White Paper

Moody's Analytics
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Preferred Stock Impairments and Recovery Rates 1983-2008

Summary

This report discusses historic patterns of preferred stock issuance, the relationship between issuer ratings and preferred stock dividend impairments, and losses associated with impairments. The results are derived from Moody's Analytics subscription databases of ratings and defaults.

The credit performance of preferred stock over the last 26 years reveals that:

- 269 issuers worldwide had dividend impairments on 471 preferred stock issues rated by Moody's Investors Service since January 1983. Out of 269 issuers, 39 were trust issuers while the remaining 230 were non-trust issuers. Of the 230 non-trust issuers' preferred stock impairments, 112 were part of a simultaneous broader bond default event and the remaining 118 were dividend omissions not accompanied by a debt default. Of the 118 dividend omissions, 52 were followed by a broad bond default.
- Over the same period, there were an additional 104 non-rated preferred stocks that experienced impairment.
- 26 issuers were rated investment-grade 12 months prior to preferred stock impairment.
- The median unsecured rating of issuers was B1 one and two years prior to the impairment, Ba3 three years prior to the impairment, and Ba2 four and five years prior to the impairment.
- Based on 30-day post default market prices, the issuer-weighted recovery rates on preferred stock varied considerably based on the nature of the initial impairment event. Highest recoveries (35.9%) were observed for dividend omissions that were not followed by a subsequent broad bond default, the lowest recoveries (15.9%) for those issuers whose preferred stock dividend impairment was part of an outright bond default.
- While historical analysis such as that provided in this report is inevitably an imperfect guide to future performance, this caveat is particularly worth emphasizing in this instance because global bank regulatory treatment of junior capital instruments is rapidly evolving.[1]

[1] In June 2009, Moody's Investors Service issued a Request for Comment "*Moody's Proposed Changes to Bank Subordinated Capital Ratings*" (#117894) to market participants that would change the way Moody's Investors Service rates subordinated capital, including hybrid securities, issued by banks. Hybrid securities are defined as various types of junior subordinated debt with deferral features as well as preferred securities. In an earlier research ("*Moody's*

1. Introduction

This paper discusses historical impairments and losses on preferred stock credit risk rated by Moody's Investors Service. Moody's Investors Service rates preferred stock as a security that pays dividends rather than interest, lacks a commitment to repay principal at maturity, and maintains a legal equity status. Traditionally, preferred stock or preference shares have been used only in English speaking countries. However, because preferred stock is an attractive source of non-dilutive tier-one capital for banks subject to Bank for International Settlement (BIS) rules, it has been used by an increasingly geographically diverse pool of issuers.

From the early 1980s through 2008, the profile of preferred stock issuers changed dramatically. During that period, preferred stock, once the province of staid and highly regulated utilities, became an important financing vehicle for a variety of financial, special purpose, and relatively unregulated industrial firms. Over the same period, corporate leverage increased and credit quality drifted lower as the global high yield debt markets grew rapidly.

This paper assesses preferred stock issuance, ratings performance and recovery experience over the past 26 years. The report begins with an overview of preferred stock, Moody's Investors Service ratings for preferred stock, and characteristics of the universe of rated preferred stock. It then analyzes rating and price data to quantify the historical risks of dividend impairment and economic loss associated with issuer ratings.

1.1 An Overview of Preferred Stock and Trust Preferred Stock

Preferred stock ranks above common equity and below debt in a firm's capital structure. It lies above common equity since preferred stock holders generally have a prior claim to earnings, assets, or both. It is junior to debt because relative to debt holders, preferred stock holders have limited legal recourse in the event of an omitted dividend. Preferred stock can be cumulative with respect to dividends. The cumulative trait requires that arrears[2] be "cleared" through payment to preferred stockholders before the distribution of any common stock dividend. Preferred stock is also typically non-voting. This feature relieves the preferred stockholders of direct control over the day-to-day operations of the issuing firm. A commonly specified exception in preferred stock charters is the right of preferred stockholders to elect a minority of board members after a specific number of omitted dividend payments. Finally, preferred stock is also most commonly callable.

For companies, issuing preferred stock is advantageous because its non-recourse nature allows a degree of payment flexibility that bonds do not offer during periods of great financial distress. In addition, non-convertible preferred stock does not dilute equity holders' control or claim to future dividends. In exchange for these advantages, firms must sell preferred stock on a higher after-tax yield basis than debt, reflecting in part the security's junior position. Perhaps more importantly, the firm usually forgoes the tax deductibility of debt interest payments.

A trust preferred security is a hybrid security possessing the characteristics of both equity and debt issues. Trust preferred securities carry characteristics of both subordinated debt and preferred stock in that they are generally very long term (30 years or more), allow early redemption by the issuer, make periodic interest payments and mature at par value. Trust preferred securities are used for their favorable tax, accounting, and regulatory capital treatments. Specifically, these securities are taxed like debt obligations, so interest payments are tax deductible and the company may enjoy a significantly lower cost of funding.

Trust preferred securities are not recorded as liabilities on a company's balance sheet according to GAAP. If issued by a bank holding company, they are treated as capital rather than liabilities under banking regulations, and may be treated as part of Tier 1 capital.

Assesses Bank Hybrid Securities in the Context of the Credit Crisis", #112358), Moody's Investors Service raised concerns that the systemic support extended to depositors and senior creditors did not generally extend to hybrid investors, which were experiencing losses. As the crisis deepened, governments provided extraordinary levels of support to banks, which indirectly benefited hybrids in a number of cases. With the proposed changes, Moody's Investors Service aims to ensure that bank hybrid rating practices accurately capture hybrid risk across banking systems, are transparent, allow for consistent ratings globally, and remain applicable when the market returns to more normal conditions.

[2] A preferred stock's arrears are, in most cases, the cumulative total of omitted dividends. Some cumulative preferred stock charters, however, only allow arrears to accumulate for a limited number of periods.

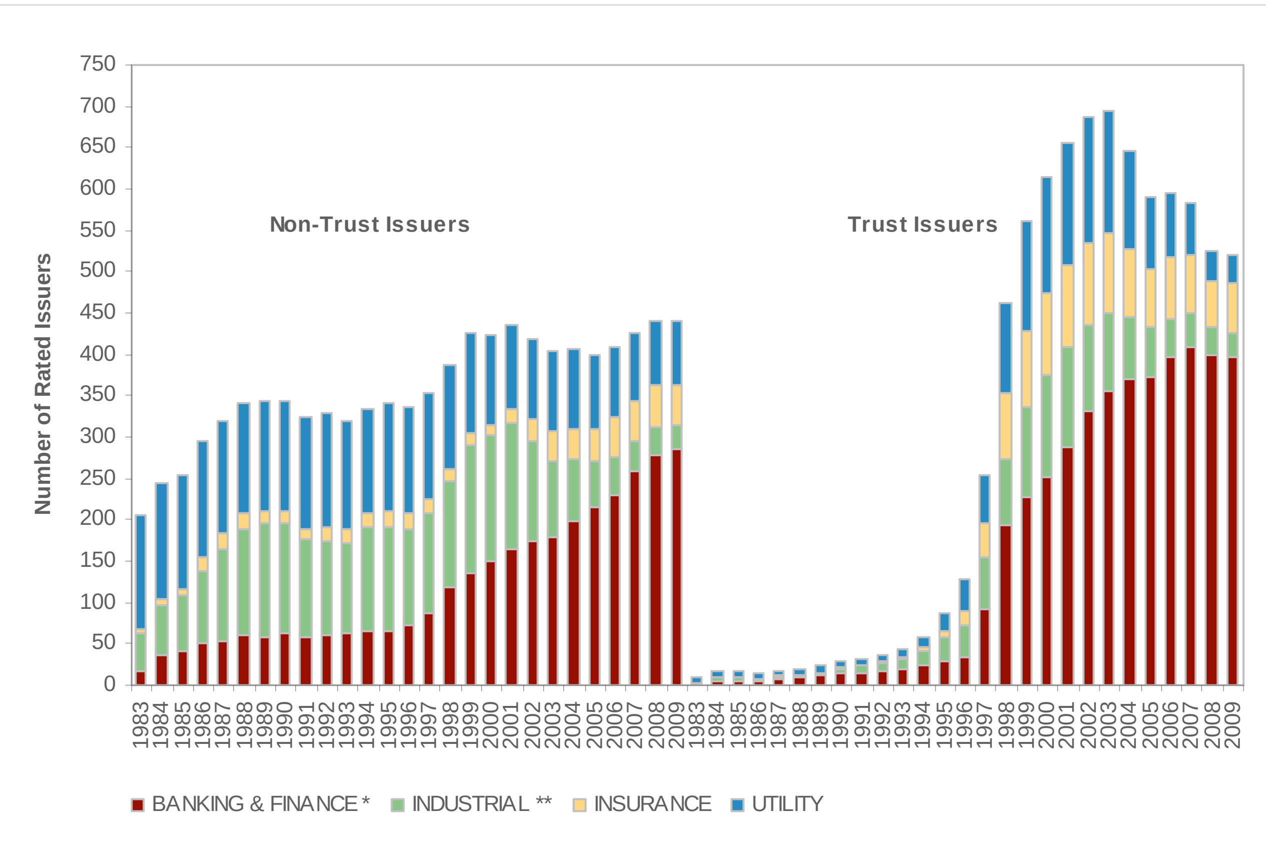
1.2 Preferred Stock Issuers

The results of this paper, compiled from various subscription databases of defaults and ratings, focus on corporate preferred stock issuers. Consequently, the sample used excludes leveraged income and other funds that issue preferred stock, as well as preferred stock issued as a component of a structured finance vehicle.

As of January 1st, 2009, Moody's Investors Service had outstanding ratings on 1,802 preferred stocks aggregating to about $619 billion par value. These securities were issued by 1,019 firms, 772 of which or 76% are domiciled in the United States. The second-most represented domicile is Jersey (39 firms) followed by Cayman Islands (32 firms) and the United Kingdom (29 firms). The remaining issuers are divided among 33 other countries.

Exhibit 1 reports the number of rated corporate preferred stock issuers – non-trust and trust issuers – at the beginning of each year over the 1983-2009 period. The most notable increase has been in the number of Banking & Finance issuers starting in 1997, due mostly to the favorable tax, accounting, and credit treatment of preferred stock. The easing credit market conditions in early 2000s, on the other hand, allowed the industrial issuers to substitute preferred stock by switching to lower cost debt.

Exhibit 1: Issuers of Non-Trust and Trust Preferred Stock by Sector at the Beginning of the Year, 1983-2009

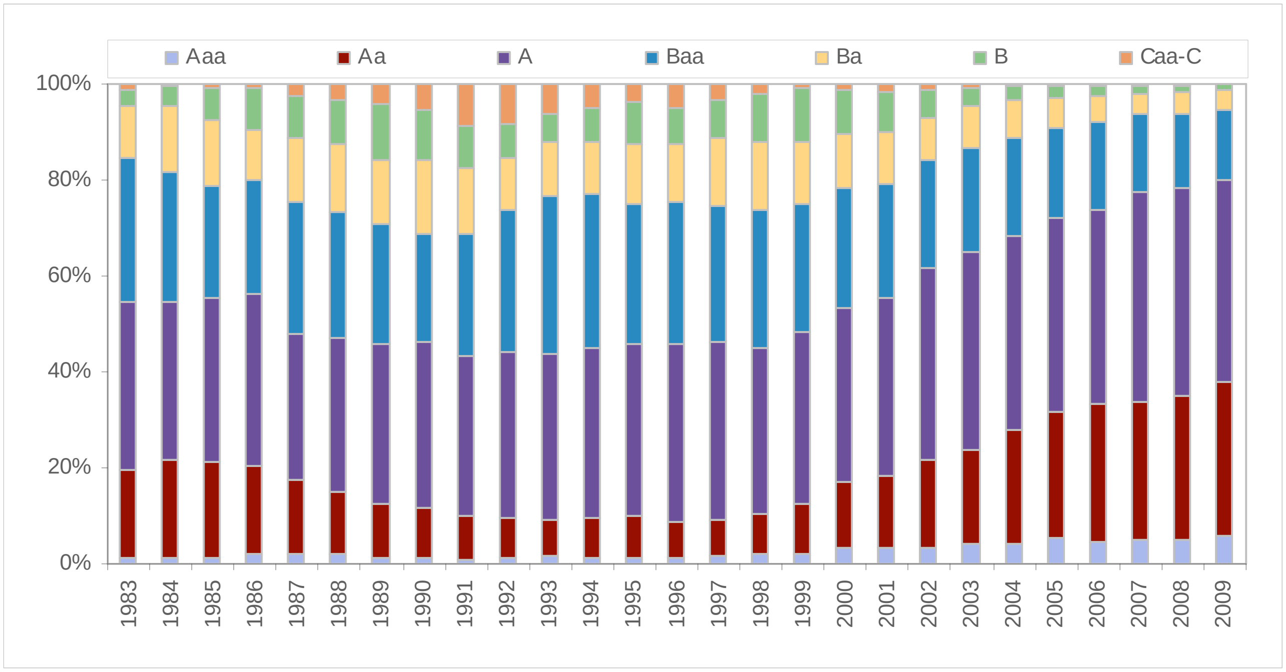


** includes Banking, Finance, Real Estate Finance, Thrifts, Securities and Non-Bank Financial Institutions.*
*** includes Industrials and Transportation.*

The data in Exhibit 2 provide a cross-section of the universe of rated non-trust preferred stock issuers by their senior unsecured issuer rating at the beginning of every year for the 1983 to 2009 period. The cumulative percentage of preferred stock issuers with investment-grade issuer ratings exhibits credit cycle cyclicality. This ratio rises from a low of 69% in 1990 to a high of almost 95% in early 2009.

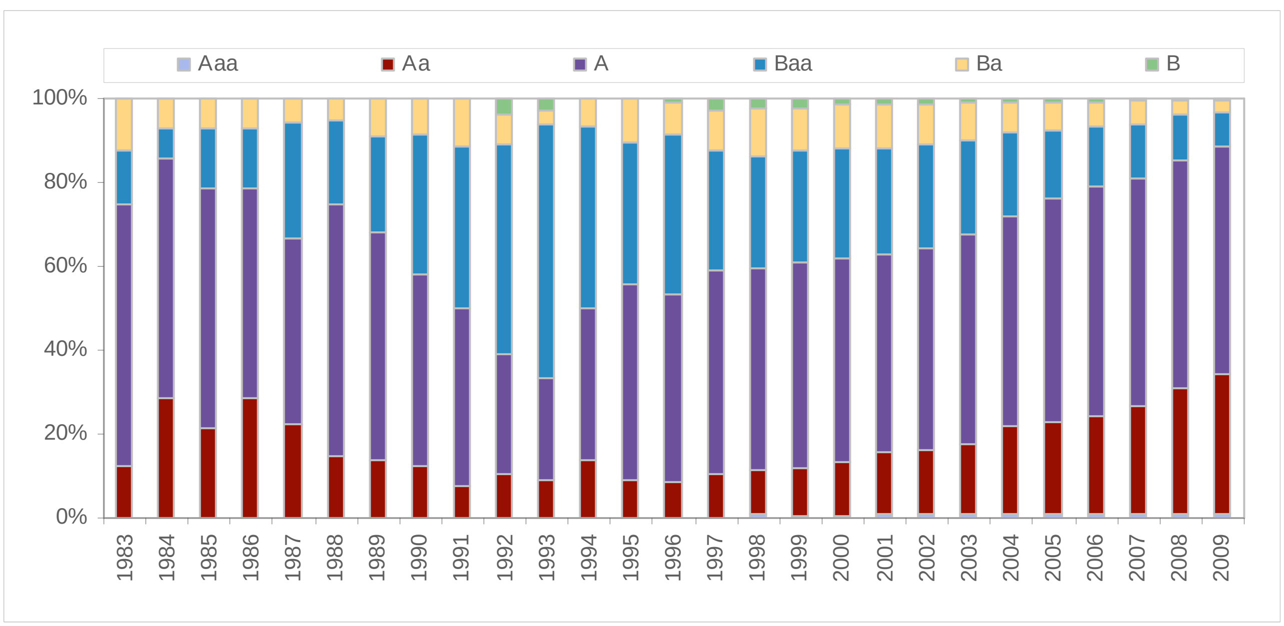
Preferred Stock Impairments and Recovery Rates 1983-2008

Exhibit 2: Senior Unsecured Ratings of Issuers of Non-Trust Preferred Stock at the Beginning of the Year, 1983-2009



Similarly, Exhibit 3 reports a cross-section of the universe of rated trust preferred stock issuers by their senior unsecured issuer rating at the beginning of every year over the 1983-2008 period. As was reported in Exhibit 1, the number of issuers of trust preferred stock increased considerably after 1997. As of January 1st, 2009 investment grade companies constituted about 97% of the universe of issuers of trust preferred stock.

Exhibit 3: Senior Unsecured Ratings of Issuers of Trust Preferred Stock at the Beginning of the Year, 1983-2009



2. Impairments on Preferred Stock: Omitted Dividends and Defaults

In this paper, we consider a dividend "*omitted*" or "*passed*" if it was not declared either in the amount or at the regular dividend date prescribed in the prospectus. We highlight omitted dividends not because they represent a breach of contract, but because they are significant credit events. A "*default*" in preferred stock occurs when, 1) contractual obligations (such as sinking fund payments or redemptions) are not met, 2) preferred stockholders are forced to exchange the issue for one of lower economic value in an issuer-distressed situation, or 3) the firm is forced into bankruptcy by creditors. Dividend impairments may consist of either omitted dividends or default.

2.1 Sample of Non-Trust Preferred Stock Defaulters

Over the 1983 to 2008 period, 230 issuers rated by Moody's Investors Service worldwide had impairments on preferred stocks. Exhibit 4 reports the frequency of impairments for issuers of non-trust preferred stock by year and the nature of the initial impairment event.

Exhibit 4: Initial Impairment Events for Issuers of Non-Trust Preferred Stock, 1983-2008

	Nature of Event						
Default Year	Dividend Omission	Distressed Exchange	Missed Payment*	Bankruptcy/ Chapter11**	Seized/ Receivership	Other***	Total
1983	1	0	0	0	0	0	1
1984	5	0	0	1	0	0	6
1985	7	0	1	0	0	0	8
1986	11	0	2	0	0	0	13
1987	3	0	0	0	0	0	3
1988	4	0	1	0	0	1	6
1989	6	1	3	1	0	0	11
1990	11	1	3	4	0	1	20
1991	9	0	9	4	0	0	22
1992	10	0	3	3	0	0	16
1993	4	0	2	3	0	0	9
1994	2	0	2	0	0	0	4
1995	2	0	3	0	0	0	5
1996	6	0	0	1	0	0	7
1997	0	0	0	2	0	0	2
1998	2	0	2	2	0	0	6
1999	4	0	0	1	0	0	5
2000	6	0	0	4	0	0	10
2001	6	1	9	1	0	3	20
2002	6	1	9	7	0	0	23
2003	2	0	0	1	0	0	3
2004	1	0	1	3	0	0	5
2005	2	0	0	3	0	0	5
2006	0	0	2	1	0	0	3
2007	0	0	0	0	0	0	0
2008	8	3	0	2	4	0	17
Total	**118**	**7**	**52**	**44**	**4**	**5**	**230**

**Includes 1) Missed Interest Payment, 2) Missed Principal Payment and 3) Missed Principal and Interest Payments*
*** Includes 1)Bankruptcy, 2) Chapter 7, 3)Chapter 11 and 4) Prepackaged Chapter 11*
**** Includes 1) Bank Holiday and 2) Suspension of Payments*

Preferred Stock Impairments and Recovery Rates 1983-2008

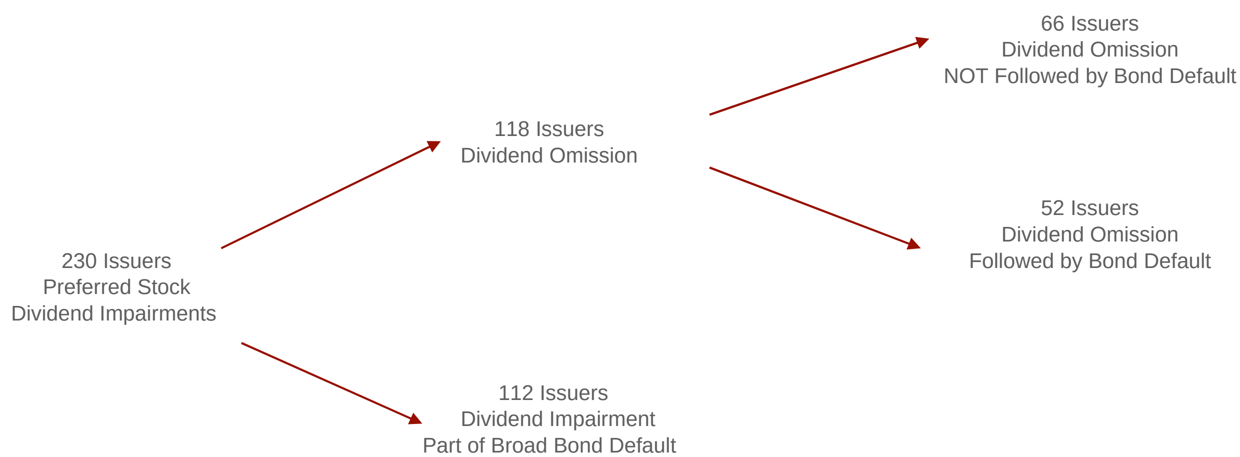
Exhibit 5 reports the industrial breakdown of the issuers that had impairments on their non-trust preferred stock.

Exhibit 5: Non-Trust Preferred Stock Impairments by Industry, 1983-2008

Broad Industry	Frequency of Issuers of Non-Trust Preferred Stock
Industrial	161
Banking	14
Public Utility	12
Non-Bank Finance	11
Transportation	10
Insurance	9
Thrifts	8
Real Estate Finance	5
Total	**230**

Exhibit 6 reports the nature of impairment events for the 230 issuers of non-trust preferred stock. Out of 230 non-trust issuers’ impairment on preferred stock, 112 issuers’ impairment was part of a broader bond default and the remaining 118 were dividend omissions. Fifty-two dividend omissions were followed by a subsequent broad bond default while the other 66 were mere dividend omissions not followed by a bond default.

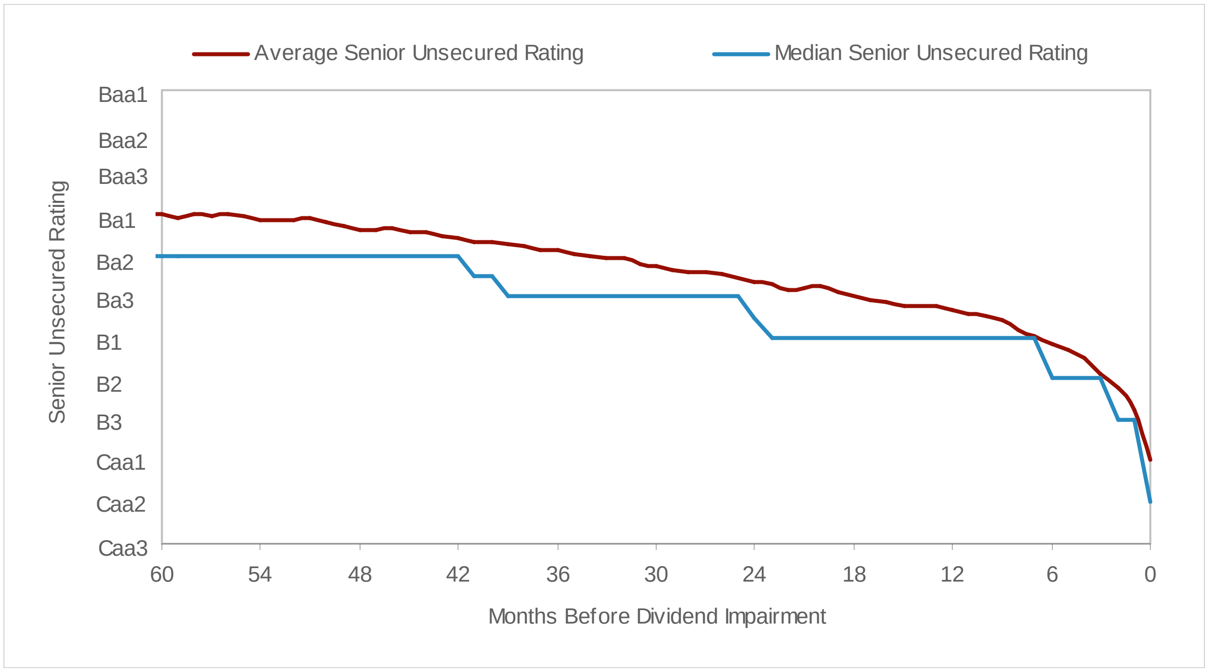
Exhibit 6 : Issuers of Non-Trust Preferred Stock by Nature of Initial Dividend Impairment Event



2.2 The Rating Performance of Issuers of Non-Trust Preferred Stock Prior to Impairments

In general, Moody's Investors Service issuer ratings have provided ample warning of deteriorating credit quality. The ratings have typically reflected the risk well in advance of any actual credit loss. Exhibit 7 reports the median and average senior unsecured rating of 230 issuers over the 60 months prior to the dividend impairment.

Exhibit 7: Median and Average Senior Unsecured Ratings of Non-Trust Issuers Months Before Preferred Stock Dividend Impairment All Dividend Impairment Events 1983-2008 (n=230)



Both the average and the median issuer ratings begin to deteriorate approximately 42 months prior to the impairment. The median senior unsecured rating is Ba2 five and four years prior to impairment, Ba3 three years prior to dividend impairment, and B1 two and one years prior to the dividend impairment. The swift decrease in the ratings of the issuers is more apparent over the 12 months prior to the dividend impairment. The median rating was B2 six months prior to dividend impairment and B3 over the three months prior to the dividend impairment. The average senior unsecured rating of issuers whose preferred stock dividends are impaired exhibits a similar pattern in terms of deterioration. Within one month of impairment, the average senior unsecured rating falls to Caa1 while the median senior unsecured rating falls to Caa2.

As initial impairment events constitute two separate classes of credit events with different severity; namely bond defaults and dividend omissions, they warrant further analysis. Appendices 1 and 2 report the similar analysis for preferred stock impairments that are part of broader bond defaults and those that comprise only dividend omissions, respectively.

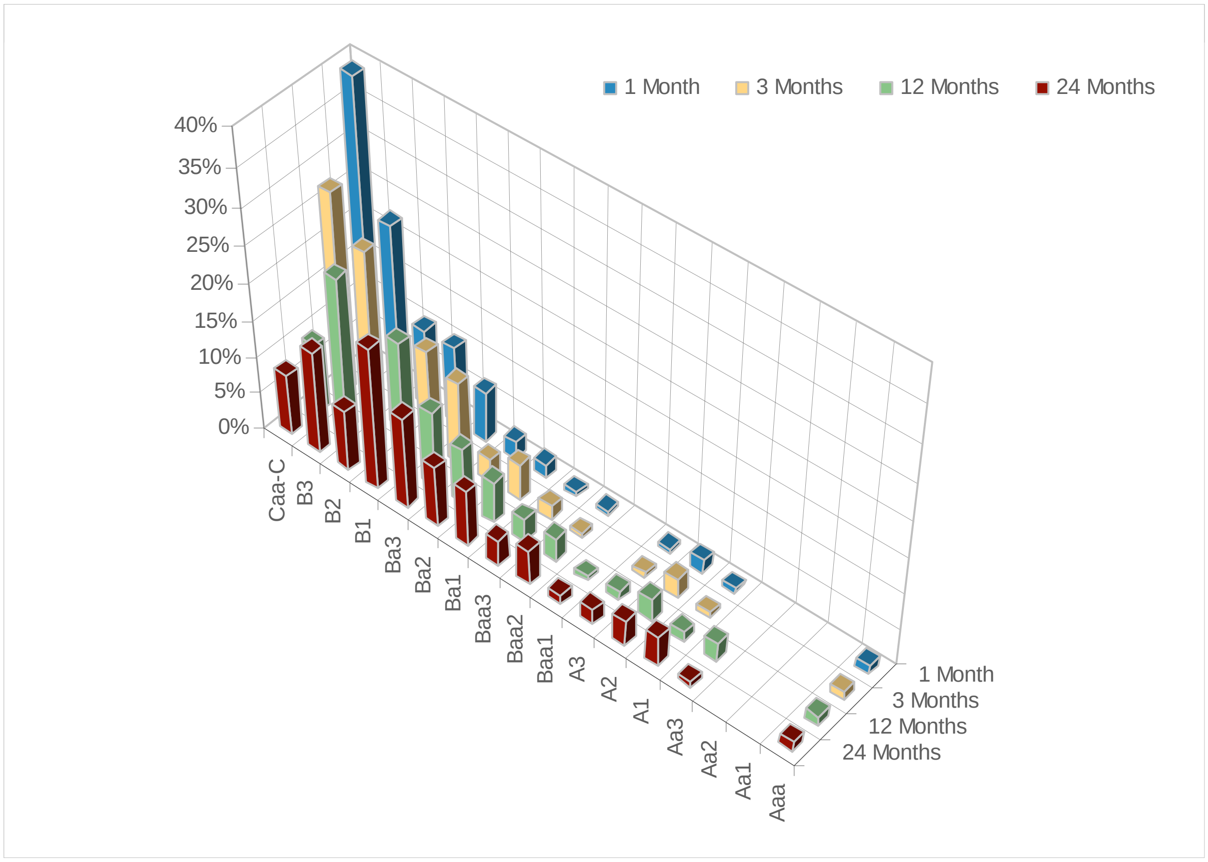
Appendix 1, as expected, shows that the level of issuers' average and median senior unsecured ratings for preferred stock impairments that are part of broader bond defaults were usually lower (worse) than those reported in Exhibit 7 over the five year period prior to the impairment. The rating difference was usually in the range of one notch. Similarly, Appendix 2 shows that the level of issuers' average and median senior unsecured ratings for dividend omissions were usually higher (better) than those reported in Exhibit 7 over the five year period prior to the impairment.

Preferred Stock Impairments and Recovery Rates 1983-2008

Exhibit 8 shows the progression of the distribution of senior unsecured ratings in successive periods prior to impairment. The graph highlights the extent to which issuers that will have impairments in the future are concentrated in the speculative grade rating categories beginning two years before the actual dividend impairment event. As anticipated, the senior unsecured ratings of the issuers migrate to lower ratings prior to impairment.

As initial impairment events exhibit different levels of loss severity, Appendices 3 and 4 report similar progression of the issuers' senior unsecured ratings for preferred stock impairments that were part of broader bond defaults and those with only dividend omissions, respectively. Appendix 3 shows that the senior unsecured ratings of issuers with preferred stock impairments that are part of broader bond defaults were concentrated mostly in the lower rating categories. On the other hand, Appendix 4 shows that the distribution of issuers' senior unsecured ratings were more widespread over the same period.

Exhibit 8: Distribution of Senior Unsecured Ratings of Issuers of Non-Trust Preferred Stock Prior to Dividend Impairment.
All Dividend Impairment Events, 1983-2008 (n=230)



Another interesting observation that emerges from Exhibit 8 is that a group of issuers carry investment grade ratings as of one year prior to the impairment and they continue to do so as they approach impairment.

2.3 Severity of Losses Associated with Passed Dividends and Defaults

In the event that losses are incurred, the severity of losses would likely depend on the type of credit event. For that reason, we begin this section with a discussion of the frequency of different types of dividend impairment scenarios.

Once dividends have been omitted, the situation may resolve itself in any number of ways. The issuer may subsequently clear arrears, exchange the issue, or default on debt and remain in arrears on preferred stock. When arrears are cleared, they may be and often are settled with common or preferred stock, or even bonds instead of cash. When an issuer defaults on debt, it typically ends up in bankruptcy court and the value of its preferred stock plummets. In cases where the issue is exchanged, the offered issue is often the common stock or preferred stock with a lower stated dividend payment.

Of those incidents where dividends omissions were followed by a bond default, the median number of days from dividend omission to bond default was 239 days. Exhibit 9 reports the distribution of number of days from dividend omission to the subsequent bond default.

Exhibit 9: Number of Days from Dividend Omission to Subsequent Bond Default

	Number of Days from Dividend Omission to Subsequent Bond Default
Mean	268
Std Dev	195
Minimum	1
25th Pctl	111
Median	239
75th Pctl	406

One way to estimate the severity of dividend impairment is to consider the market's reaction to the event. In order to do that, we look at the trading price of the preferred stock approximately one month after the pay date for the passed dividend. This month-long lag gives the market sufficient time to assess the situation and price the stock accordingly. Because holders have claim to liquidation or par value in the event of bankruptcy, presenting these 30-day post-default prices as a percentage of the liquidation or par value provides an estimate of the expected recovery. The expected severity is simply one minus the expected recovery.

We were able to obtain prices for the preferred stocks in the sample as of one month after the initial dividend impairment. For an issuer that had more than one preferred stock experiencing dividend impairment, we computed the value-weighted average of recovery rates for that issuer's preferred stocks based on the defaulted amount of the preferred stocks.

Exhibit 10 reports the issuer-weighted recovery rates for the non-trust preferred stock by the nature of the initial impairment event.

The declining recovery rates by increasing severity of the impairment events indicate that there is an inverse relationship between the severity of the first default event and the recovery rate. Dividend omissions have the highest average [median] recovery rate of 33.4% [29.7%] and the four regulator seizures and receivership cases from 2008 have the lowest recoveries with an average of 0.19% and a median of 0.25%.

Preferred Stock Impairments and Recovery Rates 1983-2008

Exhibit 10: Issuer Weighted Recovery Rates based on 30-Day Post-Default Market Prices for Issuers of Non-Trust Preferred Stock by Type of Initial Event, 1983-2008

		Initial Event Type					
		Dividend Omission	Distressed Exchange	Missed Payment	Bankruptcy / Chapter 11	Seized/ Receivership	Other
Non-Trust Preferred Stock	Mean	33.44%	21.76%	19.98%	14.69%	0.19%	2.11%
	Median	29.66%	22.00%	7.91%	4.50%	0.25%	2.00%
	Std Dev.	26.80%	20.39%	21.04%	26.84%	0.13%	1.77%
	10th Perc.	3.20%	0.84%	1.00%	0.80%	0.04%	0.20%
	25th Perc.	11.32%	4.42%	6.25%	1.20%	0.04%	0.73%
	75th Perc.	51.17%	39.10%	34.68%	9.13%	0.28%	3.50%
	90th Perc.	70.00%	42.20%	54.97%	38.75%	0.28%	4.25%

Exhibit 11 reports the issuer weighted estimated recovery rates for dividend impairment of issuers with special emphasis on dividend omissions as the initial event. For the issuers that omitted dividends but that did not default subsequently on any other obligation, the average [median] recovery rate was 35.9% [34.6%] of the liquidation or par value of the preferred stock. For the issuers that first omitted dividends on their preferred stock and then defaulted on bonds, the average [median] recovery rate was 30.2% [19.8%]. More importantly, the average [median] recovery rate was 15.9% [6.4%] for issuers whose dividend impairment on preferred stock was part of a broader bond default. These figures signify the increased severity of immediate or imminent broader default versus dividend omissions from the market participants' perspective.

Exhibit 11: Issuer Weighted Recovery Rates for Dividend Impairment of Issuers of Non-Trust Preferred Stock

Based on 30-day Post-Default Market Prices, 1983-2008

Event	Mean	Median	Standard Deviation	10th Percentile	25th Percentile	75th Percentile	90th Percentile
Dividend Omissions that Were Not Followed by Bond Default	35.93%	34.56%	26.84%	3.28%	11.70%	53.50%	72.00%
Dividend Omissions Followed by Subsequent Bond Default	30.20%	19.75%	26.72%	2.35%	10.38%	46.25%	70.00%
Preferred Stock Default Part of Outright Bond Default	15.86%	6.40%	22.51%	0.25%	1.25%	20.00%	53.85%

Exhibit 12 reports issuer-weighted recovery rates for non-trust preferred stock by the cumulative trait of defaulted preferred stock. The cumulative preferred stock has a higher median recovery rate for dividend omissions compared to non-cumulative preferred stock. The average [median] recovery rate of cumulative non-trust preferred stock in dividend omissions that were not followed by subsequent bond default is 41.5% [38.0%] versus 26.2% [16.6%] for non-cumulative non-trust preferred stock. Similarly, the average [median] recovery rate of cumulative non-trust preferred stock in dividend omissions that were followed by subsequent bond default is 32.5% [24.5%] versus 26.3% [14.3%] for non-cumulative non-trust preferred stock. These recovery rates corroborate the market's assessment in 30-day post default prices that the omitted dividends on non-cumulative preferred stock are lost forever.

On the other hand, for the preferred stock defaults that were part of an outright bond default, the average [median] recovery rates are 18.4% [4.8%] and 12.7% [6.6]% for cumulative and non-cumulative preferred stock, respectively, and significantly lower than those observed for dividend omissions. Therefore, the nature of the default event here again indicates that the market does not anticipate higher recovery rates on defaulted preferred stock when the initial default event is a more serious bond default.

Preferred Stock Impairments and Recovery Rates 1983-2008

Exhibit 12: Recovery Rates for Dividend Impairment of Issuers of Non-Trust Preferred Stock versus Cumulative Trait, 1983-2008

Dividend Omissions Not Followed by Subsequent Bond Default		All Defaults	Cumulative	Non-Cumulative
Recovery Rates on Preferred Stock	Mean	35.93%	41.51%	26.24%
	Median	34.56%	38.00%	16.63%
Dividend Omissions Followed by Subsequent Bond Default		All Defaults	Cumulative	Non-Cumulative
Recovery Rates on Preferred Stock	Mean	30.20%	32.54%	26.30%
	Median	19.75%	24.50%	14.30%
Preferred Stock Impairment Part of Outright Bond Default		All Defaults	Cumulative	Non-Cumulative
Recovery Rates on Preferred Stock	Mean	15.86%	18.36%	12.66%
	Median	6.40%	4.75%	6.60%

Exhibit 13 reports recovery rates on other debt instruments in the capital structure of issuers that defaulted on their preferred stock as part of an outright bond default. The recoveries on bank loans and bonds result in declining order as would be anticipated in an absolute priority of claims framework.

Exhibit 13: Issuer Weighted Recovery Rates for Dividend Impairment of Issuers of Non-Trust Preferred Stock that are part of Outright Bond Default, 1983-2008

		All Defaults	Distressed Exchange	Missed Payment	Bankruptcy/ Chapter 11	Seized/ Receivership	Other
Recovery Rates on Preferred Stock	Mean	15.86%	21.76%	19.98%	14.69%	0.19%	2.11%
	Median	6.40%	22.00%	7.91%	4.50%	0.25%	2.00%
Recovery Rates on Bank Loans	Mean	66.59%	.	58.18%	76.05%	.	62.94%
	Median	75.00%	.	62.50%	89.61%	.	62.94%
Recovery Rates on Senior Secured Bonds	Mean	55.09%	.	60.86%	47.39%	.	.
	Median	55.00%	.	55.22%	41.50%	.	.
Recovery Rates on Senior Unsecured Bonds	Mean	30.48%	64.28%	47.25%	24.00%	3.33%	.
	Median	23.00%	64.28%	35.00%	15.00%	3.00%	.
Recovery Rates on Subordinated Bonds	Mean	25.58%	17.01%	25.32%	31.75%	1.00%	.
	Median	17.39%	17.01%	21.71%	17.70%	1.00%	.

3. Impairments on Trust Preferred Stock

The increasing volume of trust preferred stock issuance since 1997 and the subsequent, but limited, impairment evidence necessitates that the historical performance, impairment and recovery of trust preferred stock be examined.

3.1 Sample of Trust Preferred Stock Defaulters

Between 1983 and 2008, 39 issuers rated by Moody's Investors Service and one unrated issuer experienced impairments on a total of 51 trust preferred stock issues. Exhibit 14 reports the frequency of impairments for rated issuers of trust preferred stock by year and the nature of the impairment event.

*Exhibit 14: Initial Impairment Events for Issuers of Trust Preferred Stock, 1983-2008**

	Nature of Event				
Default Year	Dividend Omission	Missed Payment**	Bankruptcy/ Chapter 11***	Other****	Total
1990	0	1	0	0	1
1998	0	1	0	0	1
1999	6	0	0	1	7
2000	3	0	1	0	4
2001	5	0	3	4	12
2002	2	1	0	1	4
2003	0	0	2	0	2
2004	2	0	0	0	2
2005	0	0	3	0	3
2006	1	1	0	0	2
2007	0	0	0	0	0
2008	0	0	1	0	1
Total	**19**	**4**	**10**	**6**	**39**

** In years that do not appear in the table, no impairments occurred*
*** Includes 1) Missed Interest Payment, 2) Missed Principal Payment and 3) Missed Principal and Interest Payments*
**** Includes 1)Bankruptcy, 2) Chapter 11 and 3) Prepackaged Chapter 11*
***** Includes 1) Bank Holiday and 2) Suspension of Payments*

Exhibit 15 reports the industrial breakdown of the issuers that had impairments on their trust preferred stock.

Exhibit 15: Trust Preferred Stock Impairments by Industry, 1983-2008

Broad Industry	Frequency of Issuers of Trust Preferred Stock
Industrial	24
Insurance	5
Banking	3
Public Utility	3
Thrifts	2
Non-Bank Finance	1
Transportation	1
Real Estate Finance	0
Total	**39**

3.2 Severity of Losses Associated with Impairments of Trust Preferred Stock

We have been able to estimate the issuer-weighted recovery rate for impairments of the trust preferred stock. For that purpose, we have again utilized the trading price of the trust preferred stock approximately one month after the pay date for the passed dividend.

Exhibit 16 reports the issuer-weighted recovery rates for the trust preferred stock by the nature of the initial impairment event. The recovery rates for trust preferred stock are significantly lower compared to those of non-trust preferred stock (reported before). Dividend omissions have higher recovery rates than other impairment events which are relatively more severe. However, the small sample of recovery rate observations prohibits us from drawing more definitive conclusions.

Exhibit 16: Issuer Weighted Recovery Rates based on 30-Day Post Default Market Prices for Issuers of Trust Preferred Stock by Type of Initial Event, 1983-2008

		Initial Event Type			
		Dividend Omission	Missed Payment	Bankruptcy/ Chapter 11	OTHER
Trust Preferred Stock	Mean	18.09%	9.21%	11.02%	5.53%
	Median	7.75%	7.52%	3.20%	2.20%
	Std Dev.	25.88%	5.96%	15.75%	5.06%

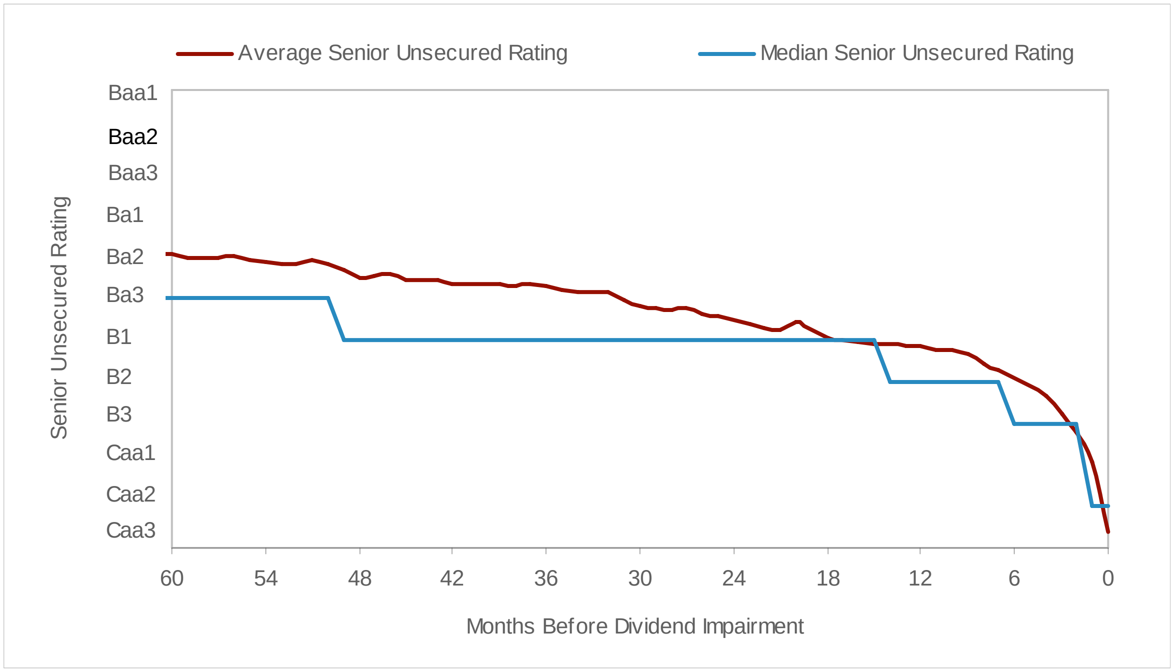
Exhibit 17 reports the issuer-weighted recovery rates for impaired trust preferred stock by the cumulative trait of impaired preferred stock. The cumulative preferred stock has a higher average [median] recovery rate of 17.5% [7.8%] compared to 7.4% [3.3%] that is observed for non-cumulative preferred stock. Again, the relatively smaller sample size does not allow us to generalize our observations.

Exhibit 17: Issuer Weighted Recovery Rates based on 30-Day Post-Default Market Prices for Issuers of Trust Preferred Stock against Cumulative Nature, 1983-2008

		Cumulative	Non-Cumulative
Trust Preferred Stock	Mean	18.09%	9.21%
	Median	7.75%	7.52%
	Std Dev.	25.88%	5.96%

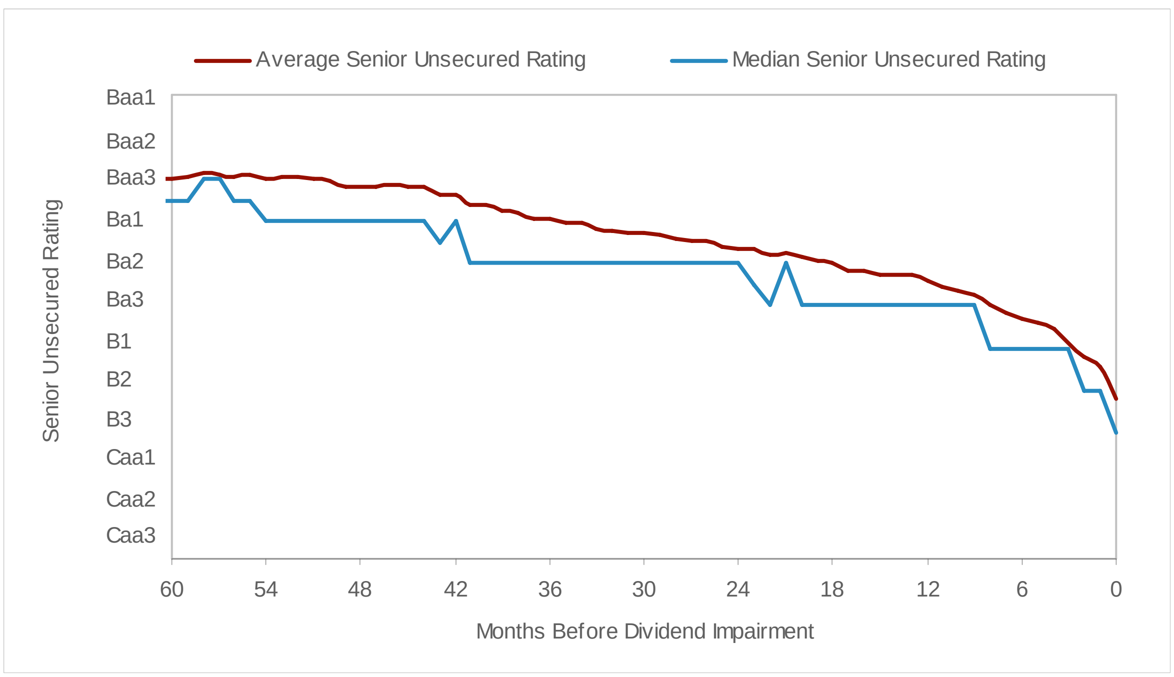
Appendix 1

Median and Average Senior Unsecured Ratings of Non-Trust Issuers
Months Before Preferred Stock Dividend Impairment
Dividend Impairment Part of Broad Bond Default 1983-2008



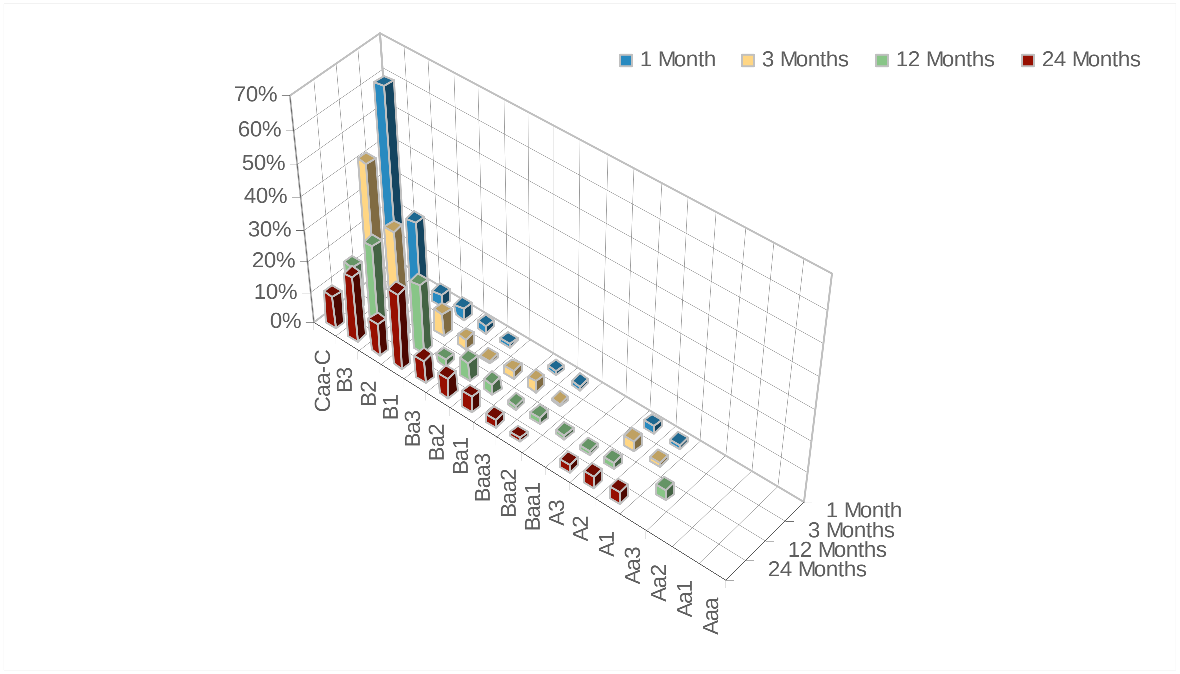
Appendix 2

Median and Average Senior Unsecured Ratings of Non-Trust Issuers
Months Before Preferred Stock Dividend Impairment
Dividend Omissions Only 1983-2008



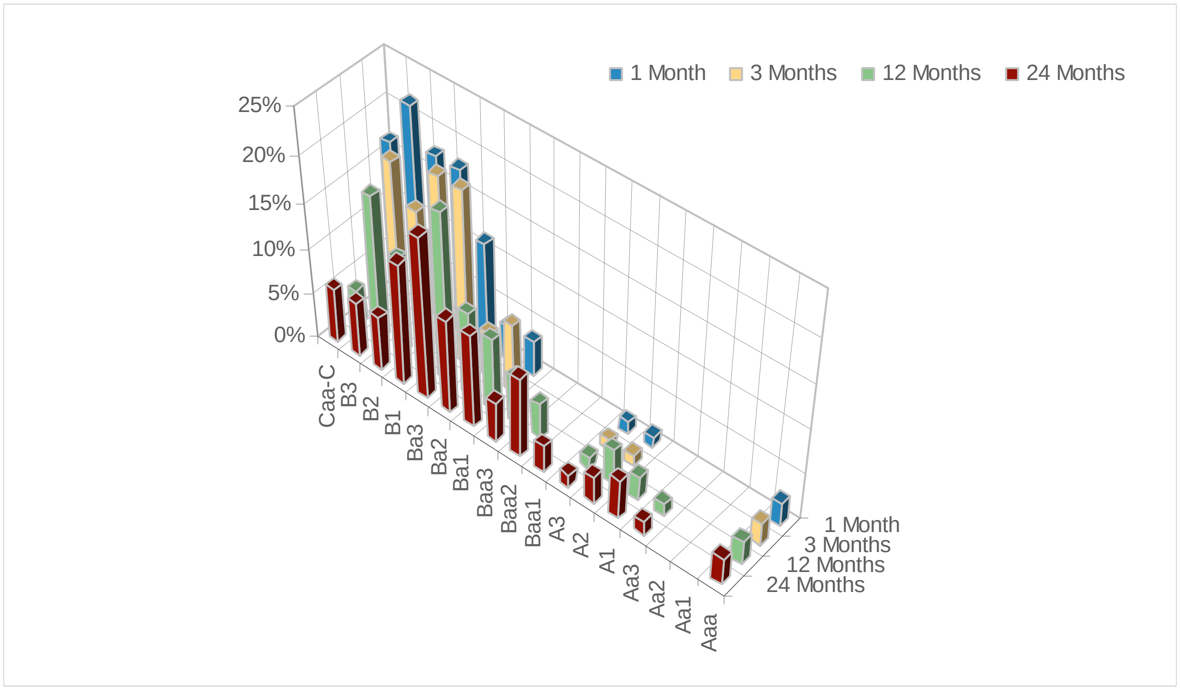
Appendix 3

Distribution of Senior Unsecured Ratings of Issuers of Non-Trust Preferred Stock Prior to Dividend Impairment.
Dividend Impairment Part of Broad Bond Default 1983-2008



Appendix 4

Distribution of Senior Unsecured Ratings of Issuers of Non-Trust Preferred Stock Prior to Dividend Impairment.
Dividend Omissions Only 1983-2008



Moody's Investors Service Related Research

- Moody's Proposed Changes to Bank Subordinated Capital Ratings, June 2009 (117894)
- Corporate Default and Recovery Rates, 1920-2008, February 2009 (114844)
- Moody's Assesses Bank Hybrid Securities in the Context of the Credit Crisis, December 2008, (112358)
- Rating Preferred Stock and Hybrid Securities, November 2006 (100692)
- Recovery Rates on Defaulted Corporate Bonds and Preferred Stock, 1982-2003, December 2003 (80272)

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