DIVERSIFICATION DISCOUNTS AND THE VALUATION OF BUSINESSES: AN INDUSTRY-LEVEL APPROACH

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I.   Introduction

It is not uncommon for firms to have business segments that operate in different industries, different countries, or both different industries and different countries. Such firms are known as diversified firms or are sometimes referred to as conglomerates. While many studies show that diversified firms are generally larger in size than focused single-segment firms and that public firms generally tend to be larger than private firms, a significant number of private firms engage in corporate diversification (industrial, global, or both).

Prior empirical research suggests that diversified firms have lower relative values than firms that operate in single business segments. This paper expands on the prior published empirical research on how diversification affects the value of firms by examining the effects of corporate diversification on stock returns on an industry level.

We discuss relevant theoretical literature and the major findings of prior empirical research on the effect of diversification on the value of the firm. We then present our estimates of the effects of diversification on historic rates of return on equities over the period from 1977 to 2018. Our empirical results are computed and reported on a primary industry level as reported by the company (using the two-digit SIC Code). We find that, on average, the excess returns of diversified firms in most industries (56 out of 66 2-digit SIC code defined industries, or about 85% of all industries in the sample) are not affected by their diversification status. However, diversified firms in the remaining industries exhibit significant excess returns that are attributable to their diversification status. The magnitude of the excess returns is rather significant while the direction of the excess return also varies by primary industry.

Additionally, the study reveals interesting results pertaining to the effect of size on excess returns on an industry level. The conventional finding postulated in Fama and French (1993)

suggests that small firms exhibit consistently higher excess returns when compared to larger firms. In the industry-level tests performed in this study, we control for the Fama French factors and find that, while the size effects appear to generally be consistent with the conventional findings on the effects of size on the excess returns (smaller firms produce consistently higher returns), there exist some significant departures from this view. A number of industries exhibit no or a negative relation between excess returns and size. Such findings suggest that a closer evaluation of the size effects on an industry level should be considered. The findings pertaining to the size effects have very significant practical implications as, presently, most practitioners incorporate a size discount in valuation engagements involving smaller firms (such firms represent a vast majority of firms valuators typically work with). Our findings suggest that, for some industries, no such discount should be incorporated. Furthermore, smaller firms in some industries offer consistently lower excess returns when compared to larger firms. Thus, practitioners may consider using size premiums as opposed to size discounts for firms in certain industries. These results are obtained while controlling for industry-specific excess returns and thus are independent of the industry-specific premium conventionally incorporated in valuation engagements.

While this paper is a contribution from an academic perspective, the results of this paper can be interpreted by practitioners as factors that should be incorporated in arriving at an appropriate discount rate in a valuation engagement of diversified firms engaged in certain industries. Thus, we conclude the paper by discussing the results and the implications of the present study in the context of various valuation methodologies commonly used by valuation industry professionals.

II. Prior Literature

A. Theoretical Literature

The effect of corporate diversification on firm value has been a focus of debate in academic literature for at least the past 50 years. Early attempts by Adelman (1961), Alberts (1966) and Smith and Schreiner (1969) examined conglomerate mergers within the context of the theory of portfolio diversification developed by Markowitz (1952 and 1959) and Tobin 1958). The work of Markowitz and Tobin stressed that individuals could reduce the variance of portfolio returns via diversification, i.e., the inclusion of assets with returns that have low pairwise correlations.

Adelman, Alberts, and Smith and Schreiner speculated on whether firms that engaged in conglomerate mergers benefitted from a similar type of risk reduction through a combination of cash flows with low correlations. Rubenstein (1969) and Levy and Sarnat (1970) suggested that, in a world of perfect capital markets, such benefits from conglomerate mergers were at best illusory. They demonstrated that the diversification resulting from conglomerate mergers has no effect on the value of equity shares if markets are perfect, because investors can achieve the same or better results through the diversification of their own portfolios.

Levy and Sarnat suggested that the results of their analysis could be altered by assuming market imperfections. For example, if an investor faces constraints on the shares of a company that may be purchased, the variance in returns can be reduced by a merger involving one of the firms in the investor's own portfolio. At the same time, the investor is worse off because there are less securities to invest in. Levy and Sarnat used this example to suggest that with market imperfections, the benefits to shareholders from conglomerate mergers are ambiguous.

Lewellen (1971) suggested that conglomerate mergers could benefit the stockholders of leveraged firms. Lewellen argued that the risk of bankruptcy could be reduced by the merger of imperfectly correlated cash flows. The newly merged entity ends up with more stable cash flows. This results in the merged firm having a greater probability of meeting its combined cash

obligations that exceeds the probability of meeting their separate obligations in the absence of merger, what Lewellen refers to as the debt co-insurance effect. Lewellen suggested that this allows the consolidated entity to increase its debt capacity. This increase in debt capacity occurs because the reduced reduction in bankruptcy risk induces lenders to establish an aggregate limit to the outstanding debt of the merged firm that exceeds the sum of the individual firms' pre-merger limits. Levy and Sarnat and Lintner (1971) suggested that the reduction in bankruptcy risk from conglomerate mergers results in the merged firms having greater access to the capital markets and the benefit of reduced interest expense. Although the work of Lewellyn, Levy and Sarnat, and Lintner is in the context of conglomerate mergers, it implies that firms that diversify potentially have greater debt capacity, reduced interest expense and greater access to capital markets, which in turn should result in higher valuation.

There are other rationales that have been suggested for diversification. Firms may choose to take advantage of the economies of scale from operating in various countries and industries (Teece, 1980). The value of diversification could also be greater if the firm possesses unique intangible assets. Multinational firms can take advantage of tax code differentials between different countries by shifting profits to countries with lower tax burdens (Desai, Foley and Hines, 2004). Alternatively, firms start diversifying when they become relatively unproductive in their core business, which suggests a discount associated with diversification (Gomes and Livdan, 2004).

Corporate refocusing theory assumes that diversified firms trade at a discount to what the individual value of a segment would be (Krishnaswami and Subramaniam, 1999; Schlingemann, Stulz, and Walkling, 2002). This applies to both industrial and global diversification, but may have varying effects on the value of the firm. For instance, Lewellen's debt co-insurance effect will

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likely be more pronounced for firms involved in global diversification, as such firms have better access to global financial markets, and, therefore, can cross-subsidize their business segments using external capital obtained in foreign capital markets. Hann, Ogneva, and Ozbas (2013) find that diversified firms enjoy a significantly lower cost of capital, which suggests that during times of financial distress they may also have relatively easier access to capital and therefore exhibit a premium to their normal valuation relative to undiversified firms.

Agency theory, which claims that managers have a vested interest in diversifying their firms to increase their own power, enrich themselves, and reduce their own employment risk, is one of the explanations offered for the existence of a difference in the value of diversified firms relative to single-segment firms.[1] Agency theory suggests that diversification has a negative effect on the value of a firm. Conglomerates involved in industrial and both global and industrial diversification may be more inclined to experience greater agency problems due to their involvement in various possibly unrelated, lines of business, or due to more complex management structure (see Duchin and Sosyura, 2013). Hoechle, Schmid,Walter, and Yermack (2012) show that the magnitude of the diversification discount is amplified for firms with weaker corporate governance. In their attempt to explain the diversification discount, Best, Hodges, and Lin (2004) investigate information asymmetry. They document a positive relationship between information asymmetry and corporate diversification, but still observe the presence of a discount for diversified firms at all levels of information asymmetry.

The theory of internal capital markets offers another explanation for why diversified firms differ in value from non-diversified firms. Specifically, this theory states that the firm can

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[1] Aggarwal and Samwick (2003), Amihud and Lev (1981), Denis, Denis, and Sarin (1997), Jensen and Murphy (1990), Jensen (1986), and Shleifer and Vishny (1989) present empire building, managerial hubris, managerial overconfidence, and executives' pursuit of insurance to protect their positions as the reason for diversification and causes for the discount associated with diversification.

subsidize divisions with internal capital, and, as a result, gain a comparative advantage over firms that use only external financing to fund their operations. Assuming that internal capital is distributed efficiently, the theory suggests that diversified firms should be valued at a premium to their single segment competitors (see Gertner, Scharfstein, and Stein, 1994 or Stein, 1997). Cline, Garner, and Yore (2014) show that firms that operate internal capital markets, i.e., conglomerates, avoid external monitoring that comes with external financing, and as a result use this capital inefficiently. In an empirical study, Ozbas and Scharfstein (2010) show that the divisions of conglomerate firms exhibit lower Q-sensitivity of investment than single segment firms. They attribute this apparent inefficiency of internal capital markets to agency problems that are present in diversified firms.

B. Empirical Literature

A variety of empirical studies that matched the segments of diversified firms to their pure play counterparts and performed a relative valuation of the diversified firms based on the aggregation of their business segments using valuation multiples are consistent in reporting that diversified firms have lower values than their comparable single segment firms.[2] As shown in Table 1, prior research suggests that there are substantial discounts in value for firms that diversify across industries and globally, as compared to domestic single-segment firms. Based on the midpoints of results shown in the studies by Denis, Denis and Yost (2002) and Volkov and Smith (2015) in Table 1, the valuation discount for domestic firms that diversify industrially is 20 percent, for firms that diversify globally is 18 percent and for firms that diversify globally and internationally, the discount is 34 percent.[3]

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[2] See Lang and Stulz, (1994); Berger and Ofek, (1995); Servaes, (1996); Denis, Denis, and Yost, (2002); and Volkov and Smith, (2015).

[3] The other studies in Table 1 are not separately referenced as they do not distinguish between the effects on value of industrial diversification only, global diversification only, and both global and industrial diversification.

Comment and Jarrell (1995) use the Herfindahl Index as a proxy for the degree of focus of the firm. Comment and Jarrell show that firms that became more focused (less diversified) demonstrate higher stock returns than those that did not change their focus or have increased their degree of diversification.

Megginson, Morgan, and Nail (2004) studied long-term abnormal returns for mergers that increase corporate diversification. They found that focus-decreasing mergers result in significantly negative long-term performance with an average 18 percent loss in stockholder wealth, a 9 percent loss in firm value, and significant declines in operating cash flows three years after the merger. Megginson, Morgan and Nail computed that a 10 percent decrease in focus results in a 9 percent loss in stockholder wealth, 4 percent discount in firm value and a more than 1 percent decline in operating performance. Similarly, many studies that examine the effect of spin-offs document an increase in firm value following an event that reduces the level of firm's corporate diversification (see Krishnaswami and Subramaniam, 1999).

The summary of the findings of the empirical literature on the magnitude of the corporate diversification discount is presented in Table 1.

<Table 1 here>

III.   The Industry-Level Diversification Effects

To explore the effect of corporate diversification on the excess returns, we utilize a sample of monthly returns of all firms included in the CRSP and the COMPUSTAT data bases for the 1977 – 2018 period. Our final sample consists of 2,145,163 monthly return observations. We then sort the data on an industry level based on the 2-digit SIC code. To ensure that the results are not driven by artifacts of the composition of the industry, we eliminate all industries that have less

than 1,000 monthly return observations. The final sample consists of 66 industry-specific subsamples.

We utilize four models to test the presence of a diversification discount or premium on the industry level. In Model 1, we utilize the traditional CAPM framework and add an indicator variable (*Diversification*) that equals one if the company has reported to be operating in more than one industry as defined by the two-digit SIC code in the given year. In Model 2, we introduce the industry-specific equally weighted excess return into the calculation. Introduction of this variable ensures that the industry-specific premium or discount are controlled in the tests. In Model 3 we introduce the Fama French (1993) *SMB* factor into the model, while in Model 4 the three-factor Fama French model factors *SMB* and *HML* are controlled for. Year fixed effects are controlled for in all models; the standard errors are clustered. Table 2 reports the results of the industry-level analysis.

<Table 2 here>

We define the presence of the diversification-related excess return if coefficients on the *Diversification* variable are significant at the ten percent significance level in at least two out four models employed in the analysis. The two left most columns of Table 2 report whether the diversification discount or premium are present and report the monthly and the annualized magnitude of it. Notably, most (84.85%) industries do not exhibit presence of a diversification discount or a premium. However, for the industries where such discounts or premiums are present (total of 10 industries), the magnitude of the diversification effect is rather significant. Seven of the 10 industries with identified diversification effects exhibit excess return that are negative. These industries include Coal Mining, Special Trade Contractors, Primary Metal Industries, Wholesale Trade – Nondurable Goods, Depository Institutions, Insurance Agents, Brokers, and

Service, and Business Services. Two of the seven industries listed above, Business Services and Depository Institutions are among the top three largest industries represented in the sample (Business Services is the largest and Depository Institutions is the third largest) representing 15% of all monthly return observations. The magnitude of the diversification-related excess return for these seven industries ranges from -15.39% for Coal Mining to -3.58% for Primary Metal Industries. These results suggest that the discount rate to be used in a valuation engagement involving a diversified company in one of these seven primary industries may need to be adjusted downward to reflect the lower expected returns from diversified firms engaged in these primary industries.

Three industries exhibit positive significant excess returns associated with corporate diversification. These industries are: Printing and Publishing (4.14% excess return), Miscellaneous Manufacturing Industries (6.09%) and Auto Repair Services and Parking (14.14%). Thus, an additional discount for corporate diversification should be applied when valuing diversified firms engaged in these primary industries. Note that the three industries discussed above represent industries with fewer monthly return observation (ranging from 4,889 observations for Auto Repair and 30,395 observations for Printing and Publishing).

IV.   The Industry-Level Size Effects

As noted in the introductory section of the paper, our results of the industry-specific tests revealed some interesting findings pertaining to the effects of the size of the firm on excess returns. The conventional view of the size effects first formally documented by Fama and French (1993) is that the returns and the size of the firm are inversely related. This view is widely adopted in the valuation industry and virtually all valuation practitioners incorporate a size factor in their derivation of discount and capitalization rates in the valuation engagement. Notably, most

privately owned firms that are valuated are smaller firms. Thus, it is very common for practitioners to apply significant size-related discounts (or higher expected returns) to subject firms.

While our analysis confirms that, for most industries (60.61% or 40 out of 66), the size effect is as expected – smaller firms produce higher excess returns, in some industries no size effects are present while in some industries the relation between the size and excess return is inverse (smaller firms produce lower excess returns than do larger firms). Table 3 provides a summary of industries that exhibit no or a negative relation between the Fama French *SMB* factor and excess returns. The detailed by-industry results can be viewed in Table 2.

<Table 3 here>

A total of 26 industries (39.39%) exhibits no or a negative size effect. Out of these 26, 10 (or 15.15% of the entire sample) exhibit a negative relation between size and excess returns. Thus, an application of a uniform size-related discount in a valuation engagement involving a smaller firm would result in a significant undervaluation in almost 40% of the instances (assuming a uniform distribution of industries in valuation engagements). In over 15% of the instances, the application of the size-related discount would result in the valuation effects that are opposite of the effects documented in this study. This would result in a gross undervaluation of a small firm and a significant overvaluation of a large firm.

While the results on the size effects reported in this study cannot be directly converted into numerical size-related discounts and premiums, they do indicate that an industry-specific approach to the use of size-related premiums and discounts should be carefully considered by a valuation professional. Absence of such an industry-level consideration could result in grossly misstated valuation conclusions. Note that the results obtained in this study control for industry-specific returns. Thus, a mere application of the industry-specific discount or premium as commonly done

by valuation professionals does not provide a sufficient adjustment for the size effects documented in this study.

V.　Implications of Diversification on Valuation of Firms

In this section of the paper we discuss the implications of our findings pertaining to corporate diversification discounts and premiums on an engagement involving a valuation of a diversified private business.

A. Market/Relative Valuation Approach

An approach often used by valuation specialists to appraise a diversified firm is to divide the firm into separate segments. For each segment, a relative valuation is conducted based on reference to data on comparable single-segment firms. The valuations of each segment are then summed up. However, the valuation is incomplete without applying the appropriate diversification discount or premium to the sum of values obtained. For example, if the firm in question is a diversified company operating in the primary SIC Code 27 (Printing and Publishing), the relative valuation will have an upward bias unless a discount of about 17.15 percent is applied.[4] However, if the firm in question is a company operating in, for example, SOC Code 35 (Industrial Machinery and Equipment), there will be no significant bias if diversification is ignored. Similarly, a 26.5% premium should be applied to firms operating the SIC Code 73 (Business Services).[5]

B. Income Valuation Approach

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[4] The discount is estimated by applying the additional excess diversification-driven return shown to be present for companies operating in the primary SIC Code 27 (see Table 2) to the denominator in the perpetuity formula that would be used to compute the present value of the future perpetual cash flows of a firm. A 20% initial pre-diversification discount rate is assumed.

[5] Same assumptions as with the calculation of the discount above are used in this example.

If a practitioner is going to use an approach that involves estimating future economic income and discounting that income to present value, two approaches that can be used to value the diversified firm exist:

- Separately value each of the segments followed by aggregation or

- Value the income of the entire firm in aggregate

If the business segments of the firm are valued separately, then separate discount rates will be necessary for each business segment. For each business segment, one can use such proprietary databases as the Duff and Phelps Cost of Capital Navigator to determine the appropriate discount rate for each segment. For example, under the buildup approach, discount rates for each segment can be determined as:

(1) $K_e = R_f + RP_m + RP_i + RP_s$

Where: K_e = cost of equity

RP_m = market risk premium

RP_i = industry risk premium

RP_s = size premium

Once the valuations of each segment are determined, they can again be summed followed by application of the diversification discount, if the firm operates in an SIC two-digit industry with significant diversification effects that reduce or increase equity returns. Thus, the diversification-related adjustment can be applied to the final value in a fashion that is same as that described in the Market/Relative Valuation Approach above.

If the aggregate income of the entire firm is used to value the firm, the discount rate under the buildup approach can be expressed as:

(2) $K_e = R_f + RP_m + RP_i + RP_{di} + RP_s$

Where RP_{di} is a diversification risk premium or discount associated with the specific primary industry that the business is operating in. It should be noted that RP_d should be consistent with the diversification discount, i.e., the inclusion of the risk premium should be sufficient to lower or increase the discount rate by the amount of the diversification discount or premium after controlling for the value of the risk free rate, market risk premium, industry risk premium, and size premium.

As an example, assume that the entire firm is being valued. To simplify the calculation, assume that the firm will grow at g percent, a constant annual rate into perpetuity. The value of the firm (V) can be expressed as:

(3) $V = E_0 (1+g)/(K_e-g)$

Where: E_0 is the most recent annual income of the firm.

Assume that the cost of equity that does not include a risk premium for diversification is 15 percent, the most recent year's earnings equal $1 million and the projected growth rate is 5 percent. If these values are plugged into Equation (3), the value of the firm, without factoring in diversification, is $10.5 million. If the firm operates in SIC Code 27, our results imply a discount of 29.28 percent for diversification. This implies that the $10.5 million valuation that we calculated should be reduced to approximately $8.23 million after application of the valuation discount for diversification. The 29.28 percent discount is arrived at as follows: original Ke equaling 15% is increased for the 4.14 percent additional expected return for diversification documented in Table 2. The resulting Ke thus amounts to 19.14 percent, which is a 27.6 percent increase over the initial 15 percent. This will lower the present value of the expected cash flow in the given example to $8.23 million, resulting in a diversification discount of 29.28 percent. The 4.14 percent annual excess return can be viewed as the appropriate annual risk premium for

diversification. Note that, while such a discount appears rather significant at the first glance, the magnitude of it is not inconsistent with the findings of the studies summarized in Table 1.

VI. Conclusions

Our industry level analysis of the effects of diversification on firm suggests that there is not a one size fits all approach to applying premiums or discounts to account for the effects of diversification on the appropriate discount rates and, ultimately, firm value. In contrast to earlier empirical work, our results suggest that the appropriate discount or premium for diversification is dependent on the primary industry of the firm being valued.

In addition, the industry level analysis of the size effect documented by Fama-French (1993) suggests that the common valuation methodology utilized by practitioners which applies a single size premium based on the decile of firm size to the discount rate of firms may not best represent the appropriate discount rates in all valuation assignments. Our results suggest that about 40 percent of industries as defined by the two-digit SIC code exhibit no or negative excess returns associated with size. Thus, a one size fits all approach is also inappropriate when controlling for the size of the business being valued. The results indicate that an industry-specific size adjustment offers a better measure of the size effect that the methodologies presently used by most practitioners. .

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Table 1. **Prior Research that Estimates Diversification Discounts**

Study	Type of Diversification	Value Loss from Diversification
Lang and Stultz (1994)	Industrial diversification	14%-73%
Berger and Ofek (1995)	Industrial diversification	13%-15%
Servaes (1996)	Industrial diversification	7%-52%
	Industrial diversification	20%
Denis, Denis and Yost (2002)	Global diversification	18%
	Industrial and global diversification	32%
	Industrial diversification	5%-35%
Volkov and Smith (2015)	Global diversification	5%-30%
	Industrial and global diversification	15%-55%

Table 2. Industry-Level Effect of Diversification

In Model 1, we report the results of a regression of monthly excess returns of firms in the 1977-2018 period on excess return on the market index and a dummy variable (Diversification) that equals 1 if firm reports to be engaged in more than one industry in a given year as defined by the two-digit SIC code. In Model 2 an excess return on the equally weighted average industry return is added to the model while the Fama-French factors SMB and HML are also controlled for in Models 3 and 4. The column titled Diversification Significant/Not Significant is set to Yes if the diversification variable is statistically significant in at least two out of four models. The final column reports the average monthly excess return associated with diversification and an equivalent annualized return. Year fixed effects and clustered robust standard errors are applied. The *,**,*** represent statistical significance at 10, 5, 1% level respectively.

Primary 2 digit SIC Codes/Primaty Industry		Model 1	Model 2	Model 3	Model 4	Diversification Significant/Not Significant	Average Excess Return Monthly/Annually
01-09 Agriculture, Forestry, & Fishing	Diversification	0.004 *	0.002	0.003	0.003	No	
	Rm	1.170 ***	0.083 *	0.096 **	0.076		
	Rind		0.932 ***	0.834 ***	0.835 ***		
	SMB			0.393 ***	0.394 ***		
	HML				-0.063		
	N	34268	34,268	34,268	34,268		
	R-sq	0.0745	0.1144	0.1157	0.18526		
10 Metal, Mining	Diversification	-0.007 *	-0.006	-0.006	-0.006	No	
	Rm	0.909 ***	-0.012	-0.023	-0.004		
	Rind		0.987 ***	0.976 ***	0.972 ***		
	SMB			0.134 *	0.156 **		
	HML				0.088		
	N	13,961	13,961	13,961	13,961		
	R-sq	0.0538	0.1877	0.1879	0.188		
12 Coal Mining	Diversification	-0.012 **	-0.014 *	-0.014 *	-0.014 *	Yes	-0.014
	Rm	1.178 ***	-0.077	-0.077	-0.051	Annualized:	**-15.39%**
	Rind		1.037 ***	1.037 ***	1.032 ***		
	SMB			0.000	0.044		
	HML				0.192 *		
	N	4,229	4,229	4,229	4,229		
	R-sq	0.093	0.2998	0.2998	0.3004		
13 Oil & Gas Extraction	Diversification	0.000	-0.001	-0.001	-0.001	No	
	Rm	1.104 ***	-0.017	-0.015	-0.009		
	Rind		1.072 ***	1.074 ***	1.072 ***		
	SMB			-0.028	-0.021		
	HML				0.022 *		
	N	75,657	75,657	75,657	75,657		
	R-sq	0.0713	0.1618	0.1618	0.1618		
14 Nonmetallic Minerals, Except Fuels	Diversification	0.006	0.006	0.006	0.006	No	
	Rm	0.954 ***	0.272 **	0.267 ***	0.350 ***		
	Rind		0.679 ***	0.667 ***	0.635 ***		
	SMB			0.088	0.179		
	HML				0.299 *		
	N	2,851	2,851	2,851	2,851		
	R-sq	0.077	0.1279	0.1281	0.1297		
15 General Building Contractors	Diversification	0.004	0.004	0.004	0.004	No	
	Rm	1.190 ***	-0.123	-0.139	-0.076		
	Rind		1.111 ***	1.145 ***	1.110 ***		
	SMB			-0.137 **	-0.070		
	HML				0.161 *		
	N	10,749	10,749	10,749	10,749		
	R-sq	0.1129	0.2072	0.2076	0.208		
16 Heavy Construction, Except Building	Diversification	0.001	0.002	0.002	0.002	No	
	Rm	1.184 ***	0.332 ***	0.364 ***	0.399 ***		
	Rind		0.700 ***	0.628 ***	0.609 ***		
	SMB			0.317 ***	0.358 ***		
	HML				0.106		
	N	7,072	7,072	7,072	10,749		
	R-sq	0.1055	0.1538	0.1561	0.208		
17 Special Trade Contractors	Diversification	-0.007 ***	-0.007 *	-0.007	-0.007	Yes	-0.007
	Rm	1.153 ***	0.243 ***	0.291 ***	0.302 ***	Annualized:	**-7.92%**
	Rind		0.810 **	0.714 ***	0.709 ***		
	SMB			0.331 ***	0.342 ***		
	HML				0.029		
	N	6,681	6,681	6,681	6,681		
	R-sq	0.0868	0.1275	0.1296	0.1296		
20 Food & Kindred Products	Diversification	0.002	0.002	0.002	0.002	No	
	Rm	0.722 ***	0.193 ***	0.193 ***	0.234 ***		
	Rind		0.681 ***	0.672 ***	0.649 ***		
	SMB			0.040	0.086 ***		
	HML				0.151 ***		
	N	45,710	45,710	45,710	45,710		
	R-sq	0.0625	0.0966	0.0967	0.0974		

		(1)	(2)	(3)	(4)		
21 Tobacco Products	Diversification	0.002	0.001	0.001	0.001	No	
	Rm	0.812 ***	0.366 ***	0.356 ***	0.378 ***		
	Rind		0.523 ***	0.515 ***	0.510 ***		
	SMB			0.096	0.122		
	HML				0.120		
	N	3,522	3,522	3,522	3,522		
	R-sq	0.0769	0.1221	0.1224	0.1228		
22 Textile Mill Products	Diversification	0.002	0.002	0.002	0.002	No	
	Rm	0.986 ***	0.022	0.036	0.080		
	Rind		0.955 ***	0.916 ***	0.892 ***		
	SMB			0.132 **	0.173 ***		
	HML				0.108 *		
	N	14,060	14,060	14,060	14,060		
	R-sq	0.0924	0.1608	0.1612	0.1614		
23 Apparel & Other Textile Products	Diversification	-0.001	-0.001	-0.001	-0.001	No	
	Rm	0.981 ***	0.045	0.065	0.134 **		
	Rind		0.923 ***	0.881 ***	0.848 ***		
	SMB			0.124 **	0.193 ***		
	HML				0.195 ***		
	N	18,931	18,931	18,931	18,931		
	R-sq	0.0884	0.1419	0.1422	0.143		
24 Lumber & Wood Products	Diversification	-0.002 *	-0.002	-0.002	-0.002	No	
	Rm	1.233 ***	0.039	0.002	0.022		
	Rind		1.139 ***	1.195 ***	1.182 ***		
	SMB			-0.123 *	-0.105		
	HML				0.040		
	N	9,724	9,724	9,724	9,724		
	R-sq	0.1231	0.1733	0.1735	0.1736		
25 Furniture & Fixtures	Diversification	0.001	0.000	0.000	0.001	No	
	Rm	0.978 ***	0.107 **	0.133 **	0.288 ***		
	Rind		0.854 ***	0.802 ***	0.707 ***		
	SMB			0.148 **	0.299 ***		
	HML				0.399 ***		
	N	13,178	13,178	13,178	13,178		
	R-sq	0.1178	0.1682	0.1689	0.1734		
26 Paper & Allied Products	Diversification	-0.001	-0.001	-0.001	-0.001	No	
	Rm	1.087 ***	0.190 ***	0.166 ***	0.225 ***		
	Rind		0.865 ***	0.916 ***	0.878 ***		
	SMB			-0.160 ***	-0.109 **		
	HML				0.135 **		
	N	18,720	18,720	18,720	18,720		
	R-sq	0.1371	0.1846	0.1855	0.186		
27 Printing & Publishing	Diversification	0.003 *	0.003 *	0.003 *	0.003	Yes	0.003
	Rm	1.003 ***	0.288 ***	0.317 ***	0.405 ***	Annualized:	**4.14%**
	Rind		0.665 ***	0.616 ***	0.581 ***		
	SMB			0.142 ***	0.244 **		
	HML				0.287 **		
	N	30,935	30,935	30,935	30,935		
	R-sq	0.0903	0.1191	0.1196	0.1215		
28 Chemical & Allied Products	Diversification	-0.003 **	-0.001	-0.001	-0.001	No	
	Rm	1.210 ***	0.128 ***	0.150 ***	0.147 ***		
	Rind		0.886 ***	0.851 ***	0.849 ***		
	SMB			0.112 ***	0.103 ***		
	HML				-0.041		
	N	126,370	126,370	126,370	126,370		
	R-sq	0.0783	0.1417	0.1418	0.1419		
29 Petroleum & Coal Products	Diversification	0.002	0.003	0.003	0.003	No	
	Rm	0.950 ***	0.321 ***	0.328 ***	0.368 ***		
	Rind		0.575 ***	0.584 ***	0.569 ***		
	SMB			-0.090 *	-0.047		
	HML				0.147 ***		
	N	11,214	11,214	11,214	126,370		
	R-sq	0.1186	0.1808	0.1812	0.1419		
30 Rubber & Miscellaneous Plastics Products	Diversification	-0.001	-0.001	-0.001	-0.001	No	
	Rm	1.028 ***	0.185 ***	0.192 ***	0.228 ***		
	Rind		0.812 ***	0.800 ***	0.781 ***		
	SMB			0.036	0.074		
	HML				0.096 *		
	N	20,877	20,877	20,877	20,877		
	R-sq	0.0952	0.1393	0.1393	0.1395		

		(1)	(2)	(3)	(4)		
31 Leather & Leather Products	Diversification	0.000	0.000	0.000	0.000	No	
	Rm	0.840 ***	0.044	0.057	0.111 *		
	Rind		0.786 ***	0.761 ***	0.730 ***		
	SMB			0.071	0.128 *		
	HML				0.141 **		
	N	8,955	8,955	8,955	8,955		
	R-sq	0.0907	0.1414	0.1416	0.1421		
32 Stone, Clay, & Glass Products	Diversification	-0.003 **	-0.003	-0.003	-0.003	No	
	Rm	1.047 ***	0.209 ***	0.226 ***	0.317 ***		
	Rind		0.780 ***	0.749 ***	0.705 ***		
	SMB			0.091 *	0.175 ***		
	HML				0.232 ***		
	N	15,270	15,270	15,270	15,270		
	R-sq	0.105	0.1459	0.1461	0.1473		
33 Primary Metal Industries	Diversification	-0.003	-0.003 *	-0.003 *	-0.003 *	Yes	-0.003
	Rm	1.202 ***	0.165 ***	0.173 ***	0.234 ***	Annualized:	-3.58%
	Rind		0.879 ***	0.863 ***	0.831 ***		
	SMB			0.060	0.119 ***		
	HML				0.154 ***		
	N	28,562	28,562	28,562	28,562		
	R-sq	0.1402	0.211	0.2111	0.2117		
34 Fabricated Metal Products	Diversification	0.000	0.001	0.001	0.001	No	
	Rm	0.989 ***	0.122 ***	0.156 ***	0.214 ***		
	Rind		0.802 ***	0.744 ***	0.718 ***		
	SMB			0.166 ***	0.223 ***		
	HML				0.161 ***		
	N	42,865	42,865	42,865	42,865		
	R-sq	0.0853	0.1276	0.1283	0.1288		
35 Industrial Machinery & Equipment	Diversification	-0.001	-0.001	-0.001	-0.001	No	
	Rm	1.292 ***	0.156 ***	0.182 ***	0.191 ***		
	Rind		0.886 ***	0.854 ***	0.854 ***		
	SMB			0.087 ***	0.099 ***		
	HML				0.046 *		
	N	127,994	127,994	127,994	127,994		
	R-sq	0.0957	0.1472	0.1473	0.1473		
36 Electronic & Other Electric Equipment	Diversification	-0.002 *	-0.001	-0.001	-0.001	No	
	Rm	1.445 ***	0.050 **	0.132 ***	0.123 ***		
	Rind		1.014 ***	0.922 ***	0.914 ***		
	SMB			0.252 ***	0.230 ***		
	HML				-0.116 ***		
	N	167,041	167,041	167,041	167,041		
	R-sq	0.1008	0.1655	0.1663	0.1665		
37 Transportation Equipment	Diversification	0.002	0.001	0.001	0.001	No	
	Rm	1.156 ***	0.154 ***	0.156 ***	0.203 ***		
	Rind		0.869 ***	0.864 ***	0.839 ***		
	SMB			0.023	0.075 **		
	HML				0.142 ***		
	N	40,855	40,855	40,855	40,855		
	R-sq	0.1218	0.1903	0.1903	0.1908		
38 Instruments & Related Products	Diversification	0.000	-0.001	-0.001	-0.001	No	
	Rm	1.112 ***	0.130 ***	0.191 ***	0.190 ***		
	Rind		0.854 ***	0.772 ***	0.771 ***		
	SMB			0.199 ***	0.198 **		
	HML				-0.007		
	N	114,973	114,973	114,973	114,973		
	R-sq	0.0695	0.1091	0.1097	0.1097		
39 Miscellaneous Manufacturing Industries	Diversification	0.005 *	0.005 *	0.005 *	0.005 *	Yes	0.005
	Rm	1.000 ***	0.278 ***	0.318 ***	0.389 ***	Annualized:	6.09%
	Rind		0.657 ***	0.567 ***	0.549 ***		
	SMB			0.342 ***	0.440 ***		
	HML				0.309 ***		
	N	23,133	23,133	23,133	23,133		
	R-sq	0.0678	0.0985	0.1011	0.1028		
40 Railroad Transportation	Diversification	0.007 *	0.006	0.006	0.006	No	
	Rm	0.895 ***	0.268 ***	0.249 ***	0.328 ***		
	Rind		0.608 ***	0.643 ***	0.587 ***		
	SMB			-0.091	-0.020		
	HML				0.159 **		
	N	4,745	4,745	4,745	4,745		
	R-sq	0.1319	0.1647	0.1652	0.166		

		(1)	(2)	(3)	(4)		
41 Local & Interurban Passenger Transit	Diversification	0.005	0.004	0.004	0.005	No	
	Rm	0.938 ***	0.194	0.258	0.124		
	Rind		0.692 ***	0.585 **	0.650 ***		
	SMB			0.303	0.151		
	HML				-0.359		
	N	1,002	1,002	1,002	1,002		
	R-sq	0.0551	0.0699	0.0715	0.0728		
42 Trucking & Warehousing	Diversification	0.002	0.002	0.002	0.002	No	
	Rm	0.939 ***	0.046	0.048	0.124 *		
	Rind		0.864 ***	0.861 ***	0.811 ***		
	SMB			0.008	0.081		
	HML				0.170 ***		
	N	15,542	15,542	15,542	15,542		
	R-sq	0.0807	0.1205	0.1205	0.121		
44 Water Transportation	Diversification	0.003	0.003	0.003	0.004	No	
	Rm	1.150 ***	0.531 ***	0.566 ***	0.758 ***		
	Rind		0.597 ***	0.530 ***	0.384 ***		
	SMB			0.205 **	0.383 ***		
	HML				0.434 ***		
	N	4,967	4,967	4,967	4,967		
	R-sq	0.1438	0.1644	0.1657	0.17		
45 Transportation by Air	Diversification	-0.004	-0.004	-0.004	-0.004	No	
	Rm	1.168 ***	-0.083	-0.137 **	-0.225 ***		
	Rind		1.197 ***	1.289 ***	1.348 ***		
	SMB			-0.243 ***	-0.325 ***		
	HML				-0.186 **		
	N	14,251	14,251	14,251	14,251		
	R-sq	0.1071	0.1662	0.1675	0.1681		
46 Pipelines, Except Natural Gas	Diversification	-0.011	-0.010	-0.010	-0.010	No	
	Rm	0.951 ***	0.149	0.147	0.147		
	Rind		0.799 ***	0.831 ***	0.832 ***		
	SMB			-0.156	-0.158 ***		
	HML				-0.004 **		
	N	523	523	14,251	523		
	R-sq	0.185	0.252	0.1675	0.253		
47 Transportation Services	Diversification	0.001	0.001	0.001	0.001	No	
	Rm	1.111 ***	0.146	0.204 *	0.214		
	Rind		0.915 ***	0.798 ***	0.791 ***		
	SMB			0.356 ***	0.367 ***		
	HML				0.023		
	N	4,995	4,995	4,995	4,995		
	R-sq	0.0938	0.1347	0.1383	0.1383		
48 Communications	Diversification	0.003	0.003	0.003	0.003	No	
	Rm	1.411 ***	0.116 **	0.141 **	0.134 **		
	Rind		0.969 ***	0.937 ***	0.931 ***		
	SMB			0.102 *	0.080		
	HML				-0.087 *		
	N	48,459	48,459	48,459	48,459		
	R-sq	0.0931	0.145	0.1451	0.1452		
49 Electric, Gas, & Sanitary Services	Diversification	0.000	0.000	0.000	0.000	No	
	Rm	0.522 ***	0.039 ***	0.044 **	0.054 ***		
	Rind		0.881 ***	0.881 ***	0.874 ***		
	SMB			-0.028 **	-0.019		
	HML				0.039 **		
	N	74,888	74,888	74,888	74,888		
	R-sq	0.0629	0.1496	0.1496	0.1497		
50 Wholesale Trade – Durable Goods	Diversification	-0.002	-0.002	-0.002	-0.002	No	
	Rm	1.060 ***	0.173 ***	0.232 ***	0.266 ***		
	Rind		0.817 ***	0.726 ***	0.712 ***		
	SMB			0.226 ***	0.270 ***		
	HML				0.116 **		
	N	55,819	55,819	55,819	55,819		
	R-sq	0.0709	0.1054	0.1063	0.1066		
51 Wholesale Trade – Nondurable Goods	Diversification	-0.004 *	-0.004 *	-0.004 *	-0.004 *	Yes	-0.004
	Rm	0.983 ***	0.070	0.080	0.084	Annualized:	**-4.79%**
	Rind		0.904 ***	0.885 ***	0.883 ***		
	SMB			0.050	0.055		
	HML				0.011		
	N	30,817	30,817	30,817	30,817		
	R-sq	0.0639	0.1076	0.1076	0.1076		

		(1)	(2)	(3)	(4)		
52 Building Materials & Gardening Supplies	Diversification	-0.002	-0.002	-0.002	-0.002	No	
	Rm	1.074 ***	0.237 ***	0.254 ***	0.340 ***		
	Rind		0.783 ***	0.757 ***	0.708 ***		
	SMB			0.063	0.147		
	HML				0.209 **		
	N	5,171	5,171	5,171	5,171		
	R-sq	0.1221	0.1598	0.1599	0.1609		
53 General Merchandise Stores	Diversification	0.002	0.002	0.002	0.002	No	
	Rm	1.018 ***	0.017	-0.050	-0.020		
	Rind		0.927 ***	1.040 ***	1.023 ***		
	SMB			-0.282 ***	-0.253 ***		
	HML				0.074		
	N	15,598	15,598	15,598	15,598		
	R-sq	0.1121	0.17	0.1725	0.1727		
54 Food Stores	Diversification	0.001	0.001	0.001	0.001	No	
	Rm	0.762 ***	0.144 ***	0.179 ***	0.256 ***		
	Rind		0.578 ***	0.523 ***	0.483 ***		
	SMB			0.136 **	0.212 ***		
	HML				0.196 ***		
	N	12,944	12,944	12,944	12,944		
	R-sq	0.0784	0.1046	0.1052	0.1064		
55 Automative Dealers & Service Stations	Diversification	-0.006	-0.005	-0.005	-0.005	No	
	Rm	1.131 ***	0.254 ***	0.276 ***	0.386 ***		
	Rind		0.780 ***	0.743 ***	0.666 ***		
	SMB			0.112	0.244 ***		
	HML				0.338 ***		
	N	7,194	7,194	7,194	12,944		
	R-sq	0.1126	0.1488	0.1491	0.1064		
56 Apparel & Accessory Stores	Diversification	-0.002	-0.001	-0.001	-0.001	No	
	Rm	1.208 ***	-0.142 ***	-0.168 ***	-0.166 ***		
	Rind		1.220 ***	1.264 ***	1.263 ***		
	SMB			-0.125 **	-0.123 **		
	HML				0.005		
	N	18,865	18,865	18,865	18,865		
	R-sq	0.108	0.1799	0.1803	0.1803		
57 Furniture & Homefurnishings Stores	Diversification	-0.006	-0.008	-0.008	-0.008	No	
	Rm	1.271 ***	-0.072	-0.077	-0.041		
	Rind		1.206 ***	1.214 ***	1.198 ***		
	SMB			-0.022	0.019		
	HML				0.107		
	N	9,942	9,942	9,942	9,942		
	R-sq	0.0988	0.1546	0.1547	0.1548		
58 Eating & Drinking Places	Diversification	0.003	0.002	0.002	0.002	No	
	Rm	0.911 ***	-0.034	-0.036	-0.048		
	Rind		1.033 ***	1.035 ***	1.043 ***		
	SMB			-0.008	-0.022		
	HML				-0.035		
	N	33,266	33,266	33,266	33,266		
	R-sq	0.0694	0.1256	0.1256	0.1256		
59 Miscellaneous Retail	Diversification	0.000	0.001	0.001	0.001	No	
	Rm	1.146 ***	0.100 *	0.133 **	0.096		
	Rind		0.953 ***	0.901 ***	0.921 ***		
	SMB			0.137 ***	0.096 *		
	HML				-0.101 **		
	N	35,067	35,067	33,266	35,067		
	R-sq	0.0835	0.1222	0.1256	0.1228		
60 Depository Institutions	Diversification	-0.006 *	-0.005 *	-0.005 *	-0.005 *	Yes	-0.006
	Rm	0.584 ***	-0.073 ***	-0.072 ***	-0.068 ***	Annualized:	**-6.58%**
	Rind		1.022 ***	1.023 ***	1.017 ***		
	SMB			-0.006	-0.002		
	HML				0.009		
	N	140,954	140,954	140,954	35,067		
	R-sq	0.086	0.1675	0.1675	0.1228		
61 Nondepository Institutions	Diversification	-0.003	-0.002	-0.002	-0.003	No	
	Rm	1.060 ***	0.482 ***	0.482 ***	0.659 ***		
	Rind		0.747 ***	0.709 ***	0.549 ***		
	SMB			0.163 ***	0.328 ***		
	HML				0.410 ***		
	N	20,459	20,459	20,459	20,459		
	R-sq	0.0822	0.1009	0.1017	0.1042		

		(1)	(2)	(3)	(4)		
62 Security & Commodity Brokers	Diversification	-0.001	0.000	0.000	0.000	No	
	Rm	1.264 ***	0.439 ***	0.470 ***	0.459 ***		
	Rind		0.945 ***	0.877 ***	0.888 ***		
	SMB			0.158 ***	0.148 ***		
	HML				-0.022		
	N	22,773	22,773	22,773	22,773		
	R-sq	0.1391	0.1677	0.1686	0.1686		
63 Insurance Carriers	Diversification	0.000	0.000	0.000	0.000	No	
	Rm	0.824 ***	0.056 **	0.054 *	0.155 ***		
	Rind		0.900 ***	0.922 ***	0.826 ***		
	SMB			-0.089 ***	-0.014		
	HML				0.194 ***		
	N	45,584	45,584	45,584	45,584		
	R-sq	0.0963	0.1444	0.1449	0.1461		
64 Insurance Agents, Brokers, & Service	Diversification	-0.007 **	-0.009 **	-0.009 **	-0.009 **	Yes	-0.008
	Rm	0.915 ***	0.199 **	0.211 ***	0.207 **	Annualized:	**-9.43%**
	Rind		0.791 ***	0.756 ***	0.758 ***		
	SMB			0.120 *	0.117		
	HML				-0.007		
	N	6,278	6,278	6,278	6,278		
	R-sq	0.0961	0.12419	0.1267	0.1267		
65 Real Estate	Diversification	-0.001	-0.002	-0.002	-0.002	No	
	Rm	0.947 ***	0.077	0.089	0.218 **		
	Rind		0.879 ***	0.833 ***	0.769 ***		
	SMB			0.188 ***	0.325 ***		
	HML				0.380 ***		
	N	18,156	18,156	18,156	18,156		
	R-sq	0.0626	0.1104	0.1111	0.1133		
67 Holding & Other Investment Offices	Diversification	-0.002 *	-0.001	-0.001	-0.001	No	
	Rm	0.793 ***	0.203 ***	0.205 ***	0.268 ***		
	Rind		0.704 ***	0.696 ***	0.654 ***		
	SMB			0.032 *	0.082 ***		
	HML				0.142 ***		
	N	93,732	93,732	93,732	93,732		
	R-sq	0.0974	0.1348	0.1348	0.1354		
70 Hotels & Other Lodging Places	Diversification	0.001	0.000	0.000	0.000	No	
	Rm	0.969 ***	0.253 ***	0.264 ***	0.402 ***		
	Rind		0.740 ***	0.713 ***	0.646 ***		
	SMB			0.089	0.250 ***		
	HML				0.424 ***		
	N	11,946	11,946	11,946	11,946		
	R-sq	0.0932	0.1362	0.1364	0.13994		
72 Personal Services	Diversification	0.006	0.006	0.006	0.006	No	
	Rm	1.015 ***	0.315 ***	0.334 ***	0.375 ***		
	Rind		0.653 ***	0.618 ***	0.597 ***		
	SMB			0.105	0.155 *		
	HML				0.143 *		
	N	7,422	7,422	7,422	7,422		
	R-sq	0.0856	0.1143	0.1146	0.1151		
73 Business Services	Diversification	-0.004 **	-0.003 **	-0.003 **	-0.003	Yes	-0.004
	Rm	1.482 ***	0.113 ***	0.166 ***	0.167 ***	Annualized:	**-4.19%**
	Rind		0.951 ***	0.892 ***	0.876 ***		
	SMB			0.173 ***	0.153 ***		
	HML				-0.120 ***		
	N	180,973	180,973	180,973	180,973		
	R-sq	0.0933	0.1507	0.151	0.1512		
75 Auto Repair, Services, & Parking	Diversification	0.011 **	0.011 *	0.011 *	0.011 *	Yes	0.011
	Rm	1.066 ***	0.365 ***	0.381 ***	0.484 ***	Annualized:	**14.14%**
	Rind		0.682 ***	0.653 ***	0.610 ***		
	SMB			0.079	0.190		
	HML				0.287 **		
	N	4,889	4,889	4,889	4,889		
	R-sq	0.0942	0.1206	0.1208	0.1222		
76 Miscellaneous Repair Services	Diversification	0.022	0.021	0.021	0.021	No	
	Rm	1.034 ***	0.485 ***	0.580 ***	0.749 ***		
	Rind		0.568 ***	0.431 **	0.372 **		
	SMB			0.342	0.519 *		
	HML				0.465 *		
	N	803	803	803	803		
	R-sq	0.1276	0.1508	0.1537	0.1573		

78 Motion Pictures	Diversification	-0.003	-0.004	-0.004	-0.004	No
	Rm	1.127 ***	0.111	0.146 **	0.147 *	
	Rind		0.894 ***	0.837 ***	0.836 ***	
	SMB			0.192 **	0.194 **	
	HML				0.004	
	N	11,891	11,891	11,891	11,891	
	R-sq	0.0658	0.1049	0.1054	0.1054	
79 Amusement & Recreation Services	Diversification	-0.003	-0.004	-0.004	-0.004	No
	Rm	1.015 ***	0.053	0.078	0.104	
	Rind		0.874 ***	0.821 ***	0.808 ***	
	SMB			0.184 ***	0.221 **	
	HML				0.096	
	N	14,723	14,723	14,723	14,723	
	R-sq	0.0639	0.1073	0.108	0.1082	
80 Health Services	Diversification	-0.001	-0.001	-0.001	-0.001	No
	Rm	1.113 ***	0.092 **	0.136 ***	0.136 ***	
	Rind		0.937 ***	0.868 ***	0.868 ***	
	SMB			0.190 ***	0.189 ***	
	HML				-0.001	
	N	40,614	40,614	40,614	40,614	
	R-sq	0.0629	0.1056	0.1062	0.1062	
82 Educational Services	Diversification	-0.004	-0.002	-0.002	-0.002	No
	Rm	1.105 ***	-0.024	-0.018	-0.117	
	Rind		1.016 ***	1.004 ***	1.062 ***	
	SMB			0.036	-0.120	
	HML				-0.423 ***	
	N	6,988	6,988	6,988	6,988	
	R-sq	0.0748	0.1299	0.1299	0.1331	
83 Social Services	Diversification	-0.004	-0.002	-0.002	-0.002	No
	Rm	1.105 ***	-0.024	-0.018	-0.117	
	Rind		1.016 ***	1.004 ***	1.062 ***	
	SMB			0.036	-0.120	
	HML				-0.423 ***	
	N	6,988	6,988	6,988	6,988	
	R-sq	0.0748	0.1299	0.1299	0.1331	
87 Engineering & Management Services	Diversification	-0.002	-0.001	-0.002	-0.001	No
	Rm	1.243 ***	-0.060	-0.018	-0.025	
	Rind		1.057 ***	0.996 ***	0.990 ***	
	SMB			0.169 **	0.134 *	
	HML				-0.149 ***	
	N	35,071	35,071	35,071	35,071	
	R-sq	0.0675	0.1323	0.1327	0.133	
89 Services, Not Elsewhere Classified	Diversification	-0.003	-0.004	-0.003	-0.003	No
	Rm	1.089 ***	0.438 ***	0.580 ***	0.601 ***	
	Rind		0.557 ***	0.362 ***	0.362 ***	
	SMB			0.556 ***	0.579 ***	
	HML				0.089	
	N	9,462	9,462	9,462	9,462	
	R-sq	0.0869	0.1081	0.1131	0.1132	
99 Non-Classifiable Establishments	Diversification	0.001	0.001	0.001	0.001	No
	Rm	1.203 ***	-0.228 ***	-0.224 ***	-0.229 ***	
	Rind		1.197 ***	1.188 ***	1.190 ***	
	SMB			0.034	0.036	
	HML				-0.164 ***	
	N	33,848	33,848	33,848	33,848	
	R-sq	0.19265	0.1071	0.1071	0.1074	

Table 3. Size Effects Summary of Industries with No and Negative Excess Returns on Size Factor

The table provides a summary of the results reported in Table 2 as it relates to the coefficients on the SMB Fama French factor. The list of the industries contains the primary industries in which the size effect is shown to be insignificant (No) and negative significant (Yes). Refer to Table 2 for detailed results.

Primary 2 digit SIC Codes/Primaty Industry	Size Negative Significant
12 Coal Mining	No
13 Oil & Gas Extraction	No
14 Nonmetallic Minerals, Except Fuels	No
15 General Building Contractors	Yes
21 Tobacco Products	No
24 Lumber & Wood Products	Yes
26 Paper & Allied Products	Yes
29 Petroleum & Coal Products	Yes
30 Rubber & Miscellaneous Plastics Products	No
40 Railroad Transportation	No
41 Local & Interurban Passenger Transit	No
42 Trucking & Warehousing	No
45 Transportation by Air	Yes
46 Pipelines, Except Natural Gas	Yes
49 Electric, Gas, & Sanitary Services	Yes
52 Building Materials & Gardening Supplies	No
53 General Merchandise Stores	Yes
56 Apparel & Accessory Stores	Yes
57 Furniture & Homefurnishings Stores	No
58 Eating & Drinking Places	No
60 Depository Institutions	No
63 Insurance Carriers	Yes
75 Auto Repair, Services, & Parking	No
82 Educational Services	No
83 Social Services	No
99 Non-Classifiable Establishments	No