated with Legacy Divestiture. However, 3-Year Sales Growth in Legacy Industry will not be correlated with ROS, in that the industry growth of a company's legacy business *prior to* the divestiture will not affect the firm's overall performance *after* it has divested that business.

Second, following Campa and Kedia's (2002) logic, Major Exchange should be positively correlated with a firm's propensity to divest rather than retain its legacy business. A listing on one of these three major stock exchanges makes a firm highly visible, thereby improving its ability to attract buyers for any units it might want to divest, and therefore, its likelihood of undertaking a legacy divestiture. However, Major Exchange will not be correlated with ROS, in that the exchange on which a firm is listed is unlikely to systematically influence its internal operations.

Hypothesis 4 makes predictions regarding the operating performance consequences of firms that divest legacy businesses that are industrially-related to other units within the divesting firms' portfolios. I operationalize the concept of relatedness by constructing a continuous measure, Relatedness, which is defined as the percentage of a firm's total business units that share a 3-digit SIC code with the firm's legacy business. Larger values of Relatedness therefore indicate that the firm's legacy business is more closely related to a greater proportion of the firm's other operations.

Hypothesis 2 predicts that recently-appointed CEOs will be more likely than their longer-tenured peers to divest legacy businesses, and Hypothesis 5 predicts that the operational costs of legacy divestitures will be highest among firms whose CEOs have the shortest tenures. To test both of these hypotheses, CEO Tenure is defined as the number of years a CEO has overseen a firm.

Control Variables

Several control variables are employed to represent the factors that might drive firms to divest rather than retain their legacy businesses, as well as those that might influence the operating

performance of these firms after they complete their legacy divestitures.

First, 3-Year Sales Growth in Primary Industry is calculated as the growth in sales of all firms operating in the same primary SIC code as the companies in the sample, compounded over the three years leading up to each divestiture. Because managers may undertake divestitures when better opportunities exist in other areas of their firms' portfolios than in their legacy units, this variable should be positively correlated with both Legacy Divestiture and ROS.

% Unrelated Segments is defined as the percentage of a firm's business segments that do not share its primary SIC code, and Number of Acquisitions Made is a count of the number of acquisitions a company made in a given year. Allocative choices may be most pronounced among diversified or acquisitive firms, as these characteristics give firms more opportunities to improve the distribution of resources in their portfolios. This suggests that both % Unrelated Segments and Number of Acquisitions Made will be positively associated with Legacy Divestiture. However, both unrelated diversification and an active acquisition program should adversely affect managers' abilities to run their firms efficiently by dissipating their attention (Ocasio 1997), and may signal the presence of empire-building or hubristic CEOs (Amihud and Lev 1981, Jensen 1986, Shleifer and Vishny 1989), suggesting that % Unrelated Segments and Number of Acquisitions Made will be negatively associated with ROS.

% Segments with Negative Cash Flow is defined as the percentage of a firm's segments that have negative earnings. The greater this proportion, the more likely that company will be to undertake divestitures, whether to generate cash for their remaining operations or to focus the attention of managers (John et al. 1992, Berger and Ofek 1999), implying a positive relationship between % Segments with Negative Cash Flow and Legacy Divestiture. When a firm has a large share of distressed businesses, its operating performance will be lower, suggesting that % Segments with Negative Cash Flow will be negatively associated with ROS.

Name Change is an indicator variable that takes the value one in any year in which a company changes its name. To the extent that managers change their companies' names contemporaneously with legacy divestitures, Name Change should be positively correlated with Legacy Divestiture. By contrast, Name Change will not be associated with ROS, as corporate name changes should not have direct operational consequences.

Relative Size is defined as the sales of a divested unit scaled by the sales of the parent firm. Di-

vestitures of larger legacy businesses may facilitate more fundamental changes to the divesting firms (Hoskisson and Johnson 1992, Bergh 1995), such that Relative Size should be positively correlated with Legacy Divestiture. Larger divestitures may also result in more pronounced improvements in managerial focus (Markides 1992), so Relative Size should be positively correlated with ROS.

Finally, $\ln(\text{Total Assets})$ controls for the effects of the size of the divesting firm, $\text{Capex} / \text{PPE}$ measures its capital intensity and $\text{Debt} / \text{Value}$ represents its leverage. Summary statistics and a correlation matrix for the variables described in this subsection of the paper appear in Table 1.

————— Table 1 here —————

Results

Event Study

To test Hypothesis 1's prediction of a more favorable investor response to legacy divestitures than to comparable legacy retentions, I conducted an event study around the announcement dates of each of the legacy divestitures in my sample.

I first identified the announcement dates of the legacy divestitures in my sample from Lexis-Nexis. Then, I collected from CRSP the daily stock returns within 250-day estimation windows $[-800, -551]$ before these announcement dates both for the firms that divested their legacy businesses, and for the counterfactual sets of firms that retained their legacy businesses. From there, I predicted these firms' normal returns from their daily stock returns and the stock market's returns, and then their abnormal returns within three-day event windows $[-1, +1]$ surrounding the announcement dates.⁶ Cumulative abnormal returns (CAR) are the cumulative sum of these abnormal returns.

The CAR of the 56 firms that divest their legacy businesses is +1.88%, statistically different from zero at the 5% level of significance. The CAR of the firms that retain their legacy businesses is -0.17%, and this average return is not statistically different from zero. Moreover, the CAR of firms that divest their legacy businesses is statistically different, at the 1% level of significance, from that of the firms that retain their legacy businesses on the divestitures' announcement dates. These

⁶The estimation and event windows are the same as those used by Anand and Singh (1997), though the results that follow are robust to the use of other windows.

results provide support for the prediction that investors will react favorably to announcements of legacy divestitures in expectation of long-term benefits to the divesting firms.

In addition, the CAR of firms that divest legacy businesses operating in industries whose average sales growth declined in the year prior is +4.48%, statistically greater at the 5% level of significance than the CAR of firms that retain legacy businesses operating in industries with negative sales growth rates, -0.43%. By contrast, the CAR of firms that divest legacy businesses operating in industries whose sales growth increased in the year prior is +1.35%, statistically greater at the 5% level of significance than the CAR of firms that retain legacy businesses operating in industries with positive sales growth rates, -0.11%. Finally, the CAR to divestitures of legacy businesses operating in industries with declining (+4.48%) versus increasing (+1.35%) sales growth rates are statistically different from one another at the 5% level of significance. These results indicate that the pressure of declining prospects in the industry in which a firm's legacy business operates may be an important driver of the decision to divest rather than retain that unit.

Along similar lines, the CAR of firms that divest their legacy businesses and had changed their corporate names in the year of or the three years preceding their legacy divestitures is +2.20%, statistically greater at the 1% level of significance than the CAR of firms that retain their legacy businesses and change their corporate names during this time period, -0.22%. By contrast, the CAR of firms that undertake legacy divestitures and do not change their corporate names is +1.47%, significantly larger, at the 5% level of significance, than the CAR of firms that retain their legacy businesses and do not change their corporate names, +0.02%. Finally, the CAR to legacy divestitures of firms that change their names (+2.20%) and firms that do not (+1.47%) are statistically different from one another. These findings reveal that investors reward managers who undertake legacy divestitures alongside changes that reflect the extent of their companies' separations from their pasts, providing further evidence that the external pressures driving managers to divest their firms' legacy businesses may indeed be quite strong.

Heckman Selection Model

To test Hypotheses 2 and 3, Table 2 presents the results of the above-described Heckman selection model exploring the motives and implications of the legacy divestiture decision. Regression [1] displays the first-stage regression analyzing the factors that drive a firm's decision to divest

its legacy business. Regression [2] presents the second-stage regression estimating the operating performance consequences of legacy divestitures, conditional on the factors that drive firms to divest these businesses in the first place.

————— Table 2 here —————

First-Stage Regression

The dependent variable in Regression [1] is Legacy Divestiture, and the instrumental variables used to identify this two-stage Heckman model are 3-Year Sales Growth in Legacy Industry and Major Exchange.

As predicted, the coefficient on 3-Year Sales Growth in Legacy Industry is negative and highly significant, suggesting that when growth in a firm’s legacy industry is slow, that company is more likely to divest than retain its legacy business. Figure 1 reinforces the point that the industries in which divested legacy units operate are frequently slow-growing: starting in the fifth year prior to legacy divestitures, the sales growth rate of the industries in which divested legacy units operate begins to lag, to an increasingly large degree, the analogous growth rates of the industries in which the remaining business units in the divesting firms operate.

————— Figure 1 here —————

Also as predicted, the coefficient on Major Exchange is positive and significant, indicating that managers are more likely to divest than retain legacy businesses when their firms’ stock is listed on one of the three major exchanges.

A Wald test that 3-Year Sales Growth in Legacy Industry and Major Exchange are not jointly significantly different from zero is rejected at the 1% level of significance, suggesting that these two instrumental variables are individually and collectively associated with a manager’s decision to divest rather than to retain his firm’s legacy business. By contrast, the intuition that both 3-Year Sales Growth in Legacy Industry and Major Exchange satisfy the exclusion restriction is supported by the fact that neither variable has a significant coefficient when it is included in the second-stage regression. Finally, a Sargan test, where the null hypothesis is that the identifying restrictions are uncorrelated with the residuals in the model, is not rejected ($\text{Prob}>X^2 = 0.6879$), indicating that the identifying restrictions in this model are appropriate.

The coefficients on the control variables in Regression [1] provide some insights into the motivations for legacy divestitures. The positive and significant coefficient on Relatedness suggests that firms are more likely to divest legacy businesses that are related to other units in their portfolios, underscoring the taken-for-grantedness of the interdependencies emanating from legacy businesses. Additionally, the positive and significant coefficient on Name Change reveals that managers adopt new corporate names contemporaneously with legacy divestitures.

Most importantly, the coefficient on CEO Tenure is negative and significant, indicating that firms run by CEOs who have short tenures are more likely to divest than to retain their legacy businesses, providing support for Hypothesis 2. To shed additional light on this issue, Figure 2 depicts the incidence of CEO turnover in the years preceding legacy divestitures. This figure indicates that the percentage of firms that appoint new CEOs increases dramatically in the years immediately preceding legacy divestitures. By contrast, the incidence of CEO turnover is lower and does not increase significantly among firms that retain their legacy businesses in the same years. Further reinforcing this point is Figure 3, which reveals that within the subgroup of firms that divest their legacy businesses, the number of companies that undertake legacy divestitures declines in the tenure of their CEOs. These descriptive trends provide additional evidence that newer CEOs tend to be the managers who undertake legacy divestitures.

————— Figures 2 and 3 here —————

Second-Stage Regression

The dependent variable in Regression [2] of Table 2 is Return on Sales (ROS), as measured in the year following firms' decisions to divest or retain their legacy businesses. The key independent variable in this regression is Legacy Divestiture, as generated from the predicted values of the dependent variable in Regression [1]. The coefficient on Legacy Divestiture is negative and significant at 5%, suggesting that firms that divest their legacy businesses have lower operating performance in the year after they decide to divest these units than do the firms that retain these units. This result provides evidence in support of Hypothesis 3, showing that legacy divestitures are operationally costly to the divesting firms following the completion of these transactions.⁷

⁷The mean ROS of the divesting firms is not significantly different from that of the retaining firms in any of the five years leading up to the legacy divestiture/retention decision. This indicates that the above-described result is

In Regression [2], the significant coefficient on lambda (the inverse Mills ratio) indicates that the effects of non-random selection among the firms that *choose* to undertake legacy divestitures are substantial, meaning that linear methodologies such as ordinary least squares would produce biased estimates of the effect of legacy divestitures on operating performance. A Hausman test of the null hypothesis that the coefficients in an ordinary least squares regression of legacy divestitures on operating performance are the same as those produced in the second-stage regression of the above-described Heckman selection model is rejected ($\text{Prob} > \chi^2 = 0.0000$). This provides further evidence that a model that accounts for the effects of non-random selection is the appropriate specification.

The findings described to this point reveal that in the first year following the completion of legacy divestitures, the operating performance of firms that divest their legacy businesses is lower than that of firms that retain them. However, it remains to investigate the length of time for which the gap in the profitability of these two groups of firms persists. Accordingly, the first column of Table 3 presents the coefficients on Legacy Divestiture, derived from the second-stage regressions measuring ROS in the second through ninth years following the legacy divestiture decision.

————— Table 3 here —————

The coefficients on Legacy Divestiture are negative and significant when ROS is measured in the first, second, third and fourth year following the legacy divestiture decision.⁸ While the coefficients on this variable remain negative in the fifth through ninth year following this decision, they are not significant. These results suggest that, relative to the profitability of firms that retain their legacy businesses, firms that divest their legacy businesses suffer a four-year dip in their operating performance, providing further support for Hypothesis 3. In the years thereafter, while there is no significant difference in the profitability of these two groups of companies, the operating performance of the divesting firms does not improve beyond its pre-divestiture levels, suggesting that legacy divestitures are a costly strategy, with no offsetting long-run benefits.

This finding of a four-year dip in the operating performance of firms that undertake legacy

not attributable to *ex ante* differences between the performance of the divesting and retaining firms, reinforcing the validity of the matched sample design employed in this paper.

⁸The fact that the dip in operating performance is a short-term effect, lasting four years but not longer, could be attributable either to managers taking steps to improve their firms' performance after a few years of weak results, or to the effects of firm activity in the intervening time period. These two possibilities are respectively supported by the facts that the coefficients on the Legacy Divestiture variable become less negative and the standard errors on this variable increase as more time elapses following the legacy divestiture decision.

divestitures (relative to the performance of firms that retain their legacy businesses) creates an interesting contrast to the earlier result of a favorable stock market reaction to firms that divest rather than retain their legacy businesses. If the stock market is efficient and investors are rational, the discrepancy between these two results must ultimately be resolved, with the stock price of the divesting firms declining as their operating performance deteriorates.

Figure 4 presents descriptive data that speaks to this issue. Consistent with the premise of the matched sample design employed in this paper, the average Tobin's q (a long-term measure of stock market performance) of firms that divest and retain their legacy businesses is not statistically different in the five years leading up to, the year of, or the year immediately following the legacy divestiture decision. However, starting in the second year following the legacy divestiture decision, the average Tobin's q of firms that divest their legacy businesses becomes significantly smaller than that of firms that retain their legacy businesses, and remains that way through the fifth year following the legacy divestiture decision.⁹ This result indicates that investors ultimately do respond to the negative operating performance experienced by firms that divest their legacy businesses and price it into their long-term stock market performance (Benner and Ranganathan 2013).

————— Figure 4 here —————

Relatedness

Having established that on average, the relationship between legacy divestitures and short-term operating performance is negative, it remains to consider the mechanism hypothesized to underpin this result. Hypothesis 4 predicts that the magnitude of the operational disruption of legacy divestitures will be greater for firms that divest legacy businesses that operate in the same industries as other segments in their portfolios than for firms that divest unrelated legacy units. Testing this hypothesis requires the construction of indicator variables representing related and unrelated legacy divestitures. These new constructs become the dependent variable in the first-stage regressions of the Heckman selection models developed thus far, and their predicted values are the key independent variable in these models' second-stage regressions. I create these new variables in two ways.

⁹While not depicted in this figure, the average Tobin's q of the two groups of firms is not statistically different after the fifth year following the legacy divestiture decision.

First, I define Related Legacy Divestiture as an indicator variable taking the value one when Legacy Divestiture takes the value one and the 3-digit SIC code of the firm's legacy business is the same as that of at least one of its other business segments, representing *divestitures of related* legacy businesses. Related Legacy Divestiture takes the value zero when Legacy Divestiture takes the value zero and the firm's legacy business shares its 3-digit SIC code with at least one other of its business segments, representing *retentions of related* legacy businesses. Analogously, Unrelated Legacy Divestiture is an indicator variable taking the value one when Legacy Divestiture takes the value one and the 3-digit SIC code of the firm's legacy business is not the same as those of any of its other business segments, representing *divestitures of unrelated* legacy businesses. Unrelated Legacy Divestiture takes the value zero when Legacy Divestiture takes the value zero and there is no overlap in the 3-digit SIC codes of a firm's legacy business and those of any of its other business segments, representing *retentions of unrelated* legacy businesses.

The second and third columns of Table 3 indicate that the coefficients on Related Legacy Divestiture are negative and significant when ROS is measured in the first five years following the divestiture of a related legacy business, though they lose their significance thereafter. By contrast, the coefficients on Unrelated Legacy Divestiture are negative, though never statistically significant.

Second, I take the definition of relatedness a step further by operationalizing it as the circumstance in which the industry of the firm's legacy business is the same as the firm's primary industry. Thus, Primary Industry Legacy Divestiture is an indicator variable taking the value one when Legacy Divestiture takes the value one and the 3-digit SIC code of the firm's legacy business is the same as the company's primary 3-digit SIC code. Primary Industry Legacy Divestiture takes the value zero when Legacy Divestiture takes the value zero and the 3-digit SIC code of the firm's legacy business is the same as the company's primary 3-digit SIC code. Not Primary Industry Legacy Divestiture takes the value one when Legacy Divestiture takes the value one and the 3-digit SIC code of the firm's legacy business is not the same as that of its primary industry. Not Primary Industry Legacy Divestiture takes the value zero when Legacy Divestiture takes the value zero and the 3-digit SIC codes of a firm's legacy business and its primary industry differ.

The fourth and fifth columns of Table 3 show that the coefficients on Primary Industry Legacy Divestiture are negative and significant when ROS is measured in the first five years after the divestiture of a legacy business operating in the divesting firm's primary industry. While the

coefficients on Not Primary Industry Legacy Divestiture are all negative, none are significant.

Two key points emerge from the results presented in the final four columns of Table 3. First, divestitures of related legacy businesses appear to be the more operationally-costly type of legacy divestitures, especially when the divested legacy business operates in the divesting firm's primary industry. Second, the operational costs associated with related legacy divestitures persist for longer than did the average effect of divestitures of related and unrelated legacy businesses together. These findings all support Hypothesis 4, showing that when the interdependencies resulting from industrial relatedness between a firm's legacy business and its remaining operations are disrupted, the company's operating performance suffers.

CEO Tenure

Hypothesis 5 predicts that the operational costs of legacy divestitures will be highest when CEOs with shorter tenures in the divesting firms undertake these transactions. Table 4 provides evidence in support of this prediction by presenting the coefficients on Legacy Divestiture, disaggregated according to the tenures of the CEOs undertaking the divestitures.

————— Table 4 here —————

More specifically, these disaggregated variables are created by interacting Legacy Divestiture with different tranches of the CEO Tenure variable, with cutoffs ranging from three to ten years.¹⁰ For example, the coefficient on Legacy Divestiture in the first column of the first block in Table 4 represents the marginal effect of legacy divestitures on ROS in firms overseen by CEOs with tenures of three years or less. By contrast, the coefficient in the second column of the first block in Table 4 represents the marginal effect of legacy divestitures on ROS in firms overseen by CEOs with tenures of more than three years.

Consistent with Hypothesis 5, the coefficients on Legacy Divestiture are negative and significant when firms that divest their legacy units are overseen by CEOs with short tenures (six years or less),¹¹ as represented by the coefficients in the first column of Table 4. By contrast, the coefficients

¹⁰The mean tenure of the CEOs in the sample in the year of the legacy divestiture/retention decision is 13 years. The tenth percentile is five years, the fifth percentile is four years, and the first percentile is two years.

¹¹There are not enough observations of firms managed by CEOs with tenures of two years or less that divest their legacy businesses to generate meaningful coefficient estimates.

on Legacy Divestiture are negative, though not significant, when the firms that undertake legacy divestitures are managed by CEOs with longer tenures, as indicated in the second column of Table 4. The third column reveals that the two coefficients in each pair are statistically different from one another for CEOs with shorter tenures. These findings support the behavioral prediction that because newer CEOs are the most likely to take for granted the importance of their firms' legacy businesses, and thus, the most eager to divest these units despite their value, the firms they oversee will experience the largest operational costs from these legacy divestitures.

Discussion and Conclusion

This paper has investigated the factors that motivate managers to undertake legacy divestitures, and the consequences of these transactions. The central idea on which this study builds is that a diversified firm's legacy business is its oldest operation, such that the routines and knowledge embedded in it are applied in a path-dependent manner to the other units within that company. While the path-dependent development and application of routines make a firm's legacy business highly interdependent with that company's remaining operations, the age and historical pervasiveness of these routines simultaneously make them the most tacit, leading managers to overlook or take for granted the importance of their firm's legacy business.

The taken-for-grantedness of legacy businesses, in combination with strong external pressure favoring divestitures of these units, help explain why managers might undertake legacy divestitures in the first place. The CEOs with the shortest tenures in their firms appear to be the most likely to undertake legacy divestitures. The fact that these individuals do not have much history within a divesting firm makes them the least likely to understand the importance of that company's legacy business. Moreover, these managers may be the most susceptible to external pressure from investors to undertake legacy divestitures, as these units are often concentrated in declining industries, exerting a drag on their parent companies' stock market performance. Consistent with this point, investors respond favorably to announcements of legacy divestitures, especially when these transactions remove legacy businesses that operate in declining industries and when they occur alongside corporate name changes that are intended to convey the extent to which the divesting firm is separating its future from its past.

Despite the strong forces driving managers to undertake legacy divestitures, the significant interdependencies that are likely to exist between a firm's legacy business and its remaining operations imply that the divestiture of that unit will be costly to the company. Consistent with this prediction, the operating performance of firms that divest their legacy businesses is found to be lower in the four years following the completion of these transactions than that of firms that retain their legacy businesses during the same time period. There is no statistical difference in the operating performance of these two groups of companies in the years thereafter, and the post-divestiture profitability of the firms that undertake legacy divestitures never exceeds that of the companies that retain their legacy businesses, revealing that these transactions do not impart any kind of offsetting operational improvement to counteract these costs. Thus, while the decision to divest a legacy business can be characterized as a choice between growth and profitability, this tradeoff does not work out favorably for the divesting firms.

Taken together, the results in this work make several contributions to management theory.

First, this study uses insights from the behavioral theory of the firm and evolutionary economics to shed light on the nature and value of the interdependencies that exist within diversified firms. The findings in this research suggest that, due to path-dependence in the development and application of routines and knowledge, a firm's oldest business exhibits the deepest and most extensive linkages with its remaining units, such that the disruption of these interdependencies is operationally costly to the divesting firm. Reinforcing the idea that the value of a firm's legacy business may derive from the deep interdependencies it has with other units in that company's portfolio, the magnitude of the gap in operating performance between the divesting and non-divesting firms is larger and persists for longer when a firm divests a legacy business that operates in its primary industry or in the same industry as others of its business units. By investigating what happens when the key interdependencies emerging from a firm's legacy business are broken, it is possible to draw inferences about the value those shared routines and capabilities brought to the diversified firm in the first place. Consistent with the implication of Teece et al.'s (1994) work, these interdependencies are quite valuable. This suggests that the order in which a firm diversifies is critically important, and it is costly for a firm to try to escape its history.

Second, this study illustrates how a temporary inconsistency between the operating and stock market performance of firms that undertake legacy divestitures could emerge. In the short-term,

firms that divest their legacy businesses experience higher stock market performance but lower operating performance than their counterparts that retain their legacy businesses. This provides evidence of a heuristic bias among managers and investors. Managers appear to overestimate the importance of external pressures driving them to divest legacy units, yet they underestimate the significance of the costs of legacy divestitures, since they take for granted the importance of the interdependencies that make legacy businesses valuable. Similarly, investors also “get it wrong” by reacting favorably to announcements of legacy divestitures, as external constituents are even less likely than internal constituents to appreciate the importance of these legacy businesses.

However, consistent with Benner and Ranganathan (2013), who demonstrate how divergent investor beliefs resolve themselves (albeit slowly) as information about a new strategy is revealed, the discrepancy between the operating and stock market performance of firms that undertake legacy divestitures is ultimately reconciled as the long-term stock market performance of the divesting firms begins declining alongside their operating performance. An interesting direction for future research might be to consider the outcomes experienced by the divesting firms in the very long-term, to the extent that the short-term operational disruption and consequent negative investor response might adversely influence the survival prospects of these companies.

Third, the research in this paper extends upper echelons theory using insights from the behavioral theory of the firm about learning and routines to show how managers with less tenure in their organizations may fall into a trap that leads them to undervalue their firms’ legacy businesses. In this paper, new and recently-appointed CEOs are significantly more likely to undertake legacy divestitures than are their longer-tenured counterparts, and the most operationally-costly legacy divestitures are undertaken in firms managed by the CEOs with the shortest tenures in their organizations.

These findings help reconcile the above-described divergence between the stock market and operational consequences of legacy divestitures: whereas the responsiveness of short-tenured managers to the aspiration point set by comparable peers may push them to undertake legacy divestitures to attain the benefits of a favorable stock market reaction despite the operational costs of these transactions, the responsiveness of long-tenured managers to the survival point internal to their organizations might instead lead them to retain their legacy businesses, thereby foregoing the favorable stock market reaction to legacy divestitures but also avoiding their operational costs. Thus,

the CEOs with little or no personal history in their firms are, paradoxically, precisely the managers who are the most likely to undertake a costly course of action with respect to *the business units with the most history* in these organizations. This result stands in contrast to the upper echelons literature, which has touted the ability of new CEOs to enable their firms to overcome inertia, and implies that it is important for managers to respect their firms' corporate antecedents in order to attain the strategic benefits of inertia.

Additionally, the insight that short-tenured managers undertake the most costly legacy divestitures provides a useful counterpoint to the agency-theoretic view that self-serving managers make bad decisions. In this paper, problems arise when value-maximizing managers try to do right by their firms (by implementing strategies to reduce undervaluation), but make mistakes because they overlook the importance of key factors affected by their strategies (the historical roots of a business and the interdependencies emerging therefrom). Thus, agency theory is not the only means of understanding managerial mistakes, and behavioral theory contributes to this effort as well.

Finally, beyond these theoretical contributions, this study makes an important empirical contribution as well. This paper identifies legacy divestitures as an independent and sizeable class of corporate divestitures, making these transactions a useful phenomenon with which to shed light on the internal functioning of diversified firms and the importance of corporate history in shaping firms' core competences. Future research should consider the role history plays in the corporate strategy decisions managers make, as well as its performance implications for diversified firms.

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Figure 1: Sales growth rates of legacy businesses versus remaining units in divesting firms

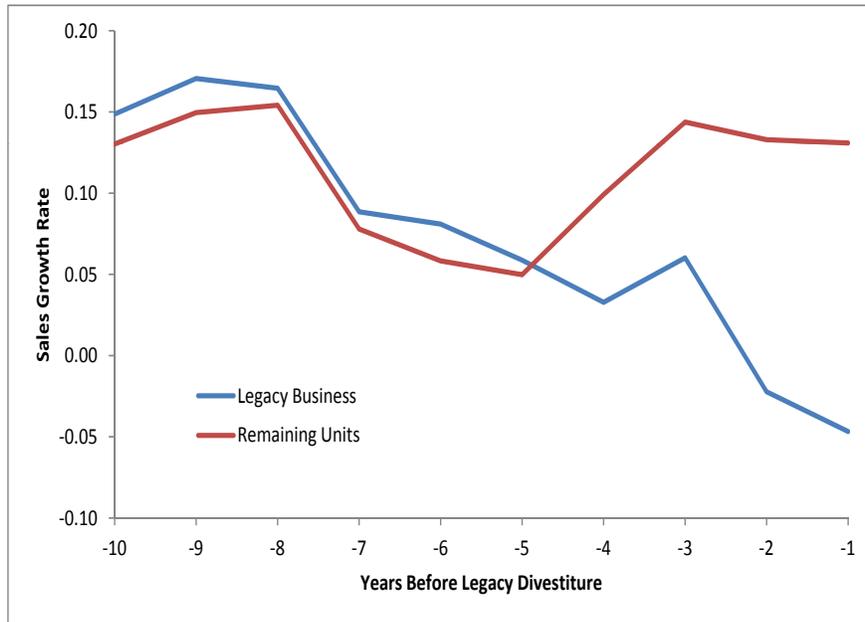


Figure 2: Incidence of CEO turnover around legacy divestitures/retentions

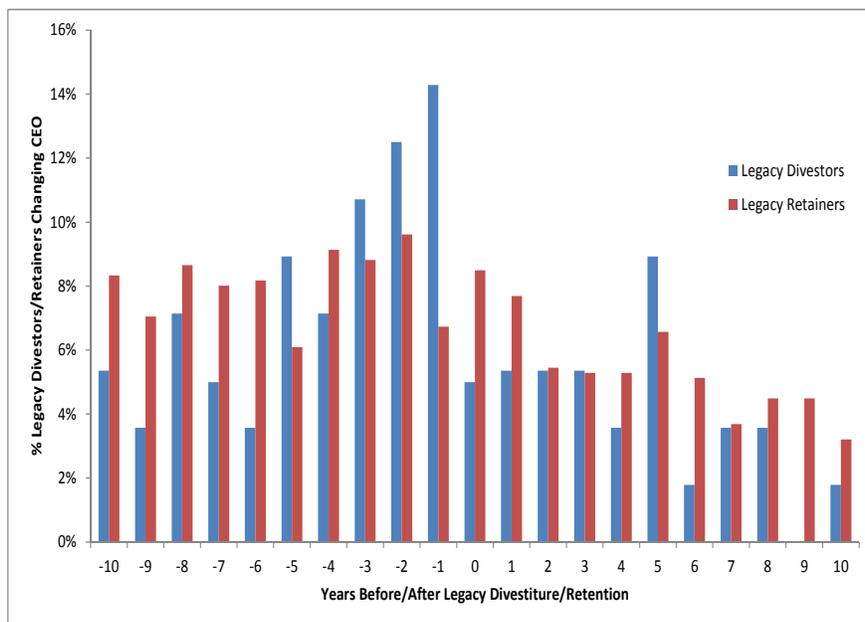


Figure 3: Incidence of legacy divestitures by CEO tenure

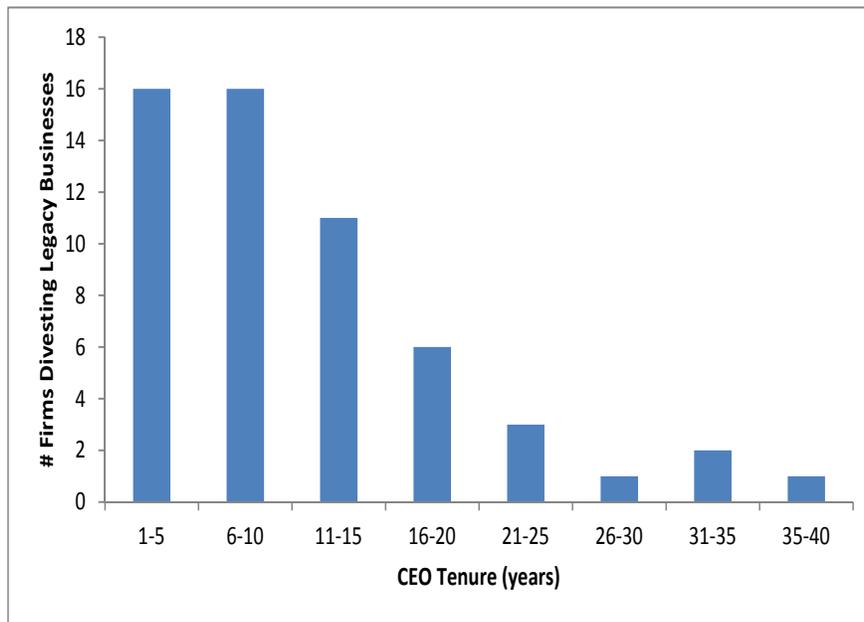


Figure 4: Long-term stock market performance around legacy divestitures/retentions

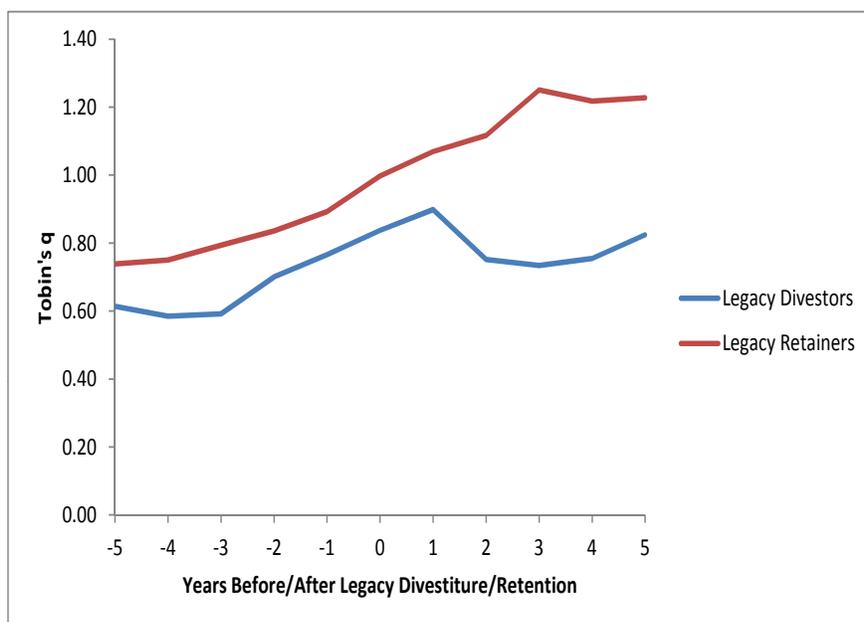


Table 1: Summary statistics and correlation matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
(1) Legacy Divestiture	0.061	1.000							
(2) ROS	0.085	-0.011	1.000						
(3) 3-Year Sales Growth in Legacy Industry	1.307	-0.058	-0.003	1.000					
(4) Major Exchange	0.860	0.347	0.025	0.036	0.056	1.000			
(5) Relatedness	0.146	0.198	0.005	0.083	-0.056	-0.096	1.000		
(6) CEO Tenure	13.117	-0.046	-0.020	-0.006	0.036	-0.020	1.000		
(7) 3-Year Sales Growth in Primary Industry	1.305	0.008	0.036	0.407	0.033	0.029	0.081		
(8) % Unrelated Segments	0.558	0.316	0.016	-0.123	-0.056	-0.084	-0.375		
(9) Number of Acquisitions Made	0.193	0.474	-0.021	0.031	0.054	-0.031	0.033		
(10) % Segments with Negative CF	0.064	0.156	-0.014	-0.295	-0.091	-0.136	-0.027		
(11) Name Change	0.025	0.157	0.181	-0.022	0.002	-0.005	0.007		
(12) Relative Size	0.034	0.129	0.292	0.020	0.034	-0.228	0.021		
(13) ln(Total Assets)	7.873	1.375	-0.066	0.023	-0.035	0.333	0.024		
(14) Capex / Net PPE	0.194	0.108	0.112	0.079	0.080	0.092	-0.040		
(15) Debt / Value	0.317	0.203	0.057	-0.228	-0.146	-0.179	-0.151		
Variable	Mean	Std Dev	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(8) % Unrelated Segments	0.558	0.316	1.000						
(9) Number of Acquisitions Made	0.193	0.474	0.070	1.000					
(10) % Segments with Negative CF	0.064	0.156	0.145	0.029	1.000				
(11) Name Change	0.025	0.157	-0.086	0.008	0.057	1.000			
(12) Relative Size	0.034	0.129	0.005	-0.022	-0.053	0.151	1.000		
(13) ln(Total Assets)	7.873	1.375	-0.070	0.184	0.019	-0.008	-0.205	1.000	
(14) Capex / Net PPE	0.194	0.108	-0.081	-0.032	-0.091	0.040	0.077	-0.010	1.000
(15) Debt / Value	0.317	0.203	0.320	-0.035	0.154	-0.038	0.032	-0.062	-0.218

Table 2: Operating performance one year after legacy divestiture, Heckman selection model

Model: Dependent Variable:	First-Stage Legacy Divestiture	Second-Stage ROS
Legacy Divestiture		-1.430** (0.585)
3-Year Sales Growth in Legacy Industry	-1.234*** (0.465)	
Major Exchange	1.207** (0.609)	
Relatedness	0.465** (0.211)	-0.252 (0.658)
CEO Tenure	-0.032** (0.014)	-0.003 (0.004)
3-Year Sales Growth in Primary Industry	0.470 (0.292)	0.006 (0.107)
% Unrelated Segments	0.475 (0.444)	-0.192 (0.134)
Number of Acquisitions Made	-0.083 (0.248)	-0.145** (0.060)
% Segments with Negative CF	-0.315 (1.013)	-0.667** (0.312)
Name Change	0.888** (0.440)	0.272 (0.216)
Relative Size	2.453*** (0.640)	0.778 (0.536)
ln(Total Assets)	-0.054 (0.093)	0.024 (0.028)
Capex / PPE	3.031*** (1.091)	0.831** (0.423)
Debt / Value	1.275* (0.657)	-2.307*** (0.226)
Constant	-2.447** (1.194)	-1.823*** (0.309)
lambda		0.631** (0.287)
Observations	293	293

*** p<0.01, ** p<0.05, * p<0.1

Table 3: Yearly operating performance following legacy divestitures, Heckman selection models

Dependent Variable: Coefficient on:	Return on Sales					
	Legacy Divestiture	Related LD	Unrelated LD	Primary Industry LD	Not Primary Ind. LD	
1 Year After LD	-1.430** (0.585)	-1.338** (0.525)	-0.238 (0.499)	-1.889*** (0.736)	-0.209 (0.274)	
2 Years After LD	-1.300** (0.586)	-1.183** (0.552)	-0.340 (0.513)	-1.872*** (0.645)	-0.220 (0.654)	
3 Years After LD	-1.309** (0.549)	-1.305* (0.735)	-0.316 (0.371)	-1.273*** (0.477)	-0.345 (0.454)	
4 Years After LD	-1.350* (0.719)	-0.885** (0.412)	-0.476 (0.637)	-0.851** (0.431)	-0.417 (0.406)	
5 Years After LD	-0.984 (0.790)	-0.880* (0.466)	-0.227 (0.416)	-0.871* (0.450)	-0.453 (0.632)	
6 Years After LD	-0.961 (0.643)	-0.829 (0.507)	-0.262 (0.440)	-0.711 (0.722)	-0.267 (0.901)	
7 Years After LD	-0.832 (0.687)	-0.757 (0.605)	-0.249 (0.269)	-0.530 (0.564)	-0.227 (0.927)	
8 Years After LD	-0.758 (0.880)	-0.667 (0.589)	-0.231 (0.517)	-0.501 (0.374)	-0.582 (0.487)	
9 Years After LD	-0.687 (0.655)	-0.650 (0.485)	-0.467 (0.664)	-0.439 (0.364)	-0.166 (0.556)	

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Effects on ROS of legacy divestitures undertaken by CEOs of different tenures

Dependent Variable:	Return on Sales		Wald Test
CEO Tenure:	≤ 3 Years	> 3 Years	$X^2(1)$
Legacy Divestiture	-1.877*** (0.557)	-0.622 (0.511)	6.73***
CEO Tenure:	≤ 4 Years	> 4 Years	$X^2(1)$
Legacy Divestiture	-1.910*** (0.384)	-0.698 (0.518)	6.76***
CEO Tenure:	≤ 5 Years	> 5 Years	$X^2(1)$
Legacy Divestiture	-1.410** (0.722)	-0.594 (0.484)	6.32**
CEO Tenure:	≤ 6 Years	> 6 Years	$X^2(1)$
Legacy Divestiture	-2.045** (0.909)	-0.575 (0.474)	6.54**
CEO Tenure:	≤ 7 Years	> 7 Years	$X^2(1)$
Legacy Divestiture	-1.171 (0.984)	-0.622 (0.511)	0.93
CEO Tenure:	≤ 8 Years	> 8 Years	$X^2(1)$
Legacy Divestiture	-1.156 (0.795)	-0.641 (0.516)	0.81
CEO Tenure:	≤ 9 Years	> 9 Years	$X^2(1)$
Legacy Divestiture	-0.956 (0.794)	-0.644 (0.502)	0.76
CEO Tenure:	≤ 10 Years	> 10 Years	$X^2(1)$
Legacy Divestiture	-0.341 (0.482)	-0.282 (0.442)	0.08

*** p<0.01, ** p<0.05, * p<0.1