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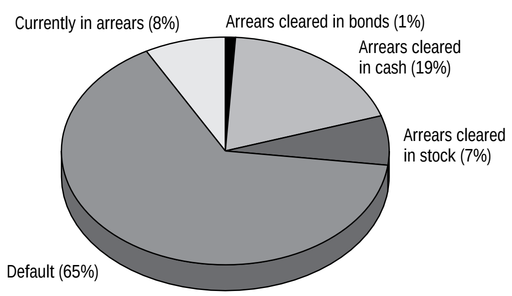
Moody's Preferred Stock Ratings and Credit Risk

Summary

This paper explains Moody's preferred stock rating system. We have prepared this report to assess our track record in evaluating preferred stock credit risk over the past 17 years and to aid investors in interpreting our preferred stock ratings. In 1973, Moody's reintroduced preferred stock ratings after having discontinued them in 1935. Prior to 1935, Moody's used its long-term bond rating symbols to summarize opinions of preferred stocks. Unlike debt ratings, preferred stock ratings are intended to measure the relative risk that the company will not be able or willing to make timely payment of *dividends* or *redemption commitments* associated with specific preferred issues. Because preferred stock affords a distinct set of risks, there is no mapping from the long-term bond rating system to the preferred stock system or vice versa. This study of preferred stock credit risk reveals that:

- The risk of dividend impairment within one year of assignment or revision of a preferred stock rating is 0% for "aaa"- and "aa"- rated issues, 0.05% for "a"-, 0.35% for "baa"-, 2.62% for "ba"-, and 7.92% for "b"-rated preferred stocks. The pattern of lower dividend impairment risk for higher rated preferred stock is usually maintained for 10 years.
- One hundred and seventeen issuers worldwide have omitted dividends on 227 Moody's-rated preferred stocks since January 1980.
- Just six issuers that omitted dividends had investment grade preferred stock ratings as of January 1 of the year in which the dividend was omitted.
- Since 1980, the median rating of preferred stocks that omitted dividend payments was "b1" one year before dividend omission, "ba3" two years before dividend omission, and "ba2" three years before dividend omission.
- The median price of 149 rated preferred stocks of issuers that omitted dividends was 40.1% of liquidation or par value within one month after the dividend impairment. Of these preferred stocks, 98 were issued by firms that eventually defaulted on debt. The median price of these 98 issues was just 9.9% of the liquidation or par value within one month of default.

Frequency of Resolutions to Preferred Stock Dividend Omissions (117 = 100%)



This report discusses historic patterns of preferred stock issuance, the relationship between preferred stock ratings and long-term debt ratings, and losses associated with omitted dividends and defaults. The results on omitted dividends are derived from Moody's database of preferred stock ratings, preferred stock dividends, and corporate bond defaults.

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Introduction

This report updates and extends Moody's continuing research on preferred stock credit risk. Moody's applies the preferred stock rating system to securities which pay dividends rather than interest, lack a commitment to repay principal at maturity, and which maintain a legal equity status. Traditionally, preferred stock or preference shares have been used only in English speaking countries, but because preferred stock is an attractive source of non-dilutive tier-one capital for banks subject to BIS rules, it has been used by an increasingly geographically diverse pool of issuers.

From 1980 through the end of 1997, 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 dramatically and credit quality drifted lower. These trends have demonstrated the importance of credit analysis to fixed income investors. We prepared this report to assess our track record over the past 17 years and to aid investors in interpreting our preferred stock ratings.

The report starts with an overview of preferred stock, Moody's ratings for preferred stock, and characteristics of the universe of Moody's-rated preferred stock. It then analyzes rating, dividend, and price data to quantify the historical risks of dividend impairment and economic loss associated with Moody's preferred stock ratings. The appendix includes definitions of Moody's preferred stock ratings. In 1973, Moody's reintroduced preferred stock ratings after having discontinued them in 1935. Prior to 1935, Moody's used its long-term bond rating symbols to summarize opinions of preferred stocks. By 1973, however, investor sophistication and securities analysis had progressed a great deal, and a need had developed among investors for a consistent and meaningful credit ranking system for this unique asset class. To alert investors to the different risks stemming from a preferred stock's equity characteristics, Moody's began to rate preferred stock on a separate scale than that used for long-term debt. Moody's preferred stock ratings employ all lower-case letters surrounded by double quotation marks, e.g. "ba1".

An Overview of 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 is generally cumulative with respect to dividends (over 95% of the Moody's-rated universe as of January 1, 1998). The cumulative trait requires that arrears[1] be "cleared" through payment to the preferred stockholders before the distribution of any common stock dividend.

Preferred stock is also typically non-voting. This feature relieves 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 holders to elect a minority of board members after a specific number of omitted dividend payments. Finally, preferred stock is also most commonly callable.

The dividends on preferred stocks may be paid at either fixed or variable rate. Fixed rate preferred stock investor is entitled to a predeterminable rate dividend payment in either cash or "in kind" (additional shares of preferred stock), and it is usually based on the par value of an underlying share of preferred security, or fixed dollar amount per share. On the other hand, a variable rate preferred stock pays a dividend which varies through life of the security. The variable rate is typically reset quarterly at a fixed spread over a benchmark specified in legal documents of the particular issue of preferred stock.

For the issuer, preferred stock is advantageous because its non-recourse nature allows in periods of great financial stress a degree of payment flexibility that bonds do not offer. 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.

1 *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.*

Since there are tax advantages for corporations receiving preferred dividends from qualifying issuers, institutional investors tend to populate the preferred stock market.[2] These investors are attracted to high after-tax yields and the senior position over common equity in the event of bankruptcy. However, preferred holders accept a cap on the upside potential of the firm by not participating in extra dividends[3], while gaining only limited protection in the event of bankruptcy. Investors may not legally pursue passed dividends, and when dividend arrears are cleared, they are often exchanged for additional preferred or common stock.

Preferred stock's junior position to debt and the inability of its holders to force bankruptcy in the event of a passed dividend create different risks from those associated with debt. First, there is the risk of a disruption in the dividend stream. Second, in the event of a disruption, there is the risk that the issuer will not resume payments or, in the case of cumulative preferred, clear arrears. Even if arrears are cleared, there is the risk that they will be exchanged for additional, possibly illiquid, common or preferred stock or bonds. Finally, there is the risk of bankruptcy. The claim of a preferred stock holder is senior to that of common equity holders and possibly to that of some other preferred stock holders. However, in the event of a bankruptcy, the firm most likely would already have a negative net worth, and the preferred stock holders can generally expect to receive almost nothing. In the sections that follow, we examine how Moody's preferred stock ratings reflect these risks.

Different Rating System for Preferred Stocks

Unlike debt ratings, preferred stock ratings are intended to measure the relative risk that the company will not be able or willing to make timely payment of *dividends* or *redemption commitments* associated with specific preferred issues. The ratings are relative risk classifications in that they apply only *within* the universe of preferred stocks. They reflect the risk that an issuer under stress may choose to forego or delay a promised dividend. Because preferred stock affords a distinct set of risks, *there is no mapping from the long-term bond rating system to the preferred stock rating system or vice versa.*

Ratings on preferred stock summarize our opinion concerning expected credit loss. Mathematically, expected credit loss is the probability of a negative credit event multiplied by the likely severity of the accompanying loss. Because preferred stockholders rank junior to debt holders in the event of default, the rating system anticipates a lower recovery in a liquidation. Thus, each symbol translates into a higher expected loss than its bond counterpart. For debt holders, bankruptcy and liquidation are the typical credit events which generate losses, but for preferred stock it may also be some form of dividend impairment. Dividend impairment could be the result of the firm deciding not to declare preferred dividends, as is commonly the case.

The long-term bond and preferred stock ratings of a particular issuer are related only to the extent that the fundamental analyses supporting the different ratings are similar. The main difference between the two rating systems derives from the issuer's legal obligation to make timely debt payments versus the absence of a legal obligation to declare dividends on preferred stock. An issuer may elect to suspend a preferred dividend without risking legal action by preferred holders. This might occur, for example, if a firm failed to meet an internal earnings target. Debt obligations, by contrast, force issuers to go to great lengths to make the agreed upon interest and principal payments. Consequently, debt holders can have greater confidence in the certainty of their payment stream.

The less stringent requirements for the payment of preferred stock dividends require additional analysis in assigning and reviewing ratings. A firm's ability to pay dividends depends, in large part, on its capacity to generate long-run profits and on its earnings volatility. An inability to generate sufficient after tax profits or a great degree of volatility in earnings would increase the likelihood of encountering distressed situations in which preferred dividends could be missed ("passed"). For this reason, a firm's ability to generate a steady stream of after tax profits is of primary importance in analyzing preferred stock.

However, management does have strong incentives to declare timely and full preferred dividends even though missing, or "passing" preferred dividends does not immediately threaten the firm with bankruptcy. Preferred stock charters usually provide for the election of a minority of board members after a certain number of consecutively passed dividends. In this way, management could lose a certain amount of control over the firm. Additionally, the firm must declare preferred dividends before declaring any common divi-

2 *Most preferred stocks allow corporate holders a 70% dividend exclusion from taxable income.*
3 *Some preferred stock allows holders to participate in dividends beyond the stated amount, thereby removing the cap to the upside potential of the firm. See the glossary at the end of this report for more on "participating preferred stock."*

dends. Since the vast majority of preferred stock is cumulative with respect to dividends, failure to declare preferred dividends usually raises a hurdle over which the firm must leap before it can pay common dividends. Consequently, passing preferred dividends effectively disenfranchises the (voting) common equity holders. Moody's considers these incentives to be very powerful in all but dire financial situations.

Because an investment grade long-term bond rating generally requires stable and high profits, the preferred stock of such a firm is usually also investment grade. Most often, the credit ranking of the preferred issue is at or near the same level on the preferred stock rating scale as the firm's senior unsecured debt is on the long-term bond rating scale. However, because an issuer's ability to declare preferred stock dividends is more susceptible to declines in profitability and/or increases in earnings volatility than is its promise to make debt payments, either of these eventualities may lead to a larger relative decrease in a firm's preferred stock ratings than in its long-term bond ratings. As a result, a decline in credit quality may generate a spread between the preferred stock rating that is analogous to the firm's senior unsecured debt rating and its actual preferred stock rating. Exhibit 1 illustrates this pattern.

Exhibit 1: Rating Composition: Preferred Stock vs. Senior Unsecured Debt

Preferred Stock Rating	Senior Unsecured Bond Rating															
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3
"aaa"	100.0%															
"aa1"																
"aa2"			37.5%	3.7%												
"aa3"			25.0%	66.7%	8.1%											
"a1"			37.5%	22.2%	67.6%	8.6%										
"a2"				3.7%	18.9%	60.0%	8.5%									
"a3"				3.7%	5.4%	31.4%	48.9%	3.0%								
"baa1"							36.2%	42.4%								
"baa2"							4.3%	48.5%	31.4%							
"baa3"							2.1%	6.1%	60.0%	22.2%						
"ba1"									8.6%	40.7%	18.8%					
"ba2"										37.0%	31.3%	13.3%				
"ba3"											50.0%		6.3%			
"b1"												73.3%	12.5%			
"b2"												13.3%	56.3%	5.9%		
"b3"													25.0%	64.7%	11.1%	100%
"caa"														29.4%	77.8%	
"ca"															11.1%	

Exhibit 1 is a cross-section of 344 issuers that had rated preferred stock and rated bonds outstanding as of January 1, 1998. Each column represents a preferred stock rating and each row corresponds to a senior (implied) unsecured long-term bond rating.[4] The cell entries are the frequencies of the senior-most preferred stock rating of firms with the senior unsecured bond rating given by the column heading. For example, of preferred stock issuers with senior unsecured debt ratings of Aa2, 37.5% have preferred stock rated "aa2".

The shaded cells along the diagonal show the percentage of issuers with preferred stock that is rated at the same level within the preferred stock rating system as the firm's senior unsecured debt is within the long-term bond rating system. For investment-grade issuers this is very often the case. But as the issuer's credit quality declines, the preferred stock suffers relatively more risk exposure than debt. Hence, the preferred stock rankings are reduced relatively more than are the long-term debt rankings.

Preferred stock ratings for firms with a given senior unsecured bond rating vary widely. This is predominantly the result of two factors. First, the preferred stock ratings are not rigidly benchmarked off the long-term bond rating scale. Since preferred stock ratings are relative risk classifications within the universe of preferred stock, they address unique credit risks that pertain to preferred stocks. Given the lack of a systematic link between the two systems, some dispersion is not surprising.

4 The senior (implied) unsecured rating is the rating on the firm's outstanding senior unsecured debt or, in the case where no such debt exists, the rating it would statistically most likely have received (this is inferred from the company's subordinated or secured debt). For the rest of this report we will refer to the senior (implied) unsecured rating as simply the senior unsecured rating.

Second, inter-industry differences in the treatment of preferred stock are reflected in very different ratings. For example, most large foreign banks enjoy implicit support from their government because it is felt that they are "too big to fail". For this reason, such banks are seldom liquidated at a loss to depositors or other creditors. Nonetheless, this protection may not extend to preferred stockholders. It is therefore conceivable that, in times of financial stress, preferred stock dividends could be omitted. For this reason, for many large foreign banks, the preferred stock rating is more indicative of the company's fundamental credit quality than the long-term bond rating. This is because the government's implicit support allows the long-term debt rating to be higher than it would be if the bond's creditworthiness depended solely upon the issuer's financial strength.

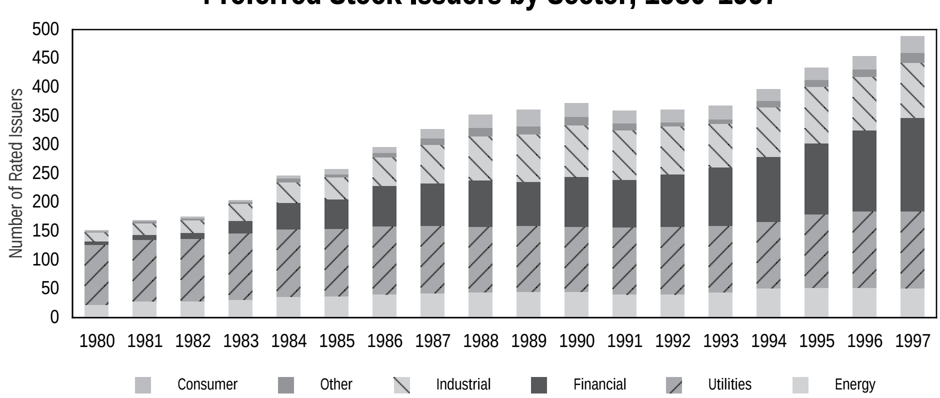
Moody's Database of Preferred Stock

The results of this study are compiled from Moody's proprietary database of corporate preferred stock ratings, Moody's "Annual Dividend Record," and Interactive Data Corp.'s database of preferred stock prices and dividends. This study focuses on corporate preferred stock issuers. Consequently, the sample used in this study excludes leveraged income and other funds which issue preferred stock, as well as preferred stock issued as a component of a structured finance vehicle.

As of year-end 1997, Moody's had outstanding ratings on 2,429 corporate preferred stocks aggregating to over $209 billion par value. These securities were issued by 992 firms, 908 of which or 92%,are domiciled in the United States. The second-most represented domicile is the United Kingdom (25 firms) followed by the Cayman Islands (19 firms). The remaining issuers are divided among 15 other countries.

Exhibit 2

Preferred Stock Issuers by Sector, 1980-1997



The Market for Preferred Stock

In the 1970s, public utilities and energy-related companies were the dominant suppliers of preferred stock. In the 1980s, however, this began to change as industrial and financial companies greatly expanded their use of this instrument. Consumer products firms including retail merchandisers, entertainment firms and casino & gaming establishments also contributed to the growth in preferred issuance during the late 1980s and 1990s. Exhibit 2 tracks the growth in the number of rated issuers by industry from 1980 through 1997. As of January 1, 1980, Moody's rated the preferred stock of only two issuers in the consumer sector and only six in the financial sector compared to 122, or 83% in the utilities and energy sectors.

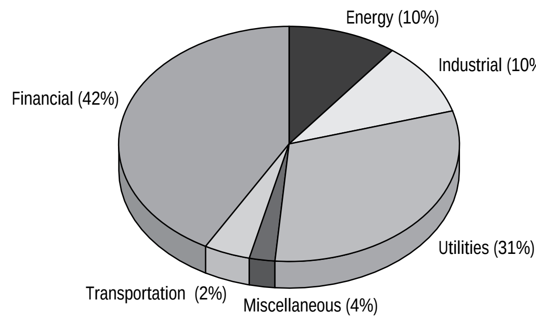
By year-end 1997, the number of rated utilities and energy preferred issues had risen to 184, but despite this increase utilities and energy issuers percentage of total rated issuers had fallen to 38%. Over the same period the share of industrial preferred issuers nearly doubled from 10% to nearly 20% of the total, with 163 currently rated issuers from that sector. While insignificant through the early 1980s, the consumer sector now accounts for over 6% with 29 rated issuers.

In terms of dollar amounts, financial sector preferred stock outstanding grew to over $16 billion, or 37% of the total which now surpasses the energy and utilities sectors combined. The consumer sector has also experience significant volume growth with 6% of issuers representing 12% of the outstanding dollar value of rated preferred shares. Exhibit 3 presents a cross section of the dollar amount of Moody's-rated preferred stock outstanding as of January 1, 1998, by sector.

Exhibit 3

Share of Par Value of Outstanding Preferred Stock by Sector

($209 Billion = 100%)



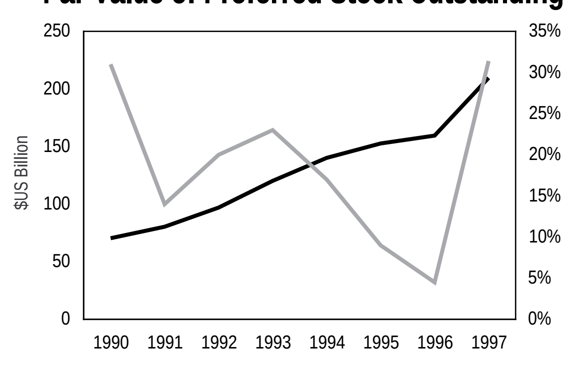
While the number of preferred stock issuers has grown steadily over the past decade, growth in the par value of preferred stock outstanding has fluctuated, peaking in 1993 at 21% and falling steadily until 1996 when the growth rate was only 4%. This period of sluggish growth was followed by a surge in issuance in 1997 producing a staggering 30% increase in the dollar value of preferred stock outstanding. The 1993 peak was partly the result of a surge in preferred stock issuance by banks and other financial institutions seeking to fortify their balance sheets with increased equity capital after suffering loan losses and falling asset values in the late 1980s.

Growth in the early 1990s also came from the development of new hybrids collectively known as "trust-preferreds". Issued through special purpose trusts, these securities provided issuers with tax advantages, part of which were passed on to investors in the form of higher dividends. Issuance peaked in 1985 as issuers worried that proposed changes in the tax code would eliminate this advantage. Issuance of trust-preferreds surged again in 1997, again, partly due to uncertainty about future changes to the tax code.

Another contributing factor was the growth of leveraged preferreds, which were issued by principally by municipal bond funds. These funds issued preferred stock instead of fund shares, essentially converting debt to equity with the stipulation that no more senior debt be issued. With the general rise in interest rates beginning in 1994, leveraged preferred issuance collapsed from $6 billion in 1993 to less than $100 million in 1994, producing a deceleration in the overall growth of the preferred stock market which persisted until 1996. The recent trend reversal has come mainly from the financial sector whose issuance grew from $48 billion in 1996 to over $82 billion in 1997. The high-yield and equipment trust sectors have also seen significant increases in preferred issuance over the past year.

Exhibit 4

Par Value of Preferred Stock Outstanding



Changes in the mix of preferred issuers over the past few years have produced a modest improvement in the overall distribution of preferred stock ratings. The percentage of preferred stock issuers with investment-grade preferred stock ratings* (“baa3” or higher) has risen from 61% in 1992 to 64% of the total in 1997. The improvement in overall credit quality is also evident in the average rating, calculated by converting the alpha-numeric ratings into numeric values, taking the average and then placing the value back onto the symbolic rating scale. The “average rating” is thus a number which will invariably fall in between actual rating categories rather than indicating a specific rating. In 1992, the average rating was in fact almost precisely “baa3” while in 1997 it had climbed about two-thirds of the way to “baa2”. Over the same five years, the median rating for all issuers with outstanding preferred stock held steady at “baa2”. The closer proximity of median and average ratings in the current period indicates a more symmetric distribution of preferred stock ratings.

** We define an "issuer's" preferred stock rating as the highest rating among that issuer's outstanding prferred stock ratings.*

Exhibit 5

Ratings of Preferred Stock Issuers, 1992 vs. 1997

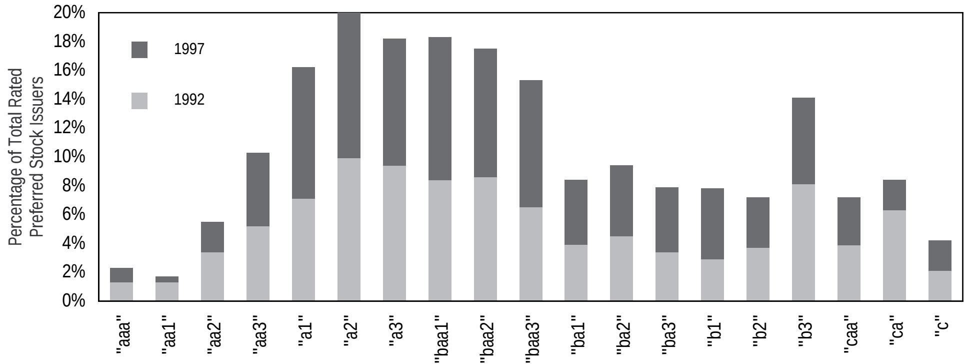


Exhibit 5 is a cross-section of the universe of rated corporate preferred stocks by rating and time. The largest segment consists of the single "a" and "baa" categories. The dominant issuers here are insurers, banks, and utilities. Preferred stocks rated "aaa" through "aa3" have become less common over the past five years. Another difference across time is the lower proportion of preferred stocks with ratings in the "caa" to "c" categories which were increased in 1992 as a result of the immediately preceding economic recession.

Passed Dividends and Defaults on Preferred Stock

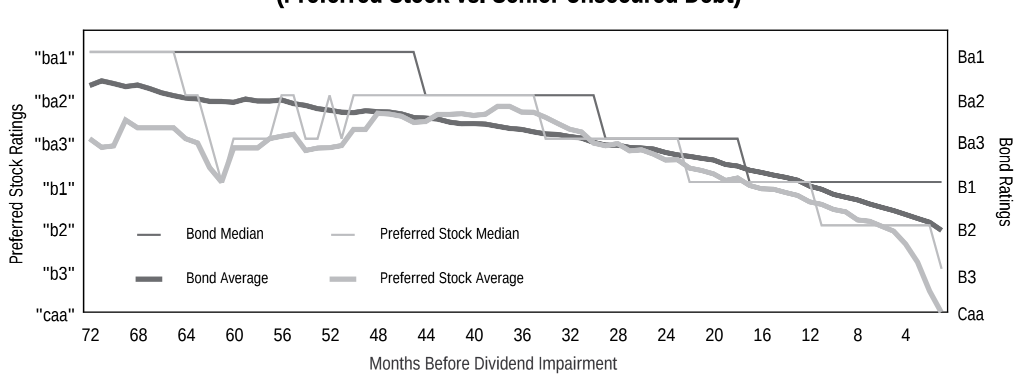
In this study, we consider a dividend "passed" or "omitted" if it was not declared either in the amount or at the regular dividend date prescribed in the prospectus. We highlight passed dividends not because they represent a breach of contract, but because they are significant credit events. A default on 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, or 3) the firm is forced into bankruptcy by creditors. Dividend impairment may consist of either passed dividends or default.

In general, Moody's preferred stock 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 compares the median and average preferred stock rating for 72 months prior to dividend impairment, with the median and average senior unsecured bond rating for issuers defaulted on long term debt.

Exhibit 6

Median and Average Ratings Months Before Dividend Impairment

(Preferred Stock vs. Senior Unsecured Debt)

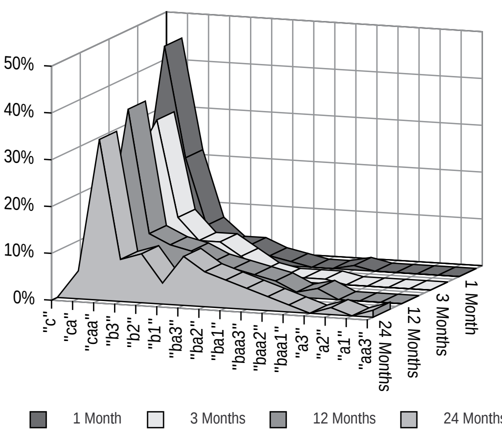


The median preferred stock rating was "b1" or lower up to 23 months before dividend impairment and was in the speculative grade category at "ba1" six years before the impairment. Compare this with the rating deterioration for senior unsecured bonds for issuers who ultimately defaulted on long-term debt. The median preferred stock rating tends to be below the median implied senior unsecured debt rating, which is consistent with the different risk characteristics including a higher expected loss rate for preferred stocks. Within one month of dividend impairment, the median preferred stock rating has fallen to "b3" while the average has fallen all the way to "caa".

Interestingly, while implied senior unsecured debt ratings decline more steadily in advance of a bond default, they fall less steeply with the median and average ratings falling to B1 and B2 respectively, one month prior to default. Part of this lower proportional decline reflects the fact that, due to the more serious nature of a bond default, a higher proportion of such incidents are triggered by special "surprise" events such as lawsuits or political crises, while passed dividends on preferred stock are more often tied to observable changes in the credit quality of the issuer and can be more easily anticipated. Exhibit 7 shows the progression of the distribution of ratings in successive periods prior to dividend impairment. The graph highlights the extent to which issuers who will pass dividends in the future are concentrated in the speculative grade rating categories and the degree to which Moody's preferred stock rating changes have produced a smooth redistribution of ratings toward the lowest of these categories, beginning years before the actual dividend impairment event.

Exhibit 7

Distribution of Preferred Stock Ratings Prior to Dividend Impairment



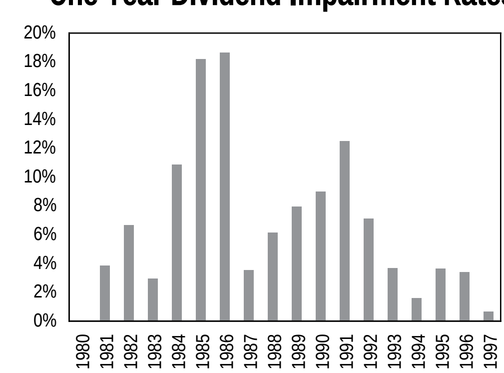
Since January 1, 1980, 99 Moody's-rated preferred stock issuers have either passed dividends or defaulted outright on 227 preferred securities (see Exhibit 15 for an exhaustive list). Only one of these issues held an investment grade rating on the day prior to the date of dividend impairment — Johns Manville Corp.'s $5.40 cumulative preferred stock, which was rated "baa2" before voluntarily entering bankruptcy as a defense against asbestos litigation.

Furthermore, as of January 1 of the year of dividend impairment, six issuers had investment grade preferred stock outstanding (we include the firm's senior long-term debt rating): Allis Chalmers Corp. (1982, "baa"/Baa), Johns Manville Corp. (1982, "a"/A), Continental Bank Corp. (1984, "a3"/A2), Banks Of Mid-America, Inc. (1986, "baa3"/Not Rated), Tidewater Inc. (1986, "baa3"/Baa2), and Signet Group Plc. (1992, "baa2"/Not Rated).

One of the most frequently cited measures of credit risk for corporate bonds is the one-year default rate. For preferred stock we calculate the analogous one-year risk of dividend impairment. As in Moody's studies of long-term corporate bond defaults, the unit of measure for these calculations is the issuer. While theoretically it is possible for an issuer with several preferred stocks outstanding to pass dividends on some issues and not the others, in our sample that has not occurred. Because the ability to pay preferred dividends is largely a function of the long-run profitability and liquidity of the issuing *firm*, it is less instructive to base our measures of risk on either the dollar amount of preferred stock or the number of preferred stock issues. In those cases where an issuer has more than one rated preferred stock, we classify the firm by its highest preferred stock rating.

Exhibit 8

One Year Dividend Impairment Rates



To see how preferred stock dividend distress has evolved since 1980, we calculate the fraction of speculative grade preferred stock issuers that suffered dividend impairment in each year. This fraction is simply the number of speculative grade rated issuers (as of the beginning of each year) divided into the number of issuers that passed dividends or defaulted during the course of that year. Exhibit 8 plots the results of these calculations for each year from 1980 through 1993. Exhibit 17, in the appendix presents a detailed breakdown of one-year impairment rates by rating.

The high rates of 1984-86 stand out. During this period, significant negative shocks to oil prices adversely affected credit quality. Numerous energy companies and energy-related companies, and their banks suffered downgrades. Of the 28 issuers that passed dividends or defaulted on preferred stock in this time period, 13 were oil-based businesses, five were public utilities, and another two were banks from the oil regions of the south-central United States.

Since 1986, preferred stock dividend impairments were highest during the recessionary period 1989-91. This period was characterized by more broad based economic and financial weakness creating a more diverse pool of distressed preferred stock issuers. This diversity has persisted even as default rates have declined with the result that industrial issuers have accounted for about 55% of dividend impairments since 1987 with banks and thrifts accounting for 23% and energy and utilities 11% respectively. In the past two years, one-year impairment rates began to rise from their 1994 lows, but have made new post 1980 lows in 1997 at 1%. The average since 1980 is just 7%.

Exhibit 9

Average One-Year Dividend Impairment Rates by Rating Category, 1980-97

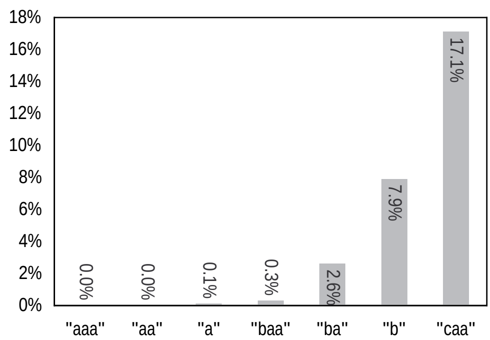


Exhibit 9 provides the historical average probabilities (listed in Exhibit 17) of dividend impairment within one year associated with each broad preferred stock rating category. These figures are the estimated probabilities that an issuer of a given preferred stock rating will pass a dividend or default within one-year of the rating assignment. For example, historically an issuer whose highest preferred stock rating was "baa" on a given date stands an estimated 0.3% chance that it will not make a dividend payment or will default on its preferred stock within one year. (For a detailed discussion of these calculations refer to the appendix.)

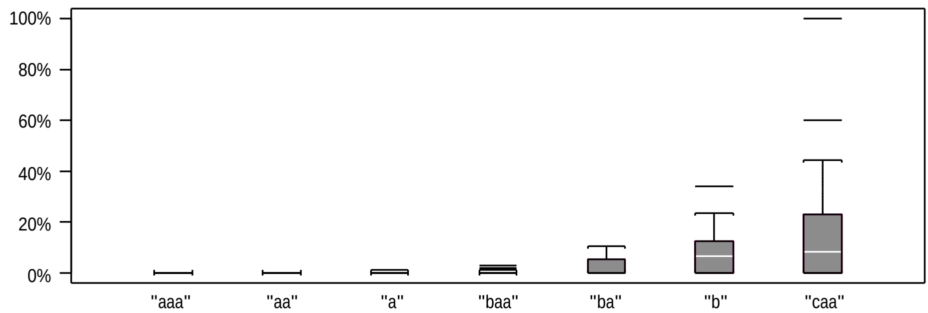
The probability of passed dividends increases monotonically as Moody's assessment of the credit risk of the firm increases. The 0% rates for the "aaa" and "aa" rating categories indicate that no preferred stock has ever passed a dividend or defaulted within one year of having either of these two ratings being held. The 0.1% figure for the "a" credit rating category indicates that of the outstanding "a"-rated preferred stock, we can expect about 0.1% of the issuers to pass dividends within one year. The figures show that Moody's has consistently ranked preferred stock according to relative credit risks over the period spanned by this report. That is, that the probability of credit loss increases with a reduction in Moody's rating. The "b" category is roughly twice as risky as the "ba" category which is about three times as risky as the lowest investment grade rating category. Preferred stocks rated "baa" are, in turn, about three times as risky as "a" preferred stock.

The volatility of the dividend impairment rate also increases for lower credit ratings. One of the easiest ways to illustrate this is by graphically summarizing the distribution of impairment rates experienced over time for each rating category. Exhibit 10 shows box-and-whisker plots of these impairment rates over the past 17 years. In these plots, the shaded boxes identify the inter-quartile range which contains the middle 50% of the observations associated with each rating. The bracketed "whiskers" identify the outer-quartile range and the white stripe identifies the median impairment rate for each category. Detached horizontal lines indicate outliers.[5] As the plot clearly shows, the variance of observed impairment rates increases steadily and substantially over progressively lower rating categories. The "aaa" and "aa" categories are degenerate distributions at zero over this 20 year period. Non-zero default rates for the "a" and "baa" categories are also outliers as the entire interquartile range consists of impairment rates of zero. Notice, however, that even the "caa" category has years in which no dividend impairments occurred. Thus, while lower ratings imply higher average impairment rates over time, they also imply higher levels of uncertainty with respect to impairment rates that may occur in any given year.

5 In this plot, we treat points outside the inner quartiles by more than 1.5 times the interquartile range as outliers.

Exhibit 10

Dispersion of One-Year Dividend Impairment Rates by Rating Category, 1980-1997



Over longer periods, the higher average marginal impairment rates associated with lower ratings lead to consistent patterns in cumulative impairment rates. This means that the ranking of relative risk for each of Moody's preferred stock ratings remains intact as time horizons are extended. Exhibit 11 shows the average multi-year cumulative dividend impairment rates for Moody's broad preferred stock rating categories. Average cumulative dividend impairment rates are based on the experience of cohorts of preferred stock issuers, defined by the rating held as of January 1, of each year. For example, the cohort consisting of all preferred stock issuers with the rating "baa1" as of January 1, 1990, will give us one observation on the two-year dividend impairment rate, at the end of 1992. The cohort consisting of all preferred stock issuers with the rating "baa1" as of January 1, 1992, will give us another observation on the two-year dividend impairment rate, at the end of 1994. A complete breakdown of cohorts fromed since January 1, 1980 is presented in Exhibit 19 in the appendix.

These average multi-year rates provide estimates of the probability that an issuer of a given rating will pass a dividend or default *within* the specified number of years. For example, within 10 years, we can expect roughly 17% of "ba"-rated preferred stocks to pass dividends or default. The zeros in the "aaa" category highlight the fact that, over the last 14 years, no preferred stock ever holding a "aaa" rating has passed dividends or defaulted. Exhibit 16 presents the minimum and maximum observations for each rating category associated with the averages presented in Exhibit 11.

Exhibit 11

Cumulative Default Ratings by Rating Category

Severity of Losses Associated with Passed Dividends and Defaults

In the event that losses are incurred, the severity of such 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 of a 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 common stock or preferred stock with a lower stated dividend payment.

The chart on the cover of this report shows the relative frequencies (based on issuer counts) of resolutions of various types. Here "default" refers to either a default on bonds, a default on preferred stock, or an exchange in which the investors were forced to accept an issue of lower economic value. The category "currently in arrears" reflects the number of preferred stock issuers in our database that had not reached a resolution as of January 1, 1998.

Of those incidents of impaired dividends where arrears were cleared in cash, the median length of time between the first passed dividend and resolution is 2.0 years. The shortest period of arrears in our data is six months and the longest is over eight years.

Of issuers classified under the "Default" heading, 12% first passed dividends while simultaneously defaulting on debt, 33% defaulted on debt within one year of initially passing dividends, 8% defaulted on debt between one and two years after initially passing dividends, 13% between two and three years, 0% between three and four years, and 34% between four and five years.

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 therefore to price the stock accordingly. Because holders have claim to the liquidation or par value in the event of a bankruptcy, presenting these month-after prices as a percentage of this amount provides an estimate of the expected recovery. The expected severity is simply one minus the expected recovery.

We were able to gather prices for 149 of the preferred stocks in the omitted dividend sample as of one month after the initial dividend impairment. Exhibit 13 summarizes the distribution of these prices. One month after passing a dividend, the median price of these preferred stocks stood at just 40.1% of their liquidation/par value. This plunge reflects investors' concerns about the credit quality of the company and the bleak prospects for recovery.

Exhibit 12

Recovery Estimates

	Event: Passed Dividends	Event: Bankruptcy*
Count	149	46
Median	36.4%	9.9%
Average	37.8%	13.7%
Std. Deviation	25.5%	11.5%
10th Percentile	8.5%	0.0%
90th Percentile	67.3%	34.2%

**Excludes NRM Energy Company, L.P. and Texas American Energy Corp.*

Of these 129 preferred stocks, 98 ended up in bankruptcy. We again calculated a recovery rate based on market prices one month after the firm entered bankruptcy (see the second column of Exhibit 12). Here, the junior position of the preferreds shows up as a paltry 9.9% recovery rate. Exhibit 12 highlights the increased severity of bankruptcy versus dividend impairment, plotting the distribution of estimated recovery rates both for preferred stocks that went into arrears and for those that ended up in bankruptcy.

The median recovery rate for simple dividend omission is 36.4% compared to 9.9% for bankruptcy cases. As Exhibit 12 shows, the post-bankruptcy sample contains two large outliers. These were NRM Energy Company, L.P. and Texas American Energy Corp., who filed for bankruptcy in October, 1992 and July of 1987, respectively. The high estimated recovery rates in these two cases reflected the accurate expectation that in bankruptcy resolution, holders of these securities would be lumped in with other unsecured creditors including bondholders and would receive higher payouts as a result. While eliminating these outliers from the sample has little effect on the median (9.88% vs 10.02%), it has a substantial effect on the average recovery rate, lowering it from 26.31% to 14.47%. These outliers were excluded from the statistics presented in Exhibit 12.

Because Moody's ratings address the severity of credit loss as well as its probability, one would expect our ratings to be higher for preferred stocks that experienced relatively mild dividend impairments. If a preferred stock passed a dividend for one quarter and then cleared the arrears and reinstated preferred dividends, that would be a much less severe dividend impairment than if it had passed the dividend and then proceeded to file for bankruptcy protection from its creditors. To test this hypothesis we compared the simple average firm-level ratings of firms that cleared arrears with cash (mild dividend impairments) to the same average ratings for firms that eventually defaulted on debt (severe dividend impairments). For the "mild" category, the average ratings one year before and at the time of dividend impairment were "ba3" and "b3" respectively. The "severe" group, on the other hand, had average ratings at the same times of one notch lower: "b1" and "caa" respectively. These results suggest that, on average, Moody's has correctly estimated the relative severity of dividend impairment scenarios, as well as the probability of dividend impairment.

Exhibit 13

Recovery Rates Following Bankruptcy vs. Dividend Omission

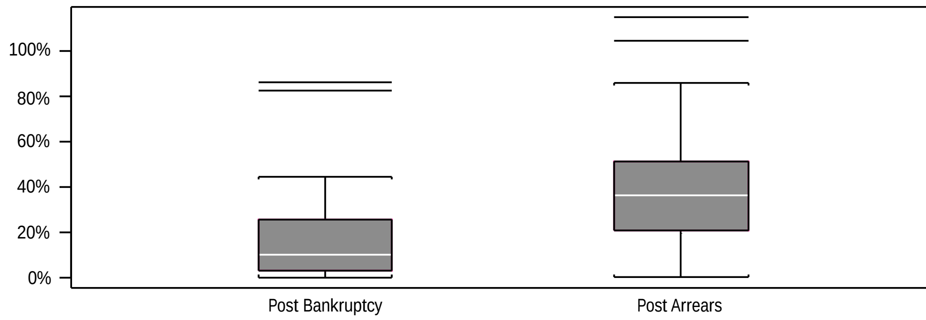
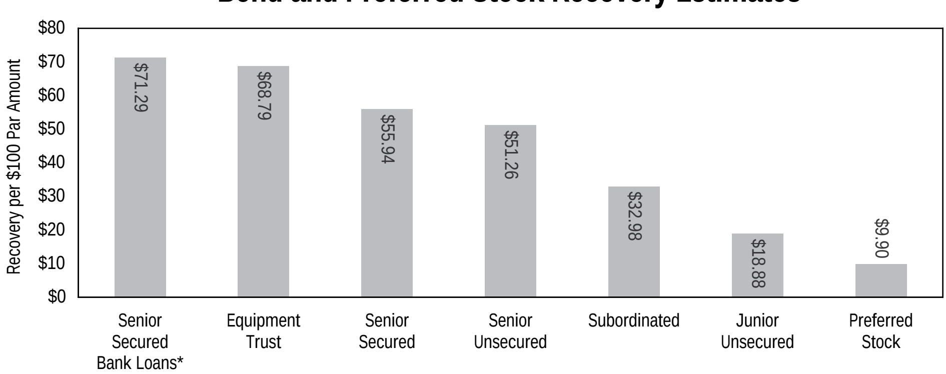


Exhibit 14 compares the recovery estimate on preferred stock with bonds, by seniority, and bank loans. Preferred stock recovery rates come in at about half of that for junior unsecured debt. These estimated recovery rates make sense given the standing of preferred stock holders relative to bond holders, under bankruptcylaw. The Absolute Priority Rate applied in bankruptcy resolution, requires that bond holders must be paid in full, before equity holders can lay claim to the bankrupt entity's assets.

Exhibit 14

Bond and Preferred Stock Recovery Estimates



** Based on data from 1989 to 1996.*

Conclusion

The primary source of difference between the credit characteristics of preferred stock and long-term bonds derives from the lack of legal requirements for the preferred stock issuer to declare dividends. Moody's addresses this fundamental difference between the two types of instruments by rating preferred stock on a separate scale that ranks preferred stocks *relative to other preferred stocks.* A direct result of this approach is that the rating scale used to issue opinions for long-term bonds cannot be mapped directly into the scale used for preferred stocks.

On average, Moody's ratings have consistently assessed the relative risks of preferred stocks since 1980. The risk of dividend impairment for a one year period rises in tandem with a decline in Moody's opinion of credit quality of the preferred stock. For "aaa"- and "aa"-rated preferred stocks this risk is 0.0%. For the "a" rating the risk is 0.05%, for the "baa" rating the risk is 0.35%, for "ba" it is 2.62%, and for "b"s it is 7.92%.

The severity of loss should a dividend omission or bankruptcy occur is also an important consideration in Moody's ratings. We found that one month after the dividend omission, the median price of the preferred stock stood at just 40% of the liquidation or par value of the preferred stock. This indicates a severity of 60%. Of the 129 preferred stocks for which we were able to obtain prices, 98 eventually ended up in bankruptcy. The junior status of preferred stock relative to debt in the right of payment shows up as a very low recovery estimate. The median trading value of these securities was just 10% of liquidation/par value one month after bankruptcy, indicating a 90% severity.

Appendix

Exhibit 15

Moody's-Rated Preferred Stock Issuers That Passed Dividends or Defaulted Since 1980 (non-US issuers are in bold type)

Issuer	Dividend Omission Date
Allied Stores Corporation	01/15/1990
Allis-Chalmers Corp.	11/30/1982
AM International Inc.	10/21/1991
Amdura Corporation	10/19/1989
American Continental Corp.	04/13/1989
AMF, Inc.	01/16/1986
Anac Holding Corp.	06/15/1988
Anacomp Inc.	04/26/1995
Arvin Industries, Inc.	12/31/1992
Avatex Corp.	12/20/1996
B-E Holdings Corp.	03/15/1993
Bally Manufacturing Corporation	11/12/1990
Bank of New England Corporation	03/01/1990
Banks of Mid-America, Inc.	10/15/1986
Bethlehem Steel Corporation	07/30/1986
Burroughs Corp.	04/16/1991
Castle & Cooke, Inc.	03/01/1985
CenTrust Federal Savings Bank	10/13/1989
Charter Co.	04/20/1984
Charter Medical Corporation	02/15/1991
Chrysler Corporation	12/15/1979
CNC Holding Corporation	03/01/1991
Color Tile, Inc.	09/15/1995
Continental Airlines Holdings Inc.	12/14/1988
Continental Bank Corp.	08/27/1984
CrossLand Savings, FSB	11/21/1989
Dart Drug Stores, Inc.	07/31/1988
Eastern Air Lines, Inc.	10/25/1983
Eastern Air Lines, Inc.	03/09/1989
El Paso Electric Company	09/19/1991
Equitable Lomas Leasing Corporation	09/01/1989
First City Bancorporation of Texas	08/19/1987
First City Bancorporation of Texas	03/05/1991
First RepublicBank Corporation	03/15/1988
Flagstar Companies, Inc.	01/15/1997
FLS Holdings, Inc.	04/23/1992
Forest Oil Corp.	08/21/1986
Forest Oil Corp.	02/14/1991
Geneva Steel Co.	06/03/1996
Gerrity Oil & Gas Corporation	05/03/1996
Global Marine Inc.	05/10/1985
Grant Geophysical Incorporated	12/31/1992
Gulf Canada Resources Limited	03/17/1993
Gulf States Utilities Company	02/05/1987
Harcourt Brace Jovanovich Inc.	02/12/1991
Harvard Industries, Inc.	05/08/1997
Home Owners Savings Bank, FSB	02/01/1990
Host Marriott Corporation	10/16/1993
Insilco Corp.	01/14/1991
Integrated Resources, Inc.	06/15/1989
Interco, Inc.	08/17/1989
Interlake Corporation	12/30/1992
International Mobile Machines Corp.	04/20/1990
Itel Corporation	09/30/1979
Johns Manville Corp.	08/26/1982
JPS Textile Group, Inc.	02/07/1991
K-H Corporation	06/09/1989
KANEB Services Inc.	11/10/1986
Kelley Oil & Gas Corp.	01/12/1996
KENETECH Corporation	02/02/1996

Issuer	Dividend Omission Date
Lear Petroleum Corp.	06/14/1986
Leisure Technology, Incorporated	05/15/1990
Long Island Lighting Company	08/23/1984
Louisiana Power & Light Company	10/10/1985
LTV Corporation	12/01/1985
LVI Group, Inc.	03/03/1989
MCorp	10/21/1988
Memorex Telex N.V.	05/29/1991
Midway Airlines Inc.	10/23/1990
Miramar Marine Corp.	11/01/1989
MNC Financial, Inc.	12/28/1990
National Convenience Stores Inc.	11/12/1991
Navistar International Corp.	12/17/1981
Navistar International Corp.	12/18/1992
New Orleans Public Service, Inc.	11/19/1985
New Orleans Public Service, Inc.	03/21/1988
Northeast Federal Corp.	03/16/1990
NRM Energy Company, L.P.	06/19/1992
Nycor Incorporated	11/05/1992
Offshore Logistics Inc.	04/26/1984
Oxoco, Inc.	04/01/1985
People Express Inc.	09/16/1986
Perini Corp.	02/22/1996
Perpetual Financial Corporation	10/23/1990
Petro Lewis Corp.	03/14/1986
Polly Peck International Finance Ltd.	09/28/1990
PSI Energy, Inc.	01/31/1986
Public Service Company of New Hampshire	04/19/1984
Reading & Bates Corp.	05/20/1986
Richmond Tank Car Co.	08/31/1982
Servam Corp.	10/20/1992
Signet Group Plc	01/20/1992
Southland Corporation	03/22/1990
Southmark Corporation	04/20/1988
Southwestern Life Corporation	01/26/1995
SPI Holdings, Inc.	03/23/1992
Stone Container Corp.	07/26/1993
Stone Container Corp.	03/26/1997
Supermarkets General Holdings Corp.	12/15/1992
Texas American Energy Corp.	07/24/1986
Tidewater Inc.	10/02/1986
Todd Shipyards Corp.	05/01/1987
Trans World Airlines, Inc.	01/31/1991
Triangle Pacific Corp.	03/15/1991
Tucson Electric Power Company	03/26/1990
UDC Homes, Inc.	04/08/1991
UDC Homes, Inc.	04/30/1995
USAir Group Inc.	09/29/1994
Varco International Inc.	08/10/1984
Weatherford International Inc.	12/12/1985
Western Air Lines Inc.	01/29/1982
Western Company of North America	04/29/1986
Western Union Corporation	01/01/1985
Western Union Telegraph Company	01/02/1985
Western Union Telegraph Company	01/02/1989
Westfed Holdings, Incorporated	06/20/1991
Westmoreland Coal Co.	05/10/1994
Westmoreland Coal Co.	10/01/1995
White Motor Corporation	10/16/1990
Wolverine Exploration Company	05/01/1991

Appendix

Exhibit 16

Cumulative Dividend Impairment Rates, Observed Minima and Maxima

	(Minimum Observed Default Rate, Maximum Observed)					
Year	**“aaa”**	**“aa”**	**“a”**	**“baa”**	**“ba”**	**“b”**
1	(0.0%, 0.0%)	(0.0%, 0.0%)	(0.0%, 1.3%)	(0.0%, 2.9%)	(0.0%, 8.3%)	(0.0%, 34.1%)
2	(0.0%, 0.0%)	(0.0%, 2.6%)	(0.0%, 1.3%)	(0.0%, 6.1%)	(0.0%, 10.5%)	(0.0%, 56.8%)
3	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 2.7%)	(0.0%, 8.0%)	(0.0%, 25.2%)	(0.0%, 61.3%)
4	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 4.2%)	(0.0%, 9.8%)	(0.0%, 25.4%)	(0.0%, 66.7%)
5	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 4.5%)	(0.0%, 9.8%)	(0.0%, 31.6%)	(0.0%, 66.7%)
6	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 5.9%)	(0.0%, 9.8%)	(0.0%, 34.8%)	(24.9%, 69.0%)
7	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 7.7%)	(0.0%, 9.8%)	(0.0%, 41.3%)	(32.9%, 74.1%)
8	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 9.5%)	(0.0%, 9.8%)	(0.0%, 50.0%)	(42.2%, 76.8%)
9	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 9.5%)	(0.0%, 9.8%)	(0.0%, 50.0%)	(55.6%, 76.8%)
10	(0.0%, 0.0%)	(0.0%, 4.7%)	(0.0%, 9.5%)	(0.0%, 9.8%)	(0.0%, 50.0%)	(55.6%, 76.8%)

Default Rate Calculation and Interpretation

Moody’s ratings are judgments that are intended to support investment decisions. To evaluate our ratings’ performance as indicators of the probability of dividend impairment, we should then use the judgment itself as the unit of study. Because the number of credit judgments or, in terms of the preferred stock default study, dividend impairment probability predictions, that Moody’s must make does not vary with either the par amount or number of preferred stock issues that any one issuer has outstanding, we consider the preferred stock issuer itself as the unit of study. Dividend impairment rates measure dividend impairment incidence over various time horizons. Using the preferred stock issuer as the unit of study, it is simply a fraction in which the numerator would represent the number of issuers that impaired dividend and the denominator would represent the number of issuers that were *at risk of impairing dividends*.

Measuring the numerator is simple given a suitable definition of dividend impairment. Moody’s defines dividend impairment on a preferred stock as any late or omitted dividend payment, or failure to fulfill an obligation of the charter, such as sinking fund payments or short-term redemption agreements. The denominator -- the number of issuers at risk of impairing dividends — consists of counting the number of entities with preferred stock outstanding and adjusting s more difficult to measure.

Exhibit 17 - One-Year Dividend Impairment Rates by Rating Category (1980 - 1997)

Rating	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"a"	0.00%	0.00%	0.00%	0.00%	1.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"baa"	0.00%	0.00%	1.89%	0.00%	0.00%	0.00%	2.88%	0.00%	0.00%	1.32%	0.00%	0.00%	1.20%	0.00%	0.00%	0.00%	0.00%	0.00%
"ba"	0.00%	5.56%	0.00%	0.00%	10.34%	8.16%	10.53%	0.00%	5.48%	5.06%	4.55%	0.00%	5.19%	0.00%	0.00%	0.00%	0.00%	0.00%
"b"	0.00%	0.00%	12.50%	13.33%	14.81%	23.53%	34.15%	5.56%	6.84%	7.75%	8.96%	16.81%	6.74%	6.67%	3.31%	3.85%	4.08%	0.00%
Investment-Grade	0.00%	0.00%	0.70%	0.00%	0.52%	0.00%	0.94%	0.00%	0.00%	0.47%	0.00%	0.00%	0.46%	0.00%	0.00%	0.00%	0.00%	0.00%
Speculative-Grade	0.00%	3.85%	6.67%	2.94%	10.87%	18.18%	18.64%	3.55%	6.14%	7.94%	8.99%	12.50%	7.11%	3.67%	1.58%	3.65%	3.41%	0.64%
All Corporates	0.00%	0.59%	1.73%	0.50%	2.51%	3.61%	4.78%	1.01%	2.12%	3.26%	3.49%	4.84%	2.74%	1.18%	0.53%	1.20%	1.15%	0.21%

Exhibit 18 - Average Cumulative Default Rates 1 to 15 Years (Based on Data From 1980 to the Present)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	0.16%	0.70%	1.09%	1.31%	1.54%	1.81%	1.81%	1.81%	1.81%	1.81%	1.81%	1.81%	1.81%	1.81%
"a"	0.06%	0.20%	0.67%	1.22%	1.87%	2.36%	2.79%	3.29%	3.48%	3.71%	3.98%	4.30%	4.30%	4.30%	4.30%
"baa"	0.35%	1.08%	2.02%	2.69%	3.35%	3.51%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%
"ba"	2.59%	6.35%	8.90%	12.23%	14.84%	16.64%	17.19%	17.19%	17.19%	17.19%	17.19%	17.19%	17.19%	17.19%	17.19%
"b"	7.94%	16.88%	24.51%	30.36%	35.50%	39.82%	45.60%	51.04%	57.79%	57.79%	57.79%	57.79%	57.79%	57.79%	57.79%
Investment-Grade	0.16%	0.51%	1.16%	1.71%	2.26%	2.58%	2.88%	3.09%	3.17%	3.26%	3.37%	3.50%	3.50%	3.50%	3.50%
Speculative-Grade	6.23%	12.05%	13.23%	17.35%	21.07%	23.94%	26.38%	28.41%	31.08%	31.77%	31.77%	31.77%	31.77%	31.77%	31.77%
All Corporates	1.98%	3.83%	4.81%	6.12%	7.28%	8.05%	8.69%	9.16%	9.56%	9.72%	9.81%	9.93%	9.93%	9.93%	9.93%

Exhibit 19 - Cumulative Dividend Impairment Rates for Cohorts Formed Since 1980

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Cohort formed January 1, 1980																		
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
"a"	0.00%	0.00%	0.00%	0.00%	1.59%	1.59%	1.59%	3.48%	3.48%	3.48%	3.48%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%	5.47%
"baa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"ba"	0.00%	0.00%	6.67%	6.67%	20.00%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%	33.33%
"b"	0.00%	0.00%	33.33%	66.67%	66.67%	66.67%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Investment-Grade	0.00%	0.00%	0.00%	0.00%	0.76%	0.76%	1.57%	2.44%	2.44%	2.44%	2.44%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%
Speculative-Grade	0.00%	0.00%	11.11%	16.67%	27.78%	38.89%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%	45.00%
All Corporates	0.00%	0.00%	1.33%	2.00%	4.01%	5.37%	6.79%	7.56%	7.56%	7.56%	7.56%	8.42%	8.42%	8.42%	8.42%	8.42%	8.42%	8.42%
Cohort formed January 1, 1981																		
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	
"a"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.35%	2.35%	2.35%	2.35%	2.35%	2.35%	2.35%	
"baa"	0.00%	0.00%	0.00%	2.11%	4.23%	4.23%	6.51%	6.51%	6.51%	6.51%	6.51%	6.51%	6.51%	6.51%	6.51%	6.51%	6.51%	
"ba"	5.56%	11.11%	11.11%	22.96%	34.81%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	41.33%	
"b"	0.00%	14.29%	28.57%	28.57%	28.57%	42.86%	42.86%	42.86%	57.14%	57.14%	57.14%	57.14%	57.14%	57.14%	57.14%	57.14%	57.14%	
Investment-Grade	0.00%	0.00%	0.00%	0.72%	1.46%	2.24%	3.09%	3.09%	3.09%	3.09%	4.04%	4.04%	4.04%	4.04%	4.04%	4.04%	4.04%	
Speculative-Grade	3.85%	11.54%	15.47%	23.72%	32.19%	41.23%	41.23%	41.23%	46.34%	46.34%	46.34%	46.34%	46.34%	46.34%	46.34%	46.34%	46.34%	
All Corporates	0.59%	1.78%	2.38%	4.22%	6.10%	8.10%	8.82%	8.82%	9.59%	9.59%	10.39%	10.39%	10.39%	10.39%	10.39%	10.39%	10.39%	
Cohort formed January 1, 1982																		
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
"a"	0.00%	0.00%	0.00%	0.00%	1.98%	1.98%	1.98%	1.98%	1.98%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%	4.46%		
"baa"	1.89%	1.89%	3.89%	5.93%	5.93%	8.15%	8.15%	8.15%	8.15%	8.15%	8.15%	8.15%	8.15%	8.15%	8.15%	8.15%		
"ba"	0.00%	0.00%	10.53%	21.05%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%	26.69%		
"b"	12.50%	25.96%	25.96%	25.96%	40.77%	40.77%	40.77%	55.58%	55.58%	55.58%	55.58%	55.58%	55.58%	55.58%	55.58%	55.58%		
Investment-Grade	0.70%	0.70%	1.42%	2.17%	2.95%	3.81%	3.81%	3.81%	3.81%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%		
Speculative-Grade	6.67%	10.12%	17.46%	24.96%	32.86%	32.86%	32.86%	37.84%	37.84%	37.84%	37.84%	37.84%	37.84%	37.84%	37.84%	37.84%		
All Corporates	1.73%	2.32%	4.14%	5.99%	7.96%	8.68%	8.68%	9.44%	9.44%	10.23%	10.23%	10.23%	10.23%	10.23%	10.23%	10.23%		

Exhibit 19 - Cumulative Dividend Impairment Rates for Cohorts Formed Since 1980 (cont.)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Cohort formed January 1, 1983															
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	0.00%	0.00%	0.00%	2.99%	2.99%	2.99%	2.99%	2.99%	2.99%	2.99%	2.99%	2.99%	2.99%	2.99%
"a"	0.00%	0.00%	0.00%	1.64%	1.64%	1.64%	1.64%	3.67%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%	5.76%
"baa"	0.00%	1.79%	3.60%	3.60%	5.61%	5.61%	5.61%	5.61%	5.61%	5.61%	5.61%	5.61%	5.61%	5.61%	5.61%
"ba"	0.00%	9.76%	20.07%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%	31.49%
"b"	13.33%	13.33%	13.33%	27.78%	27.78%	27.78%	42.22%	42.22%	56.67%	56.67%	56.67%	56.67%	56.67%	56.67%	56.67%
Investment-Grade	0.00%	0.62%	1.24%	1.90%	3.34%	3.34%	3.34%	4.14%	4.97%	4.97%	4.97%	4.97%	4.97%	4.97%	4.97%
Speculative-Grade	2.94%	9.31%	16.15%	27.09%	27.09%	27.09%	31.79%	31.79%	37.04%	43.03%	43.03%	43.03%	43.03%	43.03%	43.03%
All Corporates	0.50%	2.05%	3.63%	5.87%	7.09%	7.09%	7.75%	8.43%	9.85%	10.59%	10.59%	10.59%	10.59%	10.59%	10.59%
Cohort formed January 1, 1984															
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
"a"	1.28%	1.28%	2.68%	4.23%	4.23%	5.94%	7.70%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	9.51%	
"baa"	0.00%	1.53%	8.04%	9.79%	9.79%	9.79%	9.79%	9.79%	9.79%	9.79%	9.79%	9.79%	9.79%	9.79%	
"ba"	10.34%	21.32%	25.36%	25.36%	25.36%	31.10%	31.10%	31.10%	31.10%	31.10%	31.10%	31.10%	31.10%	31.10%	
"b"	14.81%	45.79%	61.28%	61.28%	61.28%	69.02%	69.02%	76.77%	76.77%	76.77%	76.77%	76.77%	76.77%	76.77%	
Investment-Grade	0.52%	1.05%	3.85%	5.06%	5.06%	5.72%	6.42%	7.14%	7.14%	7.14%	7.14%	7.14%	7.14%	7.14%	
Speculative-Grade	10.87%	27.08%	34.49%	34.49%	34.49%	40.73%	40.73%	44.02%	47.63%	47.63%	47.63%	47.63%	47.63%	47.63%	
All Corporates	2.51%	5.95%	9.60%	10.59%	10.59%	12.23%	12.80%	13.98%	14.59%	14.59%	14.59%	14.59%	14.59%	14.59%	
Cohort formed January 1, 1985															
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
"aa"	0.00%	0.00%	0.00%	2.27%	2.27%	2.27%	2.27%	2.27%	2.27%	2.27%	2.27%	2.27%	2.27%		
"a"	0.00%	0.00%	1.50%	1.50%	3.22%	4.99%	6.84%	6.84%	6.84%	6.84%	6.84%	6.84%	6.84%		
"baa"	0.00%	4.65%	6.37%	6.37%	6.37%	6.37%	6.37%	6.37%	6.37%	6.37%	6.37%	6.37%	6.37%		
"ba"	8.16%	25.25%	25.25%	25.25%	31.75%	31.75%	31.75%	31.75%	31.75%	31.75%	31.75%	31.75%	31.75%		
"b"	23.53%	56.78%	56.78%	56.78%	65.42%	65.42%	74.07%	74.07%	74.07%	74.07%	74.07%	74.07%	74.07%		
Investment-Grade	0.00%	1.60%	2.75%	3.36%	4.01%	4.70%	5.41%	5.41%	5.41%	5.41%	5.41%	5.41%	5.41%		
Speculative-Grade	18.18%	37.56%	37.56%	37.56%	43.65%	43.65%	46.97%	50.62%	50.62%	50.62%	50.62%	50.62%	50.62%		
All Corporates	3.61%	8.73%	9.66%	10.17%	11.76%	12.32%	13.48%	14.09%	14.09%	14.09%	14.09%	14.09%	14.09%		

Exhibit 19 - Cumulative Dividend Impairment Rates for Cohorts Formed Since 1980 (cont.)

Year	1	2	3	4	5	6	7	8	9	10	11	12
Cohort formed January 1, 1986												
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	0.00%	4.65%	4.65%	4.65%	4.65%	4.65%	4.65%	4.65%	4.65%	4.65%	4.65%
"a"	0.00%	0.00%	0.00%	1.42%	2.91%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
"baa"	2.88%	6.12%	6.12%	6.12%	8.11%	8.11%	8.11%	8.11%	8.11%	8.11%	8.11%	8.11%
"ba"	10.53%	10.53%	10.53%	22.07%	22.07%	22.07%	28.57%	28.57%	28.57%	28.57%	28.57%	28.57%
"b"	34.15%	34.15%	34.15%	45.12%	45.12%	57.32%	57.32%	57.32%	57.32%	57.32%	57.32%	57.32%
Investment-Grade	0.94%	1.96%	3.05%	3.64%	4.88%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%	5.52%
Speculative-Grade	18.64%	18.64%	18.64%	27.06%	27.06%	30.30%	37.64%	37.64%	37.64%	37.64%	37.64%	37.64%
All Corporates	4.78%	5.59%	6.48%	8.40%	9.42%	10.49%	11.61%	11.61%	11.61%	11.61%	11.61%	11.61%
Cohort formed January 1, 1987												
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
"aa"	0.00%	0.00%	0.00%	2.44%	2.44%	2.44%	2.44%	2.44%	2.44%	2.44%	2.44%	
"a"	0.00%	0.00%	1.43%	2.95%	4.55%	4.55%	6.25%	6.25%	6.25%	6.25%	6.25%	
"baa"	0.00%	1.40%	1.40%	3.00%	4.70%	4.70%	4.70%	4.70%	4.70%	4.70%	4.70%	
"ba"	0.00%	11.76%	21.05%	31.58%	31.58%	31.58%	31.58%	31.58%	31.58%	31.58%	31.58%	
"b"	5.56%	11.85%	27.18%	36.89%	48.37%	48.37%	48.37%	48.37%	61.27%	61.27%	61.27%	
Investment-Grade	0.00%	0.51%	1.04%	2.77%	3.98%	3.98%	4.65%	4.65%	4.65%	4.65%	4.65%	
Speculative-Grade	3.55%	10.49%	20.25%	28.23%	35.06%	40.36%	40.36%	40.36%	44.78%	44.78%	44.78%	
All Corporates	1.01%	3.23%	6.06%	9.16%	11.53%	12.53%	13.07%	13.07%	13.67%	13.67%	13.67%	
Cohort formed January 1, 1988												
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
"aa"	0.00%	0.00%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%	2.60%		
"a"	0.00%	0.00%	1.26%	2.59%	2.59%	4.05%	4.05%	4.05%	4.05%	4.05%		
"baa"	0.00%	1.37%	1.37%	3.03%	4.84%	4.84%	4.84%	4.84%	4.84%	4.84%		
"ba"	5.48%	11.68%	18.22%	18.22%	22.11%	22.11%	22.11%	22.11%	22.11%	22.11%		
"b"	6.84%	12.91%	30.58%	40.05%	52.45%	52.45%	52.45%	61.96%	71.47%	71.47%		
Investment-Grade	0.00%	0.50%	1.56%	2.71%	3.31%	3.97%	3.97%	3.97%	3.97%	3.97%		
Speculative-Grade	6.14%	14.30%	25.24%	30.94%	37.76%	37.76%	37.76%	40.95%	44.76%	44.76%		
All Corporates	2.12%	5.12%	9.19%	11.61%	13.82%	14.31%	14.31%	14.86%	15.43%	15.43%		

Exhibit 19 - Cumulative Dividend Impairment Rates for Cohorts Formed Since 1980 (cont.)

Year	1	2	3	4	5	6	7	8	9
Cohort formed January 1, 1989									
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	2.63%	2.63%	2.63%	2.63%	2.63%	2.63%	2.63%	2.63%
"a"	0.00%	1.17%	2.43%	2.43%	3.82%	3.82%	3.82%	3.82%	3.82%
"baa"	1.32%	1.32%	2.82%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
"ba"	5.06%	5.06%	5.06%	8.79%	8.79%	8.79%	8.79%	8.79%	8.79%
"b"	7.75%	24.52%	40.30%	51.67%	51.67%	51.67%	62.41%	68.67%	68.67%
Investment-Grade	0.47%	1.49%	2.57%	3.15%	3.78%	3.78%	3.78%	3.78%	3.78%
Speculative-Grade	7.94%	16.48%	24.33%	31.14%	32.89%	32.89%	37.52%	40.12%	40.12%
All Corporates	3.26%	6.88%	10.15%	12.56%	13.47%	13.47%	14.50%	15.03%	15.03%
Cohort formed January 1, 1990									
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
"a"	0.00%	0.00%	1.08%	2.23%	2.23%	2.23%	2.23%	2.23%	
"baa"	0.00%	0.00%	1.79%	1.79%	1.79%	1.79%	1.79%	1.79%	
"ba"	4.55%	7.13%	10.07%	10.07%	10.07%	10.07%	10.07%	10.07%	
"b"	8.96%	28.40%	37.95%	37.95%	37.95%	48.74%	56.06%	56.06%	
Investment-Grade	0.00%	0.00%	1.08%	1.66%	1.66%	1.66%	1.66%	1.66%	
Speculative-Grade	8.99%	20.42%	25.95%	27.38%	27.38%	31.11%	33.16%	33.16%	
All Corporates	3.49%	7.65%	10.16%	10.97%	10.97%	11.90%	12.39%	12.39%	
Cohort formed January 1, 1991									
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
"a"	0.00%	1.11%	1.11%	1.11%	1.11%	1.11%	1.11%		
"baa"	0.00%	0.00%	1.72%	1.72%	1.72%	1.72%	1.72%		
"ba"	0.00%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%		
"b"	16.81%	23.46%	23.46%	23.46%	27.71%	32.88%	32.88%		
Investment-Grade	0.00%	0.52%	1.09%	1.09%	1.09%	1.09%	1.09%		
Speculative-Grade	12.50%	18.33%	19.59%	19.59%	22.84%	24.61%	24.61%		
All Corporates	4.84%	7.21%	7.98%	7.98%	8.86%	9.33%	9.33%		

Exhibit 19 - Cumulative Dividend Impairment Rates for Cohorts Formed Since 1980 (cont.)

Year	1	2	3	4	5	6
Cohort formed January 1, 1992						
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"a"	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
"baa"	1.20%	1.20%	1.20%	1.20%	1.20%	1.20%
"ba"	5.19%	11.52%	11.52%	11.52%	11.52%	11.52%
"b"	6.74%	6.74%	10.40%	19.36%	24.92%	24.92%
Investment-Grade	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%
Speculative-Grade	7.11%	10.53%	11.91%	15.05%	16.86%	16.86%
All Corporates	2.74%	3.78%	4.15%	4.95%	5.37%	5.37%
Cohort formed January 1, 1993						
"aaa"	0.00%	0.00%	0.00%	0.00%	0.00%	
"aa"	0.00%	0.00%	0.00%	0.00%	0.00%	
"a"	0.00%	0.00%	0.00%	0.00%	0.00%	
"baa"	0.00%	0.00%	0.00%	0.00%	0.00%	
"ba"	0.00%	0.00%	0.00%	0.00%	0.00%	
"b"	6.67%	11.64%	17.44%	20.95%	24.72%	
Investment-Grade	0.00%	0.00%	0.00%	0.00%	0.00%	
Speculative-Grade	3.67%	5.83%	8.25%	9.64%	11.21%	
All Corporates	1.18%	1.82%	2.49%	2.86%	3.23%	
Cohort formed January 1, 1994						
"aaa"	0.00%	0.00%	0.00%	0.00%		
"aa"	0.00%	0.00%	0.00%	0.00%		
"a"	0.00%	0.00%	0.00%	0.00%		
"baa"	0.00%	0.00%	0.00%	0.00%		
"ba"	0.00%	0.00%	0.00%	0.00%		
"b"	3.31%	7.06%	11.71%	14.38%		
Investment-Grade	0.00%	0.00%	0.00%	0.00%		
Speculative-Grade	1.58%	4.21%	6.22%	7.38%		
All Corporates	0.53%	1.36%	1.96%	2.28%		

Year	1	2	3
Cohort formed January 1, 1995			
"aaa"	0.00%	0.00%	0.00%
"aa"	0.00%	0.00%	0.00%
"a"	0.00%	0.00%	0.00%
"baa"	0.00%	0.00%	0.00%
"ba"	0.00%	0.00%	0.00%
"b"	3.85%	10.71%	10.71%
Investment-Grade	0.00%	0.00%	0.00%
Speculative-Grade	3.65%	6.15%	6.86%
All Corporates	1.20%	1.97%	2.20%
Cohort formed January 1, 1996			
"aaa"	0.00%	0.00%	
"aa"	0.00%	0.00%	
"a"	0.00%	0.00%	
"baa"	0.00%	0.00%	
"ba"	0.00%	0.00%	
"b"	4.08%	4.08%	
Investment-Grade	0.00%	0.00%	
Speculative-Grade	3.41%	4.19%	
All Corporates	1.15%	1.40%	
Cohort formed January 1, 1997			
"aaa"	0.00%		
"aa"	0.00%		
"a"	0.00%		
"baa"	0.00%		
"ba"	0.00%		
"b"	0.00%		
Investment-Grade	0.00%		
Speculative-Grade	0.64%		
All Corporates	0.21%		

Moody's Preferred Stock Rating Definitions

"aaa"

An issue which is rated "aaa" is considered to be a top-quality preferred stock. This rating indicates good asset protection and the least risk of dividend impairment within the universe of preferred stocks.

"aa"

An issue which is rated "aa" is considered a high-grade preferred stock. This rating indicates that there is a reasonable assurance the earnings and asset protection will remain relatively well-maintained in the foreseeable future.

"a"

An issue which is rated "a" is considered to be an upper-medium grade preferred stock. While risks are judged to be somewhat greater than in the "aaa" and "aa" classification, earnings and asset protection are, nevertheless, expected to be maintained at adequate levels.

"baa"

An issue which is rated "baa" is considered to be a medium-grade preferred stock, neither highly protected nor poorly secured. Earnings and asset protection appear adequate at present but may be questionable over any great length of time.

"ba"

An issue which is rated "ba" is considered to have speculative elements and its future cannot be considered well assured. Earnings and asset protection may be very moderate and not well safeguarded during adverse periods. Uncertainty of position characterizes preferred stocks in this class.

"b"

An issue which is rated "b" generally lacks the characteristics of a desirable investment. Assurance of dividend payments and maintenance of other terms of the issue over any long period of time may be small.

"caa"

An issue which is rated "caa" is likely to be in arrears on dividend payments. This rating designation does not purport to indicate the future status of payments.

"ca"

An issue which is rated "ca" is speculative in a high degree and is likely to be in arrears on dividends with little likelihood of eventual payments.

"c"

This is the lowest rated class of preferred or preference stock. Issues so rated can be regarded as having extremely poor prospects of ever attaining any real investment standing.

Note: Moody's applies numerical modifiers 1, 2, and 3 in each rating classification; The modifier 1 indicates that the security ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking and the modifier 3 indicates that the issue ranks in the lower end of its generic rating category.

Glossary of Preferred Stock Terms

Adjustable Rate Preferred Stock – Preferred stock that pays a dividend that is adjustable. The adjustments are usually quarterly and based on changes in money market rates.

Auction Rate Preferred Stock – See Dutch Auction Preferred Stock.

Arrears – The cumulative amount of omitted dividends on cumulative preferred stock. For example, a cumulative preferred issue that pays $5 on a quarterly basis is $5 in arrears after the first omitted dividend. After the second, it is $10 in arrears, and so on. Some preferred stock charters provide for an upper limit to the amount of arrears that can accumulate.

Asset-Backed Preferred Stock – Typically preferred stock that is issued through a wholly owned special purpose finance subsidiary. Usually the parent first sets up the subsidiary and contributes enough capital that it satisfies over-collateralization requirements. The subsidiary then issues the preferred stock and uses the proceeds to purchase other assets from the parent company.

Cleared Arrears – The payment of accumulated passed dividends of cumulative preferred stock.

Convertible Preferred Stock – Preferred stock that is exchangeable for another security, usually common stock, at a pre-specified exchange rate.

Cumulative Dividends – If a preferred stock's dividends are cumulative, all past preferred dividends (**arrears**) must be paid before common dividends are paid.

DARTS – See Dutch Auction Preferred Stock.

Dutch Auction – An auction in which the auctioneer collects bids, sorts them in descending order, and selects the one that clears the market.

Dutch Auction Preferred Stock – An adjustable rate preferred stock whose dividend is re-determined every seven weeks in a Dutch auction process.

Exchangeable Preferred Stock – Preferred stock that can be, usually after a specified grade period and at the issuer's discretion, exchanged for some form of debt.

Money Market Preferred Stock – See Dutch Auction Preferred Stock.

Non-Cumulative Dividends – If a preferred stock's dividends are noncumulative, once the board votes to pass a dividend, it is lost forever. Holders have no recourse.

Participating – The participating provision allows holders to share in the issuing firm's earnings beyond the stated amount. Typically, the preferred dividend is paid first. Then income is allocated to common dividends up to the amount paid to the preferred stock. Then preferred and common holders share the remaining income.

Passed Dividends – A dividend payment that was not declared. An omitted dividend payment.

Payment-in-Kind (PIK) Preferred Stock – Preferred stock that pays dividends in the form of additional preferred stock.

Preference Shares – A form of preferred stock that is junior to other issues of preferred stock in its claim to earnings and/or assets.

Redeemable Preferred Stock – Preferred stock that can be, usually after a specified grade period, redeemed at the issuer's discretion.

Moody's Preferred Stock Ratings and Credit Risk

Special Comment

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