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Abstract:

The recession of 2008-2009 showcased the critical role that the corporate bond market plays in providing firms with access to capital, a role reflected by a 300% increase in corporate bonds issued from $600 billion issued in 2007 to $1.8 trillion issued in 2012. In this study, I investigate the bond specific, firm specific and macroeconomic factors that explain the change in corporate credit spreads within the Consumer Staples industry between 2005 and 2013. The results show that the firm specific variables, debt and total assets, have the largest impact on the corporate credit spreads. However, there is a weaker relationship between the variables and the corporate credit spread during recessionary times.

1. Introduction

The corporate bond market has been a particularly important source of financing for companies around the world for decades. The recession of 2008-2009 showcased the critical role that the corporate bond market plays in providing firms with access to capital, a role reflected by a 300% increase in corporate bonds issued from $600 billion issued in 2007 to $1.8 trillion issued in 2012. Due to this significant increase in corporate bonds issued, a revisiting of the topic of factors influencing the corporate bond spreads would contribute to the literature on capital markets.

Investors inherently want to minimize risk while maximizing returns. One way of doing this is to leverage their portfolios with a riskless security coupled with a riskier security. Hedge fund investors, for example, will leverage corporate bonds in their portfolios by shorting U.S. treasuries to hedge away the interest rate risk. This strategy causes changes in corporate credit spreads to have an immediate impact on their portfolios as investors need to be cognizant of all factors affecting their investment strategies, including investing in investment grade and high yield corporate bonds.

The severity of the recession of 2008-2009 (and the subsequent quantitative easing by the United States government) and its effect on the corporate bond market, call for a revisit of the topic on the impact of firm specific factors on corporate credit spreads. A sample of large sized firms from the Consumer Staples industry is used with a period spanning 2005-2013.

The results indicate the firm specific factors, debt and size have the largest impact on the corporate credit spreads. Additionally, each variable had a different coefficient sign than its

interaction variable. This shows that during a time of contraction in the economy, the relationship between each of the variables and the corporate credit spread is weaker.

To outline the rest of this paper: the literature review will be discussed in Section 2. The hypotheses are presented in Section 3. Data and methodology used for the regression will be discussed in Section 4. The variables used for the regression will be discussed in this section. In Section 5, the results from the regression will be explained and evaluated, and the conclusions will be discussed in Section 6.

2. Theoretical Determinants of the Corporate Credit Spread

The factors that influence corporate credit spreads have been extensively researched previously, but none of the previous studies include the recession of 2008-2009. The recession caused worldwide financial turmoil that ultimately led to a bailout of financial institutions and auto companies by the United States government.

Sargent (1979) explores the rational expectations theory for his study. He states that long-term yields are a function of current and past short-term interest rates. According to the rational expectations theory, economic choices including those from corporations are based on a rational outlook of all available information and past experiences. This explains that decisions made by corporations are not irrational decisions because of the availability of perfect information. This suggests that firm specific factors could influence changes in corporate credit spreads. The rational expectations theory represents the underlying theory for my study.

Fisher (1959) pioneered the research on bond prices and that they are a function of firm specific factors such as financial risk. First, he argues that the average risk premiums on a firm's bonds are contingent on the default risk as well as the bond's marketability. Secondly, the default

risk can be predicted by three variables: the coefficient of variation of the firm's net income over the last nine years (after all charges and taxes are included), the length of time the firm has been operating without forcing its creditors to take a loss, and the ratio of the market value of the equity in the firm to the par value of the firm's debt. Thirdly, he hypothesizes that the marketability of a firm's bonds can be estimated by a single variable: the market value of all the public bonds outstanding. Lastly, a linear function of the logarithms of the variables just listed estimate the average risk premium on a firm's bonds. Fisher's (1959) paper laid the foundation for future research on the topic. For his data, he used only United States industrial firms to avoid the industry specific factors and the foreign risks.

Black-Scholes (1973) in their famous "Black-Scholes Options Pricing Model" use the underlying assumption that the rational expectations theory holds true. Their model presents a complete general equilibrium theory of option pricing with a formula that has a function of "observable" variables. Merton (1975) expands this model as he noted that corporate debt spread depends on three things: the required rate of return on riskless debt (i.e., United States T-Bills), the various restrictions detailed in the model (i.e., maturity date, etc.), and the probability that the firm will default. This model with the underlying assumption of the rational expectations theory represents the foundation for future research on pricing theories.

One of the drawbacks of the Black-Scholes Options Pricing Model is that default is assumed to occur only when the firm exhausts its assets. Jones, Mason, and Rosenfeld (1984) shows that this aspect of the model implies credit spreads are much smaller than they actually are. Jones, Mason, and Rosenfeld (1984) conclude that the Contingent Claims Analysis (CCA) model appears to have an incremental explanatory power over the naïve model for non-investment grade bonds, but no explanatory power for investment grade bonds. They also find

evidence that introducing stochastic interest rates and taxes would improve the model's performance.

Longstaff and Schwartz (1995) build on Jones, Mason, and Rosenfeld's (1984) model by incorporating both default risk and interest rate risk as well as allowing for deviations from strict absolute priority. They show that the credit spreads implied by the model are consistent with many of the properties of actual credit spreads. Longstaff and Schwartz (1995) conclude that evidence of a negative relationship for both changes in the short-term interest rates of corporate bonds and changes in corporate asset value. This contradicts the traditional approach that credit spreads depend only on the risk of default of the issuer. Longstaff and Schwartz (1995) also conclude that the difference in credit spreads across industries and sectors appear to be related to differences in correlations between equity returns and changes in the interest rate. These changes in interest rates account for more of the variation in credit spreads for investment grade bonds than changes in the value of the assets of the firm. This evidence provides a strong indication that both default risk and interest rate risk are necessary components for a valuation model for corporate debt.

Collin-Dufresne, Goldstein, & Martin (1999) build on Longstaff and Schwartz's (1995) arguments by investigating the determinants of credit spread changes. They examine how changes in credit spreads respond to representations for both changes in the probability of future default and for changes in the recovery rate. They observe from a contingent-claims standpoint that credit spreads change for two fundamental reasons: there is a risk of default, and the bondholder receives only a percentage of the promised payouts in the event of default. Collin-Dufresne, Goldstein, & Martin (1999) conclude that, in contrast to the predications of structural models of default, firm-specific factors appear to have less importance than aggregate factors.

This result contrasts previous evidence on firm-specific factors affecting credit spread changes. The authors inferred that the large variation of corporate credit spreads of an individual bond can be explained by an aggregate factor common to all bonds.

Helwege and Turner (1999) investigate the yield curves of riskier firms or speculative grade firms. They cite the work by Merton (1974) and Longstaff and Schwartz (1995) that predicted upward sloping yield curves for investment grade corporate issuers and a downward sloping or a hump-shaped yield curve for speculative grade firms. They conclude that, contrary to many bond pricing models, there was no indication that a downward sloping yield curve exists for speculative grade firms. Helwege and Turner (1999) suggest that researchers should be careful when choosing values for their models that may result only on a downward sloping yield curve for speculative grade firms. Those researchers should instead choose parameters for leverage and firm specific risk which represent actual risk in the bond market.

Tang and Yan (2006) address several of the puzzles related to previous research. The first issue is how the magnitude of corporate credit spreads predicted by theoretical models was inconsistent with historical observations. Jones, Mason, and Rosenfeld (1984) show that credit spreads predicted by structural models are significantly lower than the observed levels, especially for investment grade bonds. Secondly, the predicted shape of the credit yield spread curve for high yield bonds is lower than historical observations. Helwege and Turner (1999) argue that an upward yield spread curve for speculative grade corporate bonds contradicts Black-Scholes (1973) and Merton's (1974) model. The third issue is that some fundamental determinants of corporate credit spreads continue to be indefinable. Collin-Dufresne, Goldstein, & Martin (1999) exhibit that in contrast to the predications of structural models of default; firm-specific factors appear to have less importance than aggregate factors. Tang and Yan (2006) find

that their model, which has an emphasis on macroeconomic conditions, show equal results for corporate credit spreads of both investment grade and speculative grade bonds. Their model also generates an upward sloping yield curve for speculative grade firms just like that of Helwege and Turner (1999). Tang and Yan (2006) also suggest that macroeconomic variables can describe a substantial portion of yield spread changes. They conclude that macroeconomic factors could potentially offer a clue to the missing factor of corporate bond valuation originally inferred by Collin-Dufresne, Goldstein, & Martin (1999).

3. Hypothesis

This section presents the testable hypotheses for each variable of interest. Table 1 in the Appendix shows all of the variables that will be used in the regression as well as predicted sign of their relationship and a short definition of the variable. The variables are classified into three different categories: bond specific factors, firm specific factors and macroeconomics factors.

Bond specific

Liquidity - Amihud and Mendleson (1991) argue that bond risk premiums should be higher for those bonds that cannot be easily sold or exchanged for cash without a substantial loss in value, i.e. illiquid bonds.

Bao, Pan, Wang (2011) also looked at the impact of liquidity in the corporate bond market on bond valuation. They examined the pricing impact of illiquidity in corporate bonds at the individual bond level and the aggregate level. They found that illiquidity increases with a bond's age and maturity, but decreases with its issuance size. Bao, Pan, Wang (2011) also concluded that bond illiquidity fluctuates substantially over time especially during economic turmoil. Based on this evidence, I expect a negative relationship between the liquidity of the bond and changes in corporate credit spreads.

I hypothesize that bonds with a higher liquidity have lower spreads.

Maturity- Amihud and Mendleson (1991) state that the longer the time to maturity of a bond is, the higher its risk premium should be due to the asset not being easily sold or exchanged for cash without a substantial loss in value. Gkougkousi (2013) also argues that the aggregate earnings-returns relation is lower for bonds with higher credit ratings and longer maturities. This suggests that firms that issue bonds with a longer maturity date will be less affected by changes in corporate credit spreads implying a positive relationship exists between the time to maturity of a bond and changes in corporate credit spreads.

I hypothesize that bonds with longer maturities have higher spreads.

Firm specific

Profits- Bai and Wu (2012) states that higher profitability reduce the corporate credit spread. They claim that lower or even negative earnings often lead to a much wider corporate credit spreads due to the inherent risk of an investment in a firm with negative profits. Grabowski and King (2000) also find that firms with higher operating profit margins, or other measures of profitability, are seen by investors as less risky due to their lower rates of returns. This means that firms with higher profits should have a narrower credit spread.

I hypothesize that more profitable firms will have lower spreads.

Debt- Flannery, Nikolova, & Öztekin (2012) test whether investors' expectations for future debt or leverage of a firm affects the observed corporate bond credit spreads. Their results indicate that expected increases in future leverage will be reflected in higher credit spreads. This shows that when investors expect the debt of a firm to increase, the corporate credit spread should increase as well.

I hypothesize that firms with lower debt will have lower spreads.

Size- Fama and French (1993) argue that small firms can suffer long earnings depressions that do not affect large firms. This suggests that size might explain the negative relationship between size and future returns as smaller firms often require larger coverage ratios for the same credit rating as larger firms. Paschall and Hawkins (1999) state that because smaller firms are generally accepted as riskier than larger firms, investors demand a higher risk premium which means smaller firms have higher corporate credit spreads.

I hypothesize that larger sized firms will have lower spreads.

Macroeconomic factors

GDP growth rate- Tang and Yan (2006) find in their studies that macroeconomic variables can explain a substantial portion of corporate credit spread changes. The gap between the corporate yields and United States T-Bill yields narrows creating an inverse relationship between the GDP growth rate and corporate credit spreads.

I hypothesize that the larger the Gross Domestic Product (GDP) growth rate is, the lower the spread will be.

VIX- Nieto, Novales, & Rubio (2013) argue that the VIX is a key determinant of the long-run component of volatility for corporate bonds. For high-rating bonds, including the VIX improves the statistical model even during economic times of recession and expansion. Lin (2013) also argues that investors can use the VIX to track the movement of the SPX option implied volatility. This means that the VIX can be used as a measure of the market's future riskiness. When risk throughout the market is expected to increase, the VIX increases. This would mean that corporate credit spreads should increase due to the riskiness. This indicates a positive relationship should exist between the VIX and corporate credit spreads.

I hypothesize that the larger the Volatility Index (VIX) is, the lower the spread will be.

4. Data

In this study, I classify the factors explaining the corporate credit spreads into three sections: bond specific factors, firm specific factors and macroeconomic factors. Bond specific factors include liquidity of bonds (log of volume traded in millions), and maturity of the bonds (quarters until the maturity date). Firm specific factors include size (log of total assets), profits (return on assets), and debt (total debt outstanding divided by total assets). The macroeconomic factors are the real GDP growth rate and the Volatility Index (VIX). These variables are a function of the corporate credit spreads, as measured by the last price (spread to benchmark as defined by Bloomberg) on a given day at quarter end. Table 1 in the Appendix shows all of the variables including a short definition and their predicted signs. I also added an interaction variable for each of the listed variables to help account for the 2008-2009 recession. I multiplied each variable by the number 1 for each observation that occurred in either 2008 or 2009 (so 8 observations total). Then I multiplied each variable by the number 0 for each observation that did not occur in either 2008 or 2009. This created an indicator variable which should help account for the 2008-2009 recession.

The data series for this study was compiled from the Bloomberg database via a COUNTRY Financial Bloomberg terminal. The dataset for this panel data research includes 24 publically traded firms in the Consumer Staples industry create. Table 2 in the Appendix lists all 24 firms, their tickers, market capitalization (cap) in billions, CUSIP of their bonds, and the maturity date of their bonds. I use quarterly data with a range of December 2005 to December 2013 (32 observations per variable or 766 total observations). All of the bonds selected for this

sample are investment grade bonds. Table 3 in the Appendix shows each sampled firm categorized by its sub-industry within the Consumer Staples industry. Total and average market capitalization of the firms is shown. The data was selected based on the availability of historical spread data, so the majority of firms are large-cap and mid-cap sized firms with only one small-cap firm included. The transformation of the data included taking the logarithm of total assets and volume traded to induce linearity.

Table 4 in the Appendix shows some summary statistics for all of the non-dummy variables. The mean, median, minimum, and maximum values are shown in the table for both the entire sample as well as the values just included in the 2008-2009 recession. All of the bond specific and firm specific variables show little variation between the entire sample and the values during the 2008-2009 recession. However, the dependent variable and the macroeconomic variables show great difference between the entire sample and just the values of the 2008-2009 recession. The mean of the spread increases 28% in value while the maximum value of the entire sample is set in the years of 2008-2009 (617.5090). The mean of the VIX shows an increase of 31% while the GDP growth rate shows a decrease of 133%. This means that expectations of riskiness of the market grew significantly during the 2008-2009 recession while the economy contracted considerably. These measures show the need to add the interaction variables to account for the 2008-2009 recession.

One limitation of the data is the focus on the large market capitalization of all of the firms. Ideally, different market capitalizations should equally be represented in the sample but due to the availability of historical bond spreads, the majority of firms in the dataset are large-cap or mid-cap sized firms. Figure 1 in the Appendix shows market capitalization of the S&P 500 Consumer Staples plotted with the market caps of the sampled firms. The two market

capitalization lines follow the same trend until the 2008-2009 recession where a separation of the two lines starts to occur.

For the ordinary least squares (OLS) regression, the equation used to determine the effects of bond specific, firm specific and macroeconomic factors on the corporate credit spreads is:

$$\begin{aligned} \textit{Corporate Credit Spread}_t = \alpha \\ &+ \beta(\textit{VIX}) \\ &+ \beta(\textit{Volume traded}) + \beta(\textit{Volume traded Dummy}) \\ &+ \beta(\textit{Quarters until maturity}) + \beta(\textit{Quarters until maturity Dummy}) \\ &+ \beta(\textit{Return on assets}) + \beta(\textit{Return on assets Dummy}) \\ &+ \beta(\textit{Debt}) + \beta(\textit{Debt times Dummy}) \\ &+ \beta(\textit{Total assets}) + \beta(\textit{Total assets Dummy}) \\ &+ \beta(\textit{GDP growth rate}) + \beta(\textit{GDP growth rate Dummy}) \\ &+ \varepsilon(t) \end{aligned}$$

5. Results

Table 5 in the Appendix shows the regression results. The table shows the results of two regressions: one without the VIX included as an independent variable and one with the VIX included. Due to the VIX being a very similar variable to the interaction variables, both results are shown. Including the VIX in the regression yields better results so that is the main results.

The macroeconomic factors had the expected impact as the VIX was statistically significant with a positive coefficient of 2.1137. An increase in the coefficient results in an increase in the corporate credit spread. Although the GDP growth rate is statistically

insignificant, its interaction variable has a coefficient of -33.6096. This means that during the years of the 2008-2009 recession, a 1% decrease of the GDP growth rate would have caused corporate credit spreads to increase by 33.609% (from its total sampled amount).

Among the bond specific factors, the maturity variable was statistically significant with a positive coefficient of 0.2402. This means that a 10% increase in the number of quarters until a particular bond matures will cause the corporate credit spread to increase by 2.402%. Interestedly, the sign of the coefficient is negative for the interaction variable. This shows that during times of contractions in the economy, shorter duration bonds are riskier than longer duration bonds.

For the firm specific factors, debt and total assets were statistically significant. The debt had a positive coefficient of 20.578 meaning a 1% increase in a firm's debt will cause the corporate credit spread to increase by 20.578%. Total assets had a negative coefficient of -21.187 meaning a 1% decrease in a firm's size will cause the corporate credit spread to increase by 21.187%. Both results are consistent with previous evidence as firms with larger debt should be seen as riskier with a wider corporate credit spread while larger firms should be seen as less risky so they will have a narrower corporate credit spread. Just like with the bond specific factors, all three variables' coefficient signs changed during times of contraction in the economy.

The change of the sign of the interaction variables does not mean a total switch of signs during times of recession, rather the variables' relationship with the corporate credit spread is weaker during times of contraction in the economy.

The r-squared is 0.3316 which reflects the overall goodness of fit for this regression. The F-statistic is 28.6949 and is statistically significant which shows that the model fits the population of the sampled data well.

6. Conclusions

In this paper, I employ an OLS regression on a sample of quarterly data obtained from the Bloomberg Database with a range of December 2005 to September 2013. The dependent variable is the corporate credit spread as defined as last price on a given day at quarter end with the independent variables being separated into three sections: bond specific, firm specific, and macroeconomic factors. The bond specific variables include liquidity of bonds (volume traded in millions), and maturity of the bonds (quarters until the maturity date). Firm specific factors include size (log of total assets), profits (return on assets), and debt (total debt outstanding divided by total assets). The macroeconomic factors are the real GDP growth rate and the Volatility Index (VIX). Interaction variables were also introduced to take into account the 2008-2009 recession.

Of the variables, the VIX with a 2.1137 coefficient, quarters to maturity with a 0.2402 coefficient, debt with a 20.5758 coefficient, total assets with a -21.1873, and GDP growth rate's interaction variable with a -33.6096 coefficient were all statistically significant. Interestedly enough, all of the variables that included an interaction variable, had a different coefficient sign than their interaction variable. This shows that during a time of contraction in the economy, each of these variables has a weaker relationship with the corporate credit spread. Due to debt's and total asset's large coefficient, these two firm specific factors could help explain the corporate credit spread a little better than most other variables.

Future avenues of research should include a sample of firms from a cyclical different industry to see if a difference may exist from industry to industry. Also, future research should try to get an equal representation of large-cap, mid-cap, and small-cap sized firms.

Investors could possibly modify their bond management strategies when it comes to buying and selling bonds due to this study. Due to relationships between debt and total assets with the corporate credit spread, investors could examine a firm's debt and size of total assets before they buy or sell bonds. Now, the results of this paper do not simply state that an investor should always examine just a firm's debt and total assets before deciding whether to buy or sell a particular bond. Rather, this paper shows that debt and total assets of a firm are a good indicator of a firm's riskiness as shown in their corporate credit spread.

Another interesting finding of this paper was what the interaction variables showed. When corporate credit spreads begin to change, observations of all of these variables, including changes in the sign of the coefficients, could help add evidence to arguments that a recession or boom of the economy could occur.

Appendix:

Table 1: Explanation of variables

	Name	Predicted sign	Definition
Dependent	Spread		Difference in bond yield and U.S. treasury yield with same date to maturity.
Bond Specific	Liquidity	Negative	Volume traded of particular bond expressed in millions.
	Maturity	Positive	Number of quarters until particular bond matures.
Firm Specific	Profits	Negative	Return on assets of firm.
	Debt	Positive	Total debt outstanding divided by total assets.
	Size	Negative	Total assets expressed in logarithms.
Macro-economic	GDP growth rate	Negative	Real GDP growth rate expressed as a percentage and adjusted for inflation.
	VIX	Positive	Chicago Board Options Exchange (CBOE) Volatility Index (VIX).
Dummy	Interaction Variable		Interaction variable for each variable to account for 2008-2009 recession.

Table 2: Firms

Name	Ticker	Market Cap (in billions)	CUSIP	Date of maturity
The Coca-Cola Company	KO	167.95	191219ayo	11/15/2026
Pepsico, Inc.	PEP	121.9	713409ac4	3/1/2029
Mondelez International Inc.	MDLZ	59.28	50075nac8	11/1/2031
Kellogg Company	K	21.94	487836at5	4/1/2031
Hershey Co	HSY	23.63	427866al2	8/15/2027
ConAgra Foods, Inc.	CAG	11.93	205887ar3	10/1/2028
Campbell Soup Company	CPB	13.55	134429ag4	5/1/2021
The Procter & Gamble Company	PG	210.08	742718cb3	2/1/2034
Colgate-Palmolive Company	CL	57.18	19416qce8	6/16/2028
Kimberly Clark Corp	KMB	41.37	494368as2	1/1/2028
Estee Lauder Companies Inc	EL	26.55	29736raa8	10/15/2033
E I Du Pont De Nemours And Co	DD	61.13	263534bg3	1/15/2028
Altria Group Inc	MO	72.64	718154cf2	1/15/2027
Tyson Foods, Inc.	TSN	13.2	902494ad5	1/15/2028
Avon Products, Inc.	AVP	6.53	054303ar3	7/15/2018
Hillshire Brands Co	HSH	4.59	803111am5	11/1/2032
Bunge Ltd	BG	11.57	120568al4	4/15/2014
Dean Foods Co	DF	1.4	242361ab9	10/15/2017
Archer Daniels Midland Company	ADM	26.26	039483ah5	4/15/2017
CVS Caremark Corporation	CVS	85.83	126650av2	9/15/2014
Safeway Inc.	SWY	8.76	786514ba6	2/1/2031
SYSCO Corporation	SYY	21.06	871829af4	8/1/2028
Wal-Mart Stores, Inc.	WMT	240.3	931142bf9	2/15/2030
Kroger Company	KR	21.66	501044bz3	4/1/2031

Table 3: Sub-Industries

Sub-Industry	Total Market Cap	Average Market Cap
Food Processing (10)	187.35	18.735
Personal & Household (5)	341.71	68.342
Beverages (2)	289.85	144.925
Tobacco (1)	72.64	72.64
Other (6)	417.08	83.416

Figure 1: Market Cap (S&P 500 Consumer Staples vs. Sampled Firms)

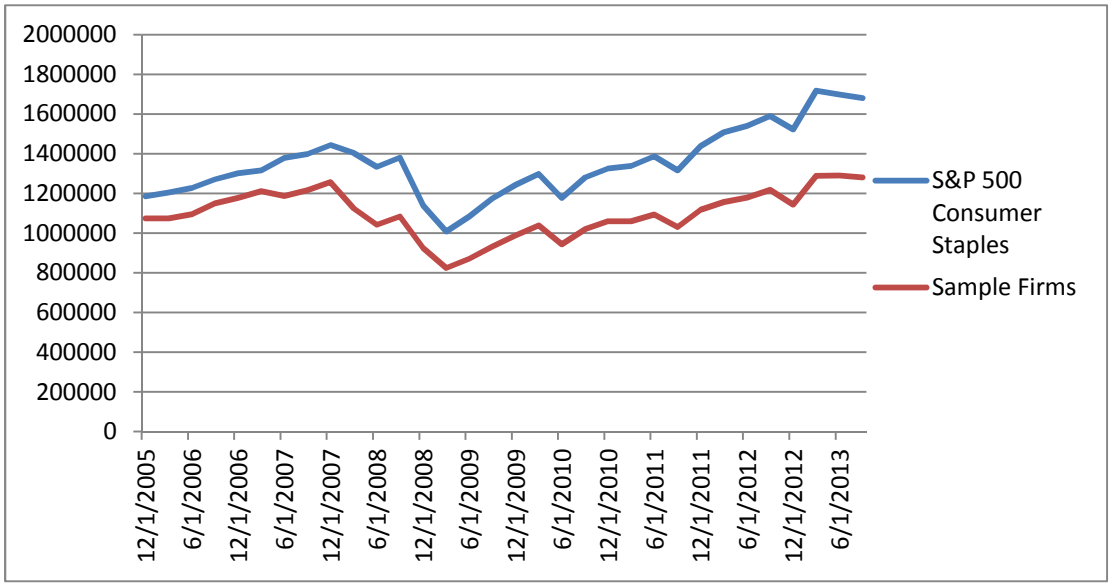

Table 4: Summary Statistics

		Sample	2008-2009
Spread	Mean	153.6293	214.4577
	Median	127.5568	196.0689
	Minimum	-0.6937	49.8479
	Maximum	617.5090	617.5090
VIX	Mean	21.3714	30.8413
	Median	17.7400	25.9800
	Minimum	11.3900	21.6800
	Maximum	44.1400	44.1400
Volume	Mean	8.0375	7.9216
	Median	7.9542	7.8603
	Minimum	6.0000	6.0000
	Maximum	10.4419	10.1761
Quarters to Maturity	Mean	68.4410	71.3551
	Median	74.8278	78.0500
	Minimum	2.1889	17.4000
	Maximum	114.0000	104.8667
Return on Assets	Mean	8.1972	8.2995
	Median	8.2941	8.2083
	Minimum	-22.9819	-6.7646
	Maximum	26.9388	26.9388
Debt	Mean	0.4263	0.4224
	Median	0.3019	0.3009
	Minimum	0.0428	0.0428
	Maximum	3.1856	3.0700
Total Assets	Mean	4.3024	4.2875
	Median	4.2222	4.2438
	Minimum	3.3863	3.5433
	Maximum	5.3220	5.2368
GDP growth rate	Mean	0.3298	-0.2472
	Median	0.3955	0.1059
	Minimum	-2.1517	-2.1517
	Maximum	1.2135	0.9561

Table 5: Regression Results

Dependent Variable: Spread		
C	218.6759***	168.6778***
	6.7636	5.1357
VIX		2.1137***
		4.503
Volume	-1.8656	-0.0772
	-0.6076	-0.0255
Volume Dummy	-0.7338	-2.6042
	-0.1374	-0.4970
Quarters to Maturity	0.178	0.2402**
	1.5264	2.0943
Quarters to Maturity Dummy	-0.1919	-0.2585
	-0.7900	-1.0855
Return on Assets	-0.4834	-0.5087
	-0.8584	-0.9223
Return on Assets Dummy	0.0713	0.1964
	0.0640	0.1802
Debt	21.1777***	20.5783***
	3.9281	3.8962
Debt Dummy	-12.8865	-13.1360
	-1.1625	-1.2098
Total Assets	-20.4654***	-21.1873***
	-3.3813	-3.5732
Total Assets Dummy	21.5848**	19.5715***
	2.1495	1.9886
GDP Growth Rate	1.3390	-5.5393
	0.2075	-0.8610
GDP Growth Rate Dummy	-51.9719***	-33.6096***
	-6.2851	-3.8594
Observations	766	766
R-squared	0.3023	0.3316

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