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Three Essays on Diversification and Corporate Policies

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by

Catalina Ioana Hurwitz

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To: Acting Dean Jose M. Aldrich
College of Business Administration

This dissertation, written by Catalina Ioana Hurwitz, and entitled Three Essays on Diversification and Corporate Policies, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Florida International University, 2016

DEDICATION

I dedicate this dissertation to my husband, my daughter and my mom whose love, affection, encouragement and prayers made possible the completion of this work. Finally, I dedicate this dissertation to my dad, who was not able to see his granddaughter or the fulfillment of my Ph.D.

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ABSTRACT OF THE DISSERTATION

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In the first essay using a sample of 3437 U.S. companies over the period 1992-2014, I demonstrate that international business activities of newly listed firms influence their corporate policies. Specifically, firms earning foreign pre-tax income at an early phase of their growth and development have higher investment and a higher propensity to acquire. I show that cash holdings are lower for firms involved in foreign activities, supportive of Duchin's (2010) coinsurance theory. Further, CEOs of globally diversified firms have less pay-for-performance sensitivity than those of purely domestic firms. In order to avoid model misspecification and inefficient coefficient estimates I employ a two-stage least squares (2SLS) as well as a dynamic panel GMM estimation. My results are robust when examining hot IPOs, IPOs that are diversified globally but not industrially, when using propensity score matching and other tests.

The second essay examines the impact of the Sarbanes-Oxley Act (SOX, 2002) on excess valuation calculated with the chop shop approach, which is typically used to measure the diversification discount. The results indicate a significant drop in excess

valuation after SOX for both pure-play and multi-segment companies. Additional investigation of the calculation methodology and a difference-in-differences model show no distinction in this impact between un-accelerated and accelerated companies. There is no evidence to support that the Sarbanes-Oxley Act leads firms to diversify or focus. I run several robustness tests by including 2003 observations, creating a 2000-2006 subsample, excluding geographic segments. I also look at companies in existence in 2002 and SOX has once again a negative effect regarding excess valuation. I conclude that corporate accountability guidelines or governance in action is beneficial for firms and shareholders.

Finally, when in a firm's life would it fit for it to become involved in global strategies? What are the important influences on the decisions of young and mature firms to go international? I answer these questions in the third essay by examining the determinants that affect the choices of born-globals (BGs) and born-again globals (BaGs) to expand worldwide. My study is based on pre-existent theories of diversification, and I place specific emphasis on the conceivable role of peer influence and the motivation or desire for growth. I further study the entrenchment, the idiosyncratic risk, and the innovation caliber hypothesis. My results document that innovation efficiency strongly enhances BG's propensity to global diversify. On the other hand, peer pressure, CEO ownership and idiosyncratic risk level significantly influence BGs not to globalize. In contrast, BaGs are positively influenced by their industry peers, showing how competition works in the financial markets for youthful versus mature companies.

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CHAPTER 1: THE IMPACT OF GLOBALIZATION ON CORPORATE POLICIES OF NEWLY LISTED FIRMS

1.1. Introduction

Firms' corporate policy decisions are examined tangentially when researchers study how firms' value is influenced by diversification. Indeed, corporate decisions are included among regressors (see Thomas 2002, Villalonga 2004a, 2004b, Chen 2006, Chen and Chen 2011), or interaction terms between the diversification dummy and the firm's financial corporate policy are added to the regression (see Mansi and Reeb 2002). Corporate policies are also used to eliminate selection bias issues (see Graham et al. 2002 and Chkir and Cosset 2003, who examine samples of firms that diversify via acquisitions).

In this paper I assert that is not sufficient to regard only the relation between diversification and value or diversification and performance; rather, the impact of diversification on corporate policies also needs to be examined. As most of the empirical evidence promoting corporate policies is for mature and industrially diversified firms (Ahn, Denis and Denis 2006, Duchin 2010, Ozbas and Scharfstein 2010, Chen and Chen 2011, Chen and Chen 2012) I do not study either well-established or industrially diversified companies. Denis, Denis and Yost (2002) make it clear that to the extent that industrial and global diversification have been initially viewed like sisters, global diversification is not a substitute for industrial diversification with the decision to diversify globally being self-selected and endogenous. In the light of what I stated above, I give some thought to the corporate policies of initial public offerings (IPOs), topics that, like the valuation of mature companies, occupy an important place in financial research.

Since evidence is far from overwhelming for the long-term post-IPO progression of corporate policies of globally diversified firms, this paper scrutinizes the corporate policies of newly listed firms involved in international business activities. My attention is drawn to young companies, and I focus on the year immediately prior to their initial public offering, as well as on subsequent years up to ten, as it may take time for firms to adjust their corporate policies. I do not follow after ten years, reasoning that the firms have lost their juvenescence. My sample is comprised of globalized IPOs that are compared to domestically focused IPOs: the firms have foreign sales (FS), export sales (ES), both exports and foreign sales (FES) or neither foreign sales nor exports (NFES).

The determination for "going global" and being involved in international business activities at this early stage is surprising (see Mauer et al. 2014).[1] Firms can undertake diversification to spread the risk, but the IPOs are inherently risky; it is difficult for IPOs to use tangible resources and intangible capabilities as they may not have much of either. I acknowledge that young firms may grow and gain a competitive advantage from diversification and intrinsically increase shareholder wealth. According to Denis et al. (2002), Martin and Sayrak (2003), Guo (2011), Erdorf et al. (2013), and others, internal capital markets, agency problems, the debt-coinsurance effect (i.e., the shield against increased interest tax), and growth opportunities are the most plausible reasons for

[1] It is important to review two recent titles that stand out because they yield similar, in parallel conclusions on the industrial and global diversification of newly issued firms. The investigation of Boulton et al. (2013) from 1982 to 2005 shows that industrially diversified issuers underprice less often than do focused firms. Lower underpricing is also discovered by Mauer et al. (2014) in globally diversified IPOs issued between 1986 and 2010. Moreover, Mauer et al. (2014) document better long-run performance and lower failure rates for globally diversified IPOs than for purely domestic IPOs.

diversification.[2] The concept behind the first theory is that internal capital markets are more attractive to industrially diversified firms than are external capital markets, which are highly imperfect. Agency problems refer either to reaping private benefits or to reducing firm-specific risk through diversification only as managers' tactics to preserve the value of their future compensation. Reducing the volatility of cash flows allows diversified firms to have greater debt capacity than focused firms have; they implicitly gain a higher interest tax shield. Finally, a good example of growth opportunities is provided by Martin and Sayrak (2003).

My methodology consists first of ordinary least squares regressions that control for firm and fiscal year fixed effects with robust standard errors clustered at the firm level. My fixed effects estimation is supposed to alleviate concerns about unobservable omitted variables among the corporate policies regressions. However, besides unobserved heterogeneity and because globalization can be perceived as another corporate policy I suspect that my model contains endogeneity issues. These may arise in an unbalanced panel dataset due to various factors like a non-zero correlation between individual unobserved effects and globalization variables or a non-zero correlation between explanatory variables and idiosyncratic errors (see Semykina and Wooldridge 2010).

Because Campa and Kedia (2002), Gomes (2004), and Villalonga (2004a) also regard the decision to diversify as endogenous, I proceed similarly to Adams et al. (2009). I address the endogeneity problem by viewing my foreign sales binary dummy not as an external shock to the model but as variable that is jointly determined within the system,

[2] These theories have been empirically tested.

and by finding an instrumental variable for it. Oesterle et al. (2013), among many others, opine that ownership concentration has a strong impact on internationalization. I look at nine ownership variables and I prefer to use the average number of institutional owners, rather than the average ownership Herfindahl-Hirschman index or the average institutional ownership in percentage, etc. as my chosen instrument. I provide clear evidence that the chosen instrument is appropriate for investment and financial policies based on the high correlation between average number of institutional owners and pre-tax foreign income.

The causal inference in my unique panel dataset does not change for investments and acquisitions, but the coefficients of the pre-tax foreign income variable do change sign after instrumentation. There is now a positive significant relation between investments and the pre-tax income from firms' foreign operations. Firms extracting income from the sales of their products manufactured abroad seem likely to continue the process and be more engaged in capital expenditures. To put it differently IPOs, being young, do not have enough tangible assets like plant, equipment, and other physical resources and it seems that global diversification is a prominent factor in attaining more.

I add from the perspective of global diversification to a very recent paper by Cihan and Tice (2015), who ponder whether industrially diversified firms are better acquirers than single segment firms, demonstrating that among globally diversified firms there is a higher propensity to acquire smaller competitors than there is for purely domestic companies.

In addition, I find evidence for a negative causal effect of globalization on cash holdings in the sense that cash holdings are lower for globally diversified than for firms involved only in domestic activities. My result is similar to the findings of Duchin (2010),

who documents that the industrially diversified firms take advantage of "coinsurance," which allows them to hold reduced amounts of cash in comparison to single-segment firms.

Overall, my empirical results provide support to the idea that global diversification influences selected investment and financial corporate policies. Further, according to Certo et al. (2003), IPO firms provide excellent data for the examination of executive policies. The distinct executive compensation policies that I check are base salary, total annual compensation, and the pay-for-performance sensitivity calculated according to Core and Guay (1999). However, in this case I am not able to find an explanatory variable highly correlated with foreign or export sales dummies and uncorrelated with disturbances. To provide an example, the number of institutional owners is, as before, positively correlated with foreign sales (22%), only it is even more highly correlated with CEO pay-performance sensitivity (CEO delta) 32%. This lead resembles the findings of Hartzell and Starks (2003) who ascertain that concentration of institutional investor ownership is positively related to the performance sensitivity of managerial compensation. Supplementary to ownership variables, I try the idiosyncratic risk (see Aggarwal and Samwick 2003), but I am not able to find a good instrument for my two-stage least squares regressions.

I also realize that I cannot examine corporate policies in isolation: I am required to include in each model the identical lagged corporate policy. The underlying argument in favor of adding the lagged policy variable is that companies operate on a continuous basis and for more than one year. Excluding the lagged dependent variable leaves open the possibility of a bias; therefore, I extend my initial model using a dynamic panel GMM framework. This estimation allows us to account simultaneously for the endogeneity of global diversification and at the same time use lags of the dependent variable.

This more comprehensive view supports my previously hypothesized motivations for investment, the likelihood of acquisitions and cash holdings. It still appears that the difference in R&D intensity, market leverage, and dividend policy between the diversified and focused firms is insignificant a year after global diversification. In addition I get a negative effect of globalization on the sensitivity of CEO wealth to stock price (CEO delta). According to Coles, Daniel, and Naveen (2014) and Chava and Purnanandam (2010), higher CEO delta implies that managers work more in concert with shareholders for the obvious reasons that they share gains and losses. The lower CEO delta in my model means that the receiving of foreign income acts to destabilize managerial sensitivity, consistent with the risk-decreasing incentives and agency explanation for the value-loss of diversification. (Note that Hoechle et al. [2012] in univariate statistics also find that diversified firms have lower pay-performance sensitivity.)

While my dynamic models yield substantial evidence of an association between global activities and select policies, there could be another influence that I have not yet considered. I have to capture the effect that one set of policies has on the other set, because in practice there are interactions that may exist among them. Gatchev et al. (2010) demonstrate that when additional funds are received by firms, these cash flows are not used to increase firms' investments or their distributions. Instead the major effect is a decline in leverage of $0.60 to $0.97 for each dollar of positive cash flow. My findings maintain their meaningful implications in the case of investments, acquisitions and CEO delta incentive.

My results are followed by several robustness checks in which I find similar results when I conduct annual cross-sectional tests, when I settle on hot IPOs, and when I remove industrial and keep only global diversified IPOs. Further I complement my main results by

readjusting my FS, ES, FES groups of firms by applying a ten percent threshold. I also contract the NFES group by applying propensity score matching techniques. In both situations, the results hold, which translates into support for my initial models. Overall, I show that understanding of the corporate policies of newly listed firms can be enriched dramatically by considering their determination to pursue foreign activities.

The remainder of this essay is organized as follows. Section 2 presents theoretical and empirical findings that illustrate the diverse associations between globalization, decisions to go public, and subsequent implication for firms' corporate policies. Section 3 presents my data sources, describes my sample, and outlines my methodology. Section 4, which empirically tests the effect of diversification on newly issued companies, includes my results. It is followed by section 5, which examines the robustness of my empirical findings, and conclusion.

1.2. Related Literature on Corporate Policies, Globalization and Newly Issued Firms

In this section I revisit major investment, financial, and executive policies, since extant literature maintains that different combinations of them make a difference in firm performance.

Investments

My IPO firms are actively developing their roles in international markets, so I infer that this fact reveals a unique long-term plan of action. I expect that these companies handle not one but two of the most important challenges that a firm can experience during its growth phase (Pagano, Panetta and Zingales, 1998).[3] It is safe to conjecture that these firms pass up investment opportunities that are costly to finance externally considerably more often than do other companies lacking internal cash flows from operations. That is, Pagano, Panetta, and Zingales (1998) and Chaddad and Reuer (2009) claim to show a decrease in capital expenditures after a firm goes public. [4]

On the other hand, these challenges may not be so acute for mature companies. In their realm the consideration of the investment opportunity set and the diversification policy encourages two competing hypotheses: the investment opportunities hypothesis that states that capital investments are more valuable for focused companies and the internal capital markets that expresses that capital investments are more worthwhile for diversified firms (see Hitt et al. 1997, Khanna and Tice 2001, Scharfstein and Stein 2000, Billet and

[3] A newly listed company that "goes public for the first time" has to contemplate many factors as it prepares to become capable of joining the capital markets. For example, the sources of its costs are numerous. According to Pagano, Panetta and Zingales (1998), a company going public will sustain costs ranging from administrative expenses and fees to expenditures associated with adverse selection and proprietary information. Furthermore, the entrepreneurs are motivated to sell shares of their company to the general public "to maximize their proceeds from selling" (Zingales 1995) or to overcome borrowing constraints imposed by banks and venture capital firms (Pagano, Panetta and Zingales, 1998).

[4] Jain and Kini (1994) find that during 1976–1988, median IPO firms exhibit higher capital expenditures than do other firms from the same industry three years subsequent to their IPOs. Consistent with the notion that IPO firms are constrained by a shortage of internal funds, Pagano, Panetta, and Zingales (1998) study a sample of Italian non-financial firms for eleven years (1982–1992), claiming similarity of results with firms in Spain or Sweden. They identify a propensity for capital expenditures to decline two years after a firm engages in an IPO. In the US IPO context (1991-1997), Chaddad and Reuer (2009) present results showing a significant drop in the capital expenditures immediately after the offering phase. Though they find that the relation between cash flow and capital expenditures is no stronger for younger IPO firms than it is for mature companies, they do warn that financial constraints do not passively lessen as these young firms develop.

Mauer 2003, Chen 2006, Ozbas and Scharfstein 2010). Shaver (2011) uses data from Spanish manufacturing firms to indicate a negative influence of exports on investment-cash flow sensitivity, and Chen and Chen (2012) use US data to show a negative influence of industrial diversification on investment efficiency. Since exporters realize cash flows that are less variable than those of non-exporters, Shaver (2011) suggests that geographic sales diversification relaxes investment liquidity constraints. Mature firms may undertake diversification to utilize inherent capabilities and existing resources (surplus cash flow) well. Chen and Chen (2012) conclude that capital and investment allocations become more efficient for well-governed diversified firms because the cross-subsidization problem is less severe. However, if A implies B and B implies C, the question regarding the behavior of global diversified IPO firms still remains unanswered.

R&D Intensity

R&D spending, my second investment policy under consideration, is traditionally associated with firm value, contributing to increases in sales and profits. In the case of mature Spanish manufacturing companies, Hitt et al. (1997) show that international diversification is positively related to R&D intensity, and Alonso-Borrego and Forcadell (2010) reveal a bi-directional dynamic relation between industrial diversification and R&D intensity. Both studies use entropy as a measure of diversification that positively correlates with other measures previously used in the diversification literature (foreign assets to total assets and foreign sales to total sales).

With respect to my IPO sample, Jain and Kini (2008) assert that diversification provides newly public firms with a safety net during turmoil.[5] Yet the debate is not settled whether reduced variability in cash flow allows globally diversified IPOs to increase their R&D productivity. Due to various constraints they may also rest on their laurels as far as development and commercialization of new products.

Acquisitions

Acquisitions, my third investment policy, may be the greatest motivation for going public.[6] Wiggenhorn et al. (2007) demonstrate that during 1992–2001 newly public firms experience positive valuation effects as a result of acquisitions announcements. However, there is no substantial market reaction to related acquisitions (acquirers and targets in the same SIC code), and of course, I am only interested in diversifying acquisitions. Next, I agree with Celikyurt, Sevilir, and Shivdasani (2010), who suggest that firms go public in order to become acquirers. Acquisitions by IPO firms apparently occur at a faster pace than those by mature companies in the same industry. Further, it turns out that within five years of their listing, IPO firms carry out acquisitions that exceed their capital expenditures (CAPX) and research and development (R&D) expenses.[7] Nevertheless, if lack of funds is not the deciding factor in the propensity to acquire, it still remains to be grasped whether

[5] Jain and Kini (2008) find no consistent relation between industry-adjusted R&D expenditures and changes in operating performance of US IPOs. Aggarwal et al. (2009) find no higher correlation of R&D with firm value for newly listed firms during the boom period of 1997-2000, nor for Internet firms, nor for tech firms. Darrough and Rangan (2005) show that R&D changes in the year of the offering are negatively correlated with managerial share sales.

[6] Brau and Fawcett (2006), surveying 336 CFOs, conclude that for many companies the determination to go public rests on their desire to be acquired and Fama and French (2004) find that 22% of firms undertaking IPOs disappear due to mergers within ten years (one in five new lists on average is acquired in mergers).

[7] This is similar to Bertrand and Schoar (2003), who talk about individual managers engaging in external acquisitions causing under expenditures in firms' tangible and intangible capital.

globalized firms do more acquisitions than purely domestic firms and how that would be a direct effect of diversification.

Dividends

Mature firms usually pay dividends and repurchase stock out of free cash flow. Mackey (2006) finds that same factors that contribute to industrial diversification also solidify the likelihood of a dividend being paid out. However, in the case of young firms, one possibility could be that the availability of more cash flow due to synergies by means of economies of scope can be used to pay more dividends.[8] The other possibility is that the external funds coming from globalization may be used for other purposes, such as empire building by ambitious managers.[9]

Leverage

Further discussing leverage, I revisit the idea that mature, slow-growing corporations globally diversify when they are driven by new attractive productive opportunities. Therefore, there are reasons to believe (see Mansi and Reeb 2002) that internationally diversified firms should have lower operational risk and subsequently higher leverage capacity.[10] Indeed, Chkir and Cosset (2003) perform an event study and

[8] Fama and French (2001) find that newly listed firms, even those exhibiting stable investment opportunities, rarely pay dividends: only 3.7% of industrial firms going public declare and pay dividends ten years after their IPO. In the UK, firms that go public increase their dividends at the time of the initial public offering and are likely to smooth dividends more than private firms and are more cautious about cutting dividends (Michaely and Roberts, 2011).

[9] I can argue in either direction based on the findings of Aggarwal et al. (2009) who find that IPOs with more negative earnings rank higher than do firms with less negative earnings. While obviously the firms with more positive earnings have higher valuations than companies with less positive earnings, the first result ostensibly signals the rendition of growth opportunities of internet IPOs.

[10] Mansi and Reeb (2002) consider book values of debt a biased proxy of the market value of debt for diversified firms. A later study by Glaser and Müller (2010) shows that the use of book value of debt underestimates the value of diversified firms.

report leverage increasing from the first to the third year following acquisitions of foreign subsidiaries. Similarly, Ahn et al. (2006) discover that managers of diversified firms have wide discretion in allocating debt service burden to their higher q and non-core segments. Searching through the latest literature I did not find any study which has addressed all nine corporate policies against post-IPO conditions.[11]

Hence to study this I formally state my hypothesis as:

H_0 : A globally diversified firm and a purely domestic company will have the same corporate policies:

$$\mu_{it} - \mu_{ot} = 0$$

H_a : A globally diversified firm in comparison to a purely domestic company will worsen its own corporate policies:

$$\mu_{it} - \mu_{0t} < 0$$

1.3. Data

I generate my sample of IPOs that occurred between January 1992 and December 2014 from the Thompson Reuters SDC Platinum Global New Issues database.[12] I require the IPOs to be based in the USA (US domicile), and I exclude all private placements, depositary issues, closed-end funds, trusts, limited partnerships, REITs, spinoffs, and unit issues; the total after exclusions is 4926 firms. Moreover, I adhere to the existing literature and exclude utility (SIC codes 4900-4950) and financial services firms (SIC codes 6000-

[11] Jain and Shao (2015) find that family firms maintain higher post-IPO leverage and raise less external capital than do non-family firms.

[12] The SDC Platinum Merger and Acquisition database, the industry standard for information on new issues, is collected by Thompson Financial.

6700), since the financial policies of these companies do not have the same meaning as for the rest or they revolve around regulatory oversight. Subsequently, I remove observations when the marketplace is Euro Public instead of US Public.

Since my analysis presumes accounting and financial variables for which Compustat is the source, I find for each newly issued firm from SDC their affiliated gvkey. After this matching process, my final sample comprises 3437 firms, and the matched or collected companies are crosschecked with Datastream to confirm accuracy.[13] The determination to become involved or not in global activities is captured by dummy variables constructed after pre-tax foreign income and export sales are downloaded. I make use of the Compustat Fundamentals annual updates and the Compustat Segments database according to the prior literature for the items PIFO and SALEXG (see Frank et al. 2015, Mauer et al. 2014). I divide my sample into four categories according to whether the firm has only foreign sales (FS), only export sales (ES), both exports and foreign sales (FES), or neither foreign sales nor exports (NFES).

My contribution to the literature is the construction of a unique longitudinal unbalanced dataset with the investment, financial policies, and firm characteristics downloaded and calculated from Compustat. The executive policies are downloaded from the ExecuComp database – items TDC1 and Salary for total compensation and salary, respectively. For each firm-year (each gvkey) I identify the CEO of the firm using the annual CEO flag variable available from ExecuComp.[14] The average number of

[13] Matching otherwise would have brought out inconsistencies; for instance, ticker matching is problematic because tickers tend to change and/or they may be reused.

[14] During the same year the annual title sometimes reveals interim CEO, co-CEO, or branch or division CEO appointments.

institutional owners is collected from Thomson Reuters. All continuous variables are winsorized at the 1st and 99th percentiles to prevent any awry influences of extreme outliers.

To investigate whether investment, financial and executive practices of firms are different in the presence of global diversification my first model accounts for potential heterogeneity in globalization status (FS, ES, FES, NFES) for each policy:

$$y_{it} = \alpha_t + \beta_i + \delta X_{it} + \Gamma Z_{it} + \varepsilon_{it} (1)$$

where y_{it} is firm policy variable representing one of the nine policy decisions of firm i in year t, for example investment, R&D intensity, acquisitions, etc. α_t are the year fixed effects and β_i are firm fixed effects. The key element in my model is IPO's global diversification, therefore Z_{it} is a 4x1 vector

that denotes firm's globalization position.

$$Z_{it} = \begin{pmatrix} \text{Foreign\_Sales} \\ \text{Export\_Sales} \\ \text{Foreign\_and\_Export\_Sales} \\ \text{Domestic} \end{pmatrix}$$

and $\Gamma(1x4)$ the coefficients vector represents the firm's preference regarding international activity.

I regress each corporate policy on year β_i and firm fixed effects α_t, on firm characteristics X_{it} and firm's globalization position Z_{it}.

1.4. Results

I break the total sample of firms down according to their globalization status (FS, ES, FES, NFES) and report the annual distribution in Table 1.1. Fiscal year 1996 has the highest IPO count (345), and I notice a decline after 1996, although 1997 has a peak similar to that in 1995. The count falls below 200 after 2004; there were thus more IPOs in every year of the 1990s than in 2014. Further, the table shows the number and the percentage of firms with foreign sales (FS), export sales (ES), foreign and export sales (FES), and domestic-only sales (NFES). These results are for the fiscal year prior to the initial public offering, so until 2000 the number of IPOs making foreign sales in the prior fiscal year is less than the number of newly issued exporters under the same conditions. The situation changes abruptly after 2000: I see a dramatic drop until there are no prior-year exporters among firms newly issued in 2009, 2010, or 2012-2014.

As previously mentioned, the firms' diversification strategy is the decision to branch out into new domains of activity and/or new markets. Although I concentrate on international diversification, I consider industrial diversification somewhat as well. Firms are considered industrially diversified if they report more than one business segment.[15] Later the concepts of *industry and geographic segments* have been replaced by *operating segments* as defined by the enterprise's management. Conglomerates are firms that claim operations in multiple business segments as a result of either M&A activity or other combinations. Figures 1.1-1.4 identify in each subsample (FS, ES, FES, and NFES) the

[15] Denis, Denis, and Yost (2002) introduce three different measures of industrial diversification: reporting of more than one business segment, the average number of business segments, and sales-based Herfindahl index.

number of industrially diversified, focused, and undetermined firms. My histograms do not confirm Denis, Denis and Yost's (2002) finding that firms that are globally diversified are more likely to be industrially diversified as well. For example, out of 14% of total IPOs obtaining foreign income from operations abroad, only 14% are industrially diversified. That is, approximately only 2% out of the total sample carries out sales of products manufactured in a foreign country and report more than one business segment. In addition I observe a decrease in industrial diversification from 1992 till 2002 solely in the case of the export sales subsample so the trend over time discussed by Denis, Denis and Yost (2002) is vague among newly issued firms.

The marked difference in patterns between corporate policies of globally diversified and domestically focused newly public firms has not received much attention before. Table 1.2 provides descriptive statistics: I eliminate firm-years for which data are missing and display mean, median, and standard deviation for all nine policies. The mean for the investment, research and development, leverage, and cash holdings policies of firms reporting foreign pre-tax income is statistically below that of domestically focused firms, but median is not statistically significant. That is different from the results of studies by Berger and Offek (1995) and Ahn et al. (2006) of industrial diversification. Berger and Offek (1995) show that the investment level, which is the ratio of capital expenditures to sales, is higher for the segments of diversified companies, and Ahn et al. (2006) find that the book leverage of industrially diversified firms is significantly higher than the imputed leverage of focused firms. At the same time, it is surprising to see that the cash holdings mean of firms involved in the international arena is lower than that of firms operating

domestically. International firms should have more reliable cash flows, and, as anticipated, their standard deviation is lower than that of domestic-only firms.

Table 1.3 shows the correlation coefficients of all variables constructed and included in the investment model. The magnitude of the highest correlation among them is 0.67, which is between cash flow and ROA. Given this high correlation, my analysis is run using only the cash flow. The next highest correlation is 0.54 between the export (ES) binary variable and the foreign and export (FES) dummy, and I take similar actions as before, at the same time noticing no correlation between FS and ES dummies. In descending sequence NWC is highly correlated with investment and also with ROA. The correlations between the other eight ownership variables that I have mentioned and the foreign sales dummy (not reported) are lower than 0.29, indicating that this measure, average number of institutional investors, captures the most information, as it is uncorrelated with the investment policy. The number of firm-year observations for each regression is different, so a correlation matrix formed from all common firm-year observations will have distinctive but comparable output.

Firstly, I examine corporate policies in isolation and assume strong exogeneity of my globalization binary variables. Table 1.4 compares the outcomes of subsequent corporate policies for domestic and globalized firms. I regress corporate policies on the globalization dummies, year and firm fixed effects, and firm-level characteristics. Since both firm and time effects are present in my data, I include year dummies, and my t-statistics are based on standard errors clustered at the firm level. The variable FS_d is not statistically significant in the research and development intensity model, indicating that the global diversified firms do not have intangible assets costs different from those of firms

focused on domestic markets. Dividend policies also do not exhibit clear patterns of change in the presence of global diversification, so I can suggest that globalization confers neither benefits nor disadvantages to dividend payout ratios.

Similarly, in the case of executive compensation policies, there is no significant difference between firms with different diversification status; simply put, CEOs' salaries and total compensation are not influenced once the firms have chosen to proceed with global diversification.

The findings provide evidence of a significant negative relation between investments and pre-tax income. However, in all probability the firms that extract income from the sales of their products manufactured abroad are going to continue to do so, so these estimates may be misleading, caused by endogeneity arising out of simultaneous determination of globalization dummies and firm characteristics. The discussion of Campa and Kedia (2002) pertains more than ever because global diversification may be a direct effect of certain firm characteristics. Liquidity, solvency, profitability, and growth prospects in such situations may be underlying motivations for firms' determination to diversify globally, and therefore my FS and ES samples are not random but self-selected.

To alleviate endogeneity concerns I run the Durbin-Wu-Hausman test (Hausman 1978), including only corporate policies and FS dummies. The initial probability of obtaining a chi-square statistic given a true null hypothesis is 0.847 and 0.315 for investment and cash holdings, respectively. However, after I include firm characteristics and instrument the FS dummies by the average number of institutional owners, the probabilities change to 0.001 and 0.003. Consequently, Durbin-Wu-Hausman rejects the null hypothesis of no endogeneity at the 1% level, and so it is mandatory that I re-run my

cross-sectional regressions after identifying the instruments for my variable of interest, FS_d. The variable that I use for instrumentation is the average number of institutional investors because it is positively related to the foreign sales dummy and unrelated to investment or financial policies.

1.5. Methodology

The methodology that I employ is based on directions given in Wooldridge (2010): to wit, I run a probit regression to regress the foreign sales binary variable on the aforementioned instrument and the other exogenous regressors, and I use the predicted FS_d and the exogenous regressors. This method enforces efficient estimates and valid 2SLS standard errors. Indeed, my 2SLS procedure yields a positive coefficient of 0.541 on the foreign sales dummy with a t-statistic of 3.62 in the case of investments, a positive coefficient of 1.152 with a t-statistic of 5.65 for propensity to acquire, and a negative coefficient of −0.145 with a t-statistic of 2.23 for R&D intensity (see Table 1.5). I also find that global diversification is significantly negatively related to market leverage and cash holdings.

Nonetheless, when investigating the effects of global diversification decisions on corporate policies, I cannot ignore the dynamic relation between firms' historical decisions and characteristics. Keeping in mind that the present is correlated with the past and that my sample consists of many firms, though the number of years is few than 10, I get reliable results for all nine policies. In each model I check two lags but report the findings for the identical lagged corporate policy. My inferences remain unchanged in the case of investments, acquisitions, and cash holdings regressions: however, introducing first lag of

the dependent variable as a covariate makes the foreign sales coefficient insignificant in the case of leverage (see Table 1.6). Controlling for lagged executive policies reveals a new causal relation between CEOs' pay for performance and global diversification. This new result is entirely consistent with my expectations as it is anticipated to get a negative coefficient due to the well-known relation between CEO delta and risk-decreasing incentives. I also rerun two-stage least squares estimations with added lagged regressors and obtain comparable (untabulated) results. These facts reinforce my opinion that the IV regressions were not biased and corporate policies do not behave at random in the presence of global diversification.

The interdependent mechanism of how financial policies affect investment policies is very well known (see Gatchev et al. 2010 and Meng 2012). Tables 1.7, 1.8 presents my check to determine whether global diversification is still a key determinant or struggles for power as far as significance in such conditions. I find strong support for my hypothesis in case of investments, acquisitions, and delta (pay for performance), FS_d coefficients being significant at the 5% level and below. Note that in addition to statistical significance the economic significance of these effects is meaningful, given expected variation in the foreign markets' conditions.

1.6. Robustness of the results

Firstly, my sample is divided into hot and cold IPOs based on first day underpricing. The hot sub-sample includes IPOs with the largest positive returns at the end of the first

trading day. The results strongly support my previous outcomes even when hot and cold IPOs are assessed a week or two weeks after the first day (Table 10 A-C).

Secondly, my sample is changed to include IPOs only global diversified and not involved in industrial diversification (Table 10 A-C). In the investment' initial regression the fraction of foreign sales firm-year observations from one single line of business was 28.6% out of total number of 16,625 firm-years. Conditional only on the existence of global diversification tendency to acquire and investments rise, however cash holdings decrease only for exporters.

Statement of Financial Accounting Standards (SFAS) No. 14 (FASB 1976) mandated the disclosure of sales and income of either industrial or geographic segment that was 10% or more of the firm's total. Its update or in other words the second disclosure SFAS No. 131 (FASB 1997) obligates companies to report sales and income 10% or more of all reported operating segments

In line with the above mentioned requirements I restrict my initial FS sample to companies that have a ratio of pre-tax foreign income (PIFO) to book pre-tax income (PI) of at least ten percent. Similarly, the ES category is changed to include companies that have a ratio of export sales (salexg) to total sales of ten percent or more. By introducing this constraint I allocate more firms to the NFES group, I basically increase the percent of domestically focused firms. The results in Table 10 A-C are similar to my previous results, indicating same influence of the global diversification on same corporate policies.

Since the assignment of firms to the globalization pool as well as to the NFES group is not random, I use propensity score matching and shrink my domestically focused group of firms. The shrinkage is motivated by the propensity score methodology, which aims to

reduce selection bias by using groups that are as similar as possible. I match 1:2, one globally diversified firm is matched with two firms domestically focused.[16] Based on firms' matching characteristics, which are all my independent variables, a match is accomplished when the propensity scores of the two firms are within 0.001.[17] Dropping firms from the NFES pool without a close match yields unambiguous results, (Table 1.10) that clearly re-advocate the relation between globalization and firm's policies. I also run my dynamic panel estimation every year, results not reported to save space.

1.7. Conclusions

In this paper I examine a sparsely considered relation between IPOs' choice to diversify globally and their corporate policies. Using a sample of 3437 companies over the period 1992-2014, I find a selective and not across-the-board effect of early globalization on investment, financial, and executive policies. I specially selected IPOs for my examination because I wanted to find comparable firms that are under the same stage of corporate life cycle and with similar growth potential.

Given the acknowledged endogeneity in corporate finance among policies in two-stage least squares regressions, I find that a firm that earns pre-tax foreign income at an early phase of its growth and development will increase its investments. Such a firm has a higher propensity to acquire and reduce its cash holdings; in contrast, there is no conclusive evidence that diversification influences dividend pay-out or leverage policy.

[16] Accepting only one pair, in other words a 1:1 match, yields similar results.

[17] I implement probit regression with caliper matching in Stata 14.0

Once again, in a dynamic framework, when the identical lagged policy is added to the regression, exporting domestically produced goods and services to customers abroad has a significant bearing on investment and acquisition policy. I see that managers of globally diversified firms choose to work less intensively than their counterparts at firms focused on domestic markets. While their delta (pay for performance) is lower, their base salary and total compensation are unaffected. All my results maintain their implications for each aforementioned corporate policy in interdependent settings when investment and financial policies are paired and when executive and financial policies are paired. My paper generates broad-based outcomes regarding the diverse connections between globalization at an early stage and firms' corporate policies. It would be well for newly listed firms to consider the implications of globalization for corporate decision making by taking a look at certain legitimate influences.

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APPENDIX A VARIABLE DEFINITIONS

AQC_d: a dummy variable that equals 1 if acquisitions costs (AQC) divided by lagged total assets (AT) is greater or less than zero, and 0 otherwise.

Cash Holdings: cash and short-term investments (CHE) divided by lagged net property, plant, and equipment (PPENT).

Cash Holdings=CHE/lag(PPENT).

Cash flow: the lagged ratio of the sum of earnings before extraordinary items (IB) and depreciation (DP) divided by lagged net property, plant, and equipment (PPENT).

Cash flow=lag((DP+IB)/lag (PPENT)).

Delta: the natural logarithm of the CEO's total portfolio delta, defined as his dollar increase in wealth for a 1% increase in firm's stock price. It is constructed with ExecuComp data using Core and Guay's (2002) algorithm and Coles, Daniel and Naveen's (2006) methodology.

Div: dividends per earnings or the ratio of the sum of common dividends (DVC) and preferred dividends (DVP) divided by earnings before depreciation, interest, and tax (OIBDP).

Div=(DVC+DVP)/ OIBDP.

Investment: capital expenditures (CAPX) over lagged net property, plant, and equipment (PPENT).

Investment=CAPX/lag(PPENT).

Leverage: market leverage defined as long-term debt (DLTT) plus debt in current liabilities (DLC) divided by total assets minus total stockholders' equity plus market value. Market Value MKVALT is equal to share price (PRCC_F = price close) times number of shares (CSHO = common shares outstanding).

Leverage= (DLTT+DLC)/(AT-SEQ+MKVAL).

NWC: net working capital defined as the lagged ratio of working capital (WCAP) divided by lagged total asset (AT).

NWC=lag(WCAP/lag(AT)).

R&D: the ratio of R&D expenditures (XRD) over lagged total assets (AT).

R&D=XRD/lag(AT).

ROA: the lagged ratio of EBITDA over lagged total assets (AT).

ROA=lag((EBITDA)/lag(AT)).

Salary: the natural logarithm of the dollar value of the base salary of the CEO for a fiscal year (ExecuComp SALARY).

Size*:* the lagged natural logarithm of total assets (AT).

Size=lag(log(AT)).

Tobin Q*:* the lagged ratio of the market value of assets divided by the book value of assets. The market value of assets equals the book value of assets plus the market value of common equity (calendar year close times shares outstanding) less the sum of the book value of common equity and balance sheet deferred taxes.

Tobin Q = lag((AT+MKVAL_CALC-CEQ-TXDB)/AT) =
lag((AT+PRCC_F*abs(CSHO) -CEQ-TXDB)/AT).

Total Comp: the natural logarithm of the total compensation including option grants of the CEO for a fiscal year. Specifically, is the sum of cash salary, bonus, total value of restricted stock granted, total value of stock options granted (using Black-Scholes), long-term incentive payouts, and all other compensation during a fiscal year (Execucomp item TDC1).

Table 1.1: Distribution Of The Sample In Four Categories Based On The Global Diversification Status

(3437 is the sample size, the total number of IPOs listed during 1992–2014)

		Foreign Sales (FS)		Export Sales (ES)		Foreign and Export sales (FES)		Domestic Firms (NFES)	
Year	No. of IPOs	No. of Foreign Sales	% of Foreign Sales	No. of Exports	% of Export Sales	No. of Foreign Sales and Exports	% of Foreign Sales and Exports	No. of Domestic Firms (NFES)	% of Domestic Firms (NFES)
1992	241	19	7.88	43	17.84	10	4.15	189	78.42
1993	306	42	13.73	76	24.84	19	6.21	207	67.65
1994	257	21	8.17	55	21.40	8	3.11	189	73.54
1995	302	48	15.89	93	30.79	21	6.95	182	60.26
1996	345	23	6.67	71	20.58	9	2.61	260	75.36
1997	301	31	10.30	65	21.59	15	4.98	220	73.09
1998	174	13	7.47	37	21.26	3	1.72	127	72.99
1999	303	23	7.59	37	12.21	5	1.65	248	81.85
2000	239	19	7.95	18	7.53	3	1.26	205	85.77
2001	45	6	13.33	1	2.22	0	0.00	38	84.44
2002	45	4	8.89	1	2.22	0	0.00	40	88.89
2003	45	6	13.33	1	2.22	1	2.22	39	86.67
2004	119	25	21.01	4	3.36	0	0.00	90	75.63
2005	99	21	21.21	5	5.05	2	2.02	75	75.76
2006	108	20	18.52	3	2.78	0	0.00	85	78.70
2007	116	27	23.28	2	1.72	1	0.86	88	75.86
2008	14	2	14.29	1	7.14	0	0.00	11	78.57
2009	34	13	38.24	0	0.00	0	0.00	21	61.76
2010	58	19	32.76	0	0.00	0	0.00	39	67.24
2011	58	24	41.38	1	1.72	1	1.72	34	58.62
2012	70	33	47.14	0	0.00	0	0.00	37	52.86
2013	105	41	39.05	0	0.00	0	0.00	64	60.95
2014	53	8	15.09	0	0	0	0	45	84.91
Total	3437	488		514		98		2533	

This table provides the diversification status in the year prior to the IPO for the sample of 3437 IPO firms that went public during the period 1992-2014.

Table 1.2: Comparative statistics of corporate policies of diversified and domestic firms

UNIVARIATE STATISTICS				
	FS (Pre-tax Foreign Income)	ES (Export Sales)	FES (Foreign and Export Sales)	NFES (Domestic Sales)
Investment				
N	4899	99	29	12009
Mean	0.45	0.60	0.72	0.52
	(0.000)***	(0.280)	(0.112)	
Median	0.31	0.45	0.61	0.31
	(0.986)	(0.001)***	(0.005)***	
Std Dev	0.47	0.58	0.60	0.65
R&D				
N	3841	84	21	8242
Mean	0.12	0.17	0.17	0.17
	(0.000)***	(0.324)	(0.563)	
Median	0.09	0.14	0.18	0.10
	(0.235)	(0.028)**	(0.004)***	
Std Dev	0.13	0.17	0.10	0.22
AQC				
N	4841	91	27	11889
Mean	0.04	0.04	0.03	0.04
	(0.000)***	(0.000)***	(0.000)***	0.00
Median	(0.831)	(0.719)	(0.574)	
	(0.000)***	(0.237)	(0.893)	
Std Dev	0.10	0.09	0.08	0.11
Leverage				
N	4890	100	29	12213
Mean	0.13	0.10	0.14	0.16
	(0.000)***	(0.000)***	(0.604)	
Median	0.05	0.03	0.01	0.05
	(0.439)	(0.070)*	(0.352)	
Std Dev	0.17	0.15	0.20	0.20
Div				
N	4899	99	29	12072
Mean	0.02	0.00	0.00	0.01
	(0.498)	(0.159)	(0.216)	
Median	0.00	0.00	0.00	0.00
	(0.000)***	(0.289)	(0.923)	
Std Dev	0.08	0.06	0.01	0.08

Variable definitions are provided in Appendix A. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.2: Continued

UNIVARIATE STATISTICS

	FS (Pre-tax Foreign Income)	ES (Export Sales)	FES (Foreign and Export Sales)	NFES (Domestic Sales)
		Cash Holdings		
N	4899	100	29	12032
Mean	6.25	6.36	10.98	8.03
	(0.000)***	(0.001)***	(0.320)	
Median	1.78	2.34	5.35	1.19
	(0.001)***	(0.027)**	(0.352)	
Std Dev	12.49	12.68	20.52	18.51
		Total Comp		
N	1882	18	7	2163
Mean	7.70	7.51	7.29	7.30
	(0.000)***	(0.504)	(0.976)	
Median	7.72	7.37	7.30	7.28
	(0.001)***	(0.634)	(0.705)	
Std Dev	1.00	1.27	1.25	1.05
		Salary		
N	1884	17	7	2159
Mean	6.19	5.54	5.61	6.06
	(0.000)***	(0.000)***	(0.009)***	
Median	6.21	5.56	5.48	6.09
	(.0001)***	(0.001)***	(0.058)*	
Std Dev	0.53	0.38	0.31	0.51
		Delta		
N	1577	15	7	1644
Mean	6.68	6.89	6.08	6.53
	(0.152)	(0.732)	(0.089)	
Median	5.29	5.87	5.93	5.38
	(0.116)	(0.069)*	(0.255)	
Std Dev	7.43	7.60	6.10	7.21

Variable definitions are provided in Appendix A. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.3: Pearson Correlation Coefficients

CORRELATION MATRIX

	Investment	FS_p	ES_p	FES_p	Age	Size	Cash_flow	ROA	Tobin's Q	NWC	MB	N_INST_OWN	IDIO_VOL
Investment	1												
FS_d	-0.053	1											
ES_d	0.014	0.002	1										
FES_d	0.016	0.067	0.540	1									
Age	-0.192	0.167	-0.031	-0.010	1								
Size	-0.151	0.292	-0.026	-0.015	0.274	1							
Cash flow	-0.129	0.131	0.011	0.016	0.071	0.246	1						
ROA	-0.133	0.144	0.006	0.012	0.091	0.324	0.670	1					
Tobin's Q	0.389	-0.063	0.000	-0.004	-0.127	-0.221	-0.245	-0.304	1				
NWC	0.490	-0.087	0.012	0.012	-0.235	-0.152	-0.268	-0.433	0.311	1			
MB	0.026	0.011	-0.001	-0.001	0.003	0.031	-0.003	-0.004	0.047	0.015	1		
N_INST_OWN	-0.011	0.291	-0.026	-0.018	0.301	0.723	0.118	0.173	0.129	-0.084	0.074	1	
IDIO_VOL	0.039	-0.100	0.014	0.007	-0.084	-0.264	-0.159	-0.217	0.115	0.070	0.001	-0.214	1

Variable definitions are provided in Appendix A.

Table 1.4: Fixed effects OLS regression results.

INVESTMENT CORPORATE POLICIES			
	Investment	**Aqc_d**	**R&D**
	(1)	(2)	(3)
FS_d $_{t-1}$	-0.071	-0.007	0.009
	(3.19)**	(0.36)	(1.67)
ES_d $_{t-1}$	0.028	0.040	0.004
	(0.46)	(0.73)	(0.28)
Age	-0.009	-0.002	0.003
	(1.33)	(0.26)	(1.79)
Cash flow $_{t-1}$	0.001	0.002	-0.001
	(0.51)	(3.37)**	(2.54)*
Size $_{t-1}$	-0.088	0.072	-0.065
	(7.10)**	(8.06)**	(15.56)**
NWC $_{t-1}$	0.191	0.017	-0.009
	(18.64)**	(4.01)**	(5.75)**
TOBIN Q $_{t-1}$	0.063	0.011	0.010
	(14.73)**	(5.10)**	(8.03)**
MB $_{t-1}$	0.000	0.000	-0.000
	(1.18)	(0.90)	(1.06)
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
R^2	0.54	0.50	0.81
N	16,541	16,351	11,789

This table shows the impact of foreign sales on firms' investment corporate policies. The dependent variables are in order Investment, AQC_d and R&D. The independent variables are FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q, MB). Variable definitions are provided in Appendix A. Standard errors are controlled for clustering at the firm level. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.4: Continued

FINANCIAL CORPORATE POLICIES			
	Leverage	**Div**	**Cash Holdings**
	(4)	(5)	(6)
FS_d $_{t-1}$	0.004	-0.003	-2.040
	(0.66)	(1.04)	(3.84)**
ES_d $_{t-1}$	-0.007	-0.011	-0.698
	(0.89)	(1.40)	(0.35)
Age	0.006	0.005	0.391
	(2.60)**	(1.70)	(2.53)*
Cash Flow $_{t-1}$	-0.000	0.000	-0.119
	(1.54)	(0.90)	(2.32)*
Size $_{t-1}$	0.027	0.003	-2.316
	(8.12)**	(1.69)	(7.41)**
NWC $_{t-1}$	-0.007	0.002	2.463
	(6.65)**	(4.27)**	(10.93)**
Tobin Q $_{t-1}$	-0.003	-0.000	0.751
	(5.22)**	(0.07)	(6.77)**
MB $_{t-1}$	-0.000	-0.000	0.000
	(1.10)	(0.98)	(1.20)
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
R^2	0.80	0.44	0.72
N	16,801	16,595	16,591

This table shows the impact of foreign sales on firms' financial corporate policies. The dependent variables are in order Leverage, Div and Cash Holdings. The independent variables are FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q, MB). Variable definitions are provided in Appendix A. Standard errors are controlled for clustering at the firm level. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.4: Continued

EXECUTIVE CORPORATE POLICIES			
	Salary	**Total Comp**	**Delta**
	(7)	(8)	(9)
FS_d $_{t-1}$	-0.015	0.089	-0.179
	(0.52)	(1.40)	(1.39)
ES_d $_{t-1}$	-0.066	0.189	0.115
	(0.66)	(0.71)	(0.32)
Age	0.075	0.099	0.414
	(1.63)	(0.21)	(1.69)
Cash flow $_{t-1}$	0.008	0.021	0.050
	(1.90)	(1.93)	(3.38)**
Size $_{t-1}$	0.125	0.287	0.084
	(5.66)**	(5.57)**	(1.07)
NWC $_{t-1}$	-0.026	-0.008	0.098
	(1.15)	(0.12)	(1.13)
Tobin Q $_{t-1}$	-0.002	0.042	0.085
	(0.30)	(2.51)*	(4.58)**
MB $_{t-1}$	0.000	0.000	0.000
	(1.35)	(2.33)*	(1.37)
Firm fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
R^2	0.79	0.64	0.74
N	4,027	4,030	3,216

This table shows the impact of foreign sales on firms' executive corporate policies. The dependent variables are in order Salary, Total Comp and Delta. The independent variables are FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q, MB). Variable definitions are provided in Appendix A. Standard errors are controlled for clustering at the firm level. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.5: Two-Stage Least Squares (2SLS) Estimation

	INVESTMENT CORPORATE POLICIES		
	Investment	**AQC_d**	**R&D**
FS_d $_{t-1}$	0.541	1.152	-0.145
	(3.62)***	(5.65)***	(2.23)**
Age	-0.010	-0.017	0.000
	(4.82)***	(5.04)***	(0.02)
Cash flow $_{t-1}$	0.000	0.000	-0.002
	(0.28)	(0.45)	(5.12)**
Size $_{t-1}$	-0.040	0.023	-0.022
	(4.00)***	(1.74)	(3.83)***
NWC $_{t-1}$	0.200	0.007	-0.003
	(22.20)***	(1.34)	(1.78)*
MB $_{t-1}$	0.000	0.000	0.000
	(0.02)	(0.98)	(0.73)
Tobin Q $_{t-1}$	0.063	0.002	0.018
	(16.81)***	(0.55)	(12.60)***
Year dummies	Yes	Yes	Yes
N	13.602	13.447	9.746

The table presents second stage, OLS regressions, in which corporate investment policies are regressed on the predicted values of global diversification (foreign sales) dummy obtained during the first-stage estimation by probit regressions and control variables used in step one. Standard errors are controlled for clustering at the firm level. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.5: Continued

FINANCIAL CORPORATE POLICIES			
	Leverage	**Div**	**Cash Holdings**
FS_d $_{t-1}$	-0.983	0.000	-10.633
	(6.59)***	(0.01)	(2.11)**
Age	0.008	0.001	0.060
	(2.55)**	(1.69)	(1.04)
Cash flow $_{t-1}$	0.002	0.000	-0.515
	(2.93)***	(2.13)**	(7.99)***
Size $_{t-1}$	0.089	0.007	-0.412
	(8.92)***	(4.05)***	(1.20)
NWC $_{t-1}$	-0.031	-0.001	3.577
	(8.12)***	(1.13)	(14.02)***
MB $_{t-1}$	0.000	0.000	-0.000
	(0.48)	(0.29)	(2.44)**
Tobin Q $_{t-1}$	-0.015	-0.001	0.988
	(5.78)***	(1.38)	(8.67)***
Year dummies	Yes	Yes	Yes
N	13,802	13,640	13,671

The table presents second stage, OLS regressions, in which corporate financial policies are regressed on the predicted values of global diversification (foreign sales) dummy obtained during the first-stage estimation by probit regressions and control variables used in step one. Standard errors are controlled for clustering at the firm level. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.6: Arellano–Bover - Blundell–Bond Dynamic Panel Estimation Using generalized method of moments (GMM) estimator with a lagged dependent variables as an additional explanatory variable

INVESTMENT CORPORATE POLICIES			
	Investment	**Aqc_d**	**R&D**
FS_d $_{t-1}$	0.116	0.096	0.016
	(2.95)***	(2.24)**	(1.25)
ES_d $_{t-1}$	0.011	-0.233	0.077
	(0.12)	(1.14)	(1.27)
Age	-0.018	-0.005	-0.006
	(3.10)***	(0.67)	(1.96)*
Cash_flow $_{t-1}$	0.006	0.004	0.001
	(2.83)***	(5.01)***	(3.05)***
Size $_{t-1}$	-0.217	-0.099	-0.096
	(10.75)***	(6.90)***	(12.37)***
NWC $_{t-1}$	0.227	0.060	-0.048
	(8.09)***	(5.92)***	(5.86)***
Tobin Q $_{t-1}$	0.051	0.007	0.008
	(8.80)***	(2.40)**	(5.98)***
MB $_{t-1}$	0.000	0.000	0.000
	(0.80)	(0.29)	(1.90)*
Investment $_{t-1}$	0.150		
	(8.17)***		
Aqc_d $_{t-1}$		0.204	
		(11.75)***	
R&D $_{t-1}$			0.319
			(7.86)***
Year dummies	Yes	Yes	Yes
Obs	13,628	13,304	9,687
Groups	2576	2547	1876
Avg Obs per Group	5.29	5.22	5.16
Instruments	440	433	429
Wald chi2	948.90	291.98	1975.92
Arellano-Bond test	-12.25	-27.45	

This table shows the impact of foreign sales on firms' corporate investment policies. The dependent variables are in order Investment, AQC_d and R&D. The independent variables are lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q, MB). Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.6: Continued

FINANCIAL CORPORATE POLICIES			
	Leverage	**Div**	**Cash Holdings**
FS_d $_{t-1}$	-0.003	0.010	1.012
	(0.33)	(1.30)	(0.95)
ES_d $_{t-1}$	-0.022	-0.026	-7.351
	(0.81)	(1.85)*	(2.22)**
Age	0.001	0.000	-0.203
	(0.64)	(0.06)	(0.83)
Cash_flow $_{t-1}$	-0.000	-0.000	0.054
	(0.00)	(1.78)	(0.83)
Size $_{t-1}$	0.012	0.002	-7.399
	(2.94)***	(0.62)	(11.39)***
NWC $_{t-1}$	0.006	0.002	-0.836
	(1.91)	(0.90)	(0.80)
Tobin Q $_{t-1}$	0.005	0.001	0.871
	(6.90)***	(0.90)	(6.18)***
MB $_{t-1}$	-0.000	-0.000	0.000
	(0.85)	(1.16)	(1.00)
Leverage $_{t-1}$	0.790		
	(33.82)***		
Div $_{t-1}$		0.253	
		(5.48)***	
Cash Holdings $_{t-1}$			0.535
			(11.18)***
Year dummies	Yes	Yes	Yes
Obs	13,834	13,690	13,685
Groups	2613	2583	2583
Avg Obs per Group	5.29	5.30	5.30
Instruments	440	440	440
Wald chi2	22379.78	90.12	431.98
Arellano-Bond test		-10.90	-8.71

This table shows the impact of foreign sales on firms' corporate financial policies. The dependent variables are in order Leverage, Div and Cash Holdings. The independent variables are lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q, MB). Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.6: Continued

	EXECUTIVE CORPORATE POLICIES		
	Salary	**Total Comp**	**Delta**
FS_D $_{t-1}$	-0.032	0.045	-0.468
	(0.56)	(0.29)	(2.29)**
ES_D $_{t-1}$	-0.458	-0.345	-0.083
	(3.18)***	(0.55)	(0.34)
Age	0.009	-0.005	0.013
	(1.48)	(0.36)	(0.49)
Cash flow $_{t-1}$	0.003	0.005	0.019
	(0.90)	(0.49)	(1.34)
Size $_{t-1}$	-0.004	0.097	-0.331
	(0.12)	(1.33)	(3.56)***
NWC $_{t-1}$	0.005	0.042	-0.098
	(0.20)	(0.45)	(0.91)
Tobin Q $_{t-1}$	-0.003	0.024	-0.068
	(0.50)	(1.21)	(2.27)**
MB $_{t-1}$	0.000	0.000	0.000
	(1.88)*	(1.48)	(1.66)*
Salary $_{t-1}$	0.548		
	(7.97)***		
Total Comp $_{t-1}$		0.115	
		(2.90)***	
Delta $_{t-1}$			0.58
			(9.70)***
Year fixed effects	Yes	Yes	Yes
Obs	3,324	3,311	2,565
Groups	592	594	488
Avg Obs per Group	5.61	5.57	5.26
Instruments	317	317	315
Wald chi2	1510.41	223.92	4987.16
Arellano-Bond test	-6.20	-10.37	-8.60

This table shows the impact of foreign sales on firms' corporate executive policies. The dependent variables are in order Salary, Total Comp and Delta. The independent variables are lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q, MB). Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.7: Arellano–Bover / Blundell–Bond dynamic panel estimation using generalized method of moments (GMM) estimator with a lagged dependent variable, a financial policy, and its lag as additional explanatory variables

INVESTMENT CORPORATE POLICIES

	Investment		
FS_D $_{t-1}$	0.091	0.121	0.109
	(2.25)**	(3.09)***	(2.78)***
ES_D $_{t-1}$	0.127	0.009	0.017
	(1.15)	(0.10)	(0.18)
Investment $_{t-1}$	0.100	0.151	0.139
	(5.28)***	(8.17)***	(8.12)***
Cash_Holdings $_{t}$	0.018		
	(11.89)***		
Cash Holdings $_{t-1}$	0.004		
	(2.48)**		
Div $_{t}$		0.100	
		(1.22)	
Div $_{t-1}$		0.103	
		(1.44)	
Leverage $_{t}$			-0.071
			(1.14)
Leverage $_{t-1}$			-0.396
			(4.60)***
Year Fixed Effects	Yes	Yes	Yes
Obs	13,581	13,575	13,484
Groups	2,576	2,576	2,572
Avg Obs per Group	5.27	5.27	5.24
Instruments	442	442	442
Wald chi2	1,227.49	958.73	1,020.81
Arellano-Bond Test	-12.84	-12.21	-12.23

Investment is the dependent variable. Independent variables include lagged dependent policy, FS_d, ES_d, FES, and firm characteristics (Age, Cash Flow, Size, NWC, Tobin Q, MB), Leverage and First Lag, Div and First Lag, Cash Holdings and First Lag. Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 1.7: Continued

INVESTMENT CORPORATE POLICIES

	AQC_d		
FS_D $_{t-1}$	0.099	0.106	0.093
	(2.34)**	(2.51)**	(2.18)**
ES_D $_{t-1}$	-0.281	-0.282	-0.284
	(1.40)	(1.40)	(1.42)
AQC $_{t-1}$	0.204	0.205	0.197
	(11.82)***	(11.84)***	(11.42)***
Cash_holdings $_{t}$	-0.000		
	(1.06)		
Cash holdings $_{t-1}$	0.001		
	(1.76)*		
Div $_{t}$		0.026	
		(0.36)	
Div $_{t-1}$		0.051	
		(0.59)	
Leverage $_{t}$			0.180
			(3.42)***
Leverage $_{t-1}$			-0.393
			(6.85)***
Year Fixed Effects	Yes	Yes	Yes
Obs	13,138	13,153	13,060
Groups	2,545	2,546	2,541
Avg Obs per Group	5.16	5.17	5.14
Instruments	432	432	432
Wald chi2	292.68	2145.45	357.82
Arellano-Bond Test			-27.13

Propensity to acquire is the dependent variable. Independent variables include lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash Flow, Size, NWC, Tobin Q, MB), Leverage and First Lag, Div and First Lag, Cash Holdings and First Lag. Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 1.8: Arellano–Bover / Blundell–Bond dynamic panel estimation using generalized method of moments (GMM) estimator with a lagged dependent variable, an investment policy, and its lag as additional explanatory variables

FINANCIAL CORPORATE POLICIES

	Cash Holdings		
FS_d_{t-1}	0.765	0.831	1.245
	(0.68)	(0.85)	(0.91)
ES_d_{t-1}	-15.108	-5.806	-12.119
	(3.31)**	(1.90)	(3.07)**
Cash Holdings $_{t-1}$	0.533	0.626	0.517
	(10.56)**	(12.12)**	(10.53)**
Investment $_t$		2.925	
		(3.86)**	
Investment $_{t-1}$		-5.893	
		(10.60)**	
AQC_d_t	-0.523		
	(2.26)*		
AQC_d_{t-1}	-0.177		
	(0.74)		
R&D $_t$			11.359
			(2.80)**
R&D $_{t-1}$			11.864
			(3.88)**
Year Dummies			
Obs	13,138	13,581	9,474
Groups	2,545	2,576	1,860
Avg Obs per Group	5.16	5.27	5.09
Instruments	432	442	429
Wald chi2	428.21	638.87	391.92
Arellano-Bond Test	-8.56	-9.25	-8.39

Cash holdings is the dependent variable. Independent variables include lagged dependent policy, FS_d, ES_d, and firm characteristics (Age, Cash Flow, Size, NWC, Tobin Q, MB), Investment and First Lag, AQC_d and First Lag, R&D Intensity and First Lag. Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 1.9: Arellano–Bover / Blundell–Bond dynamic panel estimation using generalized method of moments (GMM) estimator with a lagged dependent variable, a financial policy and its lag as additional explanatory variables

EXECUTIVE CORPORATE POLICIES

	Delta		
FS_d_{t-1}	-0.437	-0.430	-0.258
	(1.75)*	(1.66)*	(1.21)
ES_d_{t-1}	0.027	-0.061	-0.156
	(0.11)	(0.30)	(0.79)
$Delta_{t-1}$	0.592	0.581	0.531
	(8.14)***	(8.00)***	(6.24)***
Cash Holdings $_t$	0.013		
	(2.34)**		
Cash Holdings $_{t-1}$	-0.006		
	(1.43)		
Div_t		-1.524	
		(1.67)*	
Div_{t-1}		-0.607	
		(1.15)	
Leverage $_t$			-3.305
			(6.12)***
Leverage $_{t-1}$			1.009
			(1.42)
Year dummies	Yes	Yes	Yes
Obs	1,970	1,970	1,953
Groups	441	441	439
Avg Obs per Group	4.47	4.47	4.45
Instruments	302	302	302
Wald chi2	4,432.52	4,155.08	6,664.85
Arellano-Bond test	-7.66	-7.38	-7.63

Delta is the dependent variable. Independent variables include lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash Flow, Size, NWC, Tobin Q, MB), Leverage and First Lag, Div and First Lag, Cash Holdings and First Lag. Variable definitions are provided in Appendix A. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 1.10: Two-Stage Least Squares (2SLS) Estimation

INVESTMENT AND FINANCIAL CORPORATE POLICIES

	Investment			**AQC_d**			**R&D**		
	Hot	Glob_only	10%_threshold	Hot	Glob_only	10%_threshold	Hot	Glob_only	10%_threshold
FS_d	0.474	0.516	0.514	0.835	1.092	1.262	-0.026	-0.127	-0.172
	(4.52)***	(3.69)***	(3.14)***	(5.90)***	(5.80)***	(5.60)***	(0.61)	(2.04)**	(2.78)***
N	13,595	13,602	13,602	13,440	13,447	13,447	9,744	9,746	9,746

	Leverage			**Div**			**Cash Holdings**		
	Hot	Glob_only	10%_threshold	Hot	Glob_only	10%_threshold	Hot	Glob_only	10%_threshold
FS_d	-0.795	-0.949	-0.767	-0.008	-0.001	0.031	0.286	-10.511	-15.615
	(8.15)**	(6.84)***	(5.28)***	(0.31)	(0.02)	(0.77)	(0.10)	(2.20)**	(2.40)**
N	13,795	13,802	13,802	13,633	13,640	13,640	13,664	13,671	13,671

The table presents second stage, OLS regressions, in which corporate investment and financial policies are regressed on the predicted values of global diversification (foreign sales) dummy, obtained during the first-stage estimation by probit regressions, and control variables used in step one. The original sample is modified and three new samples are constructed such as foreign sales binary variable refers to global diversified hot IPOs, global diversified and not industrial diversified IPOs, and global diversified IPOs with a ratio of foreign sales to total sales higher than 10%. Standard errors are controlled for clustering at the firm level. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.11: Robustness. Arellano–Bover / Blundell–Bond Dynamic Panel Estimation Using generalized method of moments (GMM) estimator with a lagged dependent variable as an additional explanatory variable.

INVESTMENT CORPORATE POLICIES

	Investment			**AQC_d**		
	Hot	Glob_only	10%_ threshold	Hot	Glob_only	10%_ threshold
FS_D $_{t-1}$	0.111	0.127	0.125	0.115	0.103	0.123
	(2.63)***	(3.53)***	(2.67)***	(2.54)**	(2.43)**	(2.34)**
ES_D $_{t-1}$	0.122	-0.001	-0.022	-0.25	-0.173	-0.008
	(1.21)	(0.01)	(0.41)	(1.14)	(0.85)	(0.15)
Investment $_{t-1}$	0.152	0.15	0.147			
	(8.19)***	(8.12)***	(8.00)***			
AQC_d $_{t-1}$				0.202	0.205	0.203
				(11.65)***	(11.84)***	(11.86)***
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Obs	13,621	13,628	13,628	13,297	13,304	13,304
Groups	2572	2576	2576	2543	2547	2547
Avg Obs per Group	5.3	5.29	5.29	5.23	5.22	5.22
Instruments	432	440	488	431	433	479
Wald chi2	973.23	936.22	937.17	290.87	293.61	278.47
Arellano-Bond test	-12.25	-12.24	-12.27	-27.36	-27.49	-27.38

This table shows the impact of foreign sales on firms' corporate investment policies. The dependent variables are Investment and AQC_d. The independent variables are lagged dependent policy, FS_d, ES_d, and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q). Firm characteristic are not reported to conserve space Variable definitions are provided in Appendix A. The original sample is modified and three new samples are constructed such as foreign sales binary variable refers to global diversified hot IPOs, global diversified and not industrial diversified IPOs, and global diversified IPOs with a ratio of foreign sales to total sales higher than 10%. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.11: Continued

INVESTMENT & FINANCIAL CORPORATE POLICIES

	R&D			Leverage		
	Hot	Glob_only	10%_ threshold	Hot	Glob_only	10%_ threshold
FS_D $_{t-1}$	0.031	0.018	0.012	-0.01	-0.001	-0.02
	(2.41)**	(1.43)	(0.91)	(1.27)	(0.17)	(1.90)*
ES_D $_{t-1}$	0.074	0.079	-0.023	-0.036	-0.018	-0.016
	(1.14)	(1.42)	(1.73)*	(1.44)	(0.72)	(1.55)
Leverage $_{t-1}$				0.786	0.788	0.779
				(33.63)***	(33.66)***	(33.61)***
R&D $_{t-1}$	0.32	0.32	0.311			
	(7.87)***	(7.93)***	(7.81)***			
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Obs	9,684	9,687	9687	13,827	13,892	13,834
Groups	1873	1876	1876	2609	2613	2613
Avg Obs per Group	5.17	5.16	5.16	5.3	5.29	5.29
Instruments	427	429	483	432	440	495
Wald chi2	703.99	1995.79	1925.03	2100.39	22142.1	21516.69
Arellano-Bond test	-9.84		.	-15.81		.

This table shows the impact of foreign sales on firms' corporate investment and financial policies. The dependent variables are R&D and Leverage. The independent variables are lagged dependent policy, FS_d, ES_d, and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q). Firm characteristic are not reported to conserve space. Variable definitions are provided in Appendix A. The original sample is modified and three new samples are constructed such as foreign sales binary variable refers to global diversified hot IPOs, global diversified and not industrial diversified IPOs, and global diversified IPOs with a ratio of foreign sales to total sales higher than 10%. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.11: Continued

FINANCIAL CORPORATE POLICIES

	Div			Cash Holdings		
	Hot	Glob_only	10%_ threshold	Hot	Glob_only	10%_ threshold
FS_d $_{t-1}$	0.008	0.011	-0.015	1.997	1.007	1.973
	(1.11)	(1.58)	(1.47)	(1.69)*	(1.01)	(1.5)
ES_d $_{t-1}$	-0.023	-0.024	0	-7.061	-6.976	-0.957
	(1.64)	(1.82)*	(0.02)	(2.38)**	(2.09)**	(0.93)
Div $_{t-1}$	0.254	0.254	0.255			
	(5.47)***	(5.48)***	(5.57)***			
Cash Holdings $_{t-1}$				0.542	0.534	0.533
				(11.18)***	(11.17)***	(11.04)***
Year dummies	Yes	Yes	Yes	Yes	Yes	
Obs	13,683	13,751	13,690	13,678	13,772	13,685
Groups	2579	2583	2583	2579	2583	2583
Avg Obs per Group	5.31	5.3	5.3	5.3	5.3	5.3
Instruments	432	440	495	432	440	495
Wald chi2	89.23	90.28	83.02	431.55	429.44	438.57
Arellano-Bond test	-10.89	-10.9	-10.96	-8.76	-8.7	-8.72

This table shows the impact of foreign sales on firms' corporate financial policies. The dependent variables are Div and Cash Holdings. The independent variables are lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q). Firm characteristic are not reported. Variable definitions are provided in Appendix A. The original sample is modified and three new samples are constructed such as foreign sales binary variable refers to global diversified hot IPOs, global diversified and not industrial diversified IPOs, and global diversified IPOs with a ratio of foreign sales to total sales higher than 10%. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Table 1.11: Continued

EXECUTIVE CORPORATE POLICIES

	Salary			Total Comp		
	Hot	Glob_only	10%_ threshold	Hot	Glob_only	10%_ threshold
FS_d $_{t-1}$	-0.017	-0.013	-0.024	0.034	0.053	-0.095
	(0.27)	(0.23)	(0.7)	(0.21)	(0.35)	(0.88)
ES_d $_{t-1}$	-0.446	-0.46	0.014	-0.396	-0.324	0.367
	(3.10)***	(3.13)***	(0.3)	(0.64)	(0.52)	(2.09)**
Salary $_{t-1}$	0.555	0.55	0.561			
	(8.07)***	(7.92)***	(8.10)***			
Total Comp $_{t-1}$				0.112	0.112	0.109
				(2.84)***	(2.84)***	(2.82)***
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Obs	3,324	3324	3,324	3,311	3,311	3,311
Groups	592	592	592	594	594	594
Avg Obs per Group	5.61	5.61	5.61	5.57	5.57	5.57
Instruments	311	317	395	311	317	393
Wald chi2	1736.78	1481.33	833.55	233.1	230.64	213.08
Arellano-Bond test	-6.17	-6.2	-6.04	-10.34	-10.34	-10.45

This table shows the impact of foreign sales on firms' corporate executive policies. The dependent variables are in order Salary, Total Comp and Delta. The independent variables are lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q). Firm characteristics are not reported. Variable definitions are provided in Appendix A. The original sample is modified and three new samples are constructed such as foreign sales binary variable refers to global diversified hot IPOs, global diversified and not industrial diversified IPOs, and global diversified IPOs with a ratio of foreign sales to total sales higher than 10%. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively

Table 1.11: Continued

EXECUTIVE CORPORATE POLICIES			
		Delta	
	Hot	Glob_only	10%_threshold
FS_d_{t-1}	-0.32	-0.445	-0.244
	(1.49)	(2.36)**	(1.91)*
ES_d_{t-1}	-0.105	-0.061	-0.041
	(0.41)	(0.25)	(0.22)
$Delta_{t-1}$	0.579	0.569	0.532
	(9.47)***	(9.67)***	(9.15)***
Year dummies	Yes	Yes	Yes
Obs	2,565	2,565	2,565
Groups	488	488	488
Avg Obs per Group	5.26	5.26	5.26
Instruments	308	315	379
Wald chi2	4891	5106.67	3892.46
Arellano-Bond test	-8.67	-8.64	-8.85

This table shows the impact of foreign sales on firms' corporate executive policies. The dependent variables is Delta. The independent variables are lagged dependent policy, FS_d, ES_d, FES and firm characteristics (Age, Cash flow, Size, NWC, Tobin Q). Firm characteristics are not reported. Variable definitions are provided in Appendix A. The original sample is modified and three new samples are constructed such as foreign sales binary variable refers to global diversified hot IPOs, global diversified and not industrial diversified IPOs, and global diversified IPOs with a ratio of foreign sales to total sales higher than 10%. Robust standard errors are reported in parentheses. ***, **, * refer to statistical significance at the 1%, 5% and 10% levels, respectively.

Figure 1.1: Graphical description with respect to both global and industrial diversification - Foreign Sales

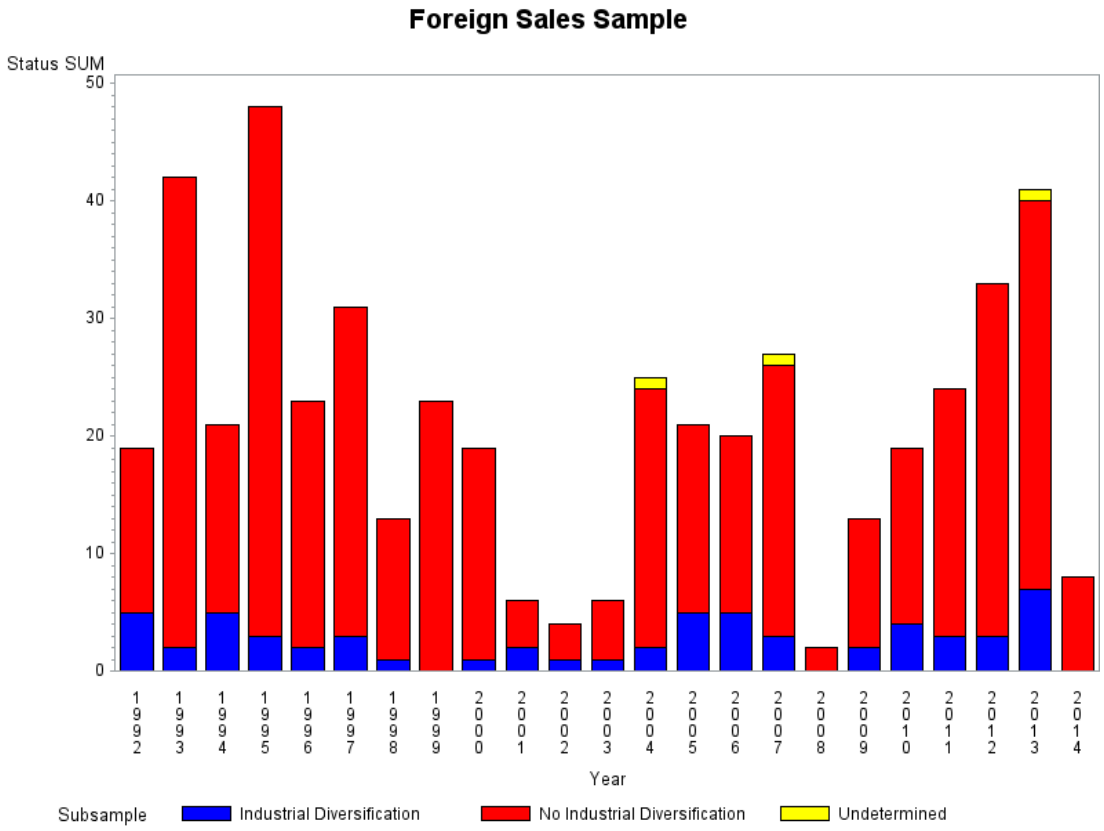


Figure 1.2: Graphical description with respect to both global and industrial diversification - Export Sales

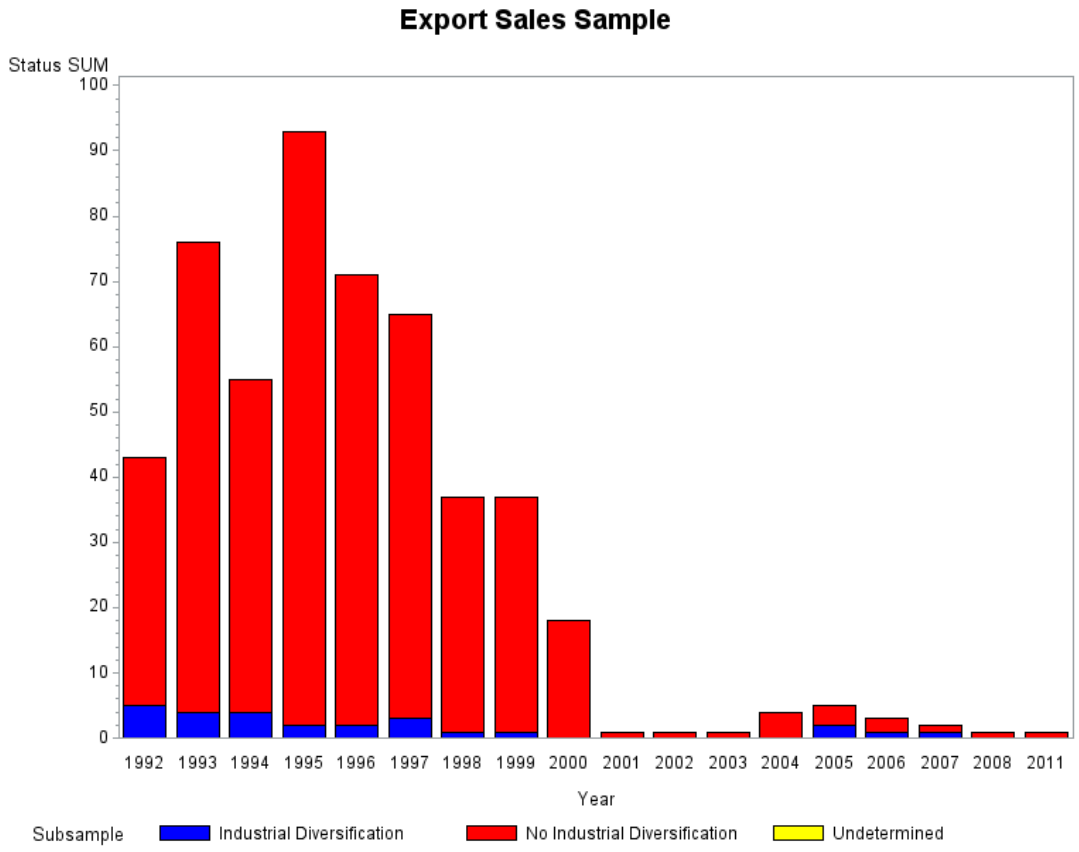


Figure 1.3: Graphical description with respect to both global and industrial diversification - Foreign and Export Sales

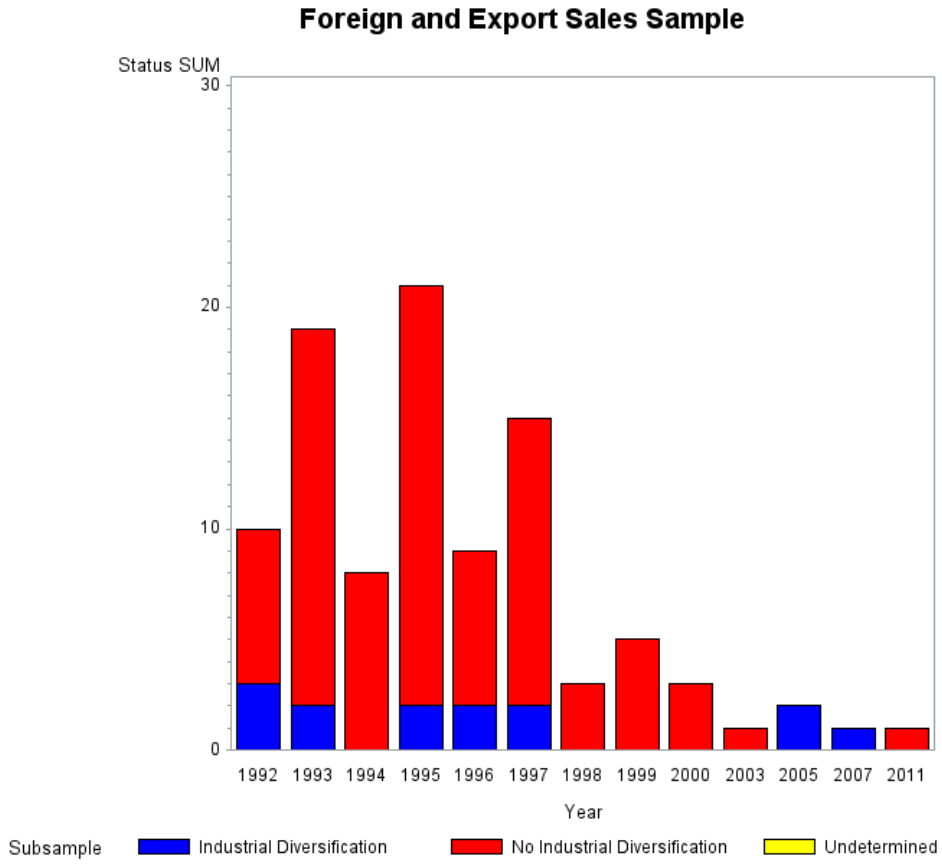
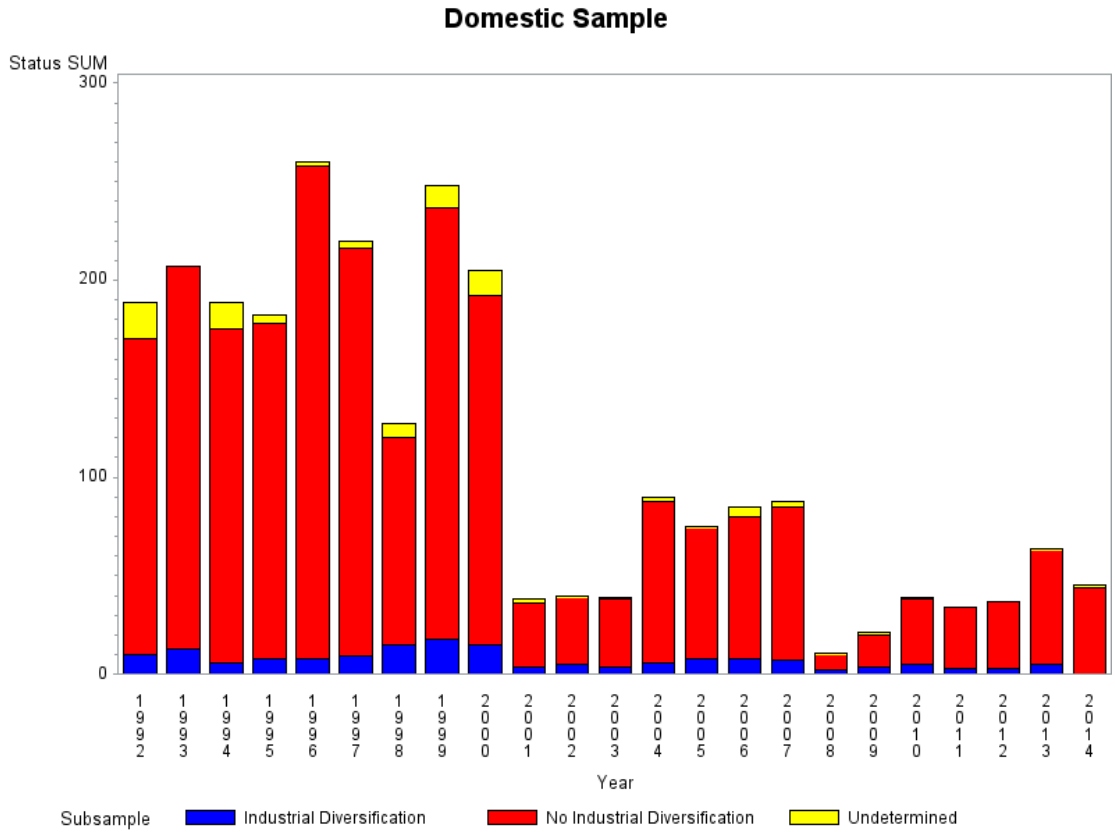


Figure 1.4: Graphical description with respect to both global and industrial diversification - Domestic



CHAPTER 2: THE IMPACT OF *SARBANES OXLEY ACT* ON INDUSTRIAL DIVERSIFICATION

2.1. Introduction

Corporate governance includes all procurements that ensure that the resources of the firm are overseen efficiently in light of a legitimate concern for the suppliers of money. *The Public Company Accounting Reform and Investor Protection Act* or *Sarbanes-Oxley Act* (SOX) was passed into law in 2002 after a series of alarming, high-profile financial scandals with companies such as Enron and WorldCom. Congress passed SOX with the intent that it would rebuild trust in corporate America. As such, after 2002 there has been a substantial commitment to strong corporate governance practices. This discussion looks into the benefits and costs of SOX thru an inquiry of whether valuation of conglomerates have been influenced by the corporate governance provisions of the *Sarbanes-Oxley Act*.

Over the last half century, numerous companies have pursued large expansion programs, including Enron. Whether such expansion is of benefit came about because of initial results from Lang and Stulz (1994) and Berger and Offek (1995) showing that unrelated diversification reduces firm value. Meanwhile, other studies have advanced conflicting views that diversification improves firm value or has no quality decreasing impact. Similarly there is a debate and empirical evidence exposing both positive and negative constructive firm value and performance following the SOX legislation.

Prior to SOX, auditing firms (watchdogs for investors) were self-regulated. They were also allowed to perform non-audit functions and consulting work for the same firms

that they audited. As a result, there was a high probability of conflict of interest. Section 201 of SOX was mainly intended to alleviate and lessen the problems of biased beliefs and moral hazard by increasing independent oversight and regulation of the audit committee.[18]

It was believed that oversight by a vigilant board would help reduce the negative impact of biased beliefs. Subsequent to SOX, both the New York Stock Exchange and NASDAQ stock market passed new rules expecting that the boards of their listed companies would consist of a majority of independent directors.[19]

This study explores whether or not "governance in action" has harmed firms and decreased firm value in the post-SOX period. While SOX compliance has prompted compelling and effective empirical investigations (e.g., Jain and Rezaee, 2006; Zhang, 2007; Li, Pincus and Rego, 2008 among others), this question has not been previously answered.[20] The results indicate a deflation in excess value after SOX and this is exactly as expected because companies have achieved broad changes in execution. Results and detailed explanations are given in Section 4. Considering the determinants of the diversification discount it is also possible that some of the drivers of the value impact of diversification have been moderated downwards.[21]

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[18] Contributing to the interaction between corporate fraud and monitoring Li (2013) establishes that fraud rate increases with PPS (pay for performance sensitivity) and decreases with institutional ownership while fraud detection as anticipated improves with qualified auditor's opinion.

[19] In a similar vein with Linck et al. (2009), I aggregate as SOX the *Public Company Accounting Reform and Investor Protection Act* and the new rules of major exchanges, and I acknowledge that these implementations are part of more extensive changes.

[20] These studies report positive abnormal stock returns around SOX events illustrating that passage of the Act was followed by the market with keen interest. Using event studies Zhang (2007) and Litvak (2007) document the opposite i.e., negative stock-price *ex-ante* reactions to SOX legislation preparation.

[21] Bartov and Cohen (2008) show a decrease in the recurrence of simply meeting or beating analyst earnings expectations in the post-SOX period.

A differences-in-differences estimation is utilized to compare changes in excess value for accelerated filers pure-play and multi-segment corporations before and after SOX. The analysis show no support for the interpretation that industrially diversified firms are differentially affected.

Additionally, all firms in 2002 are examined and I find SOX to have a positive influence on the number of business segments. This evidence does not seem to support Zhang (2007) who reports negative market reactions around key SOX events. Notwithstanding, there are studies describing positive market reactions to SOX (Jain and Rezaee 2006 and Li et al. 2008). In Zhang's empirical findings, specifically in the abnormal returns regressions, the coefficient for the number of segments is negative and significant.[22] The conclusion then hinges on the concept that additional SOX compliance costs obstruct firm value more for complex businesses.

Without tabulating their results Gao, Wu and Zimmerman (2009) report a smaller difference in the number of segments between non-accelerated and accelerated filers for the post- than the pre-SOX period.[23] Non-accelerated filers have fewer segments than the accelerated fillers pre-SOX (1.70 vs. 1.76), however, the distinction is slimmer in the post-SOX period (2.14 vs. 2.17). In regards to accelerating reporting requirements of Section 403 specifically, I do not find that this played any active role in the analysis of excess value and multi-segment diversification.

[22] As before, the complexity of the company was assessed by the number of its segments, which equals the number of different four-digit SIC industries.

[23] Implicitly accepting that global and industrial diversification brings much higher Section 404 compliance costs, Gao, Wu and Zimmerman (2009) reveal an increased probability of having foreign operations post-SOX for accelerated filers.

This study contributes to the existing literature by documenting the characteristics of diversification in the post-SOX period. A unique aspect of the paper is the investigation of whether Sarbanes Oxley act influences differentially the non-accelerated or accelerated focused and diversified filers.

The rest of the paper is organized as follows. Section 2 surveys extant literature and discusses the hypotheses. Section 3 outlines the research design and Section 4 delivers empirical findings and corresponding explanations and robustness. Conclusions for the main findings are summarized in Section 5.

2.2. Hypotheses development

I blend my literature review from two streams of prior literature: the governance-diversification linkage and the ongoing debate about the advantages and expenses of SOX. Coates and Srinivasan (2014) would classify my analysis as "Event studies of net shareholder wealth effects" or "Other research related to SOX" in their survey of the reactions of the researchers to the *Public Company Accounting Reform and Investor Protection Act of 2002*. Studying how SOX regulation affects corporate diversification is as important as showing that during the 2007-2009 financial crisis the valuation of conglomerates grew larger (Kuppuswamy and Villalonga, 2010).

First, certain governance structures have always been connected to better performance and higher firm value.[24] Anticipating the theoretical arguments regarding the influence of governance on firm value Schoar (2002) suggests that it is "crucial to

[24]Using 24 distinct corporate-governance provisions, Gompers et al. (2003) confer that there is a strong correlation between governance and positive abnormal returns, investors earning about 8.5 percent per year from buying (selling) firms with weak (strong) shareholder rights.

understand how governance structures within a firm interact with managerial" diversification decisions for firms diversified across different lines of business. Under this view, (May 1995, Palia and Lichtenberg 1999, Anderson et al. 2000, Lins and Servaes 2002, Denis et al. 2002) propose that enhanced corporate governance acts as a limiting factor to massive industrial diversification campaigns.[25]

The extensive diversification literature is augmented by Hoechle et al. (2012) who argues that there is positive relation between a company's governance structure and multi-segment diversification. Their study provides several analyses, a panel data regression, a Heckman selection model and dynamic GMM panel models. They add many governance variables, in addition to the prior variables that have received attention in the literature, such as CEO, board and institutional ownership, board size, board independence, board classification, board activity and board attendance among others. To the extent that corporate governance quality and diversification across industries are complementary determinants, their analysis indicates that somewhere around 21% of the diversification discount emerges on account of combinations about which corporate governance parameters conglomerates should embrace.

Second, regarding the benefits and costs of SOX, there are two separate questions that are important to examine:

[25] The most astonishing managerial entrenchment (10% to 30%) is the driver factor of the diversification discount in seven Asian emerging markets (Lins and Servaes 2002). The interpretation of these findings relate agency problems more than midway to value-reducing diversification strategies (Aggarwal and Samwick 2003, Laeven and Levine 2007, and Andreou, Doukas, Louca, and Malmendier 2010).

A. Does SOX enactment have no effect on the relation between diversity and excess value? or

B. Does SOX legislative decrease the diversification discount?

To argue for (a) that the Act does not have any meaningful effect on the debated diversification discount, I state that all publicly traded companies are aware of the Act as well as their shareholders. Although investors trust SOX to reduce information uncertainty, this non-interference could be reasoned due to two perspectives. It is still unclear whether the Sarbanes-Oxley Act has resulted in beneficial outcomes and on top of that the outcome of diversification has not been the one expected.[26]

Generally, the diversification discount first posited by Berger and Offek (1995) has been extensively deliberated. Among the many prevalent explanations for its existence, there are two key theories: low valuation due to well-assorted agency problems and due to over investment/cross subsidization in distressed segments (Scharfstein and Stein, 2000; Rajan et al., 2000).[27]

Managers charge that transparency is a feasible justification to focus on the domestic market, however, Thomas (2002) and Clarke et al. (2004) found similar or even less asymmetric information levels among conglomerates and stand-alone firms. Consistent with prior studies, this paper considers the information asymmetry gap between CEO and the market that has theoretically shrunk since SOX. Such transparency

[26] Sarbanes-Oxley was initially attacked as forcing direct and indirect overwhelming costs (Wintoki 2007, Engel et al., 2007, Piotroski and Srinivasan, 2008).

[27] I circumvent an in-depth industrial diversification discussion (e.g., the endogeneity of the diversification decision in empirical models (Campa and Kedia 2000), COMPUSTAT segment data bias Harris (1998) and Villalonga (2004b), and ad hoc industry segment reporting (Villalonga 2004a). Examples also include book values of debt as incorrect input to the calculation Mansi and Reeb 2002.

purportedly has been reduced equally for focused or diversified firms. Hence, what happens when a risk averse CEO has private information about the conglomerate that cannot be successfully transferred to the market? Or what happens when a CEO is wary of personal liability as a result of strict tenets that have led to increased odds for stiffer penalties and punishment.[28] Section 404 brought up adjustments in CEO roles and responsibilities, which may not positively incentivize all CEOs in all circumstances. It could also be that although the capital market signals positive abnormal returns, the pros of diversification are less than the cons of SOX. In all of these presumptions, the passage of the Act may shape the diversification discount in a different form when compared to the past.

B. Does SOX legislative decrease the diversification discount?

The following assertions are made to investigate (b). First, the Act has wealth-increasing effects from the point of view of shareholders. Theoretically, it aligns their interests better with those of managers and SOX's impelled advantages altogether exceed its costs (i.e., Jain and Rezaee, 2006). Further, Chhaochharia and Grinstein (2007) demonstrate that accounting conservatism has a positive effect on the valuation of firms

[28] Bebchuk, Cremers, and Peyer (2007) and Billet, Garfinkel and Jiang (2011) calculate CPS (CEO pay slice) the ratio of CEO total compensation to all top five executives. CPS is estimated to be a proxy for CEO influence among management team members and it turns out to be a strong determinant of firm value as measured by Tobin's Q.

among those where initially compliance was not prevalent.[29] This category of firms have the most noteworthy valuation changes, rather than those that were compliant at the beginning. In other words the diversification discount shrinks when corporate governance plays a concerted role.

Second, SOX Section 404 makes it compulsory for each company to include a management report in its annual reports. The management report has to include the management's evaluation of the firm's internal control system regarding financial reporting. It requires all the weaknesses identified to be disclosed in the management report. The management report is required to be certified by both the CEO and CFO who are now strictly liable. SOX section 404 mandates that accelerated filers disclose all internal control weaknesses and forces reliance on the pressure that has flowed from disclosing such flaws in internal control.[30] The fear of litigation and penalties due to weak internal control systems encourages companies to change their internal control systems. As such, SOX has contributed both directly and indirectly to improvements in company internal control systems. Therefore, shareholders consent more eagerly to leaving cash within the firm because internal control weakness disclosures are available. Such disclosures can be utilized by investors to reexamine their standard assumptions about firm value. When weaknesses are disclosed investors beliefs about the firm value are

[29] Apart from SOX, Aggarwal et al. (2009) find that firms with higher levels of internal governance in countries where external governance mechanisms are more prevalent are linked to higher valuations. Aggarwal et al. (2009) uses the Corporate Governance Quotient from the Institutional Shareholder Services (ISS). They allocate a value of one to a governance trait if the organization meets that standard and zero otherwise, and then scale the total for each firm between 0 and 1.

[30] Firms with market capitalization above $75 million are classified as accelerated filers.

reconsidered in a descending way (Hammersley et al. 2008, Ashbaugh et al. 2009). SOX also sheds light on the extent to which firms will incur expenses related to strengthening their internal control systems to avoid negative statements and negative publicity.[31]

Berger and Offek (1995) is the first diversification study followed by others to conclude that overinvestment and cross-subsidization determine the value loss. Chen and Chen (2012) examine internal and external governance structures and conclude that capital and investment allocations are more efficient for well-governed diversified firms and the cross-subsidization problem is less severe. At the same time, Bargeron et al. (2010) and Kang et al. (2010) conjecture that the new compliance is the reason for more vigilant investments as prompted by CEO risk aversion. Therefore, I anticipate that overinvestment and cross-subsidization will be considerably more carefully planned when firms uncover material weaknesses in their financial controls and anticipate repercussions for such shortcomings.

As the objective of SOX has been to enhance corporate governance and internal control reporting I hypothesize a diminished diversification discount with or without a continuous trend.

H1: U.S. corporations will have a lowered valuation discount due to internal capital markets' favorable reaction to the SOX legislation.

Furthermore, I forecast that:

[31] Some firms deregister after SOX as a consequence of high compliance costs (Engel et al. 2007) and some firms revert to private status as insiders are challenged by increased probabilities of being prosecuted (Leuz et al. 2008).

H2: The degree of multi-industry diversification is lower after SOX as a reroute strategy due to CEOs adopting less risky actions.

2.3. Data

The principal data source is Compustat (Compustat Segment data and Compustat Fundamentals Annual updates) and the second is AuditAnalytics. I rely on 1999 through 2015 data because Audit Analytics began capturing accelerated filer status disclosure in 2000.

I gauge diversification and legislation effects on firm value by imputing stand-alone values for individual segments. Compustat does not provide systematic information for firms' business segments.[32] I only know that the information for assets and sales, for example, represents at least ten percent of total assets and total sales respectively.

Taking after the Berger and Offek methodology, presented in Appendix B, I exclude the firm-years for which sum of the segment sales or assets diverges more than 5 percent from the firm's sale or assets, respectively. Similarly, I prevent excessive fragmentation and inaccuracy by removing businesses with sales less than $20 million and firms that belong or have segments in the financial services industry (SIC codes between 6000 and 6999). To prevent the undesirable impact of outliers, all continuous variables except the dummies, presented in Appendix A, are winsorized at the 1% and 99% levels.

[32] There is a line of literature by Harris (1998) or Villalonga (2004a) arguing that COMPUSTAT segment data dependent upon ad hoc industry segment reporting choices are supportive of achieving a diversification discount.

2.4. Empirical investigation and robustness

The empirical model relating changes in excess value to SOX is as follows:

$$\text{Excess Value} = \alpha + \beta_1 * \text{Div\_d} + \beta_2 * \text{SOX\_d} + \beta_3 * \text{Leverage} + \beta_4 * \text{Capx\_sale} + \beta_5 * \text{Ebit\_Sale} + \beta_6 * \text{Log\_at} \quad (1)$$

$$\text{Excess Value} = \alpha + \beta_1 * \text{N\_seg} + \beta_2 * \text{SOX\_d} + \beta_3 * \text{Leverage} + \beta_4 * \text{Capx\_sale} + \beta_5 * \text{Ebit\_Sale} + \beta_6 * \text{Log\_at} \quad (2)$$

All dependent and independent variables are defined in Appendix A, Capx_sale proxies for growth opportunities, Ebit_Sale for profitability, and Log_at for firm size. Table 2.1 provides descriptive statistics (mean, median, standard deviation, 25th and 75th percentiles) for the excess value and continuous control variables. Table 2.2 confirms that excess value calculated with the sales multiplier declines from -0.080 in the period before SOX to -0.148 after SOX. A similar significant decrease occurs in leverage. Size and operating income per sale (profitability) manifest a significant increase at 1% in the post-SOX period. After the Sarbanes-Oxley Act, growth opportunities present changes that are not statistically significant.

Table 2.3 reports Pearson correlations between the variables for the sample with excess value calculated with sales multipliers above the diagonal and for excess value based on assets multipliers below the diagonal. There is high correlation between variables Ebit_Sale, income and ROA.

Figure 2.1 shows excess value annual averages for diversified and focused firms. Figure 2.2 plots the number of segments annual averages for diversified firms and shows

approximately the same number of segments for the samples when excess value is calculated with sales respectively with assets multipliers.

To isolate the effects of the Sarbanes Oxley Act I proceed as outlined by regressions (1) and (2) to regress the calculated excess value (based on sales or assets) against the number of segments (Table 2.4) or a dummy variable for diversified firms (Table 2.6) and well-known control variables. In both tables I re-estimate the regressions with the dummy variable for SOX legislation. These fixed effects regressions are run similar to Hoechle et al. (2012) with Driscoll and Kraay (1998) standard errors, which are heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence. Such an event as SOX represents an exogenous shock to the firm policy set, but I account for the endogeneity of the diversification decision by incorporating firm and year fixed effects in regressions to relieve the omitted variables bias.

The most important outcome is a definite influence of SOX because the diversification discount widens and the post-SOX indicator is negative and significant. I expect that to happen since during the financial crisis of 2007, Kuppuswamy and Villalonga (2010) reported a diminished diversification discount. I also see that excess value is positively related to growth opportunities and profitability.

My second approach consists of cross-sectional regression of a dependent variable on diversification, a post-SOX indicator, the interaction between the two, along with the three Berger and Offek (1995) control variables and their interactions with the post-SOX dummy. As before, coefficients for diversification and SOX indicators are negative statistically and economically significant. The coefficients on the interaction term between the diversification and SOX dummy are positive and significant, which translate as

diversification having a less negative effect on firm value after Sarbanes Oxley. As I just witnessed the univariate differences before and after SOX, all four multivariate regressions in Table 2.7 corroborate that size and profitability of corporations in the post-SOX period have a significant positive influence on firm value.

The differences-in-differences approach (DD) was applied to assess the differential effect of the new legislation on the valuation of accelerated and non-accelerated focused and industrially diversified firms. Accelerated filing requirements are disclosed by AuditAnalytics with the variable is_accel_filer, which typically takes four values from 2000 till 2015: blank, zero, one or two. Zero is for companies with a public float of less than 75 million, one for companies with a public float above 75 million, blank and two for companies that do not disclose their status. In order to define the treatment group of the DD, the new variable Div_acc is created to reflect the interaction between the Div_d indicator and is_accel_filer indicator (from Compustat). Table 2.9 displays no effect of SOX on excess valuation for accelerated filers, which confirms an overall SOX influence purportedly due to an all-round information asymmetry reduction for all firms.

While the Sarbanes Oxley Act levies new requirements for firms going public (Johnston and Madura 2009), it does not force firms to become more diverse. In a separate logit estimation, I study the probability of SOX increasing the frequency of going diverse. Several new variables are introduced and I use all firms over the sample period from 1999 till 2015. Major is an indicator variable that takes a value of 1 if the firm is listed on NYSE, NASDAQ and AMEX exchanges and 0 otherwise. SP500 is an indicator variable that takes a value of 1 if the firm is included in the Standard and Poor's S&P 500 index and 0 if otherwise. This follow-up test of hypothesis H2 shows that SOX provisions do not shed

any light on long-term diversification choices. To examine the robustness of the results, all 2003 observations are included in the analysis since SOX was in fact enacted in August of 2002.[33] Moreover, a subsample of focused and diversified firms with observations only for 2000-2002 and 2004-2006 is created. The estimation excluding geographic segments (results not included to conserve space) is redone. In all cases, the SOX dummy reveals the same patterns and is significant at a 1% level. Similar to Berger and Offek (1995), an alternative definition of diversification is calculated with a revenue based-Herfindahl measure and an asset based-Herfindahl measure. Herfindahl index is a proxy of industry concentration (focus) and consistent with my prior predictions, the Herfindahl index is positively and significantly associated with excess value.

2.5. Conclusion

My analysis offers new evidence on excess value markdown. I determined that the value of diversification has not changed from a discount to a premium as a result of legislation. Did I expect a premium in the post-SOX period or maybe a decrease in the diversification discount? The answer in this paper is that SOX represents an exogenous shock to the firm that is not interlinked with firm choices. Therefore, introducing a SOX indicator is not comparable to introducing governance variables as controls that would have brought the diversification discount down to be less negative or to shift closer to zero (Hoechle et al. 2012).

[33] Exchange regulations were approved by the Securities and Exchange Commission in November 2003.

In fact, I show that the value of diversification increases after SOX, which is similar to the Kuppuswamy and Villalonga 2010-crisis inquiry. Differences in differences methodology shows no distinctive impact on the valuation of the accelerated category of firms. Moreover, SOX has no contribution to motivate firms to further diversify as the diversification decision is highly based on firm characteristics.

The findings of this paper are robust to the inclusion of fiscal year 2003 in the estimation, to a small 2000-2006 subsample, and to different measures of diversification. Limitations of the study consist of neglecting the governance characteristics of each firm that could affect the SOX variable in different ways and could make a difference in my estimations. It is beyond the scope of this paper to show whether compliance costs hinders excess valuation or whether it is far more for complex businesses.

In sum, the empirical results highlight overlooked aspects of firm valuation after enactment of SOX. From the perspective of executives and regulators, empirical evidence on the contribution of SOX to existing trends in corporate diversification is overdue. Future research should investigate potential new developments in this regard.

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APPENDIX A: VARIABLE DEFINITIONS

Variables are defined as follows:

Capx_Sale is the ratio of capital expenditures to sales.

Capx_Sale_SOX is Capx_Sale multiplied by SOX_d.

Cash flow is the sum of IB (earnings before extraordinary items) and DP (depreciation) divided by PPENT (net property, plant, and equipment).

Div_d is the diversification dummy an indicator variable that equals 1 if the firm operates in two or more segments, and 0 otherwise.

Ebit_Sale is the ratio of EBIT (earnings before interest and taxes) to sales.

Ebit_Sale_SOX is Ebit_Sale multiplied by SOX_d.

Her is Herfindahl index the sum of the squares of segments' sales (respectively assets) to the total sales (respectively assets) of the firm.

Income is the ratio of IB (income before extraordinary items) to sales.

Leverage is the sum of DLC (debt in current liabilities) and DLTT (long-term debt) divided by AT (total assets of the firm).

Leverage_SOX is Leverage multiplied by SOX_d.

Log_at is the log of AT (total assets of the firm).

Log_at_SOX is Log_at multiplied by Sox_d

Major is a diversification dummy that equals 1 if the firm is listed on major exchanges Nasdaq, NYSE, or AMEX, and 0 otherwise.

N_seg is number of segments identified based on primary SIC code.

SOX_d is the Sarbanes-Oxley dummy an indicator that equals 0 for fiscal years 2002 and earlier and 1 for fiscal years 2004 and later. Initially 2003 is excluded as representing a period of tumultuous discussions, however later is included for robustness.

SP500 is an indicator variable that takes a value of 1 if the firm is included in the Standard and Poor's S&P500 index and 0 otherwise.

TobinQ is Tobin's Q is the ratio of the market value of assets divided by the book value of assets. The market value of assets equals the book value of assets plus the market value of common equity (fiscal year close price times shares outstanding) less the sum of the book value of common equity and balance sheet deferred taxes.

Tobin Q = lag((AT+MKVAL_CALC-CEQ-TXDB)/AT) =

lag((AT+PRCC_F*abs(CSHO) -CEQ-TXDB)/AT).

APPENDIX B: MULTIPLIER "CHOP-SHOP" METHODOLOGY OF EXCESS VALUE.

$$Imputed\ Value = \sum_{i=1}^{n} Seg_i * (Value/Seg)_{m,i}$$

$$Excess\ Value = \ln\left(\frac{Value}{Imputed\ Value}\right)$$

$$Seg_i = segment\ i\ value\ (sales\ or\ assets)$$

$$(Value/Seg)_{m,i} = multiplier$$

$$= median\ value\ of\ the\ total\ capital\ divided\ to\ segment's\ value\ (sales\ or\ assets)$$

$$for\ the\ focused\ firms\ in\ segment\ i's\ industry$$

Value is calculated as market value of equity plus book value of debt.

All segments are based on four-digit SIC code industries. Similar to Berger of Offek (1995) when I calculate the multiplier I want to determine the median of at least five focused firms. If in a given year the number of specialized firms is less than five then I use a three-digit SIC code to stand for industry classification. If again in a certain year the number of focused firms is less than five I accept a two-digit SIC code to serve as the industry classification.

Table 2.1: Summary statistics of the diversified firms in the sample that includes excess value calculated based on sales multipliers.

SUMMARY STATISTICS

Variable	Mean	Std Dev	25%	Median	75%
		Pre-SOX			
Excess Value	-0.080	0.664	-0.590	-0.087	0.412
Leverage	0.305	0.275	0.124	0.272	0.416
Capx_Sale	0.075	0.130	0.023	0.040	0.073
Ebit_Sale	0.043	0.184	0.022	0.070	0.118
Log_assets	6.630	2.076	5.098	6.492	8.103
		Post-SOX			
Excess Value	-0.148	0.639	-0.638	-0.172	0.300
Leverage	0.251	0.248	0.079	0.220	0.351
Capx_Sale	0.072	0.127	0.020	0.036	0.069
Ebit_Sale	0.090	0.138	0.042	0.090	0.149
Log_Assets	7.337	2.122	5.868	7.400	8.849

Table 2.2: Changes in mean excess value and control variables pre- and post- SOX

UNIVARIATE STATISTICS			
	Pre_SOX	Post-SOX	Difference in Mean
Assets	N=3110	N=5904	
Excess Value	0.041	0.011	-0.03**
Leverage	0.307	0.257	-0.05***
Capx_Sale	0.073	0.074	0.001
Ebit_Sale	0.048	0.083	0.035***
Log_at	6.563	7.325	0.762***
Sales	N=3337	N=6663	
Excess Value	-0.080	-0.148	-0.068***
Leverage	0.305	0.251	-0.054***
Capx_Sale	0.075	0.072	-0.003
Ebit_Sale	0.043	0.090	0.047***
Log_at	6.630	7.337	0.707***

. The parametric t-test was conducted pooled and Satterthwaite method. *, **, *** indicates significance at less than 10%, 5%, and 1% level.

Table 2.3: Pearson correlations between the variables for the sample

Pearson Correlations											
	N_seg	Div_d	Leverage	Ebit_Sale	Capx_Sale	Log_at	Major	SP500	Income	Cashflow	TobinQ
N_seg	1.00	0.75	-0.06	0.04	-0.09	0.39	0.10	0.13	0.03	0.04	-0.01
Div_d	0.79	1.00	-0.08	0.02	-0.12	0.29	0.14	0.16	0.03	0.05	-0.01
Leverage	0.003	0.003	1.00	0.06	0.11	0.11	-0.21	-0.07	-0.03	-0.13	0.06
Ebit_Sale	0.07	0.07	0.08	1.00	-0.01	0.26	0.13	-0.04	0.64	0.12	0.08
Capx_Sale	-0.10	-0.13	0.11	-0.07	1.00	0.08	0.02	-0.13	-0.08	-0.003	-0.06
Log_at	0.40	0.30	0.12	0.24	0.09	1.00	0.18	0.13	0.13	0.03	-0.11
Major	0.14	0.17	-0.16	0.10	0.03	0.21	1.00	0.24	0.04	0.06	-0.02
SP500	0.17	0.20	-0.01	-0.04	-0.13	0.13	0.19	1.00	0.01	0.02	-0.01
Income	0.04	0.04	-0.01	0.55	-0.11	0.10	0.01	0.03	1.00	0.19	0.00
Cashflow	0.05	0.06	-0.002	0.17	-0.01	0.03	0.02	0.04	0.09	1.00	-0.24
TobinQ	-0.06	-0.07	0.04	-0.14	-0.02	-0.06	-0.04	-0.02	-0.05	-0.04	1.00

This table reports Pearson correlations between the variables for the sample with excess value calculated with sales multipliers above the diagonal and for excess value based on assets multipliers below the diagonal. There is high correlation between variables Ebit_Sale, income and ROA.

Table 2.4: Fixed effects regression of excess value on number of segments, post-SOX indicator and control variables for focused and diversified firms (1999-2015)

FIXED EFFECTS REGRESSION ANALYSIS

	Excess Value			
	Sales		Assets	
N_seg	-0.046	-0.063	-0.016	-0.019
	(8.32)***	(11.04)***	(2.18)**	(2.04)**
SOX_d		-0.227		-0.064
		(11.50)***		(3.75)***
Leverage	-0.034	-0.098	0.033	0.022
	(0.96)	(2.86)*	(0.96)	(0.88)
Ebit_Sale	0.122	0.126	0.256	0.244
	(2.63)***	(2.65)***	(6.82)***	(6.87)***
Capx_Sale	0.399	0.354	0.128	0.113
	(11.29)***	(14.53)***	(3.05)***	(3.04)***
Log_at	0.037	0.107	-0.086	-0.068
	(2.71)***	(6.05)***	(5.87)***	(3.02)***
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
R-squared (within)	0.014	0.044	0.020	0.022
Nr. of firms	4102	4073	3761	3730
Nr. of observations	16,194	15,218	15,299	14,348

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.5: Fixed effects regression of excess value on number of segments, post-SOX indicator and control variables only for diversified firms (1999-2015)

FIXED EFFECTS REGRESSION ANALYSIS		
	Excess Value	
	Sales	Assets
N_seg	-0.053	-0.031
	(12.36)***	(3.06)***
SOX_d	-0.221	-0.053
	(12.08)***	(3.73)***
Leverage	-0.019	-0.007
	(0.26)	(0.12)
Ebit_Sale	0.563	0.675
	(6.89)***	(5.64)***
Capx_Sale	0.504	0.340
	(8.32)***	(3.58)***
Log_at	0.121	-0.072
	(5.39)***	(3.17)***
Year fixed effects	Yes	Yes
Firm fixed effects	Yes	Yes
R-squared (within)	0.05	0.038
Nr. of firms	2389	2043
Nr. of observations	9,138	8,207

The sample includes all diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.6: Fixed effects regression of excess value on diversification and post-SOX indicator and control variables for focused and diversified firms (1999-2015)

FIXED EFFECTS REGRESSION ANALYSIS				
	Excess Value			
	Sales		Assets	
Div_d	-0.088	-0.109	0.023	0.017
	(3.41)***	(3.70)***	(1.28)	(0.84)
SOX_d		-0.221		-0.061
		(12.04)***		(3.57)***
Leverage	-0.034	-0.098	0.029	0.02
	(0.98)	(2.87)***	(0.83)	(0.77)
Ebit_Sale	0.123	0.128	0.258	0.249
	(2.66)***	(2.70)***	(6.89)***	(6.93)***
Capx_Sale	0.398	0.354	0.129	0.116
	(11.47)***	(14.71)***	(3.05)***	(3.02)***
Log_at	0.036	0.103	-0.088	-0.07
	(2.65)***	(5.93)***	(5.69)***	(3.21)***
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
R-squared (within)	0.014	0.042	0.019	0.022
Nr. of firms	4102	4073	3779	3748
Nr. of observations	16,194	15,219	15339	14386

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.7: Fixed effects regression of excess value on diversification indicator, post-SOX indicator, control variables, and their interactions with the SOX dummy for focused and diversified firms (1999-2015)

FIXED EFFECTS REGRESSION ANALYSIS

	Excess Value			
	Sales		Assets	
Div_d	-0.171		-0.041	
	(6.29)***		(2.38)**	
DivSOX_d	0.084		0.081	
	(5.50)***		(4.82)***	
N_seg		-0.084		-0.041
		(15.11)***		(5.34)***
N_segSOX_d		0.028		0.031
		(6.81)***		(5.65)***
SOX_d	-0.108	-0.092	0.064	0.066
	(3.74)***	(3.64)***	(1.62)	(1.71)*
Leverage	-0.021	-0.020	0.073	0.075
	(0.36)	(0.33)	(1.78)*	(1.92)*
Leverage_SOX	-0.096	-0.097	-0.055	-0.053
	(2.01)**	(2.06)**	(0.90)	(0.90)
Ebit_Sale	0.002	-0.001	0.131	0.120
	(0.03)	(0.02)	(1.59)	(1.48)
Ebit_Sale_SOX	0.222	0.224	0.218	0.230
	(5.65)***	(5.62)***	(2.91)***	(3.20)***
Capx_Sale	0.240	0.242	0.099	0.095
	(2.93)***	(2.93)***	(1.50)	(1.45)
Capx_Sale_SOX	0.126	0.123	-0.004	-0.002
	(1.24)	(1.21)	(0.08)	(0.04)
Log_at	0.121	0.128	-0.052	-0.046
	(7.49)***	(7.84)***	(2.71)***	(2.36)**
Log_at_SOX	-0.026	-0.030	-0.027	-0.030
	(7.10)***	(7.87)***	(8.33)***	(9.04)***

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.7: Continued

FIXED EFFECTS REGRESSION ANALYSIS				
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
R-squared (within)	0.046	0.048	0.027	0.027
Nr. of firms	4073	4073	3748	3730
Nr. of observations	15,218	15,218	14,386	14,348

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.8: Difference-in-differences (DD) analysis comparing diversified firms with accelerated filer status before and after SOX

DIFFERENCE-IN-DIFFERENCES ANALYSIS				
	Excess Value (measured based on Sales)			
Div_d	-0.080	-0.068		
	(2.90)**	(1.52)		
N_seg			-0.068	-0.066
			(9.79)***	(7.77)***
SOX_d	-0.207	-0.207	-0.214	-0.213
	(6.43)***	(6.45)***	(6.76)***	(6.67)***
SOX_ACC	0.007	0.018	0.008	0.015
	(0.22)	(0.38)	(0.27)	(0.42)
Div_d_SOX_ACC		-0.016		
		(0.45)		
N_seg_SOX_ACC				-0.003
				(0.24)
Leverage	-0.104	-0.104	-0.101	-0.101
	(5.31)***	(5.23)***	(5.20)**	(5.10)**
Ebit_Sale	0.129	0.129	0.126	0.126
	(2.64)**	(2.64)**	(2.62)*	(2.62)*
Capx_Sale	0.358	0.358	0.356	0.356
	(11.76)***	(11.75)***	(11.89)**	(11.88)**
Log_at	0.065	0.065	0.067	0.067
	(3.18)**	(3.17)**	(3.34)**	(3.30)**
R-squared (within)	0.027	0.027	0.03	0.03
Nr. of firms	2579	2579	2579	2579
Nr. of observations	9,892	9,892	9,892	9,892

The dependent variable is firm excess value measured based on sales. SOX_ACC is the indicator identifying how the treatment started. The insignificant coefficient for Div_d_SOX_ACC respectively for N_SEG_SOX_ACC is the difference-in-differences estimator. The other independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. %. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.9: Robustness test of Table 2.4 - SOX indicator takes the value of one on and after 2003

ROBUSTNESS TEST				
	Excess Value			
	Sales		Assets	
N_seg	-0.062		-0.023	
	(13.87)***		(2.90)***	
Div_d		-0.106		0.016
		(3.80)***		(0.84)
SOX_d	-0.203	-0.197	-0.068	-0.064
	(7.59)***	(7.82)***	(4.82)***	(4.50)***
Leverage	-0.080	-0.080	0.015	0.013
	(2.06)**	(2.09)**	(0.49)	(0.39)
Ebit_Sale	0.140	0.142	0.261	0.263
	(3.17)***	(3.22)***	(6.73)***	(6.81)***
Capx_Sale	0.357	0.357	0.117	0.119
	(16.35)***	(16.56)***	(3.23)***	(3.22)***
Log_at	0.094	0.091	-0.067	-0.070
	(4.98)***	(4.89)***	(3.32)***	(3.51)***
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
R-squared (within)	0.04	0.039	0.024	0.022
Nr. of firms	4102	4102	3761	3779
Nr. of observations	16,194	16,194	15,299	15,339

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.10: Robustness test - fixed effects regression of excess value on Herfindahl index, post-SOX indicator, and control variables for focused and diversified companies (1999-2015).

ROBUSTNESS TEST				
	Excess Value			
	Sales		Assets	
Her_index	7.035	6.492	0.453	0.455
	(14.23)***	(9.39)***	(3.45)***	(3.51)***
SOX_d		-0.212		-0.063
		(11.45)***		(3.72)***
Leverage	-0.032	-0.096	0.032	0.022
	(0.87)	(2.66)***	(0.87)	(0.79)
Ebit_Sale	0.201	0.200	0.256	0.248
	(4.47)***	(4.27)***	(6.79)***	(6.79)***
Capx_Sale	0.381	0.339	0.129	0.116
	(10.32)***	(12.91)***	(3.07)***	(3.03)***
Log_at	0.069	0.130	-0.080	-0.062
	(4.48)***	(7.93)***	(5.16)***	(2.76)***
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
R-squared (within)	0.019	0.046	0.022	0.026
Nr. of firms	4102	4073	3779	3748
Nr. of observations	16,194	15,218	15,339	14,386

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is firm excess value measured based on sales, respectively based on assets. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. t-Statistics in parentheses are based on Driscoll and Kraay(1998) standard errors (heteroskedastic-consistent and robust to general forms of cross-sectional and temporal dependence). *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Table 2.11: The effect of SOX on the probability to diversify estimated by a logit analysis

Logistic Regression				
	Div_d			
	Sales		Assets	
SOX_d	0.208	0.205	0.224	0.221
	(1.56)	(1.53)	(1.59)	(1.56)
Leverage	-0.313***	-0.284***	-0.226***	-0.180**
	(-3.81)	(-3.45)	(-2.63)	(-2.09)
Capx_sale	-1.859***	-1.840***	-1.749***	-1.750***
	(-16.24)	(-16.06)	(-14.31)	(-14.28)
Ebit_Sale	0.339***		0.548***	
	(3.95)		(6.81)	
Income		0.157***		0.168*
		(2.91)		(1.86)
Log_at	0.333***	0.338***	0.355***	0.365***
	(32.23)	(32.97)	(32.96)	(33.39)
Major	-0.004	0.003	-0.034	-0.018
	(-0.07)	(0.07)	(-0.63)	(-0.33)
SP500	0.741***	0.737***	0.972***	0.965***
	(13.32)	(13.26)	(16.43)	(16.35)
Cashflow	-0.001***	-0.001***	-0.005***	-0.004***
	(-3.16)	(-3.24)	(-3.59)	(-3.12)
TobinQ	-0.183***	-0.181***	-0.307***	-0.309***
	(-10.21)	(-10.19)	(-13.60)	(-14.08)
Pseudo R2	0.122	0.122	0.149	0.148
N	14771	14771	13943	13943

The sample includes all focused and diversified firms downloaded from Compustat Historical Segments database during the 2000 through 2015 period. The dependent variable is the diversification indicator which takes values of 1 if firm operates in multiple industry segments and 0 otherwise. All independent variables are defined in Appendix A and the continuous ones are winsorized at top and bottom 1%. The estimation method is maximum likelihood and the regression includes a constant term and year dummies (not reported). Robust standard errors are reported in parentheses. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 level.

Figure 2.1: Excess value annual averages for diversified and focused companies

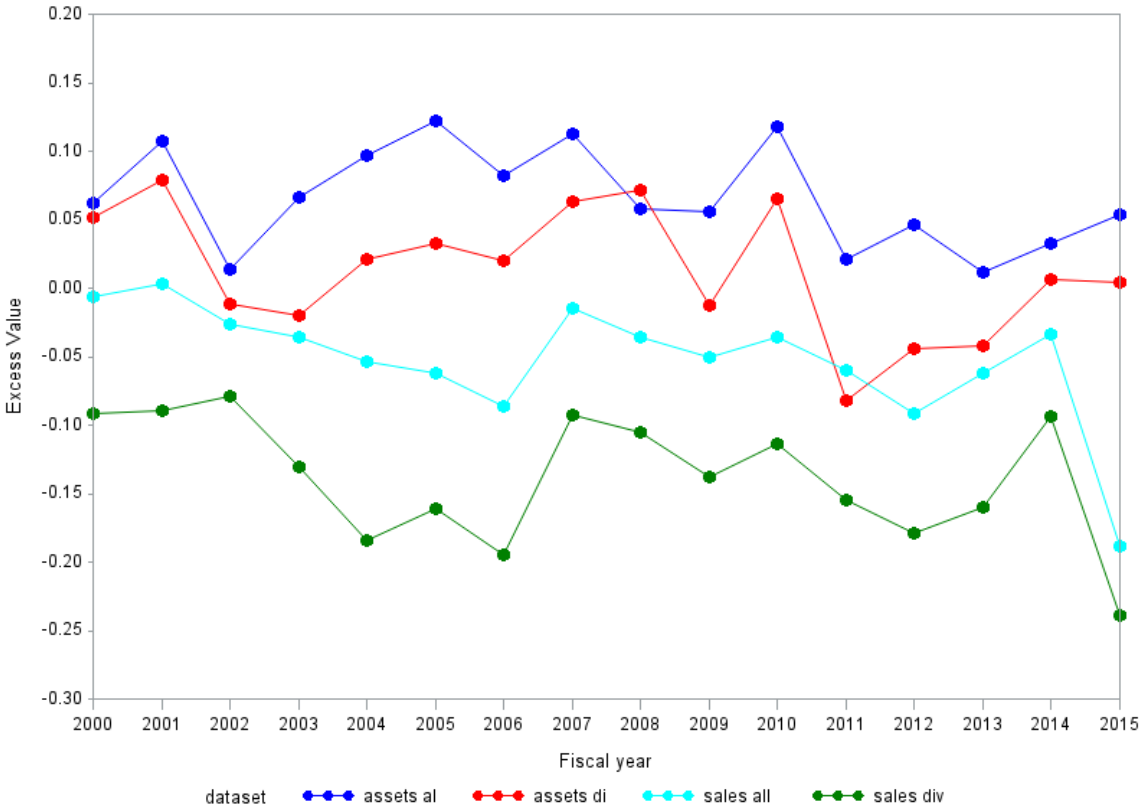
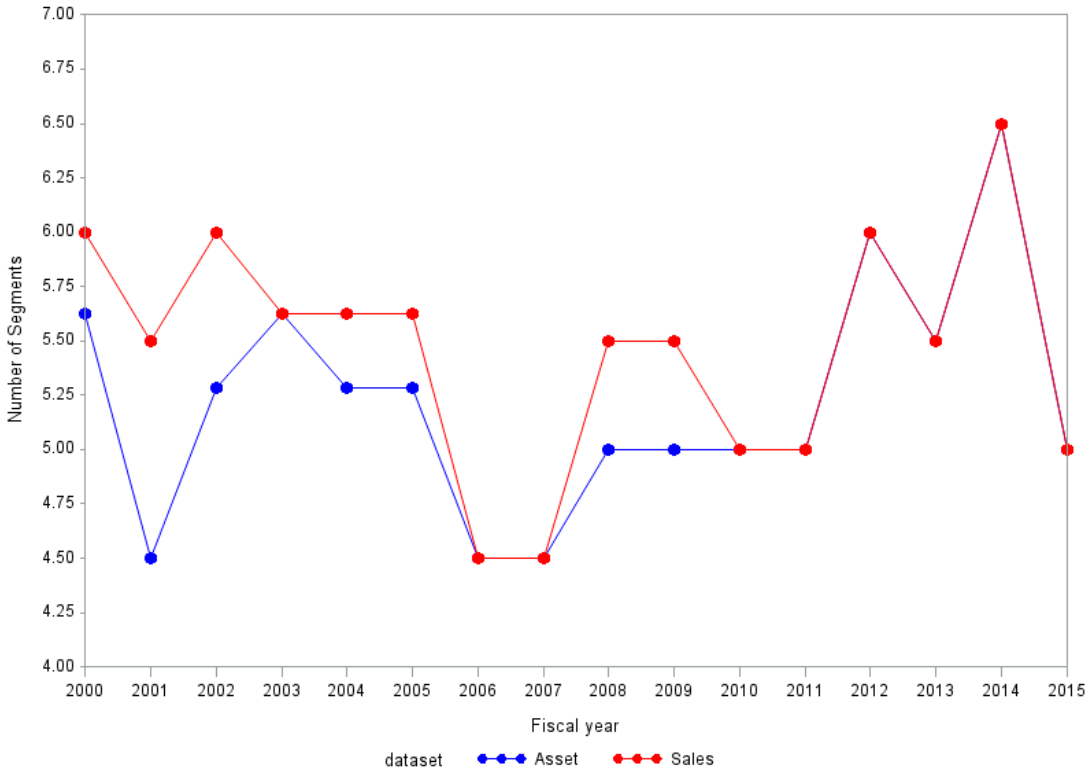


Figure 2.2: Number of segments annual averages for diversified companies for the two samples when excess value is calculated based on sales respectively based on assets



CHAPTER 3 DETERMINANTS OF GLOBALIZATION

3.1. Introduction

What reflects the strategic intent to establish sales in foreign markets? Denis et al. (2002) says solid reasons for firms to diversify internationally include putting a company's strengths – such as production or marketing – to work in competitively conducive environments and increasing firms' operating flexibility. I attempt to find out why some companies conduct experiments, believing that they can do better in other countries than local firms in that country can do, while other companies never attempt to move some of their operations abroad. Ignoring the desire of investors to hold a globally diversified portfolio by such means, I look inside the black box of reasons for undertaking the decision for global diversification. My analysis is conducted from the point of view of two different selections of firms that coexist within the breadth and variety of the US market. First, born-global companies (BGs) from their inception do not hesitate to exploit their opportunities in other countries. In general, according to Marinelli (2011), firms start their global diversification path by importing and exporting, progressively increasing their internationalization. [34]

In that respect, the US IPOs represent a junior-grade replica of born-global companies with exclusive qualifications, and the first part of my study places emphasis on the decision of the initial owners and investors to maximize the outcome of their ventures.

[34] Some authors argue that the development of exports does not suffice for a firm's inclusion among global diversified enterprises.

Second, at totally different points of their growth cycle are "born-again" global companies (BaGs). These are mature, accomplished firms that experience globalization after they already possess various expertise and resources.[35] To precisely analyze the determinants of globalization, how the firms mentioned above are different ex-ante from those that are not engaged in international activities, my extensive data set includes domestically focused IPOs and mature corporations.

The various theoretical underpinnings for my research range from developing conventional wisdom of firm characteristics and prominent agency views to those about the need for innovation and the market signaling valuable information to businesses.

Matsusaka and Nanda (2002) build up a model of organization based on advantages and expenses, showing that, depending upon a firm's characteristics, diversification can be efficient or wasteful. Furthermore, Matsusaka (2001) says that corporate diversification is a search process centered on a firm's organizational capabilities. The firm hunts for a good match for its organizational skills, but its search is in fact pure experimentation. It can come along these lines as vital and valuable for the firm to explore different avenues regarding new lines of business to determine whether its particular resources or general resources determine their success. To establish the similarity between industrial and multinational diversification, I revisit the traditional perspective of corporate strategy on which a firm is expected to focus when juvenile. Therefore, it is straightforward to think that born-global firms ought to have—and in fact probably do have—specific resources in addition to general resources, all of which must be easily accessible if failure is to be prevented

[35] Born-again global firms (BaG) accelerate their internationalization after they are already accomplished in their home markets (see Bell et al. 2001, 2003).

(Bernardo and Chowdhry 2002). Born-again globals (BaGs) attempting to globalize at a later phase should categorically be endowed with more financial resources than their unseasoned peers.

While domestic firms rely solely on internal capital markets, the accessibility of global markets is evidence that diversified firms take this course as a way to boost their growth opportunities. Based on past empirical evidence, it is unlikely that, ceteris paribus, superior ability is followed by deficiency with respect to growth opportunities after globalization. I explore this hypothesis when I have three consecutive years of diversification and find, as expected, a strong negative relation between growth and internationalization for each of the three samples of BGs as well as for the BaGs.

Furthermore, I inquire whether peer effects could be an important determinant of the decision to successfully internationalize. Peer firms assume a central role in many economic perspectives, including corporate policies and capital structure (Leary and Roberts 2014). In the context, Miller (2006) hypothesizes that an industry-leading firm may use its advanced resources to broaden its operations into foreign markets. Consequently, it is conspicuous to presume that all firms unsure about future global strategies can follow the behavior of their competitors, especially those that are large and mature. Inspired by the excess value measure of Lamont and Polk (2002) and other similar measures I define a peer influence measure as the ratio of all firms in the industry that are globally diversified. The benefit of this new measure is illustrated by findings for both BGs and BAGs (young and small as well as large and mature companies).

In terms of market signaling when firms are in a strong competitive position with respect to their rivals, they may choose to globally diversify in order to complement their

domestic opportunities. Under this null hypothesis firms diversify because they adopt innovation that their peers abroad do not pursue. I thus measure internal innovation with the help of patents and citations. Trajtenberg (1990) and Griliches (1990) have found patents and citations to be reliable proxies of research productivity. I find that the number of patents possessed and number of citations received are positive influencers of global diversification.

All of the determinants mentioned above do not imply that the private interests of managers do not meddle in diversification. If there are private interests, the diversified firms are associated with a valuation discount because diversification is not the ideal strategy when it diminishes shareholders wealth. To the degree that cash flows from worldwide segments are imperfectly correlated managers own private portfolios are safer.

I directly test whether CEO ownership and firms' idiosyncratic risk are negative determinants of global diversification. I corroborate that, if the ownership share of a firm's management is high, the manager's private costs surpass his private benefits, and therefore I see a wary propensity to go global.

My study extends the prior literature in no less than three ways. First, my study can be considered as a stepping stone for future research because it corroborates prior findings uncovered by empirical work into industrial diversification. Second, as international entrepreneurship research has called for more exploration regarding the initial impact of born globals, I study ongoing commitment to foreign markets in the public company's first three years of life. Third, to the best of my knowledge, the sundry nature of the decision to diversify has not been compared across recently publicly traded companies and their older

counterparts. My tests not only are designed to detect which diversification hypothesis is fortified by the data, but are also planned to detect distinctions between BGs and BaGs.

3.2. Literature review

While the tendency to operate domestically is easy to understand the preceding research (Hyland and Diltz, 2002, Colak 2010) is keen to find the causes of diversification. As a market-value increase is the optimal outcome of diversification, I discuss in this section factors that affect either geographic or industrial diversification. Note that these factors do not need to be mutually exclusive and I formulate my hypotheses separately for each scenario.

The first factors that prevail among the industrially diversifying determinants are related to a firm's industry involvement and economic outlook. Colak (2010) calls them "outside factors" because he incorporates the firm's exchange, index inclusion, and other general economic conditions. Indeed, Colak (2010) reports evidence of separate drivers leading the refocusing and diversification propensities. For instance, all firm characteristics have a far from negligible influence on refocusing decisions, with size and age raising the likelihood of refocusing actions and profitability, investment, research and development (R&D) spending, and growth rates having a negative influence. Campa and Kedia (2002) corroborate these findings; they control for the endogeneity of the diversification decision and estimate a probit model. They find that firm and industry characteristics tend not to be highly significant in explaining the diversification choice.

Since my samples of firms are enigmatic, similar but dissimilar on the account of a short and long time lag between the first public offering and the beginning of firm's international operations I propose

H1: Firm characteristics of global and domestic firms are comparable.

The second issue is the claim that Hyland and Diltz (2002) and Stowe and Xing (2006) advance that diversification is associated ex-ante with fewer growth opportunities. Stowe and Xing (2006) suggest that differing growth opportunities between diversified and single-segment firms cannot account for the value destruction of the diversified firms. Indeed, comparing the growth opportunity means (and medians) of diversified and single-segment firms, Stowe and Xing (2006) document significant values of 0.0733 (0.0493) and 0.0815 (0.0586). In the year before diversification, Hyland and Diltz (2002) find lower median sales growth of diversified firms.[36] That is precisely why firms expand in multi-segment businesses: because of poor growth opportunities in their current activities, they diversify to contract new expansion and growth. This line of thinking is related to Matsusaka (2001), who suggests that the decline in status quo (e.g., drop in current sales) results in the firm searching for more profits. A firm's poor performance owing to a mismatch in the organizational capabilities of its existing businesses causes the diversification discount and not the other way around with the diversification inducing the diversification discount.

[36] Krishnaswami and Subramaniam (1999) find that organizations with higher growth opportunities are more likely to take part in spin-offs.

I label formulate this hypothesis as growth or magnification hypothesis follows:

H2: Firms diversify simply because they want to grow (BGs) or they want to continue to grow (BaGs).

Fundamentally, information-based or knowledge-based assets should empower the firm to embark in exploration of foreign markets. However, the empirical results are mixed. According to Miller (2006) increased diversification leads to more technological diversity, and more prominent knowledge-based assets will encourage the firm to further expand. On the other hand, Gao and Chou (2015) show that multinational firms innovate less efficiently than do their domestic counterparts.[37]

Following the same line of thinking, Alonso-Borrego and Forcadell (2010) show a positive linear effect of investment in intangible assets, R&D intensity, on related diversification. However, it is possible that in order to create value for their shareholders, diversified firms may significantly lower their research and development expenditure levels. My interest lies in testing whether firms that possess ultra technological diversity are more prone to launch into foreign markets; therefore, I posit my innovation sophistication hypothesis as follows:

H3: Firms that generate a higher number of patents, citations, or R&D intensity, are more likely to diversify globally

[37] Seru (2014) measures innovation with patent-based metrics and finds that firms acquired in diversifying mergers have lower levels of innovation and even less creative innovation

Other theoretical frameworks that can affect diversification are institutional factors like ownership and control concerns, described as power-grabbing behavior.[38] These theoretical frameworks are supported by evidence introduced by Aggarwal and Samwick (2003) and Denis et al. (1997) in the context of agency explanation and firm valuation. Managerial self-interest (Click and Harrison 2000) is at odds with the firm's efforts to reduce the extent of its diversification or even failing to take advantage of multinational opportunities altogether. Controversy can result from this hypothesis unless supported by thorough empirical findings (May 1995, Denis et al. 1997). Denis et al. (1997) investigate it using five different measures: (1) the fraction of firms with multiple segments, (2) the number of segments reported by management, (3) the number of 4-digit SIC codes assigned to the firm by COMPUSTAT, (4) a revenue-based Herfindahl index, and (5) an asset-based Herfindahl index.

Ownership by insiders is inversely related to corporate diversification, and the interpretation that self-benefitting functions are offset by higher ownership stakes is fruitful. For that reason, I posit that managers who have low ownership stakes engage their enterprises in foreign activities.

H4: Corporate focus is positively related to CEO ownership.

Management views the advantages of diversification sometimes through the lens of idiosyncratic risk minimization. This idea is a popular one (Amihud and Lev 1981, May 1995, Mansi and Reeb 2002, Aggarwal and Samwick 2003): managers pursue

[38] Duchin and Sosyura (2013) discuss the favoritism hypothesis, which predicts that favorable treatment will be granted to divisional managers connected to the CEO by close personal relationship. As a result of allocating capital to divisions whose managers have a good rapport with the company's CEO, the firm limits its forthcoming investment efficiency.

diversification as a result of their personal risk reduction preferences. The "managerialism" findings by Amihud and Lev (1981) emphasize that the risks associated with firms' performance are also hazards for CEOs. They show that since CEOs' compensation is tied to firms' accomplishments, CEOs display a higher interest in conglomerate mergers. May (1995) proposes that managers with more human capital vested in the firm display a higher affinity for risk reduction. May (1995) proxies the CEO human capital vested in the firm by tenure (number of years spent at that firm) and reports that CEOs who have been employed for many years have a greater tendency to diversify. A more recent paper, Aggarwal and Samwick (2003), considers three situations: when the manager claims private benefits only, when the manager has risk reduction benefits only, and when the manager has both private benefits and risk reduction benefits. The comparative static equilibrium model of Aggarwal and Samwick (2003) does not encourage the second premise, diversification ex-post in order to diminish firm's ex-ante idiosyncratic risk. Taking into consideration these prior tests, I formalize my unsystematic risk hypothesis as follows:

H5: As the idiosyncratic risk of the firm increases, the degree of diversification will rise.

3.3. Samples and Methodology

I collect information on initial public offerings (IPOs) issued in 1992-2009 from the Securities Data Corporation's (SDC's) New Issues database. I stop the data collection in 2009 due to missing information with respect to the number of patents owned by the firms after that year.

When studying born-global (BG) and born-again-global (BaG) attitudes toward diversifying abroad, I examine time sequences of events that occur at specific points in time. The sequence of events that I consider is four years of consecutive foreign pre-tax income gains. I undertake this tactic for several reasons. First, I look to apply more distinctive methodologies than the extant studies to determine the real causes of global diversification. Second, foreign sales are a widely used measure of global diversification; therefore, it is ideal to adopt that measure. Third, prior research has determined the degree of internalization of the research samples based on 5 percent (Zahra et al., 2000), 10 percent (McDougall, 1989), or 25 percent (Knight and Cavusgil, 2004) criteria (i.e., if a firm has obtained at least 5, 10, or 25 percent of its sales from foreign markets). Although looking for exemplary firms, these authors do not differentiate between foreign and export sales. I proceed in the direction mentioned above without an arbitrary cutoff because I target only firms' foreign sales and 10 percent or 25 percent of total income is too high for newly issued firms, which may even report negative foreign pre-tax income. In doing so, I capture a broader pool of businesses; however, this approach is not as lenient as one would think. Since I look at four continuous years of global diversification commitment, no restriction is effective because otherwise the size of my sample would suffer a huge diminishing effect due to discontinuity.

The first exercise is to create subsamples of firms that diversify or stay domestic. The origin of the globalization events is easy to pinpoint in case of BGs based on issue date. However, the situation is not the same for BaGs, for which the progression of international interest has no point of reference. Figure 3.1 describes enterprises that diversify beginning with their IPO year. The maximum time lag between the year the firm

goes public and the subsequent globalization decision is three years, consistent with Knight and Cavusgil (2004) rapid internationalization theory.

To preserve the standards of the recent research I exclude regulated industries (SIC 4900-4999) and financial services (SIC 6000-6900)

I measure diversification by a dummy, Div, which equals one if the firm reports pre-tax foreign income during the fiscal year. I follow Lang and Stulz (1994) and Stowe and Xing (2006) to calculate growth opportunities as the ratio of capital expenditures to total assets. I take after Morck and Yeung (1991) and apply research and development spending per total assets.[39]

I download the patent and citations data from the National Bureau of Economic Research (NBER) patent database. The most up-to-date version of the NBER data offers comprehensive information on all patents granted by U.S. Patent and Trademark Office till 2009 which in fact fits my samples' definition. I match the NBER patent database to Compustat using GVKEY and CUSIP identifiers (see Hall, Jaffe and Trajtenberg 2001). I calculate number of patents as patent counts for a firm each year (grant year) and I compute number of citations as citation counts that a firm received for its patents that year (grant year). I set the number of patents or citations to zero for those firm-years for which there is no information available.

The peer influence (PIND) is calculated based on inspiration from Campa and Kedia (2002) who calculate PNDIV the fraction of all firms in the industry that are

[39] Research and development spending per total assets proxy for production and marketing in Morck and Yeung (1998) and geographic diversification adds to shareholders value only in the presence of these R&D related assets.

conglomerates. PIND is the fraction of all firms in the industry that are globally diversified (in other words have a non blank Compustat pifo variable). The PIND measure is based on two-digit SIC codes, results are consistent when I re-do the estimations for three-digit SIC codes. The other variables are depicted more fully in the appendix.

The last sample that I construct and I refer to it as BG M consists of all IPOs for which data is available having one year, two years, three years, four years or none of global diversification during the first four year of existence as a public company. The name BG M suggest the methodological approach, BG M helps us analyze the changes in diversification refocusing status by applying a multinomial logit model. The multinomial logit model estimates the probability of a firm choosing from among five different scenarios in four years: 4N, 4D, 3D1N, 2D2N, or 1D3N where N represents a domestic profile and D represents the diversification route. I are not interested in possible permutations but rather the final count in these first four years, which means I do not enforce the previously mentioned consecutive rule and there are only five choices for an IPO. I cannot conduct the same analysis for BaG companies simply because I lack the reference points. However, I hope that the factors that determine a firm's evolution in the post-public phase shed plenty of light on global diversification decisions, previously considered by many to be purely human-judgment decisions.

3.4. Empirical Evidence

I have in my first BG sample (BG 14) factoring years 1 through 4 after initial public offering 48 firms, in my second BG sample (BG 25) covering years 2 through 5 after IPO 1,262 firms, and in my third BG sample (BG 36) addressing years 3 through 6 after

inception 112 firms. The born again sample (BaG) covering mature firms that diversify after at least ten years after their inception is comprised of 315 firms. Out of 48 firms in the first sample 15 firms manifest ongoing diversification for four years, which represents 31%. Out of 1,262 firms, 231 firms display prolonged diversification for four years, which reflects 18.3%. Out of 112 total firms, 23 have steady global involvement for four years, which represents 20.5%.

The fourth column of Table 3.1 shows the number of industrially diversified conglomerates in these four samples. There are notable differences in column five of Table 3.1 in regards to prior international involvement. The column shows that almost all born globals try to discover what the globalization is really like before they become very involved in it. On the other hand, the mature companies in the BaG sample, firms with experience of at least ten years, do not seem to need predictive approaches as only a few of them have prior global experience in the last four years.

Figure 3.1 compares the annual number of firms that internationalize in each of my samples for the 1992-2009 period. Based on this graph, I should always concentrate my attention to empirics for sample BG 25 and sample BaG, considering the other two samples only additionally since some years have a sparse number of firms.

I list the distribution of focused and global diversified firms according to the 38 Fama and French industry classification in Table 3.2. This represents verification that there are no distributions of companies in the utilities and financial services industries. To give a sense of the differences in the born global and born again global samples I look at the ratio of pre-tax foreign income to total pre-tax income, assets, sales and total value. Such differences have been previously documented in the literature for firms at different points

in their lifecycle (Fort et al., 2013) and I see significant variations among BG and BaG samples. For positive ratios of pre-tax foreign income to total pre-tax income the percentages range from less than 1 to over 280 percent of total operations.

Further, I report descriptive statistics (minimum, maximum, mean, median, standard deviation) for all variables included in the regression models of the born global sample (BG 25) later. The left panel of Table 3.4 reports statistics for 1,031 domestic firms with no international involvement and the right panel for 231 internationalized firms as characteristics vary across different diversification profiles. To save space I report in Table 3.5 cross-correlations for the entire sample (BG 25). My PIND measure defined for both domestic and multinational firms is negatively correlated with my measure of diversification.

At the heart of the analysis are the hypotheses about growth opportunities and peer influence. Evidence presented in the first and second columns of Tables 3.7, 3.11 and 3.12 show that in samples (BG 25) and (BaG) firms globally diversify in order to grow. This significant and negative influence of growth opportunities on the probability of diversification suggests that firms with less growth opportunities welcome internationalization, but firms with more growth opportunities are less enthusiastic to internationalize. I see that the relation is robust to industry fixed effects estimation for (BaGs), but not for (BG 25) with industry fixed effects specified by four digit SIC codes.[40]

If the firm is looking for international rent-seeking activities, it is very likely that it will be strongly subjected to the influence of its industry peers as the firm assesses whether

[40] Santalo and Bercera (2008) demonstrate that diversified firms perform better in certain industries.

global activities are in fact better opportunities. All the samples supply clear evidence that peer industry influence plays a large role in diversification. The variable PIND is significantly and negatively related to global diversification for BGs but significantly and positively identified with diversification for BAGs.

It seems that born globals are deterred from pursuing global diversification when their industry peers display much experience in that regard (columns 3, 4, 5 and 6 of Tables 3.6, 3.7, 3.8, 3.9 and 3.10). The intuition behind the results is that born globals may consider globalization a messy strategy because their domestic opportunities are comparatively better. Being young and having many uncertainties, they view the signal they receive from their industry peers as competitive, and they stay away, preferring to reap the benefits of the domestic market.

The explanation for positive and significant coefficients in columns 3, 4, 5 and 6 of Tables 3. 11 and 3.12 has its roots in the "resource-based view" of the firm. As BaGs have many more resources than BGs, their primary reason for following their peers is that they have more trust in their own resources and capabilities. They do not view their industry peers as competing, which will prevent them from globally diversifying; on the contrary, they view them as leading in that direction. I should not forget that in industrial diversification literature, when firms refocus because of diminished performance, their managers declare that they "did not belong in that business." Similarly, in the global diversification realm, it is very hard to say ex ante that diversification is the right decision; rather, firms need external influence to reassure them.

Further, Tables 3.13, 3.14 and 3.15 showcase hypothesis H3 that companies with higher levels of innovation have higher propensities to reap the benefits of global

diversification. Coefficients on L_N_patents L_N_citations, and L_Rd are positive and significant supporting the intuition that a diversification decision is strongly driven by a firm's innovation intensity (patents, citations and R&D expertise). The results remain robust with the interpretation being exactly the same when I control for industry-level unobserved factors (regressions not reported to preserve space).

Due to data availability limitations I am able to analyze only a born global (BG 25) sample. Tables 3.16 and 3.17 test hypothesis H4 of whether CEO ownership and the firm's idiosyncratic risk are associated with a vicissitude in diversification likelihood. CEO ownership is negative and significant at a 5% level, so the results accommodate the findings of Denis et al. (1997). The consistent negative relation between managers' equity share and the degree of diversification signifies that potential private benefits gained from entering new markets will be offset by high ownership. Similarly, the coefficient for idiosyncratic risk is negative and significant denoting that higher firm-specific risk will dissuade managers from pursuing globalization strategies.

Supplementally, as last robustness, I re-run the first regressions with another proxy, Big_d, for peer influence as used by Gao and Chou (2015). Big_d is an indicator that takes the values of 1 if the largest firm in the industry is globally diversified and 0 otherwise. Tables 3.18, 3.19 and 3.20 show that the peer influence results are robust to alternate specifications.

In order to explore and enrich the understanding of born-global firms, I create the last sample BG M and examine BGs' choices as public companies over their first four years. BGs' alternatives in the first four years are as follows: to remain undiversified (4N) to diversify one year out of four (1D3N), two years out of four (2D2N), three years out of

four (3D1N) or diversify every year (4D). Tables 3.21-3.24 present the results of the multinomial logit regression for the variable of interest PIND alone and PIND and growth opportunities in tandem. The choice to remain undiversified (4N) is nominated as the baseline (reference) category and I calculate the log-odds for all the other four choices in relation to the baseline. PIND is adjusted directly proportional to the number of years of diversification. Each table in fact displays four separate logit regressions with firm-characteristics as control variables. In all tables PIND is as good as before negative and significant at the 1 percent level. PIND shows once again that an increase in peer pressure negatively predicts more extensive diversification or in other words predicts less diversification years in the first four years.

3.5. Conclusion

In this paper I look at what incentives are indeed important for global diversification. I narrow down the determinants' variability by testing five hypotheses: industry peer pressure, growth or magnification desire, CEO entrenchment by ownership, extent of idiosyncratic risk, and firm's innovation potential. I compact the US market into two separate categories of companies: young (BGs) and mature (BAGs). In each case I run the analysis by comparing samples of globally diversified firms to samples of firms specializing in internal markets.

By and large I find that BGs and BAGs have fewer open doors to development after diversification. I find support for the idea that firms diversify to seek better growth prospects. Diversification thus becomes a means for growing the business in such a way as

to generate value for shareholders, with pre-existing growth being a strong deterrent to diversification.

The other driving force that answers the question of what causes a decision for global diversification is a firm's technological knowledge as reflected in patents and citations. Patents and citations are significantly and positively associated with global diversification, showing that acquired innovation moves managers to position their firms in international business environments.

As there are many reasons for diversification, the elongated analyses most importantly demonstrate that there is no single crucial factor in a firm's planning for global involvement. While I demonstrate that solid causal links exist between growth opportunities, number of patents or citations, and global diversification, I acknowledge that the same factors may assume different roles. While I see a "dark side" of industry peer pressure for BGs, BAGs feel no stress from competition because they are in fact positively influenced by the global involvement of their peers. Therefore, my claim that I have enhanced the understanding of marked differences between BGs and BAGs' reactions is warranted.

Finally, in the past decade it has proven arduous to assess the consequences predicted by the hypotheses. I concede that this project has been at best a decent first stage of the exploration of a topic that requires much future exploration. For one thing, my list of hypotheses is not exhaustive: there are other motivating forces like taxation to be investigated as well. As I have only examined what happens to born globals during the initial period, one possible theme of future research is what happens to born globals after that initial period.

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APPENDIX A VARIABLE DEFINITIONS

Age: number of years since the firm's first PRCC_F in CRSP.

Big_d (peer pressure dummy): equal to 1 if the largest firm in terms of total assets in the same industry is globally diversified and 0 otherwise.

Cash_flow: ratio of the sum of earnings before extraordinary items (IB) and depreciation (DP) to lagged net property, plant, and equipment (PPENT).

CEO_own (fractional equity ownership): shares (owned options excluded) divided by total common shares outstanding (CSHO).

Div_d (global diversification dummy): equal to 1 if a firm is globally diversified as reporting pre-tax foreign income in that year, and equal to 0 if a firm does not report pre-tax foreign income or any foreign sales.

EBIT_Sale (firm profitability): operating income after depreciation plus nonoperating income deflated by sales.

GDP: real annual growth of GDP.

G_O (growth opportunities): the ratio of capital expenditures (CAPX) to total assets (AT).

L_N_patents: natural logarithm of the number of patents in that fiscal year plus 1.

L_N_citations: natural logarithm of the number of citations a patent received in that fiscal year plus 1.

Market value of assets: book value of assets plus market value of common equity (calendar year close times shares outstanding) less the sum of the book value of common equity and balance sheet deferred taxes.

NWC (net working capital): lagged ratio of working capital (WCAP) divided by lagged total assets (AT)

PIND (industry influence): ratio of the fraction of all diversified firms in the industry (2-digit SIC industry code) that are globally diversified in that fiscal year to the fraction of all domestic firms in the same industry (2-digit SIC industry code) that are not diversified

ROA: ratio of EBITDA over lagged total assets (AT)

R_D (R&D intensity): R&D expenditures scaled by total assets

Size: the natural log of total firm assets (AT).

TobinQ: ratio of the market value of assets divided by the book value of assets.

Table 3.1: Sample characteristics

GLOBAL DIVERSIFIED FIRMS

BORN GLOBAL

Years of ongoing global interest IPO year = year1	Nr. of firms	Nr. of global diversified firms	Nr. of industrial diversified firms	Nr. of firms with global experience in the prior 4 years
BG 14 (1–4)	48	15	4	16
BG 25 (2–5)	1,262	231	41	234
BG 36 (3–6)	112	23	3	34

BORN-AGAIN GLOBAL

Years of continuous global interest	Nr. of firms	Nr. of global diversified firms	Nr. of industrial diversified firms	Nr. of firms with global experience in the prior 4 years
BaG (4 years)	315	264	23	31

This table displays the total number of firms and the number of global diversified firms in each sample. Each sample includes multi-segment (industrial) diversified firms and firms with prior international experience.

Table 3.2: Distribution of focused and global diversified firms according to 38 Fama-French industry classifications

		GLOBAL DIVERSIFIED FIRMS			
		BG (14)	BG (25)	BG (36)	BaG
1	Agriculture, Forestry and Fishing	0	4	0	0
2	Mining	0	4	0	11
3	Oil and Gas Extraction	1	30	2	5
4	Nonmetallic Minerals	0	3	0	1
5	Construction	0	3	2	0
6	Food and Kindred	0	21	3	8
8	Textile Mills	0	9	1	2
9	Apparel and Other Textile	2	10	3	5
10	Lumber and Wood	0	3	0	1
11	Furniture and Fixtures	1	9	0	2
12	Paper and Allied	0	2	1	0
13	Printing and Publishing	2	8	1	2
14	Chemicals and Allied	2	155	11	27
15	Petroleum and Coal	0	1	0	1
16	Rubber and Plastic	1	8	2	1
17	Leather	0	5	0	1
18	Stone, Clay and Glass	0	8	0	0
19	Primary Metal	2	15	2	4
20	Fabricated Metal	0	15	0	7
21	Machinery, Except Electrical	2	80	7	20
22	Electric and Electronic	8	111	12	50
23	Transportation Equipment	1	20	3	9
24	Instruments and Related	3	108	7	33

I make use of only nonfinancial and nonregulated firms (SIC codes 6000–6999 and 4900–4959 are excluded). I do not report columns 7, 31 and 32 because the samples do not incorporate Tobacco Products, Steam Supply and Irrigation Systems.

Table 3.2: Continued

GLOBAL DIVERSIFIED FIRMS					
25	Miscellaneous Manufacturing	1	16	1	3
26	Transportation	0	37	4	2
27	Telephone and Telegraph	0	16	0	4
28	Radio and Television	1	25	3	5
29	Electric, Gas and Water Utilities	0	0	0	0
30	Sanitary Services	0	13	0	4
33	Wholesale	3	31	7	9
34	Retail Stores	7	135	5	20
35	Finance, Insurance and Real Estate	0	0	0	0
36	Services	11	338	31	74
37	Public Administration	0	16	4	3
38	Other	0	3	0	1
	Total	48	1,262	112	315

I make use of only nonfinancial and nonregulated firms (SIC codes 6000–6999 and 4900–4959 are excluded). I do not report columns 7, 31 and 32 because the samples do not incorporate Tobacco Products, Steam Supply and Irrigation Systems.

Table 3.3: Descriptive statistics of born global (BG) and born-again global (BaG) samples.

DESCRIPTIVE STATISTICS								
Ratio of Pretax-Foreign Income to Pretax-Income Ratio			Assets		Sales		Total Value	
Min	Mean	Max	Mean	Median	Mean	Median	Mean	Median
Born Global (BG 14)								
0.06	0.38	1.34	723.9	263.2	826.3	353.2	925.8	547.5
Born Global (BG 25)								
0.002	0.45	14.94	571.2	195.9	507.3	177.6	1,401.0	418.8
Born Global (BG 36)								
0.01	0.62	2.05	516.9	114.8	637.7	135.3	1,171.5	312.8
Born-again Global (BaG)								
0.0002	0.60	28.32	3,681.6	377.4	3,725.7	345.7	4,087.3	564.2

For the global diversified firms in each sample (Div=1), I report the ratio of pre-tax foreign income to pre-tax income, assets, sales and actual value. When the pre-tax foreign income is positive, I calculate its ratio to pre-tax income. Assets and Sales are total assets and net sales, respectively. Total Value or Actual Value is the firm's total capital (market value of common equity plus book value of debt).

Table 3.4: Summary statistics for born global (BG 25) sample.

(BG 25) SUMMARY STATISTICS

	Div=0					Div=1				
	Min	Max	Mean	Median	Std	Min	Max	Mean	Median	Std
PIND	0.003	0.80	0.13	0.13	0.09	0.002	0.15	0.04	0.04	0.03
G_o $_{t-1}$	-0.003	1.14	0.08	0.05	0.10	0.004	0.47	0.06	0.04	0.07
L_N_patents $_{t}$	0	3.69	0.38	0.00	0.75	0	4.89	0.68	0.00	1.04
L_N_citations $_{t}$	0	7.73	1.03	0.00	1.94	0	8.43	1.62	0.00	2.31
L_Rd	0	5.03	1.63	1.68	1.30	0	6.40	2.37	2.35	1.28
Ceo_own $_{t}$	0.0001	0.41	0.07	0.03	0.10	0	0.52	0.05	0.01	0.10
Std_r $_{t}$	4.74	71.85	18.29	15.67	11.15	4.74	71.85	14.91	13.05	8.35
Age	2	45	3.40	3	3.34	2	43	4.12	3	5.02
Size $_{t-1}$	0.68	9.85	4.23	4.14	1.31	1.59	9.42	5.14	5.02	1.32
Cashflow $_{t-1}$	-860.21	1,957.02	-5.08	0.35	76.51	-60.89	74.29	0.65	0.63	9.52
Ebit_Sale $_{t-1}$	-1,569.54	0.59	-5.92	0.06	58.62	-36.30	0.54	-0.09	0.10	2.40
ROA $_{t-1}$	-26.68	132.04	2.49	1.36	9.96	-16.99	145.79	9.02	4.13	16.97
Nwc $_{t-1}$	-46.43	132.97	8.89	6.28	11.13	-60.16	290.30	14.11	9.34	24.26
TobinQ $_{t-1}$	0.30	100.81	3.77	2.59	5.27	0.92	38.48	3.50	2.48	3.58
Gdp $_{t-1}$	6,539.30	14,477.6	8,990.53	8,608.50	2,237.28	6,539.30	14,477.60	9,683.73	8,608.50	2,670.52

The table presents minimums, maximums, means, medians, and standard deviations for all variables included in the regression models. All continuous variables are winsorized at the 1 and 99 percentiles. Appendix A provides detailed definitions of all variables considered. Columns 2 to 6 include domestic firms with no international involvement for 4 years (N=1031). Columns 7 to 11 contain observations of global firms in the sample (N=231).

Table 3.5: Pearson correlation matrix for born global (BG 25) sample.

PEARSON CORRELATION													
	PIND	G_o	L_n_ patents	L_n_ citations	L_Rd	Ceo_ own	Std_r	Age	Size	Cashflow	Ebit_Sale	ROA	Nwc
Div	(0.41)	(0.09)	.15	.11	.23	(0.08)	(0.12)	.08	.26	.03	.04	.21	.14
PIND		(0.02)	.001	.01	.10	(0.02)	.21	.001	.02	(0.06)	(0.02)	(0.14)	.06
G_o			(0.13)	(0.14)	(0.27)	(0.02)	(0.05)	(0.02)	.06	.01	.04	.05	(0.12)
L_n_ patents				.92	.47	.05	.06	.05	.05	(0.001)	(0.05)	(0.05)	.19
L_n_ citations					.43	.10	.10	.02	(0.03)	(0.003)	(0.03)	(0.09)	.15
L_Rd						(0.002)	.20	(0.03)	(0.28)	(0.13)	(0.08)	(0.02)	(0.41)
Ceo_ own							.13	(0.08)	(0.13)	.01	.06	(0.09)	.01
Std_r								(0.05)	(0.17)	(0.06)	(0.03)	(0.29)	.03
Age									.22	.001	(0.01)	.29	(0.03)
Size										.12	.05	.56	.38
Cashflow											.04	.19	(0.12)
Ebit_Sale												.08	(0.02)
Roa													.22

The correlations are based on the BG 25 sample of 1,262 firms. All variable definitions are provided in Appendix A.

Table 3.5: Continued

PEARSON CORRELATION

	PIND	G_o	L_n_ patents	L_n_ citations	L_Rd	Ceo_own	Std_r	Age	Size	Cashflow	Ebit_Sale	ROA	Nwc	TobinQ	Gdp
Div														(0.02)	.11
PIND	1													.07	.25
G_o		1												(0.04)	(0.06)
L_n_ patents			1											.04	.11
L_n_ citations				1										.08	.01
L_Rd					1									.28	.26
Ceo_ own						1								(0.04)	(0.001)
Std_r							1							.21	.11
Age								1						(0.06)	.06
Size									1					(0.06)	.40
Cashflow										1				(0.09)	(0.06)
Ebit_Sale											1			(0.04)	(0.00)
Roa												1		(0.11)	0.11
Nwc													1	0.16	0.25
TobinQ														1	0.05
Gdp															1

The correlations are based on the BG 25 sample of 1,262 firms. All variable definitions are provided in Appendix A.

Table 3.6: Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and year fixed effects as regressors for the born global (BG 14) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 G\_o_{t-1} \quad (1)$$

(BG 14) LOGISTIC REGRESSION – GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.103	0.18	-0.022	0.054	-0.031	0.044
	(-0.89)	(-1.14)	(-0.48)	(1.15)	(-0.56)	(-0.93)
Cashflow $_{t-1}$	-0.324	0.202	-0.308	-0.062	-0.309	-0.079
	(-0.69)	(-0.46)	(-1.56)	(-1.35)	(-1.10)	(-0.89)
Ebit_Sale $_{t-1}$	3.145**		2.329**		2.143**	
	(-3.05)		(2.36)		(-2.53)	
ROA $_{t-1}$		-0.039		-0.022		-0.036
		(-0.92)		(-0.66)		(-1.09)
Nwc $_{t-1}$	-0.032**	-0.049**	-0.033***	-0.047**	-0.038***	-0.054**
	(-2.42)	(-2.01)	(-2.98)	(-2.38)	(-2.96)	(-2.48)
Size $_{t-1}$	1.08*	1.521	1.158**	1.516**	1.248**	1.617**
	(-1.77)	(-1.62)	(2.51)	(2.07)	(-2.65)	(-2.37)
TobinQ $_{t-1}$	-0.999*	-0.71	0.026	0.349	0.288	0.417
	(-1.91)	(-1.64)	(0.03)	(0.74)	(-0.35)	(-0.67)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.6: Continued

(BG 14) LOGISTIC REGRESSION - GROWTH OPPORTUNITIES AND PEER PRESSURE						
Gdp_{t-1}	-0.0006	-0.0005	0.0009**	0.0008**	0.001	0.001**
	(-1.28)	(-1.11)	(2.08)	(2.10)	(-1.92)	(-2.17)
G_o_{t-1}	-47.58**	-26.27			31.17*	33.13**
	(-1.97)	(-1.15)			(-1.65)	(-2.06)
PIND			-122.4*	-91.18**	-140*	-120.7**
			(-1.94)	(-2.24)	(-1.86)	(-2.29)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	No	No	No	No
N	34	34	47	48	47	47
Pseudo R-sq	0.52	0.456	0.643	0.572	0.656	0.624

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.7: Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and year fixed effects as regressors for the born global (BG 25) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 G\_o_{t-1}\ (1)$$

(BG 25) LOGISTIC REGRESSION – GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.002	-0.002	0.042	0.052*	0.038	0.051*
	(0.12)	(-0.08)	(1.39)	(1.94)	(1.12)	(1.79)
Cashflow $_{t-1}$	-0.0008	-0.0004	-0.0005	0.00004	-0.001	-0.0005
	(-1.12)	(-0.57)	(-0.54)	(0.05)	(-1.10)	(-0.58)
Ebit_Sale $_{t-1}$	0.245		0.028		0.033	
	(0.87)		(0.45)		(0.56)	
ROA $_{t-1}$		0.004		-0.017		-0.022*
		(0.45)		(-1.66)		(-2.17)
Nwc $_{t-1}$	0.008	0.005	0.023**	0.020**	0.016**	0.014**
	(1.25)	(0.95)	(2.29)	(1.97)	(2.00)	(2.05)
Size $_{t-1}$	0.433***	0.480***	0.208**	0.324**	0.295**	0.431***
	(5.91)	(5.91)	(2.09)	(2.79)	(2.88)	(3.71)
TobinQ $_{t-1}$	0.015	0.007	0.047***	0.047***	0.050***	0.049***
	(0.98)	(0.60)	(3.31)	(3.39)	(3.50)	(3.43)
Gdp $_{t-1}$	0.0002	0.00008	0.0009	0.0009	0.0009	0.0009
	(0.28)	(0.12)	(0.84)	(0.83)	(0.86)	(0.82)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.7: Continued

(BG 25) LOGISTIC REGRESSION – GROWTH OPPORTUNITIES AND PEER PRESSURE						
PIND			-63.06***	-64.51***	-65.71***	-66.98***
			(-10.74)	(-10.81)	(-10.54)	(-10.58)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	1,223	1,223	1,223	1,262	1,223	1,223
Pseudo R-sq	0.123	0.100	0.518	0.523	0.543	0.545

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.8: Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and year fixed effects as regressors for the born global (BG 36) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 G\_o_{t-1}\ (1)$$

(BG 36) LOGISTIC REGRESSION– GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.265	-0.374	-0.151	-0.149	-0.122	-0.130
	(-1.00)	(-1.58)	(-0.43)	(-0.39)	(-0.36)	(-0.36)
Cashflow $_{t-1}$	0.034	0.103	-0.018	0.067	-0.02	0.066
	(1.34)	(1.21)	(-0.53)	(1.02)	(-0.60)	(0.96)
Ebit_Sale $_{t-1}$	1.554		2.739		2.138	
	(1.58)		(0.70)		(0.82)	
ROA $_{t-1}$		0.095**		0.0719		0.0643
		(2.55)		(0.81)		(0.90)
Nwc $_{t-1}$	-0.003	-0.015	-0.005	-0.049	-0.005	-0.046
	(-0.20)	(-0.87)	(-0.24)	(-0.82)	(-0.22)	(-0.86)
Size $_{t-1}$	0.408*	0.142	-0.197	-0.145	-0.192	-0.115
	(1.78)	(0.55)	(-0.52)	(-0.37)	(-0.50)	(-0.31)
TobinQ $_{t-1}$	0.092	0.168*	0.035	0.061	0.024	0.048
	(0.89)	(1.87)	(0.39)	(0.62)	(0.27)	(0.54)
Gdp $_{t-1}$	-0.002	-0.002	0.00002	-0.0004	0.0001	-0.0004
	(-0.79)	(-0.82)	(0.01)	(-0.15)	(0.04)	(-0.14)

Table 3.8: Continued

(BG 36) LOGISTIC REGRESSION – GROWTH OPPORTUNITIES AND PEER PRESSURE						
G_o_{t-1}	-2.015	-2.202			-3.414	-2.864
	(-0.74)	(-0.81)			(-0.58)	(-0.49)
PIND			-54.68***	-52.34***	-55.75***	-52.84***
			(-3.51)	(-3.44)	(-3.53)	(-3.52)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	97	97	97	99	97	97
Pseudo R-sq	0.194	0.224	0.526	0.517	0.530	0.516

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.9: Robustness test - Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and industry fixed effects as regressors for the born global (BG 25) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 G\_o_{t-1}$$

(BG 25) ROBUSTNESS TEST – GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.002	-0.02	-0.035	-0.029	-0.031	-0.024
	(0.09)	(-0.67)	(-1.18)	(-0.98)	(-1.04)	(-0.83)
Cashflow $_{t-1}$	-0.001	-0.001	-0.002	-0.001	-0.002	-0.001
	(-0.90)	(-1.17)	(-0.62)	(-0.77)	(-0.50)	(-0.65)
Ebit_Sale $_{t-1}$	0.301		0.0702		0.068	
	(0.85)		(0.78)		(0.75)	
ROA $_{t-1}$		0.025**		-0.014		-0.014
		(2.21)		(-1.33)		(-1.28)
Nwc $_{t-1}$	-0.004	-0.012**	-0.0001	0.0004	0.002	0.001
	(-0.88)	(-1.97)	(-0.01)	(0.05)	(0.13)	(0.14)
Size $_{t-1}$	0.718***	0.680***	0.946***	1.068***	0.936***	1.042***
	(7.47)	(7.28)	(6.40)	(6.57)	(6.28)	(6.29)
TobinQ $_{t-1}$	-0.029	-0.029	0.027	0.02	0.024	0.017
	(-1.34)	(-1.53)	(1.60)	(1.36)	(1.39)	(1.11)
Gdp $_{t-1}$	0.00002	0.00002	0.0003***	0.0003***	0.0003***	0.0003***
	(0.66)	(0.55)	(5.53)	(5.41)	(5.57)	(5.46)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.9: Continued

(BG 25) ROBUSTNESS TEST – GROWTH OPPORTUNITIES AND PEER PRESSURE						
G_o_{t-1}	1.043	1.389			2.034	2.098
	(0.74)	(0.97)			(1.30)	(1.40)
PIND			-25.78***	-26.39***	-25.96***	-26.27***
			(-10.54)	(-10.83)	(-10.39)	(-10.66)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	1094	1094	1094	1132	1094	1094
Pseudo R-sq	0.203	0.184	0.554	0.556	0.555	0.553

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.10: Robustness test - Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and industry fixed effects as regressors for the born global (BG 36) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 G\_o_{t-1}$$

(BG 36) ROBUSTNESS TEST – GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.695*	-0.665*	-0.217	-0.222	-0.208	-0.156
	(-1.69)	(-1.65)	(-0.49)	(-0.51)	(-0.45)	(-0.33)
Cashflow $_{t-1}$	0.047	0.114	-0.069*	0.047	-0.068*	0.047
	(0.47)	(1.30)	(-1.81)	(1.07)	(-1.75)	(0.99)
Ebit_Sale $_{t-1}$	1.193		0.876		0.791	
	(0.89)		(1.33)		(1.09)	
ROA $_{t-1}$		0.025		-0.180**		-0.227**
		(0.39)		(-2.14)		(-2.60)
Nwc $_{t-1}$	0.087**	0.086*	0.196	0.244**	0.200*	0.289**
	(2.29)	(1.67)	(1.58)	(2.31)	(1.65)	(2.65)
Size $_{t-1}$	0.849	0.849	0.315	0.534	0.354	0.628
	(1.62)	(1.54)	(0.31)	(0.53)	(0.35)	(0.70)
TobinQ $_{t-1}$	0.054	0.038	-0.066	-0.097	-0.057	-0.109
	(0.75)	(0.49)	(-0.64)	(-1.03)	(-0.53)	(-1.22)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.10: Continued

(BG 36) ROBUSTNESS TEST						
Gdp_{t-1}	-0.0007**	-0.0007*	-0.00002	0.0002	-0.00009	0.0002
	(-2.05)	(-1.90)	(-0.06)	(0.67)	(-0.18)	(0.61)
G_o_{t-1}	-1.365	-2.250			4.015	9.010
	(-0.25)	(-0.43)			(0.40)	(1.22)
PIND			-30.18***	-30.70***	-30.46***	-34.05***
			(-3.10)	(-3.50)	(-3.38)	(-4.03)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	72	72	72	73	72	72
Pseudo R-sq	0.432	0.428	0.621	0.630	0.622	0.634

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.11: Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and year fixed effects as regressors for the born again global (BaG) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 G\_o_{t-1}$$

(BaG) LOGISTIC REGRESSION – GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.212**	0.193**	0.187*	0.149*	0.246***	0.319**
	(2.93)	(2.23)	(1.84)	(1.74)	(2.75)	(2.30)
Cashflow $_{t-1}$	1.809*	1.497*	1.832**	1.447**	1.877**	2.546***
	(1.90)	(1.67)	(1.95)	(2.24)	(2.40)	(2.75)
Ebit_Sale $_{t-1}$	-5.509		-5.45		1.360	
	(-1.16)		(-1.33)		(0.33)	
ROA $_{t-1}$		-0.011		-0.012		-0.029
		(-1.24)		(-1.54)		(-1.82)
Nwc $_{t-1}$	-0.007	-0.003	-0.002	0.005	-0.0007	0.009
	(-1.33)	(-0.53)	(-0.49)	(1.05)	(-0.17)	(1.18)
Size $_{t-1}$	0.636**	0.795	0.315	0.316	0.400	0.916*
	(1.99)	(1.63)	(1.23)	(0.97)	(1.47)	(1.86)
TobinQ $_{t-1}$	-1.168*	-1.345*	-1.441	-1.465*	-1.547*	-2.118**
	(-1.70)	(-1.86)	(-1.49)	(-1.65)	(-1.69)	(-2.01)
G_o $_{t-1}$	-20.91**	-26.01**			-40.42***	-40.72***
	(-1.98)	(-2.16)			(-2.83)	(-2.94)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.11: Continued

(BaG) LOGISTIC REGRESSION - GROWTH OPPORTUNITIES AND PEER PRESSURE						
PIND			204.5***	213.1***	338.9**	416.5**
			(2.67)	(2.62)	(2.33)	(1.98)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	40	40	40	40	40	40
Pseudo R-sq	0.306	0.320	0.380	0.357	0.522	0.591

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.12: Robustness test - Logistic regression of the decision to globally diversify with growth opportunities, peer pressure and industry fixed effects as regressors for the born again global (BaG) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 G\_o_{t-1}$$

(BaG) ROBUSTNESS TEST – GROWTH OPPORTUNITIES AND PEER PRESSURE

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	0.110*	0.097*	0.135**	0.076	0.265***	0.147**
	(1.88)	(1.82)	(2.10)	(1.52)	(2.92)	(2.06)
Cashflow $_{t-1}$	0.087***	0.026	0.175***	0.062*	0.263***	0.097*
	(3.23)	(1.26)	(3.19)	(1.83)	(2.99)	(1.69)
Ebit_Sale $_{t-1}$	-1.825**		-3.057***		-3.203***	
	(-4.30)		(-2.85)		(-5.54)	
ROA $_{t-1}$		-0.003		0.002		0.0004
		(-0.68)		(0.29)		(0.06)
Nwc $_{t-1}$	-0.012***	-0.009**	-0.008**	-0.006	-0.012**	-0.008
	(-3.21)	(-2.03)	(-1.99)	(-1.37)	(-2.22)	(-1.18)
Size $_{t-1}$	0.526**	0.465**	0.373	0.248	0.639**	0.360*
	(2.14)	(2.10)	(1.48)	(1.11)	(1.97)	(1.65)
TobinQ $_{t-1}$	0.00001	-0.028	0.137	-0.071	0.499*	0.129
	(0.00)	(-0.19)	(0.72)	(-0.48)	(1.74)	(0.66)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.12: Continued

(BaG) ROBUSTNESS TEST – GROWTH OPPORTUNITIES AND PEER PRESSURE						
G_o_{t-1}	-17.12***	-15.27***			-40.72***	-23.75**
	(-3.28)	(-2.99)			(-2.85)	(-2.00)
PIND			346.5***	278.6***	493.1***	313.6**
			(4.85)	(3.51)	(3.51)	(2.48)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	198	198	198	203	198	198
Pseudo R-sq	0.346	0.293	0.523	0.440	0.613	0.496

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.13: Logistic regression of the decision to globally diversify with patents, citations, or R&D, and year fixed effects as regressors for the born global (BG 25) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 L\_N\_Patents_{t-1}$$

(BG 25) LOGISTIC REGRESSION – PATENTS, CITATIONS AND R&D						
				Div		
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.003	-0.009	-0.002	-0.007	0.021	0.001
	(-0.13)	(-0.43)	(-0.08)	(-0.37)	(0.74)	(0.04)
Cashflow $_{t-1}$	-0.0009	-0.0003	-0.001	-0.0002	0.032	0.054***
	(-1.24)	(-0.28)	(-1.22)	(-0.25)	(1.08)	(2.93)
Ebit_Sale $_{t-1}$	0.313		0.316		0.286	
	(0.86)		(0.85)		(0.65)	
ROA $_{t-1}$		0.007		0.007		0.035*
		(0.93)		(0.85)		(1.82)
Nwc $_{t-1}$	0.006	0.004	0.006	0.004	-0.008	-0.021**
	(0.97)	(0.62)	(1.02)	(0.71)	(-1.39)	(-2.56)
Size $_{t-1}$	0.415***	0.470***	0.426***	0.485***	0.489***	0.486***
	(5.25)	(5.66)	(5.37)	(5.75)	(3.54)	(3.74)
TobinQ $_{t-1}$	0.007	0.003	0.002	0.0003	-0.052	-0.038
	(0.44)	(0.26)	(0.12)	(0.02)	(-1.42)	(-1.22)

Table 3.13: Continued

(BG 25) LOGISTIC REGRESSION – PATENTS, CITATIONS AND R&D						
Gdp $_{t-1}$	0.0003	0.0001	0.0003	0.0001	0.0002	-0.0001
	(0.37)	(0.14)	(0.35)	(0.12)	(0.19)	(-0.02)
L_N_patents	0.528***	0.422***				
	(5.33)	(5.24)				
L_N_citations			0.221***	0.175***		
			(5.29)	(5.07)		
L_Rd					0.654***	0.622***
					(5.88)	(6.76)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	1223	1262	1223	1262	814	830
Pseudo R-sq	0.133	0.107	0.132	0.107	0.217	0.201

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.14: Logistic regression of the decision to globally diversify with patents, citations, or R&D, and year fixed effects as regressors for the born global (BG 36) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 L\_N\_Patents_{t-1}$$

(BG 36) LOGISTIC REGRESSION – PATENTS, CITATIONS AND R&D

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.497*	-0.455*	-0.405	-0.417*	-1.216**	-1.745***
	(-1.75)	(-1.72)	(-1.63)	(-1.68)	(-1.99)	(-2.87)
Cashflow $_{t-1}$	0.043*	0.181	0.042*	0.162	0.072	0.083
	(1.65)	(1.47)	(1.65)	(1.31)	(0.81)	(1.36)
Ebit_Sale $_{t-1}$	1.932**		1.932**		3.375	
	(2.51)		(2.21)		(1.54)	
ROA $_{t-1}$		0.061		0.074*		0.454
		(1.45)		(1.90)		(1.31)
Nwc $_{t-1}$	-0.007	-0.012	-0.004	-0.011	-0.065*	-0.138*
	(-0.48)	(-0.73)	(-0.30)	(-0.69)	(-1.85)	(-1.84)
Size $_{t-1}$	0.463*	0.295	0.472**	0.247	1.046	0.122
	(1.92)	(1.12)	(2.00)	(0.96)	(1.64)	(0.18)
TobinQ $_{t-1}$	0.129	0.140	0.0894	0.137	-0.078	0.427
	(1.34)	(1.34)	(0.97)	(1.36)	(-0.80)	(1.45)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.14: Continued

(BG 36) LOGISTIC REGRESSION – PATENTS, CITATIONS AND R&D						
Gdp $_{t-1}$	-0.001	-0.002	-0.001	-0.002	-0.0004	-0.010
	(-0.49)	(-0.96)	(-0.55)	(-0.95)	(-0.19)	(-0.85)
L_N_patents	0.994***	0.605*				
	(2.87)	(1.84)				
L_N_citations			0.354**	0.190		
			(2.40)	(1.40)		
L_Rd					1.283***	1.397**
					(2.77)	(2.38)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	97	99	97	99	59	60
Pseudo R-sq	0.265	0.248	0.245	0.239	0.418	0.516

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and industry dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.15: Logistic regression of the decision to globally diversify with patents, citations, or R&D, and year fixed effects as regressors for the born again global (BaG) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 L\_N\_Patents_{t-1}$$

(BaG) LOGISTIC REGRESSION – PATENTS, CITATIONS AND R&D				
	Div			
	(1)	(2)	(3)	(4)
Age	0.124	0.082	0.124	0.081
	(-1.42)	(-1.18)	(1.41)	(1.21)
Cashflow $_{t-1}$	1.553	1.169	1.657*	1.319
	(-1.52)	(-1.3)	(1.67)	(1.45)
Ebit_Sale $_{t-1}$	-5.519		-5.629	
	(-1.22)		(-1.22)	
ROA $_{t-1}$		-0.003		-0.003
		(-0.21)		(-0.20)
Nwc $_{t-1}$	-0.013	-0.011	-0.015*	-0.013
	(-1.95)	(-1.35)	(-2.07)	(-1.53)
Size $_{t-1}$	0.4	0.271	0.499	0.366
	(-1.19)	(-0.9)	(1.42)	(1.25)
TobinQ $_{t-1}$	-0.587	-0.581	-0.538	-0.562
	(-0.82)	(-0.94)	(-0.78)	(-0.94)
L_N_patents	0.611*	0.656*		
	(-2.11)	(-2.18)		

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.15: Continued

(BaG) LOGISTIC REGRESSION – PATENTS, CITATIONS AND R&D				
L_N_citations			0.472**	0.502**
			(2.42)	(2.51)
Intercept	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
N	40	40	40	40
Pseudo R-sq	0.373	0.351	0.416	0.394

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.16: Logistic regression of the decision to globally diversify with CEO ownership, year and industry fixed effects as regressors for the born global (BG 25) sample.

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 CEO\_own$$

(BG 25) LOGISTIC REGRESSION – CEO OWNERSHIP

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.474	-0.615	-0.136	-0.122*	-0.857	-1.270**
	(-1.40)	(-1.62)	(-1.48)	(-1.68)	(-1.45)	(-1.98)
Cashflow $_{t-1}$	0.220**	0.554***	0.395**	0.419**	0.273	1.192***
	(1.95)	(2.98)	(2.59)	(2.65)	(1.02)	(3.41)
Ebit_Sale $_{t-1}$	1.274		-0.294		3.336	
	(1.39)		(-0.67)		(1.48)	
ROA $_{t-1}$		-0.284**		-0.0229		-1.076**
		(-2.15)		(-1.15)		(-2.99)
Nwc $_{t-1}$	0.0350	0.156*	0.004	0.008	0.019	0.307**
	(1.05)	(1.88)	(0.24)	(0.52)	(0.31)	(2.26)
Size $_{t-1}$	-0.710	0.662	0.254	0.523	-0.519	4.884**
	(-1.33)	(0.97)	(0.88)	(1.35)	(-0.76)	(2.28)
TobinQ $_{t-1}$	-0.002	-0.007	0.005	0.011	-0.009	-0.057
	(-0.11)	(-0.30)	(0.22)	(0.47)	(-0.30)	(-1.15)
Gdp $_{t-1}$	0.0003**	0.0003**	-0.001	-0.001	-0.011**	-0.015*
	(2.13)	(2.02)	(-1.09)	(-1.14)	(-2.23)	(-1.84)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, industry and/or year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.16: Continued

(BG 25) LOGISTIC REGRESSION – CEO OWNERSHIP						
Ceo_own	-8.964**	-10.24**	-4.458	-4.670	-13.13**	-11.76**
	(-2.32)	(-2.49)	(-1.53)	(-1.61)	(-2.31)	(-2.07)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	No	No	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes	Yes
N	58	58	100	100	50	50
Pseudo R-sq	0.382	0.435	0.217	0.224	0.521	0.659

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, industry and/or year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.17: Logistic regression of the decision to globally diversify with idiosyncratic risk, year and industry fixed effects as regressors for the born global (BG 25) sample

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 Std\_r$$

(BG 25) LOGISTIC REGRESSION – IDIOSYNCRATIC RISK

	Div					
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.002	-0.015	0.007	0.004	-0.008	-0.017
	(-0.10)	(-0.67)	(0.40)	(0.24)	(-0.39)	(-0.73)
Cashflow $_{t-1}$	-0.0008	-0.0006	-0.0006	0.00005	-0.001	-0.0006
	(-1.04)	(-0.74)	(-0.91)	(0.06)	(-1.40)	(-0.73)
Ebit_Sale $_{t-1}$	0.242		0.204		0.206	
	(0.82)		(0.85)		(0.78)	
ROA $_{t-1}$		0.018		0.001		0.009
		(1.59)		(0.14)		(0.85)
Nwc $_{t-1}$	-0.006	-0.011**	0.011	0.009	-0.007	-0.010
	(-1.16)	(-1.96)	(1.58)	(1.39)	(-1.35)	(-1.75)
Size $_{t-1}$	0.695***	0.687***	0.369***	0.431***	0.795***	0.821***
	(7.29)	(7.21)	(5.11)	(5.17)	(7.53)	(7.49)
TobinQ $_{t-1}$	-0.0134	-0.0159	0.014	0.007	-0.012	-0.014
	(-0.69)	(-1.05)	(0.99)	(0.58)	(-0.60)	(-0.88)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, industry and/or year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.17: Continued

(BG 25) LOGISTIC REGRESSION – IDIOSYNCRATIC RISK						
Gdp_{t-1}	0.00003	0.00003	0.0003	0.0002	-0.0004	-0.0006
	(0.86)	(0.71)	(0.39)	(0.29)	(-0.44)	(-0.74)
Std_r	-0.033**	-0.037***	-0.016	-0.023**	-0.020	-0.025**
	(-2.59)	(-3.25)	(-1.49)	(-2.19)	(-1.58)	(-2.04)
Intercept	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	No	No	Yes	Yes
Year fixed effects	No	No	Yes	Yes	Yes	Yes
N	1093	1131	1231	1271	1093	1131
Pseudo R-sq	0.212	0.200	0.108	0.093	0.233	0.222

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, industry and/or year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.18: Robustness test - Logistic regression of the decision to globally diversify with alternative peer pressure variable definition and year fixed effects as regressors for the born global (BG 14) sample

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 Big\_d$$

(BG 14) ROBUSTNESS TEST – ALTERNATIVE PEER PRESSURE

	Div			
	(1)	(2)	(3)	(4)
Age	0.185**	0.305**	0.203**	0.303*
	(2.36)	(3.03)	(2.25)	(2.08)
Cashflow $_{t-1}$	-0.148	0.355**	-0.099	0.338
	(-0.37)	(2.23)	(-0.28)	(1.34)
Ebit_Sale $_{t-1}$	12.13		6.542	
	(0.90)		(0.58)	
ROA $_{t-1}$		-0.073*		-0.071
		(-1.76)		(-1.20)
Nwc $_{t-1}$	-0.051**	-0.096***	-0.057**	-0.095**
	(-2.37)	(-3.87)	(-2.39)	(-2.71)
Size $_{t-1}$	1.005	2.526***	1.354*	2.531**
	(1.37)	(2.89)	(1.76)	(2.04)
TobinQ $_{t-1}$	-3.443	-1.326	-3.161*	-1.381
	(-1.35)	(-1.64)	(-1.68)	(-1.81)
Gdp $_{t-1}$	-0.001	-0.0003	-0.001	-0.0004
	(-1.07)	(-0.69)	(-1.49)	(-0.83)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.18: Continued

(BG 14) ROBUSTNESS TEST – ALTERNATIVE PEER PRESSURE				
G_o_{t-1}			-38.62	-13.31
			(-1.26)	(-0.47)
Big_d	-5.076**	-4.629***	-4.533**	-4.376**
	(-2.31)	(-3.38)	(-2.13)	(-3.09)
Intercept	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
N	35	36	35	35
Pseudo R-sq	0.61	0.571	0.629	0.569

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.19: Robustness test - Logistic regression of the decision to globally diversify with alternative peer pressure variable definition and year fixed effects as regressors for the born global (BG 25) sample

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 Big\_d$$

(BG 25) ROBUSTNESS TEST – ALTERNATIVE PEER PRESSURE

	Div			
	(1)	(2)	(3)	(4)
Age	0.008	0.003	0.003	-0.0005
	(0.43)	(0.15)	(0.16)	(-0.02)
Cashflow $_{t-1}$	-0.0006	0.000001	-0.0008	-0.0005
	(-0.88)	(0.00)	(-1.13)	(-0.61)
Ebit_Sale $_{t-1}$	0.219		0.241	
	(0.82)		(0.85)	
ROA $_{t-1}$		0.004		0.004
		(0.56)		(0.46)
Nwc $_{t-1}$	0.011	0.009	0.008	0.006
	(1.53)	(1.28)	(1.24)	(0.93)
Size $_{t-1}$	0.393***	0.451***	0.438***	0.484***
	(5.32)	(5.44)	(5.94)	(5.90)
TobinQ $_{t-1}$	0.009	0.004	0.013	0.006
	(0.66)	(0.28)	(0.85)	(0.44)
Gdp $_{t-1}$	0.0002	0.00009	0.0002	0.0001
	(0.34)	(0.12)	(0.30)	(0.16)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.19: Continued

(BG 25) ROBUSTNESS TEST – ALTERNATIVE PEER PRESSURE				
G_o_{t-1}			-4.555***	-4.053***
			(-3.50)	(-3.29)
Big_d	-0.283*	-0.336**	-0.200	-0.262
	(-1.72)	(-2.05)	(-1.21)	(-1.60)
Intercept	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
N	1232	1272	1232	1232
Pseudo R-sq	0.108	0.093	0.125	0.104

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.20: Robustness test - Logistic regression of the decision to globally diversify with alternative peer pressure variable definition and year fixed effects as regressors for the born global (BG 36) sample

$$Div = \beta_0 + \beta_1 Age + \beta_2 Cash\ flow_{t-1} + \beta_3 Ebit\_Sale_{t-1} + \beta_4 Nwc_{t-1} + \beta_5 Size_{t-1} + \beta_6 TobinQ_{t-1} + \beta_7 Gdp_{t-1} + \beta_8 Big\_d$$

(BG 36) ROBUSTNESS TEST – ALTERNATIVE PEER PRESSURE

	Div			
	(1)	(2)	(3)	(4)
Age	-0.293	-0.403*	-0.271	-0.380
	(-1.06)	(-1.67)	(-1.00)	(-1.62)
Cashflow $_{t-1}$	0.034	0.122	0.032	0.102
	(1.36)	(1.06)	(1.30)	(1.09)
Ebit_Sale $_{t-1}$	1.848		1.665	
	(1.53)		(1.54)	
ROA $_{t-1}$		0.098**		0.098**
		(2.60)		(2.58)
Nwc $_{t-1}$	-0.002	-0.012	-0.004	-0.016
	(-0.11)	(-0.79)	(-0.22)	(-0.91)
Size $_{t-1}$	0.409	0.148	0.417	0.148
	(1.82)	(0.59)	(1.80)	(0.57)
TobinQ $_{t-1}$	0.101	0.180	0.099	0.177
	(0.96)	(1.95)	(0.93)	(1.94)
Gdp $_{t-1}$	-0.002	-0.002	-0.002	-0.002
	(-0.85)	(-0.99)	(-0.81)	(-0.84)

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.20: Continued

(BG 36) ROBUSTNESS TEST – ALTERNATIVE PEER PRESSURE				
G_o $_{t-1}$			-1.790	-1.982
			(-0.67)	(-0.75)
Big_d	0.337	0.363	0.311	0.321
	(0.54)	(0.56)	(0.50)	(0.51)
Intercept	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
N	98	100	98	98
Pseudo R-sq	0.190	0.225	0.193	0.223

The table presents results of logit analysis with the firm's ongoing diversification as the dependent variable. The dependent variable Div is equal to one if the firm diversifies in four consecutive years and zero otherwise. The independent variables definitions are provided in Appendix A. The regression includes a constant, and year dummies (not reported). p-values of the coefficient estimates based on robust standard errors are reported in parentheses below. *, **, and *** correspond to 10%, 5%, and 1% significance levels, respectively.

Table 3.21: Multinomial Logistic Regression with firm profitability (Ebit_Sale) and peer pressure (PIND) as regressors for BG M sample

(BG M) MULTINOMIAL LOGISTIC REGRESSION – PROFITABILITY AND PEER PRESSURE

	Ln(1D3N/4N)		Ln(2D2N/4N)		Ln(3D1N/4N)		Ln(4D/4N)	
	Coefficients	ME	Coefficients	ME	Coefficients	ME	Coefficients	ME
Age	-0.44	<0.001	-0.74	<0.001	-0.24	-0.060	0.01	0.022
	0.05		0.24		0.01		0.88	
Cashflow	-0.06	<0.001	-0.04	<0.001	-0.05	-0.007	-0.08	-0.008
	0.02		0.08		0.03		0.13	
Ebit_Sale	-0.01	<0.001	0.02	<0.001	0.00	-0.030	0.33	0.053
	0.97		0.95		0.99		0.75	
NWC	0.00	<0.001	0.03	<0.001	-0.08	-0.017	-0.02	0.003
	0.97		0.70		0.30		0.12	
Size	0.96	<0.001	0.59	<0.001	0.82	0.138	0.74	0.044
	0.01		0.13		0.02		0.02	
PIND	-464.4	-0.001	-1319.9	<0.001	-88.38	-20.575	-14.63	5.379
	0.0001		0.0001		0.0001		0.03	

The dependent variable takes the values of 0 when the firm manifests 4N profile, 1 when the firm is 1D3N has one year of diversification, 2 when the firm is 2D2N has two years of diversification, 3 when the firm belongs to the 3D1N profile have three years of diversification, and 4 when the firm is diversified over its first four years as a public company. Fifteen firms belong to the 4D profile (see Table 3.1). T-statistics are reported below the coefficients. Marginal effects measure the change in predicted probability for a unit change in the variable.

Table 3.22: Multinomial Logistic Regression with ROA and peer pressure (PIND) as regressors for BG M sample

(BG M) MULTINOMIAL LOGISTIC REGRESSION – ROA AND PEER PRESSURE								
	Ln(1D3N/4N)		Ln(2D2N/4N)		Ln(3D1N/4N)		Ln(4D/4N)	
	Coefficients	ME	Coefficients	ME	Coefficients	ME	Coefficients	ME
Age	-0.42	-<0.001	-0.79	-<0.001	-0.23	-0.058	0.02	0.023
	0.06		0.24		0.03		0.62	
Cashflow	-0.06	-<0.001	-0.05	-<0.001	-0.05	-0.007	-0.06	-0.005
	0.05		0.14		0.10		0.16	
ROA	0.07	<0.001	0.06	<0.001	0.02	0.008	-0.03	-0.006
	0.19		0.26		0.51		0.33	
NWC	-0.02	<0.001	0.02	<0.001	-0.10	-0.022	-0.03	0.004
	0.76		0.80		0.18		0.06	
Size	0.73	<0.001	0.41	-<0.001	0.76	0.104	0.97	0.089
	0.09		0.35		0.04		0.02	
PIND	-486	<0.001	-1376.3	-<0.001	-83.72	-19.3	-14.5	4.877
	<.0001		<.0001		0.00		0.02	

The dependent variable takes the values of 0 when the firm manifests 4N profile, 1 when the firm is 1D3N has one year of diversification, 2 when the firm is 2D2N has two years of diversification, 3 when the firm belongs to the 3D1N profile have three years of diversification, and 4 when the firm is diversified over its first four years as a public company. Fifteen firms belong to the 4D profile (see Table 3.1). T-statistics are reported below the coefficients. Marginal effects measure the change in predicted probability for a unit change in the variable.

Table 3.23: Multinomial Logistic Regression with firm profitability (Ebit_Sale), growth opportunities (G_o) and peer pressure (PIND) as regressors for BG M sample

(BG M) MULTINOMIAL LOGISTIC REGRESSION – PROFITABILITY, GROWTH OPPORTUNITIES AND PEER PRESSURE

	Ln(1D3N/4N)		Ln(2D2N/4N)		Ln(3D1N/4N)		Ln(4D/4N)	
	Coefficients	ME	Coefficients	ME	Coefficients	ME	Coefficients	ME
Age	-0.367	<.0001	-0.616	-<.0001	-0.17	-0.047	0.042	0.014
	0.112		0.328		0.201		0.488	
Cashflow	-0.11	<.0001	-0.099	-<.0001	-0.107	-0.010	-0.165	-0.005
	0.015		0.027		0.021		0.097	
Ebit_Sale	0.158	<.0001	0.185	-<.0001	0.172	-0.048	1.095	0.065
	0.192		0.135		0.170		0.539	
NWC	0.029	<.0001	0.068	<.0001	-0.045	-0.011	-0.039	0.002
	0.555		0.225		0.432		0.201	
Size	0.776	<.0001	0.412	-<.0001	0.569	0.126	0.765	0.004
	0.095		0.393		0.205		0.061	
G_o	38.69	<.0001	40.452	<.0001	37.823	5.339	22.643	-1.375
	0.078		0.066		0.084		0.221	
PIND	-477	-0.001	-1312.5	-<.0001	-98.66	-15.239	-44.01	3.618
	<.0001		<.0001		0.0002		0.027	

The dependent variable takes the values of 0 when the firm manifests 4N profile, 1 when the firm is 1D3N has one year of diversification, 2 when the firm is 2D2N has two years of diversification, 3 when the firm belongs to the 3D1N profile have three years of diversification, and 4 when the firm is diversified over its first four years as a public company. Fifteen firms belong to the 4D profile (see Table 3.1). T-statistics are reported below the coefficients. Marginal effects measure the change in predicted probability for a unit change in the variable.

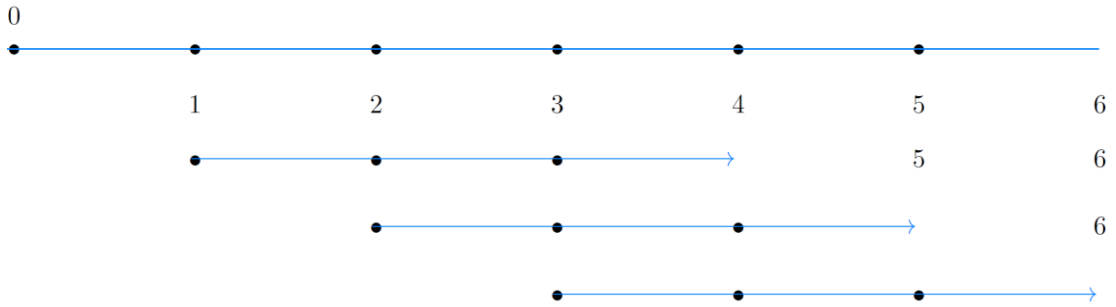
Table 3.24: Multinomial Logistic Regression with ROA, growth opportunities (G_o) and peer pressure (PIND) as regressors for BG M sample

(BG M) MULTINOMIAL LOGISTIC REGRESSION – ROA, GROWTH OPPORTUNITIES AND PEER PRESSURE

	Ln(1D3N/4N)		Ln(2D2N/4N)		Ln(3D1N/4N)		Ln(4D/4N)	
	Coefficients	ME	Coefficients	ME	Coefficients	ME	Coefficients	ME
Age	-0.331	-<.0001	-0.635	-<.0001	-0.159	-0.049	0.053	0.025
	0.105		0.351		0.238		0.379	
Cashflow	-0.110	-<.0001	-0.096	-<.0001	-0.101	-0.013	-0.105	-0.0001
	0.017		0.034		0.034		0.22	
ROA	0.073	<.0001	0.059	<.0001	0.039	0.006	-0.01	-0.005
	0.248		0.349		0.392		0.824	
NWC	0.017	<.0001	0.071	<.0001	-0.061	-0.016	-0.042	0.005
	0.827		0.389		0.401		0.132	
Size	0.519	<.0001	0.195	-<.0001	0.432	0.100	0.947	0.037
	0.350		0.729		0.396		0.073	
G_o	34.02	<.0001	36.266	<.0001	33.643	5.519	22.106	-1.933
	0.108		0.087		0.110		0.203	
PIND	-496.7	-0.0004	-1367.7	<.0001	-96.3	-17.024	-43.13	6.304
	<.0001		<.0001		0.0002		0.023	

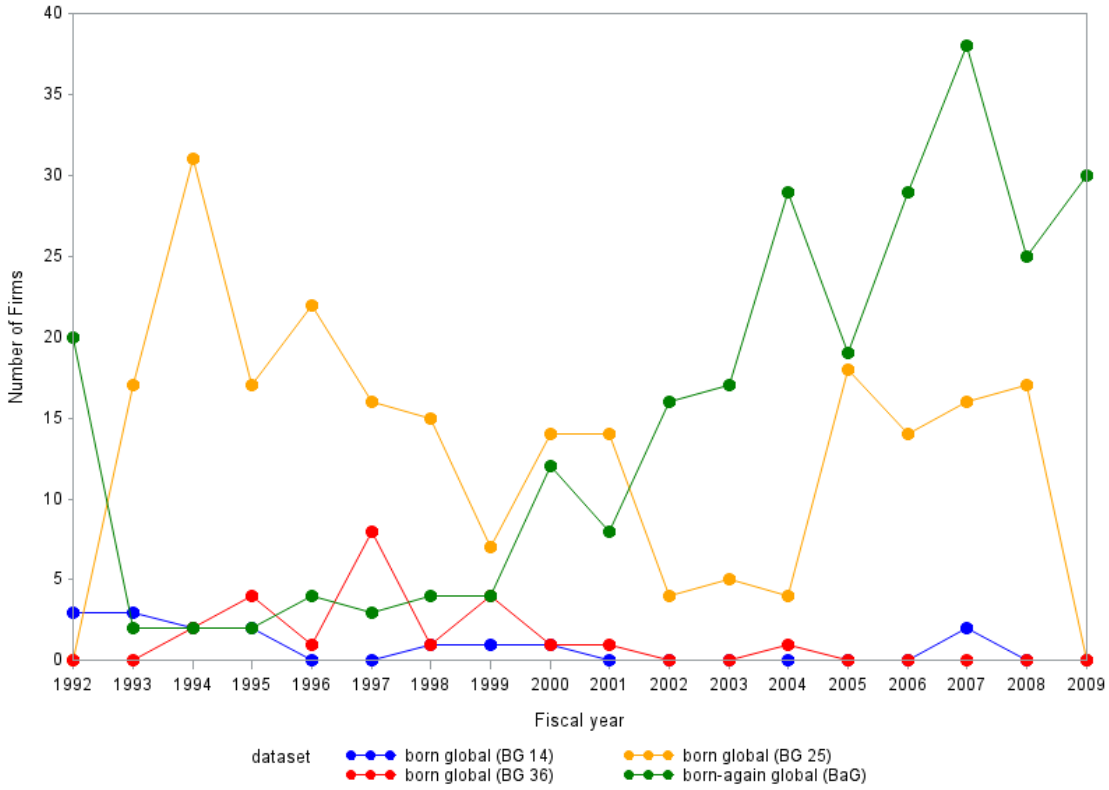
The dependent variable takes the values of 0 when the firm manifests 4N profile, 1 when the firm is 1D3N has one year of diversification, 2 when the firm is 2D2N has two years of diversification, 3 when the firm belongs to the 3D1N profile have three years of diversification, and 4 when the firm is diversified over its first four years as a public company. Fifteen firms belong to the 4D profile (see Table 3.1). T-statistics are reported below the coefficients. Marginal effects measure the change in predicted probability for a unit change in the variable.

Figure 3.1: Timeline of BG enterprises that globally diversify beginning with their IPO year.



I generate three samples based on their ongoing diversification progression. I name the samples BG (14), BG (25), and BG (36) as I move away from the inception date (year 1). An eventual sample labeled BG (47) was reviewed but there were not enough observations, subsequently my analysis concentrates on BG (14), BG (25) and BG (36) samples.

Figure 3.2: Timeline of BG enterprises that globally diversify beginning with their IPO year.



This figure plots the number of global diversified firms in born global and born-again global samples from 1992 to 2009. Samples born global (BG 14), (BG 25) and (BG 36) consist of newly issued firms that report pre-tax foreign income starting with their IPO year, respectively, one and two consecutive years after their IPO and continue for three additional years. Sample born-again global (BaG) comprises mature firms reporting pre-tax foreign income for four consecutive years.

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PUBLICATIONS AND PRESENTATIONS

Catalina Hurwitz, Ali G. Parhizgari, William G. Hardin. 2015. *The Impact of the Launch of Real Estate ETFs on the Underlying Constituent Securities.* 31st Annual American Real Estate Society meeting 2015, Fort Myers, Florida.

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