

Tracking Stocks, Spin-Offs and the Divestiture Decision

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ABSTRACT

Tracking stocks offer managers a way to divest a business line while maintaining control of that division. The recent increase in tracking stock issuances is sparking a lot of interest in this relatively new type of equity. Much of the attention focuses on how the issuance of tracking stocks is not a complete divestiture because the tracked division is in many ways still a part of a conglomerate structure. Whereas past research has looked primarily at the drivers of the divestiture decision, we are centering our attention on the manager's choice between a spin-off and a tracking stock once she has already decided to make a tax-free divestiture.

Our investigation uncovers several interesting features of tracking stock divestitures. First of all, we find that firms issuing tracking stocks underperform firms that spin off divisions by up to 8% over long return horizons on a market-adjusted basis. We also see that divisions in different industries than their parents are significantly more likely to be spun off than to be tracked. Divisions that are performing better than their parents are significantly more likely to be tracked than to be spun off while divisions that are doing better than their industry peers are only marginally more likely to be tracked than spun off. Lastly, we find that entrenched managers are more likely to issue tracking stocks than to spin off divisions.

Tracking stocks offer managers a way to divest a business line while maintaining control of that division. The recent increase in tracking stock issuances is sparking a lot of interest in this relatively new type of equity. Much of the attention focuses on how the issuance of tracking stocks is not a complete divestiture because the tracked division is in many ways still a part of a conglomerate structure. In this paper, we compare firms issuing tracking stocks to firms spinning off divisions in an effort to understand the manager's divestiture choice.

Previous research has been committed to understanding the effects of restructuring a diversified firm and the forces driving such divestitures. Krishnaswami and Subramaniam (1999) find that firms performing tax-free, pro-rata spin-offs have a significantly lower amount of asymmetric information surrounding earnings prospects after completing the divestiture. Cusatis, Miles, and Woolridge (1993) find a high incidence of acquisition of the spun-off division, and to a lesser extent, the remaining parent pointing to the divestiture decision as a means of lowering barriers to future acquisitions.

However, very little has been done to understand the manager's decision-making process when selecting a type of divestiture. This paper intends generate some insight into why a manager decides to use a tracking stock¹ over a spin-off² after deciding to restructure the company. The analysis in this paper aims directly at evaluating the relative effects of the forces driving divestiture choice, including the benefits of an internal capital market, the costs of asymmetric information and agency, and the focus of a firm's businesses. Whereas past research has looked primarily at the drivers of a specific type of divestiture, we are centering our attention on the manager's choice between a spin-off and a tracking stock once she has already decided to make a tax-free

¹Although we shall always use the term tracking stock to refer to this type of equity structure, it has also been referred in past research as well as in the media as an "Alphabet Stock," "Letter Stock," "Lettered Stock" and "Targeted Stock."

²We shall always refer to a tax-free, pro-rata spin-off, as a spin-off. Please note that in the media as well as in academic research, a spin-off has been used to refer to other types of equity distributions including carve-outs, split-offs and split-ups.

divestiture. (This part of the decision is the second node, Decision B, in the decision tree drawn in Figure 1).

In our investigation, we uncover several interesting features of tracking stock divestitures. First of all, we find that firms issuing tracking stocks underperform firms that spin off divisions by up to 8% over long return horizons on a market-adjusted basis. Furthermore, divisions in different industries than their parents are significantly more likely to be spun-off than to be tracked. We also find that divisions that are performing better than their parents are significantly more likely to be tracked than to be spun off while divisions that are doing better than their industry peers are only marginally more likely to be tracked than spun off. Lastly, we find that entrenched managers are more likely to issue tracking stocks than to spin-off divisions.

The paper is structured as follows. Section I explains how the two types of divestitures differ in their corporate structures. Section II reviews the literature and identifies rationales driving the divestiture choice. Section III explains the compilation of our dataset. Section IV explains our methodology and our results. Section V concludes our analysis with remarks on the path of future research.

I. How is a Tracking Stock different from a Spin-off?

A tracking stock and a spin-off are both forms of common equity allowing investors to share in the prospects of a specific business line of a company. During a spin-off, new common equity is formed for the business line or division that is being separated from the company. For the type of spin-off we consider in this paper, the equity is given to current shareholders, as a tax-free, pro-rata distribution. We have restricted our sample only to tax-free, pro-rata distributions for two reasons.

First, the majority of equity distributions are taxable because the parent company wishes to retain a controlling portion of the equity of the child; in fact, for a spin-off to be considered tax-free, the distribution must include at least 80% of the outstanding shares of the division. Furthermore, the parent can not retain “practical control” under the guidelines set forth by the Internal Revenue Service (IRS) in Section 355 of the tax code. Essentially, the parent company removes its ownership and management interests from the spun-off division. This is in sharp contrast to the control exerted by the parent on a tracked division.

Secondly, neither the parent nor the division receive any cash from a tax-free spin-off. Removing any decision incentives based on the complex tax and cash-flow implications surrounding taxed distributions allows us to clearly identify the control factors affecting the manager’s decision-making process.

Unlike tracked divisions, there are no direct legal ties between the parent firm’s assets and a spun-off division. In contrast, although the new common stock equity representing the tracked division is traded freely from its original company, the assets of the child or parent can be used to satisfy liabilities incurred by the other. In that sense, any specific division does not have limited liability. This problem is inherent in any conglomerate.

Besides having two distinct equity listings, the tracking parent and child are still tied together in many ways. There is still one board of directors that controls the two entities. Although a tracked division, like a spun-off division, releases quarterly information per Securities and Exchange Commission (SEC) requirements³, resource allocation and transfer pricing are all done within the corporate entity. Academic research and the popular press have identified the unity of this corporate structure as a potential problem for shareholders in either portion of the company. Hass (1996) states:

³“The SEC requires that corporations with tracking stock equity structures distribute two sets of financial statements to holders of shares of each class of tracking stock. The first set contains details of the financial performance of the business group to which shares of such class are linked economically. The second set contains details of the financial performance of the entire tracking stock corporation on a consolidated basis.” Hass (1996)

“The advent of [tracking stocks] present unique and formidable challenges to directors that are not faced by directors of corporations with conventional equity structures. These challenges primarily stem from the extensive intergroup conflicts and directorial loyalty concerns inherent in tracking stock equity structures. These conflicts and concerns arise when a parent corporation implementing a tracking stock equity structure artificially divides itself into two or more distinct business groups. Although that corporation strives to present its business groups to the financial community as separate and distinct stand-alone corporations, it remains intact and governed by a single board of directors and executive management team . . . stockholders of tracking stock corporations need legal assurance that these directors, when making business decisions and formulating corporate policies, are considering fully and fairly the needs of the business group to which their shares are linked economically.”

Some of the potential problems Hass (1996) sees surrounding the tracking stock structure have to do with voting rights, dividends and liquidation rights. Ordinarily, explicit rights pertaining to the above are given to the the equity holders through the certificate or articles of incorporation.

For instance, shareholders will usually receive one vote per share. Therefore, voting power is easily determined by comparing the number of shares owned to the number of shares outstanding. But with a tracking stock structure, there can be two or more classes of equity with voting rights. When the tracking structure is first implemented, the voting rights are divided between the parent and child with a fixed ratio such as relative market capitalization or relative share price. However, as each class is traded, these ratios can change, and, through time, the relative voting power of each class could shift dramatically. For example, since Sprint Corporation (Ticker=FON) began tracking its Sprint PCS Wireless division (Ticker=PCS), the common equities have risen

by approximately 70% and 550%, respectively. If the voting rights of the two stocks were based on their relative market capitalizations, then FON shareholders would find their class' relative voting power diminish from 80% to 50% of the total voting rights since the inception of the PCS tracking stock. The two classes of equity would now share equal say in corporate matters although there exists a large differential in the profitability of the two divisions (the FON and PCS divisions earned \$1.82 and -\$2.71 per share, respectively, in the last period).

The dividends paid in a tracking corporation are decided by the board of directors. When the tracking stock is first proposed, the tracking company sets up a system of expected future dividends for the new as well as original equity holders. For example, US West, in its proxy statement following the introduction of its media tracking stock, announced its intentions of paying a regular dividend of \$0.535 per share to holders of its US West common stock while not foreseeing paying any regular dividends to holders of its tracking stock. However, it is still possible for the board of directors to change or reinterpret this system at any point. Unlike corporations with two classes of equity in the form of common and preferred, there is no priority for one class to receive distributions over the other. This allows the board to possibly push wealth from one class to the other. Currently, there is no "legal assurance" or precedence in tracking stock structures (see Hass (1996)).

Lastly, neither the holders of the equity of the tracked division nor the tracking parent technically have any strict rights to the respective assets that their equity follows. Instead, upon liquidation of the entire firm, holders of each type of stock share in the remaining value of the corporation only after paying all debt holders. Therefore, although the shares of a tracked division are tied exclusively to the performance of that division, stockholders may have to share value with other divisions upon liquidation. For instance, if a corporation with stock A and tracking stock B decided to liquidate their assets, the debt holders of both A and B would have to be paid off before any

value is released to holders of either equity claim. If the liquidated value of parent A is not enough to repay its debts, the liquidation value of B may be used to satisfy the debts of A. Only after all debts have been satisfied may holders of either A or B receive any value. The crucial problem is that equity holders of either division or parent may be responsible not only for the debt it has issued for its division but for the liabilities of other divisions as well. Many view this as an impediment to takeovers and potential value release to shareholders relative to a spin-off.

On the other hand, tracked divisions still retain some of the advantages of membership in a conglomerate. Asymmetric information between managers and external markets has motivated research postulating that internal capital markets allocate resources more efficiently than outside markets. For instance, a small firm may find it costly to borrow funds in the market even if it has good future prospects. As a division of a corporation, the conglomerate may be able monitor the prospects and success of the subsidiary and thereby provide resources and funding at a lower cost than external markets. This point is made by Weston (1970) and Stein (1997). However, Jensen (1986) and Stulz (1990) argue that one of the inherent problems in large conglomerates is overinvestment in lines of business with poor business prospects. Berger and Ofek (1995) confirm this notion by finding the existence of a diversification discount in conglomerate firms that is positively related to proxies for overinvestment and cross-subsidization.

II. What's important when choosing the divestiture structure?

Previous research identifies several different forces affecting corporate divestitures. Cusatis, Miles, and Woolridge (1993), Daley, Mehtrotra, and Sivakumar (1997) and Desai and Jain (1999) find that value is created from spinning-off divisions in different industries. According to the authors, corporate divestiture is used to separate units that do not

have a beneficial fit, or synergy, with the rest of the conglomerate. In fact, John and Ofek (1995) find that firms who perform asset sales leading to increases in focus also find improvements in “the operating performance of the seller’s remaining assets in each of the three years following the asset sale.” Therefore, the divestiture choice may be based on a manager’s desire to divest divisions with poor fit with the rest of the company or track units it finds complementary to its other business lines.

Similarly, Desai and Jain (1999) and Nanda and Narayanan (1999) show that firms undertake “spin-offs to separate underperforming subsidiaries from the parents.” The restructuring gives managers the opportunity to shed underperforming assets and possibly separate negative NPV from positive NPV projects. If a manager has a choice to spin off or issue tracking stock on a particular division, we might expect managers to shed losing divisions completely through a spin off while holding onto some control of winning divisions by issuing tracking stock. A divestiture choice based on the relative performance of divisions implies that managers will be more likely to track divisions that are “winners” within the company than those that are “losers.”

Billett and Mauer (1999) find value in internal capital markets when the firm is able to use internal resources to invest in divisions that would be financially constrained as single segment firms. On the other hand, Lamont (1997), Scharfstein (1998), Shin and Stulz (1998) and Rajan, Servaes, and Zingales (1999) all find evidence of inefficient cross-subsidization in diversified firms. Internal markets are seen only to be valuable when they can more efficiently allocate resources than external markets. In fact, Billett and Mauer (2000) find that internal market values are positively related to the abnormal returns experienced in tracking stock announcements. If a manager is able to more efficiently allocate resources across divisions than external markets or if she controls financially constrained divisions, then she will be more likely to issue tracking stock.

Hass (1996) cites corporate governance and fiduciary responsibility as two major flaws of the tracking stock structure. The corporate structure essentially limits the control

rights of the shareholders in restrictive ways and gives the manager the opportunity to shift shareholder wealth from one class of equity holders to another. In addition to these new problems with a tracking stock structure, the restructuring does little to mitigate many of the agency problems inherent in a conglomerate. Although we have previously focused on efficient drivers of the divestiture choice, it is of interest to understand how managerial entrenchment and the manager’s desire to control assets, or “empire building”, will shift her interests away from maximizing shareholder value. Therefore, an entrenched manager will be more likely to issue a tracking stock than to spin off a subsidiary to maintain control of the divested division.

Past research (e.g. Hite and Owers (1983), Miles and Rosenfeld (1983), Logue, Seward, and Walsh (1996), Vijn (1999) and Zuta (1999)) documents the abnormal returns associated with different types of corporate restructurings. In this work, we will measure and explain why the spin-off and tracking restructuring create different amounts of shareholder wealth. By measuring the abnormal stock returns for both spin-offs and tracking stocks, we can gauge the relative importance of corporate governance problems and internal capital market benefits in the tracking stock structure. Our aim is to characterize the divestiture choice decision by understanding the driving factors and their implications.

III. Data

Similar to Billett and Mauer (2000), a list of tracking stock divestitures are compiled by searching the Dow/Jones News Interactive for the following key words: “Tracking Stock,” “Alphabet Stock,” “Letter Stock,” “Lettered Stock,” “Target Stock” or “Targeted Stock.” We find 30 incidences of firms announcing and completing a tracking stock divestiture. The first firm to issue a tracking stock is General Motors in June of

1984 when it decided to track Electronic Data Systems. The latest firm to announce a tracking stock is Cabot Corp in July 1999 for its liquefied natural gas business.

A similar list of spin-offs are compiled using the event file database of the Center for Research in Security Prices (CRSP). CRSP identifies non-taxable spin-offs along with other new issues of classes of equity using distribution code 3763. The CRSP events database includes a list of firms possibly performing a non-taxable spin-off and the announcement date of the decision.

We use Dow/Jones News Interactive to verify that the firms identified by CRSP indeed announced and performed a tax-free pro-rata spin-off. Using the news wires, we validate the announcement date given by CRSP. To ensure that the announcement date given by CRSP is the first news release of the company's intentions to divest its division, we search through news articles dating back one year before the CRSP announcement date. Dow/Jones News Interactive encompasses over 6,000 news wires, newspapers, magazines and trade journals so we are confident that any announcement made to the public will be reported by the service at the earliest possible instance.

In order to fully observe the manager when making the divestiture type decision, we need to ensure that she is given the opportunity to use both the spin-off and tracking stock as viable alternatives to each other. For this reason, we start our sample in 1984 when the first tracking stock is announced by General Motors. Using this criterion, we are able to identify a list of 100 non-taxed pro-rata spin-off distributions that have occurred since 1984.

Table I shows the breakdown of spin-offs and tracking stocks by industry categories and by year. Many observers have noted that the use of the tracking stock has been both a recent and industry-specific phenomenon. However, as Table I shows, there is a substantial amount of spread across years and industries. Table II shows the total assets of parent firms and divested units for tracking stocks and spin-offs. We see that

tracking stock divisions and their parents are not substantially larger or smaller than their spin-off counterparts.

Data characterizing the firms in our sample are gathered from a variety of sources. We take return and event data from the Center of Research on Securities Prices (CRSP). Firm- and industry-level data are gathered using Compustat and Compustat Industry Segment⁴ (CIS) databases as well as 10-K, 10-Q, S-8 Securities and Exchange Commission (SEC) filings and the Compact Disclosure Database. Furthermore, executive compensation data is gathered from the Compustat Executive Compensation database, SEC Def14-A Proxy statements and Standard & Poor’s Register.

IV. Methodology and Results

Figure 2 shows how the corporate control problems discussed in Hass (1996) could be holding shareholder value down in tracking stock divestitures. Both tracking stocks and spin-offs have positive abnormal returns after the announcement of a divestiture, as we would expect from the reduction in asymmetric information that accompanies the beginning of periodic SEC filings for the division. However, the returns for firms choosing tracking stock divestitures eventually fall well below the returns of spin-offs after the division. This difference is consistent with the idea of tracking stock divisions being hindered by a single controlling body for two separate interests. Table III presents the statistical significance of the pattern seen in Figure 2.

The main econometric tool used to evaluate the manager’s decision-making process is a logit regression. We proxy the decision as a zero/one variable where zero corresponds to a spin-off decision and a one indicates the issuance of a tracking stock. The logit model is designed to statistically model a dependent variable that takes binary values.

⁴FASB No. 14 and SEC Regulation S-K requires firms to report capital expenditures, earnings before interest and taxes, depreciation, sales and assets for business segments that contribute 10% or more to consolidated firm sales, assets or profits.

Because of our small sample, estimation precision declines quickly as we add explanatory variables. Therefore, we test our remaining variables by comparing means with a simple t-test.

We measure the firm's internal market value using the approach described in Billett and Mauer (1999). The approach isolates segments of the firm that are financing constrained and calculates the segment's returns on investment above that of the industry. Internal resource allocation to segments that are financially constrained is similar to single segment firms that need to borrow from external markets. Weighted by a normalizing agent, this measure gives a proxy of the efficiency of the firm's internal markets to allocate resources to its financially constrained segments.

In Table IV, we present the results from our main logit regression. We find that the internal capital market values of parent firms do not seem to impact the divestiture choice. Billett and Mauer (2000) find that internal capital market value has a significantly positive effect on the abnormal return of tracking stocks after announcement. The authors suggest that the value in a tracking stock structure is derived from the preservation of the internal capital markets and thus may drive the choice decision. Our findings refute this idea by showing that internal capital market value is not a significant predictor of divestiture type. The parameter estimate is -0.17 (p-value of 0.65).

Even though the value of internal capital markets cannot predict divestiture choice, the other aspects of internal synergies could be driving the decision. Our broad measure of industry closeness is the difference in industry classifications. The dummy variable *DIFFIND* indicates a difference between the parent's main SIC code and the division's SIC code at the 2-digit level. Our parameter estimate is -1.20 (p-value 0.0169) indicating that firms with divisions in different industries are significantly more likely to spin off divisions than to track those divisions. In terms of marginal probabilities, firms are 12% more likely to spin off divisions in different industries.

One of the possible reasons firms tend to spin-off divisions in different industries is cost sharing. Costs that have to be borne by every stand-alone division but can be shared between divisions within the same firm have some implications for divestiture choice. It could be that the benefits of cost sharing through the internal goods market make tracking divisions in similar industries a more attractive choice than spinning them off completely. We construct the variable *COSTSHR* to capture the cost sharing a conglomerate might enjoy.

$$\begin{aligned}
 \text{COSTSHR} = & \underbrace{\left(1 / \sum_{i=1}^{N_1+N_2} \text{Sales}_i\right) \left[\sum_{i=1}^{N_1} \text{Costs}_i + \sum_{i=N_1+1}^{N_2} \text{Costs}_i\right]}_{\text{Post-Divestiture}} - \underbrace{\left(1 / \sum_{i=1}^{N_0} \text{Sales}_i\right) \sum_{i=1}^{N_0} \text{Costs}_i}_{\text{Pre-Divestiture}}
 \end{aligned}$$

Since the benefits of cost sharing come through spreading costs across different segments within a firm, the *COSTSHR* variable picks up the cost savings from the stand point of the entire firm. We add the total costs for the synthesized conglomerate after divestiture and subtract from that sum the total costs for all of the segments within the conglomerate before the divestiture. Weighted by sales, this measure gives us total cost sharing per unit of sales. Admittedly, this measure could be picking up the cost differences resulting from divestiture choice rather than the potential cost differences leading to a divestiture choice.

In Table V, we find that cost sharing is not an important aspect of the synergies between a division and the parent when it comes to divestiture choice. We find that there is no significant difference in cost sharing between the firms that divest divisions through tracking stocks and those that spin off divisions. The t-statistic for the difference in means between the cost sharing for tracking stock firms and the cost sharing of spin-off firms is 0.84 (p-value 0.41). Since we also find no significant effect from the value of internal capital markets, the synergies detected with the *DIFIND* variable could be coming from an unmeasured aspect of industry closeness such as information sharing.

As discussed in Nanda and Narayanan (1999) and Desai and Jain (1999), a potential motivation for issuing tracking stocks and spinning off divisions is to keep your winners and shed your losers. If a manager wants to hold on to a firm's best divisions and shed its losing divisions, she may decide to track winning divisions and spin-off losing divisions. Through the mechanism of a tracking stock, she could maintain control of a division with good prospects while still unlocking some of the shareholder value. We investigate this possibility in Table V. We find that managers indeed keep their winners and shed their losers by choosing different divestiture types for the strong and weak divisions. We proxy the relative strength of the parents and child's prospects with the variable *DIFFSALES* which is the difference between the annual sales growth of the division and that of the parent without the division. We find that divisions that are tracked have higher relative sales growth than their spun-off counterparts. The difference between division sales growth and parent sales growth is 0.33 for tracking stock divisions while the difference between division sales growth and parent sales growth is 0.06 for spin-off divisions. The t-statistic for the difference in means is 1.78 (p-value 0.08). In unrepresented results, we find that that the *DIFFSALES* variable is a significant predictor of divestiture choice even when we control for *DIFFIND*, or industry differences.

Our variable measuring a division's performance within its own industry is *CORECOMP*. *CORECOMP* is the difference between the sales growth of the divested division and the median sales growth for firms in the same industry (industries are identified using the division's 4-digit SIC codes). We find that there is a marginally significant effect leading managers to choose to track divisions that are performing well within their industries and spin off divisions that are doing poorly within their industry. The t-statistic for the difference between tracked divisions and spun-off divisions for the variable *CORECOMP* is 1.67 (p-value 0.10). Since *DIFFSALES* seems to be the more important predictor of divestiture choice, we conclude that division performance relative to the rest of the firm is a better determinant of divestiture choice than division performance within the division's industry. In other words, managers tend to track divisions

that are doing well from the firm perspective more than divisions that are doing well from an industry perspective.

As our main proxy for manager entrenchment, we create the dummy variable *BOSS* which indicates when the CEO is also the chairman of the board. Even though it seems intuitive that a manager would want to maintain control of divisions by issuing tracking stocks, we find that manager entrenchment is insignificant predictor of the incidence of tracking stock divestitures in our main regression results (see Table IV). However, Table V shows that in a one-dimensional setting, the *BOSS* variable does do a good job of predicting the incidence of a divestiture being a tracking stock. We find that the CEO is also the Chairman of the Board of Directors in 89% of the firms issuing tracking stocks and in 68% of the firms spinning-off divisions. The t-statistic for the difference in means is 2.67 (p-value 0.01).

As further measures of manager entrenchment, we construct the variables *INSIDE* and *RESIDUAL*. *INSIDE* is the percentage of insiders on the Board of Directors. We find that there is no significant difference between *INSIDE* for the firms issuing tracking stocks and the firms spinning off divisions. We also measure excess compensation with the residual from a simple version of Core, Holthausen, and Larcker (1999)'s model of executive compensation. *RESIDUAL* is intended to capture manager entrenchment by measuring the percentage of manager compensation that is in excess of the average compensation for a CEO in a similar industry managing a firm of similar size with similar past performance in similar market conditions. We find that there is no significant difference in *RESIDUAL* between firms that issue tracking stocks and firms that spin off divisions. Even though the CEO being the chairman is a significant predictor of the incidence of tracking stocks in firm divestiture, other measures of manager entrenchment do not seem to predict the choice of tracking stock as a method of divestiture.

V. Conclusion

This paper investigates the decision to issue a tracking stock or spin-off a division as a means of divestiture. Using a sample of spin-offs and tracking stocks that are both tax-free pro-rata distributions, we find that:

- Firms that issue tracking stocks have poor long-term market-adjusted stock performance when compared to firms that choose to divest units through a spin-off.
- Internal capital market value is not an important predictor of the choice of a tracking stock over a spin-off.
- Divisions in industries different from their parents' are significantly more likely to be spun off than to be tracked. However, cost sharing does not seem to be an important part of the decision to divest through a tracking stock over a spin-off.
- Divisions that outperform the parents are significantly more likely to be tracked than to be spun off, and divisions that perform better than their industry medians are marginally more likely to be tracked than to be spun off.
- Firms where the CEO is also the chairman of the board of directors are more likely to issue tracking stocks than to spin off divisions, but other measures of manager entrenchment do not predict the divestiture choice.

Future expansions of this research will focus on extending both our analysis and our dataset. We would like to check the robustness of our results using different proxies for focus, managerial entrenchment and internal market values. Furthermore, a closer investigation of other synergies that may be driving the divestiture choice will be performed using inter-segment sales data as well as other new datasets.

We will also be expanding our analysis to look at the post-divestiture implications of the manager's choices. For instance, it is of interest to understand how financial analyst following is affected by the introduction of a tracking stock or spin-off. Furthermore,

since the divestiture is seen as a way to separate assets with different characteristics (e.g. a growth division from a value division), we would like to investigate how mutual funds and other institutions decide to change their holdings of the parent and division after the separation. We expect more institutional ownership change the more differentiating the divestiture is. Intuitively, we also expect differences in holdings between the two types if investors view the tracking stock and spin-off as equities with different structures. Finally, we would like to explore how each of the driving factors affects post-divestiture performance of the tracking stock companies. In the spirit of Billett and Mauer (1999), we plan to measure the correlation between post-divestiture stock performance and each of the factors we identified as relating to the divestiture choice.

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Figure 1. Divestiture Decision Tree

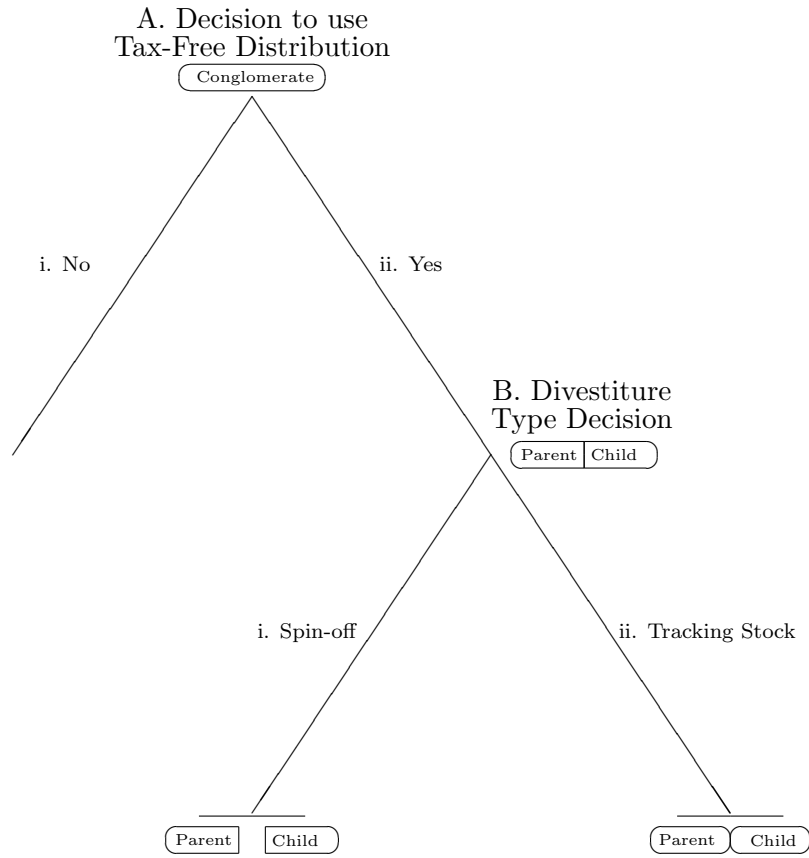


Figure 2. Market-Adjusted Returns For Combined Parent and Divested Division

Average cumulative returns for firms issuing tracking Stocks and firms issuing spin-offs. After divestiture, we combine the two stocks according to the ratio of their assets. Market-adjusted returns are stock returns minus the return of the S&P 500 index.

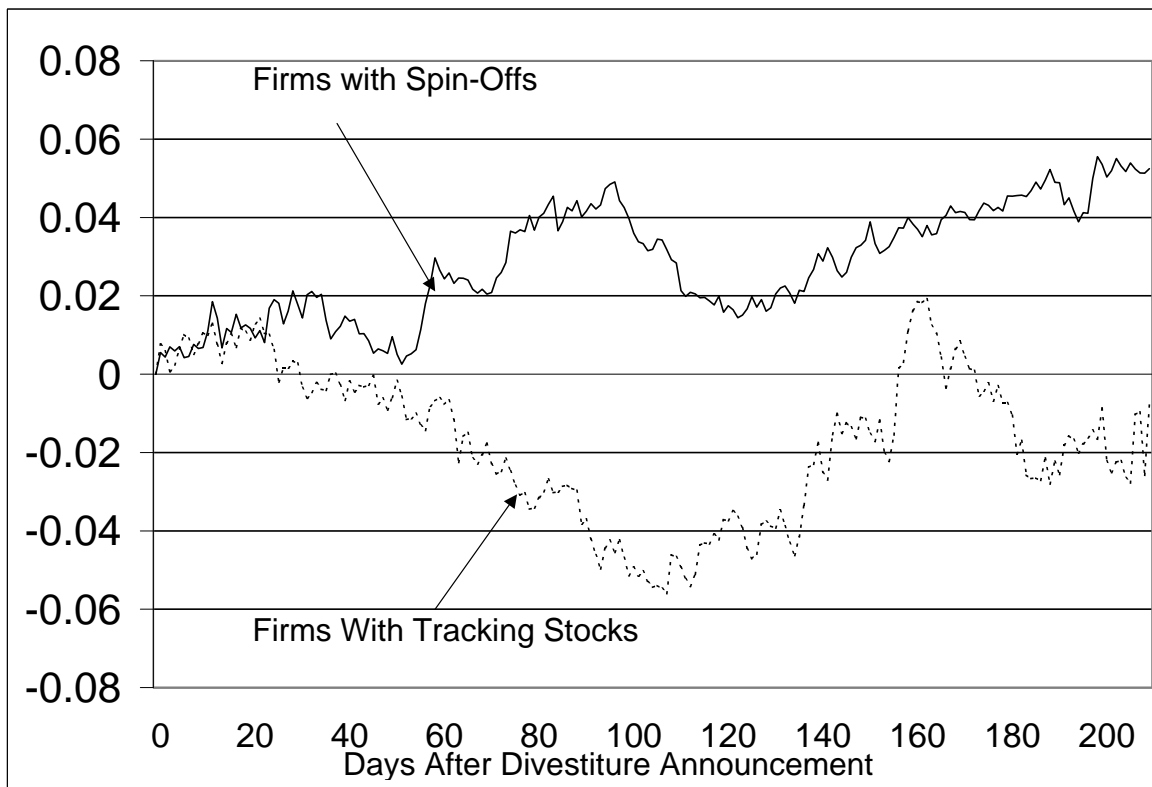


Table I
Sample Summary Statistics

Panel A lists the number of spin-offs and tracking stocks issued in each industry. Panel B shows the number of spin-offs and tracking stocks announced in each year.

Panel A: Divestiture Type By Industry

Industry Group	Tracking Stocks	Spin-Offs	Total
Metals, Gas Extraction and Construction	2	2	4
Food, Clothing, Wood and Plastic Products	8	18	26
Household and Industrial Equipment	6	30	36
Transportation, Communication and Utilities	6	9	15
Wholesale and Retail Trade	2	9	11
Financial and Real Estate	0	15	15
Hotel, Business, and Entertainment Services	1	10	11
Health, Legal, Education and Government Services	2	2	4
Total	27	95	122

Panel B: Divestiture Type By Year

Year	Tracking Stocks	Spin-Offs	Total
1984	1	3	4
1985	1	5	6
1986	0	5	5
1987	0	4	4
1988	0	5	5
1989	0	4	4
1990	0	5	5
1991	1	3	4
1992	1	6	7
1993	2	5	7
1994	2	8	10
1995	3	6	9
1996	3	12	15
1997	2	11	13
1998	4	13	17
1999	7	0	7
Total	27	99	122

Table II
Firm Size

Total assets (in Millions) for firms initiating divestitures (*Parent Firms*) and divested units (*Child Firms*) by divestiture type.

Variable	Divestiture Type	Mean	25% Quartile	Median	75% Quartile
Parent Assets	Tracking Stocks	9352.14	767.02	1519.31	11799
	Spin-Offs	120057.54	1049.06	2295.44	7395
Child Assets	Tracking Stocks	2497.76	139.000	572.077	1347.55
	Spin-Offs	22028.12	149.197	519.995	1668.46

Table III
Event Study Statistics for the Divestiture Decision

Cumulative daily returns for firms issuing tracking stocks and firms issuing spin-offs. After divestiture, we combine the two stocks according to the ratio of their assets. Market-adjusted returns are stock returns minus the return of the S&P 500 index. The J-Statistic is equivalent to the J_1 statistic described in Campbell, Lo, and MacKinlay (1997). The market-adjusted returns correspond to those in Figure 2.

Event Window	---Raw Returns---			---Market-Adjusted Returns---		
	Cumulative Return	J-Stat	Normal Probability	Cumulative Return	J-Stat	Normal Probability
<i>Firms With Tracking Stocks</i>						
AN through AN+2	0.0088	1.48	0.93	.0007	0.11	0.54
AN through AN+12	0.0202	5.18	1.00	0.0077	1.83	0.97
AN through AN+100	0.0204	5.63	1.00	-0.0498	-13.45	0.00
AN through AN+200	0.1666	40.47	1.00	-0.0204	-4.91	0.00
<i>Firms With Spin-Offs</i>						
AN through AN+2	.0091	3.11	0.99	.0070	2.51	0.99
AN through AN+12	0.0207	6.47	1.00	0.0143	4.43	1.00
AN through AN+100	0.1138	37.28	1.00	0.0359	11.81	1.00
AN through AN+200	0.2012	62.40	1.00	0.0500	15.67	1.00

Table IV
Divestiture Decision Logit Regression

$$\log(p/(1 - p)) = a + bINTERNAL_i + cDIFFIND_i + dBOSS_i + \epsilon_i.$$

Logit regression of the probability of a divestiture being a tracking stock, p , on internal market value, $INTERNAL$, a dummy variable indicating industry difference at the 2-digit SIC code level, $DIFFIND$, and a dummy variable indicating that the CEO is also the chairman of the board $BOSS$. There are 22 tracking stocks and 81 spin offs in the regression.

Parameter	Estimate	Standard Error	P-value	Marginal Probability
b	-0.17	0.37	0.65	-0.00
c	-1.20	0.50	0.02	-0.12
d	0.88	0.69	0.21	0.17

Table V
Mean Differences for Explanatory Variables

We compute sample means and standard deviations for firms that issue tracking stocks and firms that issue spin-offs. The t-statistic and the p-value are for the null hypothesis that the means are equal across the two samples but that the variances are not necessarily the same. *DIFFIND* is a dummy variable indicating that the parent's main 2-digit SIC code differs from that of the child. *COSTSHR* is a measure of the the costs added to the firm when it splits up on a sales-adjusted basis. *COSTSHAR* is further explained in Section IV. *INTERNAL* is Billett and Mauer (1999)'s measure of the value of internal capital markets before divestiture. *DIFFSALE* is the difference between the annual sales growth of the division and the annual sales growth of the parent without the division. Pre-divestiture growth rates are used whenever possible, otherwise, the first available growth rates are used. In all cases, sales growth is measured over the same time period for the parent and division. *CORECOMP* is the difference between the sales growth of the division and the median sales growth of firms in the division's 4-digit SIC code industry. *INSIDE* is the number of employees on the Board of Directors divided by the total number of directors. *BOSS* is a dummy variable indicating that the CEO is the chairman of the Board of Directors. *RESIDUAL* is a simplified version of Core, Holthausen, and Larcker (1999)'s measure of excess compensation. Specifically, it is the residual from a regression of total annual salary (i.e. salary+bonus+other compensation) on market return, lagged firm sales, lagged 5-year average of market-to-book value and dummy variables for a firm's industry (as defined by the firm's 1-digit SIC code) divided by the manager's total annual salary. The regression is estimated over the entire sample of COMPUSTAT's Executive Compensation database (1992-1998).

Variable	Divestiture Type	N	Mean	Standard Deviation	t-statistic	p-value
<i>Synergies</i>						
DIFFIND	Tracking Stock	26	0.38	0.50	-2.76	0.01
	Spin-Off	95	0.68	0.47		
COSTSHR	Tracking Stock	10	0.03	0.05	0.84	0.41
	Spin-Off	72	0.01	0.11		
INTERNAL	Tracking Stock	23	-0.08	0.96	0.27	0.79
	Spin-Off	91	-0.15	1.01		
<i>Performance</i>						
DIFFSALE	Tracking Stock	21	0.33	0.65	1.78	0.08
	Spin-Off	83	0.06	0.61		
CORECOMP	Tracking Stock	21	0.23	0.55	1.67	0.10
	Spin-Off	79	0.00	0.59		
<i>Manager Entrenchment</i>						
INSIDE	Tracking Stock	26	0.24	0.19	-1.21	0.23
	Spin-Off	94	0.29	0.18		
BOSS	Tracking Stock	27	0.89	0.32	2.67	0.01
	Spin-Off	90	0.68	0.47		
RESIDUAL	Tracking Stock	20	-0.26	1.07	1.53	0.13
	Spin-Off	50	-1.17	3.84		