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IPO or SBO?: The increasing importance of operational performance for private equity exits following the Global Financial Crisis of 2007-08

by

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Abstract: In this paper, it is investigated whether the influence of portfolio company operating performance on private equity exit options, specifically initial public offerings and secondary buyouts, have changed following the Global Financial Crisis of 2007-08. The data set consists of private equity exits in Denmark and Sweden from the period 2003-2013. The results suggest that operating performance and portfolio company size are more important determinants of PE exit channels *after* the Global Financial Crisis than before this crisis.

The key finding of this paper is the growing need for private equity firms to improve operating performance in portfolio companies to increase the probability of an IPO exit. Hence, PE firms can no longer base an exit strategy solely on promising market conditions – they also need to incorporate operating improvements and ensure that such improvements are executed during the ownership period by deploying operational engineering capabilities in portfolio companies. Additionally, our results imply that a PE firm pitching a well-performing portfolio company for sale in an SBO could be a signal that the sell-side PE firm expects worsened market conditions in the very near future.

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*"It's hard to argue that the world is anything but uncertain and volatile today. But one response [...] is to focus more intensely on the variables you can control. You get more intensely focused on businesses where there are levers you can pull that are at least somewhat independent of and insulated from the general economy."*¹

Marc Lipschultz
Global Head of Energy & Infrastructure, KKR

Secondary buyouts—transactions in which one private equity firm sells a portfolio company to another PE firm—have become an increasingly popular exit option for PE investments.² Although research on the attractiveness of exits through secondary buyouts (SBOs) is scarce, a few studies suggest that initial public offerings provide higher returns for private investments.³ However, recent studies show no significant difference in returns across exit channels,⁴ and conclude that PE firms look for “windows of opportunity” when exiting their investments.⁵ These findings imply that SBOs cannot be perceived as a “last resort.” Instead, the choice of PE exit channel appears to be determined by a number of portfolio company and market specific factors. Our study builds on this proposition, and we contribute further to the argument by investigating whether the influence of such factors has changed following the Global Financial Crisis of 2007-08. As Marc Lipschultz suggests in the introductory quote, the increased volatility and uncertainty that followed the Global Financial Crisis are expected to lead PE firms to focus more on the things they can influence rather than relying on market sentiment.

¹ See Kaplan, S. et al. “Morgan Stanley Roundtable on The State of Global Private Equity,” *Journal of Applied Corporate Finance*, Vol. 23, No. 4 (Fall 2011), pp. 8-33: 31

² See Kaplan, S. & Strömberg, P. “Leveraged Buyouts and Private Equity,” *Journal of Economic Perspectives*, Vol. 23, No. 1 (Winter 2009): 121-146.

³ See e.g. Schmidt, D., S. Steffen, et al., “Exit Strategies of Buyout Investments: An Empirical Analysis,” *Journal of Alternative Investments*, Vol. 12 (2010), 58-84.

⁴ See Achleitner, A.K. et al. “The Case for Secondary Buyouts as Exit Channel,” *Journal of Applied Corporate Finance*, Vol. 24, No. 4 (Fall 2012): 102-111.

⁵ See Jenkinson, T. & Sousa, M. “What determines the exit decision for leveraged buyouts?,” working paper, *University of Oxford & University of Porto* (2015).

To explore this possibility, we hand-collected a data set of Danish and Swedish⁶ PE exits from the period 2003 to 2013 and achieved a unique split of deals that were evenly distributed before and after the outbreak of the Global Financial Crisis. Our results show that larger and better performing portfolio companies were generally more likely to be exited through an IPO than an SBO. Interestingly, we also find that operating performance and portfolio company size were better predictors of PE exit choices (IPO vs. SBO) *after* the Global Financial Crisis than before the crisis. Consistent with earlier research, we also find that market conditions in terms of equity market developments, debt market spread, and GDP growth were important predictors of PE exit type. All this suggests that PE firms take general market conditions into consideration when choosing between exit channels, but that portfolio company fundamentals have become increasingly important in the wake of the Global Financial Crisis.

Theoretical Background and Hypotheses

One important element in the PE model is that portfolio companies are owned for a definite period whereupon they are exited through one of three main exit channels: an IPO, a trade sale to a strategic acquirer, or an SBO.⁷ Since the trade sale exit channel is somewhat harder to predict, we

⁶ Denmark and Sweden constitute an appropriate research setting because the Nordic PE markets are generally very mature. The Nordics have one of the highest PE penetrations in the world (measured as the ratio of PE-backed business' enterprise value to GDP). In 2011, that ratio was 1.2 for the Nordic region whereas it was 1.1 in the US. In addition, the Nordic region outperformed both Europe (ex. Nordic) and the US measured on IRR. See BerchwoodPartners. "The Nordic Private Equity Way – A Model That Works," 2013, retrieved July 11, 2015 from <http://berchwoodpartners.com/newsletter/nordicpe.pdf>. Moreover, both Sweden and Denmark rank in the Top 20 in the IESE "2015 Venture Capital and Private Equity Country Attractiveness Index" (<http://blog.iese.edu/vcpeindex/ranking-2015/>).

⁷ See Achleitner, A.K. et al., "The Case for Secondary Buyouts as Exit Channel," *Journal of Applied Corporate Finance*, Vol. 24, No. 4 (Fall 2012): 102-111.

chose to focus on the exits where PE firms have a greater deal of discretion over the decision: IPO vs. SBO.

Most value creation in PE portfolio companies is accomplished by operating improvements, as opposed to financial engineering or multiple expansion.⁸ PE firms create value in portfolio companies in several different ways, including growing revenue, improving efficiency, strategic initiatives, and improved decision-making processes.⁹ Most studies of leveraged buyouts find that LBOs are followed by significant increases in the operating performance of the portfolio companies.¹⁰

Strong operating performance, as reflected in reported profits, is generally associated with the decision to float privately held firms in an IPO. Higher profitability is an indication that the firm has high prospects for future performance.¹¹ This leads to higher IPO valuations, which can provide attractive returns to PE firms and can be difficult for other PE firms to match in an SBO. Moreover, several studies provide evidence that operating performance peaks immediately prior to an IPO,¹²

⁸ See Heel, J. & Kehoe, C. "Why some private equity firms do better than others," *The McKinsey Quarterly*, No. 1 (2005): 24-26.

⁹ See e.g. Kaplan, S. & Strömberg, P. "Leveraged Buyouts and Private Equity," *Journal of Economic Perspectives*, Vol. 23 No. 1 (Winter 2009): 121-146; Gertner, R. & Kaplan, S. "The Value-Maximizing Board," working paper, *University of Chicago* (1996); Acharya, V. V. et al. "Corporate Governance and Value Creation: Evidence from Private Equity," *Review of Financial Studies*, Vol. 26, No. 2 (2013): 368-402; Cornelli, F. & Karakas, O. "Corporate Governance of LBOs: The Role of Boards," working paper, *London Business School & Boston College* (2012).

¹⁰ See e.g. Bergström, C. et al. "The Operating Impact of Buyouts in Sweden: A Study of Value Creation," *Journal of Private Equity*, Vol. 11, No. 1 (Winter 2007): 22-39; Boucly, Q. et al. "Growth LBOs," *Journal of Financial Economics*, Vol. 102 (2011): 432-453; Cumming, D. et al. "Private Equity, Leveraged Buyouts and Governance," *Journal of Corporate Finance*, Vol. 13, No. 4 (2007): 439-460; Harris, R. et al. "Assessing the Impact of Management Buyouts on Economic Efficiency: Plant level Evidence from the United Kingdom," *The Review of Economics and Statistics*, Vol. 87, No. 1 (2005): 148-153; Kaplan, S. "The effects of management buyouts on operating performance and value," *Journal of Financial Economics*, Vol. 24, No. 2 (1989): 217-254; Lichtenberg, F. R. & Siegel, D. "The Effects of Leveraged Buyouts on Productivity and Related Aspects of Firm Behavior," *Journal of Financial Economics*, Vol. 27, No. 1 (1990): 165-194; Smith, A. J. "Corporate ownership structure and performance: the case of management buyouts," *Journal of Financial Economics*, Vol. 27, No. 1 (1990): 143-164.

¹¹ See Dalton, D. R. et al. "Meta-Analyses of Financial Performance and Equity: Fusion or Confusion?," *The Academy of Management Journal*, Vol. 46, No. 1 (Feb., 2003), pp. 13-26.

¹² See e.g. Jain, B. & Kini, O. "The Post-Issue Operating Performance of IPO Firms," *Journal of Finance*, Vol. 49 (1994): 1699-1726; Murray, G. et al. "The Operating Performance of Buyout IPOs in the UK and the Influence of Private Equity

thereby emphasizing a potential positive association between the decision to IPO and firm operating performance.

High-performing PE portfolio companies are also more likely to have repaid their debt with the substantial operating cash flows generated from the profitable operations. And as result, a significant refinancing is unlikely to be required when the portfolio company is to be exited. In this scenario, one of PE firms' key comparative advantages vis-à-vis the public company ownership model—notably, the ability of PE firms to raise and manage debt capital¹³—is less relevant. This also points to SBOs being less likely for portfolio companies with strong operating performance and more likely when portfolio company performance is weaker at the time of exit and PE firms' comparative advantage in raising debt will be of greater value.

Poor performing portfolio companies may also have more room for improvement since the first PE investor is unlikely to have realized the entire operational optimization potential during their ownership period. Moreover, there is evidence suggesting that PE firms would rather cut their losses on low-performing portfolio companies than try to turn them around.¹⁴ The SBO exit option is relatively quicker than an IPO, which suggests that some PE firms may generally attempt to offload poor-performing portfolio companies to other PE firms, perhaps those specializing in turnarounds and seeking failing but salvageable investments at relatively low valuations. Again, this supports the notion that weaker performing portfolio companies are more likely to be exited through an SBO.

Financing," working paper, *University of Exeter* (2006); Pagano, M. et al. "Why do companies go public? An empirical analysis," *Journal of Finance*, Vol. 53, No. 1 (Feb 1998): 27-64.

¹³ See Demiroglu, C. & James, C. M. "The role of private equity group reputation in LBO financing," *Journal of Financial Economics*, Vol. 96, No. 2 (Feb 2010): 306-330.

¹⁴ See e.g. Schmidt, D., S. Steffen, et al., "Exit Strategies of Buyout Investments: An Empirical Analysis," *Journal of Alternative Investments*, Vol. 12 (2010), 58-84.

All this leads to our first hypothesis about the association between operating performance and the choice between SBO and IPO exits for PE firms:

***Hypothesis H1:** The better the portfolio company's operating performance at the time of exit, the higher the probability that the PE firm will exit through an IPO rather than an SBO.*

There is considerable evidence that PE firms often attempt to time the exit of their portfolio companies when conditions in equity or debt markets are favorable.¹⁵ Indeed, one research paper went so far as to claim that "market conditions are the most important factor in the decision to go public."¹⁶ Nevertheless, one key insight in the wake of the Global Financial Crisis was that the world is more complex and uncertain than previously thought.¹⁷ And one traditional response to increased environmental complexity and uncertainty is to pay more attention to the elements of a business that one can influence. To the extent this is so, PE firms with a finite holding period and great uncertainty about financial market conditions might therefore be expected to focus more on operating improvements after the Global Financial Crisis than before this crisis.

This leads to our second hypothesis about the association between operating performance and the choice between SBO and IPO exits for PE firms:

¹⁵ See e.g. Altj, A. "IPO Market Timing," *Review of Financial Studies*, Vol. 18 (2005): 1105-1138; Baker, M. & Wurgler, J. "Market timing and capital structure," *Journal of Private Equity*, Vol. 13, No. 3 (2002): 47-56; Baumeister, A. & Muelke, M. "Private Equity Exits: German Trade and Secondary Sales in the Financial Crisis," *Journal of Private Equity*, Vol. 13, No. 3 (2010): 47-56; Demiroglu, C. & James, C. M. "The role of private equity group reputation in LBO financing," *Journal of Financial Economics*, Vol. 96, No. 2 (Feb 2010): 306-330; Hovakimian, A. et al. "Determinants of target capital structure: the case of dual debt and equity issues," *Journal of Finance*, Vol. 49 (2004): 1699-1726; Jain, B. & Kini, O. "The Post-Issue Operating Performance of IPO Firms," *Journal of Finance*, Vol. 49 (1994): 1699-1726; Jain, B. & Kini, O. "Industry Clustering of Initial Public Offerings," *Managerial Decision Economics*, Vol. 27 (2006): 1-20; Lerner, J. "Venture capitalists and the decision to go public," *Journal of Financial Economics*, Vol. 35, No. 3 (1994): 293-316; Loughran, T. & Ritter, J. R. "The New Issues Puzzle," *Journal of Finance*, Vol. 50 (1995): 23-51; Schultz, P. "Pseudo Market Timing and the Long-Run Underperformance of IPOs," *Journal of Finance*, Vol. 58 (2003): 483-517.

¹⁶ See Ritter, J. R. & Welch, I. "A Review of IPO Activity, Pricing, and Allocations," *Journal of Finance*, Vol. 57 (2002): 1795-1828.

¹⁷ See Ball, R. "The Global Financial Crisis and the Efficient Market Hypothesis: What Have We Learned?", *Journal of Applied Corporate Finance*, Vol. 21, No. 4 (Fall 2009): 8-16.

Hypothesis H2: The portfolio company's operating performance is a more significant determinant of whether the PE firm exits the investment in an IPO rather than an SBO after the Global Financial Crisis than it was before this crisis.

Dataset and Descriptives

Our data set was hand-collected and the data stem from different sources. The list of PE exits from portfolio companies headquartered in Denmark or Sweden was created using data from the Danish Venture Capital and Private Equity Association,¹⁸ MergerMarket, and Zephyr. To create the portfolio company specific variables, we obtained the consolidated annual reports of all the portfolio companies.¹⁹ The data behind the Equity Market and Debt Market variables were retrieved from Thomson Reuters Eikon, and nominal GDP Growth has been obtained from Statistics Denmark and Ekonomifakta.se. To control for industry effects, two dummies have been included (manufacturing and wholesaling & retail trade) using NACE-codes from ORBIS. Table 1 provides an overview of the variables used in this paper.

<INSERT TABLE 1 ABOUT HERE>

The data set is solely focused on IPOs and SBOs, and so does not include other PE exit options. The data period starts in 2003 after the Dot-com bubble and ends in 2013, thus including the Global Financial Crisis. The data set consists of 88 PE exits, and constitutes the entire population of SBO and IPO exits in Denmark and Sweden during the period 2003-13.

¹⁸ The Swedish equivalent does not provide a data list of PE exits.

¹⁹ We use EBIT instead of the more conventional EBITDA in the analysis because EBITDA is not explicitly reported in all Danish and Swedish annual reports whereas EBIT is. For the purpose of using objective variables and avoiding subjective judgment, we decided to use EBIT. We did, however, check if the results had been different with our calculated EBITDAs, which they had not.

The Global Financial Crisis had two major parts: the first beginning in September 2007, and the second beginning in September 2008. We set the date for the structural break as September 1, 2007, where the uncertainty in the market had begun. This structural break allows our analysis to have 44 observations in each period. Descriptives can be found in Table 2. Table 3 shows the Correlation Matrix. We did not encounter problems with multicollinearity.²⁰

<INSERT TABLE 2 ABOUT HERE>

<INSERT TABLE 3 ABOUT HERE>

We are confident that our dataset is representative because the PE exits were identified using several databases and we validated these databases by consulting all the major Danish and Swedish PE firms' homepages in order to identify the transactions they had been involved with.

Regression Results

To test for Hypothesis H1, we first ran a regression model on the entire period from 2003-13. Afterwards we investigated the periods before and after the Global Financial Crisis to test for Hypothesis H2. We used probit models since the dependent variable is a binary dummy (IPO or SBO).²¹ The models were run with robust standard errors.

²⁰ No variable has a Variance-Inflation-Factor (VIF) above 1.7, which is well below the limits for signs of multicollinearity.

²¹ The main results are robust as they do not change if a logistic model is applied instead.

The Choice between IPOs and SBOs

In the first model, we tested whether portfolio companies with better operating performance at the time of exit had a higher probability of exiting through an IPO rather than an SBO. The findings are presented in Panel A in Table 4. We controlled for industry as well as the specified market factors. The variables of most interest are the following portfolio company-specific variables: EBIT Margin_{exit}; Debt/Assets_{exit}; Asset Turnover_{exit}; and Size_{exit}. As reported in Table 4, larger EBIT margins, lower leverage (Debt/Assets) ratios, and larger companies (Total Assets) were all associated with a higher probability that the portfolio company would exit through an IPO. (And all three variables are highly significant.) Asset Turnover, somewhat surprisingly, was not significant, which might suggest a stronger emphasis on operating profit than on asset utilization when it comes to exit considerations. As expected, and in accordance with prior empirical research, increases in the equity markets and general economic growth were also positively associated with IPOs.²² And, finally, a reduction in the risk appetite of debt markets (an increase in the Debt Market variable, the spread between long-term and short-term bonds) also signaled a higher chance of an IPO exit as expected because it would be harder for PE firms to raise debt for an SBO.

<INSERT TABLE 4 ABOUT HERE>

The Choice between IPOs and SBOs Before and After the Global Financial Crisis

To test our second hypothesis, we analyzed whether the Global Financial Crisis constitutes a structural break when it comes to operating performance's importance as a determinant of PE exits. The results are presented in Panel B in Table 4. The regression model is the same as the one used to test our first hypothesis, with the only difference being the time periods.

²² We also investigated volatility in the equity markets but did not include it in the models because it had little predictive power and was heavily correlated with the equity market variable.

As summarized in Table 4, our findings provided support for our second hypothesis by showing that both $\text{EBIT Margin}_{\text{exit}}$ and $\text{Size}_{\text{exit}}$, although not significant before the crisis, were highly significant after the crisis. To formally test whether the impact of the portfolio company factors was significantly different in the two periods, we performed a Chow-test. This test also supported Hypothesis H2, finding that both variables had structural breaks within 5% and 10% significance, respectively.²³ In addition, $\text{Debt/Assets}_{\text{exit}}$ was more significant and the coefficient was larger after the Global Financial Crisis (though the relationship was not strong enough for the Chow test to be significant).

Case Examples

One example that illustrates how operating performance has become increasingly important for exit choices is the case of KMD, a Danish software company that which was sold by two Danish private equity firms, EQT and ATP PEP, to Advent International, another PE firm. The announcement date was in October, 2012, which followed an equity market rally of 33.2% during the previous 12 months. (The median PE exit, including IPOs as well as SBOs, throughout the entire period of our study (2003-2013) had followed equity market increases of 21.9%. KMD had assets at exit of 3.4 billion DKK (about \$500 million) and revenue of 4.3 billion DKK (\$630 million), making it one of the larger portfolio companies in the data set. In addition, it was a relatively well-known company in Denmark with 3,400 employees. Combined with Debt/Assets of just 60%, these facts would lead most to think that it was the perfect IPO candidate. However, with an EBIT margin at exit of just 8.5%, which was equivalent to the average *before* the crisis, the selling PE firms went for an SBO.

²³ The Chow test for $\text{EBIT Margin}_{\text{Exit}}$ and $\text{Size}_{\text{Exit}}$ found structural breaks with p-values of .013 and .063, respectively.

Another case is Inflight Service, a Swedish supplier of merchandise and related business solutions to the retail travel industry. CapMan exited the investment in December 2009 by divesting to Triton. Although the equity markets had increased by an impressive 49.5% during the 12 months that led up to the divestiture, such positive market conditions could not outweigh the effect of a poor EBIT margin of 4.6%, which presumably was the main factor in the portfolio company's exit through an SBO.

Conclusion

Our results suggest that operating performance and portfolio company size are more important determinants of PE exit channels *after* the Global Financial Crisis than before this crisis. Our findings emphasize the growing need for PE firms to improve operating performance to have the opportunity to use the IPO exit channel. The main implication for decision-makers in PE firms is that they can no longer base an exit strategy solely on promising market conditions; they also need to incorporate operational improvements during the ownership-period by deploying operational engineering capabilities in portfolio companies. Our results also imply that a PE firm pitching a well-performing portfolio company for sale in an SBO could be interpreted as a sign that the selling PE firm expects market conditions to get worse in the near future.

EMIL PLAGBORG-MØLLER was (at the beginning of this writing) a master student at Copenhagen Business School and is currently employed at Nordea Bank AB. Importantly, this article does not reflect the general views and opinions of Nordea Bank AB in any way. It is solely based on the authors' private research.

MORTEN HOLM is Associate Professor at Copenhagen Business School. His main research interests are value creation within private equity portfolio companies, customer profitability management, and strategic management accounting.

Tables

Table 1 **Variable Descriptions**

This table describes all variables used in the subsequent analyses. (w) indicates a 10% winsorized variable²⁴.

Variable	Description
Dependent	
Exit Type	1 if exit was an SBO, 0 if exit was an IPO
Independent	
EBIT Margin _{exit} (w)	Portfolio company EBIT/Revenue at exit
Debt/Assets _{exit}	Portfolio company Total Debt/Total Assets at exit
Asset Turnover _{exit} (w)	Portfolio company Sales/Total Assets at exit
Size _{exit} (w)	Natural logarithm (LN) of portfolio company Total Assets at exit, SEK converted to DKK
Equity Market* (w)	Percentage change in PI indices (all stocks) past 360 days
Debt Market*	Average spread 12 months before the exit between 2 year and 10 year government bonds ²⁵
GDP Growth*	Percentage change in nominal GDP four quarters (one year) back
Industry: Manufacturing	1 if portfolio company was in the manufacturing industry, 0 if another industry
Industry: Wholesale	1 if portfolio company was in the wholesale and retail trade industry, 0 if another industry

*Country specific: The data has been obtained from both Denmark and Sweden. The Danish observations have been paired with the Danish portfolio companies, and the Swedish observations have been paired with Swedish portfolio companies.

²⁴ We investigated whether the main results would change using lower levels of winsorization but did not find this to be the case suggesting that the results are robust.

²⁵ Corporate lending is bank based in Scandinavia meaning that the corporate bond market is very small. Because of this, it was unfortunately not possible to include an LBO spread variable. Instead, we used this variable as a proxy for the risk appetite in the debt markets.

Table 2 **Descriptives**

This table presents the summary statistics of the data set. Panel A shows descriptive statistics of the variables for the whole period whereas Panel B shows the descriptives for the period before and after the crisis.

Panel A: Whole period			
	2003 - 2013		
VARIABLES	MEAN	MEDIAN	STD. DEV.
Exit Type	0.82	1	0.39
EBIT Margin	10.3%	9.0%	8.4%
Debt/Assets	.72	.70	.21
Asset Turnover	1.27	1.19	0.69
Size	20.84	20.91	1.47
Equity Market	19.0%	21.9%	16.6%
Debt Market	1.54	1.55	0.58
GDP Growth	3.4%	3.3%	1.9%
Industry: Manufacturing	.43	0	.50
Industry: Wholesale	.20	0	.41

Panel B: Structural Break			
	2003 – Aug 2007		
VARIABLES	MEAN	MEDIAN	STD. DEV.
Exit Type	.84	1	.37
EBIT Margin	8.5%	8.2%	6.8%
Debt/Assets	.75	.71	.21
Asset Turnover	1.33	1.19	0.80
Size	20.83	21.09	1.52
Equity Market	24.4%	26.4%	16.2%
Debt Market	1.43	1.61	0.56
GDP Growth	3.8%	3.8%	1.2%
Industry: Manufacturing	.48	0	.51
Industry: Wholesale	.25	0	.44

	Sep 2007 - 2013		
VARIABLES	MEAN	MEDIAN	STD. DEV.
Exit Type	.80	1	.41
EBIT Margin	12.2%	10.8%	9.4%
Debt/Assets	.69	.69	.22
Asset Turnover	1.20	1.20	0.56
Size	20.84	20.78	1.44
Equity Market	13.7%	15.9%	15.4%
Debt Market	1.64	1.51	0.59
GDP Growth	3.0%	2.0%	2.3%
Industry: Manufacturing	.39	0	.49
Industry: Wholesale	.16	0	.37

Table 3 **Correlation Matrix**

This table shows the correlations between all the variables (dependent and independent). P-values are presented in the lower rows in parentheses under the coefficients. ***, **, and * indicate p-values of 1 percent, 5 percent and, 10 percent, respectively.

Correlation Matrix	EBIT Margin	Debt/Assets	Asset Turnover	Size	Equity Market	Debt Market	GDP Growth	Industry: Man.	Industry: Whl.
Exit Type	-.293*** (.006)	.062 (.568)	.144 (.181)	-.206* (.054)	-.235** (.028)	-.132 (.219)	-.304*** (.004)	-.065 (.548)	-.199* (.063)
EBIT Margin	1	.022 (.838)	-.479*** (.000)	.071 (.512)	.023 (.835)	-.157 (.143)	-.043 (.689)	.198* (.064)	-.095 (.378)
Debt/Assets		1	.030 (.779)	.196* (.067)	.067 (.533)	.062 (.566)	.100 (.355)	-.194* (.071)	.074 (.496)
Asset Turnover			1	-.400*** (.000)	.045 (.678)	.003 (.981)	-.128 (.236)	-.156 (.146)	.027 (.801)
Size				1	.014 (.898)	.130 (.229)	.100 (.353)	-.037 (.732)	.164 (.126)
Equity Market					1	.107 (.320)	.407*** (.000)	-.032 (.765)	.145 (.179)
Debt Market						1	.191* (.074)	-.157 (.144)	.159 (.140)
GDP Growth							1	.046 (.673)	.078 (.473)
Industry: Man.								1	-.442*** (.000)
Industry: Whl.									1

Significance (2-tailed) in parenthesis

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

Table 4 **Probit Regression on Choice between IPO and SBO**

This table reports the probit model regression results with robust standard errors. Panel A is the model on the full period whereas Panel B reports the results for the period before the Global Financial Crisis (2003 – Aug 2007) and after the Global Financial Crisis (Sep 2007 – 2013). The dependent variable is exit type (SBO = 1, IPO = 0). The independent variables are described in Table 1. (w) indicates a 10% winsorized variable. Dummy variables for industry are included to account for fixed effects. P-values are presented in the lower rows in parentheses under the coefficients. ***, **, and * indicate p-values of 1 percent, 5 percent and, 10 percent, respectively.

VARIABLES	Panel A	Panel B	
	2003-2013	2003 – Aug 2007	Sep 2007 - 2013
EBIT Margin _{exit} (w)	-.147*** (.001)	-.079 (.223)	-.266** (.014)
Debt/Assets _{exit}	.031** (.018)	.033* (.055)	.116** (.012)
Asset Turnover _{exit} (w)	-.006 (.107)	-.008 (.155)	.005 (.739)
Size _{exit}	-.480*** (.006)	-.265 (.452)	-1.782** (.030)
Equity Market(w)	-.035* (.094)	-.077* (.083)	-.239*** (.002)
Debt Market	-.724** (.045)	-1.588** (.028)	1.953** (.011)
GDP Growth	-.291*** (.007)	-.054 (.882)	-1.452*** (.000)
Industry: Manufacturing	-.970** (.033)	-6.572*** (.000)	-3.154* (.070)
Industry: Wholesale	-1.247*** (.009)	-6.591*** (.000)	-2.910*** (.006)
Constant	15.179*** (.000)	17.082** (.023)	42.048** (.035)
Observations	88	44	44
Likelihood Ratio Chi-square	34.060***	14.467	32.251***
p-value	.000	.107	.000
AIC	69.389	44.091	32.333
BIC	94.162	61.933	50.175
p-values in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

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