Managers in the familiar and their divestment decisions

James Ang
Florida State University
Department of Finance
e-mail: jang@cob.fsu.edu

Abe de Jong
RSM Erasmus University
Department of Financial Management
e-mail: ajong@rsm.nl

Marieke van der Poel
RSM Erasmus University
Department of Financial Management
e-mail: mpoel@rsm.nl

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Correspondence
Marieke van der Poel, Department of Financial Management (Room T08-41), RSM Erasmus University, PO Box 1738, 3000 DR Rotterdam, The Netherlands; Phone: +31 10 408 1528; Fax: +31 10 408 9017

Abstract – In this paper, we argue that CEOs' sense of familiarity with segments has an impact on their divestiture decisions. CEOs may be more confident on segments they are familiar with and thus may overestimate the future returns and underestimate the risk of these segments. Based on these characteristics of familiarity, we hypothesize that managers are less likely to divest segments they are familiar with relative to segments they are unfamiliar with. We classify CEOs as being familiar with a segment based on their working experience related to the segment. Consistent with our hypothesis, our empirical results indicate that CEOs are more reluctant to partially divest segments they are familiar with.

1. Introduction

Divestitures are an important component of corporate restructuring. During the last two decades, several studies examined the reasons why firms choose to divest. The three major reasons are as follows. First, firms divest in order to reallocate assets to higher-valued users, who can manage the assets more efficiently (Jain, 1985; Hite *et al.*, 1987). Second, Lang *et al.* (1995) argue that managers pursue their own objectives and value size and control, which makes them reluctant to sell assets for efficiency reasons only. The authors come up with the financing hypothesis, which states that firms divest assets when external financing is too expensive and internal financing is insufficient. The third reason to divest is in order to focus (John and Ofek, 1995). Firms want to decrease the degree of diversification, which can make a firm more efficient. Hence, focusing can improve the performance of the firm's remaining assets.[1]

Each of the reasons to divest has an impact on the firm's decision in the selection of segments for divestiture. Accordingly, Schlingemann *et al.* (2002) find that non-core segments and segments with lower cash flows are more likely to be divested. Also, Dittmar and Shivdasani (2003) show improved segment investment efficiency after a sell-off, which is attributable to the increase in focus and financial sources provided by the divestiture. All of these arguments are based on rational explanations. In this paper we propose an alternative explanation for the choice of segment from a behavioral perspective. In particular, we examine CEOs' personal preferences for segments due to working experience in the segment or in the same industry as the segment inside or outside the firm. We explain this as CEOs being familiar with a segment.

Individuals consider themselves as more knowledgeable when they are in the familiar. According to the competence hypothesis as developed by Heath and Tversky (1991), individuals rather bet on events of which they consider themselves knowledgeable than on matched chance events. The authors explain this preference in terms of an imbalance between credit and blame induced by knowledge. Knowledge helps individuals to take credit for success and can provide protection against blame when they fail, whereas ignorance has the opposite effect. CEOs that are familiar with

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[1] See Martin and Sayrak (2003) for a survey of recent literature on diversification.

segments due to working experience feel more knowledgeable and prefer to make decisions about these segments compared to unfamiliar segments. Another effect of familiarity with events is that people perceive these events as more controllable (Langer, 1975). Langer (1975: p313) defines the illusion of control as the "expectancy of a personal success probability inappropriately higher than the objective probability would warrant." Taking both effects together, CEOs are expected to be more confident on lines of business they are familiar with.[2] Behavioral corporate finance studies examine overconfidence normally as a general characteristic of managers/CEOs (see e.g. Roll, 1986; Garvais *et al.*, 2003; Hackbarth, 2004; Malmendier and Tate, 2005a; b). In contrast, we study overconfidence in specific assets. Existing studies argue that overconfident CEOs overestimate future returns and underestimate risk.[3] Familiarity is overconfidence in a certain segment, which suggests that CEOs look more favorably upon familiar segments relative to unfamiliar segments in terms of future returns and risk. As a result, CEOs in the familiar may behave irrational and non value maximizing. We hypothesize that CEOs are more likely to divest assets they are unfamiliar with, while it is rational to retain these assets. Similarly we hypothesize that CEOs are more likely to retain assets they are familiar with, while it is rational to divest these assets.

We classify each of the segments in a CEO's firm based on three types of familiarity of a CEO with a segment. First, CEOs are familiar with a segment, when they have previously been employed in this segment. CEOs feel more knowledgeable about business segments they worked for. This segment is also the CEO's political powerbase, making them more actively involved in decision making within this segment, which

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[2] In the market microstructure literature, Huberman (2001) also examines the familiarity bias. In particular, the author finds that US households are more likely to invest in their local regional Bell operating firm than other regional Bell operating firms. Moreover, these investors seem to have static "buy-and-hold" portfolios. The author interprets his results as the behavior of people looking favorably upon stocks with which they are familiar and as a consequence believing that these stocks deliver higher returns, at lower stock-specific risks. This tilts the portfolio weights toward familiar stocks. Huberman (2001) explanation is consistent with survey results of Strong and Xu (2003), who find fund managers to be more optimistic about their home market than are investors from other countries.

[3] Behavioral corporate finance studies provide different definitions for overconfidence. We choose for the definition of Malmendier and Tate (2005a; b)

strengthens the illusion of control of events within the segment (see Langer, 1975). The second proxy concerns firm segments operating in the same industry as the segment a CEO worked for. This proxy allows CEOs not only to be familiar with segments where there worked for, but also with industry related segments. Third, we classify a CEO as familiar, when (s)he worked in the same industry outside the firm.

To investigate our hypothesis, we analyze business segments of multi-segment firms that announce a divestment. Three groups of segments are considered; (1) segments without any divestments, (2) fully divested segments and (3) partially divested segments. The latter group contains segments from which the firm divests assets and remains reporting this segment afterwards. Schlingemann *et al.* (2002) and Dittmar and Shivdasani (2003) only consider fully divested segments. We contribute to the literature by also examining partially divested segments. Even though this group of segments is substantial, we are not aware of studies that examine this group.

To examine whether CEOs are reluctant to divest more familiar assets, we first estimate a binary logit regression in which we predict from which segments firms should divest based on rational explanations. Subsequently, the predicted values of this regression provides us with four types of groups; (1) segments that are predicted to be divested and get divested, (2) segments that are predicted to be divested, but are retained, (3) segments that are predicted to be retained and are retained and (4) segments that are predicted to be retained, but are divested. The second and the fourth group deviate from what the model predicts. According to our hypotheses, familiarity is related to these deviations.

Our results show considerable differences between the fully divested segments and partially divested segments. Firms seem to have different reasons to divest a part of a segment or the whole segment. Accordingly, we consider firm years with fully divested segments and firm years with partially divested segments as a separate group. We find no evidence that CEOs are influenced by their sense of familiarity with segments when they have to choose which segment to fully divest. Rather, the main reasons for the choice which segment to fully divest are performance and the relative size of a segment, which is consistent with the efficiency and financing explanations as proposed in the literature. The partially divesting sample shows different results. Larger segments of which the

industry has higher cash flows and more growth opportunities are more likely to be divested. Also, if firms have decided to divest, CEOs are less likely to choose to divest segments they are familiar with relative to unfamiliar segments. The latter findings are consistent with our hypotheses.

We have to acknowledge that our results may be driven by self selection. Managers that work for larger and more successful segments are more likely to be selected as CEOs. As a result, they are less likely to divest (part of) these segments, due to its previous success. However, this is not consistent with the predicted values of our divestment model which shows a clear positive relation between the predicted values to divest and familiarity. In other words, after controlling for rational reasons why a certain segment should be divested, the proportion of segments that should be divested according to the model is also the highest proportion of segments with familiar CEOs and the other way around. This may indicate that due to this self selection procedure of CEOs, these CEOs retain segments they are familiar with for a longer period, while they should be divested.

The remainder of the paper is organized as follows. We discuss the data selection procedure and variables in Section 2. Section 3 provides the analysis in two parts. The first part examines CEOs' choice which segment to divest based on rational grounds. The second part investigates the impact of CEOs' familiarity with segments on their choice which segment to divest. In Section 4, we provide a conclusion of our analysis.

2. Data

Our initial sample is drawn from the COMPUSTAT Business Information File and the Securities Data Corporation (SDC) file. We select COMPUSTAT data of firms with at least two business (or operating) segments for the period 1994-2004.[4,5] As in

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[4] A firm may also have 2 segments prior to the divestment year.

[5] Since 1977, SFAS 14 requires firms to report information for segments with 10% or more of consolidated sales. Under SFAS 14, firms have to define segments by industry groupings of products and services sold to external customers (also called the "industry approach"). However, in 1997 the Financial Accounting Standards Board (FASB) changed the requirements for the definition of segments by issuing SFAS 131, which supersedes SFAS 14. SFAS 131 takes the form of a "management approach", requiring firms to identify segments that correspond more closely to internal decision making regarding business segments.

Schlingemann *et al.* (2002), we select firms with sales more than $20 million or assets more than $100 million, we exclude American Depository Receipts and firms that are not incorporated in the US. We also omit firms years that operate in regulated industries (SIC 4900 – 4999). Like Berger and Ofek (1995) and Schlingemann *et al.* (2002), we require that the sum of segment sales does not deviate more than 1% from total firm sales. If the deviation is more than 1%, the firm will be excluded from our sample. This leaves us with a sample of 6,067 firm years of 1,058 firms for the period 1994-2004. For the period 1996-2004 we have 5,251 firm years of 1,009 firms.

Subsequently, we search the SDC database for all completed divestments of which more than 95% of the shares get acquired and are owned by the buying firm after transaction (as in McNeil and Moore, 2005)) in the period 1996-2004. To investigate whether familiar CEOs retain familiar segments that should be divested, we link the divested assets with the business segments as reported by COMPUSTAT. This provides us a dataset of 1,317 firm years from 530 firms that divest during our sample period. Firms often divest part of a business segment instead of a whole business segment. However, it is not always clear to which segment the divested assets belong. We use the synopsis about the divestiture and SIC codes and business description of the divested assets provided by SDC. If the link remains ambiguous, we check the annual report for segment descriptions and search for descriptions of discontinued operations. In case we have no clarity in classification, we exclude the firm year with the divestiture from our sample. We require segments to have at least 2 years of data prior to the divestment, otherwise we exclude the firm year of this segment. During our sample period, several firms changed their segment reporting after the introduction of SFAS 131. This is not necessarily a problem, because COMPUSTAT provides revised historical financial information of the new segments of 2 years prior to the new segment reporting when firms report this information in their annual reports. If this information is not available, we delete the firm year. Finally, similar to Lamont (1997), we exclude segments with corporate financial information and "elimination" segments.

For a detailed analysis of the impact of SFAS 131 on segment reporting, see Herrmann and Thomas (2000), Street *et al.* (2000) and Berger and Hann (2003a; b).

CEOs are familiar with assets through experience in a certain industry. They can develop experience in a certain industry at two levels. That is, inside the divesting firm and outside the divesting firm. Inside the firm, we tabulate CEOs as familiar with a certain segment, when (s)he worked for this segment before becoming a CEO. This segment is the political power base of the CEO. Besides, segments can operate in similar industries based on two-digit SIC codes within the same firm. We also classify a CEO as familiar with a segment, when (s)he worked for a segment within the firm in the same two-digit SIC code industry. In a similar way, we check SIC codes of firms where a CEO worked for outside the divesting firm. In case the two-digit SIC code corresponds with a segment, the CEO is familiar with this segment. We derive CEO information from the Marquis Who is Who database and from Hoovers. If necessary, we check details in the SEC 10-K filings. We exclude firm years in which CEOs are familiar with all or with none of the firm's segments. We have two reasons for eliminating these firm years. First, not all sources provide detailed information about the CEO's experience within or outside the firm. E.g. the sources can provide the information that the CEO has worked for the firm since 1970, but not for which divisions the CEO worked. The CEO obviously worked for certain divisions unless (s)he only worked on a corporate level. The second reason is that we are doing a segment level analysis and are interested in the impact of familiarity on divestment decisions.

Table 1 shows the selection procedure of our sample.

-   Insert Table 1 –

Our final sample consists of 679 segments and 1,247 segment years of which 63 segments are fully divested, 398 segments are partially divested and 786 segments are retained. The sample contains 355 firm years from 161 firms and 187 CEOs.

To predict which segments should be divested and which segments should be retained, we define a number of variables. We derive segment sales, assets, cash flow (calculated as operating profit plus depreciation and amortization), net capital expenditures (calculated as gross capital expenditures minus depreciation and amortization), primary and secondary SIC codes from the COMPUSTAT Business

Information File. Furthermore, we derive firm level variables, variables to calculate the segments' Tobin's q, segment industry adjusted measures and the firm's primary SIC code from the Annual COMPUSTAT File. As in the Schlingemann *et al.* (2002) paper, we proxy the segment's Tobin's q as the median industry q of all COMPUSTAT firms with the same two-digit SIC code as the segment one year prior to the divestment announcement. The Tobin's q is the ratio of the market value of assets to the book value of assets. The market value of assets is calculated as total assets (item 6) plus market equity minus book equity. Market equity is calculated as common shares outstanding (item 25) times fiscal year closing price (item 199). Book value of equity is defined as stockholders' equity (item 216) minus preferred stock liquidating value (item 10) plus balance sheet deferred taxes and investment tax credit (item 35) if available minus post retirement assets (item 336) if available. The book value of assets is total assets (item 6).[6] To retain comparability, we also use the same methodology as Schlingemann *et al.* (2002) for the industry adjustment measures. The industry adjusted variables are calculated as the segment variable minus the median of all COMPUSTAT firms with the same two-digit SIC code in the fiscal year prior to the divestiture announcement. We use item 12 for firm sales, item 6 for total assets, item 13 for cash flows, item 128 for gross capital expenditures and item 14 for depreciation and amortization. For a reliable industry measures, we require at least 5 firms that operate in the same industry.

3. Analysis

This section consists of two parts. In the first part, we examine CEOs' choices which segment to divest based on rational grounds. We discuss the descriptive statistics of the fully divested segments, partially divested segments and retained segments. Subsequently, we estimate binary logit regressions to predict which segments are (partially) divested based on rational ground. The second part investigates the impact of CEOs' familiarity with segments. First we describe differences between familiar segments and unfamiliar segments. Then familiarity is related with CEOs' choice of which segment to divest.

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[6] We use similar data items for calculating Tobin's q as Malmendier and Tate (2005a; b)

3.1. *Divested segments based on rational grounds*

The choice between which segment to divest depends on the motives for divestment. If other firms can manage the assets more efficiently, firms will divest (a part of their) segments with lower performance and lower sales growth compared to their industry peers. Financing needs may trigger firms to divest (a part of their) segments that weighs down financial sources for other investments. In other words, these may be segments with high capital expenditures and low cash flows. The cash flows should not necessarily be low compared to industry, but could also be the lowest cash flows compared to the other segments within the firm or segments with negative cash flows. Finally, firms that divest because they want to focus on their core business divest their unrelated segments.

Table 2 provides the descriptive statistics of fully divested segments, partially divested segments and retained segments. Panel A shows the segment statistics and Panel B shows the industry adjusted statistics.

-    Insert Table 2 –

Strikingly, fully divested segments differ considerably from partially divested segments. This difference indicates that studies, which compare fully divested segments with retained segments, such as Schlingemann *et al.* (2002) and Dittmar and Shivdasani (2003), investigate a relatively small and specific group of divestitures. Due to these differences, we consider firm years in which firms partially divest segments apart from firm years in which they fully divest segments.[7] To our knowledge, no other study investigates partially divested segments even though this group is substantial.

The sample of fully divesting firm years consists of 152 retained segments and 63 fully divested segments. The Table shows similar results as the findings of Schlingemann *et al.* (2002) and Dittmar and Shivdasani (2003). Fully divested segments are significantly smaller, experience significantly lower sales growth and significantly lower

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[7] Obviously, our sample also consists of firm years with both a full divested segment and partially divested segment. We consider these firms in both samples. However, we exclude the partially divested segments of these firm years from the fully divesting sample. Also, the fully divested segments are excluded from the partially divesting sample.

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cash flows than retained segments in the years prior to the divestment announcement. This also applies for the industry adjusted differences. Furthermore, 43.5% of the divested segments are the worst performing segments within a firm year, whereas only 20.9% of the retained segments are the worst performing segments. Moreover, 8.1% of the divested segments have negative cash flows compared to 2.0% of the retained segments. While the amount of worst performing segments remains similar when we adjust the performance measure for industry performance, the amount of segments with industry adjusted negative cash flows changes remarkably. After adjusting for industry cash flows, 44.3% of the divested segments have negative cash flows instead of 8.1% and 26.7% of the retained segments have negative cash flows compared to 2.0%. Consistent with the focusing explanation, relatively more retained segments are core segments (48.7%) compared to fully divested segments (28.6%). In contrast to the findings of Schlingemann *et al.* (2002), segment capital expenditures and the segments' Tobin's *q* do not show any significant difference between fully divested and retained segments.

The sample with partially divesting firm years consists of 398 partially divested and 685 retained segments. This sample shows very different results compared to the fully divested segments sample. In contrast to fully divested segments, partially divested segments are larger and experience higher sales growth compared to retained segments. When adjusting for the industry median, partially divested segments remain to be larger than retained segments. There is no significant difference in cash flow performance between both types of segments. In fact, approximately 29% of the segments of both the retained and divested segments are the worst performing segments and approximately 4% of both types of segments have negative cash flows. Note that the percentage of segments with negative cash flows also increases dramatically in this sample, when the cash flows are adjusted for the industry median, i.e. 28% for partly divested segments and 29.4% for retained segments. The difference remains insignificant. Capital expenditures growth is significantly higher for partially divested segments. Finally, a surprising result is the significantly higher percentage of core segments in the partially divested segment sample compared to the retained segments sample.

The descriptive statistics show a striking contrast between the firm years in which segments get fully divested and firm years in which segments get partially divested. The

results of the fully divestment sample generally provide results consistent with the efficiency, financing and focusing explanation. However, firms probably have different motivations to partially divest segments compared to fully divest segment. A possible explanation for this size effect is that larger segments are more difficult to completely sell and therefore are more likely to be partially divested. However, this does not explain the difference between retained and partially divested segments. Larger segments are mostly the core business of the firm, which also explains the higher percentage of core segments that get partially divested. Possibly, due to the focus on core business, these segments are subject to constant review in order to remain competitive and therefore may be more likely to be partially divested. This possible explanation is also consistent with the higher sales growth of partially divested segments, which Schlingemann *et al.* (2002) describe as segments having more growth opportunities and their higher capital expenditures.

In this paper, we are interested in whether CEOs behave irrational in the sense that they choose to retain familiar segments that should be divested and divest unfamiliar segments, while these should be retained. Therefore, we estimate binary logit regressions in which we aim to predict which segments CEOs rationally choose to divest if they divest. The dependent variable takes on the value of 1 for (partially) divested segments and 0 for retained segments. For comparability reasons, we use the same variables as Schlingemann *et al.* (2002).[8] The results are tabulated in Table 3 with regression 1 and 2 for the fully divesting firm years and regression 3 and 4 for the partially divesting firm years.

-    Insert Table 3 –

Except for the insignificance of the core dummy, the results of regression 1 correspond with the results of Schlingemann *et al.* (2002)'s regression. In particular,

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[8] Schlingemann *et al.* (2002) also include asset liquidity in their regression. The authors argue that asset liquidity builds on the efficiency and financing hypothesis. That is, if firms choose to divest for these reasons, they are more likely to divest segments operating in more liquid markets. We do not include asset liquidity in our regression as asset liquidity is not the focus of our paper and we include variables to explain divestments for efficiency and financing reasons.

firms are more likely to fully dispose of relatively smaller segments and segments with lower cash flows. The negative significant coefficient for cash flows is consistent with both the financing and efficiency reason to divest. The difference between both reasons to divest comes in with industry comparison. The efficiency explanation implies that firms divest segments, when their industry peers can manage these assets more efficiently and hence perform better. Segments which are divested for financing reasons restrain financial sources from the firm and hence are bad performers, but not necessarily compared to industry peers. The coefficient of the industry median cash flows indicates that firms divest segments due to low performance, yet without taking into account industry performance.[9] Thus, the financing reason appears to be the most important motive for the choice of segment, even though the capital expenditures coefficients are not significant.

If firms need financial sources, while external sources are too expensive, it is more likely that this firm chooses to divest its worst performing segment (Schlingemann *et al.*, 2002). A worst performing segment within one firm may be a better performing segment than segments within other firms. In other words, cash flows on itself do not fully explain a firm's divestiture choice. Furthermore, a segment with negative cash flows withdraws money from other segments that could have been used for other purposes. This phenomenon refers to the cross-subsidization literature, which has received a lot of attention (see e.g. Berger and Ofek, 1995; Lamont, 1997; Shin and Stulz, 1998; Rajan *et al.*, 2000; Scharfstein and Stein, 2000). If segments have negative cash flows for too long they would not have survived as a stand alone firm. For these reasons, we add a dummy variable for the worst performing segment and a dummy variable for negative cash flows within a segment in regression 2. The results show that firms are more likely to divest the worst performing segments. The negative cash flow dummy is not significant.

The partially divesting firm years sample shows different results confirming our previous suggestion that firms partially divest segments for different reasons. Regression 3 and 4 from Table 3 indicate that relatively larger segments, segments with higher

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[9] When only including industry adjusted cash flows instead of segment cash flows and the industry median cash flows as separate variables, the coefficient is significantly different from zero (-3.17 with *p*-value 0.008). However, this result may be driven by the segment cash flows and not the industry adjustment.

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industry median cash flows and segments with more growth opportunities are more likely to be partially divested than retained. As we advanced before, firms may continuously review their most important segments to remain efficient and competitive. The most important segments are those that are relatively larger and have greater growth opportunities. A possible explanation for the positive and significant coefficient of the industry median cash flows is the agency explanation as proposed by Jensen (1986). Industry peers with high cash flows are more likely acquire assets and hence firms that have segments within this industry are more likely to sell part of their segment.

3.2. *The impact of familiarity on the choice which segment to divest*

So far, we have examined the factors that drive CEOs' rational choice to divest segments. This section investigates whether CEOs behave irrational in the sense that being familiar with segments influences their choice which segment to divest. First, the three proxies for familiarity will be described. Next, we examine the relation between familiarity and the choice which segment to divest.

Table 4 provides the means and mean differences between familiar and unfamiliar segments.

- Insert Table 4 –

The first proxy for being familiar with a segment is powerbase, which is defined as the segment where the CEO has previously been employed before becoming a CEO. The results show that 361 segments in our sample are powerbases compared to 886 non-powerbase segments. Powerbases are larger segments, which are more successful in terms of larger sales growth and having negative cash flows less often. Also, 70.6% of the powerbase segments are core segments, which is significantly more than the 44.2% of the non-powerbase segments. This difference may be related to the fact that larger segments are more likely to be core-segments. The characteristics of powerbase segments indicate that CEOs have their powerbase in larger and more successful segments. This result may be driven by the selection process for a CEO or by investment decisions after being appointed. In line with our expectations, we find that in this univariate comparison

a higher percentage of non-powerbase segments (5.9%) get fully divested compared to powerbase segments (3%). This result suggests that CEOs tend to retain segments they are familiar with. However, there is no significant difference in the percentage of partially divested segments between the powerbase and non-powerbase segments.

The second proxy for familiarity is inside industry working experience. CEOs are familiar with segments if they worked in the same industry within the firm of which they are CEO. Our sample consists of 616 inside industry experience segments and 631 segments where CEOs do not have inside industry experience. Note that powerbases are always segments where CEOs have inside industry working experience, but also includes segments in the same industry where the CEO has not been employed before. Moreover, 58.6% of the segments where CEOs have inside industry working experience are also powerbases, while no powerbases exist in the sample of segments where CEOs have no inside industry working experience. Not surprisingly, the inside industry proxy gives similar results as the powerbase proxy. That is, the segments where CEOs have inside industry experience are larger, are core-segments more often and experience higher sales growth. Again, we find a significant difference in the percentage of fully divested segments and no significant difference in the percentage of partially divested segments between familiar segments and unfamiliar segments. Two variables provide different results. First, the Tobin's q of segments where CEOs have inside industry working experience is significantly higher compared to segments where CEOs have not such working experience. Probably, CEOs get selected from industries with higher growth opportunities. Second, the results show a clear selection procedure of CEOs in terms of industry working experience. When CEOs have no industry working experience within the firm, they rather have industry working experience outside the firm.

The third proxy for familiarity with segments is working experience outside the CEO firm in the same industry as the industry of the segment. Our results show that CEOs are familiar with 310 segments due to outside industry experience in relation to 937 segments with which they are not familiar. Unexpectedly, the outside industry experience segments are smaller in terms of absolute sales compared to segments where CEOs do not have outside industry experience. Nevertheless, the outside industry experience segments are relatively larger and have a higher stake of core-segments. We

find no difference in the percentage of fully or partially divested segments between familiar and unfamiliar segments.

Now that the features of segments with which CEOs are familiar are known, we can examine whether CEOs are more likely to retain familiar segments by divesting unfamiliar ones. In Section 3.1, we have estimated logistic regressions with standard economic variables explaining which segments are rational to divest if firms choose to divest. By using a similar approach as Jung *et al.* (1996), we predict which segments should be divested based on regression 2 for the fully divested segments sample and regression 4 for the partially divested segments sample from Table 3. Segments with the lowest predicted values are expected to be retained, whereas segments with the highest predicted values are expected to be divested. For the fully divested segments sample, we split the group of predicted values into 4 quartiles. Quartile 1 and 2 are groups of segments that are predicted to be retained and quartile 3 and 4 are groups of segments that are predicted to be divested. To check whether segments that are predicted to be divested or retained actually are, we split all quartiles into groups of segments that actually get divested and groups of segments that are actually retained. Next, we calculate the percentage of segments with which CEOs are familiar per group and check whether these percentages differ significantly. Table 5 Panel A provides the results.

-   Insert Table 5 –

Even though the previous analysis suggests that CEOs choose to fully divest familiar segments less often, Table 5 shows no significant differences in familiarity between the correctly predicted group of segments and the against type segments. This result applies for all of the three proxies for familiarity. So, after controlling for rational explanations as to which segment to divest, familiarity does not influence CEOs in their decision which segment to fully divest. It should be noted that the number of observations is relatively low.

We perform the same analysis for partially divested firm years sample. The results in Panel B of Table 5 indicate that after controlling for rational reasons to divest, familiarity does have an impact on CEOs' choice which segment to divest. These mainly

apply for the proxy powerbase and to a lesser extend for the proxy inside industry experience. Familiarity in terms of outside industry experience does not significantly influence CEOs' choice. In the first quartile, the group of segments that are actually retained contains significantly more powerbase segments than in the group of segments that are actually divested. The first quartile group consists of segments that should be retained according to the model, suggesting that CEOs rather divest segments they are not familiar with, while these segments should be retained. In the third quartile, the actually retained segments have more powerbases and segments where CEOs have inside industry experience than the actually divested segments. This quartile group consists of segments that should be divested, suggesting that CEOs rather retain segments they are familiar with, while these segments should be divested. These results are in line with our hypotheses.

A striking result is that there seems to be a positive relation between the percentage of powerbases and the predicted values of the model. In other words, segments that should be divested according to the model have a higher percentage of segments with which CEOs are familiar, while segments that should be retained have a lower percentage of segments with which CEOs are familiar. To check whether this result is not driven by a small group of segments, we split the predicted values into percentiles of 5%. Percentile 1 is the group of segments with the smallest predicted values and percentile 20 is the group of segments with the largest predicted values. Results in Panel C show that this positive relation is consistent and not driven by a small group of segments. There are two possible explanations. First, a puzzle in the divestiture literature is the tendency of CEOs to retain poorly performing segments for too long before deciding to divest these assets (see e.g. Ravenscraft and Scherer, 1987; Boot, 1992; Berger and Ofek, 1995; Cho and Cohen, 1997). CEOs may retain poorly performing assets for too long because they are familiar with these assets. This may lead to the high percentage of powerbase segments in the groups of segments that should be divested according to the model. Consistent with this interpretation, we show that most CEOs tend to retain more segments they are familiar with than they divest. A second reason could be measurement error and the omitted variables problem. We assume that we use the relevant variables and that we measure these variables in the model correctly. The

number of observations in the against type groups at least suggest that other variables may also explain the selection of segments to be divested.

To investigate the impact of familiarity on the probability to be divested, we simply supplement the binary logit regressions as estimated in Table 3 (regression 2 and 4) with our familiarity proxies. Table 6 provides the results of the regressions.

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The results of the rational factors remain similar to the results in Table 3 after including familiarity. Furthermore, the sample of fully divesting firm years does not provide any significant coefficients for the familiarity dummies. This is consistent with the results in our previous analysis suggesting that familiarity with a segment does not have an impact on CEOs choice to fully divest a segment. We find significant familiarity coefficients in the sample of partially divesting firm years which are consistent with the results of our previous analysis. The significant coefficients indicate that familiarity in terms of having a powerbase and having inside industry experience has a negative influence on the probability that a segment gets divested. In other words, CEOs tend to retain segments they are familiar with and divest segments they are unfamiliar with after controlling for rational motives.

For more insight in the impact of segments being a CEOs' powerbase on divestment decisions, we run the binary logit regressions separately for powerbase segments and non-powerbase segments. Table 7 gives the results of the regressions.

- Insert Table 7 –

As in the previous regressions of the fully divesting firm year samples, firms are more likely to divest their smallest segments and the worst performing segments. Note that the less than 10% size dummy is significant for the non-powerbase segments and the relative sales variable is significant for powerbase segments. One difference is the insignificance of a segment's cash flow. The low number of observations may have caused the decrease in significance. The partially divesting firm sample provides more interesting results. First, the coefficient of the relative segment size is significantly positive for both the powerbase sample and non-powerbase sample. Note that powerbase

segments are significantly larger than non-powerbase segments (see Table 4). This implies that even though powerbase segments are already large by themselves, these segments are more likely to be partially divested if they are even larger. Furthermore, powerbase segments get divested without consideration of the industry cash flows, whereas larger industry cash flows of non-powerbase segments increase the probability that these segments get divested. We also find that negative cash flows trigger CEOs to partially divest their powerbase. However, this result may be driven by the fact that the powerbase sample consists of only 6 segments with negative cash flows. A final remark is the striking results of the enormous increase in the McFadden R-squared for both powerbase segment samples. The R-squared of the fully divested powerbase sample is 44.52% compared with 11.79% of the fully divested non-powerbase sample. For the partially divested firm years samples, these percentages are 12.57% and 2.92% for the powerbase and non-powerbase segments. These results indicate that the fit of the model in which we examine familiar segments is better relative to the model with unfamiliar segments.

Overall, we do not find evidence that CEOs are influenced by their sense of familiarity with segments when they have to choose which segment to fully divest. Rather, the main reasons for the choice which segment to fully divest are performance and the relative size of a segment, which is consistent with the efficiency and financing explanations. The partially divesting sample shows different results. Larger segments of which the industry has higher cash flows and more growth opportunities are more likely to be divested. Also, if firms have decided to divest, CEOs are triggered by their sense of familiarity which segment to divest. In particular, CEOs are less likely to choose to divest segments they are familiar with and more likely to divest segments they are unfamiliar with.

4. Conclusions

The purpose of this paper is to examine whether CEOs' sense of familiarity with assets has an impact on their divestiture decisions concerning these assets. CEOs look more favorably upon familiar assets relative to unfamiliar assets in terms of future risk and returns. Besides, familiar assets may be more meaningful to CEOs and therefore

create sentimental value. Based on these characteristics of familiarity, we hypothesize that managers are more likely to divest segments they are unfamiliar with and are less likely to divest segments they are familiar with. We classify each of the segments in a CEO's firm based on three types of familiarity of a CEO with a segment; 1) CEO's powerbase, which is a segment where a CEO has previously been employed, 2) a segment in which CEOs have industry working experience within the firm, and 3) a segment in which CEOs have industry working experience outside the firm. We find empirical support for our hypothesis for the sample of firm years in which firms choose to partially divest segments. Familiarity in terms of powerbases provides the strongest results. However, CEOs are not influenced by familiarity in choosing which segment to fully divest.

Previous studies that examine divestitures on a segment level exclusively focus on fully divested segments. In this paper, we also examine divestitures of parts of segments. Our results imply that firms choose to fully divest segments for different reasons than to partially divest segments. In particular, firms are more likely to fully divest segments that are smaller and perform worse. These results are consistent with the financing and efficiency explanations as proposed in the literature. On the other hand, firms are more likely to partially divest segments that are larger and operate in industries with higher cash flows and more growth opportunities. In this paper, we propose possible explanations for these results. First, larger segments are usually the core business of firms. Possibly, firms continuously review their most important segments to remain competitive and therefore are more likely to divest larger segments. Second, consistent with the agency theory as proposed by Jensen (1986), industry peers with high cash flows are more likely to acquire assets and hence firms with segments within this industry are more likely to sell part of their segment. More research is needed to find out the reasons to partially divest segments in more detail.

This paper raises some questions which should be addressed in further research. In our empirical analysis, we estimate a regression model in which we aim to predict which segment should be divested if firms decide to divest. We relate the predicted values with the actual decisions of the firm. A peculiar result is the positive relation between the predicted values of the model and the percentage of powerbases. This

positive relation implies that it is more likely that segments, which should be divested according to the model, are a powerbase. One possible reason for this relation is that CEOs retain segments that should be divested for a long period, causing the segments that should be divested to be powerbases more often. Another reason may be a misspecification of the model. In this study, we specifically examine segments of divesting firms. However, an alternative explanation may be derived from an analysis of the difference between divesting firms and non-divesting firms both on a firm-level and segment-level. Further research should provide more insight in this issue.

Our results have important implications for the perception of the role of a CEO's background on corporate decisions in the financial literature. In fact, the financial literature has paid scant attention to this impact. With this paper, we provide evidence that a CEO's working experience influences their notion of the value of assets. This different notion can cause them to make different decisions than can be rationally explained. For a more detailed understanding of the role of a CEO's background on corporate decisions further research is necessary.

References

Berger, P. G.; and Hann, R. N. (2003a). 'The impact of SFAS No.131 on information and monitoring'. *Journal of Accounting Research*, 41: 163-223.

Berger, P. G.; and Hann, R. N. (2003b). 'Segment profitability and the proprietary costs of disclosure'. *Working paper from the University of Southern California*, 1-55.

Berger, P. G.; and Ofek, E. (1995). 'Diversification's Effect on Firm Value'. *Journal of Financial Economics*, 37: 39-65.

Boot, A. W. A. (1992). 'Why Hang on to Losers? Divestitures and Takeovers'. *The Journal of Finance*, 47: 1401-1423.

Cho, M.-H.; and Cohen, M. A. (1997). 'The Economic Causes and Consequences of Corporate Divestiture'. *Managerial and Decision Economics*, 18: 367-374.

Dittmar, A.; and Shivdasani, A. (2003). 'Divestitures and divisional investment policies'. *The Journal of Finance*, 58: 2711-2743.

Garvais, S.; Heaton, J. B.; and Odean, T. (2003). 'Overconfidence, Investment Policy, and Executive Stock Options'. *Working paper of the Duke University in Durham*, 1-50.

Hackbarth, D. (2004). 'Managerial Optimism, Overconfidence, and Capital Structure Decisions'. *working paper from University of California, Berkeley*, 1-44.

Heath, C.; and Tversky, A. (1991). 'Preference and Belief: Ambiguity and Competence in Choice under Uncertainty'. *Journal of Risk and Uncertainty*, 4: 5-28.

Herrmann, D.; and Thomas, W. B. (2000). 'An analysis of segment disclosures under SFAS no. 1331 and SFAS no. 14'. *Accounting Horizons*, 14: 287-302.

Hite, G. L.; Owers, J. E.; and Rogers, R. C. (1987). 'The Market For Interfirm Asset Sales: Partial Sell-offs and Total Liquidations'. *Journal of Financial Economics*, 18: 229-252.

Huberman, G. (2001). 'Familiarity Breeds Investment'. *The Review of Financial Studies*, 14: 659-680.

Jain, P. C. (1985). 'The Effect of Voluntary Sell-Off Announcements on Shareholder Wealth'. *The Journal of Finance*, 40: 209-224.

Jensen, M. C. (1986). 'Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers'. *The American Economic Review*, 76: 323-329.

John, K.; and Ofek, E. (1995). 'Asset Sales and Increase in Focus'. *Journal of Financial Economics*, 37: 105-126.

Jung, K.; Kim, Y.-C.; and Stulz, R. M. (1996). 'Timing, investment opportunities, managerial discretion, and the security issue decision'. *Journal of Financial Economics*, 42: 159-185.

Lamont, O. (1997). 'Cash flow and investment: Evidence from internal capital markets'. *The Journal of Finance*, 52: 83-109.

Lang, L.; Poulsen, A.; and Stulz, R. (1995). 'Asset sales, firm performance, and the agency costs of managerial discretion'. *Journal of Financial Economics*, 37: 3-37.

Langer, E. J. (1975). 'The Illusion of Control'. *Journal of personality and Social Psychology*, 32: 311-328.

Malmendier, U.; and Tate, G. (2005a). 'CEO Overconfidence and Corporate Investment'. *The Journal of Finance*, 60.

Malmendier, U.; and Tate, G. (2005b). 'Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction'. *Working paper of Stanford University*, 1-68.

Martin, J. D.; and Sayrak, A. (2003). 'Corporate diversification and shareholder value: a survey of recent literature'. *Journal of Corporate Finance*, 9: 37-57.

McNeil, C. R.; and Moore, W. T. (2005). 'Dismantling internal capital markets via spinoff: effects on capital allocation efficiency and firm valuation'. *Journal of Corporate Finance*, 11: 253-275.

Rajan, R.; Servaes, H.; and Zingales, L. (2000). 'The cost of diversity: The diversification discount and inefficient investment'. *The Journal of Finance*, 55: 35-80.

Ravenscraft, D. J.; and Scherer, F. M. (1987). '*Mergers, sell-offs, and economic efficiency',* Washington, D.C.: Brookings Institution.

Roll, R. (1986). 'The Hubris Hypothesis of Corporate Takeovers'. *The Journal of Business*, 59: 197-216.

Scharfstein, D. S.; and Stein, J. C. (2000). 'The dark side of internal capital markets: divisional rent-seeking in inefficient investment'. *The Journal of Finance*, 55: 2537-2564.

Schlingemann, F. P.; Stulz, R. M.; and Walkling, R. A. (2002). 'Divestitures and the liquidity of the market for corporate assets'. *Journal of Financial Economics*, 64: 117-144.

Shin, H.-H.; and Stulz, R. M. (1998). 'Are internal capital markets efficient?' *The Quarterly Journal of Economics*, 113: 531-552.

Street, D. L.; Nichols, N. B.; and Gray, S. J. (2000). 'Segment disclosure under SFAS No.131: Has business segment reporting improved?' *Accounting Horizons*, 14: 259-285.

Strong, N.; and Xu, X. (2003). 'Understanding the equity home bias: Evidence from survey data'. *The Review of Economics and Statistics*, 85: 307-312.

Table 1: Sample selection procedure

The table presents our sample selection procedure. Starting from the selected firms and firm years from COMPUSTAT, we derived divestitures from Thomson's SDC database. We excluded firm years with not enough historical COMPUSTAT data, for which we did not have enough CEO information and other firm years with divestitures that potentially creates noise in our analysis. We also excluded corporate segments from our dataset and segments with no variance in familiarity between segments in a firm year.

	firms	firm years	segments	Segment years
Total COMPUSTAT information after selection	1,009	5,251	5,403	18,948
Selected COMPUSTAT firms with divestitures derived from SDC	530	1,317		
- Not enough historical COMPUSTAT data	192	589		
- Not enough CEO information	21	49		
- Not clear to which segment divestiture belongs/ divestiture belongs to corporate segment/ 2 CEOs in same year that announce divestiture/ assets are from merger in previous year	14	54		
Total	303	625	1,417	2,466
- corporate segments			236	407
Total	303	625	1,181	2,059
- no variance in familiarity between segments in a firm year	142	270	502	812
Total	161	355	679	1,247

Table 2: Characteristics of segments from fully divesting firms and partially divesting firms

The table presents means, standard deviations and mean differences of firm performance variables for retained and divested segments of the fully divesting firm sample and partially divesting firm sample from the fiscal year prior to the divestiture announcement. Cash flows are calculated as the segment's operating profit plus depreciation and amortization. Net capital expenditures are calculated as the gross capital expenditures minus depreciation and amortization. The segment's Tobin's q is the median industry q of all COMPUSTAT firms with the same two-digit SIC code as the segment. The Tobin's q is the ratio of the market value of assets to book value of assets as calculated in Malmendier and Tate, 2005a; b). The industry adjusted variables are calculated as the segment variable minus the median of all COMPUSTAT firms with the same two-digit SIC code. The t subscripts refer to the year relative to the year in which firms announce their divestment. As in Schlingemann *et al.*, 2002), ratios are truncated at minus and plus one and growth variables at -100% and +200%. Assets and sales numbers are in $ millions.

Panel A: Segment descriptives

| | Fully divesting firms | | | | | | | | Partly divesting firms | | | | | | | |
| | Retained (1) | | | Fully divested (2) | | | Mean difference | | Retained (3) | | | Partly divested (4) | | | Mean difference | |
	Mean	St.dev	N	Mean	St.dev	N	(1) - (2)	p-value	Mean	St.dev	N	Mean	St.dev	N	(3) - (4)	p-value
ln (Sales) $_{t-1}$	6.369	1.607	150	5.555	1.239	63	0.814	*0.000*	6.735	1.643	685	7.207	1.606	397	-0.472	*0.000*
ln (Assets) $_{t-1}$	6.276	1.629	151	5.639	1.383	62	0.637	*0.004*	6.723	1.648	679	7.196	1.625	397	-0.473	*0.000*
Sales $_{t-1}$/ firm sales $_{t-2}$	0.331	0.261	152	0.184	0.169	63	0.148	*0.000*	0.264	0.203	685	0.370	0.251	398	-0.106	*0.000*
Sales $_{t-2}$/ firm sales $_{t-3}$	0.317	0.260	150	0.217	0.226	62	0.101	*0.008*	0.264	0.209	683	0.377	0.260	397	-0.113	*0.000*
(Sales $_{t-1}$/ sales $_{t-2}$) -1	0.170	0.440	148	0.026	0.263	62	0.144	*0.004*	0.092	0.331	674	0.103	0.301	395	-0.011	*0.595*
(Sales $_{t-2}$/ sales $_{t-3}$) -1	0.102	0.309	126	0.113	0.374	52	-0.011	*0.852*	0.107	0.330	592	0.110	0.324	354	-0.002	*0.914*
((Sales/firm sales)$_{t-1}$/(sales/firm sales)$_{t-2}$) -1	0.132	0.481	148	-0.055	0.222	62	0.187	*0.004*	0.028	0.298	674	0.049	0.285	395	-0.022	*0.242*
((Sales/firm sales)$_{t-2}$/(sales/firm sales)$_{t-3}$) -1	0.073	0.347	126	0.020	0.389	52	0.053	*0.399*	0.043	0.309	592	0.043	0.292	354	0.000	*0.992*
Cash flow $_{t-1}$/Sales $_{t-2}$	0.224	0.196	148	0.135	0.195	62	0.089	*0.003*	0.195	0.194	674	0.193	0.203	395	0.002	*0.889*
Cash flow $_{t-2}$/Sales $_{t-3}$	0.208	0.165	126	0.181	0.166	52	0.027	*0.326*	0.197	0.183	592	0.203	0.208	354	-0.006	*0.656*
Dummy worst performing segment	0.209	0.408	148	0.435	0.500	62	-0.226	*0.001*	0.286	0.452	674	0.296	0.457	395	-0.010	*0.733*
Dummy negative cash flow	0.020	0.141	148	0.081	0.275	62	-0.060	*0.037*	0.040	0.196	674	0.041	0.197	395	0.000	*0.971*
Capx $_{t-1}$/sales $_{t-2}$	0.013	0.158	148	0.001	0.058	62	0.012	*0.553*	0.015	0.146	674	0.014	0.146	395	0.001	*0.908*
Capx $_{t-2}$/sales $_{t-3}$	-0.001	0.174	126	0.022	0.108	52	-0.023	*0.283*	0.025	0.159	592	0.022	0.153	354	0.003	*0.763*
(Capx $_{t-1}$/capx $_{t-2}$) -1	-0.031	0.882	145	-0.185	0.934	62	0.155	*0.269*	-0.056	0.941	662	0.046	1.005	393	-0.101	*0.099*
(Capx $_{t-2}$/capx $_{t-3}$) -1	0.099	1.005	125	0.104	1.063	52	-0.005	*0.975*	-0.047	0.963	581	-0.026	0.929	351	-0.021	*0.746*
Dummy Core segment	0.487	0.501	152	0.286	0.455	63	0.201	*0.007*	0.505	0.500	685	0.563	0.497	398	-0.058	*0.067*
Segment's Tobin's q	1.565	0.460	150	1.617	0.519	63	-0.052	*0.489*	1.579	0.547	681	1.622	0.528	396	-0.043	*0.204*

Panel B: Industry adjusted segment descriptives

| | Fully divesting firms | | | | | | | | Partly divesting firms | | | | | | | |
| | Retained (1) | | | Fully divested (2) | | | Mean difference | | Retained (3) | | | Partly divested (4) | | | Mean difference | |
	Mean	St.dev	N	Mean	St.dev	N	(1) - (2)	p-value	Mean	St.dev	N	Mean	St.dev	N	(3) - (4)	p-value
Industry adj. ln (Sales) $_{t-1}$	1.512	1.815	150	0.827	1.678	63	0.685	*0.009*	1.744	1.822	681	2.376	1.967	396	-0.632	*0.000*
Industry adj. (Sales $_{t-1}$/ sales $_{t-2}$) -1	0.074	0.450	150	-0.084	0.267	62	0.158	*0.002*	0.011	0.331	681	0.018	0.308	396	-0.008	*0.700*
Industry adj. Cash flow $_{t-1}$/Sales $_{t-2}$	0.103	0.225	146	0.010	0.198	61	0.093	*0.004*	0.080	0.195	670	0.072	0.205	393	0.008	*0.527*
Dummy worst performing segment (ind.adj)	0.199	0.400	146	0.475	0.504	61	-0.277	*0.000*	0.288	0.453	670	0.298	0.458	393	-0.010	*0.739*
Dummy negative industry adj. cash flow	0.267	0.444	146	0.443	0.501	61	-0.175	*0.013*	0.294	0.456	670	0.280	0.450	393	0.014	*0.623*
Industry adj. Capx $_{t-1}$/sales $_{t-2}$	0.005	0.157	146	-0.008	0.057	61	0.013	*0.389*	0.013	0.148	670	0.010	0.144	393	0.003	*0.719*
Industry adj. (Capx $_{t-1}$/capx $_{t-2}$) -1	0.208	0.876	150	-0.002	0.935	62	0.210	*0.132*	0.145	0.949	681	0.244	0.993	396	-0.099	*0.111*

Table 3: Binary logit regression explaining which type of segments get divested

This table presents the results of binary logit regressions explaining which segment gets divested. The dependent variable takes on the value of 1 for divested segments and 0 for retained segments. Regressions 1 and 2 are performed for the sample of firm years that fully divest a segment and regression 3 and 4 for the sample of firm years that partially divest a segment. Cash flows are calculated as the segment's operating profit plus depreciation and amortization. Net capital expenditures are the gross capital expenditures minus depreciation and amortization. The segment's Tobin's q is the median industry q of all COMPUSTAT firms with the same two-digit SIC code as the segment. The Tobin's q is the ratio of the market value of assets to book value of assets as calculated in Malmendier and Tate, 2005a; b). The industry median variables are calculated as the median of all COMPUSTAT firms with the same two-digit SIC code. The t subscripts refer to the year relative to the year in which firms announce their divestment. As in Schlingemann *et al.*, 2002), ratios are truncated at minus and plus one and growth variables at -100% and +200%. *P*-values are documented in parentheses.

	Fully divesting firm years		Partly divesting firm years	
	(1)	(2)	(3)	(4)
	Coefficient	Coefficient	Coefficient	Coefficient
Intercept	-0.7068	-1.2065	-1.5815 ***	-1.6180 ***
	(0.348)	(0.132)	(0.000)	(0.000)
Cash flow $_{t-1}$/Sales $_{t-2}$	-3.1805 ***	-2.0897 *	-0.3899	-0.1382
	(0.009)	(0.093)	(0.298)	(0.756)
Industry median Cash flow $_{t-1}$/Sales $_{t-2}$	1.0314	1.3262	1.3005 *	1.2335 *
	(0.514)	(0.407)	(0.076)	(0.093)
Capx $_{t-1}$/sales $_{t-2}$	-0.4967	0.0520	-0.3538	-0.3582
	(0.734)	(0.971)	(0.453)	(0.445)
Industry median Capx $_{t-1}$/sales $_{t-2}$	0.2953	-0.8664	1.8121	1.6593
	(0.956)	(0.878)	(0.531)	(0.567)
Sales $_{t-1}$/ firm sales $_{t-2}$	-1.9931 *	-2.0403 *	2.0104 ***	2.0241 ***
	(0.086)	(0.073)	(0.000)	(0.000)
Core-dummy	-0.3359	-0.4030	-0.0791	-0.0751
	(0.384)	(0.308)	(0.583)	(0.603)
Segment's Tobin's q	0.4476	0.4189	0.2513 *	0.2354 *
	(0.221)	(0.259)	(0.064)	(0.084)
Size<10% dummy	0.7454	0.8665 *	-0.1828	-0.2334
	(0.102)	(0.062)	(0.387)	(0.282)
Dummy worst performing segment		1.0568 **		0.0185
		(0.010)		(0.908)
Dummy negative cash flow		-0.5410		0.4535
		(0.544)		(0.248)
Number of observations	207	207	1063	1063
McFadden R-squared	13.37%	16.04%	4.35%	4.45%

* significant at 10%; ** significant at 5%, *** significant at 1%

Table 4: Characteristics of familiar and unfamiliar segments

The table presents means and mean differences of firm performance variables for segments with which CEOs are familiar and segments with which they are not familiar. Familiarity is proxied by CEOs working experience in a segment, i.e. the powerbase, CEOs industry working experience within the firm and CEOs industry working experience outside the firm. Cash flows are calculated as the segment's operating profit plus depreciation and amortization. Net capital expenditures are calculated as the gross capital expenditures minus depreciation and amortization. The segment's Tobin's q is the median industry q of all COMPUSTAT firms with the same two-digit SIC code as the segment. The Tobin's q is the ratio of the market value of assets to book value of assets as calculated in Malmendier and Tate, 2005a; b). The industry adjusted variables are calculated as the segment variable minus the median of all COMPUSTAT firms with the same two-digit SIC code. The t subscripts refer to the year relative to the year in which firms announce their divestment. As in Schlingemann *et al.*, 2002), ratios are truncated at minus and plus one and growth variables at -100% and +200%. Assets and sales numbers are in $ millions.

| | Powerbase | | | | | | Inside industry experience | | | | | | Outside industry experience | | | | | |
| | Yes (1) | | No (2) | | Difference | | Yes (3) | | No (4) | | Difference | | Yes (5) | | No (6) | | Difference | |
	Mean	N	Mean	N	(1)-(2)	p-value	Mean	N	Mean	N	(3)-(4)	p-value	Mean	N	Mean	N	(5)-(6)	p-value
Powerbase	1.000	361	0.000	886			0.586	616	0.000	631	0.586	*0.000*	0.258	310	0.300	937	-0.042	*0.159*
Inside industry experience	1.000	361	0.288	886	0.712	*0.000*	1.000	616	0.000	631			0.387	310	0.529	937	-0.142	*0.000*
Outside industry experience	0.222	361	0.260	886	-0.038	*0.159*	0.195	616	0.301	631	-0.106	*0.000*	1.000	310	0.000	937		
ln (Sales) $_{t-1}$	7.160	359	6.623	885	0.537	*0.000*	6.993	614	6.569	630	0.424	*0.000*	6.642	308	6.823	936	-0.182	*0.081*
ln (Assets) $_{t-1}$	7.141	361	6.606	878	0.536	*0.000*	6.945	615	6.581	624	0.364	*0.000*	6.712	309	6.778	930	-0.066	*0.546*
Sales $_{t-1}$/ firm sales $_{t-2}$	0.418	361	0.255	886	0.163	*0.000*	0.343	616	0.262	631	0.081	*0.000*	0.344	310	0.288	937	0.056	*0.000*
Sales $_{t-2}$/ firm sales $_{t-3}$	0.418	358	0.256	883	0.162	*0.000*	0.342	611	0.264	630	0.078	*0.000*	0.352	308	0.286	933	0.066	*0.000*
(Sales $_{t-1}$/ sales $_{t-2}$) -1	0.100	356	0.102	873	-0.003	*0.903*	0.106	608	0.098	621	0.008	*0.665*	0.122	303	0.095	926	0.027	*0.219*
(Sales $_{t-2}$/ sales $_{t-3}$) -1	0.136	313	0.097	771	0.038	*0.082*	0.134	529	0.084	555	0.050	*0.012*	0.136	259	0.100	825	0.036	*0.121*
((Sales/firm sales)$_{t-1}$/(sales/firm sales)$_{t-2}$) -1	0.036	356	0.044	873	-0.008	*0.689*	0.038	608	0.045	621	-0.008	*0.674*	0.050	303	0.039	926	0.011	*0.600*
((Sales/firm sales)$_{t-2}$/(sales/firm sales)$_{t-3}$) -1	0.057	313	0.043	771	0.014	*0.523*	0.054	529	0.041	555	0.012	*0.513*	0.053	259	0.046	825	0.007	*0.761*
Cash flow $_{t-1}$/Sales $_{t-2}$	0.201	356	0.192	873	0.009	*0.451*	0.190	608	0.198	621	-0.008	*0.475*	0.197	303	0.193	926	0.004	*0.761*
Cash flow $_{t-2}$/Sales $_{t-3}$	0.214	313	0.193	771	0.021	*0.101*	0.204	529	0.194	555	0.010	*0.388*	0.211	259	0.195	825	0.016	*0.249*
Dummy worst performing segment	0.278	356	0.293	873	-0.015	*0.593*	0.304	608	0.274	621	0.031	*0.238*	0.277	303	0.293	926	-0.015	*0.605*
Dummy negative cash flow	0.020	356	0.049	873	-0.030	*0.017*	0.038	608	0.043	621	-0.006	*0.616*	0.036	303	0.042	926	-0.006	*0.645*
Capx $_{t-1}$/sales $_{t-2}$	0.019	356	0.012	873	0.006	*0.512*	0.013	608	0.015	621	-0.002	*0.771*	0.007	303	0.017	926	-0.010	*0.306*
Capx $_{t-2}$/sales $_{t-3}$	0.030	313	0.018	771	0.012	*0.273*	0.026	529	0.016	555	0.010	*0.305*	0.014	259	0.023	825	-0.009	*0.453*
(Capx $_{t-1}$/capx $_{t-2}$) -1	-0.080	352	-0.007	864	-0.072	*0.225*	-0.071	601	0.013	615	-0.083	*0.131*	-0.002	298	-0.037	918	0.035	*0.586*
(Capx $_{t-2}$/capx $_{t-3}$) -1	-0.076	309	-0.004	761	-0.071	*0.266*	-0.068	523	0.016	547	-0.085	*0.151*	-0.041	256	-0.020	814	-0.021	*0.763*
Dummy Core segment	0.706	361	0.442	886	0.264	*0.000*	0.742	616	0.301	631	0.441	*0.000*	0.587	310	0.496	937	0.091	*0.006*
Segment's Tobin's q	1.590	361	1.594	879	-0.004	*0.902*	1.633	616	1.553	624	0.080	*0.008*	1.553	308	1.606	932	-0.052	*0.133*
Partly divested	0.327	361	0.317	884	0.010	*0.729*	0.312	615	0.327	630	-0.015	*0.576*	0.340	309	0.313	936	0.027	*0.382*
Fully divested	0.030	361	0.059	884	-0.028	*0.038*	0.034	615	0.067	630	-0.033	*0.009*	0.042	309	0.053	936	-0.011	*0.404*

Table 5 (1): Differences in familiarity between divested and retained segments

The table presents the means and mean differences of familiarity per group of segments that are divested or retained and should be divested or retained according to the predicted values of binary logit regressions 2 and 4 in table 3. Proxies for familiarity are CEOs' working experience in a segment, i.e. the powerbase, CEOs industry working experience within the firm and outside the firm. In Panel A and B, the predicted values are split into quartiles, with quartile 1 (Q1) containing the lowest predicted values and quartile 4 (Q4) containing the highest predicted values. In Panel C, the predicted values are split into percentiles of 5%, with in percentile 1 (5p1) the lowest predicted values and in percentile 20 (5p20) the highest predicted values. Results of the sample with fully divesting firm years are tabulated in Panel A and results of the sample with partially divesting firm years in Panel B and C.

Panel A: Sample of fully divesting firm years (N=207)								
			did:					
				divest		retain		Difference
				Mean (N)		Mean (N)		Mean	p-value
Powerbase	should:	**divest**	**Q4**	0.1071 (28)		0.0833 (24)		0.0238	0.775
			Q3	0.2105 (19)		0.0606 (33)		0.1499	0.107
		retain	**Q2**	0.3000 (10)		0.3171 (41)		-0.0171	0.921
			Q1	0.2500 (4)		0.5625 (48)		-0.3125	0.237
Inside industry experience	should:	**divest**	**Q4**	0.2500 (28)		0.2917 (24)		-0.0417	0.743
			Q3	0.3158 (19)		0.3636 (33)		-0.0478	0.732
		retain	**Q2**	0.5000 (10)		0.4146 (41)		0.0854	0.650
			Q1	0.5000 (4)		0.6458 (48)		-0.1458	0.654
Outside industry experience	should:	**divest**	**Q4**	0.1071 (28)		0.2500 (24)		-0.1429	0.181
			Q3	0.2632 (19)		0.3030 (33)		-0.0399	0.764
		retain	**Q2**	0.2000 (10)		0.4146 (41)		-0.2146	0.216
			Q1	0.5000 (4)		0.4375 (48)		0.0625	0.846

Panel B: Sample of partlially divesting firm years (N=1063)								
			did:					
				divest		retain		Difference
				Mean (N)		Mean (N)		Mean	p-value
Powerbase	should:	**divest**	**Q4**	0.4868 (152)		0.4386 (114)		0.0482	0.437
			Q3	0.2473 (93)		0.3699 (173)		-0.1226	0.042 **
		retain	**Q2**	0.1951 (82)		0.2623 (183)		-0.0672	0.239
			Q1	0.0606 (66)		0.1650 (200)		-0.1044	0.034 **
Inside industry experience	should:	**divest**	**Q4**	0.5921 (152)		0.6140 (114)		-0.0219	0.719
			Q3	0.4516 (93)		0.5838 (173)		-0.1322	0.040 **
		retain	**Q2**	0.3780 (82)		0.4809 (183)		-0.1028	0.118
			Q1	0.4242 (66)		0.4350 (200)		-0.0108	0.879
Outside industry experience	should:	**divest**	**Q4**	0.3289 (152)		0.2895 (114)		0.0395	0.491
			Q3	0.2366 (93)		0.1676 (173)		0.0689	0.175
		retain	**Q2**	0.1951 (82)		0.2131 (183)		-0.0180	0.737
			Q1	0.2273 (66)		0.2100 (200)		0.0173	0.772

* significant at 10%; ** significant at 5%, *** significant at 1%

Table 5 (2): Differences in familiarity between divested and retained segments

Panel C: Sample of partlially divesting firm years in percentiles of 5% (N=1063)

		did:	divest		retain		Difference	
			Mean	(N)	Mean	(N)	Mean	*p*-value
Powerbase	should	**Divest**	**5p20**	0.7500 (36)	0.6111 (18)		0.1389	0.301
			5p19	0.5092 (28)	0.4583 (25)		0.0509	0.106
			5p18	0.4828 (29)	0.6250 (24)		-0.1422	0.310
			5p17	0.3667 (30)	0.4348 (23)		-0.0681	0.623
			5p16	0.2759 (29)	0.2917 (24)		-0.0158	0.901
			5p15	0.1364 (22)	0.3226 (31)		-0.1862	0.125
			5p14	0.3158 (19)	0.3529 (34)		-0.0372	0.789
			5p13	0.3750 (16)	0.3784 (37)		-0.0034	0.982
			5p12	0.1765 (17)	0.3056 (36)		-0.1291	0.329
			5p11	0.2632 (19)	0.5000 (34)		-0.2368	0.097 *
		retain	**5p10**	0.3333 (15)	0.4359 (39)		-0.1026	0.499
			5p9	0.1429 (14)	0.3846 (39)		-0.2418	0.100 *
			5p8	0.2727 (22)	0.1613 (31)		0.1114	0.334
			5p7	0.1538 (13)	0.2000 (40)		-0.0462	0.709
			5p6	0.0556 (18)	0.0857 (35)		-0.0302	0.683
			5p5	0.0000 (9)	0.1364 (44)		-0.1364	0.248
			5p4	0.0000 (19)	0.1471 (34)		-0.1471	0.082 *
			5p3	0.0769 (13)	0.1750 (40)		-0.0981	0.401
			5p2	0.1429 (14)	0.1282 (39)		0.0147	0.896
			5p1	0.0909 (11)	0.2326 (43)		-0.1416	0.307

* significant at 10%; ** significant at 5%, *** significant at 1%

Table 6: Binary logit regressions explaining which type of segments get divested

This table presents the results of binary logit regressions explaining which segment gets divested. The dependent variable takes on the value of 1 for divested segments and 0 for retained segments. Regressions 1 and 2 are performed for the sample of firm years that fully divest segments and regression 3 and 4 for the sample of firm years that partially divest segments. Cash flows are calculated as the segment's operating profit plus depreciation and amortization. Net capital expenditures are the gross capital expenditures minus depreciation and amortization. The segment's Tobin's q is the median industry q of all COMPUSTAT firms with the same two-digit SIC code as the segment. The Tobin's q is the ratio of the market value of assets to book value of assets as calculated in Malmendier and Tate, 2005a; b). The industry median variables are calculated as the median of all COMPUSTAT firms with the same two-digit SIC code. The t subscripts refer to the year relative to the year in which firms announce their divestment. As in Schlingemann *et al.*, 2002), ratios are truncated at minus and plus one and growth variables at -100% and +200%. Proxies for familiarity are CEOs' working experience in a segment, i.e. the powerbase, CEOs industry working experience within the firm and outside the firm. *P*-values are documented in parentheses.

	Fully divesting firm years			Partly divesting firm years		
	(1)	(2)	(3)	(4)	(5)	(6)
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Intercept	-1.2560	-1.1793	-1.0534	-1.6237 ***	-1.5911 ***	-1.6676 ***
	(0.119)	(0.143)	(0.190)	(0.000)	(0.000)	(0.000)
Cash flow $_{t-1}$/Sales $_{t-2}$	-2.0999 *	-2.0983 *	-1.9672	-0.1514	-0.1550	-0.1390
	(0.095)	(0.090)	(0.118)	(0.734)	(0.726)	(0.754)
Industry median Cash flow $_{t-1}$/Sales $_{t-2}$	1.4020	1.2557	1.1869	1.3467 *	1.3758 *	1.2577 *
	(0.383)	(0.435)	(0.457)	(0.069)	(0.063)	(0.087)
Capx $_{t-1}$/sales $_{t-2}$	0.1185	0.0314	-0.1511	-0.3589	-0.3476	-0.3417
	(0.933)	(0.982)	(0.915)	(0.447)	(0.459)	(0.467)
Industry median Capx $_{t-1}$/sales $_{t-2}$	-0.8487	-0.9302	-1.2553	1.8079	1.5702	1.6886
	(0.879)	(0.871)	(0.831)	(0.532)	(0.587)	(0.562)
Sales $_{t-1}$/ firm sales $_{t-2}$	-2.2268 *	-2.0193 *	-2.0075 *	2.2072 ***	2.0360 ***	1.9792 ***
	(0.063)	(0.076)	(0.074)	(0.000)	(0.000)	(0.000)
Core-dummy	-0.4091	-0.3574	-0.2618	-0.0261	0.0737	-0.0731
	(0.300)	(0.390)	(0.520)	(0.858)	(0.642)	(0.613)
Segment's Tobin's q	0.4351	0.4299	0.3969	0.2429 *	0.2620 *	0.2464 *
	(0.243)	(0.248)	(0.282)	(0.076)	(0.056)	(0.072)
Size<10% dummy	0.8735 *	0.8585 *	0.8257 *	-0.2366	-0.2404	-0.2413
	(0.060)	(0.065)	(0.077)	(0.276)	(0.269)	(0.266)
Dummy worst performing segment	1.0874 ***	1.0548 ***	1.0616 **	0.0251	0.0404	0.0217
	(0.009)	(0.010)	(0.011)	(0.876)	(0.802)	(0.892)
Dummy negative cash flow	-0.5389	-0.5662	-0.4046	0.4359	0.4685	0.4510
	(0.547)	(0.528)	(0.649)	(0.268)	(0.234)	(0.252)
Dummy powerbase	0.2435			-0.3508 **		
	(0.608)			(0.024)		
Dummy inside industry experience		-0.1383			-0.3441 **	
		(0.725)			(0.019)	
Dummy outside industry experience			-0.6214			0.1807
			(0.136)			(0.243)
Number of observations	207	207	207	1063	1063	1063
McFadden R-squared	16.14%	16.09%	16.96%	4.82%	4.84%	4.54%

* significant at 10%; ** significant at 5%, *** significant at 1%

Table 7: Binary regressions explaining which powerbase and non-powerbase segments get divested
This table presents the results of binary logit regressions explaining which segment gets divested. The dependent variable takes on the value of 1 for divested segments and 0 for retained segments. The first two regressions are performed for the sample of firm years that fully divest segments and the last two regression for the sample of firm years that partially divest segments. The NO PB regressions only contain non-powerbase segments, i.e. segments in which CEOs have no working experience. The PB regressions only contain powerbase segments. Cash flows are calculated as the segment's operating profit plus depreciation and amortization. Net capital expenditures are the gross capital expenditures minus depreciation and amortization. The segment's Tobin's q is the median industry q of all COMPUSTAT firms with the same two-digit SIC code as the segment. The Tobin's q is the ratio of the market value of assets to book value of assets as calculated in Malmendier and Tate, 2005a; b). The industry median variables are calculated as the median of all COMPUSTAT firms with the same two-digit SIC code. The t subscripts refer to the year relative to the year in which firms announce their divestment. As in Schlingemann *et al.*, 2002), ratios are truncated at minus and plus one and growth variables at -100% and +200%. Proxies for familiarity are CEOs' working experience in a segment, i.e. the powerbase, CEOs industry working experience within the firm and outside the firm. *P*-values are documented in parentheses.

	Fully divesting firm years		Partly divesting firm years	
	NO PB	PB	NO PB	PB
	Coefficient	Coefficient	Coefficient	Coefficient
Intercept	-1.7694 *	-0.4062	-1.2495 ***	-2.5736 ***
	(0.056)	(0.863)	(0.001)	(0.000)
Cash flow $_{t-1}$/Sales $_{t-2}$	-1.9868	-2.8998	-0.5441	1.6798
	(0.134)	(0.562)	(0.270)	(0.159)
Industry median Cash flow $_{t-1}$/Sales $_{t-2}$	2.2676	-7.7571	1.5789 *	0.0808
	(0.186)	(0.241)	(0.071)	(0.961)
Capx $_{t-1}$/sales $_{t-2}$	-0.2477	4.0062	-0.5661	0.2457
	(0.876)	(0.398)	(0.350)	(0.777)
Industry median Capx $_{t-1}$/sales $_{t-2}$	-0.2233	2.8302	0.8833	1.2440
	(0.974)	(0.901)	(0.839)	(0.762)
Sales $_{t-1}$/ firm sales $_{t-2}$	-0.5367	-7.0129 **	1.3847 ***	3.2473 ***
	(0.682)	(0.033)	(0.003)	(0.000)
Core-dummy	-0.4890	-0.1045	-0.0147	0.0363
	(0.270)	(0.926)	(0.930)	(0.909)
Segment's Tobin's q	0.4233	1.3294	0.2134	0.1227
	(0.290)	(0.308)	(0.188)	(0.658)
Size<10% dummy	1.1513 **	0.9593	-0.4061 *	-0.1540
	(0.025)	(0.587)	(0.088)	(0.811)
Dummy worst performing segment	1.0171 **	2.4437 *	0.0105	0.1040
	(0.026)	(0.062)	(0.956)	(0.737)
Dummy negative cash flow	-0.2913	40.0011	0.0571	2.1193 **
	(0.750)	(1.000)	(0.895)	(0.039)
Number of observations	152	55	751	312
McFadden R-squared	11.79%	44.52%	2.92%	12.57%

* significant at 10%; ** significant at 5%, *** significant at 1%