Market Timing and Firms' Financing Choice

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Abstract

This study examines the effects of equity market timing and debt market timing on a firm's financing choice. Using a comprehensive sample of U.S. equity offerings, public debt offerings, private placements/144a issues, and syndicated bank loan agreements, I find that equity market timing is an important determinant of a firm's choice between equity financing and private placement/144a financing, and also between equity financing and syndicated loan financing. When the equity market is "Hot", firms tend to choose equity financing over private placement/144a financing, but interestingly, they tend to choose syndicated loan financing over equity financing. This result implies that when the equity market is "Hot", the syndicated loan market becomes even hotter. On the other hand, I find that debt market timing is not a determinant of a firm's financing choice. The change in the yields does not explain a firm's choice between equity financing and debt financing.

Keywords: market timing; financing choice; interest rates; hot markets

1. Introduction

In this paper, I focus on four different financing events, the equity offering, the public debt offering, the private placement/144a issue, and the syndicated bank loan agreement, in an attempt to measure the impact of market timing on firms' financing choice. More specifically, I attempt to answer these two questions: (1) Does equity market timing have an impact on firms' choice between equity financing and debt financing? In other words, do firms choose equity financing over debt financing when they try to time their equity offerings? (2) Does debt market timing have an impact on firms' choice between equity financing and debt financing? Do firms choose debt financing over equity financing when they try to time their debt offerings? To the best of my knowledge, this is the first study that deals with a firm's financing choice between equity, public debt, private placement/144a, and syndicated bank loan. This is also the first study that considers debt market timing as a possible determinant of a firm's financing choice.

First, I download all equity (i.e. initial public offering (IPO) and seasoned equity offering (SEO)), public debt, private placement/144a, and syndicated bank loan data for the January 1, 1984 to December 31, 2004 period from the Securities Data Company's New Issues Database. Then, I gather financial data for the issuers from Compustat and match them with each issue. In my final sample, I have 5,099 equity offerings, 3,077 public debt offerings, 2,164 private placements/144a issues, and 6,903 syndicated bank loan agreements.

Then, I examine the impact of equity market timing and debt market timing on firms' choice between equity financing and public debt financing, between equity financing and private placement/144a financing, and between equity financing and syndicated loan financing. In my binary logistic regressions, I control for firm characteristics like size, market-to-book ratio, pre-issue leverage, profitability, tangibility, credit rating, assets, as well as issue size. For the credit ratings, I use Moody's ratings, and create two categorical variables: an "investment grade variable" that takes the value of one if the firm has a rating of Baa or higher, and zero otherwise, and a "not rated variable" that takes the value of one if the firm has no rating at all, and zero otherwise. For issue size, I use the dollar proceeds scaled by assets.

As my equity market timing variable, I use the "Hot" market dummy variable which is also used in Alti (2006). As in Alti (2006), I first find the number of equity offerings in each month for my sample period. Then, to take care of seasonality, I calculate the 3-month moving averages. After that, I detrend these averages using a detrending factor of 0.25% per month (since the average annual growth in the economy was roughly 3% per year).

Since the economy is growing, there will be more equity offerings in the later years, therefore we need to detrend the number of offerings in each month in order to be able to make a comparison between the earlier and the later years. Finally, I classify the months where the detrended number of equity offerings falls into the top twenty-five percent of the months in my sample as "Hot" months, and the remaining months as "Cold" months. I expect to find more firms choosing equity financing over debt financing in "Hot" months.

As my debt market timing variable, I use the "change in the yield" (i.e. ΔYield) in the public debt market (i.e. the corporate bond market) over the previous four quarters. This measure is used in the previous studies to measure debt market timing. It is the difference between the current interest rates and the rates four quarters ago. I expect to find more firms choosing debt financing over equity financing in periods of reduced yields (compared to the past).

The remainder of the paper is organized as follows. Section 2presents the literature review. Section 3 includes the hypotheses that are being tested. Section 4 describes the data and the methodology. The results of the empirical tests are presented in Section 5. Section 6 concludes.

2. Literature Review

Debt market timing was first detected in Taggart (1977) and Marsh (1982). These two studies find that when interest rates are high (low) at the time of the borrowing, firms tend to borrow less (more). In other words, these studies show that, in order to reduce their cost of capital, firms use interest rates as a tool to time the debt markets. Later, Barclay and Smith (1995), Guedes and Opler (1996) and Stohs and Mauer (1996) examine the relation between the maturity choice and term premium (the difference between the yields of long- and short-term government debt). All three studies find that, in order to reduce their cost of capital, firms tend to choose shorter (longer) maturities when the term premium gets larger (smaller).

On the other hand, equity market timing studies mainly focus on firm specific factors like market-to-book ratio. Baker and Wurgler (2002) show that firms tend to issue equity when their market values are high relative to their book values and past market values. They also show that firms tend to repurchase equity when their market values are relatively low. Alti (2006) and Kayhan and Titman (2007) also show that firms actually try to time their equity offerings (i.e. IPOs and SEOs). Alti (2006) shows that when the IPO market is "Hot", firms tend to increase the size of their offerings. So, he contends that there is a "Hot" market effect for equity offerings.Kayhan and Titman (2007) link firms' financing histories to their equity timing behavior.

Interestingly, there are just a few studies that focus on firms' financing choice. Hovakimian, Opler, and Titman (2001)examine the public equity vs. public and private debt issuance decision in a frameworkthat controls for the static trade off and pecking order theories. So, they provide a comprehensive test of the market timing theory of capital structure in the light of the prevailing theories of capital structure. They directly examine the impact of equity valuation relative to price on the security issuance decision by using the Residual Income Model to value the issuing firm's equity. So, unlike the previous studies where market equity misvaluation was measured by market-to-book ratios or pre/post-issuance returns, they use a different measure of market equity misvaluation. Their results indicate that market equity misvaluationand the static trade off theory play significant roles in the security choice decision.They further argue that their results are robust to the inclusion of book-to-market as a control variable.

Denis and Mihov (2003) use SEC filings and Dow Jones Interactive newswires to find bank debt (not just syndicated loans), non-bank private debt, and public debt announcements, and form a sample of 1,560 debt financings by 1,480 companies. Of the 1,560 financings, 530 are public debt issues, 740 are bank loans, and 290 are private placements. When they compare their sample with the Security Data Corporation's (SDC) New Issues database, they find that their sample excludes a significant portion of the actual issues, especially the smaller ones. Their main finding is this: the credit quality of the firm is the most important determinant of the firm's choice among these financing methods. Firms with the highest credit quality (i.e. Moody's or S&P ratings) tend to issue public debt, firms with the lowest credit quality tend to issue private debt, and firms in the middle tend to borrow from banks.

Elliott, Koeter-Kant, and Warr(2007) examine the impact of market misvaluation on the firm's choice of security for funding the financing deficit.

They find that firms which appear to be overvalued relative to previous years, fund a greater proportion of their deficit with equity rather than debt. They find that the high market valuations of the 1990s led to equity being increasingly preferred over debt during that time period.

Elliott, Koeter-Kant, and Warr(2008) examine the public equity vs. public and private debt issuance decision in a framework that controls for the static trade off and pecking order theories. They find that overvalued firms are more likely to issue equity, while those that are fairly valued or undervalued issue debt. Their study also provides some insight into the choice between public and private debt securities. The decision to issue debt publicly or privately does not appear to be influenced by the level of equity misvaluation, but rather by the characteristics of the firm. Their evidence suggests that younger, riskier firms, seeking smaller amounts of capital are more likely to utilize the private debt market.

Huang and Ritter (2009) examine firms' choice among equity and public debt, while using some explanatory variables that approximate for the relative cost of equity versus debt. A major contribution of this paper is to link equity issuance explicitly to a direct measure of cost of equity capital, which is the beginning-of-year implied equity risk premium, as well as several indirect measures, like lagged values of the average first-day return of IPOs, average closed-end fund discount, lagged realized market returns, and past and future realizations of the Fama-French SMB and HML factors. They find that firms are more likely to issue equity instead of debt when the implied equity risk premium is lower, the first-day return of IPOs is higher, the closed-end fund discount is smaller, prior market returns are higher and future market returns are lower, prior realizations of HML are lower and future realizations of HML are higher, and the expected default spread is higher, even after controlling for firm characteristics.

Kaya (2011) examines the effects of a firm's credit rating, size, market-to-book ratio, profitability, degree of leverage, and tangible assets on its choice of debt financing. He finds that while larger and highly rated firms with a lot of tangible assets tend to prefer public debt to private placements/144a issues, non-rated firms with relatively high M/B ratios tend to do the opposite. When choosing between public debt financing and syndicated bank loan financing, while large, highly rated, but at the same time, highly levered firms with a lot of tangible assets tend to prefer public debt financing, non-rated firms with relatively high M/B ratios tend to prefer syndicated bank loan financing. Finally, when choosing between private placement/144a financing and syndicated bank loan financing, while large, highly levered firms with a lot of tangible assets tend to prefer private placement/144a financing, non-rated firms with relatively high M/B ratios tend to prefer syndicated bank loan financing. He concludes that these firm specific factors explain firms' debt financing choice.

3. Hypotheses

As mentioned above, Elliott, Koeter-Kant, and Warr (2007; 2008) and Huang and Ritter (2009) do not cover equity financing and three types of debt financing when they examine the determinants of a firm's financing choice. Also, they do not specifically examine debt market timing. This current study examines the choice between equity and public debt, equity and private placements/144a issues, and equity and syndicated bank loans. So, this study has a broader scope compared to Elliott, Koeter-Kant, and Warr (2007; 2008), and Huang and Ritter (2009). Also, in this study, both equity and debt market timing variables are included as possible determinants of a firm's financing choice. Huang and Ritter (2009) do not include market timing variables as explanatory variables in their regressions, and Elliott, Koeter-Kant, and Warr (2007; 2008) examine only equity market timing.

In this study, the hypotheses of interest are;
Hypothesis 1: Holding everything else constant, a firm is more likely to use equity financing rather than any type of debt financing when equity market is "hot".
Hypothesis 2: Holding everything else constant, a firm is more likely to use debt financing rather than equity financing when interest rates are low relative to recent historical levels of interest rates (i.e the rates four quarters ago).

4. Data and Methodology

Table 1 shows the summary statistics for the equity offerings subsample. These variables are found to be significant in the previous capital structure studies. There are 5,099 equity offerings in my sample period with the required data on all of the variables. The variables are calculated as follows:

Size: the natural logarithm of sales.
Tangibility: net property, plant, and equipment scaled by total assets.
Profitability: EBITDA scaled by total assets.
Market-to-book ratio: (total assets – book value of equity + market value of equity)/total assets. Leverage: (long-term debt + short-term debt) scaled by total assets.
Proc./A_{t-1}: total equity proceeds scaled by beginning-of-quarter total assets.

Except for M/B, all variables are measured at the end of the previous quarter (i.e. quarter t-1). M/B is measured at the end of the issue quarter (i.e. quarter t), because for initial public offerings, naturally, the data is available after the offering.

The median values for size, tangibility, profitability, market-to-book ratio (i.e. M/B), and leverage are 3.01, 0.23, 0.30, 1.95, and 0.28, respectively. The median size of an equity offering is 0.47, meaning that the dollar proceeds is 47% of the value of the assets.

Table 2 shows the summary statistics for the debt offerings subsample. There are 3,077 public debt offerings, 2,164 private placements/144a issues, and 6,903 syndicated loans in my sample period with the required data on all of the variables. As we can see from the table, in terms of size, tangibility and leverage, the debt issuers, on average, have higher values compared to equity issuers. However, in terms of M/B and profitability, the equity issuers have higher values. So, we can say that, in general, the equity issuers are more profitable firms with better market values compared to the debt issuers, and the debt issuers are highly levered, big firms with a lot of tangible assets when compared to the equity issuers.

In order to test for the determinants of a firm's financing choice, I run three binary logistic regressions. In these regressions, I compare the probability of issuing equity versus public debt, equity versus private placement/144a issue, and equity versus syndicated loan.

First, I classify all firms that have used financing in a given quarter into four categories: firms that have issued equity, firms that have issued public debt, firms that have used private placement/144a issue, and firms that have borrowed through a syndicated bank loan. In the rare case of more than one type of financing activity for a firm in a given quarter, I drop that firm's observations from my sample. In other words, I assume no financing activity for that firm in that quarter.

In the first regression, the dependent variable is equal to one if it is an equity issue and equal to zero if it is a public debt issue. In the second regression, the dependent variable is equal to one if it is an equity issue and equal to zero if it is a private placement/144a issue. In the third regression, the dependent variable is equal to one if it is an equity issue and equal to zero if it is a syndicated bank loan.

I use this general model for each binary logistic regression:

$$Issue\_Type = c_0 + c_1(HOT) + c_2(\Delta Yield) + c_3(TotalAssets) + c_4(\mathrm{Pr}oceeds / A_{t-1}) + c_5(Investmentgraderating) + c_6(Notrated) + c_7(M/B) + c_8(\mathrm{Pr}ofitability) + c_9(Size) + c_{10}(Tangibility) + c_{11}(Leverage) + \varepsilon \quad (1)$$

All of the control variables are measured at the end of the previous quarter, quarter (t-1) (except for M/B which is measured at the end of the issue quarter, t). Here, the Issue type is explained by the HOT market variable for the equity market, the ΔYield variable for the debt market, the Investment grade rating (which is equal to one if the firms have existing Moody's debt rating of "Baa" or higher and zero otherwise), the Not rated variable (which is equal to one if the firm has no existing debt rating and zero otherwise), the total assets, the proceeds scaled by assets, the market-to-book ratio, the size (i.e. natural logarithm of net sales) of the firm, the leverage ratio, the tangibility of the assets, and the profitability of the firm.

5. Empirical Results

Table 3 shows the results of the binary logistic regressions (i.e. equation (1)) for the full model that includes all relevant explanatory variables.

Table 4, on the other hand, shows the results for the best fitting models found by backward elimination procedure. In the backward elimination procedure, in each step, one variable that is insignificant at five percent level is eliminated. This process continues until all insignificant variables at five percent level are eliminated.

Table 3 shows that, in the first comparison where we examine the decision between equity financing and public debt financing, the "Hot" market dummy variable is insignificant (coefficient=0.23, p-value=0.68). This result indicates that even in "hot" equity markets where more firms do an equity offering, firms are not more likely to choose equity financing over public debt financing. Here, we see that our debt market timing variable, the ΔYield, is also insignificant (coefficient=-0.04, p-value=0.86). This finding implies that even when the interest rates are low (compared to the rates four quarters ago), firms are not more likely to choose public debt financing over equity financing.

In the second comparison where we examine the decision between equity financing and private placement/144a financing, we find that the "Hot" market variable is significant at one percent level (coefficient=0.44, p-value=0.00). Firms do tend to choose equity financing over private placement/144a financing when the equity market is "Hot". This is an expected result. Here, again we are seeing that the debt market timing variable, the ΔYield, is insignificant (coefficient=-0.00, p-value=0.99). Even when interest rates are low, firms are not more likely to choose private placements/144a issues over equity financing.

In our last comparison where we examine the decision between equity financing and syndicated loan financing, we find that the "Hot" market variable is significant at one percent level (coefficient=-0.36, p-value=0.00). Interestingly, the regression coefficient is negative and significant, which implies that firms tend to choose syndicated loan financing over equity financing when the equity market is "Hot". This finding implies that when the equity market is "hot", the syndicated loan market is even hotter. In other words, when the equity market is active, the syndicated loan market is even more active in terms of the number of firms coming to the market. For the debt market timing variable, the ΔYield, again the coefficient is insignificant at ten percent level (coefficient=-0.02, p-value=0.16). So, even when interest rates are low, firms are not more likely to choose syndicated loans over equity financing.

With regard to the control variables, we see that only M/B is significant in all three comparisons. In each case, the coefficient for M/B is positive and significant, meaning that firms do tend to choose equity financing over any type of debt financing when their M/Bs are high.

We see similar results in Table 4 where the results for the best fitting models are reported. The ΔYield variable is insignificant at five percent level in all three cases; therefore it is not included in the best fitting models. Again, the "Hot" market dummy variable is insignificant at five percent level in the first comparison (i.e. equity versus public debt), therefore it is dropped. As in Table 3, the coefficient for the "Hot" market dummy variable is positive and significant in the second comparison and negative and significant in the last comparison. To conclude, the results for the "Hot" market and the ΔYield variables are qualitatively similar to the results in Table 3.

In this table, we are seeing that the coefficient for M/B and Profitability are positive and significant, and the coefficient for Size is negative and significant in all three cases. Therefore, I can conclude that smaller and highly profitable firms with relatively high market valuations tend to choose equity financing over any type of debt financing.

6. Conclusion

This study makes an important contribution to the literature by examining the determinants of a firm's choice between equity and public debt financing, equity and private placement/144a financing, and equity and syndicated loan financing while specifically focusing on market timing. For equity market timing, I use the "Hot" market dummy variable which has been used in Alti (2006). For debt market timing, I use the ΔYield (i.e. change in the yield) variable which is the difference between the yield just before the offering and the yield four quarters before that offering.

The results of the binary logistic regressions show that equity market timing is an important determinant of a firm's choice between equity financing and private placement/144a financing, and also between equity financing and syndicated loan financing.

When the equity market is "Hot", firms tend to choose equity financing over private placement/144a financing, but interestingly, they tend to choose syndicated loan financing over equity financing. This result implies that when the equity market is "Hot", the syndicated loan market becomes even hotter.

On the other hand, I find that debt market timing is not a determinant of a firm's financing choice. The change in the yields does not explain a firm's choice between equity financing and debt financing.

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Table 1
Summary Statistics for Equity Offerings

Variable	Median	Mean	St.dev.
Size	3.01	3.15	1.90
Tangibility	0.23	0.32	0.25
Profitability	0.30	0.33	0.23
M/B	1.95	2.89	4.19
Leverage	0.28	0.30	0.24
Proc./A_{t-1}	0.47	0.81	0.99
N	5099		

Notes:The sample covers all equity offerings (i.e. IPOs and SEOs) from January 1984 through December 2004. Size is the natural logarithm of sales (Item 2). Tangibility is measured as net property, plant, and equipment (Item 42)/total assets (Item 44). Profitability is EBITDA (Item 21)/total assets (Item 44). The market-to-book ratio is the (total assets – book value of equity + market value of equity)/total assets. Leverage is long-term debt (Item 51) + short-term debt (Item 45)/total assets. Proc./A_{t-1} is the total equity proceeds scaled by beginning-of-quarter total assets. The "total equity proceeds" is defined as the money received from the investors when a company sells equity to the investors. Except for M/B, all variables are measured at the end of the previous quarter (t-1). M/B is measured at the end of the issue quarter.

Table 2
Summary Statistics for Public Debt Offerings, Private Placements/144a Issues, and Syndicated Bank Loan Agreements

	Public Debt			Private Placement/144a			Syndicated Bank Loan		
Variable	Median	Mean	St.dev.	Median	Mean	St.dev.	Median	Mean	St.dev.
Size	7.12	7.02	1.46	5.42	5.51	1.82	5.03	5.08	1.88
Tangibility	0.51	0.50	0.24	0.43	0.46	0.25	0.32	0.38	0.25
Profitability	0.22	0.23	0.13	0.24	0.27	0.18	0.26	0.29	0.18
M/B	0.69	0.95	0.83	0.62	0.87	0.83	0.83	1.18	1.17
Leverage	0.34	0.34	0.13	0.35	0.37	0.18	0.32	0.33	0.19
Proc./A_{t-1}	0.02	0.05	0.11	0.05	0.15	0.35	0.16	0.40	5.10
N	3077			2164			6903		

Notes: The debt financing activities are from January 1984 through December 2004. Size is the natural logarithm of sales (Item 2). Tangibility is measured as net property, plant, and equipment (Item 42)/total assets (Item 44). Profitability is EBITDA (Item 21)/total assets (Item 44). The market-to-book ratio is the (total assets – book value of equity + market value of equity)/total assets. Leverage is long-term debt (Item 51) + short-term debt (Item 45)/total assets. Proc./A_{t-1} is the total debt proceeds from the debt transaction scaled by end-of-previous quarter total assets. The "total debt proceeds" is defined as the money borrowed from a creditor. Except for M/B, all variables are measured at the end of the previous quarter (t-1). M/B is measured at the end of the issue quarter.

Table 3
Binary Logistic Regressions Predicting Source of Corporate Financing
(full models that include all relevant explanatory variables)

The table reports the coefficients of regressions of the form
$Issue\_Type = c_0 + c_1(HOT) + c_2(\Delta Yield) + c_3(TotalAssets) + c_4(Proceeds/A_{t-1}) + c_5(InvestmentGradeRating) + c_6(NotRated) + c_7(M/B) + c_8(EBITDA/A) + c_9(logS) + c_{10}(PPE/A) + c_{11}(D/A) + \varepsilon$
These are the estimates from binary logistic regressions predicting the source of corporate financing during 1984-2004. The table shows the results for binary logistic regressions that compare the probability of equity financing with the probability of public debt financing, private placement/144a financing, or financing with a syndicated bank loan. In columns (1) and (2), the dependent variable is equal to one if it is an equity issue and equal to zero if it is a public debt issue. In columns (3) and (4), the dependent variable is equal to one if it is an equity issue and equal to zero if it is a private placement or 144a issue. In columns (5) and (6), the dependent variable is equal to one if it is an equity issue and equal to zero if it is a syndicated bank loan.

The total assets variable is measured in billions of dollars. HOT is the market timing variable for equity markets. ΔYield is the difference between the interest rates at the end of the previous quarter and the rates 4 quarters ago in the public debt market. It is the market timing variable for the debt markets. Investment grade rating is an indicator variable, equal to one if the firms have existing Moody's debt rating of "Baa" or higher, zero otherwise. Not rated is an indicator variable, equal to one if the firm has no existing debt rating, zero otherwise. All other variables are as defined in the previous tables. Coefficients are reported with p-values in parentheses.

Independent variable	Equity vs. Public Debt		Equity vs. Private Pl./144a		Equity vs. Syndicated	
Column number	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
	Coefficient	*p-value*	*Coefficient*	*p-value*	*Coefficient*	*p-value*
Intercept	-24.76	(0.90)	-19.78	(0.94)	-16.68	(0.95)
HOT	0.23	(0.68)	0.44	(0.00)	-0.36	(0.00)
ΔYield	-0.04	(0.86)	-0.00	(0.99)	-0.02	(0.16)
Total Assets	-0.07	(0.15)	-0.003	(0.38)	-0.002	(0.74)
$Proceeds/A_{t-1}$	-0.61	(0.30)	0.16	(0.39)	-0.02	(0.10)
Investment Grade Rating	-6.60	(0.97)	1.08	(1.00)	0.36	(1.00)
Not rated	27.06	(0.89)	19.52	(0.94)	16.25	(0.95)
M/B	2.99	(0.00)	1.24	(0.00)	0.45	(0.00)
Profitability	-2.49	(0.12)	-0.18	(0.46)	0.25	(0.11)
Size	0.45	(0.00)	-0.28	(0.00)	-0.32	(0.00)
Tangibility	-0.98	(0.38)	0.25	(0.15)	0.60	(0.00)
Leverage	-1.41	(0.36)	1.01	(0.00)	0.41	(0.00)
Likelihood Ratio Chi-Square	7218.71	(0.00)	2334.58	(0.00)	1919.27	(0.00)
N	5355	-	4500	-	9055	-

Table 4
Binary Logistic Regressions Predicting Source of Corporate Financing
(the best fitting models found by backward elimination procedure)

The table reports the coefficients of regressions of the form
$Issue\_Type = c_0 + c_1(HOT) + c_2(\Delta Yield) + c_3(TotalAssets) + c_4(Proceeds/A_{t-1}) + c_5(InvestmentGradeRating) + c_6(NotRated) + c_7(M/B) + c_8(EBITDA/A) + c_9(logS) + c_{10}(PPE/A) + c_{11}(D/A) + \varepsilon$

These are the estimates for the best fitting models from binary logistic regressions predicting the source of corporate financing during 1984-2004. The results for these best fitting models are found by using backward elimination procedure with a five percent critical value. In each step, one variable that is insignificant at five percent level is eliminated until no insignificant variable is left. The variables are as explained in the previous tables. Coefficients are reported with p-values in parentheses.

Independent variable	Equity vs. Public Debt		Equity vs. Private Placement or 144a Issue		Equity vs. Syndicated Loan	
Column number	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
	Coefficient	*p-value*	*Coefficient*	*p-value*	*Coefficient*	*p-value*
Intercept	4.96	(0.00)	0.53	(0.00)	-0.31	(0.00)
HOT	-	-	0.26	(0.00)	-0.36	(0.00)
ΔYield	-	-	-	-	-	-
Total Assets	0.02	(0.00)	-	-	-	-
$Proceeds/A_{t-1}$	-	-	-0.28	(0.02)	-	-
Investment Grade Rating	-	-	-	-	-	-
Not rated	-	-	-	-	-	-
M/B	0.45	(0.00)	0.99	(0.00)	0.43	(0.00)
Profitability	2.83	(0.00)	0.54	(0.01)	0.35	(0.02)
Size	-1.15	(0.00)	-0.41	(0.00)	-0.35	(0.00)
Tangibility	-0.94	(0.00)	0.32	(0.04)	0.61	(0.00)
Leverage	0.78	(0.01)	-	-	-	-
Likelihood Ratio Chi-Square	3946.83	(0.00)	1665.02	(0.00)	1518.74	(0.00)
N	5355	-	4500	-	9055	-