

**STANDARD  
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# Ratings Performance 2000

*Default, Transition, Recovery, and Spreads*



**Research from  
Standard & Poor's  
Risk Solutions**

Corporate  
Default Study

Tough Times for U.S.  
Industrial Spreads

Ratings Roundup

Suddenly  
Structure Mattered

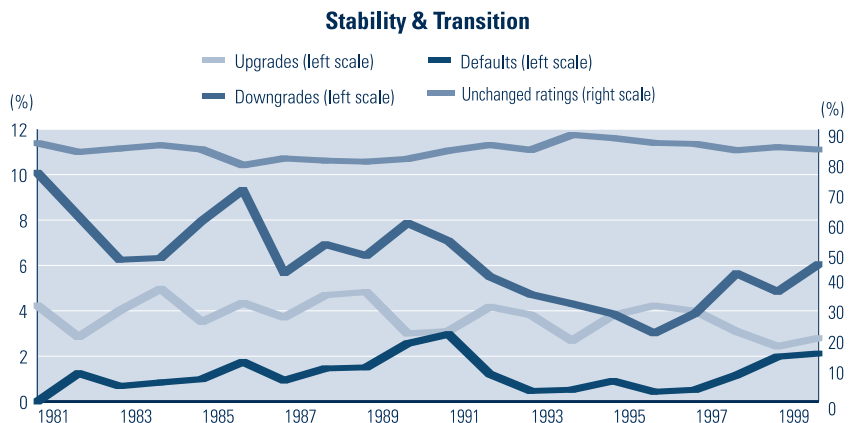
The Rise and Fall  
Of Sovereign Ratings

**January 2001**



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# RATINGS PERFORMANCE 2000

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# RATINGS PERFORMANCE 2000

LETTER

## A Letter From Roy N. Taub

*Executive Managing Director, Risk Solutions*

Much has changed in the 12 years that have passed since Standard & Poor's first published a corporate default study. Globalization, combined with the voracious risk appetite that dominated the '90s, opened the doors of the capital markets to companies that could not have accessed them earlier. At the same time, companies that were already there began taking on much more debt than they had in the past.

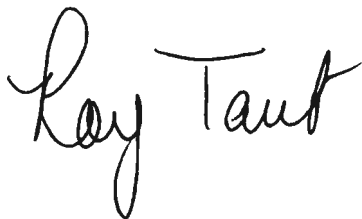
Recent events, however, have reminded us all of how dangerous a place the financial world can be: hundreds of billions of dollars in market capitalization can evaporate in a fortnight; a crisis in a faraway land can spook investors away from risk everywhere, making it harder and more onerous for many firms to borrow. The vagaries of the collective psyche can turn expectations—and the economy—in new and unexpected directions; business failures can hit record heights, even as the economy expands at a breakneck pace.

It should come as no surprise, then, that market participants are now much more aware of and sensitive to the need for measuring and managing credit risk. This, in turn, has meant a growing demand for ratings, for high-quality and timely credit information, and for better risk management tools.

Standard & Poor's, always in risk assessment's forefront, is repositioning itself to better serve those needs. On Jan. 2, 2001, we launched our Risk Solutions unit, with the aim of providing financial institutions, corporate treasuries, and asset managers with a broad range of analytical services and tools to assess and manage credit risk.

Gathered in the pages that follow are some of those tools, beginning with our annual corporate default study. Other articles include a look at U.S. industrial credit spreads, a brief summary of U.S. bond market activity, an analysis of recoveries on defaulted debt, and surveys of sovereign rating transitions and defaults. These studies will be, no doubt, an important component of credit risk managers' tool chests.

Our proprietary default and recovery databases, including complete rating histories, CUSIPs and industrial classification codes, are available through Standard & Poor's CreditPro®. Also available are S&P Credit Indices that reflect daily spread levels within various bond market sectors. Please contact your account executive for further information on these products or for answers to any other questions you may have.

A handwritten signature in black ink that reads "Roy Taub". The signature is written in a cursive, flowing style with a large initial "R" and "T".

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# Corporate Defaults: Will Things Get Worse Before They Get Better?

Leo Brand, *New York (1) 212-438-2407* Reza Bahar, *New York (1) 212-438-2390*

**F**ar from abating, the wave of defaults that swept the world in 1999 reached new heights in 2000. Worse yet, nothing suggests that things are going to improve in 2001.

Worldwide, 117 rated or formerly rated companies defaulted in 2000, making it the worst year in recent memory. In relative terms, however, higher default rates occurred in 1991 and 1992, given that the rated universe was then less than one-half of what it is today (see table 1 and charts 1 and 2).

Standard & Poor's has updated through 2000 its long-term corporate default and rating transition study. Based on information extracted from its proprietary database, the update involved close to 9,200 obligors rated by Standard & Poor's as of Jan. 1, 1981, or first rated between that date and Dec. 31, 1999. These obligors are located throughout the world and they comprise industrials, utilities, financial institutions, and insurance companies with long-term ratings. Structured financings and public-sector issuers were excluded from the analysis. Also excluded were holders of public information ('pi') ratings and sovereign issuers. The latter are the subject of separate default and transitions studies (see "The

*Rise and Fall of Sovereign Ratings: 2000," and "Sovereign Defaults Decline Through Third-Quarter 2000," in this publication).*

Standard & Poor's ongoing improvement of the proprietary database used to generate the study, as well as the inclusion of companies previously excluded from the analysis (see section: *The Data, under Corporate Defaults*), has led to outcomes that differ to some degree from those yielded by previous studies. This, however, should pose no continuity problems, since the period covered by all updates starts on Jan. 1, 1981. Thus, each study is self-contained and effectively supersedes all previous versions.

## CLEAR CORRELATION

All of Standard & Poor's default studies, the present update included, have found a clear correlation between credit quality and default remoteness: the higher the rating, the lower the probability of default, and vice versa. Table 2 (whose figures are plotted on charts 3 and 4) and table 3 forcefully make the point that no matter what the time horizon, lower ratings always correspond to higher default ratios.

Furthermore, the lower an obligor's original rating, the shorter the time it normally takes to an eventual default. For

Table 1

Corporate Defaults					
	Rated at time of default*	No longer rated at default	Total defaults (units)*	Default ratio (%)	Total debt (Bil. \$)
1981	0	0	0	0.00	0.0
1982	18	1	19	1.32	0.9
1983	10	0	10	0.68	0.4
1984	13	0	13	0.84	0.4
1985	17	1	18	1.05	0.3
1986	33	0	33	1.75	0.5
1987	18	1	19	0.93	1.6
1988	32	0	32	1.46	3.3
1989	34	5	39	1.73	7.3
1990	55	10	65	2.87	21.2
1991	63	25	88	3.96	23.6
1992	28	3	31	1.34	5.4
1993	12	9	21	0.83	2.4
1994	15	3	18	0.63	2.3
1995	28	3	31	0.94	9.0
1996	15	3	18	0.51	2.7
1997	18	2	20	0.52	4.9
1998	47	6	53	1.20	11.3
1999	98	3	101	2.06	37.8
2000	107	10	117	2.27	42.3

\*Excludes 20 companies that defaulted in year when first rated. Source: Standard & Poor's.

instance, the mean life of defaulting 'B' rated companies was 3.6 years for the period under study, while those rated 'AA' that defaulted did so in an average of 9.5 years from initial rating (or from Jan. 1, 1981, the study's starting date). If a company downgraded to 'CCC' defaulted, it did so, on average, in less than five months (see table 4).

Credit quality continued to deteriorate in 2000, even though ratings assigned to newly rated speculative-grade companies dropped to about half of the total for the first time since 1996 (see table 5). Yet, the fact that last year's downgrades outpaced upgrades by a ratio of almost 3 to 1 (see table 6) pushed the speculative-grade component of the rating mix to 37.5% from 36.0%.

The transition analysis portion of the study confirmed the earlier finding that higher ratings are longer lived. While an 'AAA' rated obligor has a 90.3% chance of remaining 'AAA' a year later, the probability of retaining its rating drops to 84.3% for 'BBB' and 53.2% for 'CCC' obligors (see tables 7 and 12). Similar stability behavior can be observed on the N.R.-adjusted version of the average one-year transition matrix (see table 8). As might be expected, the longer the transition period, the lower the probability that an obligor will maintain its original rating (see table 16).

#### CORPORATE DEFAULTS

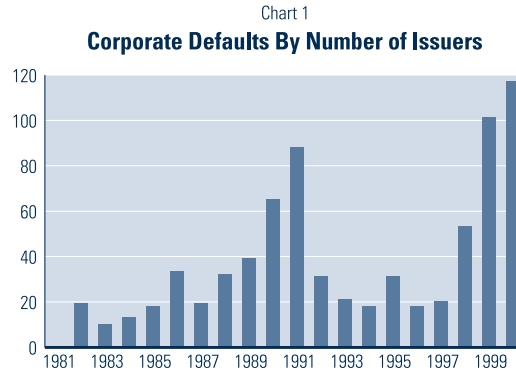
*The data.* Issuer credit ratings were used throughout the study. These ratings reflect Standard & Poor's opinion of a company's

overall capacity to pay its obligations (that is, its fundamental creditworthiness). This opinion focuses on the obligor's ability and willingness to meet its financial commitments on a timely basis, and it generally indicates the likelihood of default regarding all financial obligations of the firm. Although very senior forms of secured debt, particularly ones with strong covenants, may occasionally be rated higher than these issuer credit ratings, specific issues are typically rated as high as or lower than these ratings, depending on their relative priority within the company's debt structure. If they are speculative grade, issuer credit ratings are generally two notches higher than subordinated debt ratings. Otherwise, they are generally one notch higher. So, while a 'BB+' issuer credit rating is paired with a 'BB-' subordinated rating, an 'AA' issuer credit rating corresponds to an 'AA-' subordinated rating. However, it is not necessary for a company to have rated debt in order to obtain an issuer credit rating.

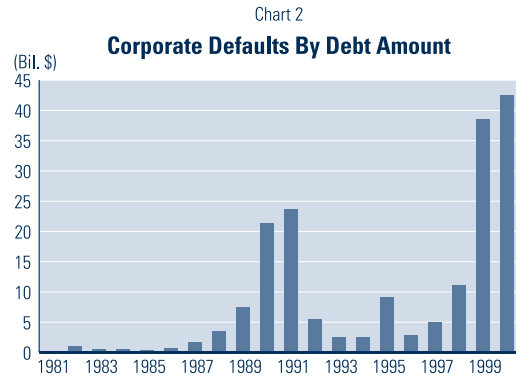
Until the end of 1994, Standard & Poor's only included in its default studies issuers of publicly rated long-term debt. Beginning in 1995, the selection criteria were widened to include all holders of Standard & Poor's long-term ratings, whether they had rated debt or not. In addition to issuers of rated bonds and bank loans, companies with long-term corporate credit ratings and counterparty ratings are now specifically included. These holders of general obligation type ratings represent now slightly more than half of all obligors in the database.

All in all, the study analyzed the rating histories of 9,169 holders of long-term ratings from Jan. 1, 1981, to Dec. 31, 2000. These obligors include both U.S. and non-U.S. industrials, utilities, insurance companies, banks, other financial institutions, and real estate companies. Although most of their obligations are sold in the U.S., many of these companies also access other financial markets.

Insurers that only have a financial strength rating were excluded. Also excluded were companies whose ratings are all short term. Subsidiaries whose debt



Source: Standard & Poor's.



Source: Standard & Poor's.

is fully guaranteed by a parent or whose default risk is deemed identical with their parents' have always been excluded. These are companies whose obligations are not legally guaranteed by a parent but whose operating or financing activities are so inextricably entwined with those of the parent that it would be impossible to imagine the default of one and not the other. At times, however, some of these subsidiaries might not yet have been covered by a parent's guarantee, or the relationship that combines the default risk of parent and child might have come to an end, or might not have begun. A substantial effort was undertaken last year to include subsidiaries in such situations. If so, they were included for the period during which they carried a distinct and separate risk of default.

Table 2

Static Pools Average Cumulative Default Rates (%)															
	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6	Yr. 7	Yr. 8	Yr. 9	Yr. 10	Yr. 11	Yr. 12	Yr. 13	Yr. 14	Yr. 15
AAA	0.00	0.00	0.03	0.06	0.10	0.18	0.26	0.40	0.45	0.51	0.51	0.51	0.51	0.51	0.51
AA	0.01	0.04	0.09	0.16	0.25	0.37	0.53	0.63	0.70	0.79	0.85	0.92	0.96	1.01	1.07
A	0.04	0.11	0.19	0.32	0.49	0.65	0.83	1.01	1.21	1.41	1.56	1.65	1.70	1.73	1.83
BBB	0.22	0.50	0.79	1.30	1.80	2.29	2.73	3.10	3.39	3.68	3.91	4.05	4.22	4.37	4.48
BB	0.98	2.97	5.35	7.44	9.22	11.11	12.27	13.35	14.29	15.00	15.65	16.00	16.29	16.36	16.36
B	5.30	11.28	15.88	19.10	21.44	23.20	24.77	26.01	26.99	27.88	28.48	28.96	29.34	29.68	29.96
CCC	21.94	29.25	34.37	38.24	42.13	43.62	44.40	44.82	45.74	46.53	46.84	47.21	47.66	48.29	48.29
Inv. grade	0.08	0.19	0.31	0.51	0.72	0.95	1.17	1.37	1.54	1.71	1.84	1.93	2.00	2.06	2.14
Spec. grade	4.14	8.34	11.93	14.67	16.84	18.64	19.98	21.09	22.05	22.85	23.46	23.88	24.22	24.45	24.58

Table 3

N.R.-Adjusted Static Pools Average Cumulative Default Rates (%)															
	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6	Yr. 7	Yr. 8	Yr. 9	Yr. 10	Yr. 11	Yr. 12	Yr. 13	Yr. 14	Yr. 15
AAA	0.00	0.00	0.04	0.07	0.12	0.21	0.32	0.51	0.58	0.67	0.67	0.67	0.67	0.67	0.67
AA	0.01	0.04	0.10	0.18	0.29	0.43	0.62	0.76	0.85	0.96	1.05	1.15	1.22	1.29	1.39
A	0.04	0.12	0.21	0.36	0.57	0.78	1.01	1.27	1.57	1.86	2.11	2.25	2.34	2.39	2.59
BBB	0.24	0.55	0.89	1.55	2.23	2.94	3.60	4.20	4.68	5.20	5.62	5.91	6.27	6.59	6.85
BB	1.08	3.48	6.65	9.71	12.57	15.87	18.09	20.28	22.28	23.86	25.37	26.20	26.91	27.09	27.09
B	5.94	13.49	20.12	25.36	29.58	33.03	36.34	39.07	41.33	43.41	44.87	46.08	47.08	48.04	48.81
CCC	25.26	34.79	42.16	48.18	54.65	57.23	58.64	59.40	61.12	62.58	63.16	63.89	64.81	66.12	66.12
Inv. grade	0.08	0.20	0.34	0.58	0.84	1.13	1.43	1.71	1.96	2.22	2.43	2.57	2.70	2.80	2.96
Spec. grade	4.59	9.80	14.79	19.01	22.71	26.03	28.69	31.02	33.12	34.93	36.35	37.35	38.21	38.82	39.16

N.R.—Rating withdrawn.

Table 4

Time to Default by Rating Category					
Original rating	Defaults (units)	Avg. years from orig. rating *	Last rating prior to D	Defaults (units)	Avg. years from last rating
AAA	3	8.0	AAA	0	N/A
AA	10	9.5	AA	0	N/A
A	23	8.5	A	0	N/A
BBB	50	6.5	BBB	9	0.9
BB	207	4.8	BB	18	1.2
B	416	3.6	B	205	1.2
CCC	37	3.3	CCC	429	0.4
N.R.	0	N/A	N.R.	85	2.4
Total	746	4.4	Total	746	0.9

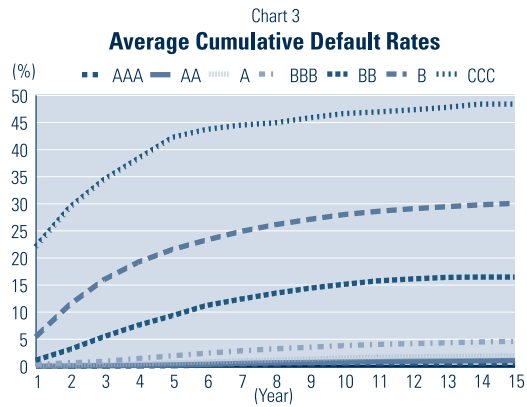
\*Or Jan. 1, 1981, whichever is later. N/A—Not applicable. N.R.—Rating withdrawn.

**Definition of default.** A default is recorded upon the first occurrence of a payment default on any financial obligation, rated or unrated, other than a financial obligation subject to a bona fide commercial dispute; an exception occurs when an interest payment missed on the due date is made within the grace period. A good example of this is Compass Aerospace Corp., which missed an interest payment on Oct. 15, 2000, but made it on the last day of the grace period. Following this criterion, the company was not included in the 2000 list of defaults. Preferred stock is not considered a financial obligation; thus, a missed preferred stock dividend is not normally equated to a default. Distressed exchanges, on the other hand, are considered defaults whenever the debtholders are coerced into accepting substitute instruments with lower coupons, longer maturities, or any other diminished financial terms.

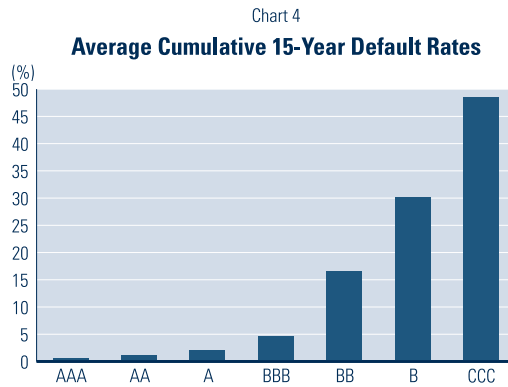
Issue ratings are usually set to 'D' following a company's default on the corresponding obligation. Additionally, the 'SD' (selective default) rating was introduced in 1999, for use whenever Standard & Poor's believes that an obligor that has selectively defaulted on a specific issue or class of obligations, will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. Both the 'D' and 'SD' issuer credit ratings are deemed defaults for purposes of this study. A default was assumed to take place on the earliest of the date Standard & Poor's changed the rating to 'D' or 'SD', the date a debt payment was missed, the date a distressed exchange offer was announced, or the day the debtor filed or was filed into bankruptcy.

**Last year's defaults.** All together, 117 companies defaulted in 2000, on debt totaling \$42.3 billion. About 94% of these companies were domiciled in the U.S. or Canada, and the rest were located one each in Bermuda, Colombia, Cyprus, Germany, Greece, Indonesia and the U.K. (see table 17).

Only seven of the defaulted companies had originally received an investment-grade rating. The rest were all speculative graders. On average, it took the former



Source: Standard & Poor's.



Source: Standard & Poor's.

more than 11 years from their original rating to default, while the latter's failure took place, typically, in less than five years.

Industrywise, the leisure time/media, consumer/service, and energy/natural resources sectors experienced the highest incidence of default during the 20-year period that began in 1981. Not far behind were the telecommunications and the forest/building products/homebuilders sectors (see table 9).

The energy/natural resources sector and the telecommunications sector did substantially better last year, the former buoyed by rising oil prices and the latter by the seemingly inexhaustible Internet-driven demand for their services and wares. Although the outlook continues being bright for energy companies, signs of turmoil have begun to cloud the telecoms' horizon.

Table 5

Rating Classification of New Issuers										
	1981		1982		1983		1984		1985	
	No.	%	No.	%	No.	%	No.	%	No.	%
AAA	6	7.59	17	13.93	23	13.86	27	12.16	29	10.90
AA	9	11.39	24	19.67	30	18.07	34	15.32	41	15.41
A	21	26.58	31	25.41	28	16.87	47	21.17	53	19.92
BBB	9	11.39	16	13.11	23	13.86	23	10.36	35	13.16
BB	13	16.46	16	13.11	26	15.66	38	17.12	42	15.79
B	20	25.32	17	13.93	31	18.67	49	22.07	65	24.44
CCC	1	1.27	1	0.82	5	3.01	4	1.80	1	0.38
Inv. grade	45	56.96	88	72.13	104	62.65	131	59.01	158	59.40
Spec. grade	34	43.04	34	27.87	62	37.35	91	40.99	108	40.60
	1986		1987		1988		1989		1990	
	No.	%	No.	%	No.	%	No.	%	No.	%
AAA	31	9.78	25	7.02	29	11.46	15	6.79	14	8.81
AA	20	6.31	45	12.64	51	20.16	41	18.55	48	30.19
A	42	13.25	57	16.01	37	14.62	43	19.46	39	24.53
BBB	27	8.52	41	11.52	31	12.25	23	10.41	19	11.95
BB	53	16.72	64	17.98	29	11.46	35	15.84	16	10.06
B	129	40.69	114	32.02	70	27.67	60	27.15	14	8.81
CCC	15	4.73	10	2.81	6	2.37	4	1.81	9	5.66
Inv. grade	120	37.85	168	47.19	148	58.50	122	55.20	120	75.47
Spec. grade	197	62.15	188	52.81	105	41.50	99	44.80	39	24.53

Several of the same stragglers of the last two decades were also hit hardest in 2000. Heading the list were the forest/building products/homebuilders, the consumer/service and the leisure time/media sectors. At the other end of the scale, the utilities, the financial institutions and the insurance/real estate sectors delivered stellar performances, both in 2000 and in the 20 years spanned by the study.

*A look ahead.* In many ways, the cycle capital markets are now going through mirrors the one they followed as the '80s turned into the '90s. After the fraction of newly rated speculative-grade companies over all market newcomers hit rock bottom in 1982, it started a steady climb that peaked in 1986 (see table 5). Meanwhile, the ratio of speculative-grade ratings to all

ratings, which started to increase in 1983, peaked in 1988. Defaults rates, which follow a similar pattern, albeit with a lag of some three years, rose steadily beginning in 1987 and peaked in the recessionary year of 1991 (see chart 5).

It would seem that history is replaying itself. This time around, the percentage of newly rated speculative-grade companies began to climb in 1995 and peaked in 1998-1999, while the share of speculative ratings in all ratings, which has swelled continuously since 1992, barely began to slow down in 1999. This does not bode well for the immediate future of defaults. If the relationship depicted by chart 5 holds, we should not expect the number of defaults to start dropping before 2003.

Table 5

Rating Classification of New Issuers (continued)										
	1991		1992		1993		1994		1995	
	No.	%	No.	%	No.	%	No.	%	No.	%
AAA	34	13.39	20	5.78	14	2.55	20	3.53	6	1.53
AA	80	31.50	60	17.34	50	9.11	58	10.25	29	7.38
A	76	29.92	72	20.81	110	20.04	181	31.98	76	19.34
BBB	28	11.02	55	15.90	101	18.40	105	18.55	99	25.19
BB	22	8.66	67	19.36	117	21.31	86	15.19	72	18.32
B	6	2.36	66	19.08	153	27.87	113	19.96	107	27.23
CCC	8	3.15	6	1.73	4	0.73	3	0.53	4	1.02
Inv. grade	218	85.83	207	59.83	275	50.09	364	64.31	210	53.44
Spec. grade	36	14.17	139	40.17	274	49.91	202	35.69	183	46.56
	1996		1997		1998		1999		2000	
	No.	%	No.	%	No.	%	No.	%	No.	%
AAA	12	2.13	9	1.07	4	0.47	14	2.07	20	3.58
AA	45	7.98	48	5.72	57	6.67	39	5.76	36	6.45
A	99	17.55	112	13.35	117	13.68	85	12.56	83	14.87
BBB	142	25.18	179	21.33	143	16.73	131	19.35	141	25.27
BB	132	23.40	183	21.81	209	24.44	191	28.21	124	22.22
B	133	23.58	303	36.11	313	36.61	209	30.87	138	24.73
CCC	1	0.18	5	0.60	12	1.40	8	1.18	16	2.87
Inv. grade	298	52.84	348	41.48	321	37.54	269	39.73	280	50.18
Spec. grade	266	47.16	491	58.52	534	62.46	408	60.27	278	49.82

Indeed, everything suggests that 2001, and perhaps 2002, will be worse than 2000. Speculative-grade companies, always vulnerable to adverse forces of any kind, find themselves squeezed in different ways: as the economy cools down, yield spreads between their bonds and U.S. Treasuries continue widening (*see chart 6*). This suggests that it will be extremely difficult for these companies to roll over their long-term obligations. The stock market woes, which have depressed the assets and market capitalization of all companies, make it all but impossible for the weaker players to raise capital by selling stock. Banks have reported the highest tightening of lending standards to corporations since 1991. Last but not least, the signs are unmistakable that the econ-

omy is slowing down. How bad things will get for corporate defaults will depend to a large extent on whether the landing commentators talk about is soft or hard. At best, defaults in 2001 will be as high as they were in 2000. At worst, they will be much higher, perhaps approaching rates not seen since 1991.

*Pool formation.* Relatively few issuers default early in their rated history. Because of this, default rates obtained by dividing the number of defaults during a given period by all outstanding ratings will yield comparatively low default rates during periods of high rating activity. To avoid this misleading result, Standard & Poor's has conducted its default studies on the basis of groupings called static pools. A static pool is formed on the first day of

Table 6

Summary of Annual Rating Activity (%)						
Year	Upgrades	Downgrades*	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings
1981	4.24	10.09	0.00	0.22	14.55	85.45
1982	2.84	8.17	1.25	5.26	17.52	82.48
1983	4.01	6.25	0.68	5.43	16.37	83.63
1984	4.97	6.33	0.84	3.10	15.25	84.75
1985	3.51	7.96	0.99	4.21	16.68	83.32
1986	4.35	9.33	1.75	6.47	21.90	78.10
1987	3.71	5.66	0.93	9.33	19.63	80.37
1988	4.69	6.93	1.46	7.29	20.37	79.63
1989	4.83	6.43	1.51	7.94	20.71	79.29
1990	3.00	7.87	2.56	6.36	19.80	80.20
1991	3.11	7.07	2.97	3.92	17.07	82.93
1992	4.18	5.51	1.21	4.27	15.17	84.83
1993	3.82	4.72	0.47	7.83	16.85	83.15
1994	2.68	4.31	0.52	4.34	11.85	88.15
1995	3.81	3.87	0.91	4.33	12.92	87.08
1996	4.23	3.01	0.43	6.84	14.50	85.50
1997	3.99	3.89	0.52	6.45	14.85	85.15
1998	3.09	5.65	1.16	7.06	16.96	83.04
1999	2.43	4.84	1.98	6.64	15.89	84.11
2000	2.80	6.06	2.12	5.75	16.71	83.29
Annual average	3.57	5.74	1.27	5.91	16.49	83.51

\*Excludes downgrades to D, shown separately in the default column.

Table 7

Initial rating	Average One-Year Transition Rates								
	—Rating at year end (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	90.34	5.62	0.39	0.08	0.03	0.00	0.00	0.00	3.54
AA	0.64	88.78	6.72	0.47	0.06	0.09	0.02	0.01	3.21
A	0.07	2.16	87.94	4.97	0.47	0.19	0.01	0.04	4.16
BBB	0.03	0.24	4.56	84.26	4.19	0.76	0.15	0.22	5.59
BB	0.03	0.06	0.40	6.09	76.09	6.82	0.96	0.98	8.58
B	0.00	0.09	0.29	0.41	5.11	74.62	3.43	5.30	10.76
CCC	0.13	0.00	0.26	0.77	1.66	8.93	53.19	21.94	13.14

N.R.—Rating withdrawn.

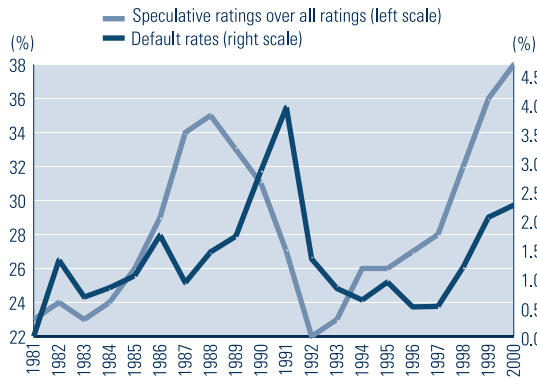
each year covered by the study and followed from that point on. All companies included in the study are sorted into these pools. The pools are static in the sense that their membership remains constant over time. This rule, however, must be understood in the context of a single study. Because errors, if any, are corrected by every new update, and because the criteria for inclusion or exclusion of companies in the study is subject to minor revisions as time goes by, it is not possible to compare pools across studies. But every new update revises results back to the same starting date (Jan. 1, 1981), so as to avoid continuity problems.

All obligors are followed year to year within each pool. This annual tracking involves the comparison of each member's ratings on the first and last days of each calendar year. Intermediate ratings, if any, are ignored. Entities whose ratings have been withdrawn—that is, changed to N.R. (not rated)—are followed in the same manner, with the aim of capturing a potential default. These companies, as well as those that have defaulted, are excluded from subsequent pools.

For instance, the 1981 static pool comprises all companies that had outstanding ratings as of Jan. 1, 1981. The 1982 static pool was formed by adding those companies first rated in 1981 to the surviving members of that year's static pool. All rating changes were updated to the beginning of 1982. This same method was used to form static pools for 1983 through 2000. From Jan. 1, 1981, to Dec. 31, 2000, a total of 9,169 first-time rated organizations was added to the static pools, while 746 defaulting companies and 3,118 companies classified as N.R. were excluded from them.

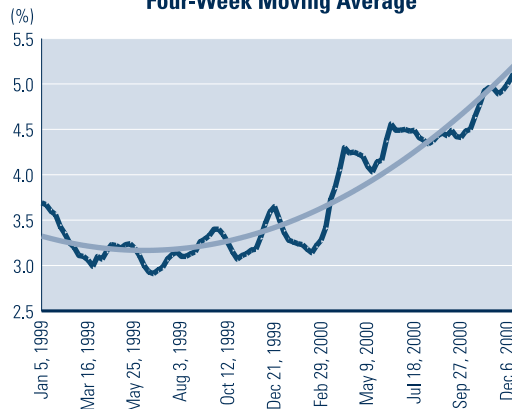
Consider the following illustration: An issuer is given a first rating of 'BB' in mid-1986 and is downgraded to 'B' in 1988. This is followed by a rating withdrawal (N.R.) in 1990, and a default ('D') in 1993. This hypothetical company would be included in the 1987 and 1988 pools with the 'BB' rating, which it had at the beginning of those years; likewise, it would be included in the 1989 and 1990 pools with the 'B' rating. It would not be part of the

Chart 5  
**Default Rates vs. Share of Speculative-Grade Ratings**



Source: Standard & Poor's.

Chart 6  
**Spread of Five-Year BB/B Issues to U.S. Treasuries**  
**Four-Week Moving Average**



Source: Standard & Poor's.

1986 pool because it did not have a rating on the first day of that year, and it would not be included in any pool past the last day of 1990 because its rating had been withdrawn by then. Yet the four pools that held this company, 1987 to 1990, would all record its 1993 default.

The bulk of the withdrawn ratings occur when an entity's entire debt is paid off or when the program or programs rated are terminated and their debt extinguished. Many others are withdrawn as a result of mergers and acquisitions. Yet others are withdrawn because of a lack of cooperation, particularly when a company is experiencing financial difficulties and refuses to

Table 8

N.R.-Adjusted Average One-Year Transition Rates								
Initial rating	—Rating at year end (%)—							
	AAA	AA	A	BBB	BB	B	CCC	D
AAA	93.66	5.83	0.40	0.09	0.03	0.00	0.00	0.00
AA	0.66	91.72	6.94	0.49	0.06	0.09	0.02	0.01
A	0.07	2.25	91.76	5.18	0.49	0.20	0.01	0.04
BBB	0.03	0.26	4.83	89.24	4.44	0.81	0.16	0.24
BB	0.03	0.06	0.44	6.66	83.23	7.46	1.05	1.08
B	0.00	0.10	0.32	0.46	5.72	83.62	3.84	5.94
CCC	0.15	0.00	0.29	0.88	1.91	10.28	61.23	25.26

N.R.—Rating withdrawn.

Table 9

Default Rates by Industry						
		—Period 1981-2000—			—2000—	
		No. of obligors	No. of defaults	Default rate (%)	No. of defaults	Default rate (%)
1	Aerospace/automotive/capital goods/metal	1,030	108	10.49	19	1.84
2	High tech/computers/office equipment	415	33	7.95	6	1.45
3	Consumer/service sector	1,326	185	13.95	32	2.41
4	Leisure time/media	755	109	14.44	17	2.25
5	Health care/chemicals	503	45	8.95	10	1.99
6	Forest/building products/home builders	368	47	12.77	9	2.45
7	Energy/natural resources	496	65	13.10	4	0.81
8	Utilities	803	16	1.99	3	0.37
9	Telecommunications	394	18	4.57	7	1.78
10	Transportation	396	44	11.11	7	1.77
11	Financial institutions	1,771	47	2.65	2	0.11
12	Insurance/real estate	912	29	3.18	1	0.11
	Total	9,169	746	8.14	117	1.28

provide all the information needed to surveil its ratings.

**Default rates.** Annual default rates were calculated for each static pool: first in units, and later as percentages with respect to the number of issuers in each rating category (see table 13). Finally, these percentages were combined to obtain cumulative default rates for the 20 years covered by the study (see table 14). Since the maturities of most obligations are much shorter

than 15 years, this update limits the reporting of default and transition rates to this time frame. However, the data were gathered for 20 years, and all calculations were based on the rating experience of that period.

Default patterns share broad similarities across all pools, suggesting that Standard & Poor's rating standards have been consistent over time. Adverse business conditions tend to coincide with default

Table 10

## Summary of One-Year Rating Transitions

Year	—Rating distribution at year-end (%)—					Year	—Rating distribution at year-end (%)—				
	Initially rated inv. grade	Inv. grade	Spec. grade	Defaulted	Rating withdrawn		Initially rated spec. grade	Inv. grade	Spec. grade	Defaulted	Rating withdrawn
1981	1,059	98.49	1.32	0.00	0.19	1981	309	4.21	95.47	0.00	0.32
1982	1,101	93.73	2.82	0.27	3.18	1982	343	2.33	81.34	4.37	11.95
1983	1,128	94.15	1.77	0.09	3.99	1983	344	2.91	84.30	2.62	10.17
1984	1,176	95.24	2.30	0.17	2.30	1984	372	4.57	86.83	2.96	5.65
1985	1,268	92.74	3.31	0.00	3.94	1985	441	2.72	88.44	3.86	4.99
1986	1,346	90.71	3.86	0.15	5.28	1986	540	3.33	81.48	5.74	9.44
1987	1,359	90.95	2.58	0.00	6.48	1987	689	3.19	79.10	2.76	14.95
1988	1,426	93.13	2.59	0.00	4.28	1988	768	3.39	79.56	4.17	12.89
1989	1,502	93.41	2.53	0.13	3.93	1989	753	5.18	74.64	4.25	15.94
1990	1,564	95.01	1.79	0.13	3.07	1990	699	3.58	74.68	8.01	13.73
1991	1,631	95.83	1.78	0.12	2.27	1991	589	3.56	77.08	10.87	8.49
1992	1,802	95.84	1.39	0.00	2.77	1992	519	6.55	78.61	5.39	9.44
1993	1,968	93.04	1.32	0.00	5.64	1993	572	4.55	77.97	2.10	15.38
1994	2,132	96.15	0.56	0.05	3.24	1994	746	3.75	86.86	1.88	7.51
1995	2,442	95.95	0.74	0.08	3.23	1995	862	3.94	85.38	3.25	7.42
1996	2,587	94.36	0.58	0.00	5.06	1996	937	4.16	82.50	1.60	11.74
1997	2,778	93.88	1.37	0.04	4.72	1997	1,054	5.12	82.07	1.80	11.01
1998	3,010	91.89	1.83	0.10	6.18	1998	1,394	3.23	84.36	3.44	8.97
1999	3,132	93.20	1.25	0.13	5.43	1999	1,765	1.70	84.25	5.27	8.78
2000	3,218	93.26	1.77	0.16	4.82	2000	1,934	2.22	85.11	5.38	7.29
Average		93.96	1.70	0.08	4.27	Average		3.48	82.51	4.14	9.87

upswings for all pools, with speculative-grade issuers being hit the hardest.

Average cumulative default rates involving all static pools were also estimated (*see tables 2, 3, and 11*). This was accomplished by weight-averaging the marginal default rates in all static pools, the weights being the numbers of obligors per rating per pool, and then accumulating results. For instance, the average 'A' first-year default rate for all 20 pools was 0.04%. Similarly, the second- and third-year averages were 0.07% for the first 19 pools and 0.09% for the first 18 pools. Accumulated, these percentages produced the first three entries on the 'A' row in table 2: 0.04, 0.11, and 0.19. As these average cumulative default rates are a distil-

lation of default experiences across all pools, they could be used by a potential investor to assess the default expectation associated with particular ratings over different time horizons.

A slightly different method was used to estimate table 3, which adjusts the entries in table 2 by annually dropping those obligors whose ratings are withdrawn. In this case, the denominators of the default ratios decrease gradually as the pools age, making those ratios higher than they were in the case of table 2. The overall behavior of the ratios is, however, quite similar to the one observed earlier. That is, the higher the rating, the lower the default likelihood.

Table 11

## Static Pools Average Cumulative Default Rates by Rating Modifier (%)

Initial rating	Yr. 1	Yr. 2	Yr. 3	Yr. 4	Yr. 5	Yr. 6	Yr. 7	Yr. 8	Yr. 9	Yr. 10	Yr. 11	Yr. 12	Yr. 13	Yr. 14	Yr. 15
AAA	0.00	0.00	0.03	0.06	0.10	0.18	0.26	0.40	0.45	0.51	0.51	0.51	0.51	0.51	0.51
AA+	0.00	0.00	0.00	0.10	0.21	0.33	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
AA	0.00	0.00	0.00	0.03	0.09	0.16	0.30	0.42	0.50	0.60	0.65	0.65	0.72	0.72	0.72
AA-	0.03	0.09	0.23	0.35	0.49	0.69	0.86	0.99	1.07	1.16	1.27	1.53	1.53	1.72	1.97
A+	0.02	0.07	0.15	0.33	0.46	0.61	0.79	0.93	1.15	1.40	1.61	1.69	1.78	1.89	1.89
A	0.05	0.11	0.17	0.22	0.37	0.51	0.62	0.79	0.99	1.17	1.32	1.41	1.46	1.46	1.58
A-	0.05	0.17	0.30	0.48	0.73	0.96	1.28	1.53	1.73	1.89	1.97	2.08	2.08	2.08	2.27
BBB+	0.12	0.29	0.56	0.87	1.18	1.64	1.98	2.20	2.29	2.38	2.48	2.60	2.88	3.20	3.39
BBB	0.22	0.52	0.74	1.12	1.50	1.76	2.00	2.27	2.56	2.89	3.18	3.34	3.43	3.43	3.55
BBB-	0.35	0.71	1.12	2.09	3.02	3.93	4.81	5.53	6.05	6.53	6.80	6.96	7.14	7.35	7.35
BB+	0.44	1.21	2.75	4.08	5.22	6.51	7.48	7.89	8.66	9.51	10.25	10.68	10.95	10.95	10.95
BB	0.94	2.59	4.62	6.04	7.34	8.72	9.57	10.72	11.45	11.80	12.32	12.62	12.80	12.80	12.80
BB-	1.33	4.28	7.42	10.47	13.00	15.65	17.18	18.58	19.77	20.70	21.41	21.75	22.14	22.30	22.30
B+	2.91	7.74	12.08	15.44	17.92	19.66	21.38	22.80	23.79	24.75	25.42	26.04	26.53	27.03	27.39
B	8.38	16.01	21.00	23.73	25.73	27.59	28.79	29.79	30.84	31.85	32.59	33.01	33.37	33.59	33.87
B-	10.32	18.27	23.32	27.02	29.40	31.03	32.79	33.74	34.51	34.78	34.78	34.78	34.78	34.78	34.78
CCC	21.94	29.25	34.37	38.24	42.13	43.62	44.40	44.82	45.74	46.53	46.84	47.20	47.66	48.29	48.29
Inv. grade	0.08	0.19	0.31	0.51	0.72	0.95	1.17	1.37	1.54	1.71	1.84	1.93	2.00	2.06	2.14
Spec. grade	4.14	8.34	11.93	14.67	16.84	18.64	19.98	21.09	22.05	22.85	23.46	23.88	24.22	24.45	24.58

## TRANSITION ANALYSIS

To compute one-year rating transition ratios by rating category, each entity's rating at the end of a particular year was compared with its rating at the beginning of the same year. Multiple rating changes within one year were discarded. A company that remained rated for more than one year was counted as many times as the number of years it was rated. For instance, an issuer continually rated during 1985 to 1991 would appear in six consecutive one-year transition matrices. All 1981 static pool members still rated on Jan. 1, 2000, had 20 one-year transitions, while companies first rated after Jan. 1, 1999, had only one.

Each one-year transition matrix displays all rating movements between letter categories from the beginning of the year through year end. For each rating listed in the matrix's left-most column,

there are nine ratios listed in the rows, corresponding to ratings from 'AAA' to 'D', plus an entry for N.R. For instance, the first panel of table 15, which corresponds to the 1981 static pool, shows that of all 'A' rated companies at the beginning of that year, 88.22% had the same rating by year end, while 4.75% had been upgraded to 'AA', 6.61% had been downgraded to 'BBB', 0.21% had dropped to 'BB', and so on.

Rating transition ratios are useful to investors and credit professionals for whom rating stability is important. For instance, investors restricted by law or inclination to holding top-grade bonds would want to assess the likelihood that their investments will maintain their ratings. Conversely, investors buying high-yield bonds in hopes of profiting from a rating upgrade would be able to gauge that expectation realistically. The credit

Table 12

## Average One-Year Transition Rates by Rating Modifier

Initial rating	—Rating at year end (%)—																			
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC	D	N.R.	
AAA	90.34	3.13	2.13	0.36	0.14	0.19	0.06	0.06	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.54
AA+	2.19	81.89	8.83	2.94	0.38	0.68	0.08	0.00	0.15	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.72
AA	0.68	1.22	83.78	6.76	2.34	1.44	0.24	0.39	0.20	0.10	0.02	0.02	0.02	0.02	0.00	0.02	0.05	0.00	0.00	2.68
AA-	0.00	0.32	3.22	79.86	8.63	2.88	0.52	0.14	0.14	0.03	0.03	0.03	0.00	0.00	0.14	0.00	0.00	0.03	0.03	4.03
A+	0.02	0.07	0.64	4.08	80.63	7.32	2.31	0.51	0.36	0.16	0.04	0.13	0.02	0.11	0.07	0.00	0.02	0.02	0.02	3.48
A	0.08	0.09	0.48	0.72	4.83	79.14	5.13	2.99	1.00	0.35	0.17	0.20	0.15	0.14	0.02	0.00	0.00	0.00	0.05	4.48
A-	0.10	0.03	0.10	0.42	0.99	7.16	75.07	7.06	2.85	0.78	0.21	0.37	0.13	0.18	0.05	0.03	0.00	0.00	0.05	4.42
BBB+	0.00	0.03	0.06	0.18	0.51	1.80	6.99	73.95	7.68	2.61	0.48	0.33	0.12	0.27	0.21	0.00	0.15	0.12	0.12	4.50
BBB	0.05	0.02	0.07	0.10	0.42	0.77	1.90	6.52	74.60	5.21	2.02	1.01	0.44	0.32	0.25	0.00	0.05	0.22	0.22	6.02
BBB-	0.03	0.00	0.07	0.21	0.17	0.49	0.49	2.05	7.41	71.90	5.15	2.85	0.97	0.73	0.31	0.31	0.28	0.35	0.35	6.23
BB+	0.11	0.00	0.00	0.06	0.11	0.33	0.28	0.55	3.22	11.43	64.00	5.05	3.38	1.55	0.89	0.11	0.83	0.44	0.44	7.65
BB	0.00	0.00	0.09	0.04	0.00	0.21	0.17	0.26	1.24	3.72	6.11	66.10	6.93	2.69	1.15	0.56	0.68	0.94	0.94	9.11
BB-	0.00	0.00	0.00	0.00	0.06	0.03	0.13	0.26	0.42	0.75	2.95	7.52	65.43	7.49	2.50	1.17	1.23	1.33	1.33	8.72
B+	0.00	0.02	0.00	0.09	0.00	0.07	0.17	0.11	0.11	0.22	0.46	1.54	4.90	69.69	5.36	2.10	1.69	2.91	2.91	10.57
B	0.00	0.00	0.10	0.00	0.00	0.24	0.24	0.00	0.24	0.10	0.48	0.71	1.76	6.86	61.31	4.24	4.76	8.38	8.38	10.58
B-	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.22	0.11	0.11	0.22	0.33	0.44	3.73	6.26	56.86	9.11	10.32	10.32	12.18
CCC	0.13	0.00	0.00	0.00	0.13	0.00	0.13	0.51	0.26	0.00	0.26	0.38	1.02	1.91	3.19	3.83	53.19	21.94	21.94	13.14

N.R.—Rating withdrawn.

community might also use rating transition information, in part, to determine maturity exposure limits or to measure credit risk in the context of the value-at-risk models that have now become so common. Assuming that the rating transition rates are stable and follow a first-order Markov process, cumulative default rates could be modeled over different horizons. Rating transition matrices could also be constructed to produce stressed default rates. Such matrices are often used in the area of credit risk measurement.

Tables 7, 8, and 10 summarize the behavior of all one-year transition matrices. Tables 7 and 8 average out all 20 annual transition matrices, and table 10 traces annual changes from investment grade to noninvestment grade (“fallen angels”), and vice versa (“rising stars”).

Here, again, the difference between tables 7 and 8 is that the latter is based on pools whose denominators have been grad-

ually pared down by dropping those obligors whose ratings have been withdrawn, that is, set to N.R. The number of withdrawn ratings grows particularly large in the case of the speculative-grade rating categories after just a few years. Little is known about obligors whose ratings have been set to N.R., except that they have not defaulted. Indeed, default might be unlikely for those whose debt has been extinguished. Thus, there are obvious advantages to not carrying these large N.R. segments of the population.

Multiyear transitions were also calculated for periods of two through 15 years. In this case, the rating at the beginning of the multiyear period was compared with the rating at the end. For example, three-year transition matrices were the result of comparing ratings at the beginning of the years 1981 to 1998 to ratings at the end of the years 1983 to 2000. Otherwise, the methodology was

identical to the one used for single-year transitions.

Average transition matrices were calculated on the basis of the multiyear matrices just described. These average matrices are a true summary, whose ratios represent the historical incidence of the ratings listed on their first column, changing to the ones listed on their top row over the course of the multiyear period (see table 16).

The longer the transition period, the smaller the number of observations. For example, 20 different one-year transition matrices were combined to obtain the average one-year transition matrix, whereas only nine 12-year transition matrices were combined to obtain the average 12-year transition matrix. Given this more limited statistical experience, 12-year transition ratios should be deemed less reliable than their one-year counterparts.


*Verislav Tesovic and Serguei Antonov contributed to this study.* 

Table 13

<b>Static Pool Annual Default Rates 1981-2000 (%)</b>																
<b>1981 Static Pool</b>	<b>Issuers</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
AAA	106	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.94	0.00	0.00	0.00	0.00	0.00
AA	202	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.99	0.00	0.00	0.50	0.50	0.00	0.00	0.00
A	484	0.00	0.41	0.00	0.00	0.21	0.62	0.21	0.21	0.00	0.21	0.62	0.21	0.21	0.00	0.21
BBB	267	0.00	1.12	0.00	0.38	0.38	0.38	0.38	1.50	0.75	1.12	1.12	0.38	0.00	0.00	0.00
BB	217	0.00	4.61	2.30	3.23	2.77	4.61	0.46	0.92	2.30	2.30	3.23	0.92	0.92	0.00	0.00
B	81	0.00	2.47	4.94	2.47	0.00	3.70	2.47	0.00	0.00	1.24	3.70	1.24	1.24	0.00	0.00
CCC	11	0.00	9.09	0.00	0.00	0.00	9.09	0.00	0.00	0.00	9.09	0.00	0.00	0.00	0.00	0.00
Inv. grade	1,059	0.00	0.47	0.00	0.09	0.19	0.38	0.28	0.76	0.19	0.47	0.66	0.28	0.09	0.00	0.09
Spec. grade	309	0.00	4.21	2.91	2.91	1.94	4.53	0.97	0.65	1.62	2.27	3.24	0.97	0.97	0.00	0.00
<b>1982 Static Pool</b>	<b>Issuers</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
AAA	108	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
AA	223	0.00	0.00	0.00	0.00	0.00	0.45	0.90	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
A	478	0.42	0.00	0.00	0.21	0.42	0.00	0.00	0.00	0.42	1.05	0.42	0.21	0.00	0.21	0.00
BBB	292	0.34	0.34	0.34	0.34	0.69	0.69	1.71	0.69	1.03	0.69	0.34	0.00	0.00	0.00	0.00
BB	167	4.19	1.20	2.99	1.20	5.99	0.60	1.20	2.40	1.20	2.40	0.60	0.60	0.00	0.00	0.00
B	162	3.09	3.70	2.47	3.09	2.47	1.24	0.00	0.62	2.47	3.70	1.24	1.24	0.00	0.00	0.00
CCC	14	21.43	0.00	7.14	0.00	7.14	0.00	0.00	0.00	7.14	0.00	0.00	0.00	0.00	0.00	0.00
Inv. grade	1,101	0.27	0.09	0.09	0.18	0.36	0.27	0.73	0.18	0.55	0.73	0.27	0.09	0.00	0.09	0.00
Spec. grade	343	4.37	2.33	2.92	2.04	4.37	0.88	0.58	1.46	2.04	2.92	0.88	0.88	0.00	0.00	0.00
<b>1983 Static Pool</b>	<b>Issuers</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
AAA	119	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	249	0.00	0.00	0.00	0.00	0.40	1.21	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.00	0.00
A	455	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.44	1.10	0.44	0.22	0.00	0.22	0.00	0.00
BBB	305	0.33	0.98	0.00	0.66	0.33	0.66	0.33	0.98	0.98	0.33	0.00	0.00	0.00	0.00	0.00
BB	171	1.17	1.75	1.75	6.43	1.17	3.51	1.75	0.59	4.09	1.17	0.59	0.00	0.00	0.00	0.00
B	157	4.46	1.91	4.46	3.82	0.64	1.27	1.91	3.19	2.55	1.27	1.27	0.00	0.00	0.00	0.00
CCC	16	0.00	12.50	0.00	6.25	6.25	0.00	0.00	6.25	6.25	0.00	0.00	0.00	0.00	0.00	0.00
Inv. grade	1,128	0.09	0.27	0.09	0.27	0.18	0.53	0.09	0.53	0.80	0.36	0.09	0.00	0.09	0.00	0.00
Spec. grade	344	2.62	2.33	2.91	5.23	1.16	2.33	1.74	2.04	3.49	1.16	0.87	0.00	0.00	0.00	0.00
<b>1984 Static Pool</b>	<b>Issuers</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
AAA	124	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	300	0.00	0.00	0.00	0.33	1.00	0.00	0.33	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00
A	457	0.00	0.22	0.22	0.00	0.22	0.22	0.44	1.09	0.44	0.22	0.00	0.22	0.00	0.00	0.00
BBB	295	0.68	0.00	0.34	0.34	0.68	0.34	0.68	0.68	0.34	0.00	0.00	0.00	0.00	0.34	0.00
BB	172	1.16	1.16	6.98	0.58	2.33	2.91	1.16	5.23	1.16	0.00	0.00	0.00	0.00	0.00	0.00
B	181	3.32	5.53	6.63	2.21	3.87	1.66	3.32	3.32	1.66	2.21	0.00	0.00	0.00	0.00	0.00
CCC	19	15.79	10.53	5.26	0.00	0.00	5.26	5.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inv. grade	1,176	0.17	0.09	0.17	0.17	0.51	0.17	0.43	0.68	0.34	0.09	0.00	0.09	0.00	0.09	0.00
Spec. grade	372	2.96	3.76	6.72	1.34	2.96	2.42	2.42	4.03	1.34	1.08	0.00	0.00	0.00	0.00	0.00

Table 13

**Static Pool Annual Default Rates 1981-2000 (%) (continued)**

<b>1985 Static Pool</b>	<b>Issuers</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
AAA	124	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	348	0.00	0.00	0.29	0.58	0.00	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	514	0.00	0.39	0.00	0.00	0.20	0.39	1.17	0.39	0.20	0.00	0.20	0.00	0.00	0.00	0.00
BBB	282	0.00	0.00	0.00	1.77	0.36	0.71	1.06	0.36	0.00	0.00	0.00	0.00	0.36	0.00	0.71
BB	204	1.47	5.88	0.49	1.96	2.45	1.96	5.39	0.98	0.00	0.00	0.49	0.00	0.00	0.00	0.00
B	218	5.51	7.80	3.21	5.05	2.29	2.75	2.75	1.38	1.84	0.00	0.00	0.00	0.00	0.00	0.00
CCC	19	10.53	5.26	0.00	0.00	5.26	5.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inv. grade	1,268	0.00	0.16	0.08	0.55	0.16	0.39	0.79	0.32	0.08	0.00	0.08	0.00	0.08	0.00	0.16
Spec. grade	441	3.86	6.80	1.81	3.40	2.49	2.49	3.86	1.13	0.91	0.00	0.23	0.00	0.00	0.00	0.00
<b>1986 Static Pool</b>	<b>Issuers</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	145	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	355	0.00	0.00	0.28	0.00	0.28	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
A	551	0.18	0.00	0.18	0.18	0.36	0.54	0.18	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.36
BBB	295	0.34	0.00	1.36	0.34	0.34	2.03	1.02	0.34	0.00	0.00	0.00	0.34	0.34	0.34	0.00
BB	232	1.29	0.43	1.72	2.59	1.72	6.03	0.43	0.86	0.00	0.43	0.43	0.86	0.00	0.00	0.00
B	291	8.59	3.44	4.81	2.06	4.47	2.41	2.06	1.72	0.69	0.00	0.00	0.00	0.00	0.34	1.03
CCC	17	17.65	0.00	0.00	5.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inv. grade	1,346	0.15	0.00	0.45	0.15	0.30	0.74	0.37	0.07	0.00	0.07	0.00	0.07	0.07	0.07	0.22
Spec. grade	540	5.74	2.04	3.33	2.41	3.15	3.89	1.30	1.30	0.37	0.19	0.19	0.37	0.00	0.19	0.56
<b>1987 Static Pool</b>	<b>Issuers</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	367	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
A	505	0.00	0.00	0.20	0.40	0.99	0.20	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
BBB	317	0.00	0.63	0.63	0.32	1.58	0.95	0.63	0.00	0.00	0.00	0.32	0.32	0.32	0.32	0.32
BB	268	0.37	1.49	2.24	3.36	4.85	1.49	1.12	0.00	0.75	0.37	0.75	0.00	0.37	0.37	0.37
B	358	3.35	4.75	3.63	5.31	4.47	2.24	1.96	0.56	0.00	0.28	0.00	0.00	0.28	1.12	1.12
CCC	63	9.52	11.11	9.52	1.59	12.70	3.18	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59
Inv. grade	1,359	0.00	0.15	0.22	0.29	0.74	0.29	0.15	0.07	0.07	0.00	0.07	0.07	0.07	0.07	0.15
Spec. grade	689	2.76	4.06	3.63	4.21	5.37	2.03	1.60	0.29	0.29	0.29	0.29	0.00	0.29	0.87	0.87
<b>1988 Static Pool</b>	<b>Issuers</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>		
AAA	186	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	387	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.26
A	520	0.00	0.19	0.00	0.96	0.19	0.00	0.00	0.19	0.00	0.00	0.00	0.19	0.00	0.00	0.00
BBB	333	0.00	0.60	0.30	0.90	0.90	0.60	0.00	0.00	0.00	0.30	0.00	0.00	0.30	0.30	0.30
BB	291	1.03	1.72	4.12	5.84	1.03	1.38	0.00	0.69	0.34	0.69	0.34	0.34	0.69	0.69	0.69
B	418	3.83	4.79	7.18	7.90	2.39	2.15	0.72	0.96	0.24	0.24	0.24	0.48	1.20	1.20	1.20
CCC	59	22.03	8.48	1.70	10.17	3.39	0.00	0.00	0.00	0.00	1.70	0.00	0.00	1.70	1.70	1.70
Inv. grade	1,426	0.00	0.21	0.14	0.56	0.28	0.14	0.07	0.07	0.00	0.07	0.00	0.07	0.14	0.14	0.14
Spec. grade	768	4.17	3.91	5.60	7.29	1.95	1.69	0.39	0.78	0.26	0.52	0.26	0.39	1.04	1.04	1.04

Table 13

**Static Pool Annual Default Rates 1981-2000 (%) (continued)**

<b>1989 Static Pool</b>	<b>Issuers</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	210	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00
AA	397	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25
A	561	0.00	0.00	0.36	0.18	0.00	0.00	0.18	0.00	0.00	0.00	0.18	0.00
BBB	334	0.60	0.60	0.60	1.20	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.30
BB	282	0.71	4.26	7.09	2.13	1.06	0.00	0.71	0.71	0.71	0.00	0.36	0.36
B	416	3.37	9.62	10.58	1.92	1.92	0.96	0.96	0.24	0.96	1.44	0.48	1.44
CCC	55	29.09	3.64	9.09	3.64	5.46	0.00	0.00	0.00	0.00	0.00	0.00	1.82
Inv. grade	1,502	0.13	0.13	0.27	0.33	0.13	0.07	0.13	0.00	0.00	0.00	0.07	0.13
Spec. grade	753	4.25	7.17	9.16	2.13	1.86	0.53	0.80	0.40	0.80	0.80	0.40	1.06
<b>1990 Static Pool</b>	<b>Issuers</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	213	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	420	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
A	584	0.00	0.17	0.17	0.00	0.00	0.34	0.00	0.00	0.00	0.17	0.00	0.00
BBB	347	0.58	0.58	0.29	0.58	0.00	0.00	0.00	0.00	0.00	0.29	0.58	0.58
BB	286	3.50	5.94	2.80	1.05	0.00	1.05	0.70	1.05	0.00	0.35	0.00	0.00
B	365	8.49	12.60	3.29	1.92	1.37	1.10	0.00	1.10	1.64	0.55	1.64	1.64
CCC	48	31.25	10.42	10.42	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08
Inv. grade	1,564	0.13	0.19	0.13	0.13	0.06	0.13	0.00	0.00	0.00	0.13	0.19	0.19
Spec. grade	699	8.01	9.73	3.58	1.86	0.72	1.00	0.29	1.00	0.86	0.43	1.00	1.00
<b>1991 Static Pool</b>	<b>Issuers</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>		
AAA	216	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	437	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.23	0.23	0.23
A	602	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.17	0.00	0.00	0.00
BBB	376	0.53	0.00	0.27	0.00	0.27	0.00	0.00	0.00	0.27	0.53	0.53	0.53
BB	241	2.49	2.49	0.83	0.00	1.25	0.83	0.83	0.00	0.42	0.83	0.83	0.83
B	287	13.59	5.92	1.74	1.39	1.39	0.00	1.39	2.09	0.00	1.05	1.05	1.05
CCC	61	31.15	8.20	3.28	3.28	1.64	0.00	1.64	0.00	1.64	1.64	1.64	1.64
Inv. grade	1,631	0.12	0.00	0.06	0.06	0.18	0.00	0.00	0.00	0.18	0.18	0.18	0.18
Spec. grade	589	10.87	4.75	1.53	1.02	1.36	0.34	1.19	1.02	0.34	1.02	1.02	1.02
<b>1992 Static Pool</b>	<b>Issuers</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>			
AAA	223	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	502	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
A	678	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.15
BBB	399	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.25	0.25	0.25	0.25	0.25
BB	243	0.00	1.24	0.00	0.41	0.41	1.24	0.00	0.41	1.65	1.65	1.65	1.65
B	225	7.11	2.22	1.78	3.11	0.00	1.78	2.67	0.44	1.33	1.33	1.33	1.33
CCC	51	23.53	3.92	3.92	1.96	3.92	0.00	0.00	0.00	1.96	1.96	1.96	1.96
Inv. grade	1,802	0.00	0.00	0.06	0.17	0.00	0.00	0.00	0.17	0.11	0.11	0.11	0.11
Spec. grade	519	5.40	1.93	1.16	1.73	0.58	1.35	1.16	0.39	1.54	1.54	1.54	1.54

Table 13

## Static Pool Annual Default Rates 1981-2000 (%) (continued)

<b>1993 Static Pool</b>	<b>Issuers</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	222	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	526	0.00	0.19	0.00	0.00	0.00	0.00	0.19	0.00
A	762	0.00	0.00	0.13	0.00	0.00	0.00	0.26	0.13
BBB	458	0.00	0.00	0.22	0.00	0.22	0.44	0.44	0.44
BB	286	0.35	0.35	1.40	0.70	0.70	0.00	0.70	1.75
B	236	2.12	2.97	5.09	0.42	2.54	1.70	0.85	1.70
CCC	50	12.00	4.00	4.00	4.00	2.00	4.00	0.00	2.00
Inv. grade	1,968	0.00	0.05	0.10	0.00	0.05	0.10	0.25	0.15
Spec. grade	572	2.10	1.75	3.15	0.87	1.57	1.05	0.70	1.75
<b>1994 Static Pool</b>	<b>Issuers</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AA	544	0.00	0.00	0.00	0.00	0.00	0.18	0.00	
A	845	0.12	0.12	0.00	0.00	0.00	0.24	0.12	
BBB	528	0.00	0.19	0.00	0.38	0.38	0.76	0.38	
BB	374	0.27	1.34	0.54	0.80	0.80	1.87	2.41	
B	346	2.60	5.20	2.02	2.02	1.73	2.02	2.89	
CCC	26	15.39	11.54	7.69	0.00	3.85	0.00	3.85	
Inv. grade	2,132	0.05	0.09	0.00	0.09	0.09	0.33	0.14	
Spec. grade	746	1.88	3.49	1.48	1.34	1.34	1.88	2.68	
<b>1995 Static Pool</b>	<b>Issuers</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>		
AAA	218	0.00	0.00	0.00	0.00	0.00	0.00		
AA	561	0.00	0.00	0.00	0.00	0.18	0.00		
A	1,024	0.00	0.00	0.00	0.00	0.10	0.10		
BBB	639	0.31	0.00	0.16	0.31	0.94	0.31		
BB	428	0.70	1.17	1.17	0.94	1.87	2.34		
B	405	4.20	1.73	1.98	2.47	2.47	2.47		
CCC	29	27.59	6.90	0.00	3.45	0.00	3.45		
Inv. grade	2,442	0.08	0.00	0.04	0.08	0.33	0.12		
Spec. grade	862	3.25	1.62	1.51	1.74	2.09	2.44		
<b>1996 Static Pool</b>	<b>Issuers</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>			
AAA	213	0.00	0.00	0.00	0.00	0.00			
AA	569	0.00	0.00	0.00	0.18	0.00			
A	1,087	0.00	0.00	0.00	0.09	0.09			
BBB	718	0.00	0.14	0.14	0.70	0.42			
BB	471	0.64	0.85	0.85	2.34	2.12			
B	438	2.51	2.97	4.11	3.43	2.74			
CCC	28	3.57	3.57	7.14	0.00	3.57			
Inv. grade	2,587	0.00	0.04	0.04	0.27	0.16			
Spec. grade	937	1.60	1.92	2.56	2.78	2.46			

Table 13

## Static Pool Annual Default Rates 1981-2000 (%) (continued)

<b>1997 Static Pool</b>	<b>Issuers</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	207	0.00	0.00	0.00	0.00
AA	593	0.00	0.00	0.17	0.00
A	1,144	0.00	0.00	0.09	0.09
BBB	834	0.12	0.12	0.48	0.48
BB	551	0.18	0.73	2.54	2.72
B	476	3.15	5.46	4.83	3.78
CCC	27	11.11	11.11	7.41	11.11
Inv. grade	2,778	0.04	0.04	0.22	0.18
Spec. grade	1,054	1.80	3.13	3.70	3.42
<b>1998 Static Pool</b>	<b>Issuers</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	209	0.00	0.00	0.00	
AA	621	0.00	0.16	0.00	
A	1,183	0.00	0.09	0.09	
BBB	997	0.30	0.40	0.30	
BB	662	0.76	1.66	3.78	
B	700	4.57	8.43	5.86	
CCC	32	34.38	6.25	3.13	
Inv. grade	3,010	0.10	0.20	0.13	
Spec. grade	1,394	3.44	5.17	4.81	
<b>1999 Static Pool</b>	<b>Issuers</b>	<b>1999</b>	<b>2000</b>		
AAA	195	0.00	0.00		
AA	644	0.16	0.00		
A	1,208	0.08	0.08		
BBB	1,085	0.18	0.28		
BB	793	1.01	2.40		
B	899	7.01	8.34		
CCC	73	30.14	8.22		
Inv. grade	3,132	0.13	0.13		
Spec. grade	1,765	5.27	5.67		
<b>2000 Static Pool</b>	<b>Issuers</b>	<b>2000</b>			
AAA	190	0.00			
AA	656	0.00			
A	1,215	0.08			
BBB	1,157	0.35			
BB	887	1.13			
B	961	7.18			
CCC	86	29.07			
Inv. grade	3,218	0.16			
Spec. grade	1,934	5.38			

Table 14

**Static Pool Cumulative Default Rates 1981-2000 (%)**

<b>1981 Static Pool</b>	<b>Issuers</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
AAA	106	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.94	1.89	1.89	1.89	1.89	1.89	1.89
AA	202	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.49	1.49	1.49	1.98	2.48	2.48	2.48	2.48
A	484	0.00	0.41	0.41	0.41	0.62	1.24	1.45	1.65	1.65	1.86	2.48	2.69	2.89	2.89	3.10
BBB	267	0.00	1.12	1.12	1.50	1.87	2.25	2.62	4.12	4.87	5.99	7.12	7.49	7.49	7.49	7.49
BB	217	0.00	4.61	6.91	10.14	12.90	17.51	17.97	18.89	21.20	23.50	26.73	27.65	28.57	28.57	28.57
B	81	0.00	2.47	7.41	9.88	9.88	13.58	16.05	16.05	16.05	17.28	20.99	22.22	23.46	23.46	23.46
CCC	11	0.00	9.09	9.09	9.09	9.09	18.18	18.18	18.18	18.18	27.27	27.27	27.27	27.27	27.27	27.27
Inv. grade	1,059	0.00	0.47	0.47	0.57	0.76	1.13	1.42	2.17	2.36	2.83	3.49	3.78	3.87	3.87	3.97
Spec. grade	309	0.00	4.21	7.12	10.03	11.97	16.51	17.48	18.12	19.74	22.01	25.24	26.21	27.18	27.18	27.18
<b>1982 Static Pool</b>	<b>Issuers</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
AAA	108	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.93	1.85	1.85	1.85	1.85	1.85	1.85	1.85
AA	223	0.00	0.00	0.00	0.00	0.00	0.45	1.35	1.35	1.35	1.79	1.79	1.79	1.79	1.79	1.79
A	478	0.42	0.42	0.42	0.63	1.05	1.05	1.05	1.05	1.46	2.51	2.93	3.14	3.14	3.35	3.35
BBB	292	0.34	0.69	1.03	1.37	2.06	2.74	4.45	5.14	6.16	6.85	7.19	7.19	7.19	7.19	7.19
BB	167	4.19	5.39	8.38	9.58	15.57	16.17	17.37	19.76	20.96	23.35	23.95	24.55	24.55	24.55	24.55
B	162	3.09	6.79	9.26	12.35	14.82	16.05	16.05	16.67	19.14	22.84	24.07	25.31	25.31	25.31	25.31
CCC	14	21.43	21.43	28.57	28.57	35.71	35.71	35.71	35.71	42.86	42.86	42.86	42.86	42.86	42.86	42.86
Inv. grade	1,101	0.27	0.36	0.45	0.64	1.00	1.27	2.00	2.18	2.73	3.45	3.72	3.82	3.82	3.91	3.91
Spec. grade	343	4.37	6.71	9.62	11.66	16.04	16.91	17.49	18.95	20.99	23.91	24.78	25.66	25.66	25.66	25.66
<b>1983 Static Pool</b>	<b>Issuers</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>
AAA	119	0.00	0.00	0.00	0.00	0.00	0.84	0.84	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
AA	249	0.00	0.00	0.00	0.00	0.40	1.61	1.61	1.61	2.01	2.41	2.41	2.41	2.41	2.41	2.41
A	455	0.00	0.00	0.22	0.44	0.44	0.44	0.44	0.88	1.98	2.42	2.64	2.64	2.86	2.86	2.86
BBB	305	0.33	1.31	1.31	1.97	2.30	2.95	3.28	4.26	5.25	5.57	5.57	5.57	5.57	5.57	5.57
BB	171	1.17	2.92	4.68	11.11	12.28	15.79	17.54	18.13	22.22	23.39	23.98	23.98	23.98	23.98	23.98
B	157	4.46	6.37	10.83	14.65	15.29	16.56	18.47	21.66	24.20	25.48	26.75	26.75	26.75	26.75	26.75
CCC	16	0.00	12.50	12.50	18.75	25.00	25.00	25.00	31.25	37.50	37.50	37.50	37.50	37.50	37.50	37.50
Inv. grade	1,128	0.09	0.36	0.44	0.71	0.89	1.42	1.51	2.04	2.84	3.19	3.28	3.28	3.37	3.37	3.37
Spec. grade	344	2.62	4.94	7.85	13.08	14.24	16.57	18.31	20.35	23.84	25.00	25.87	25.87	25.87	25.87	25.87
<b>1984 Static Pool</b>	<b>Issuers</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
AAA	124	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	300	0.00	0.00	0.00	0.33	1.33	1.33	1.67	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.33
A	457	0.00	0.22	0.44	0.44	0.66	0.88	1.31	2.41	2.85	3.06	3.06	3.28	3.28	3.28	3.28
BBB	295	0.68	0.68	1.02	1.36	2.03	2.37	3.05	3.73	4.07	4.07	4.07	4.07	4.07	4.41	4.41
BB	172	1.16	2.33	9.30	9.88	12.21	15.12	16.28	21.51	22.67	22.67	22.67	22.67	22.67	22.67	22.67
B	181	3.32	8.84	15.47	17.68	21.55	23.20	26.52	29.83	31.49	33.70	33.70	33.70	33.70	33.70	33.70
CCC	19	15.79	26.32	31.58	31.58	31.58	36.84	42.11	42.11	42.11	42.11	42.11	42.11	42.11	42.11	42.11
Inv. grade	1,176	0.17	0.26	0.43	0.60	1.11	1.28	1.70	2.38	2.72	2.81	2.81	2.89	2.89	2.98	2.98
Spec. grade	372	2.96	6.72	13.44	14.79	17.74	20.16	22.58	26.61	27.96	29.03	29.03	29.03	29.03	29.03	29.03

Table 14

<b>Static Pool Cumulative Default Rates 1981-2000 (%) (continued)</b>																
<b>1985 Static Pool</b>	<b>Issuers</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
AAA	124	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	348	0.00	0.00	0.29	0.86	0.86	1.15	1.44	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72
A	514	0.00	0.39	0.39	0.39	0.58	0.97	2.14	2.53	2.72	2.72	2.92	2.92	2.92	2.92	2.92
BBB	282	0.00	0.00	0.00	1.77	2.13	2.84	3.90	4.26	4.26	4.26	4.26	4.26	4.61	4.61	5.32
BB	204	1.47	7.35	7.84	9.80	12.26	14.22	19.61	20.59	20.59	20.59	21.08	21.08	21.08	21.08	21.08
B	218	5.51	13.30	16.51	21.56	23.85	26.61	29.36	30.73	32.57	32.57	32.57	32.57	32.57	32.57	32.57
CCC	19	10.53	15.79	15.79	15.79	21.05	26.32	26.32	26.32	26.32	26.32	26.32	26.32	26.32	26.32	26.32
Inv. grade	1,268	0.00	0.16	0.24	0.79	0.95	1.34	2.13	2.45	2.52	2.52	2.60	2.60	2.68	2.68	2.84
Spec. grade	441	3.86	10.66	12.47	15.87	18.37	20.86	24.72	25.85	26.76	26.76	26.98	26.98	26.98	26.98	26.98
<b>1986 Static Pool</b>	<b>Issuers</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	145	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	355	0.00	0.00	0.28	0.28	0.56	0.85	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.41
A	551	0.18	0.18	0.36	0.54	0.91	1.45	1.63	1.63	1.63	1.82	1.82	1.82	1.82	1.82	2.18
BBB	295	0.34	0.34	1.70	2.03	2.37	4.41	5.42	5.76	5.76	5.76	5.76	6.10	6.44	6.78	6.78
BB	232	1.29	1.72	3.45	6.03	7.76	13.79	14.22	15.09	15.09	15.52	15.95	16.81	16.81	16.81	16.81
B	291	8.59	12.03	16.84	18.90	23.37	25.77	27.84	29.55	30.24	30.24	30.24	30.24	30.24	30.58	31.62
CCC	17	17.65	17.65	17.65	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53	23.53
Inv. grade	1,346	0.15	0.15	0.59	0.74	1.04	1.78	2.16	2.23	2.23	2.30	2.30	2.38	2.45	2.53	2.75
Spec. grade	540	5.74	7.78	11.11	13.52	16.67	20.56	21.85	23.15	23.52	23.70	23.89	24.26	24.26	24.44	25.00
<b>1987 Static Pool</b>	<b>Issuers</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	170	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	
AA	367	0.00	0.00	0.00	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.55	
A	505	0.00	0.00	0.20	0.59	1.58	1.78	1.78	1.78	1.98	1.98	1.98	1.98	1.98	1.98	
BBB	317	0.00	0.63	1.26	1.58	3.16	4.10	4.73	4.73	4.73	5.05	5.36	5.68	5.99		
BB	268	0.37	1.87	4.10	7.46	12.31	13.81	14.93	14.93	15.67	16.05	16.79	16.79	17.16	17.54	
B	358	3.35	8.10	11.73	17.04	21.51	23.74	25.70	26.26	26.26	26.54	26.54	26.54	26.82	27.93	
CCC	63	9.52	20.64	30.16	31.75	44.44	47.62	49.21	49.21	49.21	49.21	49.21	49.21	49.21	50.79	
Inv. grade	1,359	0.00	0.15	0.37	0.66	1.40	1.69	1.84	1.91	1.99	1.99	2.06	2.13	2.21	2.36	
Spec. grade	689	2.76	6.82	10.45	14.66	20.03	22.06	23.66	23.95	24.24	24.53	24.82	24.82	25.11	25.98	
<b>1988 Static Pool</b>	<b>Issuers</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>		
AAA	186	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.54	0.54	0.54	0.54	0.54	0.54		
AA	387	0.00	0.00	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.52		
A	520	0.00	0.19	0.19	1.15	1.35	1.35	1.35	1.54	1.54	1.54	1.54	1.73	1.73		
BBB	333	0.00	0.60	0.90	1.80	2.70	3.30	3.30	3.30	3.30	3.60	3.60	3.60	3.90		
BB	291	1.03	2.75	6.87	12.72	13.75	15.12	15.12	15.81	16.15	16.84	17.18	17.53	18.21		
B	418	3.83	8.61	15.79	23.68	26.08	28.23	28.95	29.90	30.14	30.38	30.62	31.10	32.30		
CCC	59	22.03	30.51	32.20	42.37	45.76	45.76	45.76	45.76	45.76	47.46	47.46	47.46	49.15		
Inv. grade	1,426	0.00	0.21	0.35	0.91	1.19	1.33	1.40	1.47	1.47	1.54	1.54	1.61	1.75		
Spec. grade	768	4.17	8.07	13.67	20.96	22.92	24.61	25.00	25.78	26.04	26.56	26.82	27.21	28.26		

Table 14

<b>Static Pool Cumulative Default Rates 1981-2000 (%) (continued)</b>													
<b>1989 Static Pool</b>	<b>Issuers</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	210	0.00	0.00	0.00	0.00	0.00	0.48	0.48	0.48	0.48	0.48	0.48	0.48
AA	397	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.50
A	561	0.00	0.00	0.36	0.54	0.54	0.54	0.71	0.71	0.71	0.71	0.89	0.89
BBB	334	0.60	1.20	1.80	2.99	3.59	3.59	3.59	3.59	3.59	3.59	3.59	3.89
BB	282	0.71	4.97	12.06	14.18	15.25	15.25	15.96	16.67	17.38	17.38	17.73	18.09
B	416	3.37	12.98	23.56	25.48	27.40	28.37	29.33	29.57	30.53	31.97	32.45	33.89
CCC	55	29.09	32.73	41.82	45.46	50.91	50.91	50.91	50.91	50.91	50.91	50.91	52.73
Inv. grade	1,502	0.13	0.27	0.53	0.87	1.00	1.07	1.20	1.20	1.20	1.20	1.27	1.40
Spec. grade	753	4.25	11.42	20.58	22.71	24.57	25.10	25.90	26.30	27.09	27.89	28.29	29.35
<b>1990 Static Pool</b>	<b>Issuers</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	213	0.00	0.00	0.00	0.00	0.47	0.47	0.47	0.47	0.47	0.47	0.47	
AA	420	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	
A	584	0.00	0.17	0.34	0.34	0.34	0.69	0.69	0.69	0.69	0.86	0.86	
BBB	347	0.58	1.15	1.44	2.02	2.02	2.02	2.02	2.02	2.02	2.31	2.88	
BB	286	3.50	9.44	12.24	13.29	13.29	14.34	15.04	16.08	16.08	16.43	16.43	
B	365	8.49	21.10	24.38	26.30	27.67	28.77	28.77	29.86	31.51	32.06	33.70	
CCC	48	31.25	41.67	52.08	58.33	58.33	58.33	58.33	58.33	58.33	58.33	60.42	
Inv. grade	1,564	0.13	0.32	0.45	0.58	0.64	0.77	0.77	0.77	0.77	0.90	1.09	
Spec. grade	699	8.01	17.74	21.32	23.18	23.89	24.89	25.18	26.18	27.04	27.47	28.47	
<b>1991 Static Pool</b>	<b>Issuers</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>		
AAA	216	0.00	0.00	0.00	0.46	0.46	0.46	0.46	0.46	0.46	0.46		
AA	437	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.46		
A	602	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.33	0.50	0.50		
BBB	376	0.53	0.53	0.80	0.80	1.06	1.06	1.06	1.06	1.33	1.86		
BB	241	2.49	4.98	5.81	5.81	7.05	7.88	8.71	8.71	9.13	9.96		
B	287	13.59	19.51	21.25	22.65	24.04	24.04	25.44	27.53	27.53	28.57		
CCC	61	31.15	39.34	42.62	45.90	47.54	47.54	49.18	49.18	50.82	52.46		
Inv. grade	1,631	0.12	0.12	0.18	0.25	0.43	0.43	0.43	0.43	0.61	0.80		
Spec. grade	589	10.87	15.62	17.15	18.17	19.53	19.86	21.05	22.07	22.41	23.43		
<b>1992 Static Pool</b>	<b>Issuers</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>			
AAA	223	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.45	0.45			
AA	502	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20			
A	678	0.00	0.00	0.00	0.15	0.15	0.15	0.15	0.30	0.44			
BBB	399	0.00	0.00	0.00	0.50	0.50	0.50	0.50	0.75	1.00			
BB	243	0.00	1.24	1.24	1.65	2.06	3.29	3.29	3.70	5.35			
B	225	7.11	9.33	11.11	14.22	14.22	16.00	18.67	19.11	20.44			
CCC	51	23.53	27.45	31.37	33.33	37.26	37.26	37.26	37.26	39.22			
Inv. grade	1,802	0.00	0.00	0.06	0.22	0.22	0.22	0.22	0.39	0.50			
Spec. grade	519	5.40	7.32	8.48	10.21	10.79	12.14	13.30	13.68	15.22			

Table 14

## Static Pool Cumulative Default Rates 1981-2000 (%) (continued)

1993 Static Pool	Issuers	1993	1994	1995	1996	1997	1998	1999	2000
AAA	222	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	526	0.00	0.19	0.19	0.19	0.19	0.19	0.38	0.38
A	762	0.00	0.00	0.13	0.13	0.13	0.13	0.39	0.53
BBB	458	0.00	0.00	0.22	0.22	0.44	0.87	1.31	1.75
BB	286	0.35	0.70	2.10	2.80	3.50	3.50	4.20	5.94
B	236	2.12	5.09	10.17	10.59	13.14	14.83	15.68	17.37
CCC	50	12.00	16.00	20.00	24.00	26.00	30.00	30.00	32.00
Inv. grade	1,968	0.00	0.05	0.15	0.15	0.20	0.31	0.56	0.71
Spec. grade	572	2.10	3.85	6.99	7.87	9.44	10.49	11.19	12.94
1994 Static Pool	Issuers	1994	1995	1996	1997	1998	1999	2000	
AAA	215	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
AA	544	0.00	0.00	0.00	0.00	0.00	0.18	0.18	
A	845	0.12	0.24	0.24	0.24	0.24	0.47	0.59	
BBB	528	0.00	0.19	0.19	0.57	0.95	1.71	2.08	
BB	374	0.27	1.60	2.14	2.94	3.74	5.62	8.02	
B	346	2.60	7.80	9.83	11.85	13.58	15.61	18.50	
CCC	26	15.39	26.92	34.62	34.62	38.46	38.46	42.31	
Inv. grade	2,132	0.05	0.14	0.14	0.24	0.33	0.66	0.80	
Spec. grade	746	1.88	5.36	6.84	8.18	9.52	11.39	14.08	
1995 Static Pool	Issuers	1995	1996	1997	1998	1999	2000		
AAA	218	0.00	0.00	0.00	0.00	0.00	0.00		
AA	561	0.00	0.00	0.00	0.00	0.18	0.18		
A	1,024	0.00	0.00	0.00	0.00	0.10	0.20		
BBB	639	0.31	0.31	0.47	0.78	1.72	2.03		
BB	428	0.70	1.87	3.04	3.97	5.84	8.18		
B	405	4.20	5.93	7.90	10.37	12.84	15.31		
CCC	29	27.59	34.48	34.48	37.93	37.93	41.38		
Inv. grade	2,442	0.08	0.08	0.12	0.21	0.53	0.66		
Spec. grade	862	3.25	4.87	6.38	8.12	10.21	12.65		
1996 Static Pool	Issuers	1996	1997	1998	1999	2000			
AAA	213	0.00	0.00	0.00	0.00	0.00			
AA	569	0.00	0.00	0.00	0.18	0.18			
A	1,087	0.00	0.00	0.00	0.09	0.18			
BBB	718	0.00	0.14	0.28	0.98	1.39			
BB	471	0.64	1.49	2.34	4.67	6.79			
B	438	2.51	5.48	9.59	13.01	15.75			
CCC	28	3.57	7.14	14.29	14.29	17.86			
Inv. grade	2,587	0.00	0.04	0.08	0.35	0.50			
Spec. grade	937	1.60	3.52	6.08	8.86	11.31			

Table 14

**Static Pool Cumulative Default Rates 1981-2000 (%) (continued)**

<b>1997 Static Pool</b>	<b>Issuers</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
AAA	207	0.00	0.00	0.00	0.00
AA	593	0.00	0.00	0.17	0.17
A	1,144	0.00	0.00	0.09	0.18
BBB	834	0.12	0.24	0.72	1.20
BB	551	0.18	0.91	3.45	6.17
B	476	3.15	8.61	13.45	17.23
CCC	27	11.11	22.22	29.63	40.74
Inv. grade	2,778	0.04	0.07	0.29	0.47
Spec. grade	1,054	1.80	4.93	8.63	12.05
<b>1998 Static Pool</b>	<b>Issuers</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	
AAA	209	0.00	0.00	0.00	
AA	621	0.00	0.16	0.16	
A	1,183	0.00	0.09	0.17	
BBB	997	0.30	0.70	1.00	
BB	662	0.76	2.42	6.19	
B	700	4.57	13.00	18.86	
CCC	32	34.38	40.63	43.75	
Inv. grade	3,010	0.10	0.30	0.43	
Spec. grade	1,394	3.44	8.61	13.42	
<b>1999 Static Pool</b>	<b>Issuers</b>	<b>1999</b>	<b>2000</b>		
AAA	195	0.00	0.00		
AA	644	0.16	0.16		
A	1,208	0.08	0.17		
BBB	1,085	0.18	0.46		
BB	793	1.01	3.41		
B	899	7.01	15.35		
CCC	73	30.14	38.36		
Inv. grade	3,132	0.13	0.26		
Spec. grade	1,765	5.27	10.94		
<b>2000 Static Pool</b>	<b>Issuers</b>	<b>2000</b>			
AAA	190	0.00			
AA	656	0.00			
A	1,215	0.08			
BBB	1,157	0.35			
BB	887	1.13			
B	961	7.18			
CCC	86	29.07			
Inv. grade	3,218	0.16			
Spec. grade	1,934	5.38			

Table 15

## Static Pool One-Year Transition Matrices

## 1981 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	106	92.45	7.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	202	1.98	90.59	6.93	0.00	0.00	0.00	0.00	0.00	0.50
A	484	0.00	4.75	88.22	6.61	0.21	0.00	0.00	0.00	0.21
BBB	267	0.00	0.00	4.87	90.26	4.87	0.00	0.00	0.00	0.00
BB	217	0.00	0.00	0.92	4.61	62.67	30.88	0.46	0.00	0.46
B	81	0.00	0.00	1.24	0.00	4.94	91.36	2.47	0.00	0.00
CCC	11	0.00	0.00	0.00	0.00	0.00	9.09	90.91	0.00	0.00

## 1982 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	108	92.59	3.70	1.85	0.00	0.00	0.00	0.00	0.00	1.85
AA	223	0.45	89.69	6.28	0.45	0.90	0.00	0.00	0.00	2.24
A	478	0.00	4.18	83.89	9.21	0.63	0.00	0.00	0.42	1.67
BBB	292	0.34	0.00	2.06	81.51	8.56	0.34	0.00	0.34	6.85
BB	167	0.00	0.60	0.00	2.99	72.46	8.98	0.00	4.19	10.78
B	162	0.00	0.00	0.62	0.62	2.47	75.93	4.32	3.09	12.96
CCC	14	0.00	0.00	0.00	0.00	0.00	7.14	57.14	21.43	14.29

## 1983 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	119	81.51	15.13	0.84	0.00	0.00	0.00	0.00	0.00	2.52
AA	249	0.40	92.37	4.82	0.80	0.00	0.00	0.00	0.00	1.61
A	455	0.66	4.18	87.03	3.96	0.44	0.00	0.00	0.00	3.74
BBB	305	0.00	0.66	5.57	80.66	5.25	0.66	0.00	0.33	6.89
BB	171	0.00	0.59	1.17	2.92	72.52	11.70	0.00	1.17	9.94
B	157	0.00	0.00	0.64	0.64	2.55	79.62	0.64	4.46	11.47
CCC	16	0.00	0.00	0.00	0.00	0.00	18.75	81.25	0.00	0.00

## 1984 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	124	74.19	21.77	0.81	0.00	0.00	0.00	0.00	0.00	3.23
AA	300	1.67	92.00	4.67	0.67	0.00	0.00	0.00	0.00	1.00
A	457	0.00	2.19	90.81	3.94	0.66	0.22	0.00	0.00	2.19
BBB	295	0.00	0.34	11.86	75.93	5.76	2.03	0.00	0.68	3.39
BB	172	0.00	0.00	1.16	7.56	79.65	5.23	0.00	1.16	5.23
B	181	0.00	0.00	0.00	1.11	4.97	84.53	0.00	3.32	6.08
CCC	19	0.00	0.00	0.00	0.00	0.00	0.00	78.95	15.79	5.26

Table 15

**Static Pool One-Year Transition Matrices (continued)****1985 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	124	91.94	3.23	0.00	0.00	0.00	0.00	0.00	0.00	4.84
AA	348	0.29	85.06	8.33	1.72	0.00	0.86	0.29	0.00	3.45
A	514	0.20	2.34	86.19	6.03	1.36	0.20	0.00	0.00	3.70
BBB	282	0.00	0.71	7.80	76.24	6.74	3.90	0.00	0.00	4.61
BB	204	0.00	0.00	0.49	3.92	78.43	9.80	1.47	1.47	4.41
B	218	0.00	0.00	1.38	0.00	1.84	84.86	0.46	5.51	5.96
CCC	19	0.00	0.00	0.00	0.00	0.00	31.58	57.90	10.53	0.00

**1986 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	145	92.41	5.52	0.00	0.00	0.00	0.00	0.00	0.00	2.07
AA	355	1.13	87.61	4.79	1.41	0.28	0.56	0.00	0.00	4.23
A	551	0.18	5.08	76.95	8.53	1.45	1.45	0.00	0.18	6.17
BBB	295	0.00	0.00	7.12	74.92	8.14	2.71	0.34	0.34	6.44
BB	232	0.00	0.00	0.43	6.90	74.14	5.60	1.29	1.29	10.35
B	291	0.00	0.00	0.00	0.34	3.44	68.04	10.65	8.59	8.94
CCC	17	0.00	0.00	0.00	0.00	0.00	0.00	76.47	17.65	5.88

**1987 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	170	91.18	3.53	0.00	0.59	0.00	0.00	0.00	0.00	4.71
AA	367	1.36	88.83	4.91	0.55	0.00	0.00	0.00	0.00	4.36
A	505	0.00	1.58	84.16	4.95	0.40	1.19	0.00	0.00	7.72
BBB	317	0.32	0.63	5.36	77.29	5.99	2.52	0.00	0.00	7.89
BB	268	0.00	0.00	0.00	6.72	70.52	7.46	0.00	0.37	14.93
B	358	0.00	0.00	0.84	0.00	4.47	74.30	2.51	3.35	14.53
CCC	63	0.00	0.00	0.00	1.59	1.59	6.35	63.49	9.52	17.46

**1988 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	186	93.01	3.23	0.54	0.00	0.54	0.00	0.00	0.00	2.69
AA	387	2.07	85.01	9.30	1.29	0.52	0.26	0.00	0.00	1.55
A	520	0.00	1.54	87.12	5.39	0.96	0.58	0.00	0.00	4.42
BBB	333	0.00	0.60	9.61	74.17	4.81	2.10	0.60	0.00	8.11
BB	291	0.00	0.00	0.69	6.87	71.13	7.56	1.72	1.03	11.00
B	418	0.00	0.24	0.00	0.24	4.79	73.68	2.87	3.83	14.35
CCC	59	0.00	0.00	0.00	3.39	3.39	8.48	50.85	22.03	11.86

Table 15

**Static Pool One-Year Transition Matrices (continued)****1989 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	210	92.38	5.71	0.00	0.00	0.00	0.00	0.00	0.00	1.91
AA	397	0.76	89.92	6.80	0.00	0.00	0.00	0.00	0.00	2.52
A	561	0.18	1.60	86.28	5.53	2.50	0.18	0.00	0.00	3.74
BBB	334	0.00	0.00	7.78	77.55	5.69	0.60	0.60	0.60	7.19
BB	282	0.00	0.00	1.06	12.06	66.31	6.03	0.71	0.71	13.12
B	416	0.00	0.24	0.00	0.00	7.21	68.51	4.33	3.37	16.35
CCC	55	0.00	0.00	1.82	0.00	1.82	0.00	40.00	29.09	27.27

**1990 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	213	93.43	2.82	0.00	0.00	0.00	0.00	0.00	0.00	3.76
AA	420	0.48	87.62	10.95	0.00	0.00	0.00	0.00	0.00	0.95
A	584	0.00	2.06	85.79	7.53	1.20	0.17	0.00	0.00	3.25
BBB	347	0.00	0.00	4.04	84.73	4.90	0.87	0.00	0.58	4.90
BB	286	0.00	0.00	0.35	5.94	65.73	9.44	3.15	3.50	11.89
B	365	0.00	0.82	0.27	0.55	3.29	65.75	4.93	8.49	15.89
CCC	48	2.08	0.00	0.00	0.00	2.08	4.17	52.08	31.25	8.33

**1991 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	216	87.04	9.26	0.46	0.00	0.00	0.00	0.00	0.00	3.24
AA	437	0.00	90.39	8.01	0.00	0.00	0.00	0.00	0.00	1.60
A	602	0.17	0.50	90.86	6.98	0.33	0.00	0.00	0.00	1.16
BBB	376	0.00	0.80	5.05	82.18	5.85	0.80	0.53	0.53	4.26
BB	241	0.00	0.00	0.00	7.47	74.27	7.05	1.66	2.49	7.05
B	287	0.00	0.35	0.00	0.35	5.58	67.94	3.14	13.59	9.06
CCC	61	0.00	0.00	0.00	1.64	3.28	6.56	45.90	31.15	11.48

**1992 Static Pool**

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	223	87.89	7.18	0.00	0.00	0.00	0.00	0.00	0.00	4.93
AA	502	1.20	88.45	7.17	1.00	0.00	0.00	0.00	0.00	2.19
A	678	0.00	0.89	92.92	3.25	0.59	0.00	0.00	0.00	2.36
BBB	399	0.00	0.00	5.51	86.22	3.76	1.00	0.50	0.00	3.01
BB	243	0.00	0.00	0.41	12.35	72.84	3.70	2.47	0.00	8.23
B	225	0.00	0.00	0.44	0.89	9.33	67.11	4.00	7.11	11.11
CCC	51	0.00	0.00	0.00	0.00	3.92	11.77	52.94	23.53	7.84

Table 15

## Static Pool One-Year Transition Matrices (continued)

## 1993 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	222	89.64	3.15	1.80	0.00	0.00	0.00	0.00	0.00	5.41
AA	526	0.00	91.07	5.89	0.19	0.00	0.00	0.00	0.00	2.85
A	762	0.26	0.92	89.50	3.28	0.00	0.00	0.00	0.00	6.04
BBB	458	0.00	0.00	3.71	82.31	5.46	0.00	0.22	0.00	8.30
BB	286	0.00	0.35	0.35	7.69	70.28	7.69	0.35	0.35	12.94
B	236	0.00	0.00	0.00	0.85	12.71	66.53	1.27	2.12	16.53
CCC	50	0.00	0.00	0.00	0.00	2.00	28.00	34.00	12.00	24.00

## 1994 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	215	91.63	6.05	0.47	0.00	0.00	0.00	0.00	0.00	1.86
AA	544	0.18	88.24	8.27	0.00	0.00	0.00	0.18	0.00	3.13
A	845	0.00	1.07	92.07	3.79	0.12	0.00	0.12	0.12	2.72
BBB	528	0.00	0.19	3.41	89.96	1.52	0.19	0.00	0.00	4.74
BB	374	0.00	0.00	0.00	6.95	83.96	2.94	0.00	0.27	5.88
B	346	0.00	0.00	0.29	0.29	5.49	80.64	2.89	2.60	7.80
CCC	26	0.00	0.00	0.00	0.00	0.00	3.85	53.85	15.39	26.92

## 1995 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	218	94.04	3.67	0.00	0.00	0.00	0.00	0.00	0.00	2.29
AA	561	0.36	90.37	6.77	0.36	0.00	0.00	0.00	0.00	2.14
A	1,024	0.00	2.15	91.60	3.22	0.00	0.00	0.00	0.00	3.03
BBB	639	0.00	0.47	5.01	86.54	2.82	0.00	0.00	0.31	4.85
BB	428	0.00	0.00	0.70	6.78	81.78	4.91	0.00	0.70	5.14
B	405	0.00	0.00	0.00	0.49	7.65	76.05	1.98	4.20	9.63
CCC	29	0.00	0.00	0.00	0.00	0.00	6.90	55.17	27.59	10.35

## 1996 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	213	90.14	4.23	0.47	0.00	0.00	0.00	0.00	0.00	5.16
AA	569	0.35	89.28	5.10	0.00	0.00	0.00	0.00	0.00	5.27
A	1,087	0.00	2.85	89.51	2.02	0.09	0.00	0.00	0.00	5.52
BBB	718	0.14	0.00	5.15	88.58	1.81	0.14	0.00	0.00	4.18
BB	471	0.00	0.00	0.85	6.79	78.34	4.46	0.64	0.64	8.28
B	438	0.00	0.00	0.23	0.46	7.76	72.60	1.37	2.51	15.07
CCC	28	0.00	0.00	0.00	0.00	7.14	10.71	60.71	3.57	17.86

Table 15

## Static Pool One-Year Transition Matrices (continued)

## 1997 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	207	94.20	3.87	0.00	0.00	0.00	0.00	0.00	0.00	1.93
AA	593	0.84	91.06	3.04	0.84	0.00	0.34	0.00	0.00	3.88
A	1,144	0.00	1.92	89.07	3.67	0.18	0.44	0.00	0.00	4.72
BBB	834	0.00	0.36	3.60	86.45	2.52	0.84	0.12	0.12	6.00
BB	551	0.00	0.00	0.18	8.71	76.41	4.72	0.00	0.18	9.80
B	476	0.00	0.00	0.63	0.42	7.35	74.16	2.52	3.15	11.77
CCC	27	0.00	0.00	0.00	0.00	0.00	14.82	51.85	11.11	22.22

## 1998 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	209	89.47	5.26	0.00	0.48	0.00	0.00	0.00	0.00	4.79
AA	621	0.16	89.69	5.15	0.32	0.00	0.00	0.00	0.00	4.67
A	1,183	0.09	1.44	87.07	5.07	0.17	0.00	0.00	0.00	6.17
BBB	997	0.00	0.00	2.61	84.35	4.51	0.70	0.10	0.30	7.42
BB	662	0.30	0.15	0.15	4.99	75.23	5.74	2.72	0.76	9.97
B	700	0.00	0.14	0.14	0.71	5.57	76.29	4.57	4.57	8.00
CCC	32	0.00	0.00	3.13	0.00	0.00	21.88	31.25	34.38	9.38

## 1999 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	195	90.26	3.59	0.00	0.51	0.00	0.00	0.00	0.00	5.64
AA	644	0.00	90.06	6.06	0.31	0.00	0.00	0.00	0.16	3.42
A	1,208	0.00	2.15	86.84	5.22	0.08	0.08	0.00	0.08	5.55
BBB	1,085	0.00	0.37	3.59	85.99	3.41	0.00	0.00	0.18	6.45
BB	793	0.00	0.00	0.13	2.77	80.71	6.18	0.50	1.01	8.70
B	899	0.00	0.00	0.22	0.33	2.00	77.86	3.67	7.01	8.90
CCC	73	0.00	0.00	0.00	2.74	0.00	2.74	56.16	30.14	8.22

## 2000 Static Pool

Initial rating	Issuers	—Rating at year end (%)—								
		AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	190	91.05	2.63	1.05	0.00	0.00	0.00	0.00	0.00	5.26
AA	656	0.92	81.71	10.37	0.31	0.00	0.00	0.00	0.00	6.71
A	1,215	0.00	2.39	86.42	6.50	0.41	0.08	0.00	0.08	4.12
BBB	1,157	0.00	0.17	2.16	88.51	3.54	0.61	0.26	0.35	4.41
BB	887	0.00	0.00	0.34	3.83	82.07	5.52	1.13	1.13	5.98
B	961	0.00	0.00	0.31	0.31	3.43	76.38	4.16	7.18	8.22
CCC	86	0.00	0.00	0.00	0.00	1.16	5.81	53.49	29.07	10.47

N.R.—Rating withdrawn.

Table 16

## Multiyear Transitions

## Average One-Year Transition Rates

Initial rating	—Rating at end of first year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	90.34	5.62	0.39	0.08	0.03	0.00	0.00	0.00	3.54
AA	0.64	88.78	6.72	0.47	0.06	0.09	0.02	0.01	3.21
A	0.07	2.16	87.94	4.97	0.47	0.19	0.01	0.04	4.16
BBB	0.03	0.24	4.56	84.26	4.19	0.76	0.15	0.22	5.59
BB	0.03	0.06	0.40	6.09	76.09	6.82	0.96	0.98	8.58
B	0.00	0.09	0.29	0.41	5.11	74.62	3.43	5.30	10.76
CCC	0.13	0.00	0.26	0.77	1.66	8.93	53.19	21.94	13.14

## Average Two-Year Transition Rates

Initial rating	—Rating at end of second year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	81.51	10.14	1.05	0.18	0.06	0.03	0.00	0.00	7.04
AA	1.18	79.41	11.87	1.07	0.16	0.18	0.01	0.04	6.09
A	0.10	3.86	77.57	8.60	1.07	0.41	0.03	0.11	8.26
BBB	0.10	0.47	8.44	70.48	6.80	1.46	0.33	0.48	11.44
BB	0.03	0.11	0.87	10.79	56.21	10.11	1.61	2.95	17.32
B	0.00	0.14	0.54	0.92	8.88	53.85	3.83	11.01	20.84
CCC	0.14	0.00	0.57	1.72	2.15	11.61	32.09	28.37	23.35

## Average Three-Year Transition Rates

Initial rating	—Rating at end of third year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	73.45	13.85	1.67	0.34	0.06	0.03	0.00	0.03	10.56
AA	1.67	71.00	16.02	1.82	0.26	0.26	0.01	0.08	8.87
A	0.12	5.08	69.25	10.90	1.63	0.71	0.10	0.19	12.04
BBB	0.14	0.72	11.37	59.53	8.00	2.05	0.52	0.77	16.90
BB	0.04	0.16	1.39	13.92	41.53	11.27	1.55	5.27	24.88
B	0.00	0.14	0.82	1.58	11.01	37.54	3.44	14.93	30.56
CCC	0.16	0.00	0.64	1.44	3.36	12.00	19.52	32.32	30.56

## Average Four-Year Transition Rates

Initial rating	—Rating at end of fourth year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	66.61	16.07	2.48	0.63	0.10	0.07	0.00	0.07	13.98
AA	2.05	63.67	19.44	2.54	0.34	0.37	0.03	0.14	11.42
A	0.13	5.95	62.49	12.51	2.00	1.00	0.15	0.31	15.46
BBB	0.20	0.96	13.44	50.98	8.56	2.27	0.54	1.25	21.81
BB	0.02	0.27	1.93	15.40	31.29	10.71	1.47	7.23	31.70
B	0.00	0.12	0.87	2.10	11.44	26.70	2.57	17.61	38.60
CCC	0.17	0.00	0.51	2.02	3.54	9.78	12.82	35.58	35.58

Table 16

**Multiyear Transitions (continued)****Average Five-Year Transition Rates**

Initial rating	—Rating at end of fifth year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	60.60	17.32	3.41	0.93	0.14	0.11	0.00	0.11	17.39
AA	2.32	57.01	22.06	3.26	0.53	0.44	0.08	0.24	14.08
A	0.16	6.45	56.74	13.79	2.30	1.12	0.17	0.50	18.78
BBB	0.23	1.25	14.52	44.64	8.47	2.38	0.58	1.76	26.18
BB	0.05	0.30	2.35	15.16	24.23	9.37	1.45	9.14	37.94
B	0.00	0.15	0.87	2.53	10.41	19.42	2.05	19.98	44.59
CCC	0.18	0.00	0.35	2.65	3.36	6.54	7.77	39.22	39.93

**Average Six-Year Transition Rates**

Initial rating	—Rating at end of sixth year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	55.37	18.24	4.27	1.27	0.19	0.12	0.00	0.19	20.35
AA	2.60	51.05	24.06	4.01	0.71	0.41	0.09	0.36	16.72
A	0.18	6.73	51.91	14.56	2.71	1.19	0.17	0.70	21.87
BBB	0.26	1.48	15.07	39.47	8.16	2.16	0.68	2.31	30.42
BB	0.03	0.23	2.67	15.02	19.01	7.64	1.30	11.32	42.80
B	0.00	0.15	0.87	2.68	9.12	14.42	1.52	22.19	49.06
CCC	0.19	0.00	0.37	3.16	2.97	4.65	4.65	41.82	42.19

**Average Seven-Year Transition Rates**

Initial rating	—Rating at end of seventh year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	50.44	19.07	5.08	1.68	0.25	0.08	0.04	0.29	23.06
AA	2.76	45.67	25.95	4.47	0.74	0.36	0.08	0.53	19.44
A	0.20	6.70	47.62	15.07	3.19	1.14	0.19	0.94	24.95
BBB	0.29	1.60	15.41	35.23	7.58	2.01	0.56	2.78	34.55
BB	0.06	0.18	2.91	14.82	14.65	6.29	0.84	12.87	47.38
B	0.00	0.13	0.91	2.70	7.91	10.35	1.20	24.51	52.29
CCC	0.20	0.00	0.20	3.54	2.95	3.34	2.95	42.63	44.20

**Average Eight-Year Transition Rates**

Initial rating	—Rating at end of eighth year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	45.85	19.34	6.00	2.17	0.23	0.05	0.05	0.46	25.85
AA	2.82	41.16	27.03	5.20	0.76	0.30	0.09	0.68	21.96
A	0.25	6.52	43.97	15.03	3.33	1.15	0.18	1.16	28.42
BBB	0.35	1.65	15.77	31.65	7.37	1.72	0.42	3.23	37.84
BB	0.10	0.13	3.33	13.86	11.44	5.20	0.62	14.54	50.78
B	0.00	0.15	0.91	2.86	6.60	7.39	0.97	26.36	54.76
CCC	0.21	0.00	0.21	2.69	2.90	3.31	1.66	43.06	45.96

Table 16

**Multiyear Transitions (continued)**

**Average Nine-Year Transition Rates**

Initial rating	—Rating at end of ninth year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	41.15	19.91	6.94	2.57	0.21	0.00	0.05	0.57	28.60
AA	2.84	37.02	27.73	5.92	0.79	0.26	0.10	0.79	24.55
A	0.33	6.42	40.52	15.09	3.37	1.17	0.16	1.44	31.51
BBB	0.39	1.72	15.90	28.84	6.90	1.51	0.36	3.70	40.68
BB	0.14	0.07	3.50	13.01	9.08	4.29	0.43	16.37	53.10
B	0.00	0.13	0.92	2.91	5.60	5.26	0.73	28.02	56.44
CCC	0.23	0.00	0.23	1.85	3.23	2.31	0.69	45.27	46.19

**Average 10-Year Transition Rates**

Initial rating	—Rating at end of 10th year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	37.30	20.22	7.84	3.02	0.12	0.00	0.00	0.64	30.85
AA	2.88	33.41	28.09	6.49	0.84	0.24	0.11	0.95	27.00
A	0.37	6.29	37.47	15.23	3.34	1.16	0.11	1.75	34.29
BBB	0.35	1.77	15.71	26.17	6.48	1.57	0.20	4.30	43.45
BB	0.16	0.08	3.44	11.77	7.55	3.32	0.44	18.14	55.12
B	0.00	0.10	0.85	3.07	4.77	3.92	0.38	29.48	57.43
CCC	0.26	0.00	0.26	1.05	3.67	1.83	0.00	46.86	46.07

**Average 11-Year Transition Rates**

Initial rating	—Rating at end of 11th year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	34.35	20.07	8.90	3.19	0.13	0.07	0.00	0.66	32.63
AA	2.93	30.48	28.23	6.56	0.83	0.34	0.06	1.08	29.50
A	0.37	6.11	34.82	15.05	3.52	0.98	0.08	2.06	37.01
BBB	0.29	1.76	15.39	23.77	6.07	1.47	0.10	4.83	46.33
BB	0.18	0.13	3.41	10.44	6.64	2.66	0.39	19.65	56.51
B	0.00	0.04	0.79	3.25	3.85	3.10	0.11	30.19	58.67
CCC	0.31	0.00	0.31	0.62	4.67	0.94	0.00	46.11	47.04

**Average 12-Year Transition Rates**

Initial rating	—Rating at end of 12th year (%)—								
	AAA	AA	A	BBB	BB	B	CCC	D	N.R.
AAA	31.73	19.89	10.06	3.10	0.16	0.16	0.00	0.70	34.21
AA	2.97	27.72	28.32	6.58	0.85	0.35	0.04	1.27	31.90
A	0.40	5.90	32.40	14.70	3.67	0.80	0.04	2.30	39.80
BBB	0.29	1.62	14.82	21.91	5.15	1.47	0.00	5.22	49.52
BB	0.20	0.10	3.59	9.33	5.74	2.35	0.35	20.46	57.88
B	0.00	0.00	0.61	3.16	3.51	2.24	0.04	30.11	60.34
CCC	0.00	0.00	0.37	0.73	4.40	1.10	0.00	43.96	49.45

Table 16

**Multiyear Transitions (continued)**

<b>Average 13-Year Transition Rates</b>				<b>—Rating at end of 13th year (%)—</b>					
<b>Initial rating</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>	<b>D</b>	<b>N.R.</b>
AAA	29.76	19.59	10.72	2.96	0.19	0.19	0.00	0.74	35.86
AA	3.09	25.18	28.55	6.42	0.95	0.33	0.00	1.44	34.06
A	0.40	5.68	30.02	14.33	3.73	0.71	0.00	2.55	42.58
BBB	0.25	1.47	14.00	20.33	4.48	1.38	0.00	5.57	52.52
BB	0.17	0.12	3.60	8.65	4.94	1.74	0.29	21.14	59.35
B	0.00	0.00	0.43	2.73	2.89	1.88	0.00	29.64	62.43
CCC	0.00	0.00	0.92	0.92	4.59	1.38	0.00	42.20	50.00
<b>Average 14-Year Transition Rates</b>				<b>—Rating at end of 14th year (%)—</b>					
<b>Initial rating</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>	<b>D</b>	<b>N.R.</b>
AAA	28.24	19.75	11.61	2.46	0.11	0.11	0.00	0.78	36.94
AA	3.18	22.95	28.38	6.46	1.08	0.34	0.00	1.66	35.96
A	0.47	5.40	28.17	13.94	3.40	0.76	0.00	2.70	45.18
BBB	0.20	1.46	12.96	19.53	4.29	1.17	0.05	5.99	54.36
BB	0.14	0.14	3.56	7.34	4.19	1.47	0.14	21.80	61.22
B	0.00	0.00	0.41	2.49	2.28	1.66	0.00	29.21	63.95
CCC	0.00	0.00	1.26	0.63	5.03	0.63	0.00	40.25	52.20
<b>Average 15-Year Transition Rates</b>				<b>—Rating at end of 15th year (%)—</b>					
<b>Initial rating</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>	<b>D</b>	<b>N.R.</b>
AAA	26.86	19.56	12.40	2.07	0.00	0.00	0.00	0.83	38.29
AA	3.10	20.57	28.03	6.74	1.13	0.36	0.00	1.97	38.10
A	0.51	5.24	26.81	13.68	3.06	0.78	0.00	2.93	46.99
BBB	0.17	1.56	12.39	18.66	4.44	1.04	0.12	6.11	55.53
BB	0.17	0.17	3.61	6.19	3.70	1.20	0.09	22.79	62.08
B	0.00	0.00	0.28	1.93	2.02	1.47	0.00	29.91	64.40
CCC	0.00	0.00	3.13	0.00	6.25	0.00	0.00	33.33	57.29

N.R.—Rating withdrawn.

Table 17

List of 2000 Defaults

	Company name	Country	Industry	Debt amt. (Mil. \$)	Default date	Next to last rating	Date of next to last rating	First rating	Date of first rating
1	AgriBioTech Inc.	U.S.	Agricultural chemicals	90.0	1/26/2000	CC	1/24/2000	B	6/26/1998
2	All Star Gas Co.	U.S.	Liquefied petroleum gas dealers	127.2	7/15/2000	CC	1/20/1998	BB	1/1/1981
3	Amer Reefer Co. Ltd.	Cyprus	Water transportation of freight, Nec	100.0	9/1/2000	CCC-	8/3/2000	B+	2/2/1998
4	American Architectural Products Corp.	U.S.	Engineering & architectural services	125.0	6/1/2000	CCC-	2/4/2000	B	11/26/1997
5	American Eco Corp.	Canada	Engineering & architectural services	117.3	5/15/2000	CCC+	3/8/2000	BB-	5/12/1998
6	AmeriServe Finance Trust/ AmeriServe Capital Corp.	U.S.	Eating places	205.0	1/31/2000	B	9/24/1999	B	9/24/1999
7	AmeriServe Food Distribution Inc.	U.S.	Groceries & related products, Nec	975.0	1/31/2000	B	7/16/1999	B+	6/27/1997
8	AMF Bowling Inc.	U.S.	Bowling centers	1,298.5	9/15/2000	CCC-	8/15/2000	BB-	4/28/1998
9	AMM Holdings Inc.	U.S.	Plastics foam products	100.0	8/15/2000	CC	6/14/2000	BB-	6/22/1998
10	Anacomp Inc.	U.S.	Photographic equipment & supplies	310.0	10/1/2000	CCC	8/3/2000	B+	4/8/1997
11	Armstrong World Industries Inc.	U.S.	Hard surface floor coverings, Nec	2,241.0	11/22/2000	B-	11/17/2000	AA	1/1/1981
12	Big V Supermarkets Inc.	U.S.	Grocery stores	204.1	11/22/2000	B+	12/7/1993	B+	12/7/1993
13	Burnham Services Corp.	U.S.	Local trucking, without storage	1.4	8/29/2000	N.R.*	3/15/1988	B+	6/3/1986
14	Cambridge Industries Inc.	U.S.	Motor vehicle parts & accessories	100.0	5/10/2000	B	8/24/1999	B+	10/27/1995
15	Canadian Airlines Corp.	Canada	Air transportation, scheduled	300.0	2/1/2000	CCC-	12/8/1999	CCC+	4/9/1998
16	CareMatrix Corp.	U.S.	Nursing & personal care, Nec	115.0	11/9/2000	CCC	3/27/2000	B+	3/2/1998
17	Carmike Cinemas Inc.	U.S.	Motion picture theaters, ex drive-in	463.3	8/1/2000	B+	5/30/2000	BB-	6/4/1987
18	Central European Media Enterprises Ltd.	Bermuda	Radio & television broadcasting	165.4	8/15/2000	CCC-	9/10/1999	BB-	8/7/1997
19	CHS Electronics Inc.	U.S.	Computers, peripherals & software	200.0	4/4/2000	CCC	11/8/1999	B+	1/12/1998
20	Clark Material Handling Co.	U.S.	Hoists, cranes, & monorails	150.0	4/17/2000	CCC+	12/22/1999	B+	11/11/1996
21	CLN Holdings Inc.	U.S.	Sporting & recreational goods	3.2	11/15/2000	N.R.*	7/9/1998	BB-	5/15/1997
22	Colorado Prime Corp.	U.S.	Misc. food & kindred products	84.4	11/1/2000	CC	8/17/2000	B	4/24/1997
23	ContiFinancial Corp.	U.S.	Mortgage bankers & correspondents	700.0	3/31/2000	CC	7/15/1999	BB+	8/6/1996
24	Crown Vantage Inc.	U.S.	Forest products	601.9	3/1/2000	B	4/29/1999	BB-	8/1/1995
25	Cuddy International Corp.	Canada	Turkeys & turkey eggs	75.0	6/1/2000	B	6/1/1999	B+	11/13/1997
26	Daya Guna Samudera Tbk (PT)	Indonesia	Fresh or frozen prepared fish	0.0	10/20/2000	CC	1/18/2000	BB+	4/23/1997
27	Decora Industries Inc.	U.S.	Paper coated & laminated, Nec	110.0	11/1/2000	CC	8/17/2000	B+	4/20/1998
28	Dictaphone Corp.	U.S.	Communications equipment	332.1	11/29/2000	B-	5/29/1997	B+	7/11/1995
29	DIMAC Corp.	U.S.	Management consulting services	370.0	4/6/2000	N.R.*	1/28/2000	B+	10/12/1998
30	Dimac Direct Inc.	U.S.	Commercial printing	25.0	4/6/2000	N.R.*	5/2/1995	B	1/10/1994
31	Drypers Corp.	U.S.	Sanitary paper products	145.0	10/10/2000	CC	10/2/2000	B+	10/9/1992
32	Dyersburg Corp.	U.S.	Broadwoven fabric mills, cotton	235.0	9/1/2000	N.R.*	2/25/2000	BB	8/14/1997
33	Eagle Food Centers Inc.	U.S.	Grocery stores	100.0	3/1/2000	B	12/15/1999	B+	5/24/1988
34	Empire Inc.	U.S.	Liquefied petroleum gas dealers	9.7	6/30/2000	N.R.*	3/11/1994	BB	1/1/1981
35	Employee Solutions Inc.	U.S.	Help supply services	85.0	4/15/2000	CC	3/10/2000	B+	10/10/1997
36	Esprit Telecom Group PLC	U.K.	Communications services, Nec	506.2	12/15/2000	CC	11/22/2000	B-	2/27/1998

Table 17

List of 2000 Defaults (continued)

Company name	Country	Industry	Debt amt. (Mil. \$)	Default date	Next to last rating	Date of next to last rating	First rating	Date of first rating
37 Fine Air Services Corp.	U.S.	Air transportation, scheduled	200.0	6/1/2000	CCC-	5/25/2000	B	5/15/1998
38 Flooring America Inc.	U.S.	Floor covering stores	71.0	6/16/2000	B-	7/16/1999	BB-	10/1/1997
39 FlowTex Technologie GmbH & Co. KG	Germany	Special industry machinery	0.0	2/4/2000	BBB-	11/9/1999	BBB-	11/9/1999
40 Galaxy Telecom L.P.	U.S.	Cable & other pay TV services	120.0	10/1/2000	CCC	4/19/2000	B+	8/25/1995
41 General Media Inc.	U.S.	Periodicals	52.0	12/31/2000	CCC	12/18/2000	BB-	12/13/1993
42 Genesis Health Ventures Inc.	U.S.	Skilled nursing care facilities	2,113.4	3/20/2000	B	3/3/1999	B+	11/8/1993
43 Glenoit Corp.	U.S.	Textile goods, Nec	237.0	4/15/2000	B	8/25/1999	B+	3/21/1997
44 Global Health Sciences Inc.	U.S.	Misc. food & kindred products	219.8	11/1/2000	CC	10/6/2000	BB-	3/25/1998
45 Globe Holdings Inc.	U.S.	Cellulosic manmade fibers	31.9	8/1/2000	B	3/27/2000	B+	7/27/1998
46 Globe Manufacturing Corp.	U.S.	Cellulosic manmade fibers	288.1	8/1/2000	B	3/27/2000	B+	7/27/1998
47 GNI Group Inc.	U.S.	Refuse systems	75.0	7/15/2000	CCC	2/15/2000	B+	7/20/1998
48 Gorges/Quik-to-Fix Foods Inc.	U.S.	Meat products	52.0	12/4/2000	CCC+	5/26/1999	B+	11/15/1996
49 Grand Union Co.	U.S.	Grocery stores	269.0	10/3/2000	CCC	5/17/2000	B	8/19/1998
50 Hedstrom Holdings Inc.	U.S.	Games, toys, & children's vehicles	377.7	4/11/2000	B	12/22/1999	B+	5/29/1997
51 Heilig-Meyers Co.	U.S.	Furniture stores	475.0	8/1/2000	BB-	6/23/1999	BBB-	7/9/1996
52 ICG Communications Inc.	U.S.	Telephone communications, exc. radio	2,035.4	11/14/2000	CCC+	9/18/2000	B-	7/28/1999
53 Imperial Home Decor Group Inc. (The)	U.S.	Furniture & fixtures, Nec	414.2	1/5/2000	B-	11/12/1999	B+	3/10/1998
54 Imperial Sugar Co.	U.S.	Sugar & confectionery products	250.0	12/15/2000	B	6/9/2000	BBB-	9/14/1992
55 InaCom Corp.	U.S.	Computers, peripherals & software	0.0	6/16/2000	CCC-	6/2/2000	BB-	6/12/1996
56 Indesco International Inc.	U.S.	Plastics products, Nec	157.0	10/15/2000	B	5/23/2000	B+	4/3/1998
57 Innovative Clinical Solutions Inc.	U.S.	Management services	100.0	7/13/2000	CC	5/23/2000	B	6/19/1996
58 Iowa Select Farms L.P./ ISF Finance Inc.	U.S.	Hogs	130.0	6/1/2000	CC	5/19/2000	B+	11/20/1997
59 Key Plastics LLC	U.S.	Unsupported plastics film & sheet	370.0	3/15/2000	CC	3/13/2000	B+	10/30/1992
60 Kitty Hawk Inc.	U.S.	Air transportation, scheduled	485.9	5/1/2000	CCC	4/11/2000	B+	10/29/1997
61 Laidlaw Inc.	Canada	Local trucking, without storage	1,493.0	5/15/2000	BB-	4/27/2000	BBB+	10/16/1992
62 LaRoche Industries Inc.	U.S.	Nitrogenous fertilizers	295.5	3/15/2000	CC	3/10/2000	BB-	8/3/1994
63 Lodestar Energy Inc.	U.S.	Crude petroleum & natural gas	0.0	11/15/2000	CC	9/21/2000	B	5/6/1998
64 Lodestar Holdings Inc.	U.S.	Crude petroleum & natural gas	197.0	11/15/2000	CC	9/27/2000	B	5/5/1998
65 LSB Industries Inc.	U.S.	Capital goods, machinery & equipment	0.0	5/9/2000	N.R.*	1/2/1990	BB-	1/1/1981
66 LTV Corp.	U.S.	Steel, integrated	800.0	12/29/2000	B	11/28/2000	BB	9/2/1997
67 Master Graphics Inc.	U.S.	Commercial printing, Nec	205.0	6/1/2000	CCC-	4/14/2000	B+	12/1/1998
68 MEDIQ Inc.	U.S.	Health & allied services, Nec	655.9	6/1/2000	CCC-	5/12/2000	B+	5/23/1986
69 Metal Management Inc.	U.S.	Steel wire & related products	352.0	11/15/2000	CCC	11/8/2000	B+	4/16/1998
70 MMH Holdings Inc.	U.S.	Hoists, cranes, & monorails	0.0	4/1/2000	CCC	6/7/1999	B+	3/10/1998
71 Morris Material Handling Inc.	U.S.	Hoists, cranes, & monorails	355.0	4/1/2000	CCC	6/7/1999	B+	3/10/1998

Table 17

## List of 2000 Defaults (continued)

	Company name	Country	Industry	Debt amt. (Mil. \$)	Default date	Next to last rating	Date of next to last rating	First rating	Date of first rating
72	Nebco Evans Holding Co.	U.S.	Eating places	98.0	1/31/2000	B	7/16/1999	B+	6/27/1997
73	ORBCOMM Global L.P.	U.S.	Radiotelephone communications	170.0	8/15/2000	CC	8/10/2000	B-	7/26/1996
74	Outboard Marine Corp.	U.S.	Boat building & repairing	575.0¶	12/22/2000	CCC	12/13/2000	BB	1/1/1981
75	Owens Corning	U.S.	Broadwoven fabric mills, manmade	3,157.9	10/5/2000	BB-	8/3/2000	A+	1/1/1981
76	Pacific & Atlantic Holdings Inc.	Greece	Water transportation of freight, Nec	128.0	1/15/2000	CC	9/9/1999	B	5/11/1998
77	Pacific Gateway Exchange Inc.	U.S.	Telephone communications	38.6¶	12/29/2000	N.R.*	7/31/2000	B+	12/28/1999
78	Packaging Resources Inc.	U.S.	Plastics products, Nec	110.0	5/1/2000	CC	4/21/2000	B+	5/2/1996
79	Paging Network Inc.	U.S.	Radiotelephone communications	1,945.0	2/3/2000	CCC	11/9/1999	B+	4/30/1992
80	Paracelsus HealthCare Corp.	U.S.	General medical & surgical hospitals	325.0	2/15/2000	B+	4/16/1997	BB-	9/28/1993
81	Pathmark Stores Inc.	U.S.	Grocery stores	1,299.6	5/1/2000	CC	3/23/2000	BB-	10/28/1993
82	PennCorp Financial Group Inc.	U.S.	Accident & health insurance	115.0	1/10/2000	CCC+	12/17/1998	BBB	1/1/1981
83	Pen-Tab Industries Inc.	U.S.	Pens, pencils, office, & art supplies	75.0	2/1/2000	CC	1/31/2000	B+	1/17/1997
84	Phase Metrics Inc.	U.S.	Computer storage devices	106.0	2/1/2000	B-	4/29/1999	B	1/16/1998
85	Pillowtex Corp.	U.S.	Misc. food & kindred products	1,050.8	11/14/2000	CC	11/8/2000	BB	10/31/1996
86	Pioneer Corp. of America	U.S.	Alkalies & chlorine	377.0	12/15/2000	CCC+	10/20/2000	B+	3/27/1995
87	Plainwell Inc.	U.S.	Forest products	160.0	9/1/2000	CCC+	5/10/2000	B+	2/3/1998
88	PNV Inc.	U.S.	Communications services, Nec	72.0	11/15/2000	CCC+	3/2/1999	B-	5/18/1998
89	President Casinos Inc.	U.S.	Amusement & recreation, Nec	75.0	3/15/2000	CC	3/7/2000	B+	8/26/1993
90	Prime Succession Inc.	U.S.	Funeral service & crematories	215.0	2/15/2000	CCC	11/2/1999	BB-	8/9/1996
91	Read-Rite Corp.	U.S.	Computer storage devices	345.0	1/27/2000	B	8/5/1999	BB-	4/30/1997
92	Regal Cinemas Inc.	U.S.	Motion picture theaters	800.0	12/1/2000	CCC	8/16/2000	BB+	1/9/1997
93	Reliance Group Holdings Inc.	U.S.	Fire, marine, & casualty insurance	465.7	11/15/2000	CC	8/15/2000	B	1/1/1981
94	Resort at Summerlin Inc. (The)	U.S.	Hotels & motels	220.0	9/15/2000	CCC	10/1/1999	B-	12/22/1997
95	Resort at Summerlin L.P. (The)	U.S.	Hotels & motels	0.0	9/15/2000	CCC	10/1/1999	B-	12/22/1997
96	Safelite Glass Corp.	U.S.	Flat glass	335.0	6/9/2000	CCC	2/15/2000	BB-	12/5/1996
97	Safety Components International Inc.	U.S.	Ammunition, exc for small arms, Nec	117.0	1/15/2000	CC	1/13/2000	B+	7/15/1997
98	Safety-Kleen Corp.	U.S.	Refuse systems	1,876.0	5/15/2000	CC	4/18/2000	BB	5/20/1998
99	SFAC New Holdings Inc.	U.S.	Bread, cake, & related products	366.0	9/18/2000	CCC	7/13/2000	B+	8/9/1993
100	SFC New Holdings Inc.	U.S.	Bread, cake, & related products	371.0	9/18/2000	CCC	7/13/2000	B+	8/9/1993
101	Silver Cinemas International Inc.	U.S.	Motion picture theaters	126.0	4/15/2000	CC	11/15/1999	B+	4/9/1998
102	Stage Stores Inc.	U.S.	Family clothing stores	535.0	6/1/2000	B-	4/6/2000	B+	7/22/1993
103	Stellex Technologies Inc.	U.S.	Electronic components, Nec	100.0	5/1/2000	B	3/8/2000	B+	10/14/1997

Table 17

**List of 2000 Defaults (continued)**

Company name	Country	Industry	Debt amt. (Mil. \$)	Default date	Next to last rating	Date of next to last rating	First rating	Date of first rating
104 Styling Technology Corp.	U.S.	Soap, cleaners, & toilet goods	100.0	8/31/2000	CCC+	11/30/1999	B+	6/10/1998
105 Sunterra Corp.	U.S.	Hotels & motels	478.0	5/15/2000	B	3/16/2000	B+	1/21/1997
106 Supermarkets General Holdings Corp.	U.S.	Grocery stores	1.0	5/1/2000	N.R.*	10/29/1993	B+	9/10/1987
107 Talon Automotive Group Inc.	U.S.	Automotive stampings	177.0	11/1/2000	B-	2/8/2000	B+	4/20/1998
108 Tokheim Corp.	U.S.	Fluid power pumps & motors	433.3	8/1/2000	CCC+	1/5/2000	BB-	8/7/1996
109 Tower Air Inc.	U.S.	Air transportation, scheduled	0.0	2/29/2000	CCC+	7/23/1998	CCC+	7/23/1998
110 Transtel S.A.	Colombia	Telephone communications	150.0	11/1/2000	CCC+	6/8/2000	B	10/7/1997
111 Uniforet Inc.	Canada	Forest products	125.0	4/15/2000	CC	2/22/2000	B+	10/3/1996
112 United Artists Theatre Circuit Inc.	U.S.	Motion picture theaters, ex drive-in	712.7	4/15/2000	CCC	1/26/2000	BB	4/27/1992
113 Vista Eyecare Inc.	U.S.	Optical goods stores	125.0	4/5/2000	CC	3/27/2000	B+	9/8/1998
114 Waxman Industries Inc.	U.S.	Electrical goods	92.8	6/1/2000	N.R.*	3/14/1997	B+	3/20/1987
115 Wheeling-Pittsburgh Corp.	U.S.	Blast furnace & basic steel products	275.0	11/16/2000	CCC-	9/18/2000	BB-	11/4/1991
116 Worldtex Inc.	U.S.	Hosiery, Nec	175.0	12/15/2000	B	5/16/2000	B+	11/13/1997
117 Zeta Consumer Products Corp.	U.S.	Plastics products, Nec	85.0	4/25/2000	N.R.*	1/29/1999	B	11/10/1997
		Total	42,328.0¶					

\*N.R. (that is, no longer rated) at time of default. ¶Preliminary total.

Source: Standard & Poor's. Nec—Not elsewhere classified. exc—Except

# Corporate Defaults

## Supplement: Summary Of 2000 Developments

### AGRIBIOTECH INC.

**Kenneth G. Drucker,**  
*New York (1) 212-438-7831*

- \$100 million revolving credit facility bank loan due Dec. 31, 2001

On Jan. 26, 2000, the rating on AgriBioTech Inc.'s debt was lowered to 'D' from 'CC' following the company's announcement that it had filed for Chapter 11 protection in the U.S. Bankruptcy Court. The rating was removed from CreditWatch with negative implications. High debt leverage, weakness in the agricultural economy and the bankruptcy of a major customer negatively impacted financial results, ultimately resulting in the company's inability to service its debt obligations. Prior to its ultimate liquidation, AgriBioTech Inc. was a vertically integrated, full-service seed company specializing in the forage and turf grass sector, complete with R&D of proprietary seed varieties, seed-processing plants, and a national and international distribution and sales network.

### ALL STAR GAS CO.

**John Kennedy,**  
*New York (1) 212-438-7670*

- \$127.2 million 12.875% secured notes due July 15, 2004

All Star Gas Corp (All Star) failed to make the July 15, 2000, interest payment on its \$127.2 million 12.875% senior secured notes due 2004 after exercising a 30-day grace period option. Prior to this event, Standard & Poor's had withdrawn

the ratings on All Star. However, prior to this action, the company was rated 'CC'. The outlook was negative. The rating was lowered to 'CC' from 'B-' on Jan. 20, 1998, when the company initially exercised its 30-day grace period for the Jan. 15, 1998, interest payment. All Star had used its grace period option for every interest payment since that time. The 'CC' rating indicated that the company's debt obligation was highly vulnerable to nonpayment. All Star's difficulty in meeting its interest payment was a result of lower operating income due to a milder selling season and the inability to pass along higher commodity prices to its customers.

### AMER REEFER CO. LTD.

**Peter Nilsson,**  
*Stockholm (46) 8-440-5913*

- \$100 million 10.25% notes due March 1, 2008

Standard & Poor's lowered the corporate credit and senior secured debt ratings on Amer Reefer Co. Ltd. to 'D' from 'CCC-' on Sept. 1, 2000. The ratings were removed from CreditWatch with negative implications. The downgrade reflected Amer Reefer's failure to meet its Sept. 1 interest payment on its \$100 million 10.25% notes due March 1, 2008.

Amer Reefer, owner of a small fleet of modern refrigerated (reefer) vessels, had been adversely impacted by depressed freight rates in the reefer sector during the past few years. Factors behind the weak market included bad weather conditions, economic turmoil in the Far East and com-

petition from container vessel operators. Peak season freight rates in 2000 were significantly lower than expected, and the market is expected to remain depressed in the short term.

#### AMERICAN ARCHITECTURAL PRODUCTS CORP.

Cynthia Werneth,

New York (1) 212-438-7819

- \$125 million 11.75% senior notes due Dec. 1, 2007

On June 5, 2000, American Architectural Products Corp.'s ratings were lowered to 'D,' following the company's failure to make the June 1, 2000, interest payment on its senior notes. The ratings were removed from CreditWatch with negative implications.

The company was formed in 1996 by combining the operations of several small window manufacturers. Additional acquisitions occurred and were not well integrated. Poor operating results led to liquidity problems.

The company announced in July 2000 that it had reached an agreement in principle for a consensual debt restructuring with an unofficial committee representing the noteholders.

#### AMERICAN ECO CORP.

Eric Ballantine,

New York (1) 212-438-7684

- \$120 million 9.625% senior notes due May 15, 2008

American Eco Corp. missed the May 15, 2000, interest payment on its senior notes, following a period of severe financial stress. The company's difficulties arose from a highly leveraged balance sheet and a weak operating performance. The latter declined sharply in 1999 as a result of the company's inability to control costs and the continued softness in several of its key markets.

Houston, Texas-based American Eco is a consolidator of outsourcing services to the energy, pulp and paper, and power-generation industries. The company also provides

specialty fabrication services. The company's inability to improve profitability and manage working capital effectively led to its financial failure.

The company is currently in the process of selling off all of its assets, and thus will not emerge from bankruptcy.

#### AMF BOWLING INC.

Alyse Michaelson,

New York (1) 212-438-5021

- \$200 million zero-coupon convertible debentures due May 12, 2018
- \$250 million 10.875% senior subordinated notes due March 15, 2006
- \$452 million 12.25% senior subordinated discount notes due March 15, 2006
- \$355 million revolving credit facility bank loan due March 31, 2002
- \$187.5 million series A amortization extended loan bank loan due March 31, 2004
- \$137.8 million series B amortization extended loan bank loan due March 31, 2004
- \$130 million multidraw term loan bank loan due March 31, 2002

On Aug. 15, 2000, Standard & Poor's lowered the corporate credit ratings for AMF Bowling Inc. and its AMF Bowling WorldWide Inc. operating subsidiary to 'CCC-'. In addition, AMF Bowling Inc.'s senior unsecured debt rating was lowered to 'C', and AMF Bowling WorldWide's bank loan and subordinated ratings were lowered to 'CCC-' and 'C', respectively. At the same time, ratings were placed on CreditWatch with negative implications.

The rating action reflected AMF Bowling WorldWide's announcement that it would withhold an interest payment of about \$13.6 million due on Sept. 15, 2000, on its senior subordinated notes, a move required by its recently amended credit agreement. The amendment also includes a waiver of bank financial covenants through Dec. 31, 2000, and reduction in the revolving credit facility to \$255 million by year-end. The amended bank agreement is part of the company's efforts to restructure its long-term debt burden.

On Sept. 18, 2000, Standard & Poor's lowered its subordinated debt rating on AMF Bowling Worldwide Inc. to 'D' from 'C'. The corporate credit rating on AMF Bowling Worldwide and its operating subsidiary, AMF Bowling Inc., was also lowered to 'D' from 'CCC-'. These ratings were removed from CreditWatch with negative implications. In addition, the 'CCC-' bank loan rating on AMF Bowling Worldwide and the 'C' senior unsecured debt rating on AMF Bowling remain on CreditWatch with negative implications, where they were placed Aug. 15, 2000. The downgrades were based on the company's failure to make its schedule payment due Sept. 15, 2000.

The company's problems reflect lackluster operating performance, thin interest coverage, negative discretionary cash flow, and limited financial flexibility. Operating cash flow has been roughly flat due to weak bowling center operating performance, which accounts for nearly all of AMF's profitability. Results of the bowling product division continued to be negatively impacted by sluggish demand for new center packages in Asian markets and competitive pricing. In addition, the bowling center business faces declining league participation and increasing competition from other forms of entertainment.

The company continues to operate despite its operating and financial challenges. On Nov. 16, 2000, AMF Bowling announced that in conjunction with its financial restructuring, it is implementing strategic organizational changes in each of its major businesses to strengthen operations and financial performance. These changes include new initiatives in AMF's U.S. bowling centers business to streamline the organization and refocus on the bowling center manager, and several senior management changes in bowling products.

#### AMM HOLDINGS INC.

Peter Kelly,

New York (1) 212-438-7698

- \$100 million 11.750% senior notes due April 1, 2004

On Aug. 15, 2000, Standard & Poor's lowered the corporate credit ratings on Moll Industries Inc. and AMM Holdings Inc. to 'SD' (selective default) from 'CC'. At the same time, Standard & Poor's lowered its senior unsecured debt rating on the company's \$100 million, 11.75% notes due 2004 to 'D' from 'CC'. The ratings were removed from CreditWatch with negative implications. The notes were issued by Anchor Advanced Products Inc. before the 1998 merger between Anchor and Moll PlastiCrafters L.P. The downgrades reflected completion of a tender offer in which holders of \$50 million of the notes received \$850 per \$1,000 principal amount.

Privately held Moll is a leading producer of custom-molded and assembled plastic components. The deterioration in credit quality stemmed from disappointing sales in the dental, cosmetic packaging, and business equipment markets, as well as pressure on profitability from difficulties associated with integrating the companies.

On Sept. 11, 2000, Standard & Poor's raised the corporate credit ratings on Moll Industries Inc. and AMM Holdings Inc. to 'CCC'. The rating on the company's remaining notes due 2004 was raised to 'CCC' from 'D'. The upgrade reflected somewhat improved liquidity following completion of the tender offer. A restriction in the note issue, which had restricted availability under the prior bank facility to \$15 million, was amended to allow the company to borrow up to the full amount of the revolving credit facility.

#### ANACOMP INC.

**Martha Toll-Reed,**

*New York (1) 212-438-7867*

- \$200 million 10.875% senior subordinated notes series B due April 1, 2004
- \$140 million 10.875% senior subordinated notes series D due April 1, 2004

On Oct. 2, 2000, Standard & Poor's lowered the corporate credit and subordinated debt ratings on Anacomp Inc. to 'D' from 'CCC' following the company's announcement that it did not make its scheduled interest payment on its senior

subordinated notes. The ratings were removed from CreditWatch with negative implications. The bank loan rating is 'CC'.

Revenues from Anacomp's legacy COM (computer output to microfiche) business continue to decline, despite growth in digital solutions and software. In addition, the company has made significant investments in docHarbor, a start-up Web-based storage services business.

On Oct. 31, 2000, Anacomp announced it had reached an agreement in principle with its senior bank lenders, providing the company with continued access to its senior revolving credit facility for an additional four months, including the ability to make limited additional borrowings under the credit facility.

#### ARMSTRONG WORLD INDUSTRIES INC.

**Cynthia Werneth,**

*New York (1) 212-438-7819*

- \$200 million 6.35% senior notes due Aug. 15, 2003
- \$150 million 6.5% senior notes due Aug. 15, 2005
- \$200 million 7.45% notes due May 15, 2029
- \$180 million 7.45% senior quarterly interest bonds due Oct. 15, 2038
- \$125 million 9.75% debentures due April 15, 2008
- \$450 million 5-year revolving credit facility bank loan due 2003
- \$125 million medium-term notes series A due 9 months to 10 years
- \$1 billion senior unsecured debt
- \$11 million solid waste disposal revenue bonds series 1996 due Dec. 1, 2024

Armstrong World Industry Inc.'s ratings were lowered to 'D' on Nov. 27, 2000, and removed from CreditWatch with negative implications. The action followed the company's announcement that it had failed to repay \$50 million in commercial paper. This constitutes an event of default under the bank credit facility and other debt agreements.

Armstrong was in the process of replacing a maturing \$450 million 364-day credit facility (this is in addition to the one listed

above) in October 2000 when Owens-Corning, a company that (like Armstrong) has significant asbestos-related liabilities, filed for bankruptcy. Credit sources dried up, and liquidity declined rapidly (from \$100 million in excess of commercial paper outstanding after the credit facility matured).

The company had been working on accessing alternate sources of liquidity (secured financing, accounts receivable sale, and/or asset sales) when it defaulted, but has indicated that it may be forced to file for bankruptcy if it is unsuccessful.

#### BIG V SUPERMARKETS INC.

**Patrick Jeffrey,**

*New York (1) 212-438-7840*

- \$80 million 11% senior subordinated notes due Feb. 15, 2004
- \$25 million revolving bank loan due Dec. 31, 2003
- \$99.1 million term loan bank loan due Dec. 31, 2003

On Nov. 27, 2000, Standard & Poor's lowered Big V Supermarkets Inc.'s corporate credit rating to 'D' from 'CC', following the company's announcement that it filed for Chapter 11 bankruptcy protection. The rating was removed from CreditWatch with positive implications. The company violated a covenant under its bank agreement through the sale of assets and was restricted from making any further subordinated debt payments. Additional covenants under the bank agreement required the company to obtain \$30 million of additional equity or it could be in further violation of the bank agreement. Big V had no availability under its revolver at the time of the filing as it had experienced reduced cash flow due to increased competitive store openings in its markets.

#### CAMBRIDGE INDUSTRIES INC.

**Lisa Jenkins,**

*New York (1) 212-438-7697*

- \$100 million 10.25% senior subordinated notes due July 15, 2007
- On May 10, 2000, Standard & Poor's

lowered the ratings on Cambridge Industries Inc. to 'D' following the company's announcement that it had entered into a definitive agreement to sell substantially all of its assets and operations to Meridian Automotive Systems Inc. and that it had filed voluntary petitions under Chapter 11 of the U.S. Bankruptcy Code to consummate the sale. The ratings were removed from CreditWatch with negative implications.

Cambridge, a manufacturer of exterior, functional/structural, and interior plastic components for automobiles and light and heavy-duty trucks, had been dealing with an onerous debt burden while facing significant tooling and launch costs for new business. The resulting financial pressures led the company to announce that it expected to be in violation of bank covenants and to have insufficient cash available in the first half of the year to meet capital expenditure requirements and that it was putting itself up for sale.

The sale of substantially all of the assets to Meridian closed on July 17, 2000.

#### CANADIAN AIRLINES CORP.

**Mark Mettrick, CFA,**  
Toronto (1) 416-202-6009

- \$175 million 10% senior notes due May 1, 2005
- \$125 million 12.25% senior notes due Aug. 1, 2006

On Feb. 2, 2000, Standard & Poor's lowered the corporate credit rating on Canadian Airlines Corp. to 'D' from 'CCC-' following a payment default by Canadian. The ratings were removed from CreditWatch with negative implications.

On Dec. 8, 1999, Canadian Airlines was downgraded to 'CCC-' from 'CCC+' and kept on CreditWatch with negative implications following Canadian Airlines' Board of Directors recommendation to accept the indirect offer from Air Canada to purchase all of the common shares and nonvoting common shares of Canadian. The rating revision of Canadian Airlines on Dec. 8, 1999, reflected that Canadian's financial obligations would be restructured under the Air Canada offer, and that certain cate-

gories of Canadian's debt would accordingly default.

The Air Canada offer for Canadian, made through a holding company and conditional on the debt restructuring, was made in response to a hostile reverse takeover attempt by Canadian (with support from new outside investors). The reverse takeover was eventually ruled illegal, due to regulations/limits on foreign and absolute levels of ownership, paving the way for the Air Canada offer to proceed uncontested. Canadian Airlines had a history of financial losses, and it was almost certain that the company would have run out of cash and not survived the early part of fiscal 2000 without the support of Air Canada. Air Canada's offer was the only viable means of ensuring the continued operations of Canadian.

Air Canada separately renegotiated lease arrangements with creditors representing over 97% of Canadian Airlines' fleet, whereby Air Canada assumed the financial guarantee on the leases in exchange for better terms. Since Air Canada then effectively controlled the assets of the operating company, it was able to coercively restructure the debt at Canadian Airlines, a holding company.

Canadian filed for Companies Creditor Agreement Act protection on March 24, 2000, under a prepackaged bankruptcy plan. Creditors approved the plan on May 26, and on June 7, the Courts approved the plan. Under the terms of the plan secured noteholders received 98% of principal and all accrued and unpaid interest on the notes and all the costs of the trustee and collateral agent for the notes. Unsecured noteholders received a payment equal to 14% of the value of their affected unsecured claims.

Canadian Airlines is now a wholly owned subsidiary of Air Canada.

#### CAREMATRIX CORP.

**John R. Sico,**  
New York (1) 212-438-7862

- \$115 million 6.25% convertible subordinated notes due Aug. 15, 2004

Standard & Poor's lowered the corporate credit rating on CareMatrix Corp. to 'D' following the company's announcement that it had filed for Chapter 11 bankruptcy protection. In addition, Standard & Poor's lowered the rating on CareMatrix's \$115 million 6.25% convertible notes due 2004 to 'D'. Ratings were removed from CreditWatch where they were initially placed with negative implications on Oct. 14, 1999, due to significant near-term risk of default. The company has experienced significant earnings weakness and a lack of adequate financing for its development pipeline, stemming from difficulties in the long-term care market. Needham, Mass.-based CareMatrix develops, manages, owns, and operates about 50 assisted living facilities.

#### CARMIKE CINEMAS INC.

**Steve Wilkinson,**  
New York (1) 212-438-5093

- \$200 million 9.375% senior subordinated notes due Feb. 1, 2009
- \$75 million term bank loan due Dec. 31, 2005
- \$200 million revolving credit facility bank loan due Dec. 31, 2002

On Aug. 2, 2000, Standard & Poor's lowered the corporate credit rating on Carmike Cinemas Inc. to 'D' from 'B+' and its subordinated debt rating to 'D' from 'B-'. At the same time, the bank loan rating was lowered to 'CC' from 'B+'. The downgrades reflected the company's failure to pay the scheduled interest payment on its subordinated debt issue on Aug. 1, 2000, which was blocked by the holders of the company's bank debt. The bank's right to block the interest payment was triggered by Carmike's technical noncompliance with certain financial covenants under the bank facility. At the time, Carmike stated that it had the necessary liquidity to meet this obligation and that it was negotiating with the bank group to obtain a waiver so that it could make the payment.

Shortly thereafter, on Aug. 8, 2000, the bank loan rating was also lowered to 'D' following the company's voluntary bank-

ruptcy filing under Chapter 11 of the U.S. Bankruptcy Code. Carmike's announcement stated that it believed that Chapter 11 provided the most expeditious way to achieve the necessary financial and operational restructuring of the business and that it removed uncertainty and delay related to negotiations with creditors.

These events followed the rapid decline in the operating performance of all movie exhibitors as oversupply and high leverage severely hurt financial results and credit measures. Despite credit measures that were better than most other large exhibitors, Carmike Cinemas was in violation of its financial covenants as of June 30, 2000, after having amended them to attain looser terms in April. These issues and Carmike's delay in providing additional collateral to the banks, which was required to be delivered by November per the earlier waiver, are believed to have complicated the ability to reach a compromise on the financial covenant violations. Carmike remains in bankruptcy where it is still in the early stages of reorganizing its business.

#### CENTRAL EUROPEAN MEDIA ENTERPRISES LTD.

**Trevor Pritchard,**

*London (44) 20-7826-3737*

- \$65 million (DM140 million) 8.125% notes due Dec. 31, 2004
- \$100 million 9.375% notes due Aug. 15, 2004

On Sept. 15, 2000, Standard & Poor's lowered the long-term corporate credit rating on Central European Media Enterprises Ltd. (CEME) to 'D' from 'CC', following the company's announcement that it did not make its semiannual interest payment on its senior debt. At the same time, Standard & Poor's lowered the ratings on the company's senior unsecured debt to 'D' from 'C'. The ratings were removed from CreditWatch with negative implications, where they had been placed on Jan. 18, 1999.

Subsequently, on Oct. 20, 2000, CEME stated that it had commenced restructuring the debt, offering noteholders a pro rata share of \$100 million in cash, 25% of the

equity and warrants in exchange for their notes. CEME has set a deadline of Jan. 15, 2001, for acceptance of this offer. Debt restructuring was required following the September 1999 suspension of operations at CEME's Czech subsidiary Ceska nezavisla televizni spolecnost spol s.r.o. (CNTS) due to a dispute between CNTS and its local partner, CET 21, spol. s.r.o. As a result of losing the main source of operating profits, Czech TV station Nova, CEME was left with a significantly smaller economic base with which to service debt.

#### CHS ELECTRONICS INC.

**Martha Toll-Reed,**

*New York (1) 212-438-7867*

- \$200 million 9.875% notes due April 15, 2005

Standard & Poor's lowered the ratings on CHS Electronics Inc. to 'D' on April 4, 2000, following the company's announcement that it filed a prenegotiated plan of reorganization under Chapter 11 of the U.S. Bankruptcy Code.

The company's performance reflected highly competitive industry conditions, operating losses, and overstated vendor rebates for the computer products distributor. CHS Electronics subsequently filed a plan to liquidate its assets.

#### CLARK MATERIAL HANDLING CO.

**Eric Ballantine,**

*New York (1) 212-438-7684*

- \$150 million 10.75% senior notes series D due Nov. 15, 2006

On April 17, 2000, Clark Material Handling Co. filed for Chapter 11 protection under the U.S. Bankruptcy Code. Clark, under serious financial distress at the time of the filing, had run out of options. The company no longer had access to the equity markets and had used up most of its revolving credit. The company, which obtained several waivers on this facility, is in the highly cyclical material handling industry. Clark ran into problems as it expanded and had trouble with its overseas

operations. The company's operating performance deteriorated sharply in 1999 due to softening order rates in North America and Europe, continued pricing pressure, and difficulties integrating its Enterprise Resource Planning system. Clark lost sales and was unable to manage working capital and inventory levels effectively.

#### COLORADO PRIME CORP.

**Pamela L. Atkins,**

*New York (1) 212-438-7823*

- \$100 million 12.5% senior notes due May 1, 2004

Standard & Poor's lowered the rating on Colorado Prime Corp.'s senior notes to 'D', after the company did not make the interest payment on the notes, due Nov. 1, 2000.

Over time, Colorado's operating results have been negatively impacted, in part, by lower sales to existing customers. The company had been able to largely offset declining sales to current customers with increased sales to new customers. However, the cost of obtaining new customers has adversely affected operating margins. Poor operating results contributed to a constrained liquidity position.

Despite the default on its notes, Colorado Prime has remained current on its rated bank facility. The company continues to negotiate with the senior noteholders.

#### CONTIFINANCIAL CORP.

**Daniel Martin,**

*New York (1) 212-438-7390*

- \$200 million 7.5% senior notes due March 15, 2002
- \$200 million 8.125% senior notes due April 1, 2008
- \$300 million 8.375% senior notes due Aug. 15, 2003

On May 18, 2000, Standard & Poor's lowered the corporate credit rating for Contifinancial Corp. to 'D' from 'SD'. Standard & Poor's also lowered the rating on Contifinancial's rated senior debt to 'D' from 'CC'. The ratings were removed from CreditWatch with negative implications.

The rating actions followed Contifinancial's announcement that it would seek protection from creditors under Chapter 11 of the U.S. Bankruptcy Code.

ContiFinancial's demise can be traced to what in retrospect was a problematic business model. The company's primary vulnerability was its reliance on the securitization and whole loan markets for the disposition of its assets. These markets proved volatile, especially after the Russian sovereign default in August 1998. From this point on, the company was unable to profitably securitize or sell the loans it acquires. Hedging against this risk also became problematic, as the most liquid hedging markets, such as the U.S. Treasury market and related derivatives markets, were no longer correlating with the nonconforming MBS market. Contifinancial's position was further compromised by the need to fund its working capital requirements through bank lines or bank-guaranteed facilities, which had to be renegotiated on a recurring basis. The company's weakening financial condition, which triggered covenant violations resulted in short term liquidity drying up for the company, finally pushing it into bankruptcy in May 2000.

#### CROWN VANTAGE INC.

**Edward Brennan,**  
*New York (1) 212-438-7687*

- \$100 million senior PIK notes due Dec. 31, 2007
- \$250 million 11% senior subordinated notes due Sept. 1, 2005
- \$350 million bank loan

The combination of high-cost facilities and rising market pulp costs led to operating losses, which led to rising debt levels at this already highly leveraged paper manufacturer, and difficulty in making debt service payments.

On March 15, 2000, the company filed a voluntary petition seeking reorganization under Chapter 11 of Title 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Northern District of California, Oakland Division.

On Nov. 2, Crown Paper signed a letter of intent to sell substantially all of the spe-

cialty, packaging, text and cover papers business for \$17.5 million in cash and a \$7.5 million note.

#### CUDDY INTERNATIONAL CORP.

**Barbara Komjathy,**  
*Toronto (1) 416-202-6021*

- \$75 million 10.75% notes due Dec. 1, 2007

Standard & Poor's lowered the corporate credit rating and senior unsecured debt ratings on Cuddy International Corp. to 'D' from 'B' on June 14, 2000. The downgrade reflected the company's failure to make its June interest payment on its 10.75% senior unsecured notes due 2005.

Cuddy's performance has been adversely affected by several factors, which made the company unable to service its debt burden incurred as part of its expansion strategy. The company has sustained significant net losses over the past two years, largely attributable to decreased demand for its turkey hatching eggs, weakened operating margins, and restructuring costs. The company, with operations in the U.S. and Canada, is a producer and distributor of turkey hatching eggs and poults, and value-added turkey and chicken products.

#### DAYA GUNA SAMUDERA TBK (PT)

**Ee-Lin Tan,**  
*Singapore (65) 239-6394*

- \$225 million 10% notes due June 1, 2007

On Dec. 14, 2000, Standard & Poor's lowered the corporate credit rating on Daya Guna to 'D' from 'SD' (selective default), and the issue rating to 'D' from 'CC'. The downgrade reflected the failure of the company to make full payment of its \$11.25 million coupon due on Dec. 1, 2000. Although Daya Guna paid \$5 million on Dec. 1, 2000, and expected to pay the remaining \$6.25 million on Jan. 5, 2001, this would breach the 30-day grace period allowed under the U.S. dollar note documents, constituting a default on the note issue.

The company had sold some idle vessels to secure the funds required to pay the interest

due, but the proceeds from the sale were made in two stages, only one of which had been effected. As a result, Daya Guna expected to complete the payment only in January 2001, after which, Standard & Poor's would restore the corporate credit rating on the company to selective default, reflecting its failure to repay short-term loans of \$83 million (not rated) to its bank creditors since 1999. At the same time, the rating on the notes would be restored to 'CC'.

Daya Guna suffers from severe liquidity problems and a lack of financial flexibility. The weak credit quality of Indonesia's banking system and volatility of the rupiah have severely restricted the company's funding options, forcing it to fund most of its own working capital. The company faces negative operating cash flows due to the ongoing social unrest close to its main fishing grounds in the Arafura Sea and its processing operations at Benjina and Kimaan in the Maluku region of eastern Indonesia. Consequently, production levels have suffered significantly. Funding support from major shareholder, PT Bintuni Minaraya (51% owner of DGS), which is facing liquidity problems of its own, is unlikely.

#### DECORA INDUSTRIES INC.

**Martin S. Kounitz, CFA,**  
*New York (1) 212-438-7387*

- \$110 million 11% senior secured notes due May 1, 2005

Standard & Poor's lowered to 'D' the corporate credit rating of Decora Industries Inc., following the company's failure to make the Nov. 1, 2000, interest payment on its senior secured notes.

Decora manufactures the Con-Tact brand of self-adhesive decorative covering. Originally a contract manufacturer for Rubbermaid Inc., Decora had acquired in 1997 a German manufacturer of similar products, Konrad Hornschuch, as well as the assets of the Rubbermaid decorative coverings group in 1998. Sales were negatively impacted in fiscal 2000 by adverse currency movements in Europe. However, the key problem was that Decora's debt was dollar-denominated, whereas most of

its earnings derived from its German business. When shareholder lawsuits in Germany tied up earnings there, the company's debt could not be serviced.

#### DICTAPHONE CORP.

**Andrew Watt,**

*New York (1) 212-438-7868*

- \$200 million 11.75% senior subordinated notes due Aug. 1, 2005
- \$174.1 million credit facility bank loan due Dec. 31, 2003

On Nov. 30, 2000, Standard & Poor's lowered Dictaphone Corp.'s corporate credit rating to 'D' from 'CCC-', following the company's announcement that Lernout & Hauspie Speech Products NV (L&H) and its wholly owned Dictaphone Corp. unit had filed a voluntarily petition for reorganization protection under Chapter 11 of the U.S. Bankruptcy Code in Wilmington, Del., and would file a request for a concordant reorganization under Belgian law.

L&H's reported financial results are under investigation by U.S. and European regulators after an internal audit found irregularities in its financial statements, and L&H announced in November its intention to restate financial statements for 1998, 1999, and the first half of 2000. Dictaphone provided a limited guarantee covering advances made to L&H under a \$430 million revolving credit facility arranged in conjunction with the Dictaphone acquisition

L&H was facing a likely default on about \$200 million in short-term loans and conducting debt rescheduling talks with creditors. L&H, based in Ieper, Belgium, and Burlington, Mass., provides speech and language processing solutions for a wide range of applications, including automatic speech recognition, text-to-speech and text-to-text translation, and digital compression.

#### DIMAC CORP.

**Cynthia Werneth,**

*New York (1) 212-438-7819*

- \$100 million 12.5% senior subordinated notes due Oct. 1, 2008

- \$75 million revolving credit facility bank loan
- \$55 million term A bank loan due Dec. 31, 2004
- \$80 million term B bank loan due Dec. 31, 2006
- \$60 million term C bank loan due Dec. 31, 2006

On Jan. 27, 2000, Standard & Poor's withdrew the ratings on Dimac Corp. due to lack of public financial disclosure. The subordinated notes due 2008 were issued under Rule 144A with registration rights. A registration statement was filed but never became effective. As a result, the company was not required to file financial statements with the SEC.

Dimac, a paper converter, was formed through the merger of two companies in 1998. Loss of business with a major customer, integration problems, accounting irregularities, and other factors led to liquidity problems.

The company filed a voluntary petition for reorganization under Chapter 11 in April 2000 and filed a reorganization plan in October 2000.

#### DRYPERS CORP.

**Lori Harris,**

*New York (1) 212-438-7834*

- \$145 million 10.25% senior notes due June 15, 2007

On Oct. 11, 2000, Standard & Poor's lowered the corporate credit rating for Drypers Corp. to 'D' from 'CC'. The downgrade reflected the company's announcement that it had filed for protection under Chapter 11 of the U.S. Bankruptcy Code.

Prior to the bankruptcy filing, Drypers had announced the hiring of an investment banking firm to explore strategic alternatives, including the possible need for a court-supervised proceeding to facilitate the financial restructuring of the company, given its significant liquidity problems. Drypers had failed to make licensing payments owed to Procter & Gamble Co., which constituted an event of default under the terms of its credit facility. After filing

for bankruptcy, Drypers obtained an emergency \$25 million loan, part of which went to settle its dispute with Procter & Gamble. While the business is currently operating, it remains unclear at this time when Drypers will emerge from its Chapter 11 restructuring.

#### EAGLE FOOD CENTERS INC.

**Patrick Jeffrey,**

*New York (1) 212-438-7840*

- \$100 million 8.625% senior notes due April 15, 2000
- \$50 million loan & security agreement bank loan

On March 1, 2000, Standard & Poor's lowered the corporate credit rating on Eagle Food Centers Inc. to 'D' from 'B' following the company's announcement that it had filed a voluntary petition under Title 11 of the U.S. Bankruptcy Code. The ratings were removed from CreditWatch with negative implications.

The company's bankruptcy filing resulted primarily from increasingly competitive pressures from larger grocery store chains. More than 30% of Eagle's stores saw their sales adversely affected by the opening or the expansion of competitor's stores. These pressures led to declining same-store sales in recent years and made it impossible for the company to refinance its \$100 million senior notes.

#### EMPLOYEE SOLUTIONS INC.

**Hal F. Diamond,**

*New York (1) 212-438-7829*

- \$85 million 10% senior notes due Oct. 15, 2004

Ratings for Employee Solutions Inc. were lowered to 'D' on April 25, 2000. The ratings were removed from CreditWatch with negative implications. The company decided to withhold the April 15 semiannual interest payment on its senior unsecured notes, notwithstanding the company's holdings of cash and equivalents of \$24 million as of March 31, 2000. Employee Solutions is in negotiations with bondhold-

ers in an effort to reach a restructuring agreement, but it is not clear when a deal could be concluded.

The default was the result of continued operating cash flow losses and negative discretionary cash flow over the last two years, which reduced the firm's liquidity. A new management team was implementing a turnaround strategy and an operational restructuring in an attempt to restore profitability. However, revenues declined due to the August 1998 loss of the company's largest customer, U.S. Xpress Enterprises Inc. Standard & Poor's has concerns regarding the extent to which management's restructuring actions will enable the company to achieve meaningful long-term profitability in light of the highly competitive nature of the employment outsourcing industry.

#### ESPRIT TELECOM GROUP PLC

**Louis Landeman,**

*Stockholm (46) 8-440-5917*

- \$230 million 11.5% notes due Dec. 15, 2007
- \$57 million (DM125 million) 11.5% notes due Dec. 15, 2007
- \$68 million (DM150 million) 11% senior notes due June 15, 2008
- \$150 million 10.875% senior notes due June 15, 2008

On Dec. 15, 2000, Standard & Poor's lowered the long-term corporate credit and senior unsecured debt ratings on Esprit to 'D' from 'CC'. The ratings were removed from CreditWatch, where they had been placed with negative implications on Nov. 14, 2000. On that date, Global Telesystems Group Inc. (GTS; rated 'CCC+' and on CreditWatch with negative implications)—parent company of Esprit—announced that it would not pay Esprit Telecom Group PLC's scheduled cash interest payments totaling about \$12 million on its senior unsecured notes due in 2008. Furthermore, GTS was not expected to make the required interest payment during the 30-day grace period. GTS is currently in negotiations with bondholders regarding a restructuring of Esprit.

Esprit's default and debt restructuring is largely due to continued operating loss-

es and negative cash flows within this highly leveraged business unit that GTS acquired in an equity-financed transaction announced in December 1998 and closed in the first half of 1999.

U.K.-based Esprit started operations in 1992 and initially provided national and international long-distance voice and fax services for retail, resale, and wholesale customers in a number of European countries. Esprit was initially rated 'B-' in February 1998. The initial ratings reflected the challenges the company faced to establish itself as one of the leading independent providers of long-distance telecom services in Europe, and its highly leveraged capital structure. In June 1998, Esprit's outlook was revised to negative following the company's acquisition of German telecom resale company Plusnet. Following the completion of GTS's acquisition of Esprit, Standard & Poor's affirmed Esprit's 'B-' ratings. While GTS's corporate credit rating at that time was 'B', Esprit's ratings were never brought in line with those of GTS, due to Standard & Poor's assessment that Esprit was one of GTS's weakest subsidiaries and that, should Esprit continue to face profitability problems, GTS might allow it to default in order to prevent its own failure.

In November 2000, GTS made a consent solicitation relating to its 9.875% senior notes due 2005. GTS offered noteholders \$100 for each \$1,000 of principal if they agreed to amendments to the note indenture. Upon noteholders' acceptance, note-related events of default by Esprit Telecom or any of its subsidiaries were waived.

GTS's ratings were placed on CreditWatch with negative implications on Nov. 14, 2000, following the announcement by GTS of its intention to divide its operations into four distinct business units. While GTS plans to divest its voice-focused business services and Central European telecommunications units, the timing and likely proceeds of such divestiture remain highly uncertain. Furthermore, without knowing the precise capital structure of the remaining units, it is not currently possible to accurately gauge the future creditworthiness of the group.

**FINE AIR SERVICES CORP.****Robert Schulz, CFA,***New York (1) 212-438-7808*

- \$200 million 9.875% senior notes due June 1, 2008

On June 1, 2000, Fine Air Services Corp. missed the payment of interest on its senior notes. Later, on Sept. 27, 2000, the company filed for Chapter 11 bankruptcy protection in the U.S. Bankruptcy Court for the Southern District of Florida. As a result, Standard & Poor's lowered all of the ratings on the company to 'D' from 'CC'. The ratings were removed from CreditWatch with negative implications.

In 1998, Fine Air undertook a debt-financed expansion in its Latin American air freight core market, a price-competitive and capital-intensive industry. Although the company reached an agreement with its bondholder earlier in 2000 to pay interest on the rated debt in notes, rather than cash, and granted substantial collateral to the previously unsecured notes, further attempts to negotiate a more extensive restructuring of the debt were apparently unsuccessful.

The company continues to operate as a scheduled air cargo carrier between the U.S., South America, Central America, and the Caribbean.

**FLOORING AMERICA INC.****Joseph I. Feldman,***New York (1) 212-438-5022*

- \$100 million 9.25% senior subordinated notes due Oct. 15, 2007

On June 16, 2000, Standard & Poor's lowered Flooring America Inc.'s corporate credit rating to 'D' from 'B-', following the company's announcement that it had filed for Chapter 11 bankruptcy protection.

The company's bankruptcy filing resulted from operating difficulties related to its acquisition of 266 Shaws Industries retail stores, many of which were underperforming and required significant promotional expenses. Flooring America also violated a restricted payments covenant under the

subordinated note indenture. The settlement with the bondholders required repayment of the bonds in separate installments by 2002, thereby pressuring the company's liquidity and cash flow. Additionally, the company experienced accounting irregularities that resulted in its delaying the release of its 10-K and 10-Q prior to the bankruptcy filing.

**FLOWTEX TECHNOLOGIE GMBH & CO. KG****Cynthia Werneth,***New York (1) 212-438-7819*

On Feb. 7, 2000, Standard & Poor's withdrew and removed from CreditWatch with negative implications all of the ratings on Flowtex Technologie GmbH & Co. KG, following the owners arrest and the seizure of all of the company's assets on suspicion of fraud. The arrest took place when Flowtex was about to float a euro 250 million seven-year bond issue which, as a result, never sold. The company's assets are being currently sold and distributed to the bankruptcy estate.

Flowtex was a midsize, privately held German firm that manufactured trenchless drilling equipment.

**GALAXY TELECOM L.P.****Rosemarie Kalinowski,***New York (1) 212-438-7841*

- \$120 million 12.375% senior subordinated notes due Oct. 1, 2005

On Sept. 28, 2000, Galaxy Telecom L.P.'s banks announced that they were exercising their right to suspend principal and interest payments on Galaxy's \$120 million 12.375% senior subordinated notes, following a breach of the company's amended loan agreements. Galaxy's failure to execute a definitive agreement for the sale of itself on or before July 31, 2000, triggered a breach of the loan agreement.

The company did not make the Oct. 1, 2000, interest payment on its \$120 million 12.375% senior subordinated notes and, as a result, Standard & Poor's lowered to 'D' all of the ratings, as well as those of its

subsidiary, Galaxy Telecom Capital Corp. The ratings were removed from CreditWatch with negative implications.

According to its Sept. 30, 2000, 10-Q filing, the company is holding talks aimed at replacing its senior credit facility. However, refinancing of the bank facility would need noteholder approval.

**GENERAL MEDIA INC.****Hal F. Diamond***New York (1) 212-438-7829*

- \$80 million 10.625% senior secured notes due Dec. 31, 2000

Standard & Poor's lowered the corporate credit and senior secured debt ratings on General Media Inc. to 'D' from 'CCC' and removed them from CreditWatch with developing implications, where they had been placed on Dec. 18, 2000. The downgrades followed General Media's failure to make the Dec. 31, 2000, maturity payment on its \$52 million 10.625% senior secured notes, which represent all of the company's rated debt.

Profitability was modestly improving prior to the default, with cover price increases and cost-cutting initiatives at the company's flagship publication, Penthouse, offsetting declining advertising revenues and circulation erosion. EBITDA rose to \$9.3 million in the nine months ended Sept. 30, 2000, versus \$1.0 million for the same period last year. EBITDA coverage of interest expense rose to 1.8 times (x) for the nine months ended Sept. 30, 2000, versus 0.2x a year ago, due to improving operating performance and lower interest expense resulting from the 1999 sale of the company's automotive magazines. Discretionary cash flow turned modestly positive in 2000, and cash balances were \$6 million as of Sept. 30, 2000.

General Media is still actively seeking to refinance the notes. However, Standard & Poor's is unable to gauge the success of this refinancing effort, given the uncertainty currently facing capital markets. The company has stated that its prospects to continue as a going concern is dependent on its ability to refinance the notes. Even if the notes are

refinanced, it is likely that the terms of the refinancing will be under more onerous terms than the existing secured notes.

#### GENESIS HEALTH VENTURES INC.

John R. Sico,  
New York (1) 212-438-7862

- \$125 million 9.25% senior subordinated notes due Oct. 1, 2006
- \$25 million 9.25% first mortgage bonds due Sept. 1, 2007
- \$120 million 9.75% senior subordinated notes due June 15, 2005
- \$125 million 9.875% senior subordinated notes due Jan. 15, 2009
- \$200 million tranche C term loan bank loan due June 1, 2005
- \$650 million revolving credit facility bank loan due Sept. 30, 2003
- \$200 million tranche A term facility bank loan due June 1, 2003
- \$200 million tranche B term facility bank loan due June 1, 2004
- \$200 million 9% senior subordinated notes due Aug. 1, 2007
- \$200 million tranche A term loan bank loan
- \$150 million tranche B term loan bank loan
- \$125 million revolving credit bank loan
- \$100 million tranche C term loan bank loan due June 1, 2005

The corporate credit rating on Genesis Health Ventures Inc. was lowered to 'D' from 'B' on March 21, 2000, following the company's announcement that it did not make a \$3.8 million interest payment under its senior credit agreement. The rating was removed from CreditWatch with negative implications. In addition, Standard & Poor's lowered the corporate credit and bank loan ratings for The Multicare Cos. Inc. to 'D' on April 3, 2000 (Multicare is 44% owned by Genesis Health Ventures Inc., also the manager of its facilities). The downgrade also reflects the nursing home chain's failure to make scheduled interest and principal payments under its senior credit agreement due at the end of March 2000.

The failure of Genesis and Multicare to make scheduled payments on their obliga-

tions resulted from significant reductions under Medicare's new fixed-fee based prospective payment system. Continued delays in asset sales also were cited by the companies as a factor in the failure to meet obligations. Subsequently, both companies have voluntarily filed for protection under Chapter 11 and are currently seeking to restructure over \$2 billion in debt.

#### GLENOIT CORP.

Jayne M. Ross,  
New York (1) 212-438-7857

- \$100 million 11% senior subordinated notes due April 15, 2007
- \$70 million term loan B bank loan due June 30, 2004
- \$65 million working capital commitment bank loan due Dec. 31, 2003
- \$40 million term loan A bank loan due Dec. 31, 2003

Ratings for Glenoit Corp. were lowered to 'D', following the company's default under its senior secured bank facility and the missed April 15, 2000, interest payment on its subordinated notes. The ratings were removed from CreditWatch with negative implications.

Glenoit and its lenders were unable to negotiate acceptable modifications to the bank waivers prior to the April 10, 2000, deadline. The company defaulted under the bank facility as of April 11, 2000, as a result of the termination of the waiver. On April 13, 2000, the lenders exercised their election to prohibit the company from making the interest payments of about \$5.3 million due under the 11% senior subordinated notes on April 15, 2000. The interest payment was not made by Glenoit on that date nor during the subsequent 30-day cure period.

On June 19, 2000, Glenoit announced that it had entered into lock-up agreements with some of the senior subordinated noteholders and that it was going to tender for the senior subordinated notes to avoid bankruptcy. The tender offer expired on Aug. 3, 2000, without meeting the 99% tender requirement necessary for an out-of-court exchange.

On Aug. 9, 2000, Glenoit filed a prepackaged plan for reorganization under Chapter 11 of the U.S. Bankruptcy Code. The company expects to exit Chapter 11 within 60 to 90 days. Under the recapitalization plan, a major stockholder will provide a \$16 million equity infusion and a \$15 million subordinated loan from one of the stockholder's affiliates. The company has negotiated the restructuring of its existing \$169 million credit facility that will finance the firm upon its exiting Chapter 11. Further, upon confirmation of the plan, the noteholders will receive what they would have received if they had accepted the tender: 17% face value of the notes, in cash. This consideration has been approved by 80% of the noteholders. Glenoit will maintain liquidity while in Chapter 11 through cash from operations and a revolving credit facility provided by the existing bank group. Payment to all vendors will be made in the ordinary course of business and on normal trade terms.

Currently, the company is exploring revising its plan for reorganization given that certain holders have objected to the current plan.

Glenoit is a manufacturer and marketer of decorative home furnishings and specialty fabrics known as "sliver-knit" pile fabrics. The company has faced difficult operating conditions in its apparel fabric segment due to low-priced imports, primarily from Asia.

#### GLOBAL HEALTH SCIENCES INC.

Martin S. Kounitz, CFA,  
New York (1) 212-438-7387

- \$225 million 11% senior notes due May 1, 2008

Global Health Sciences is a manufacturer of dietary and nutritional supplements. Global Health defaulted on its bonds Nov. 1, 2000. The company sold most of its products to a single customer, Herbalife. When the founder of Herbalife died in 2000, new management sharply reduced purchases of Global Health's products. Sales to Herbalife declined to approximately \$20 million in the second quarter of 2000

ending June 30, from \$42 million in the first quarter of 2000. Efforts to broaden sales beyond the company's dependence on Herbalife were unsuccessful.

#### GLOBE HOLDINGS INC.

#### GLOBE MANUFACTURING CORP.

**Peter Kelly,**

*New York (1) 212-438-7698*

- \$25 million 14% senior discount notes due Aug. 1, 2009
- \$150 million 10% senior subordinated notes due Aug. 1, 2008
- \$165 million senior secured bank loan

Standard & Poor's lowered to 'D' and removed from CreditWatch with negative implications the ratings on Globe Manufacturing Corp. and its parent company, Globe Holdings Inc., following Globe's decision not to make its Aug. 1, 2000, interest payment on its \$150 million senior subordinated notes, as well as its failure to make a principal loan payment under its bank credit agreement. The company also announced that it had entered into a forbearance agreement with its bank group under which lenders agreed to forbear from default remedies (the agreement has been extended until Dec. 31, 2000). As part of the agreement, Globe agreed not to make the interest payment on the senior subordinated notes.

Globe, which is privately held, manufactures a variety of fine and heavy spandex fibers. The deterioration in cash flow protection measures stemmed from elevated debt levels and weaker-than-expected earnings. Debt levels are high due to the 1998 leveraged buyout and an investment in spandex fiber capacity, which encountered a downturn in the spandex market as a result of the Asian economic crisis of 1998-1999.

#### GNI GROUP INC.

**Paul Vastola,**

*New York (1) 212-438-7816*

- \$75 million 10.875% senior notes due July 15, 2005

The rating on GNI Group Services Inc.'s \$75 million senior notes due 2005 was lowered to 'D' from 'CCC', following the company's failure to make its July 15, 2000, interest payment. The rating was removed from CreditWatch with negative implications. The company experienced sequential double-digit declines in revenues and earnings in both its core businesses: waste management services, which focuses on hazardous waste disposal through deepwell injection; and specialty chemicals manufacturing. These declines were caused by unplanned maintenance outages on two of its three deepwell units and continued production problems and employee turnover for the specialty chemical manufacturing business. This eroded GNI's ability to meet its debt servicing requirements and led the company to file for bankruptcy protection. Deer Park, Texas-based GNI is engaged in hazardous and nonhazardous waste management and is a manufacturer of specialty chemicals.

#### GORGES/QUIK-TO-FIX FOODS INC.

**Pamela L. Atkins,**

*New York (1) 212-438-7823*

- \$100 million 11.5% senior subordinated notes due Dec. 1, 2006

On Dec. 5, 2000, the rating on Gorges Quik-to-Fix Foods Inc.'s senior notes was lowered to 'D' from 'CCC+'. This action followed the company's announcement that it had filed a Chapter 11 petition in the U.S. Bankruptcy Court in Delaware.

Operating results were weak and liquidity was constrained due to several factors, including lower volume associated with the company's decision to exit the ground beef business, and the resulting lower overhead absorption. Despite a financial restructuring that took place in December 1998, the financial profile did not improve materially. As part of the restructuring, the company retired \$48 million of the aggregate principal amount of its \$100 million senior subordinated note issue due 2006, through a combination of open market purchases and a cash tender offer. Total compensation paid

was about \$16.9 million and was financed through an equity investment by the shareholders of Gorges' parent, Gorges Holding Co.

#### GRAND UNION CO.

**Patrick Jeffrey,**

*New York (1) 212-438-7840*

- \$230 million tranche B term loan bank loan due Dec. 31, 2003
- \$70 million revolving credit facility bank loan due Dec. 31, 2003

On Oct. 3, 2000, Standard & Poor's lowered Grand Union Co.'s corporate credit rating to 'D' from 'CCC' following the company's announcement that it filed a voluntary Chapter 11 petition in the U.S. Bankruptcy Court.

Grand Union experienced declining cash flow and marginal liquidity during the second half of 1999 and into 2000 due to a highly competitive marketplace and the need to remodel a significant portion of its store base. The bankruptcy filing facilitated the eventual sale of the company to C&S Wholesalers. Grand Union had twice previously filed bankruptcy since 1995.

#### HEDSTROM HOLDINGS INC.

**Alyse Michaelson,**

*New York (1) 212-438-5021*

- \$25 million 12% senior discount notes due June 1, 2009
- \$110 million 10% senior subordinated notes due June 1, 2007
- \$75 million tranche A term loan bank loan due Dec. 31, 2003
- \$35 million tranche B secured term loan bank loan due Dec. 31, 2005
- \$70 million secured revolving credit facility bank loan due Dec. 31, 2003

Ratings for Hedstrom Holdings Inc. and operating subsidiary Hedstrom Corp. were lowered to 'D' and removed from CreditWatch with negative implications on April 11, 2000, following the company's Chapter 11 bankruptcy protection filing. The filing reflected Hedstrom's weakened business and financial profile as a result of

continued soft operating performance. Discretionary cash flow has been negative reflecting a sharp falloff in operating cash flow driven by the current difficult operating environment.

Hedstrom has a relatively diverse product line of children's outdoor play equipment, with positions in several product categories. Nevertheless, profitability has continued to steadily decline over the past year, reflecting disappointing performance of new product lines, sales declines at the company's Montreal division, and sluggish results at the Ashland, International, and ERO divisions. Hedstrom's high revenue concentration (the company's four largest customers represent over 50% of total company sales) remains a significant business risk, particularly in light of continued consolidation in the retail industry.

#### HEILIG-MEYERS CO.

Patrick Jeffrey,

*New York (1) 212-438-7840*

- \$100 million 7.4% notes due Feb. 15, 2002
- \$175 million 7.6% notes due Aug. 1, 2007
- \$200 million 7.875% notes due Aug. 1, 2003

On Aug. 1, 2000, Standard & Poor's lowered the corporate credit rating on Heilig-Meyers Co. to 'D' from 'BB-' and its senior unsecured debt rating on MacSaver Financial Services Inc, which is guaranteed by Heilig-Meyers, to 'D' from 'BB-'. The ratings were removed from CreditWatch with negative implications.

The ratings were lowered following Heilig-Meyers' announcement that it planned to defer the scheduled Aug. 1, 2000, payments on MacSaver's 7.60% unsecured notes due 2007 and 7.88% unsecured notes due 2003. Standard & Poor's had placed the company's ratings on CreditWatch with negative implications following Heilig-Meyers' disclosure that it could violate bank covenants unless it was able to restructure an \$8 million severance package owed to William DeRusha, Heilig-

Meyers' former chief executive officer, and amend existing bank covenants. Heilig-Meyers filed for protection under Chapter 11 of the U.S. Bankruptcy Code on Aug. 16, 2000.

Heilig-Meyers had been experiencing declining operations over the past few years due to unsuccessful acquisitions and increased bad debt expenses related to its credit operations. Standard & Poor's had lowered the ratings from the investment-grade category during this period but viewed the company's leading market position as a positive in the company's efforts to improve its operations. Prior to the bankruptcy filing, the company had sold its Rhodes and Mattress Discounter formats and used the proceeds to repay debt. Additionally, the company was in the process of implementing programs to improve both store sales and its credit operations when it filed for bankruptcy. The company had full availability on its \$140 million revolving credit facility at the time of the bankruptcy filing.

#### ICG COMMUNICATIONS INC.

Rosemarie Kalinowski,

*New York (1) 212-438-7841*

- \$550.3 million 12.5% senior discount notes due May 1, 2006
- \$584.3 million 13.5% senior discount notes due Sept. 15, 2005
- \$176 million 11.625% senior discount notes due March 15, 2007
- \$490 million 10% senior discount notes due Feb. 15, 2008
- \$405.3 million 9.875% senior discount notes due May 1, 2008
- \$200 million revolving credit facility bank loan

On Nov. 14, 2000, ICG Communications Inc. voluntarily filed for Chapter 11 protection with the U.S. Bankruptcy Court for the District of Delaware.

The factors that led to this default include an announcement by the company in September 2000 that it had lowered its revenue and cash flow targets for 2000 and 2001 due to serious customer service issues. The customer service problems were

caused by the company's failure to scale its network to meet higher than expected demand for Internet access. The company's network had experienced outages, equipment failures and technical difficulties. The revised revenue and cash flow targets would lead to a breach of certain covenants under the \$200 million senior secured bank facility. Furthermore, due to the revised projections, Standard & Poor's expected the company to run out of cash by late 2000 or early 2001, unless additional funding by the banks was made available.

#### IMPERIAL HOME DECOR GROUP INC. (THE)

David T. Shapiro,

*New York (1) 212-438-7861*

- \$125 million 11% senior subordinated notes due March 15, 2008
- \$90 million delayed draw tranche A term bank loan due Dec. 31, 2004
- \$90 million tranche B term bank loan due Dec. 31, 2005
- \$45 million tranche C term bank loan due Dec. 31, 2006
- \$75 million revolving credit facility bank loan due Dec. 31, 2004

On Jan. 5, 2000, Standard & Poor's lowered the corporate credit and bank loan ratings for The Imperial Home Decor Group Inc. to 'D' from 'B-'. The subordinated debt rating for the company was lowered to 'D' from 'CCC'. These actions reflected the announcement by the company that it and five of its affiliates filed for protection under Chapter 11 of the U.S. Bankruptcy Code.

The Imperial Home Decor Group is a manufacturer in the fragmented global residential wallpaper industry. The global wallcoverings industry has been in decline for the last few years, due mainly to softness in Eastern Europe, Russia, and North America. Correspondingly, Imperial Home Decor's financial results were negatively impacted. In the U.S., several important customers scaled back their wallcovering offerings, further exacerbating the company's sales difficulties and leading to declines in credit protection measures. As of Nov. 14, 2000, the company was still in bankruptcy.

**IMPERIAL SUGAR CO.****Jayne M. Ross***New York (1) 212-438-7857*

- \$250 million 9.75% senior subordinated notes due Dec. 15, 2007
- \$157 million revolving credit facility bank loan due Dec. 31, 2002
- \$87 million revolving credit facility tranche A bank loan due Dec. 31, 2005
- \$105 million revolving credit facility tranche B bank loan due Dec. 31, 2005

On Dec. 15, 2000, the corporate credit rating on Imperial Sugar Co. was lowered to 'SD' (selective default), its bank loan rating to 'C', and its subordinated debt rating to 'D'. The ratings were removed from CreditWatch with negative implications. These actions followed the company's announcement that it would not make its \$12.2 million Dec. 15, 2000, interest payment on its \$250 million 9.75% senior subordinated notes. Further, the company is in noncompliance with certain of its financial covenants under its senior credit agreement at Sept. 30, 2000. The senior lenders have given the firm an interim waiver through Jan. 8, 2001 and will continue to provide working capital financing for Imperial Sugar's operations.

The company is in discussions with its senior lenders and subordinated noteholders to complete a restructuring plan that would delever the balance sheet through the conversion of the subordinated notes into common equity. Imperial Sugar did not rule out the possibility of a Chapter 11 bankruptcy filing to complete the restructuring. Standard & Poor's will continue to monitor the situation.

Imperial Sugar is the largest processor and marketer of refined sugar in the U.S. and a major distributor to the foodservice market. The company markets its products nationally under the Imperial, Dixie Crystals, Spreckels, Pioneer, Holly, Diamond Crystal, and Wholesome Sweeteners brands.

**INACOM CORP.****Martha Toll-Reed,***New York (1) 212-438-7867*

- \$75 million 4.5% convertible subordinated debentures due Nov. 1, 2004

- \$55.25 million 6% convertible subordinated debentures due June 15, 2006

Standard & Poor's lowered the ratings on Inacom Corp. to 'D' following the company's June 16, 2000, filing for a prenegotiated plan of reorganization under Chapter 11 of the U.S. Bankruptcy Code.

The technology management services company had struggled with lack of liquidity and diminished revenue growth. In addition, prior to its bankruptcy filing, the company had delayed the release of its past two fiscal-quarters results, and its auditors never approved its fiscal 1999 statements. InaCom is being investigated by the SEC for possible accounting irregularities. A bankruptcy judge in Delaware is liquidating what remains of the business.

**INDESCO INTERNATIONAL INC.****Jason Virgil,***New York (1) 212-438-7817*

- \$145 million 9.75% senior subordinated notes due April 15, 2008
- \$30 million revolving credit facility bank loan due Dec. 31, 2003

Standard & Poor's lowered the ratings on Indesco International Inc to 'D'.

The rating actions followed the company's disclosure that it did not make its \$7.1 million interest payment due Oct. 16, 2000, on its \$145 million senior subordinated notes. Management indicated that it was trying to initiate discussions with bondholders in order to restructure the company's balance sheet, and that it had retained a financial advisor to assist in the exploration of strategic alternatives.

Indesco International Inc. is a leading manufacturer of liquid dispensing products; primarily trigger sprayers, used in household, consumer and industrial applications.

A below-average business position resulting from the company's limited product diversity and modest revenue base, coupled with a highly leveraged capital structure, set Indesco on a course from which it could not recover.

**INNOVATIVE CLINICAL SOLUTIONS INC.****Arthur Wong,***New York (1) 212-438-7870*

- \$100 million 6.75% convertible subordinated debentures due June 15, 2003
- \$30 million revolving credit facility bank loan due Dec. 31, 2002

On July 13, 2000, Standard & Poor's lowered the corporate credit and bank loan ratings on Innovative Clinical Solutions Inc. to 'D' from 'CC'. On the same date, the company's subordinated debt rating was lowered to 'D' from 'C'. The ratings were also removed from CreditWatch with negative implications.

These rating actions followed Innovative Clinical's filing of a prepackaged plan of reorganization of the company and its subsidiaries under Chapter 11 of the U.S. Bankruptcy Code. Under the plan, the company's \$100 million 6.75% convertible debentures, due 2003, will be converted into common equity.

Originally founded in 1994 as a consolidator of physician practices and a developer of physician-led health care networks, Providence, R.I.-based Innovative Clinical Solutions has reinvented itself as a service provider to the pharmaceutical and managed-care industries. Early in 1999, the company embarked on a major restructuring, which included the divestiture of its noncore physician practice assets, the installation of a new management team, and the reorganization into three business lines: clinical studies, health care research, and network management. However, the business restructuring severely affected the company's credit profile and constrained its financial flexibility, leading to the capital restructuring now being executed.

Innovative Clinical is still in the midst of its reorganization and hopes to soon emerge from bankruptcy. The company continues to sign on new clients. Innovative Clinical has recently raised some debtor-in-possession financing to help it make it through bankruptcy.

**IOWA SELECT FARMS L.P./ISF FINANCE INC.****Jayne M. Ross,***New York (1) 212-438-7857*

- \$130 million 10.75% senior subordinated notes due Dec. 1, 2005

The corporate credit rating for Iowa Select Farms L.P./ISF Finance Inc. was lowered to 'SD' (selective default) on June 1, 2000.

Iowa Select was prohibited by its senior lenders from making the June 1, 2000, interest payment on its senior subordinated notes, following its noncompliance with financial covenants under its senior credit agreement. The company remains current on this credit facility.

Standard & Poor's will continue to monitor the situation and meet with management to discuss its operating and financial strategies.

Iowa Select, a private company, operates 22 farrow-to-finish swine production units in Iowa, with total production capacity of 1.76 million market hogs.

**KEY PLASTICS LLC****Lisa Jenkins,***New York (1) 212-438-7697*

- \$125 million 10.25% senior subordinated notes due March 15, 2007
- \$70 million revolving credit facility bank loan
- \$70 million term loan bank loan
- \$120 million revolving credit bank loan due Dec. 31, 2005
- \$80 million term A bank loan due Dec. 31, 2005
- \$100 million term B bank loan due Dec. 31, 2006

On March 16, 2000, Standard & Poor's lowered the ratings on Key Plastics LLC to 'D' following the company's failure to make a scheduled interest payment on its senior subordinated notes. A week later the company filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code. At the time of default, Key's financial flexibility was severely limited. It was in violation of bank

covenants, had minimal cash balances and faced an onerous debt burden.

Key Plastics' financial difficulties resulted from weak operating performance and an aggressively leveraged capital structure. Earnings pressures were intensified by the extremely competitive fundamentals of the automotive industry and by challenges associated with the integration of acquisitions. Key Plastics, a manufacturer of door handles, pressurized bottles, decorative bezels and other plastic parts for automobiles, is still in bankruptcy and is currently negotiating with prospective buyers to help it emerge from bankruptcy.

**KITTY HAWK INC.****Robert Schulz, CFA,***New York (1) 212-438-7808*

- \$340 million 9.95% senior notes due Nov. 15, 2004
  - \$145.9 million secured revolving credit facility & term loan bank loan due 2002
- Standard & Poor's on May 2, 2000, lowered the ratings on Kitty Hawk Inc. to 'D' from 'CCC' and removed them from CreditWatch with negative implications, where they had been placed on April 11, 2000.

The rating action followed Kitty Hawk's announcement that it had filed voluntary petitions for protection under Chapter 11 of the U.S. Bankruptcy Code for the company and all of its subsidiaries. The petitions were filed in U.S. Bankruptcy Court, Northern District of Texas, Fort Worth Division.

Previously, the Dallas-Fort Worth Airport, Texas-based air freight carrier had made a series of announcements, including statements that it might be unable pay the May 15, 2000, interest payment of \$17 million when due on its senior secured notes or to cure its noncompliance with the indenture's maintenance covenants without a sale or refinancing of significant assets; that various writedowns would result in a charge that would require modification of the company's previously reported 1999 operating results; and that it had been advised by its outside auditors that their audit opinion would include a going-concern modification.

The company continues to operate a U.S. heavy air freight network.

#### LIDLAW INC.

**Betsy R. Snyder, CFA,**  
*New York (1) 212-438-7811*

- \$200 million 6.5% debentures due May 1, 2005
- \$225 million 6.65% debentures due Oct. 1, 2004
- \$100 million 6.7% debentures due May 1, 2008
- \$200 million 6.72% debentures due Oct. 1, 2027
- \$100 million 7.05% debentures due May 15, 2003
- \$200 million 7.7% debentures due Aug. 15, 2002
- \$150 million 7.875% notes due April 15, 2005
- \$100 million 8.25% debentures due May 15, 2023
- \$150 million 8.75% debentures due April 15, 2025
- \$68 million exchangeable notes due Dec. 31, 2000

Standard & Poor's lowered the corporate credit and senior unsecured debt ratings on Laidlaw Inc. to 'D' from 'BB-' on May 16, 2000. The ratings were removed from CreditWatch with negative implications. The downgrade reflected the company's announcement that it was deferring interest payments on all outstanding debt to conserve cash and pursue a financial restructuring.

Laidlaw is the largest school and intercity (through Greyhound Lines Inc.) bus operator in North America. However, its problems derived from its discontinued health care operations, which it has been unable to sell, and the complete write-off of its equity stake in Safety-Kleen Corp., which filed for Chapter 11 bankruptcy protection in May 2000. These resulted in massive write-offs for Laidlaw (the extent of which have yet to be determined), noncompliance with covenants on approximately \$1.7 billion of bank debt, and elimination of interest payments on approximately \$1.7 billion of public debt to conserve cash for working capital purposes. In October 2000, some of Laidlaw's creditors agreed

to waive restrictions that had prohibited the company from raising additional debt, allowing the company to obtain a \$200 million line of credit with a group of banks as well as a separate \$150 million line of credit for Greyhound. At the same time, the company is continuing to negotiate with bondholders to reach an out-of court restructuring of its debt and to line up longer-term financing.

#### LAROCHE INDUSTRIES INC.

**Peter Kelly,**  
*New York (1) 212-438-7698*

- \$175 million 9.5% senior subordinated notes due Sept. 15, 2007
- \$60 million secured term loan bank loan due Dec. 31, 2003
- \$100 million secured term loan bank loan due Dec. 31, 2003

On May 4, 2000, Standard & Poor's lowered the bank loan rating on LaRoche Industries Inc. to 'D' from 'CC'. At the same time, Standard & Poor's revised the corporate credit rating on the company to 'D' from 'SD' (selective default). The ratings were removed from CreditWatch with negative implications. The downgrades followed the company's announcement that it had filed for Chapter 11 protection in the U.S. Bankruptcy Court in Delaware. The subordinated debt rating on LaRoche was lowered to 'D' on March 16, 2000, when the company failed to make its interest payment on March 15. The ratings on LaRoche have since been withdrawn.

LaRoche's profitability and cash flows were severely affected by weak demand and global overcapacity in nitrogen markets, and a slump in chlor-alkali demand and pricing. Debt levels had risen, in part, from several acquisitions that broadened the firm's geographic presence.

#### LODESTAR HOLDINGS INC.

#### LODESTAR ENERGY INC.

**Thomas Watters,**  
*New York (1) 212-438-7818*

- \$190 million 11.5% notes due May 15, 2005

#### ■ \$90 million bank credit facility

On Nov. 15, 2000, Standard & Poor's lowered the corporate credit and senior unsecured debt ratings on Lodestar Holdings Inc., as well as the corporate credit rating on its subsidiary, Lodestar Energy Inc to 'D' from 'CC' after the company missed the interest payment on its \$190 million 11.5% notes due May 15, 2005. Lodestar is trying to negotiate a restructuring of the notes, which are guaranteed by Lodestar Energy Inc, with existing noteholders.

Lodestar's financial performance was adversely affected by poor conditions in the eastern coal markets. The eastern coal industry was plagued by reduced demand from electric utilities that resulted in high inventory levels and lower coal prices. Furthermore, the company's above spot market supply contract with Alabama Power Co. expired in January 2000, exposing 1.5 million tons of coal production to lower spot coal prices. Also, Lodestar's major customer, the Tennessee Valley Authority, which accounted for 28% of the company's shipments, managed to negotiate lower pricing under its supply contract with Lodestar. Moreover, unexpected difficulties with permits, as well as geologic issues, caused production delays on the company's recent acquisition in Utah. Stemming from ongoing operating losses, three years of negative operating cash flow, and funding for recent acquisitions, Lodestar's debt levels increased significantly to \$197 million at July 31, 2000, from \$88 million at year end 1997.

#### LTV CORP.

**Michael Gorelick**  
*New York (1) 212-438-7894*

- \$300 million 8.2% senior notes due Sept. 15, 2007
- \$275 million 11.75% senior notes due Oct. 15, 2009
- \$225 million senior secured bank loan due 2004

On Dec. 29, 2000, LTV Corp. filed for protection from its creditors under Chapter 11 of the U.S. Bankruptcy Code, and Standard & Poor's lowered the ratings on the

company to 'D' from 'B' with a negative outlook. The ratings had been lowered from 'BB-' and removed from CreditWatch with negative implications on Nov. 28, 2000, along with the downgrades of several other North American steelmakers reflecting the sharp deterioration of steel market conditions and a resulting decline in liquidity for many of these companies.

LTV's bankruptcy filing came as prices for steel in the U.S. market fell to historically low levels, even as energy prices soared to record highs and domestic steel consumption began to show signs of weakening. Contributing to this decline in prices were near-record levels of imported steel (supported by the strong U.S. dollar), and overcapacity in the U.S. market. All of these factors came together early into the second half of 2000, just a few months after the steel market began to recover from the previous import crisis that hit the group in 1998 and 1999, following the ripple effects of the Asian financial crisis. Thus, as this second round of difficulties began to take hold, many U.S. steel companies, including LTV, had not yet begun to restore their balance sheets and were particularly ill equipped to withstand a second round of crisis conditions. Compounding the difficulties for LTV, the company had taken on about \$700 million in incremental debt in the second half of 1999 in order to finance the acquisitions of tubular steel producers Welded Tube Corp. of America and Copperweld Corp. While these operations continued to generate positive cash flow even as cash flow from the core integrated steel business turned negative, the burden of the additional debt assumed in conjunction with these purchases was substantial. As a result of these factors, LTV's cash flow contracted sharply, and the company was ultimately unable to fund its working capital requirements or service its debt.

#### MASTER GRAPHICS INC.

**Michael Scerbo,**  
*New York (1) 212-438-7858*

- \$130 million 11.5% senior notes due Dec. 1, 2005

- \$20 million 6 year senior secured revolving credit facility bank loan
- \$30 million 5-year senior secured term loan A bank loan
- \$30 million 6-year senior secured term loan B bank loan

Standard & Poor's lowered the corporate credit rating on Master Graphics Inc. and its Premier Graphics Inc. subsidiary to 'D' from 'CCC-' on June 1, 2000. At the same time the senior unsecured debt rating on Premier Graphics was lowered to 'D' from 'CC'. The downgrade reflected the company's announcement that it did not make the June 1 interest payment due on its senior notes issue. The ratings were removed from CreditWatch with negative implications. The bank loan rating on Premier Graphics was lowered to 'D' from 'CC' on July 10, 2000, following the company's announcement that it had filed for Chapter 11 bankruptcy protection in the U.S. Bankruptcy Court. The company is still in bankruptcy and expects to file a reorganization plan by the end of 2000.

The company's performance had been adversely impacted by several factors, which led to the Chapter 11 filing. These factors included a decline in margin on sales due to competitive pressures and lower margin sales mix. In addition, the company experienced cost and operational problems associated with the installation and start-up of its new printing presses and computer-to-plate prepress systems. These problems resulted in significant waste and shrinkage at several locations.

Master Graphics is a general commercial printing company.

#### MEDIQ INC.

**David P. Peknay,**  
*New York (1) 212-438-7852*

- \$140.9 million 13% senior discount debentures due June 1, 2009
- \$190 million 11% senior subordinated notes due June 1, 2008
- \$200 million term bank loan due Dec. 31, 2006
- \$50 million revolving bank loan due Dec. 31, 2004
- \$75 million bank loan due Dec. 31, 2004

Mediq Inc. defaulted when it missed the June 1, 2000, interest payment on its 11% senior subordinated notes due 2008. The company received a payment blockage notice from the agent for the company's credit agreement. This was precipitated by violations of financial, reporting, and other covenants under the credit agreement. Business conditions have been weak in the rental market for its products, and the company, very highly leveraged, was pushed past the breaking point. Furthermore, there have been questions about the company's accounting practices.

The situation remains weak. The company deferred its June 30, 2000, payment on its credit facility, indicating that it would spread the payments over the next three months. Although the company adhered to this timetable, it missed its Sept. 30 payment of \$11.3 million due on the same credit facility. The company has not yet have reached a formal agreement with its creditors and has lost access to its credit facility. It is not clear that Mediq, a Pennsauken, N.J.-based supplier of movable medical equipment, can survive.

#### METAL MANAGEMENT INC.

**Thomas Watters,**  
*New York (1) 212-438-7818*

- \$180 million 10% senior notes due May 15, 2008
- \$30 million 12.75% notes due June 15, 2004
- \$250 million bank loan

On Nov. 16, Standard & Poor's lowered the corporate credit and senior secured debt ratings on Metal Management Inc. to 'CC' and lowered the subordinated debt rating to 'D'. The downgrades followed the company's announcement that it had missed the Nov. 15, 2000, interest payment on its 10% senior subordinated notes due 2008 and that it would implement a pre-arranged plan of reorganization under Chapter 11 of the U.S. Bankruptcy Code. On Nov. 20, following the announcement that such a filing had taken place, Standard & Poor's lowered the company's corporate credit and senior secured ratings to 'D.'

Under the bankruptcy restructuring, holders of the senior subordinated notes will exchange them for 99% of the company's common stock and the holders of the 12.75% senior secured notes due 2004 will remain outstanding under their current terms. In addition, the company's senior bank lenders have agreed to provide the company with an additional \$20 million of borrowing capacity.

The company's performance was adversely affected by continued weakness in the metals scrap markets and an inability to sell assets to improve liquidity. Weak volumes and prices in both the company's nonferrous and ferrous scrap markets resulted in diminished margins and cash flow generation. Metal Management's margins weakened considerably as the company sold off high priced inventory into a market experiencing a rapid decline in prices, exacerbating the deterioration of the company's financial performance.

#### MMH HOLDINGS INC.

#### MORRIS MATERIAL HANDLING INC.

**Brian Janiak,**

*New York (1) 212-438-5025*

- \$200 million 9.5% senior notes due April 1, 2008
- \$20 million term A bank loan due Dec. 31, 2003
- \$35 million term B bank loan due Dec. 31, 2005
- \$30 million acquisition term bank loan due Dec. 31, 2005
- \$70 million revolving credit facility bank loan due Dec. 31, 2003

Standard & Poor's lowered the corporate credit rating on Morris Material Handling Inc. and its parent company, MMH Holdings Inc. to 'D' from 'CCC', following the announcement that it had missed the April 1, 2000, interest payment on its senior notes. At the same time, Standard & Poor's lowered the senior unsecured debt rating on Morris to 'D' from 'CCC' and the preferred stock rating on MMH to 'D' from 'CC'. The ratings were removed from CreditWatch with developing implications,

where they had been placed Feb. 4, 2000. In addition, the bank loan rating on Morris was lowered to 'CC' from 'CCC'. The rating's CreditWatch implication, however, was revised to negative from developing.

Upon its failure to make its \$9.5 million interest payment due April 1, 2000, on its \$200 million senior unsecured notes due 2008, the company received an extension of a waiver of noncompliance with certain financial covenants under its bank credit facility through April 28, 2000.

On May 18, 2000, Standard & Poor's lowered its bank loan rating on Morris to 'D' from 'CC' and removed the rating from CreditWatch. This action followed the company's announcement that it had filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code.

The difficulties experienced by Morris can be traced to a highly leveraged balance sheet, an onerous debt burden, and weak operating performance. Operating performance had declined significantly in the last 18 months of operations due to soft demand at the company's North American and international operations, and continued pricing pressures. In addition, Morris had suffered from a high cost structure and the inability to manage working capital efficiently.

Morris is a global manufacturer of through-the-air cranes and hoists for material handling. Morris is currently undergoing reorganization under Chapter 11 of the U.S. Bankruptcy Code.

#### NEBCO EVANS HOLDING CO.

#### AMERISERVE FOOD DISTRIBUTION INC.

#### AMERISERVE FINANCE TRUST

**Jayne M. Ross,**

*New York (1) 212-438-7857*

- \$98 million 12.375% senior discount notes due July 15, 2007
- \$350 million 8.875% senior notes due Oct. 15, 2006
- \$500 million 10.125% senior subordinated notes due July 15, 2007
- \$125 million secured revolving credit facility bank loan due June 30, 2003

- \$205 million 12% senior notes due Sept. 15, 2006

Ratings for Nebco Evans Holding Co., AmeriServe Food Distribution Inc., and AmeriServe Finance Trust were lowered to 'D' on Feb. 2, 2000. The ratings were removed from CreditWatch with negative implications. The downgrades followed the filing of a Chapter 11 bankruptcy petition by Nebco Evans and its subsidiary, AmeriServe Food Distribution, on Jan. 31, 2000, in the U.S. Bankruptcy Court in Wilmington, Del.

The downgrade to 'D' on the ratings on AmeriServe Finance Trust reflected the fact that its debt obligations are serviced by the operations of AmeriServe Food Distribution Inc. Furthermore, the senior secured note indenture of AmeriServe Finance Trust and AmeriServe Capital Corp. (coissuer of the senior secured notes) specifies a bankruptcy filing by AmeriServe Distribution Inc. as an act of default under the notes.

Prior to the bankruptcy filing, credit measures continued to weaken as the result of the company's aggressive restructuring and consolidation of its quick service restaurant distribution system without the realization of the anticipated annual cost-saving benefits in a timely manner.

#### ORBCOMM GLOBAL L.P.

**Greg Zappin, CFA,**

*New York, (1) 212-438-7872*

- \$168.8 million 14% senior notes due Aug. 15, 2004

Orbcomm Global L.P. defaulted on its debt obligations when it failed to make an interest payment on its senior unsecured notes on Aug. 15 2000. The company filed for bankruptcy on Sept. 15. The company has retained Bear Stearns to explore financing opportunities and negotiate with lenders.

Orbcomm provides two-way monitoring, tracking, and messaging services through a low earth orbit satellite based data communications system. Orbcomm has been focusing on the trucking industry to use its satellite services for trailer tracking.

Slower-than-expected subscriber growth caused revenues to fall well short of what was needed to support debt service obligations and fund Orbcomm's planned business strategy. The company was highly leveraged and had limited liquidity. Work force reductions occurred in 2000 and a new business plan was developed, but additional funding was needed. When it didn't materialize, the company missed its interest payment and subsequently filed for bankruptcy protection.

### OWENS CORNING

Wesley E. Chinn,

New York (1) 212-438-7689

- \$9 million (SFr13.5 million) 5.375% bonds due Nov. 26, 2000
- \$250 million 7% notes due March 15, 2009
- \$50 million (DM130 million) 7.25% bonds due Dec. 2, 2000
- \$300 million 7.5% senior notes due May 1, 2005
- \$400 million 7.5% debentures due Aug. 1, 2018
- \$250 million 7.7% senior notes due May 1, 2008
- \$150 million 8.875% debentures due June 1, 2002
- \$150 million 9.375% debentures due June 1, 2012
- \$2 billion bank loan due Dec. 31, 2002

Owens Corning filed for reorganization under Chapter 11 on Oct. 5, 2000. Owens Corning achieved significant progress in the management of its asbestos liabilities with the establishment of a national settlement program (NSP). However, the cost of resolving current and future claims continued to escalate, reflecting in part a flurry of recent new filings from plaintiff lawyers not participating in the NSP. Moreover, higher interest rates contributed in large part to a fall in demand for the company's building material products.

The establishment of a plan of reorganization that resolves the company's asbestos liabilities in a form that legally binds all existing and future claimants could very well require many years.

### PACIFIC & ATLANTIC HOLDINGS INC.

Olivier Beroud,

London (44) 20-7826-3508

- \$128 million 11.5% first preferred ship mortgage notes due May 30, 2008

The corporate credit ratings on Pacific & Atlantic Holdings Inc., a company specializing in dry bulk shipping, based in Greece, was revised to 'SD' (selective default) from 'CC' and the senior secured debt rating to 'D' from 'CC' as the company did not make the coupon payment due on Nov. 30, 1999, even after an extended grace period that expired on Jan. 15, 2000. The ratings were removed from CreditWatch with negative implications. Pacific & Atlantic has reached the final stage of negotiations in a restructuring agreement forced on bondholders, which will involve a swap of debt for equity. Such a coercive exchange is tantamount to a default under Standard & Poor's criteria.

Following the Asian economic crisis of 1998-1999, the dry bulk shipping segment went through a severe down cycle at a time when the company was highly leveraged. Freight rates reached their lowest point of the decade and were insufficient to enable the company to service its debt.

The company is still in operation, after agreeing—under terms that remain private—to a swap of debt for equity with its senior bondholders.

### PACKAGING RESOURCES INC.

Jason Virgil,

New York (1) 212-438-7817

- \$110 million 11.625% senior secured notes due May 1, 2003

Standard & Poor's lowered the corporate credit and senior secured notes ratings on Packaging Resources Inc. to 'D' from 'CC'. Both ratings were removed from CreditWatch with negative implications, where they had been placed March 31, 2000.

The rating actions followed the company's decision not to make its May 1, 2000, interest payment on its \$110 million senior

secured notes, owing to liquidity constraints and a period of weak operating performance. In addition, the company announced that it would not be able to pay a dividend to its parent to fund a \$1.8 million interest payment that was due May 31, 2000, on approximately \$27 million of unrated senior subordinated notes.

Packaging Resources is a leading manufacturer of rigid plastic food packaging and customized containers for national branded consumer products. In October 2000, the company was purchased by the Finnish-Dutch packaging group Huhtamaki Van Leer for \$185 million in cash.

### PAGING NETWORK INC.

Catherine Cosentino,

New York (1) 212-438-7828

- \$300 million 8.875% senior subordinated notes due Feb. 1, 2006
- \$500 million 10% senior subordinated notes due Oct. 15, 2008
- \$400 million 10.125% senior subordinated notes due Aug. 1, 2007
- \$1 billion revolving credit facility bank loan due Dec. 31, 2004

Paging Network Inc. filed for bankruptcy protection on July 24, 2000. On Feb. 1, 2000, the company had failed to make the interest payment on its subordinated note issues, all of which had been then downgraded to 'D' from 'CC' and removed from CreditWatch with negative implications.

PageNet is the largest paging company in the U.S., with about 8 million pagers in service as of mid-2000. Its default on its interest payments and subsequent bankruptcy filing reflect the fact that the company lost a significant number of its customers for basic one-way paging services at a time when it was spending significant amounts of capital to reshape its business through expansion into the two-way advanced messaging business. Given the resultant liquidity problems that developed for the company, it announced an agreement in November 1999 under which it was to be acquired by Arch Wireless Inc. (formerly Arch Communications Group Inc.). However, in order to expedite reorganization in the face of vari-

ous bondholder disputes, including an involuntary bankruptcy filing by certain bondholders, the company filed a voluntary reorganization petition under Chapter 11 in the U.S. Bankruptcy Court for the District of Delaware. Subsequently, on Nov. 10, 2000, the company was acquired by Arch Wireless. Under terms of the purchase agreement, about \$1.2 billion in accreted value of PageNet public debt was exchanged for equity in Arch and Arch also assumed \$745 million of PageNet bank debt.

#### PARACELSUS HEALTHCARE CORP.

**David P. Peknay,**

*New York (1) 212-438-7852*

- \$325 million 10% senior subordinated notes due Aug. 15, 2006
- \$50 million tranche B term bank loan due Dec. 31, 2004
- \$25 million tranche A term bank loan due Dec. 31, 2003
- \$180 million reducing revolving credit facility bank loan due Dec. 31, 2003

Paracelsus Healthcare Corp. intentionally missed the \$16.25 million Feb. 15, 2000, interest payment on its senior subordinated notes. The company had the resources to make the payment but, facing constraints on its bank credit, it chose to skip the payment in order to conserve cash. Houston, Texas-based Paracelsus is a hospital operator that had been downsizing and using asset sales proceeds to pay back bank debt. However, its remaining hospitals had not been performing well due to weak conditions and intense competition in the hospital industry. With a high debt burden relative to cash flow, it was increasingly difficult for the company to service its debt.

#### PATHMARK STORES INC.

**Patrick Jeffrey,**

*New York (1) 212-438-7840*

- \$440 million 9.625% senior subordinated notes due May 1, 2003
- \$225 million 10.75% junior subordinated deferred coupon notes due Nov. 1, 2003

- \$197.6 million 11.625% subordinated notes due June 15, 2002
- \$95.8 million 12.625% subordinated debentures due June 15, 2002
- \$200 million secured revolving credit facility bank loan due June 15, 2001
- \$75 million secured term loan tranche A bank loan due June 15, 2001
- \$225 million secured term loan tranche B bank loan due Dec. 15, 2001

Standard & Poor's lowered Pathmark Stores Inc.'s corporate credit rating to 'D' from 'CC' following the company's announcement that it had elected to take advantage of the 30-day grace period on the scheduled May 31, 2000, interest payment on its \$440 million senior subordinated notes and its \$225 million junior subordinated deferred coupon notes. The rating was removed from CreditWatch with negative implications. Later, on July 12, 2000, the company filed for court protection under Chapter 11 of the U.S. Bankruptcy Code.

The default and subsequent bankruptcy filing resulted from a highly leveraged capital structure that involved substantial debt maturities that the company could not refinance. Pathmark was able to file a prepackaged bankruptcy plan that resulted in its subordinated debt being converted to equity. The company maintains a satisfactory market position in the New York area and enjoys now greater financial flexibility.

#### PENNCORP FINANCIAL GROUP INC.

**Michael Gross,**

*New York (1) 212-438-7201*

- \$150 million 9.25% senior subordinated notes due Dec. 15, 2003

On Feb. 7, 2000, Standard & Poor's lowered the counterparty credit rating on PennCorp Financial Group Inc. (PennCorp) to 'D' from 'CC'. At the same time, Standard & Poor's lowered the company's subordinated debt rating to 'D' from 'CC' and the preferred stock rating to 'D' from 'C'. The ratings were removed from CreditWatch with negative implications.

The downgrades reflected Penncorp's fil-

ing of a Chapter 11 petition for court protection under the U.S. Bankruptcy Code on Feb. 7, 2000. PennCorp went ahead with the filing in order to effectuate the sale of certain insurance subsidiaries.

PennCorp, a Dallas, Texas-based holding company for numerous insurance operating subsidiaries, was troubled by a weak financial structure, including high debt leverage and liquidity strain, throughout 1999.

#### PEN-TAB INDUSTRIES INC.

**David T. Shapiro,**

*New York (1) 212-438-7861*

- \$75 million 10.875% senior subordinated notes due Feb. 1, 2007

On Feb. 2, 2000, Standard & Poor's lowered the corporate credit rating on Pen-Tab Industries Inc. to 'D' from 'CC'. In addition, the subordinated debt rating was lowered to 'D' from 'C'. The downgrades reflected Pen-Tab's failure to make the interest payment on its 10.875% senior subordinated notes on Feb. 1, 2000, due to a lack of liquidity. The company was in technical default under its credit facility and did not have access to its bank lines.

Pen-Tab is a manufacturer of school, home, and office supply products. Pen-Tab's financial difficulties arose from competitive factors in its markets and the inability to effectively absorb its overhead expenses.

The company obtained consent from substantially all of its noteholders to accept the Feb. 1, 2000, interest payment in the form of new notes, but then went on to miss its Aug. 1, 2000, interest payment on the same notes. Pen-Tab is currently engaged in discussions with its noteholders regarding a restructuring and conversion of such notes to noncash interest bearing securities or equity.

#### PHASE METRICS INC.

**Philip Schrank,**

*New York (1) 212-438-7859*

- \$110 million 10.75% senior notes due Feb. 1, 2005  
Phase Metrics Inc.'s ratings were lowered

to 'D' from 'B-' after it failed to make its scheduled interest payment on Feb. 1, 2000. The outlook had been negative.

San Diego, Calif.-based Phase Metrics is a supplier of process and production test equipment for the data storage industry, used to manage and improve product yields. Current cyclical weakness in the disk drive industry, coupled with overcapacity of media certification equipment, has negatively impacted performance. EBITDA interest coverage was very thin, below 1 times, and financial flexibility was limited to \$7 million cash on Dec. 31, 1999.

#### PILLOWTEX CORP.

**Jayne M. Ross,**

*New York (1) 212-438-7857*

- \$125 million 6% convertible subordinated debentures due March 15, 2012
- \$185 million 9% senior subordinated notes due Dec. 15, 2007
- \$125 million 10% senior subordinated notes due Nov. 15, 2006
- \$385 million revolving & overline facility bank loan due Jan. 31, 2002
- \$223.1 million tranche B term loan bank loan due Jan. 31, 2002
- \$125 million tranche A term loan bank loan due Jan. 31, 2002

On Nov. 14, 2000, the ratings on Pillowtex Corp.'s debt were lowered to 'D' following the company's announcement that it had filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code. At the time, the ratings were removed from CreditWatch with negative implications, where they had been initially placed on Sept. 7, 1999.

Pillowtex also announced that it had received a commitment for \$150 million in debtor-in-possession financing from a group of banks. The financing, which will be subject to the approval of the Bankruptcy Court, will be used to fund day-to-day operations.

On Nov. 8, 2000, Pillowtex had announced that its senior lending group would not extend the temporary waiver for violation of the EBITDA covenant that expired on Nov. 7, 2000. The company

was then in technical default under its senior secured facilities. The senior lending group issued a payment blockage notice with respect to the scheduled Nov. 15, 2000, interest payment of about \$6.25 million on the \$125 million 10% senior subordinated notes due 2006. Further, Pillowtex expected the senior lenders to block payment of the scheduled Dec. 15, 2000, interest payment of \$8.33 million on the \$185 million 9% senior subordinated notes due 2007. In addition, since a default occurred under the senior secured credit facilities, certain industrial revenue bonds, about \$15.7 million, were in default due to the trigger of cross-default provisions. While the senior lending group had agreed not to exercise its rights and remedies under the senior secured credit agreements, Pillowtex had little time to explore strategic alternatives to address its financial problems, and opted for the bankruptcy filing.

Pillowtex had experienced earnings weakness since the second half of 1999, due to higher selling expenses and lower margins caused by efforts to reduce inventory levels, as well as continued reliance on outside contractors and manufacturing disruptions caused by systems installation and plant upgrades.

Pillowtex is a manufacturer and marketer of home furnishings for the bedroom and bathroom under such leading brand names as Royal Velvet, Cannon, Fieldcrest, Charisma, Touch of Class, and Royal Velvet Big and Soft.

#### PIONEER CORP. OF AMERICA

**Kyle Loughlin,**

*New York (1) 212-438-7804*

- \$200 million 9.25% senior secured notes due June 15, 2007
- \$83 million secured term loan bank loan due Dec. 31, 2006
- \$100 million secured term loan bank loan due Dec. 31, 2006
- \$175 million 9.25% senior notes due Oct. 15, 2007

On Dec. 15, 2000, Standard & Poor's lowered the corporate credit rating on Pioneer Corp. of America (Pioneer) to 'D'

from 'CCC+'. At the time, Standard & Poor's also lowered the rating on the company's senior secured notes to 'D' from 'CCC+'. Additionally, the ratings on Pioneer's secured bank loans and the ratings on the senior secured notes issued by its subsidiary, PCI Chemicals Canada Inc., were lowered to 'CC' from 'CCC+'.

The downgrades followed Pioneer's failure to make the Dec. 15, 2000, interest payment on PCI's \$200 million, 9.25% senior notes due 2007. From the date of the payment, the company has a 30-day period to cure the situation before it becomes an event of default under the indenture.

These rating actions reflected the expectation that Pioneer would be challenged to obtain the necessary financing to make the interest payments within the stated grace period. Pioneer was highly leveraged at the time of the payment and faced challenging industry and credit market conditions. Still, Pioneer announced that it had entered into discussions with an institutional investor to obtain a new credit facility, which, if completed within the 30-day span, could enable Pioneer to pay the delayed interest within the grace period. Pioneer also stated that it might seek to restructure its debt if it could not arrange the financing.

Pioneer's vulnerability stems from onerous debt levels and a below-average business position as a North American producer of chlor-alkali (chlorine and caustic soda) and water treatment chemicals. Scheduled cash outlays related to the company's heavy debt burden, coupled with escalating energy costs and slower-than-expected cash flow improvement from price increases, put pressure on the firm's liquidity position. At the end of the quarter ending Sept. 30, 2000, Pioneer announced that it had total liquidity of about \$20 million (cash on hand plus borrowing availability under its revolving credit facility before a special reserve of \$5 million).

#### PNV INC.

**Catherine Cosentino,**

*New York (1) 212-438-7828*

- \$75 million 13% senior notes due May 15, 2008

PNV Inc. (formerly Park 'N View Inc.) is a communications company providing a unique offering of cable television and telephony services to truck drivers through specialized equipment located at truck stops. Expansion of the company's subscriber base over the last few years has been well below Standard & Poor's expectations due to a relative lack of market acceptance for PNV's product suite. Given the high fixed costs associated with operating its network, PNV's profitability and cash flow have been adversely impacted; PNV has continued to generate gross margin losses, which totaled \$3.3 million for the three months ended Sept. 30, 2000.

While the company had cash balances of \$23 million at Sept. 30, 2000, it decided not to make its \$4.9 million semiannual interest payment on the senior unsecured notes, which was due Nov. 15, 2000. As a result of this action, the company indicated in its third quarter 2000 10-Q that "there is substantial doubt about (its) ability to continue as a going concern."

#### PRESIDENT CASINOS INC.

**Michael Scerbo,**

*New York (1) 212-438-7858*

- \$100 million 13% notes due Sept. 15, 2001

Standard & Poor's lowered the corporate credit rating and senior unsecured debt ratings on President Casinos Inc. to 'D' from 'CC' on March 16, 2000. The downgrade reflected the company's announcement that, due to near-term maturities and significant capital expenditure needs, it had decided not to make the March interest payment on its outstanding notes. This triggered an event of default under the notes. The company recently entered into an agreement with certain of its noteholders holding its 13% notes, of which \$75 million of principal is outstanding, as well as all of the noteholders of its 12% notes, of which \$25 million is outstanding. The agreement contemplates a restructuring of the company debt to be effected through an exchange offer, an extension of maturity, and a paydown of certain obligations,

including interest and principal, as well as the escrowing of certain amounts.

The company's operating performance had been negatively impacted by several factors, which led to the missed interest payment. These factors included the increased competitive environment along the Mississippi Gulf Coast, and the regulatory change in Illinois during 1999, which negatively impacted operations at the President facilities in nearby Davenport, Iowa and St. Louis, Mo. (The company has since sold its Davenport facility to Isle of Capri.) President Casinos Inc. owns and operates dockside gaming facilities in Biloxi, Miss., and downtown St. Louis, Mo., near the base of the Gateway Arch.

#### PRIME SUCCESSION INC.

**David P. Peknay,**

*New York (1) 212-438-7852*

- \$100 million 10.75% senior subordinated notes due Aug. 15, 2004
- \$90 million bank loan
- \$25 million revolving credit bank loan due Dec. 31, 2001

Prime Succession Inc. failed to make a Feb. 15, 2000, interest payment on its \$100 million senior subordinated notes. The company's high leverage, weak financial performance, inadequate cash flow, and growing amortization debt payments were the root causes. Weakness in the death care industry, particularly in the cemetery business, contributed to the adverse financial performance and cash flow. The company filed for Chapter 11 protection on July 12, 2000. On Nov. 9, 2000, the company's Plan of Reorganization was approved by the U.S. Bankruptcy Court for the District of Delaware. The plan calls for the conversion of the 10.75% notes into \$20 million of new senior subordinated notes due 2004, with interest paid-in-kind at the rate of 14.25%, and 100% of reorganized Prime Succession common stock, subject to dilution from a management incentive program and warrants issued to former equity holders. Existing secured debt of \$109 million owed to the senior lenders will be consolidated into a

new term loan with a principal repayment schedule more consistent with the company's expected cash flows. The company also secured a commitment from its existing bank group to provide \$18 million of exit financing in the form of a new revolving credit facility.

#### READ-RITE CORP.

**Philip Schrank,**

*New York (1) 212-438-7859*

- \$345 million 6.5% convertible subordinated notes due Sept. 1, 2004

Standard & Poor's lowered Read-Rite Corp.'s corporate credit rating to 'SD' (selective default) from 'B', its bank loan rating to 'CCC-' from 'B', and its subordinated notes to 'D' from 'CCC+'. Standard & Poor's also removed the ratings from CreditWatch, where they had been placed in August of 1999 with negative implications. The CreditWatch placement reflected ongoing difficult market conditions for Read-Rite, and a lack of progress in improving its operating performance. Additionally, the firm had received a waiver until Feb. 4, 2000, for the violation of financial covenants on its credit facility.

These rating actions followed Read-Rite's offer to exchange \$175.5 million of its 10% convertible subordinated notes for \$345 million of existing 6.5% notes. Under the indenture for the 6.5% convertible notes and the company's current bank facility, the banks have the right to block the regularly scheduled interest payment due March 1, 2000, on the 6.5% convertible notes. The exchange offer, in part, would decrease the amount of cash required for the March 1, 2000, interest payment, and thus reduce the likelihood of the banks exercising their rights to block payment.

Milpitas, Calif.-based Read-Rite is the largest independent manufacturer of magnetic recording heads for high-performance tape and disk drives. The business is capital intensive and is characterized by rapid technological change in a cyclical and highly volatile industry.

#### REGAL CINEMAS INC.

**Steve Wilkinson,**

*New York (1) 212-438-5093*

- \$600 million 9.5% senior subordinated notes due June 1, 2008
- \$200 million 8.875% senior subordinated notes due Dec. 15, 2010

On Dec. 1, 2000, Regal Cinemas Inc.'s bank lenders blocked the scheduled interest payment due on Regal's \$600 million 9.50% senior subordinated notes and on Dec. 15, 2000, the scheduled interest payment on the \$200 million 8.875% senior subordinated notes was blocked as well. The banks were permitted to block these payments due to the technical noncompliance with certain financial covenants under the company's bank facilities. Regal remains in negotiations with its creditors to resolve these issues and has publicly stated that it may need to seek protection under Chapter 11 of the U.S. Bankruptcy Code.

Regal was the victim of industrywide difficulties brought about by the opening of many new multiplexes and megaplexes all throughout the country. The problems brought about by the ensuing oversupply were exacerbated by a dearth of successful films during the 2000 summer season.

#### RELIANCE GROUP HOLDINGS INC.

**Matthew T. Coyle,**

*New York (1) 212-438-7183*

- \$332 million 9% senior notes due Nov. 15, 2000
- \$174 million 9.75% senior subordinated debentures due Nov. 15, 2003

On Nov. 15, 2000, Reliance Group Holdings announced that it would not make the \$291.7 million principal payment on its 9% senior notes, nor the interest payment on its 9.75% senior subordinated debentures, both due on that date. Concurrently, Standard & Poor's lowered the company's rating to 'D' from 'CC' and removed it from CreditWatch, where it had been placed with negative implications.

Reliance's final default on its obligations followed a series of actions by the company

to fortify loss reserves, a lawsuit related to the settlement of claims from business written under the Unicover umbrella, insufficient liquidity at the holding company level, and regulatory intervention by the Pennsylvania department of insurance. These factors led to the company's current financial difficulties, as well as the eventual default on its obligations.

Reliance Group Holdings Inc. is a holding company whose principal business was the ownership of Reliance Insurance Co. and its property and casualty insurance subsidiaries. The Reliance Insurance Group underwrote a broad range of commercial line property and casualty insurance and also underwrites personal automobile coverage. The company also owns RCG Information Technology Inc., an information technology consulting company.

#### RESORT AT SUMMERLIN INC. (THE)

#### RESORT AT SUMMERLIN L.P. (THE)

**Craig Parmelee,**  
New York (1) 212-438-7850

- \$100 million 13% senior subordinated notes due Dec. 15, 2007
- \$100 million first mortgage bonds due 2004

On Sept. 28, 2000, Standard & Poor's lowered the corporate credit and senior secured debt ratings on Resort at Summerlin L.P., and its general partner, the Resort at Summerlin Inc., to 'D' from 'CCC'. At the same time, the subordinated debt ratings on each entity were lowered to 'D' from 'CC'. The rating actions reflected the failure of these coborrowers to meet the Sept. 15, 2000, interest payment related to the 13% senior subordinated notes due 2007. The default under the notes also constituted a default under the Dec. 30, 1997, credit agreement with respect to the first mortgage notes.

The Resort at Summerlin (later renamed the Regent Las Vegas) is a casino resort built in Summerlin, a residential area on the outskirts of Las Vegas, Nev. The Resort concept was somewhat

unique in that it attempted to attract tourists away from the Las Vegas Strip through high-end amenities such as a luxurious spa, retail, and golf. The notes were issued to finance construction of the facility. The Resort partially opened in mid-July 1999, with the remainder of the property opening over the next few months. Construction difficulties and a longer-than-expected permitting process caused the delayed opening and led to higher-than-expected costs. Lost revenues from the late opening of retail, dining, the spa, and other entertainment options had a significant negative impact on the property's operating performance. Ultimately, the property never generated sufficient visitor volume to support its obligations. The Resort at Summerlin's last SEC filing in late September stated that the company was attempting to negotiate with the holders of its notes.

#### SAFELITE GLASS CORP.

**Lisa Jenkins,**  
New York (1) 212-438-7697

- \$100 million 9.875% senior series B subordinated notes due Dec. 15, 2006
- \$55 million 9.875% senior series D subordinated notes due Dec. 15, 2006
- \$75 million term loan A bank loan due Dec. 31, 2002
- \$75 million term loan B bank loan due Dec. 31, 2004
- \$30 million revolving credit bank loan due Dec. 31, 2002

On June 9, 2000, Standard & Poor's lowered the ratings on Safelite Glass Corp. to 'D', following the company's announcement that it had filed for protection under Chapter 11 of the U.S. Bankruptcy Code. The ratings were removed from CreditWatch with negative implications. At the time, Safelite's financial flexibility was severely constrained as a result of weak operating performance and an onerous debt burden. Safelite is a provider of auto-glass services and insurance claims management solutions. Its financial difficulties stemmed from intense industry pricing pressures, difficulties associated with the

integration of a major acquisition completed in December 1997, and challenges created by the loss of a contract with a significant customer.

Safelite emerged from bankruptcy on Sept. 29, 2000. Under the restructuring plan, approximately \$317 million of long-term debt held by the company's banks and bondholders was converted to equity.

#### SAFETY COMPONENTS INTERNATIONAL INC.

**Martin King,**  
New York (1) 212-438-7800

- \$90 million 10.125% senior subordinated notes due July 15, 2007
- \$27 million revolving credit facility bank loan due Dec. 31, 2002

Standard & Poor's lowered the ratings on Safety Components International Inc. to 'D,' following the company's failure to make its \$4.6 million subordinated notes interest payment due Jan. 15, 2000. The ratings were removed from CreditWatch with negative implications. During the prior two years, the company's poor operating performance and onerous debt burden resulted in weak cash flow generation and minimal financial flexibility. Weak operating performance was caused by a number of factors, including the intensely competitive pricing environment in the automotive air bag industry, inefficiencies related to the ramp up of new product programs, contract disputes and loss of contracts with certain customers, and poor performance of some noncore defense related businesses. Safety Components reported a net loss of \$12.9 million during its 1999 fiscal year. At the time of the default, liquidity was severely constrained, as the company had low cash balances and no availability on its revolving credit facility.

Safety Components filed for Chapter 11 bankruptcy protection on April 10, 2000. The company emerged from bankruptcy on Oct. 12, 2000, with its senior subordinated notes converted into equity and all other creditors paid in full.

**SAFETY-KLEEN CORP.**

**Roman Szuper,**  
New York (1) 212-438-7813

- \$225 million 9.25% senior notes due May 15, 2009
- \$325 million 9.25% senior subordinated notes due June 1, 2008
- \$1.875 billion senior secured credit facility bank loan

Standard & Poor's lowered the corporate credit rating on Safety-Kleen Corp. to 'D' from 'CC' and removed it from CreditWatch, where it had been placed with negative implications on March 6, 2000. The rating action followed Safety-Kleen's announcement that it had not made a May 15, \$10.4 million interest payment on its senior unsecured notes due 2009. On June 1, 2000, the company also missed a \$15 million interest payment on its senior subordinated notes due 2008 and a \$43 million principal and interest payment under its senior credit facility.

On June 9, 2000, Safety-Kleen Corp. and its domestic subsidiaries filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code. The company remains in Chapter 11, with no indication as to when it may emerge from it.

Safety-Kleen's problems accelerated after reports surfaced about accounting irregularities, later confirmed by the firm. The uncertainties regarding Safety-Kleen's true financial performance increased significantly following a withdrawal by PricewaterhouseCoopers LLP, the company's auditors, of its previously issued reports on the financial statement of the firm for the fiscal years 1999, 1998, and 1997. The accounting firm also stated that these reports should no longer be relied upon. Those problems resulted in default under certain financial covenants of Safety-Kleen's credit agreement, as well as inability to borrow under that agreement. At the same time, Safety-Kleen's cash position and cash generated from operations became insufficient to fund current operations.

Safety-Kleen is the largest industrial waste service company in North America,

handling virtually all hazardous and non-hazardous waste streams. The firm provides a broad range of integrated collection, transportation, recycling, treatment, and disposal services to more than 400,000 industrial, commercial, and institutional customers.

**SFAC NEW HOLDINGS INC.****SFC NEW HOLDINGS INC.**

**Jayne M. Ross,**  
New York (1) 212-438-7857

- \$569.636 million adjusted rate senior secured notes due June 15, 2009
- \$225 million 11.25% senior unsecured notes due Aug. 15, 2001
- \$200 million 13.25% subordinated notes due Aug. 15, 2003

Ratings on SFAC New Holdings Inc. (formerly Specialty Foods Acquisition Corp.) and its wholly owned subsidiary, SFC New Holdings Inc. (formerly Specialty Foods Corp.), were lowered to 'D' on Sept. 19, 2000. The day before, the companies had filed for Chapter 11 protection under the U.S. Bankruptcy Code.

On Sept. 12, 2000, SFC New Holdings signed an agreement to sell its Mother's Cake & Cookie Co. and Archway Cookies businesses (the third-largest cookie company in the U.S.) to Parmalat SpA for \$250 million. During the week of Nov. 6, 2000, Parmalat completed the acquisition, once the Bankruptcy Court of Delaware approved the sale.

SFAC is a privately held company formed in 1993. The company's previous holdings included Stella Foods, a leading cheese producer sold in 1997, and Metz Baking Co., the leading Midwest bread company, sold in March 2000. The company still operates the Andre-Boudin Bakeries. The operation will likely become an asset of bondholders as part of Specialty Foods' Chapter 11 bankruptcy proceedings.

**SILVER CINEMAS INTERNATIONAL INC.**

**Steve Wilkinson,**  
New York (1) 212-438-5093

- \$90 million 10.5% senior subordinated notes due Dec. 31, 2005
- \$17 million term loan A bank loan due Dec. 31, 2003
- \$18 million term loan B bank loan due Dec. 31, 2003
- \$15 million revolving credit facility bank loan due Dec. 31, 2003

On April 17, 2000, the corporate credit and bank loan ratings on Silver Cinemas International Inc. were lowered to 'D' from 'CC'. Standard & Poor's also lowered the company's subordinated debt rating to 'D' from 'C'. At the same time, all ratings were removed from CreditWatch with negative implications.

The downgrades followed the company's failure to meet its scheduled interest payment on its 10.5% senior subordinated notes and its disclosure that it was not in compliance with certain covenants under its senior secured credit facility.

These developments reflect Silver's very weak operating performance as its circuit was primarily comprised of older "second-run" theaters and art film houses, which were more vulnerable to decay when the oversupply of screens in the general exhibition industry forced other operators to convert more screens to these specialty purposes.

**STAGE STORES INC.**

**Robert M. Bahash,**  
New York (1) 212-438-7824

- \$200 million 8.5% senior notes due July 15, 2005
- \$100 million 9% senior subordinated notes due July 15, 2007
- \$235 million revolving credit facility bank loan due June 14, 2002

Standard & Poor's lowered to 'D' the ratings on Specialty Retailers Inc. and its parent, Stage Stores Inc., following the company's announcement that it had filed for protection under Chapter 11 of the U.S. Bankruptcy Code on June 1, 2000.

The company's performance had been adversely impacted by a rapid store expansion strategy, including acquisitions and aggressive internal growth, which severely taxed management's ability to operate a larger store base. Poor inventory management and heavy promotional activity led to seven straight quarters of declining same store sales and operating margins. As a result, vendors ceased shipping merchandise on credit, which made it impossible for the company to continue operations. The company is currently operating under a three-year \$450 million debtor-in-possession financing agreement. Specialty Retailers' operations consist of about 500 family apparel stores in 22 states, located primarily in the south central and midwestern U.S.

#### STELLEX TECHNOLOGIES INC.

**Martin Knoblowitz,**

*New York (1) 212-438-7801*

■ \$100 million 9.5% senior subordinated notes series B due Nov. 1, 2007

On May 8, 2000, Standard & Poor's lowered Stellex Technologies Inc.'s corporate credit rating to 'SD' (selective default) from 'B', bank loan ratings to 'CCC-' from 'B', and subordinated debt rating to 'D' from 'CCC+'. The downgrades followed the company's missing its May 1, 2000, interest payment on its 9.5% senior subordinated notes. The firm was in default under certain financial covenants on its bank credit agreement, and senior lenders moved to block interest payments on subordinated debt.

On Sept. 12, 2000, Standard & Poor's lowered its bank loan ratings on Stellex Technologies Inc. to 'D' from 'CCC-'. The corporate credit rating was revised to 'D' from 'SD' (selective default). The privately held company filed a voluntary petition to reorganize its business under Chapter 11 of the U.S. Bankruptcy Code.

The company is in the process of selling all assets to repay creditors.

#### STYLING TECHNOLOGY CORP.

**Lori Harris,**

*New York 1(212)-438-7834*

■ \$100 million 10.875% senior subordinated notes due July 1, 2008

On Jan. 4, 2000, Standard & Poor's lowered the corporate credit rating on Styling Technology Corp. to 'D' from 'CCC+'. The subordinated debt rating on the company was lowered to 'D' from 'CCC-'. The downgrade reflected Styling Technology's failure to make an interest payment on its 10.875% senior subordinated notes maturing 2008, which was due on Jan. 1, 2000. On Feb. 2, 2000, Standard & Poor's raised the corporate credit rating on Styling Technology Corp. to 'CC' from 'D'. The subordinated debt rating on the company was raised to 'C' from 'D'. The rating revision reflected the Jan. 31, 2000, interest payment to the holders of its 10.875% senior subordinated notes due 2008. The payment was made during the 30-day grace period provided for under the indenture. As part of the payment agreement, the company entered into a consent, waiver, and standstill agreement under which the noteholders agreed to waive all past defaults and events of default.

The ratings on Styling Technology Corp. were withdrawn on July 7, 2000, due to the nonreceipt of financial statements since June 30, 1999. A couple of weeks later, on July 21, 2000, the company announced that it had reached an agreement with 81% of its bondholders, to convert all of its subordinated notes to equity in a newly reorganized company.

In order to implement its restructuring, Styling filed, on Aug. 31, 2000, a voluntary petition for protection under the U.S. Bankruptcy Code.

Styling Technology Corp. is a developer, producer and marketer of a wide array of branded consumer products sold primarily through professional salon distribution channels. The company's products include hair care, skin and body care, and nail care products, as well as salon appliances and sundries.

**SUNTERRA CORP.****Alyse Michaelson,***New York (1) 212-438-5021*

- \$138 million 5.75% convertible subordinated notes due Jan. 15, 2007
- \$140 million 9.25% senior notes due May 15, 2006
- \$200 million 9.75% senior subordinated notes due Oct. 1, 2007

Standard & Poor's lowered the corporate credit and senior unsecured debt ratings on Sunterra Corp. to 'D,' following the announcement that the company had missed the May 15, 2000, interest payment on its 9.25% senior notes, as well as the mandatory pay down under its senior bank credit facility and presale line. In addition, the company violated its net-worth covenants on its senior bank facility, presale line, and inventory line due to the net loss reported by the company for the fourth quarter of 1999.

At the time, the company's subordinated debt rating was lowered to 'C-' from 'CCC+'. All company ratings were removed from CreditWatch, where they had been placed with negative implications on Jan. 20, 2000, following the announcement that fourth-quarter results would fall well below expectations.

On May 31, 2000, the company's subordinated debt rating was lowered to 'D', reflecting the company's filing of a voluntary petition for relief under Chapter 11 of the U.S. Bankruptcy Code. At this time, Sunterra also announced that it had executed a financing commitment letter for debtor-in-possession financing of \$25 million, including the possible expansion of the facility to \$53 million.

Sunterra is one of the largest owners and managers of time-share resorts. As of May 2000, it operated 50 resorts in the U.S., including 12 in Hawaii, six in Florida, and eight in California, in addition to 40 in other countries, including Japan, Europe, and the Caribbean. After going public in 1996, the company underwent aggressive expansion, growing from nine resorts and 25,000 owners to 90 resorts with 300,000 owners. The company's problems stemmed

from this rapid expansion, particularly with regard to the integration and servicing of its growing mortgage receivables portfolio. In the fourth quarter of 1999, the company wrote off \$43 million in mortgage receivables. Sunterra also reported a fourth-quarter loss of \$58.4 million and announced a management reorganization. Problems continued in the first quarter of 2000, concluding with the missed interest payment on its senior notes. Events leading up to the default include fairly significant past due receivables, restructuring charges, higher marketing costs and weak advance bookings.

Currently, Sunterra is operating under Bankruptcy Court protection.

**TALON AUTOMOTIVE GROUP INC.****Lisa Jenkins,***New York (1) 212-438-7697*

- \$120 million senior subordinated notes due May 1, 2008
- \$100 million revolving credit facility bank loan due Dec. 31, 2003

On Nov. 2, 2000, Standard & Poor's lowered the corporate credit rating on Talon Automotive Group Inc. to 'SD' (selective default) and its subordinated debt rating on the company to 'D'. The rating actions followed Talon's announcement that it had elected not to make the scheduled interest payment on the 9.625% senior subordinated notes due May 1, 2008.

Talon produces stamped metal components and assemblies (with a specialty in underbody/chassis and unexposed body structure components) for the North American original equipment automotive industry. The company has grown through acquisitions and, at the time of default, was highly leveraged. Credit protection measures had deteriorated significantly in the year prior to the default due to a number of operating issues within the company and ongoing industry pressures. As a result, Talon was forced to negotiate a series of waivers with its bank group.

Talon is currently negotiating with its bank group and the noteholders in an

effort to facilitate payment, or an agreement for deferred payment, on the notes. Talon is also trying to negotiate special payment terms with its principal customers to alleviate liquidity pressures pending the start-up of significant new business next spring.

**TOKHEIM CORP.****Martin King,***New York (1) 212-438-7800*

- \$123 million 11.375% senior subordinated notes due Aug. 1, 2008
- \$8 million term B bank loan due Dec. 31, 2001
- \$120 million revolving facility bank loan due Dec. 31, 2004
- \$120 million term A bank loan due Dec. 31, 2004

Standard & Poor's lowered the corporate credit and subordinated debt ratings on Tokheim Corp. to 'D' on Aug. 1, 2000. In addition, the bank loan rating on Tokheim was lowered to 'D' on Aug. 29, 2000. These rating actions followed the company's failure to make its subordinated note interest payment due Aug. 1, 2000, and its subsequent Chapter 11 bankruptcy filing.

Tokheim's financial profile had weakened substantially during the prior two years. The company reported a \$37 million net loss for fiscal 1999. Tokheim's weak performance resulted from the reduction in capital spending levels of major oil companies following a period of low oil prices and extensive merger and acquisition activity, which depressed demand for the downstream fuel-dispensing equipment manufactured by Tokheim. In addition, a September 1998, \$355 million debt-financed acquisition substantially increased the company's debt load. Poor operating performance during a period of elevated debt levels resulted in very weak credit protection measures and constrained liquidity.

Tokheim emerged from bankruptcy on Oct. 20, 2000. The company's common stock was issued to its bondholders and certain other creditors.

**TOWER AIR INC.**

**Betsy R. Snyder, CFA,**  
New York (1) 212-438-7811

Standard & Poor's lowered the corporate credit rating on Tower Air Inc. to 'D' from 'CCC+' on Feb. 29, 2000, when the company filed for Chapter 11 bankruptcy protection. The company had no rated debt outstanding at the time.

Tower Air had a weak financial profile for years, posting losses since 1996 (with the exception of 1998, when it earned only \$1.5 million). Tower was adversely affected by increased fuel prices, added competition and inability to gain access to capital.

Tower Air, based at New York's John F. Kennedy International Airport, provided scheduled and charter passenger service to leisure travelers and charter service to the U.S. military. It also ran a small cargo operation and was the second-largest provider of service between New York and Tel Aviv (after El Al Israel Airline). The company, which ceased all scheduled flight operations beginning May 1, 2000, is now running only charter services.

**TRANSTEL S.A.**

**Manuel Guarena,**  
Mexico City (52) 5-279-2011

- \$150 million 12.5% senior notes due Dec. 31, 2007

On Dec. 4, 2000, Standard & Poor's lowered the corporate credit rating and senior secured debt rating on Transtel to 'D' from 'CCC+'. Standard & Poor's had already lowered Transtel's ratings to 'CCC+' from 'B' in June 2000, at the same time changing the outlook to negative from stable. The downgrade to 'D' reflected the company's announcement that it would not make the Nov. 1 coupon payment on its 12.5% senior notes due 2007, for which it has a 30-day grace period at the cost of a penalty interest. Since then, Transtel has been in contact with its noteholders, exploring possible alternatives to the accelerated payment of the notes.

Based in Cali, Colombia, Transtel is the largest private telephone company in that country. It owns and operates local service systems serving eight cities in the country's southwest, with an aggregate population of approximately 3.1 million people.

Transtel issued the notes in October 1997, and used the proceeds to repay debt, to finance capital expenditures, and to fund a two-year escrow account for the notes' interest payment. While these notes highly leveraged the company, substantial vendor financing allocated at a related-entity level further pressured its working capital and liquidity management. In spite of the fact that some of its operative and financial ratios were adequate, Transtel's performance had been adversely impacted mainly by the poor quality of its receivables, consequence of the severe economic downturn of the Colombian economy in the last few years, which has hit the Cali region even harder.

**UNIFORET INC.**

**Donald Marleau,**  
Toronto (1) 416-202-6018

- \$125 million 11.125% notes due Oct. 15, 2006

Standard & Poor's lowered the corporate credit and senior secured debt ratings on Uniforet Inc. to 'D' from 'CC' after it failed to make the April 15, 2000, interest payment on its senior notes. The ratings were removed from CreditWatch, where they had been placed with negative implications on Dec. 22, 1999.

On June 26, 2000, Standard & Poor's raised the corporate credit rating on Uniforet and its senior secured rating on the company's US\$125 million 11.125% notes due 2006 to 'CCC-' from 'D'. After a repurchase, there is US\$60.4 million of notes currently outstanding. At the same time, the ratings were placed on CreditWatch with negative implications.

As part of the restructuring, Uniforet, a small Montreal, Que.-based pulp, paper, and lumber producer, received waivers from remaining bondholders

that rescind acceleration of the notes. As such, bondholders may not seek to enforce their security as a result of the April 15 default.

The company has suffered severe operational difficulties since its inception in 1996, as evidenced by the shutdown of its Tripap uncoated paper mill and subsequent C\$80.2 million write-down of the asset. Uniforet's pulp operations currently generate a small amount of EBITDA thanks to strong global prices, but the company will likely require long-term marketing arrangements to sell its output in a downturn. Until Uniforet demonstrates the capacity to sell its pulp output—most of which had been consumed by the Tripap mill—it will continue to face serious cash flow problems that will continue to constrain cash flow generation and may jeopardize further debt service payments.

**UNITED ARTISTS THEATRE  
CIRCUIT INC.**

**Steve Wilkinson,**  
New York (1) 212-438-5093

- \$125 million 11.5% senior notes series A due May 1, 2002
- \$225 million 9.75% senior subordinated notes due April 15, 2008
- \$50 million 10.415% floating rate senior subordinated notes due Oct. 15, 2007
- \$100 million tranche A term bank loan due Dec. 31, 2005
- \$100 million tranche B term bank loan due Dec. 31, 2005
- \$150 million tranche C term bank loan due Dec. 31, 2006
- \$100 million revolving credit facility bank loan due Dec. 31, 2007

On April 17, 2000, the corporate credit ratings on United Artists Theater Co. (UAC) and United Artists Theater Circuit Inc. (UATC) were lowered to 'D' from 'CCC'. Additionally, the bank loan ratings on UATC were lowered to 'D' from 'CCC' and the subordinated debt ratings were lowered to 'D' from 'CC'. At the same time, all ratings were removed from CreditWatch with negative implications.

The downgrades reflect the failure to meet the scheduled interest payment on April 15, 2000, and its public statement that it had initiated discussions with its senior lenders to develop a plan to restructure the company. On Sept. 5, 2000, both UAC and UATC formally filed for Chapter 11 protection under a pre-arranged Plan of Reorganization that was developed in conjunction with major creditors. Prior to filing, the company's performance had deteriorated significantly and its credit measures were poor in relation to its peers in this troubled industry due to high debt and an older theater circuit that decayed more quickly than other more modern circuits. The company remains in Chapter 11 where it continues to reorganize its business.

#### VISTA EYECARE INC.

**Patrick Jeffrey,**

*New York (1) 212-438-7840*

- \$125 million 12.75% senior unsecured notes due Oct. 15, 2005
- \$25 million revolving credit facility bank loan due Dec. 31, 2001

Standard & Poor's lowered the corporate credit, senior unsecured debt, and bank loan ratings on Vista Eyecare Inc. to 'D' from 'CC' following the company's announcement on April 5, 2000, that it had filed for protection under Chapter 11 of the U.S. Bankruptcy Code. Vista's bankruptcy filing resulted from marginal liquidity and cash flow coverage in light of the company's required April 15, 2000, semiannual interest payment on its \$125 million 12.75% senior unsecured notes due 2005.

Vista experienced integration difficulties and lower-than-expected sales in the Framen-Lens and NewWest Eyeworks operations, which it acquired in 1998. These resulted in reduced earnings before interest, taxes, depreciation, and amortization levels and higher working capital requirements, all of which put pressure on the company's cash flow coverage and liquidity.

#### WHEELING-PITTSBURG CORP.

**Michael Gorelick,**

*New York (1) 212-438-7894*

- \$250 million 9.25% senior notes due Nov. 15, 2007

On Nov. 15, 2000, Wheeling-Pittsburgh Corp. (WPC) missed an interest payment on its \$250 million senior notes. The following day, the company announced that it would seek protection from its creditors under Chapter 11 of the U.S. Bankruptcy Code, and Standard & Poor's lowered the ratings on the company to 'D' from 'CCC-'. The ratings were removed from CreditWatch with negative implications. The ratings had been lowered from 'B+' on Sept. 18, 2000, and placed on CreditWatch following the announcement by 100% shareholder WHX Corp., that it would seek the consent of its noteholders to modify certain provisions within its own debt obligations in order to provide additional flexibility to deal with the deteriorating financial condition of WPC. The downgrade to 'CCC-', then, reflected Standard & Poor's assessment that WPC would no longer count on significant support from WHX.

WPC's default came as prices for steel in the U.S. market fell to historically low levels, even as energy prices soared to record highs and domestic steel consumption began to show signs of weakening. Contributing to this decline in prices were near-record levels of imported steel (supported by the strong U.S. dollar), and overcapacity in the U.S. market. Particularly hard hit was the commodity, low value-added hot rolled steel, which represented an important part of the product mix sold by WPC. Additionally, as the company sold a large percent of its production in the spot market, in contrast to certain competitors that sell a much higher percentage of production under long-term fixed price contracts, WPC was highly exposed to this downturn. All of these factors came together early in the second half of 2000, just a few months after the steel market began to recover from the previous

import crisis that hit the group in 1998 and 1999, following the ripple effects of the Asian economic crisis. Thus, as this second round of difficulties began to take hold, many U.S. steel companies, including WPC, had not yet begun to restore their balance sheets and were particularly ill equipped to withstand a second round of crisis conditions. As a result of this combination of factors, WPC's cash flow contracted sharply, and the company was ultimately unable to fund its working capital requirements or service its debt.

The company remains in Chapter 11, operating with \$290 million in debtor-in-possession financing provided by Citibank.

#### WORLDTEX INC.


**Jayne M. Ross,**

*New York (1) 212-438-7857*

- \$175 million 9.625% senior notes due Dec. 15, 2007

On Dec. 15, 2000, the rating for Worldtex Inc.'s debt was lowered to 'D' and removed from CreditWatch with developing implications, following the firm's announcement that it did not make the \$8.4 million interest payment due Dec. 15, 2000, on its 9.625% senior notes. The company is in discussions with an unofficial committee of creditors, which represents about two-thirds of the principal amount of the senior notes, regarding a potential restructuring.

Prior to the company's announcement that it would miss the Dec. 15 interest payment, revenues and margins had declined due to reduced demand for covered yarns, an unfavorable change in product mix, price increases for petroleum-based raw materials and the weak Euro. The company had hired an investment banker to review strategic alternatives for Worldtex.

Worldtex is a manufacturer and marketer of covered elastic yarn and narrow elastic fabric in the Americas and Europe. Worldtex supplies a broad range of component products to the apparel, textile, home furnishings, and specialty end-use markets. 

# Tough Times for U.S. Industrial Credit Spreads

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**A**cross the rating spectrum U.S. industrial credit spreads widened to levels not seen in a decade. Continued deterioration in credit quality, increasing defaults, and reduced bond liquidity due to bank mergers, contributed to the ever widening credit spread levels during 2000.

Following the surprise 50 basis point (bp) Fed rate cut in early January 2001, both investment grade and speculative grade spreads have tightened, although they both remain at historical highs. Part of the rally too, can be attributed to Fed funds futures discounting an additional 50 bp cut on Jan. 31. If that happens, investment grade and speculative grade spreads may pull in a bit more, although Standard & Poor's expects speculative grade spreads to remain at wide levels. On the other hand, the market may react badly to only a 25 bp cut. Standard & Poor's expects the Fed funds rate to be reduced to 5% by summer.

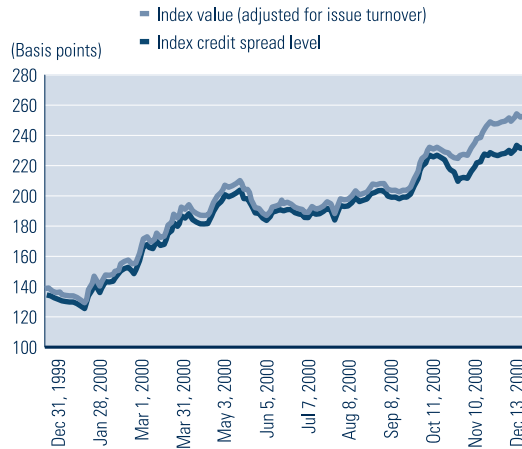
As of Dec. 29, 2000, investment grade credit spreads widened 115 bps from year-end 1999, as measured by the S&P U.S. Industrial Investment Grade Credit Index (S&P IG) (see charts 1 and 2). Speculative grade credit spreads almost doubled, widening 527 bps from year-end 1999, as measured by the S&P U.S. Industrial Speculative Grade Credit Index (S&P SG). Half of the movement alone was in the fourth quarter.

Managing exposures to credit spreads was complicated further during 2000 by the significant decrease in correlation between investment grade credit spreads and 10-year swap spreads, which many believe to be a proxy for corporate credit spreads (see tables 3 and 4). The S&P IG tracked 10-year swap spreads with a correlation of 0.49 during 2000, compared with 0.79 since the end of 1998. When measuring a 90-day rolling correlation between the S&P IG and 10 year swap spreads over the past two years, the correlation has ranged from a low of negative 0.7 in the period ending in December 2000, and a high of 0.98 in April 2000. A swap spread is the difference between the swap rate and a comparable-maturity U.S. Treasury security. Swap rates are the fixed rate of interest the market is willing to pay in exchange for receiving a floating rate such as LIBOR for the same period of time.

Most companies found themselves paying higher-than-anticipated coupons to sell their bonds due to a systematic increase in credit spread levels over the U.S. Treasury yield curve. Many deals in the speculative grade market—such as Friede Goldman Halter Inc., Main-Stream PCS Holdings LLC, Levi Strauss & Co., Linc.net, PH Casino Resorts Inc., Sonic Automotive Inc., and Radiologix Inc.—were indefinitely postponed in 2000, due to poor market conditions. As

Chart 1

**S&P Investment Grade Index**

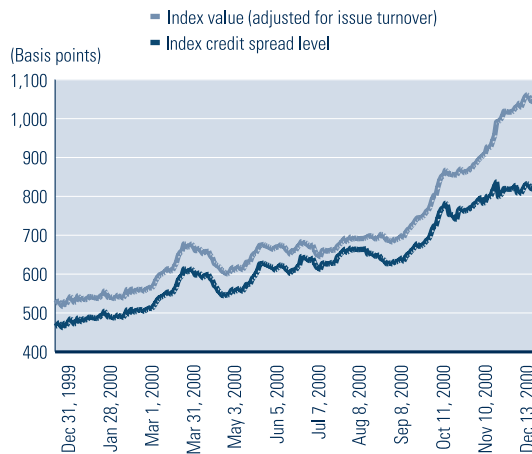


a result, high yield new issuance fell almost 50% to \$54 billion in 2000, and the number of deals fell 60% to 163. Investment grade issuance fell 3% to \$239 billion in 2000, while the number of deals fell 28%. Volume numbers in the investment grade rating spectrum were boosted by larger more liquid deals in the market.

The credit spread level for the S&P IG as of Dec. 29, 2000, was 232 bps above the U.S. Treasury yield curve and the credit spread level for the S&P SG was 823 bps over the U.S. Treasury yield curve (*see sidebar, "Interpreting S&P Credit Indices" for a full explanation of index values versus credit spread levels*). This compares to credit spread levels for the S&P IG and S&P SG of 134 and 467 bps above the U.S. Treasury yield curve, respectively, at the end of 1999.

Chart 2

**S&P Speculative Grade Index**



Source: S&P Credit Indices. Please refer to sidebar, "Interpreting S&P Credit Indices" for a full explanation of index values.

The overall weakening of credit spreads during 2000 was not restricted to a few negative trading days. For instance, there were 107 trading days where the S&P IG tightened during 2000 versus 142 days where the index widened. In contrast, during 1999, the S&P IG experienced tightening on 130 days versus 120 days of widening. Momentum within the S&P SG was similar during 2000, with tightening days of 97 outnumbered by widening days of 153, compared with 1999, when tightening days of 128 outnumbered widening days of 122.

Broad-based weakness in U.S. industrial credit spreads is also confirmed by the credit spread trends of the underlying bond issues in each of the S&P Credit Indices. There were only three months during 1999 when winners beat losers in the S&P IG, or the majority of issues experienced a month-on-month tightening: June, July, and September (*see charts 3 and 4*). The S&P SG experienced only two months during 2000, where winners beat losers: April and July. In contrast, during 1999, there were seven months in which winners beat losers in the S&P IG and there were five months where winners beat losers in the S&P SG.

Table 1

**Significant Credit Spread Changes-2000****S&P Investment Grade Index**

Issuer	Coupon	Maturity	Issue rating*	Spread change (bps)
Xerox Corp. ¶	5.5	3/15/2003	BBB-	+ 2,251
J.C. Penney Co. Inc.	7.6	4/1/2007	BBB-	+ 1,105
Dillard's Inc. ¶	7.375	6/1/2006	BBB-	+ 684
Crown Cork & Seal Co. Inc.	7.375	12/15/2026	BB	+ 551
Dana Corp.	7	3/15/2028	BBB+	+ 400

\*Rating as of Dec. 29, 2000. ¶ Issue was not included for the full year of 2000. bps-Basis points. Note: Source: S&P Credit Indices. Significant credit spread changes are defined as issues experiencing a credit spread tightening/widening between the end of 1999 and the end of 2000, to a lesser/greater extent than the average issue change +/- one standard deviation. There were no issues with significant spread tightening during 2000.

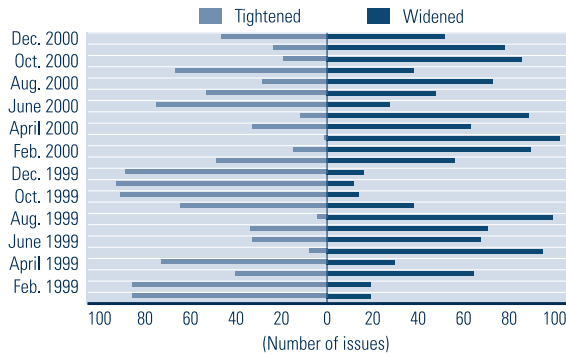
Table 2

**Significant Credit Spread Changes-2000****S&P Speculative Grade Index**

Issuer	Coupon	Maturity	Issue rating*	Spread change (bps)
Globalstar L.P. ¶	11.375	2/15/2004	CCC	+ 6,272
Teligent Inc. ¶	11.5	12/1/2007	CCC	+ 5,068
PSINet Inc. ¶	10	2/15/2005	CCC	+ 4,682
Chiquita Brands International Inc.	9.625	1/15/2004	CCC+	+ 4,364
LTV Corp. ¶	8.2	9/15/2007	D	+ 4,165
Loews Cineplex Entertainment Corp. ¶	8.875	8/1/2008	CC	+ 3,693
Budget Group Inc. ¶	9.125	4/1/2006	B+	+ 3,165
Avado Brands, Inc.	9.75	6/1/2006	CCC+	+ 2,881
Drypers Corp. ¶	10.25	6/15/2007	D	+ 2,068
Sheffield Steel Corp. ¶	11.5	12/1/2005	B-	+ 1,896
Bethlehem Steel Corp.	10.375	9/1/2003	B+	+ 1,869
Rite Aid Corp. ¶	7.125	1/15/2007	B-	+ 1,635
WHX Corp.	10.5	4/15/2005	B-	+ 1,768
Polaroid Corp.	11.5	2/15/2006	B+	+ 1,666

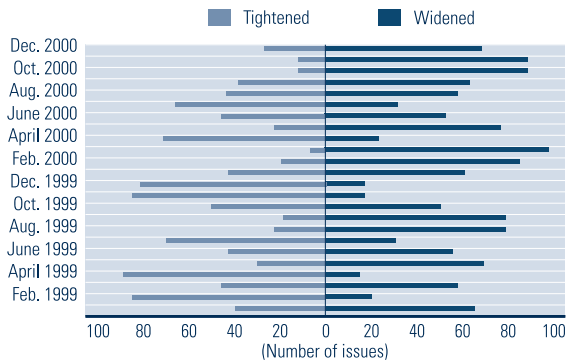
\*Rating as of Dec. 29, 2000. ¶ Issue was not included for the full year of 2000. bps-Basis points. Note: Source: S&P Credit Indices. Significant credit spread changes are defined as issues experiencing a credit spread tightening/widening between the end of 1999 and the end of 2000, to a lesser/greater extent than the average issue change +/- one standard deviation. There were no issues with significant spread tightening during 2000.

Chart 3  
S&P Investment Grade Credit Index



Winners/losers are defined as the number of index issues experiencing a month-on-month credit spread tightening/widening.  
Source: S&P Credit Indices.

Chart 4  
S&P Speculative Grade Credit Index



Winners/losers are defined as the number of index issues experiencing a month-on-month credit spread tightening/widening.  
Source: S&P Credit Indices.

In addition, at the end of 2000, 28 bonds of the 99 bonds included in the S&P SG traded at credit spreads of over 1,000 bps above the U.S. Treasury curve (see table 5). This compares with 11 bonds that traded at spreads in excess of 1,000 bps at the end of 1999.

By rating category, credit spreads widened across the complete spectrum (see chart 5). For instance, at the end of 2000, in the S&P IG, 'AA' issues were trading 143 bps over the U.S. Treasury curve, 41 bps wider than levels from the previous year; 'A' issues were trading 195 bps over the U.S. Treasury curve, 70 bps wider than the previous year; and 'BBB' issues were trading at 298 bps over the U.S. Treasury curve, 138 bps wider than the previous year.

The speculative-grade rating categories experienced even more dramatic widening with credit spread levels at the end of 2000 at 540 bps for 'BB' issues, 824 bps for 'B' issues, and 1,999 bps for 'CCC' issues. That is a widening of 259 bps, 366 bps, and 877 bps, respectively, from levels at the end of 1999.

At the same time, the credit spread gap between 'AA' and 'BBB' credit spreads widened to 155 bps from 58 bps at the end of 1999 (see chart 5). The gap between 'BB' and 'CCC' credit spreads has widened to 1,459 bps from 841 bps since the end of 1999.

Table 5 is a list of the 198 issues included in both the combined S&P IG and S&P SG indices. The issues are broken down by rating category and are listed with their individual option adjusted credit spread to the U.S. Treasury yield curve as well as the credit spread to their respective rating category.

Tables 1 and 2 list the bonds within the S&P IG and S&P SG that experienced a significant credit spread move during the course of 2000. Significant credit spread changes are defined as issues experiencing a credit spread tightening or widening from the end of 1999, to a lesser or greater extent than the average issue spread change of a bonds in the indices +/- one standard deviation. To eliminate survivor bias, the universe

Table 3

<b>Correlation Matrix-2000</b>							
	<b>IG</b>	<b>SG</b>	<b>Swap5</b>	<b>Swap10</b>	<b>Treasury5</b>	<b>Treasury10</b>	<b>S&amp;P500*</b>
IG	1.00	0.91	0.81	0.49	-0.83	-0.88	0.32
SG		1.00	0.58	0.14	-0.94	-0.91	0.49
Swap5			1.00	0.79	-0.52	-0.63	0.03
Swap10				1.00	-0.08	-0.31	-0.34
Treasury5					1.00	0.96	-0.39
Treasury10						1.00	-0.24
S&P500							1.00

IG—Investment grade. SG—Speculative grade. Swap5—5-year swap spread. Swap10—10-year swap spread. Treasury5—5-year Treasury rate. Treasury10—10-year Treasury rate. S&P500—S&P 500 Index. Source: S&P Credit Indices, Bloomberg. \*An increase in the S&P 500 reflects an increase in the value of underlying assets, whereas an increase in the S&P Credit Indices, Treasury rates, or swap spreads reflects a decrease in the value of underlying assets. As a result, a negative sign is added to the correlation of the S&P 500 versus either the S&P Credit Indices, Treasury rates, or swap spreads to account for this inverse relationship.

Table 4

<b>Correlation Matrix-Since Dec. 31, 1998</b>							
	<b>IG</b>	<b>SG</b>	<b>Swap5</b>	<b>Swap10</b>	<b>Treasury5</b>	<b>Treasury10</b>	<b>S&amp;P500*</b>
IG	1.00	0.95	0.88	0.79	0.17	0.04	-0.40
SG		1.00	0.75	0.61	0.08	-0.01	-0.31
Swap5			1.00	0.92	0.34	0.21	-0.49
Swap10				1.00	0.51	0.34	-0.62
Treasury5					1.00	0.97	-0.69
Treasury10						1.00	-0.58
S&P500							1.00

IG—Investment grade. SG—Speculative grade. Swap5—5-year swap spread. Swap10—10-year swap spread. Treasury5—5-year Treasury rate. Treasury10—10-year Treasury rate. S&P500—S&P 500 Index. Source: S&P Credit Indices, Bloomberg. \*An increase in the S&P 500 reflects an increase in the value of underlying assets, whereas an increase in the S&P Credit Indices, Treasury rates, or swap spreads reflects a decrease in the value of underlying assets. As a result, a negative sign is added to the correlation of the S&P 500 versus either the S&P Credit Indices, Treasury rates, or swap spreads to account for this inverse relationship.

## Interpreting S&P Credit Indices

S&P Credit Indices measure changes in credit spread levels within the U.S. industrial sector. The daily S&P Credit Indices values are equal to the absolute level of credit spreads above the U.S. Treasury yield curve for a portfolio of 99 U.S. industrial securities divided by an index divisor that adjusts for issue turnover within the indices. The divisor for both investment grade and speculative grade indices equaled one (1) on Dec. 31, 1998.

For instance, on Dec. 29, 2000, the S&P U.S. Industrial Investment Grade Index (S&P IG) closed at 253. However, on that day, the absolute credit spread for the S&P IG was 231.8 basis points (bps) above the U.S. Treasury yield curve and the index divisor was 0.9160596 ( $253 = 231.8/0.916059$ ). The daily divisor values are published on our Web site ([www.spglobal.com](http://www.spglobal.com)) and only change when bonds are added and deleted from one of the S&P Credit Indices.

Standard & Poor's utilizes a divisor for the S&P Credit Indices in order to remove the effect of issue turnover. For example, on Oct. 30, 2000, Globalstar L.P. 11.375s of Feb. 2004—trading at a credit spread of approximately 8,000 bps above the U.S. Treasury yield curve—was removed from the S&P SG and replaced with Sterling Chemicals Inc. 11.25s of April 2007—trading at a credit spread of approximately 2,000 bps above the U.S. Treasury yield curve. The new portfolio of 99 bonds (including the Sterling Chemicals Inc. issue) was trading at a lower absolute credit spread level on Oct. 30, 2000, than the portfolio on the previous day (including the Globalstar L.P. issue) by 9.1 bps.

However, overall credit spreads widened 1.1 bps during that period. The index divisor removed the effect of replacing the Globalstar L.P. issue with the Sterling Chemicals Inc. issue and the index value widened 1.1 bps on that day.

Option adjusted spreads (OAS) are used as a proxy for nominal credit spreads in order to adjust for the presence of embedded options. Standard & Poor's utilizes the proprietary option adjusted spread model developed by Andrew Kalotay Associates Inc. A nine points U.S. Treasury yield curve is used for all OAS calculations and Standard & Poor's uses an assumed volatility of short-term interest rates of 12%.

In addition, the S&P IG is best compared with the 10-year on-the-run U.S. Treasury issue and the S&P SG is best compared with the five-year on-the-run U.S. Treasury issue. The S&P Credit Indices methodology dictates that the duration of the S&P IG track the duration of the 10-year on-the-run U.S. Treasury issue (+/- one year) and that the duration of the S&P SG track the duration of the five-year on-the-run U.S. Treasury issue (+/- one year).

The 99 issues included in each of the S&P Credit Indices are some of the most liquid issues outstanding in the U.S. industrial sector. Standard & Poor's utilizes bond pricing data from multiple broker-dealers to ascertain liquidity levels as well as price the bonds and indices at the end of each day.

For detailed information regarding the S&P Credit Indices, including historical daily index values, index composition, and methodology please visit our Web site: [www.spglobal.com](http://www.spglobal.com) or call us at (1) 877-779-7724. ■

of bonds that are considered in this analysis include both the 99 bonds included in each index at the end of 2000, as well as the bonds that were included during the course of the year but that have since been removed from either index (a total of 129 bonds in the investment grade index and 151 bonds in the speculative grade index are considered). During 2000, there were no issues in either index that experienced a significant credit spread tightening.

On Dec. 29, 2000, 34% of the 99 bonds in the investment grade credit index had either a negative rating outlook or CreditWatch listing with negative implications compared with 26% at the end of 1999.

At the end of 2000, 29% of the 99 bonds in the speculative grade index had a negative rating outlook or a CreditWatch listing with negative implications compared with 31% at the end of 1999. Standard & Poor's rating outlook focuses on intermediate to longer term rating considerations—one to three years—that indicates the direction of credit quality.


For detailed information regarding the S&P Credit Indices, including historical daily index values, index composition, and methodology please visit our Web site: [www.spglobal.com](http://www.spglobal.com). For information regarding index licensing opportunities or subscription services please call (1) 877 779-7724. 

Table 5

## Relative Value Table

Investment Grade Index						12/29/2000					Investment Grade Index						12/29/2000							
Issuer	Coupon	Maturity	Issue rating	Issue OAS	Issue OAS vs. rating	Issuer	Coupon	Maturity	Issue rating	Issue OAS	Issue OAS vs. rating	Issuer	Coupon	Maturity	Issue rating	Issue OAS	Issue OAS vs. rating	Issuer	Coupon	Maturity	Issue rating	Issue OAS	Issue OAS vs. rating	
Abbott Laboratories Inc.	5.6	10/1/2003	AAA	73	N.A.	Ford Motor Co.	6.375	2/1/2029	A	253	58	Fort James Corp.	6.875	9/15/2007	BBB-	390	92	Fortune Brands Inc.	6.25	4/1/2008	A	203	7	
AirTouch Communications Inc.	6.35	6/1/2005	A	175	-21	Gap Inc. (The)	6.9	9/15/2007	A	244	48	General Motors Corp.	6.75	5/1/2028	A	238	43	Georgia-Pacific Corp.	7.25	6/1/2028	BBB-	447	149	
Alcoa Inc.	7.375	8/1/2010	A+	155	-41	Goodyear Tire & Rubber Co. (The)	8.125	3/15/2003	BBB	434	136	Heinz (H.J.) Co.	6.375	7/15/2028	A+	175	-20	Hertz Corp.	6.25	3/15/2009	A-	206	11	
American Home Products Corp.	7.9	2/15/2005	A	113	-82	Hewlett-Packard Co.	7.15	6/15/2005	AA-	128	-15	Hilton Hotels Corp.	7.2	12/15/2009	BBB-	291	-7	Honeywell International Inc.	7.5	3/1/2010	A	121	-75	
Anheuser-Busch Cos. Inc.	7.1	6/15/2007	A+	80	-115	Illinois Tool Works Inc.	5.75	3/1/2009	AA-	128	-15	Ingersoll-Rand Co.	9	8/15/2021	A-	233	38	International Business Machines Corp.	5.375	2/1/2009	A+	138	-57	
Archer Daniels Midland Co.	8.375	4/15/2017	A+	232	37	International Paper Co.	6.875	11/1/2023	BBB+	262	-36	J.C. Penney Co. Inc.	7.6	4/1/2007	BBB-	1,338	1039	Kerr-McGee Corp.	6.625	10/15/2007	BBB	163	-135	
Atlantic Richfield Co.	5.9	4/15/2009	AA+	127	-16	J.C. Penney Co. Inc.	7.6	4/1/2007	BBB-	1,338	1039	Kimberly-Clark Corp.	6.25	7/15/2018	AA	164	21	Kimberly-Clark Corp.	6.25	7/15/2018	AA	164	21	
Bristol-Myers Squibb Co.	6.8	11/15/2026	AAA	127	N.A.	Kerr-McGee Corp.	6.625	10/15/2007	BBB	163	-135	Lilly (Eli) & Co.	7.125	6/1/2025	AA	149	6	Lilly (Eli) & Co.	7.125	6/1/2025	AA	149	6	
Burlington Northern Santa Fe Corp.	6.375	12/15/2005	BBB+	137	-161	Kimberly-Clark Corp.	6.25	7/15/2018	AA	164	21	Limited Inc. (The)	7.5	3/15/2023	BBB+	417	119	Limited Inc. (The)	7.5	3/15/2023	BBB+	417	119	
Campbell Soup Co.	6.9	10/15/2006	A+	132	-63	Lilly (Eli) & Co.	7.125	6/1/2025	AA	149	6	Lockheed Martin Corp.	8.2	12/1/2009	BBB-	155	-143	Lockheed Martin Corp.	8.2	12/1/2009	BBB-	155	-143	
Caterpillar Inc.	8	2/15/2023	A+	214	19	Limited Inc. (The)	7.5	3/15/2023	BBB+	417	119	Loews Corp.	7	10/15/2023	AA-	271	128	Loews Corp.	7	10/15/2023	AA-	271	128	
CBS Corp.	6.875	9/1/2003	BBB+	130	-168	Lockheed Martin Corp.	8.2	12/1/2009	BBB-	155	-143	Lucent Technologies Inc.	6.45	3/15/2029	BBB+	467	169	Lucent Technologies Inc.	6.45	3/15/2029	BBB+	467	169	
Cendant Corp.	7.75	12/1/2003	BBB	328	30	Loews Corp.	7	10/15/2023	AA-	271	128	Masco Corp.	7.125	8/15/2013	BBB+	245	-53	Masco Corp.	7.125	8/15/2013	BBB+	245	-53	
Centex Corp.	8.75	3/1/2007	BBB-	320	21	Lucent Technologies Inc.	6.45	3/15/2029	BBB+	467	169	May Department Stores Co.	6.7	9/15/2028	A+	265	70	May Department Stores Co.	6.7	9/15/2028	A+	265	70	
Clear Channel Communications Inc.	7.875	6/15/2005	BBB-	172	-127	Masco Corp.	7.125	8/15/2013	BBB+	245	-53	Maytag Corp.	9.75	5/15/2002	A-	114	-81	Maytag Corp.	9.75	5/15/2002	A-	114	-81	
Coca-Cola Enterprises Inc.	6.95	11/15/2026	A	179	-17	May Department Stores Co.	6.7	9/15/2028	A+	265	70	McDonnell Douglas Corp.	9.75	4/1/2012	AA-	150	6	McDonnell Douglas Corp.	9.75	4/1/2012	AA-	150	6	
Comcast Cable Communications Inc.	7.625	1/2/2008	BBB	182	-117	Maytag Corp.	9.75	5/15/2002	A-	114	-81	Merck & Co. Inc.	6.4	3/1/2028	AAA	122	N.A.	Merck & Co. Inc.	6.4	3/1/2028	AAA	122	N.A.	
ConAgra Foods Inc.	5.5	10/15/2002	BBB+	83	-215	McDonnell Douglas Corp.	9.75	4/1/2012	AA-	150	6	Mobil Corp.	8.625	8/15/2021	AAA	168	N.A.	Mobil Corp.	8.625	8/15/2021	AAA	168	N.A.	
Conoco Inc.	6.95	4/15/2029	A-	171	-25	Merck & Co. Inc.	6.4	3/1/2028	AAA	122	N.A.	Nabisco Inc.	6.85	6/15/2005	A	205	10	Nabisco Inc.	6.85	6/15/2005	A	205	10	
Consolidated Rail Corp.	9.75	6/15/2020	BBB	275	-24	Mobil Corp.	8.625	8/15/2021	AAA	168	N.A.	Neiman Marcus Group Inc. (The)	7.125	6/1/2028	BBB	327	29	Neiman Marcus Group Inc. (The)	7.125	6/1/2028	BBB	327	29	
Continental Cablevision Inc.	8.3	5/15/2006	A	176	-19	Nabisco Inc.	6.85	6/15/2005	A	205	10	News America Inc.	7.125	4/8/2028	BBB-	301	2	News America Inc.	7.125	4/8/2028	BBB-	301	2	
Cooper Tire & Rubber Co.	7.625	3/15/2027	BBB+	513	215	Neiman Marcus Group Inc. (The)	7.125	6/1/2028	BBB	327	29	Norfolk Southern Corp.	7.7	5/15/2017	BBB	226	-72	Norfolk Southern Corp.	7.7	5/15/2017	BBB	226	-72	
Corning Inc.	6.85	3/1/2029	A	247	52	News America Inc.	7.125	4/8/2028	BBB-	301	2	Occidental Petroleum Corp.	7.2	4/1/2028	BBB-	225	-73	Occidental Petroleum Corp.	7.2	4/1/2028	BBB-	225	-73	
Cox Communications Inc.	6.875	6/15/2005	BBB	168	-131	Norfolk Southern Corp.	7.7	5/15/2017	BBB	226	-72	Olsten Corp.	7	3/15/2006	BBB+	227	-71	Olsten Corp.	7	3/15/2006	BBB+	227	-71	
CSX Corp.	6.25	10/15/2008	BBB	181	-117	Occidental Petroleum Corp.	7.2	4/1/2028	BBB-	225	-73													
Cummins Engine Co. Inc.	7.125	3/1/2028	BBB+	492	193	Olsten Corp.	7	3/15/2006	BBB+	227	-71													
Dana Corp.	7	3/15/2028	BBB+	562	264																			
Deere & Co.	6.55	10/1/2028	A+	205	10																			
Dell Computer Corp.	7.1	4/15/2028	BBB+	252	-46																			
Delta Air Lines Inc.	9.25	3/15/2022	BBB-	426	128																			
Dillard's Inc.	7.375	6/1/2006	BBB-	847	549																			
Dow Chemical Co. (The)	7.375	11/1/2029	A	182	-14																			
DuPont (E.I.) De Nemours & Co.	6.875	10/15/2009	AA-	126	-18																			
Electronic Data Systems Corp.	7.125	10/15/2009	A+	132	-64																			
Emerson Co.	5	10/15/2008	AA-	107	-36																			
Federated Department Stores Inc.	8.5	6/15/2003	BBB+	209	-90																			

Table 5

**Relative Value Table (continued)**

<b>Investment Grade Index</b>						<b>Speculative Grade Index</b>					
<b>Issuer</b>	<b>Coupon</b>	<b>Maturity</b>	<b>12/29/2000</b>			<b>Issuer</b>	<b>Coupon</b>	<b>Maturity</b>	<b>12/29/2000</b>		
			<b>Issue rating</b>	<b>Issue OAS</b>	<b>Issue OAS vs. rating</b>				<b>Issue rating</b>	<b>Issue OAS</b>	<b>Issue OAS vs. rating</b>
Phillips Petroleum Co.	7.125	3/15/2028	BBB	254	-45	Apple Computer Inc.	6.5	2/15/2004	BB	469	-72
Pitney Bowes Inc.	5.95	2/1/2005	AA	97	-46	ARMCO Inc.	9	9/15/2007	BB	532	-9
Praxair Inc.	6.15	4/15/2003	BBB+	127	-172	Avado Brands Inc.	9.75	6/1/2006	CCC+	3,761	1,762
Procter & Gamble Co.	6.875	9/15/2009	AA	105	-38	Aztar Corp.	8.875	5/15/2007	B+	458	-366
Ralston Purina Co.	7.875	6/15/2025	BBB+	246	-52	Belco Oil & Gas Corp.	8.875	9/15/2007	B	488	-336
Raytheon Co.	6.75	8/15/2007	BBB-	166	-132	Bethlehem Steel Corp.	10.375	9/1/2003	B+	2,230	1,407
Rockwell International Corp.	6.15	1/15/2008	A+	144	-51	Borden Inc.	7.875	2/15/2023	BB+	779	239
Rohm & Haas Co.	7.85	7/15/2029	A-	232	36	Boyd Gaming Corp.	9.5	7/15/2007	B+	667	-156
Safeway Inc.	6.5	11/15/2008	BBB	158	-140	Budget Group Inc.	9.125	4/1/2006	B+	4,270	3,446
Sears Roebuck & Co.	9.375	11/1/2011	A-	245	50	Caremark Rx Inc.	7.375	10/1/2006	B	497	-327
Target Corp.	7.5	2/15/2005	A	117	-78	Century Communications Corp.	9.75	2/15/2002	B+	537	-287
TCl Communications Inc.	8	8/1/2005	A	194	-2	Chancellor Media Corp. of Los Angeles	8.125	12/15/2007	BB+	263	-277
Time Warner Entertainment Co. L.P.	9.625	5/1/2002	BBB	109	-190	Charter Communications Holdings LLC	8.625	4/1/2009	B+	497	-327
Time Warner Inc.	6.625	5/15/2029	BBB	201	-97	Chattem Inc.	8.875	4/1/2008	B-	1,012	188
Times Mirror Co.	6.61	9/15/2027	A	182	-13	Chesapeake Energy Corp.	9.625	5/1/2005	B	339	-485
Union Carbide Corp.	7.5	6/1/2025	BBB	225	-73	Chiquita Brands International Inc.	9.625	1/15/2004	CCC+	5,607	3,608
Union Oil Co. of California	7.5	2/15/2029	BBB+	210	-89	Cole National Group Inc.	8.625	8/15/2007	B	1,149	325
Union Pacific Corp.	6.625	2/1/2008	BBB-	162	-136	Constellation Brands Inc.	8.5	3/1/2009	B+	363	-461
United Technologies Corp.	8.875	11/15/2019	A+	185	-10	Cross Timbers Oil Co.	9.25	4/1/2007	B+	316	-508
USX Corp.	6.85	3/1/2008	BBB	226	-72	CSC Holdings Inc.	7.25	7/15/2008	BB+	297	-243
Valero Energy Corp.	8.375	6/15/2005	BBB-	166	-133	Del Webb Corp.	10.25	2/15/2010	B-	646	-178
Viacom Inc.	7.75	6/1/2005	BBB+	154	-144	Extended Stay America Inc.	9.15	3/15/2008	B-	575	-249
Wal-Mart Stores Inc.	6.875	8/10/2009	AA	105	-39	Finlay Fine Jewelry Corp.	8.375	5/1/2008	B+	515	-309
Walt Disney Co.	6.75	3/30/2006	A	116	-79	Fleming Companies Inc.	10.625	7/31/2007	B	1,401	577
Warner-Lambert Co.	6	1/15/2008	AAA	114	N.A.	Fonda Group Inc. (The)	9.5	3/1/2007	B-	975	151
Westvaco Corp.	7.65	3/15/2027	BBB+	256	-43	Fox Family Worldwide Inc.	9.25	11/1/2007	B	451	-373
Weyerhaeuser Co.	7.25	7/1/2013	A	215	20	Freeport-McMoRan Copper & Gold Inc.	7.2	11/15/2026	CCC+	1,792	-207
<b>Speculative Grade Index</b>						<b>12/29/2000</b>					
<b>Issuer</b>	<b>Coupon</b>	<b>Maturity</b>	<b>12/29/2000</b>			<b>Issuer</b>	<b>Coupon</b>	<b>Maturity</b>	<b>12/29/2000</b>		
			<b>Issue rating</b>	<b>Issue OAS</b>	<b>Issue OAS vs. rating</b>				<b>Issue rating</b>	<b>Issue OAS</b>	<b>Issue OAS vs. rating</b>
Adelphia Communications Corp.	9.875	3/1/2005	B+	652	-172	Friendly Ice Cream Corp.	10.5	12/1/2007	B	1,749	925
Advantica Restaurant Group Inc.	11.25	1/15/2008	CCC+	2,376	377	Frontier Corp.	7.25	5/15/2004	BB	650	110
Allbritton Communications Co.	9.75	11/30/2007	B-	487	-337	Frontier Oil Corp.	11.75	11/15/2009	B+	641	-183
Alliance Gaming Corp.	10	8/1/2007	CCC+	1,237	-762	Gaylord Container Corp.	9.75	6/15/2007	B-	1,446	622
Allied Waste North America Inc.	7.875	1/1/2009	BB-	383	-157	Giant Industries Inc.	9	9/1/2007	B+	616	-208
AMC Entertainment Inc.	9.5	3/15/2009	CCC-	1,493	-506	Great Atlantic & Pacific Tea Co. Inc. (The)	7.75	4/15/2007	BB	1,645	1,105
American Standard Inc.	7.375	2/1/2008	BB+	337	-204	Group 1 Automotive Inc.	10.875	3/1/2009	B	833	9
						Hard Rock Hotel Inc.	9.25	4/1/2005	B-	745	-79
						Harrah's Operating Co. Inc.	7.875	12/15/2005	BB+	315	-225

Table 5

**Relative Value Table (continued)**

Speculative Grade Index						Speculative Grade Index					
Issuer	Coupon	Maturity	12/29/2000			Issuer	Coupon	Maturity	12/29/2000		
			Issue rating	Issue OAS	Issue OAS vs. rating				Issue rating	Issue OAS	Issue OAS vs. rating
HCA- The Healthcare Company	7.25	5/20/2008	BB+	275	-265	PSINet Inc.	10	2/15/2005	CCC	5,246	3,247
Host Marriott L.P.	7.875	8/1/2005	BB	373	-167	Range Resources Corp.	8.75	1/15/2007	B-	468	-356
ICO Inc.	10.375	6/1/2007	B+	649	-175	Revlon Consumer Products Corp.	8.125	2/1/2006	CCC+	1,144	-855
J. Crew Corp.	10.375	10/15/2007	CCC+	800	-1,199	Rite Aid Corp.	7.125	1/15/2007	B-	3,304	2,480
Jefferson Smurfit Corp. (U.S.)	9.75	4/1/2003	B	461	-363	Riverwood International Corp.	10.625	8/1/2007	B-	538	-286
Jordan Industries Inc.	10.375	8/1/2007	B	804	-20	Ryland Group Inc. (The)	8.25	4/1/2008	B+	579	-245
Jorgensen (Earle M.) Co.	9.5	4/1/2005	B-	1,079	255	Samsonite Corp.	10.75	6/15/2008	CCC+	1,378	-621
K. Hovnanian Enterprises Inc.	9.125	5/1/2009	BB-	641	101	Sea Containers Ltd.	7.875	2/15/2008	BB-	1,082	541
Kaufman & Broad Home Corp.	7.75	10/15/2004	BB+	443	-97	Sinclair Broadcast Group Inc.	8.75	12/15/2007	B	551	-273
KinderCare Learning Centers Inc.	9.5	2/15/2009	B-	617	-207	Six Flags Inc.	9.25	4/1/2006	B-	586	-238
L-3 Communications Corp.	8.5	5/15/2008	B+	415	-409	Standard Pacific Corp.	8.5	6/15/2007	BB	490	-50
Level 3 Communications Inc.	9.125	5/1/2008	B	823	-1	Station Casinos Inc.	9.75	4/15/2007	B+	375	-449
Lukens Inc.	7.625	8/1/2004	BB-	1,262	722	Sterling Chemicals Inc.	11.25	4/1/2007	B	2,535	1,711
Lyondell Chemical Co.	9.625	12/31/2007	BB	498	-42	Tenet Healthcare Corp.	8.625	1/15/2007	BB-	260	-280
Mandalay Resort Group	9.25	12/1/2005	BB-	471	-70	Tesoro Petroleum Corp.	9	7/1/2008	BB-	427	-113
Marsh Supermarkets Inc.	8.875	8/1/2007	B+	564	-260	The Premcor Refining Group Inc.	8.625	8/15/2008	BB-	854	313
MGM Mirage	9.75	6/1/2007	BB+	358	-183	Time Warner Telecom Inc.	9.75	7/15/2008	B-	594	-230
Navistar International Corp.	8	2/1/2008	BB+	722	181	Toll Corp.	8.125	2/1/2009	BB+	373	-167
Nextel Communications Inc.	12	11/1/2008	B	543	-281	Tricon Global Restaurants Inc.	7.65	5/15/2008	BB	305	-235
Northwest Airlines Inc.	7.875	3/15/2008	BB	470	-71	Tropical Sportswear International Corp.	11	6/15/2008	B-	814	-10
NTL Communications Corp.	10	2/15/2007	B	790	-33	Unisys Corp.	7.875	4/1/2008	BB+	405	-135
Oakwood Homes Corp.	7.875	3/1/2004	CCC	4,810	2,811	United Refining Co.	10.75	6/15/2007	B-	1,518	694
Ocean Energy Inc.	8.875	7/15/2007	BB+	271	-270	WestPoint Stevens Inc.	7.875	6/15/2008	BB-	968	427
Owens-Illinois Inc.	7.85	5/15/2004	BB	2,071	1,531	WHX Corp.	10.5	4/15/2005	B-	2,211	1,387
Pantry Inc. (The)	10.25	10/15/2007	B	676	-148	Wiser Oil Co. (The)	9.5	5/15/2007	CCC-	918	-1,080
Park Place Entertainment Corp.	7.875	12/15/2005	BB+	321	-219	XO Communications Inc.	9	3/15/2008	B	921	97
Polaroid Corp.	11.5	2/15/2006	B+	2,179	1,356	Young Broadcasting Inc.	8.75	6/15/2007	B	546	-278
Pride International Inc.	9.375	5/1/2007	BB	355	-185						
Protection One Alarm Monitoring Inc.	7.375	8/15/2005	B+	1,396	572						

N.A.—Not available. OAS—Option adjusted spread.  
Source: S&P Credit Indices.

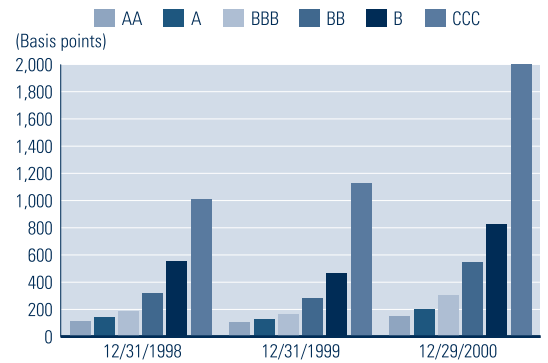
Table 6

Number of Issues in Sub-Index						
Date	AA	A	BBB	BB	B	CCC
12/31/1998	14	40	42	31	60	8
12/31/1999	14	40	41	30	57	12
12/29/2000	12	35	47	33	54	12

Source: S&P Credit Indices.

Chart 5

S&P Credit Indices by Rating Category



See table 6 for number of issues in sub-index for each rating category at year end. 'AAA' sub-index not included due to small number of issues. Source: S&P Credit Indices.

# SPECIAL REPORT

RATINGS PERFORMANCE 2000

## U.S. Bond Market Outlook

Diane Vazza, New York (1) 212-438-2760

**P**ervasive credit quality concerns, coupled with Fed funds rate hikes, wreaked havoc on the U.S. corporate bond market in 2000. Credit spreads widened significantly and the new issue market slowed considerably (see chart 1).

Investment grade spreads began the year at 137 basis points (bps), widening to 200 after the final Fed rate hike midyear, and then closed the year at 250 bps. Speculative grade spreads started at 530 bps, widening to 670 midyear, and then closed at over 1,000 bps. The high yield market has not seen these wide spread levels since the 1990-1991 period.

Following the surprise 50 bp Fed rate cut in early January 2001, both investment grade and speculative grade spreads tightened, although they both remain at historical highs. Part of the rally, too, can be attributed to Fed funds futures discounting an additional 50 bp cut on Jan. 31. If that happens, investment grade and speculative grade spreads may pull in a bit more, although Standard & Poor's expects speculative grade spreads to remain at wide levels. On the other hand, the market may react badly to only a 25 bp cut. Standard & Poor's expects the Fed funds rate, presently at 6%, to be reduced to 5% by summer.

### PRIMARY MARKET ACTIVITY SLOWS

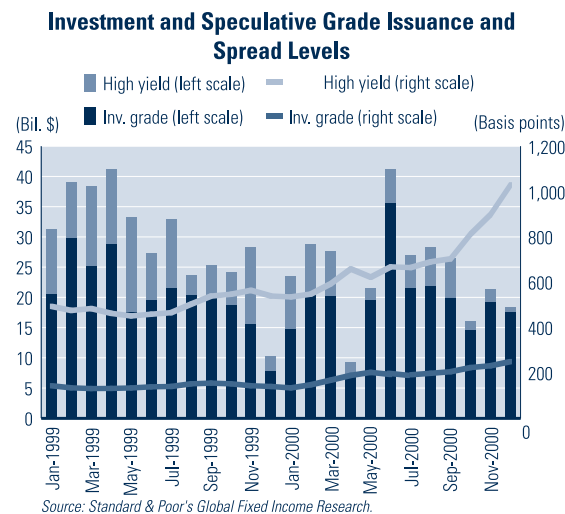
As a result of wider spread levels, primary market activity slowed in 2000. For the year, 684 bond issues totaling \$293 billion were sold versus 1,113 issues totaling \$354 billion in 1999. Of those issues sold in 2000, 163 totaling \$54 billion were high yield versus 407 totaling \$106 billion in

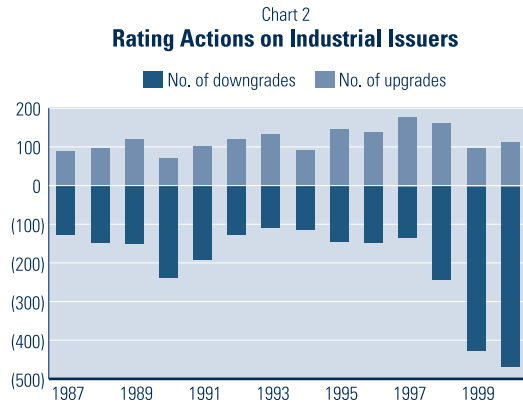
1999. The early January Fed rate cut, coupled with forecast rate cuts, has already boosted both investment grade and high yield issuance in 2001. However, wide spread levels for high yield issuers may continue to suppress high yield volume.

### NO IMPROVEMENT IN CREDIT QUALITY

Credit quality continued to show no signs of improvement in 2000 (see chart 2). In 2001, overall credit quality will have a negative tone. At 0.22 in the fourth quarter, the investment-grade industrial credit ratio (number of upgrades divided by downgrades) marked the 10th consecutive quarter in which the number of downgrades exceeded that of upgrades. The high yield credit ratio was 0.20, also registering the 10th consecutive down quarter. In the last sustained downturn (1990-

Chart 1





Source: Standard & Poor's Global Fixed Income Research.

1991), both investment grade and high yield had 11 consecutive down quarters. During that period, the investment grade credit ratio hit a low of 0.24 in the third quarter of 1990 and the high yield credit ratio hit a low of 0.15 in the fourth quarter of 1990. In 2000, for industrial, 108 issuers (\$81.2 billion) were upgraded and 463 (\$348.3 billion) were downgraded.

**INDUSTRIAL SUBSECTOR RATING ACTIVITY**

Subsectors with the most downgrades within the investment grade area were consumer

products, forest products, media and entertainment and retail/restaurants. Within speculative grade, hardest hit were autos and suppliers, capital goods, chemicals, consumer products, forest products, health care, media and entertainment, metals and mining, retail/restaurants and transportation.

In telecommunications, seven issuers (\$11 billion) were upgraded, and 17 issuers (\$108 billion) were downgraded within investment grade. Within speculative grade, 10 issuers (\$11 billion) were upgraded and 25 issuers (\$24 billion) were downgraded.

In utilities, 10 issuers (\$19 billion) were upgraded while 25 issuer (\$36 billion) were downgraded; in the bank sector, three (\$1.6 billion) were upgraded, and two (\$442 million) were downgraded; in financial institutions, nine (\$44.4 billion) were upgraded and 24 (\$84 billion) were downgraded; in insurance, six (\$3 billion) were upgraded and 33 (\$22 billion) were downgraded. Sovereigns were the only improving sector with 10 investment grade upgrades (no downgrades) and 13 speculative grade upgrades and eight downgrades.

For more information on credit spreads, see previous article, "Tough Times for U.S. Industrial Credit Spreads."

# Suddenly Structure Mattered: Insights Into Recoveries Of Defaulted Debt

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**T**oday's economy is one of the strongest in history. In 1999 alone, the S&P 500 returned nearly 20% and the GDP grew by 5.7%. Despite the idyllic economic environment, companies defaulted on their debt at a record rate in 1999.

The article "Greater Risk Means More Defaults in 1999" (*see CreditWeek*, Aug. 26, 1999) reported that a record 75 rated or formerly rated companies in the U.S. defaulted on \$32.4 billion of debt, and that the worldwide default rate of 2.15% was nearly twice that of 1998, surpassed only by the default rates of the 1989-1991 junk bond fall-out. In the first four months of 2000 alone, more than 25 companies have filed for bankruptcy. Lenders clearly need a well-defined credit model that encompasses the various risk elements of default and recovery.

In an effort to define those elements, Portfolio Management Data LLC (PMD), with the support of Standard & Poor's, has created a database that tracks the value of public debt instruments' recoveries from default. (On May 3, 2000, Standard & Poor's announced its acquisition of PMD.) The database currently contains over 1,100 publicly defaulted instruments from the period

from 1987 to 1996. PMD sources data from publicly filed bankruptcy and SEC filings as well as news reports. PMD appraises recoveries and, after the debt markets have had the opportunity to absorb and evaluate the instruments, adds them to the database. The database prices recoveries by valuing the instruments at three different points in the recovery process: emergence, settlement, and liquidity event:

- **Emergence Pricing:** Trading prices of prepetition instruments at time of emergence.
- **Settlement Pricing:** Earliest available trading prices of the instruments received in settlement.
- **Liquidity Event Pricing:** Value for illiquid settlement instruments at the time of a liquidity event, which is the event that occurs at the first date a price can be determined (such as acquisition of the company subsequent to default, refinancing, subsequent bankruptcy, distressed exchange or significant rating upgrade).

The database provides nominal as well as discounted recoveries (discounted by the prepetition interest rate from last cash payment to emergence). To inquire about PMD's recovery database, please contact David Keisman at (212) 438-5415, or visit [www.pmdzone.com](http://www.pmdzone.com), PMD's Web site.

Table 1

Average Recoveries for the WJ Data Set					
	Mean recovery (%)	Median recovery (%)	Standard deviation (%)	Coefficient of variation* (CV)	Count
All instruments	51.14	44.94	37.38	73.09	954
Bank debt	83.54	100.00	25.59	30.64	264
Senior secured notes	63.75	70.69	31.06	48.72	141
Senior notes	49.92	42.92	34.72	69.55	125
Senior subordinated notes	28.18	18.29	28.26	100.28	395
Junior subordinated notes	12.81	5.47	18.42	143.83	29

\*Coefficient of Variation: Standard Deviation/Average Recovery. Coefficient of Variation (CV) normalizes standard deviation to the mean and reflects how much deviation occurs in the data set for each additional dollar, plus or minus, of the average recovery.

Table 2

Average Recoveries for Collateral Classes for WJ Data Set					
	Mean recovery (%)	Median recovery (%)	Standard deviation (%)	Coefficient of variation (CV)	Count
All instruments	51.14	44.94	37.38	73.09	954
Class 1: All assets, inventory & receivables	85.13	100.00	24.85	29.19	160
Class 5: Unsecured	33.78	24.65	32.08	94.95	569

Table 3

Value of Structuring for WJ Data Set					
	Mean recovery (%)	Median recovery (%)	Standard deviation (%)	Coefficient of variation (CV)	Count
All instruments	51.14	44.94	37.38	73.09	954
50% or greater debt cushion	82.55	100.00	28.22	34.18	184
50% or greater debt cushion and any type of collateral	89.84	100.00	18.62	20.72	151

Table 4

The Price of Time for WJ Data Set					
	Mean recovery (%)	Median recovery (%)	Standard deviation (%)	Coefficient of variation (CV)	Count
All instruments	51.14	44.94	37.38	73.09	954
One year or less	64.87	77.34	36.68	56.54	241
More than a year	46.49	39.67	36.48	78.47	713

During the past three years, PMD and Standard & Poor's have worked together to analyze the recovery database for insights into recovery valuation. A year ago, this partnership published "Recovering Your Money: Insights into Losses from Defaults" (see *CreditWeek*, June 16 1999) which demonstrated the "virtuous circle"—the fact that the use of increasing subordination or improved collateral leads to higher recoveries. In light of 1999's high corporate default rate and recent analysis of the relationship between high-yield bond recoveries and seniority rankings, this update further explores the topic.

The data set ("WJ Data Set" or "WJDS") underlying this article contains 954 instruments from PMD's database, for the emergence period of 1987 through 1996. For companies that have undergone multiple defaults, the study includes only emergence instruments that did not subsequently default within this 10-year period. Other than those recoveries for which pricing was unavailable, the WJDS excludes only the default and cures, and the "time evaders"—those defaults for which firm dates of default and emergence could not be pinpointed: distressed purchases and exchanges, and restructurings. As a result of excluding these types of recoveries, the WJDS is more conservative than the loss database as a whole, since all these time-evaders resulted, as would be expected, in a 100% recovery. This update approaches the topics of default and recovery with an expanded data set of defaulted instruments and looks not only at the significance of debt structure, but also the effects of time and adversity.

#### THE SIGNIFICANCE OF STRUCTURE

Default hurts. A lot. Ten percent of the WJDS recovered less than 2% of par, 20% less than 10%, 25% less than 16%, and 50% less than 45%. For lenders, these are daunting recovery statistics (see *chart 1*). Moreover, if certain qualities of credits result in lower-than-average recovery opportunities, lenders to these credits should receive appropriate com-

compensation for that additional risk. So how should lenders identify and manage that risk?

Instrument type is the first indicator to lenders of the risk associated with an investment. Bank loans are senior, almost always secured, and therefore less risky than senior notes, which are senior to subordinated debentures. Recovery by instrument type reinforces this industry standard. The WJDS has a mean recovery for all instruments of 51.14% (see table 1). However, the associated coefficient of variation (CV) is high, reflecting that the variation on the mean recovery is significant. In contrast, bank debt has a substantially higher mean recovery and a much lower CV; likewise, the statistics associated with senior secured debt show, on a diluted level, the same structural benefit of seniority. The “poor cousins” of debt structure are the senior notes and those ranked below. These instruments have a much lower mean recovery and a much higher CV. What makes these instruments different from the bank and senior secured debt above? Debt cushion, or the percentage of debt below the instrument, and collateral.

The average debt cushion for the all instruments in the WJDS is 22.96%. Bank and senior secured debt have a higher-than-average debt cushion (48.99% and 23.94% respectively), as would be expected, due to their senior nature. In contrast, the “poor cousins” have much less cushion: Senior notes have an average debt cushion of 20.22%; subordinated, just 7.77%; and junior subordinated, none. While subordination does increase leverage and, therefore, risk, it also provides cushioning for the senior debt. Senior instruments such as bank loans and senior secured debt have strong recoveries—not just because they have senior claims to repayment, but also because there are other interests beneath them to absorb the fallout from default. The borrower has more cash available without affecting the senior debt’s claim to payment and collateral.

Collateral influences the quality of recoveries as much as instrument (see

Chart 1

**Distribution of Present Value of Recoveries for All Data in the WJ Data Set**

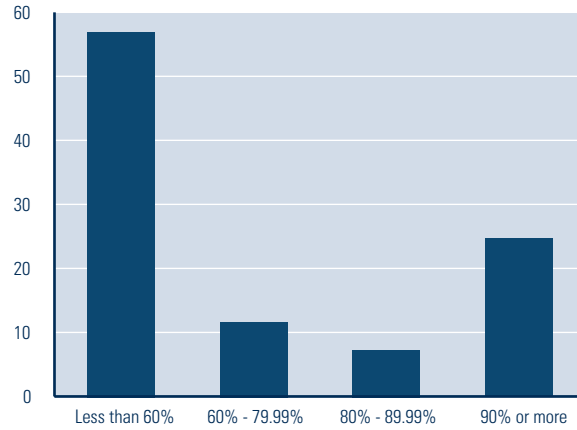


Chart 2

**Mean Recoveries: All Periods Versus One Year or Less for WJ Data Set**

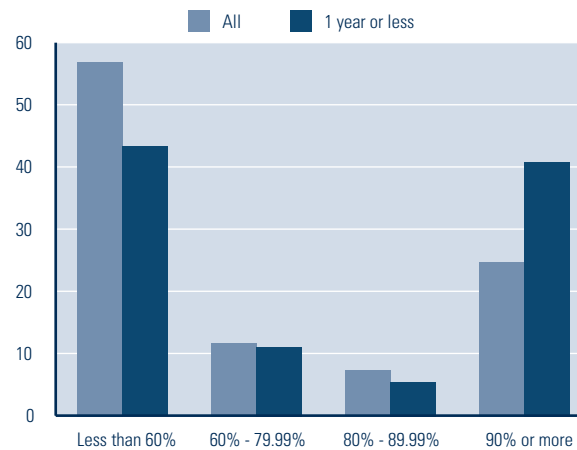


table 2). As would be expected, a strong correlation exists between instrument and collateral. However the correlation coefficient is not strong enough to degrade the precision of estimation and, therefore, it is unnecessary to discard either of these variables. For the purposes of this analysis, collateral was separated into five classes. Since collateral types are descrip-

Table 5

Mean Recoveries for Time Cohorts for WJ Data Set					
	Mean recovery (%)	Median recovery (%)	Standard deviation (%)	Coefficient of variation (CV)	Count
All instruments	51.14	44.94	37.38	73.09	954
1990 & prior cohort	42.28	33.04	34.20	80.89	124
1991 plus cohort	53.49	50.80	37.29	69.71	829

Table 6

Multivariate Linear Regression Statistics				
	—1990 & prior—		—1991 plus—	
	Coefficient	t-Statistic*	Coefficient	t-Statistic
Intercept	953.3574	6.2343	961.2794	25.1891
Instrument <sup>†</sup>	(169.1919)	(5.4116)	(81.4329)	(8.1235)
Collateral	37.0468	1.0886	(39.0237)	(4.2447)
Time in default	3.8704	0.1403	(43.3961)	(5.7193)
Debt cushion	(32.6935)	(0.2109)	300.2926	7.1772
Principal default	(0.0000)	(0.4304)	0.0000	1.5418
R-squared	0.3919		0.4789	
Adjusted R-squared	0.3661		0.4758	
Observations	124		830	

\*t-Statistic: ratio of standard error to variable coefficient. A higher t-Statistic reflects less variation to the coefficient. The t-Critical, minimum t-Statistic, for a one-tailed population greater than 120 with a 5% confidence interval is 2.58. <sup>†</sup>As noted before, instrument is ranked from most to least senior: bank debt, senior secured, senior notes, subordinated, junior subordinated. The analysis employed dummy variables to verify the ordinal ranking of the instruments.

Table 7

1990 prior	—1990 & prior—		—1991 plus—	
	Mean recovery (%)	Coefficient of variation (CV)	Mean recovery (%)	Coefficient of variation (CV)
1 year or less	39.65	82.66	71.44	48.65
Between 1 and 2 years	45.21	80.09	52.32	68.27
Between 2 and 3 years	47.66	74.45	42.85	81.88
Between 3 and 4 years	27.37	105.61	34.94	101.78
More than 4 years	*N/A	N/A	48.36	88.49
More than a year	44.37	79.76	46.71	78.45

\*All members of this cohort had a time in default of less than four years. N/A—Not applicable.

tive in nature, a multivariate regression analysis using dummy variables grouped the 17 collateral types into five classes. Then, using those five collateral classes as the dummy variables, a second regression line was created to establish, based on the degree of influence upon recovery value, ordinal ranks.

- Class 1 contains the highest quality—all assets, inventories, and receivables;
- Class 5 represents no assets; and
- Classes 2, 3, and 4 (the intermediate classes) reflect declining quality, liquidity, and coverage.

As would be expected, as the quality of the collateral supporting the security diminishes, the recovery declines. Furthermore, a significant difference in recovery value exists between instruments secured with any type of collateral and those without collateral. The mean recovery for collateral type Class 4, which encompasses collateral with extremely low potential for significant liquidation value, is 61.93%, nearly twice that of Class 5, which is unsecured. The analysis makes it clear that some collateral—any collateral—is better than no collateral.

The combined impact on structure, of debt cushion and collateral quality, is equally apparent (see table 3). Not only do greater debt cushions increase mean recoveries and decrease corresponding CVs, but excluding unsecured instruments from a cohort further reduces the potential for loss.

The improvement of mean recoveries with increased debt cushion and collateral quality clearly reinforces the importance of what seems obvious: the “virtuous circle.” However, is this an age-old theorem or a lesson of time?

#### LESSON IN A BOTTLE

The defaults of 1999 necessitate the continuation of the search for new insights into recovery values and for a model to predict a lender's potential loss given default of an instrument. In particular, what is the influence of time in default—the period between the last cash payment and emergence? Furthermore, have changes in debt structuring occurred over time, from 1987 through 1996? Results indicate that not

only is time in default significantly correlated with the value of recovery (see table 4), but that emergence within the first year of default is the most rewarding. Chart 2 contrasts the recovery dispersion data for all default time lengths with those that lasted a year or less. The chart shows clear evidence of the benefits of a short recovery period. Evidence also indicates, however, that emergence after the first year of default is much more expensive today than it was 10 years ago.

Lending as an institution and loans as financial instruments have changed dramatically since 1980. The innovative mechanics of the junk bond kingdom, which created and financed the excesses of LBO frenzy, awed the financial markets of the early 1980s. Debt financing occurred on a scale the size of which had never been seen before. Twenty-five billion dollars of debt was issued to finance the LBO of one company—RJR Nabisco. The subsequent collapse, however, of Drexel Burnham’s house of cards, in conjunction with some precipitous downturns in the stock market, caused many companies, mostly highly leveraged, to default on their debt at an unprecedented rate during 1990 and 1991 (see chart 3).

The 10 largest bankruptcies in the database total \$22.03 billion and include Federated Department Stores, R.H. Macy, Southland, and Charter Medical. Eight of those defaults (\$17.41 billion) occurred from 1989 to 1991. (R.H. Macy held out until January 1992.) The junk-bond tumult of the 1980s contributed to debt defaulting on an unprecedented scale. Consequently, the fear pervaded the market that all the multimillion-dollar-fee mega-LBOs hovered on the edge of default, and the leveraged loan market nearly shut its doors. Arrangers as well as lenders received a crash course in bankruptcy. As a result, only well-structured deals made it to market. Suddenly structure mattered.

In analyzing the effects of time and economic events, the WJDS was split into two cohorts based upon date of emergence. Utilizing the emergence date of Dec. 31, 1990, as the dividing point allows each cohort to pick up a relatively even number of defaults result-

Chart 3

Timing of Default and Emergences for WJ Data Set

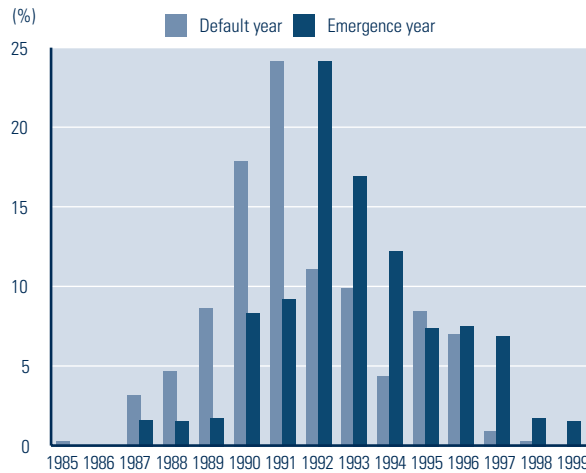
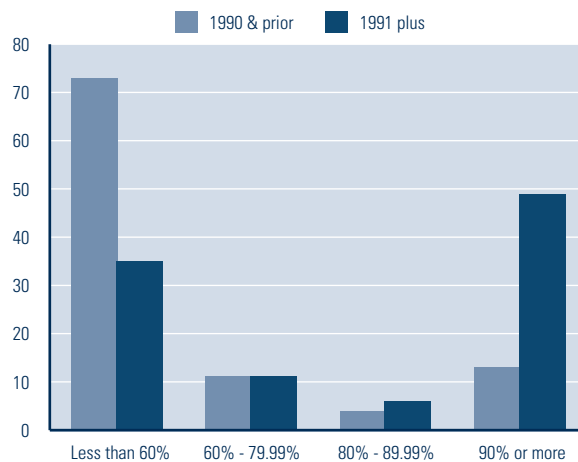


Chart 4

Dispersion of Recoveries on Defaults of A Year or Less



ing from the three primary economic shocks of the period: the 1987 stock market crash, the collapse of Drexel Burnham and the junk bond market, and the 1990 stock market crash. The data in table 5 indicate no significant difference between the two time period cohorts. Analysis of the components of structure, however, reveals developments in the relevance of collateral and debt cushion.

Prior to 1991, lenders primarily received recovery benefit from only one component of structure: instrument type (as indicated by the strong t-Statistic associated with the instrument variable in table 6). Collateral and debt cushion failed to influence structure in any predictable fashion; their corresponding t-Statistics indicate no significant effects on recovery. In contrast, the statistics for the “1991 plus” analysis reveal an increased importance of subordination and collateral. In this cohort, greater debt cushion improves recoveries; lesser-quality collateral weakens recoveries. It appears that the tremendous bankruptcies of the 1990-1991 period taught the debt markets a brutal lesson on the importance of all elements of structure. In addition, beginning in 1991, time in default had increased significance; each year in default had an obvious price.

Table 7 demonstrates that a short time in default benefits today’s lender significantly more than the 1980’s investor: The average recovery for defaults of a year or less is 80% greater and has a tremendously lower variation. Furthermore, chart 4 indicates, in the “1990 & prior” group, the dispersion of recoveries that spent a year or less in default does not significantly differ from the dispersion for all time periods. However, for the “1991 plus” set, the dispersion of recoveries of a year or less in default is almost the inversion of the total distribution: 49% of the cohort recovered at least 90%. Time matters much more in today’s fast-paced world of debt structure, and the legal and financial players in the bankruptcy world recognize this.


#### THAT WAS THEN; THIS IS NOW

The LBO defaults of the late 1980s—unprecedented in terms of volume and size—sent a shock wave through the system, affecting both arrangers and lenders. On one side, the defaults showed underwriters how sound debt structuring provided protection to potential lenders/investors in the event of default. On the other side, the defaults showed lenders the characteristics of sound structuring. Whereas the defaults of the 1990-1991 period slowed the growth of the debt market, the knowl-

edge gained from cleaning up after these defaults helped lenders regain their confidence. The mid-1990s experienced a return to debt financing, even in light of the seemingly never-ending boom of equity markets. This bull market has provided fuel for the tremendous growth of the debt markets as well as shaped the recoveries from the junk bond debacle of the 1980s.

In the past decade, risk analysts have developed resources to help lenders analyze default triggers and events. Databases and statistical models are available to evaluate past events in a better effort to predict future risks. The methodologies also continually remind lenders not only to analyze new events, but also, in light of the ever-changing present, to revisit the past to develop new perspectives and insights into credit risk. Rising interest rates and shrinking profit margins will not only provide the industry with new default events to analyze, but also with new frameworks in which to review existing information.

PMD is in the process of adding the recoveries of the past three years to its loss database, providing a wealth of new opportunities to improve our understanding of debt instruments. Just as this examination of PMD’s information on the first cycle of defaults has provided significant insight into the relevance and mechanics of structure, continual analysis will only improve the debt market’s ability to manage credit risk. With tools such as PMD’s loss database, financial institutions can look at the full cycles of companies and examine debt instruments from a number of perspectives including date of credit issue, industry, ratings, and many other variables. These lessons will help lenders to moderate potential losses through improved capital allocation, pricing, and risk management. Today’s free flow of information and analytical tools provide lenders with tools for better management of the risks associated with default and recovery.

*(David Keisman, managing director, and Ruth Yang, associate director, the co-authors of this article, created the recovery database at Portfolio Management Data LLC.)* 

# The Rise and Fall of Sovereign Ratings: 2000

Analytical Contact: John Chambers, CFA, *New York (1) 212-438-7344*

Three rated sovereign governments emerged from default in 2000. Upgrades of sovereign ratings outnumbered downgrades. One sovereign government (South Africa) crossed the investment-grade divide. Four sovereigns obtained initial ratings. Sovereign ratings and outlooks were slightly more stable than the historical average. These are the major stories of 2000 for Standard & Poor's sovereign ratings.

During the year 2000, Standard & Poor's raised the sovereign credit ratings of Ecuador, Russia, and Indonesia to 'B-' from selective default ('SD'). (Throughout this article, references are to long-term foreign currency sovereign credit ratings.) The rating actions were notable in several respects. First, the defaults did not entail all of the sovereigns' commercial obligations, hence the use of the rating category for selective default as opposed to 'D' for general default. Ecuador continued to pay punctually some of its domestic dollar-denominated debt held by municipalities and intervened banks, Russia its eurobonds, and Indonesia all but its two syndicated loans. (Standard & Poor's includes coercive reschedulings in its definition of default.) Second, Ecuador's cured default included previously rescheduled Brady bonds and Indonesia's included syndicated loans that had only been rescheduled the previous year. (Indonesia, in fact started the year at 'CCC+', fell into selective default, and emerged at 'B-' at the end of the year.) Third, the curing of the defaults occurred quickly, at least com-

pared with the reschedulings of Latin American sovereign debt of the 1980s, although the prospects for future debt exchanges may have been dimmed by the governments of Peru and Ecuador buying out holders of unstructured debt from previous exchanges at par during the last quarter of 2000.

Setting aside the sovereign governments emerging from default, South Africa was Standard & Poor's most notable sovereign upgrade, with the rating moving into investment grade, rising to 'BBB-' from 'BB+'. It thus became the seventh sovereign to be raised to investment grade since Standard & Poor's resumed rating sovereigns in 1974. In 2000, two other central governments were raised into another category: Hungary, which was upgraded twice during the year, starting at 'BBB' and ending at 'A-', and Kazakhstan, which rose a single notch to 'BB-'. The two downgrades across a category (excluding Indonesia) were Lebanon and Bolivia, which both fell to 'B+' from 'BB-'. Within a ratings category, the upgrades comprised Poland (to 'BBB+' from 'BBB'), Tunisia (to 'BBB' from 'BBB-'), Mexico (to 'BB+' from 'BB'), Bulgaria and Turkey (to 'B+' from 'B'), and the Cook Islands (to 'B' from 'B-'). Downgrades within a ratings category were composed of Colombia (to 'BB' from 'BB+') and Argentina and Peru (to 'BB-' from 'BB').

The Isle of Man (rated 'AAA'), Belize ('BB'), Senegal ('B+'), and Ecuador (initially 'SD', raised to 'B-') obtained initial foreign currency sovereign credit ratings in 2000, bringing the total number of rated

Table 1

<b>Sovereign Foreign Currency Average One-Year Transition Rates (1975-2000)*</b>								
<b>Initial rating</b>	<b>—Rating at end of first year (%)—</b>							
	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>	<b>SD</b>
AAA	97.55	2.45	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.67	97.33	0.67	0.00	0.67	0.67	0.00	0.00
A	0.00	3.53	94.12	2.35	0.00	0.00	0.00	0.00
BBB	0.00	0.00	4.40	90.11	4.40	1.10	0.00	0.00
BB	0.00	0.00	0.00	7.00	83.00	8.00	0.00	2.00
B	0.00	0.00	0.00	0.00	12.20	85.37	0.00	2.44
CCC	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00
SD	0.00	0.00	0.00	0.00	0.00	50.00	25.00	25.00

Table 2

<b>Sovereign Foreign Currency Average Three-Year Transition Rates (1975-2000)*</b>								
<b>Initial rating</b>	<b>—Rating at end of third year (%)—</b>							
	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>	<b>SD</b>
AAA	92.02	6.84	0.00	0.00	1.14	0.00	0.00	0.00
AA	2.36	93.70	2.36	0.79	0.79	0.00	0.00	0.00
A	0.00	9.23	80.00	9.23	0.00	1.54	0.00	0.00
BBB	0.00	0.00	18.64	64.41	10.17	3.39	1.69	1.69
BB	0.00	0.00	0.00	16.42	62.69	17.91	0.00	2.99
B	0.00	0.00	0.00	5.00	25.00	65.00	0.00	5.00

Table 3

<b>Sovereign Foreign Currency Average Five-Year Transition Rates (1975-2000)*</b>								
<b>Initial rating</b>	<b>—Rating at end of fifth year (%)—</b>							
	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>	<b>SD</b>
AAA	86.55	11.76	0.00	0.00	1.68	0.00	0.00	0.00
AA	5.05	90.91	2.02	1.01	1.01	0.00	0.00	0.00
A	0.00	17.02	61.70	17.02	2.13	2.13	0.00	0.00
BBB	0.00	0.00	35.29	38.24	11.76	5.88	2.94	5.88
BB	0.00	0.00	2.78	19.44	61.11	16.67	0.00	0.00
B	0.00	0.00	0.00	0.00	9.09	90.91	0.00	0.00

\*Implied senior debt ratings through 1995; issuer credit ratings thereafter. The defaults in Pakistan and Russia and the first default in Indonesia are recorded as beginning in calendar year 1998. Indonesia's second default is recorded as continuing at year-end 2000. Note: No 'CCC', 'CC', or 'SD' ratings at the beginning of the three- and five-year static pools. The three-year sovereign rating transition matrix captures central governments rated before Jan. 1, 1998; the five-year, before Jan. 1, 1996.

sovereigns to 87. Senegal was the first West African nation rated by Standard & Poor's, Ecuador the first sovereign rated while in default. The extension of the ratings spectrum for initial ratings demonstrates the utility of ratings for pricing risk at all levels of credit standing.

Standard & Poor's has incorporated these rating actions into our tables for sovereign rating transitions by rating category (see tables 1 through 3).

By rating category, Standard & Poor's sovereign ratings continue to show both progressively greater stability as one ascends the rating scale and a balance between upgrades and downgrades. Compared with corporate ratings, sovereign ratings show slightly more stability (see charts 1 through 3).

Comparisons between sovereign and corporate default rates are skewed by the small sample size of sovereign defaults. Only three rated sovereign governments have defaulted on rated debt or had their sovereign credit rating (a generic rating class introduced in 1995) lowered to 'SD': Indonesia (twice), Pakistan, and Russia. Thus, in all categories of 'A' and higher, and in over half the instances in categories below 'A', the sovereign default record has been lower than the corporate default record (see table 4).

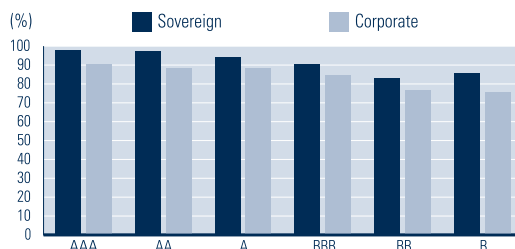
Standard & Poor's expects sovereign rating stability and default probability to converge with its corporate ratios over time as the number of sovereign observations increases, as one would expect given that both groups use the same rating definitions.

This year, Standard & Poor's has added a sovereign rating transition table by rating, including pluses and minuses (see table 5).

At most rating levels, the sovereign ratings are more stable than the corporate ratings. However, the stability by rating level is not monotonically ordered (with some stickiness at the investment-grade divide) and the balance between upgrades and downgrades varies at different rating levels.

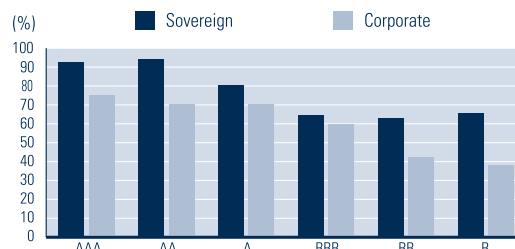
Standard & Poor's has also updated its tables for outlook and CreditWatch actions on sovereign governments. (See tables 6 and 7, and a related article,

Chart 1  
**Sovereign Foreign Currency Ratings Versus Corporate Local Currency Ratings**  
 % with Same Rating at End of One-Year Transition



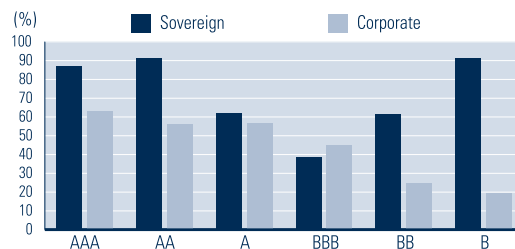
Implied senior debt ratings through 1995; issuer credit ratings thereafter. Sovereign foreign currency ratings for 1975-2000; Corporate local currency ratings for 1981-Oct. 31, 2000. Note: No 'CCC', 'CC', or 'SD' ratings at the beginning of the three- and five-year sovereign ratings static pools. The three-year sovereign rating transition matrix captures central governments rated before Jan. 1, 1998; the five-year, before Jan. 1, 1996.

Chart 2  
**Sovereign Foreign Currency Ratings Versus Corporate Local Currency Ratings**  
 % with Same Rating at End of Three-Year Transition



Implied senior debt ratings through 1995; issuer credit ratings thereafter. Sovereign foreign currency ratings for 1975-2000; Corporate local currency ratings for 1981-Oct. 31, 2000. Note: No 'CCC', 'CC', or 'SD' ratings at the beginning of the three- and five-year sovereign ratings static pools. The three-year sovereign rating transition matrix captures central governments rated before Jan. 1, 1998; the five-year, before Jan. 1, 1996.

Chart 3  
**Sovereign Foreign Currency Ratings Versus Corporate Local Currency Ratings**  
 % with Same Rating at End of Five-Year Transition



Implied senior debt ratings through 1995; issuer credit ratings thereafter. Sovereign foreign currency ratings for 1975-2000; Corporate local currency ratings for 1981-Oct. 31, 2000. Note: No 'CCC', 'CC', or 'SD' ratings at the beginning of the three- and five-year sovereign ratings static pools. The three-year sovereign rating transition matrix captures central governments rated before Jan. 1, 1998; the five-year, before Jan. 1, 1996.

Table 4

	Sovereign Versus Corporate Ratings Default Rates (%)*					
	—One-Year—		—Three-Year—		—Five-Year—	
	Sovereign	Corporate	Sovereign	Corporate	Sovereign	Corporate
AAA	0.00	0.00	0.00	0.08	0.00	0.20
AA	0.00	0.02	0.00	0.09	0.00	0.23
A	0.00	0.04	0.00	0.18	0.00	0.47
BBB	0.00	0.20	1.69	0.76	5.88	1.73
BB	2.00	0.90	2.99	4.91	0.00	8.81
B	2.44	5.02	5.00	14.77	0.00	19.89
CCC‡	100.00	20.32	0.00	30.88	0.00	37.50

\*Implied senior debt ratings through 1995; issuer credit ratings thereafter. Sovereign foreign currency ratings for 1975-2000; Corporate local currency ratings for 1981-Oct. 31, 2000. ‡The defaults in Pakistan and Russia and the first default in Indonesia are recorded as beginning in calendar year 1998. Indonesia's second default is recorded as continuing at year-end 2000.

Table 5

Initial rating	Sovereign Foreign Currency Average One-Year Transition Rates (1975-2000)*																	
	—Rating at end of first year (%)—																	
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD
AAA	97.6	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	1.4	91.7	5.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	0.0	13.6	83.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	0.0	13.0	73.9	4.4	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	4.4	0.0	0.0	0.0	0.0
A+	0.0	0.0	0.0	13.0	69.6	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	0.0	0.0	0.0	0.0	12.2	80.5	2.4	0.0	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A-	0.0	0.0	0.0	0.0	4.8	4.8	90.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	0.0	0.0	0.0	0.0	0.0	10.0	20.0	60.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	0.0	0.0	0.0	0.0	0.0	0.0	6.9	24.1	51.7	6.9	6.9	0.0	0.0	3.5	0.0	0.0	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	15.4	78.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	13.2	73.7	7.9	0.0	0.0	0.0	0.0	0.0	2.6
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	9.4	75.0	6.3	6.3	0.0	0.0	0.0	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	3.3	66.7	13.3	3.3	3.3	0.0	3.3
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.6	13.6	59.1	13.6	0.0	0.0	4.6
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7	0.0	0.0	0.0
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	83.3	0.0	0.0
CCC+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
SD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	25.0

\*Implied senior debt ratings through 1995; issuer credit ratings thereafter. The defaults in Pakistan and Russia and the first default in Indonesia are recorded as beginning in calendar year 1998. Indonesia's second default is recorded as continuing at year-end 2000.

Table 6

Outlooks	Grand total	—Upgrades—			—Affirmations—			—Downgrades—		
		Total upgrades*	Length (in days)	Average length (in days)	Total affirmations*	Length (in days)	Average length (in days)¶	Total downgrades*	Length (in days)	Average length (in days)¶
Positive	66	43	22,213	517	23	13,941	606	0	—	—
Stable	122	22	15,928	724	88	58,701	667	12	7,409	617
Negative	66	0	—	—	30	14,244	475	36	6,511	181

\*Excludes outlooks that did not culminate in a rating action. ¶Since previous different rating or outlook.

Table 7

Rating Actions (1989-2000)							
	Total	Upgrade	Average length*	Affirmation¶	Average length*	Downgrade	Average length*
Negative CreditWatches	29	0	—	8	114	21	63

\*Time spent on CreditWatch with negative implications. ¶With removal from CreditWatch with negative implications.

“Outlooks: *The Sovereign Credit Weather-vane,*” which appeared in *CreditWeek*, Jan. 12, 2000.)

In 2000, 13 sovereigns had a favorable action taken on their outlooks without a rating change (i.e., either a change from a stable outlook to a positive outlook or from a negative outlook to a stable outlook). Of these, five signaled a reversal of previous negative rating trends: Brazil, Malta, Panama, Papua New Guinea, and Romania. During the same period, eight sovereigns had an unfavorable action on their outlooks. Of these, five signaled a reversal of previous positive rating trends: India, Israel, Peru, the Philippines, and Turkey. Compared with historical trends, ratings and outlooks were changed slightly more quickly in 2000 than in the prior decade when outlooks first began to be used. As in years past, no sovereign rating with a negative outlook received an upgrade in 2000 as the next rating action and no sovereign rating with a positive outlook received a downgrade as the next rating action. The year ended with 14 central governments with a positive outlook, including nine at the top of their rating


category (Denmark, Ireland, Sweden at ‘AA+’; Iceland at ‘A+’; Estonia at ‘BBB+’; Mexico and Slovak Republic at ‘BB+’; Brazil and Bulgaria at ‘B+’). Empirically, 65% of sovereigns with a positive outlook received an upgrade as the next rating action, on average after 17 months. On the other hand, six countries had a negative outlook at Dec. 31, 2000, including two at the bottom of their rating category: Croatia and Egypt, both at ‘BBB’. Empirically, 54% of sovereigns with a negative outlook were downgraded as the next rating action, on average after six months.

Standard & Poor’s resolved four CreditWatch actions in 2000, all with negative implications. Three ended in downgrades (Argentina, Lebanon, Indonesia) as the next rating action, in keeping with the historical average.

In last year’s sovereign ratings review (“Sovereign 1999 Recap: The Ups, the Downs, and the Moral of It All”), we wrote that although much had been written about contagion, contagion did not explain any of the rating actions of 1999. The same statement holds true in 2000. Regarding the upgrades, some stemmed from curing their

defaults with commercial creditors (Ecuador, Indonesia, Russia); from enhanced fiscal flexibility (Bulgaria, the Cook Islands, Hungary, Kazakhstan, South Africa, Tunisia, Turkey); from a recovering banking sector (Mexico); from improved external liquidity (Kazakhstan, Tunisia); from deepened structural reforms (Bulgaria, Hungary, Poland); or from improved economic prospects arising from anticipated EU membership (Hungary, Poland). Regarding the downgrades, some were motivated by deteriorating fiscal conditions (Bolivia, Colombia, Lebanon) or by political uncertainty (Argentina, Bolivia, Colombia, Peru). The causes of rating changes were endogenous to the countries themselves. The improvements or deteriorations were the result of decisions and actions taken by policymakers, usually over several years. Although exogenous factors (such as weakening terms of trade, higher global interest rates, financial distress among external creditors, threat of war) can limit policymakers’ degrees of freedom, they usually do not undermine a sovereign’s credit standing and were not motivating factors behind rating actions in 2000. When exogenous events do alter (normally lower) a sovereign’s credit standing, it is because either the policymakers’ capacity to respond was originally overestimated or the amplitude of the commodity or interest rate cycle was underestimated.

For a complete list of Standard & Poor’s sovereign ratings history, see “Sovereign Ratings History Since 1975.”

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# PRODUCT INFORMATION

RATINGS PERFORMANCE 2000

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# Sovereign Defaults Decline Through Third-Quarter 2000

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Defaults by sovereign governments continued to decline through the third quarter of 2000, amid mostly favorable financial conditions in emerging markets. Defaults on local and foreign currency debt both declined—the latter to levels last seen in the early 1980s, although for 2000 as a whole, Standard & Poor's still expects the number of defaulting sovereign issuers to be little changed from 1999.

One new sovereign issuer, unrated Côte d'Ivoire, defaulted earlier this year and looks set to default again, and other debt restructurings that are in the pipeline should offset those defaults being cured. Nevertheless, the pace at which debt workouts are being completed indicates that the value of defaulted debt in 2000, and possibly next year, will remain well below the level set in 1999. As highlighted by Russia's and Ecuador's successful debt exchanges, creditors and debtors are restructuring debt more quickly than before. This demonstrates that the capital markets are learning to adapt to sovereign defaults, even without substantive reforms to the global financial architecture. The credit cycle may be beginning to turn as suggested by high oil prices, a slowdown in output growth worldwide, and other factors; even so, on current trends, the number of sovereign defaults may decline further moving into 2001.

## QUARTERLY SURVEY HIGHLIGHTS

Standard & Poor's now updates its survey of sovereign debt in default on a quarterly basis. During the third quarter, Standard & Poor's identified a total of 26 issuers in default on various types of bond and bank debt. This number is down from 29 in 1999 and 33 in 1998 (*see table 1*).

Issuers defaulting on either foreign currency bank loans or bonds fell to 24 from 26 in 1999 and 28 in 1998, while the number defaulting on bonds alone was unchanged at five for the third year running. The number of issuers defaulting on local currency debt has dropped to four from seven in 1999 and eight in 1998. This is the fewest since 1994.

The dollar value of debt in default has fallen more substantially through the third quarter, to an estimated \$69 billion. This compares with defaults amounting to about \$102 billion in each of the two previous years, and is 79% less than the value of debt in default (\$335 billion) in 1990. The end of Russia's default last year on the equivalent of \$36 billion of local currency debt is the main contributor to this year's decline in the total value of defaulted debt. A related indicator, the average amount of defaulted debt per issuer, fell to \$2.6 billion from \$3.1 billion in 1999 and from a peak of \$5.8 billion in 1990. The sector's default rate, in relation to the universe of all sovereigns, is now 12.9%, compared with 14.9% in 1999, and is at its lowest level since 1981 (*see table 2*).

Table 1

Sovereign Debt in Default							
Year	All issuers	New issuers	Local currency debt*	Foreign currency debt	Foreign currency bonds	Total debt (Bil. \$)	Average debt per issuer (Bil. \$)
1975	4	2	2	2	1	2.4	0.8
1976	4	1	1	4	1	1.5	0.5
1977	4	0	1	3	1	1.6	0.5
1978	8	4	1	7	1	4.5	0.6
1979	11	4	2	10	1	6.9	0.7
1980	11	3	1	10	1	5.1	0.5
1981	18	11	2	16	0	9.4	0.5
1982	28	10	3	27	0	41.1	1.4
1983	44	18	2	42	0	93.0	2.1
1984	45	2	3	42	1	90.7	2.0
1985	44	5	2	43	1	120.5	2.7
1986	51	10	3	50	1	198.8	3.8
1987	55	6	4	52	2	287.6	5.1
1988	54	3	2	53	2	228.3	4.2
1989	54	3	3	52	4	243.7	4.4
1990	55	4	5	53	2	334.6	5.8
1991	54	6	3	53	2	225.2	4.0
1992	58	7	3	57	4	219.6	3.7
1993	54	1	4	53	3	187.0	3.3
1994	49	0	4	48	3	159.5	3.1
1995	46	3	6	44	3	99.7	2.0
1996	43	1	7	40	3	81.3	1.7
1997	34	3	6	30	3	74.8	2.1
1998	33	4	8	28	5	101.9	2.8
1999	29	3	7	26	5	102.5	3.1
2000¶	26	1	4	24	5	69.5	2.6

\*Bank debt and bonds. ¶Through third quarter.  
Source: Standard & Poor's.

So far in 2000, one new sovereign issuer, unrated Côte d'Ivoire, has defaulted. In March 2000, Côte d'Ivoire's government fell into arrears on \$33 million of scheduled interest and principal due on its Brady bonds. It gradually paid bondholders the full amount by June, outside the 30-day grace period. With the country's export earnings depressed by low commodity prices, the government is also likely to be late making debt-service payments due in September.

Unrated Ukraine, meanwhile, defaulted briefly on the equivalent of about \$20 million of local currency denominated Treasury bills on Sept. 13. The authorities reportedly cleared the arrears on Sept. 21. This continues a pattern of periodic defaults and restructurings of Ukraine's local currency debt since 1998. As scheduled, on Sept. 14, the Ukrainian government did, however, make the first coupon payment on its new Eurobond, which was swapped for \$2.7 billion of short-term debt in a distressed-debt exchange last April.

On Sept. 7, Peru (foreign currency BB/Negative/B) delayed payment of \$80 million in interest payments due on Brady bonds, although a legal dispute, not financial distress, was the reason for the delay. Following a favorable U.S. court ruling last year, an investor holding unstructured Peruvian bank debt moved to attach debt-service payments due to bondholders. The government is trying to overturn the court decision and, in the interim, to create a new mechanism so that coupon payments can be made within the 30-day grace period. If payment cannot be made within the grace period, Standard & Poor's will count Peru's Brady bonds as being in default (*for a discussion of what constitutes a sovereign default under Standard & Poor's methodology, see sidebar*).

Also in the third quarter, foreign currency debt of Russia, Ecuador, and Indonesia was (or will shortly be) successfully restructured. On Aug. 25, Russia (foreign currency SD/—/SD) swapped \$21.2 billion of Eurobonds for about \$28 billion of unrated London Club debt in default since December 1998. This followed negotiations with creditors that concluded in February 2000. Investors holding more than 95% of the defaulted debt accepted the exchange offer, and Standard & Poor's assigned a 'B-' rating to the new Eurobonds on July 27, 2000. The government's offer to swap new U.S. dollar and Russian ruble debt for \$1.3 billion of Ministry of Finance (MinFin) series III bonds, in default since May 1999, has taken longer to complete, however. This distressed debt exchange, launched in February, is now expected to close in the fourth

## Defining Sovereign Defaults

**S**tandard & Poor's generally defines default as the failure to meet a principal or interest payment on the due date (or within the specified grace period) contained in the original terms of the debt issue. Questions can arise, however, when applying this definition to different types of sovereign obligations. In the sovereign default survey, debt is considered in default in any of the following circumstances:

- For local and foreign currency bonds, notes, and bills, when either scheduled debt service is not paid on the due date, or an exchange offer of new debt contains terms less favorable than the original issue;
- For central bank currency, when notes are converted into new currency of less than equivalent face value; or
- For bank loans, when either scheduled debt service is not paid on the due date, or a rescheduling of principal and/or interest is agreed to by creditors at less favorable terms than the origi-

nal loan. Such rescheduling agreements covering short- and long-term bank debt are considered defaults even when, for legal or regulatory reasons, creditors deem forced rollover of principal to be voluntary.

In addition, many rescheduled sovereign bank loans are ultimately extinguished at a discount from their original face value. Typical deals have included exchange offers (such as for those linked to the issuance of Brady bonds), debt/equity swaps related to government privatization programs, and/or buybacks for cash. Standard & Poor's considers such transactions as defaults because they contain terms less favorable to creditors than the original obligation.

Each sovereign in default at any point in the year is included (along with the U.S. dollar equivalent, including accrued interest, of its debt then in default) in the annual issuer totals. ■

quarter. Completion will permit Russia to resume normal debt service on all its local and foreign currency debt for the first time since August 1998.

Despite limited discussions with bondholders, Ecuador (B-/Stable/C) took even less time to restructure \$6.6 billion of Brady and Eurobonds in default since August 1999, and October 1999, respectively. The government's offer to exchange \$4.25 billion of new bonds, at an effective discount of 40%, was launched on July 26. It closed on Aug. 23, after being accepted by investors holding 97% of the defaulted securities. Standard & Poor's assigned a 'B-' rating to the new global bonds on July 31, 2000.

Indonesia (foreign currency SD/—/SD) is also expected to complete the restructuring of \$850 million in commercial bank debt shortly. Following the announcement of a new Paris Club agreement, which triggered Indonesia's effective default, Standard & Poor's lowered ratings on the two affected bank loans to 'D' on April 17, 2000. This is the second time that Paris Club "comparability-of-treatment" rules have obliged the government to reschedule its bank debt. Indonesia had previously restructured loans totaling \$350 million in March 1999. The sovereign's 'CCC+' rated foreign currency bonds continue to be serviced in full, however.

### OUTLOOK FOR 2001

A few more defaults and debt restructurings are likely to surface in the remaining months of 2000, leaving the yearly totals about the same as in 1999. Unrated Zimbabwe and, as previously noted, Côte d'Ivoire remain vulnerable due to their fragile fiscal and foreign exchange positions, and Ukraine will probably reschedule a substantial part of its local currency debt as part of its efforts to reach a new lending agreement with the IMF.

The most high-profile and controversial restructuring is likely to come from Nigeria. As foreshadowed in its recent IMF agreement, the government is seeking debt relief from official and private creditors, including bondholders. Nigeria is expected to propose swapping new bonds for its outstanding Brady bonds and promissory notes (with a face value of about \$5 billion) at a substantial discount. If this effort is successful, Nigeria, like Ecuador, will have restructured debt to private creditors on adverse terms more than once; previous workouts occurred in the 1980s and again in 1992.

Looking further ahead, the number of sovereign defaults may fall in 2001. The key factor pushing the numbers lower is the completion of more debt restructur-

Table 2

## Sovereign Default Rates (% of Total Issuers)

Year	Number of issuers	Issuers in default	Issuers entering into default	Issuers in default on foreign currency debt*	Issuers in default on foreign currency bonds	Issuers in default on local currency debt*
1975	164	2.4	1.2	1.2	0.6	1.2
1976	165	2.4	0.6	2.4	0.6	0.6
1977	166	2.4	0	1.8	0.6	0.6
1978	169	4.7	2.3	4.1	0.6	0.6
1979	173	6.4	2.3	5.8	0.6	1.2
1980	174	6.3	1.7	5.7	0.6	0.6
1981	176	10.2	6.3	9.1	0.0	1.1
1982	176	15.9	5.7	15.3	0.0	1.7
1983	177	24.9	10.2	23.7	0.0	1.1
1984	178	25.3	1.1	23.6	0.6	1.7
1985	178	24.7	2.8	24.2	0.6	1.1
1986	179	28.5	5.6	27.9	0.6	1.7
1987	179	30.7	3.3	29.1	1.1	2.2
1988	179	30.2	1.7	29.6	1.1	1.1
1989	179	30.2	1.7	29.1	2.2	1.7
1990	178	30.9	4.2	29.8	1.1	2.8
1991	198	27.3	3.0	26.8	1.0	1.5
1992	198	29.3	3.5	28.8	2.0	1.5
1993	200	27.0	0.5	26.5	1.5	2.0
1994	201	24.4	0.0	23.9	1.5	2.0
1995	201	22.9	1.5	21.9	1.5	3.0
1996	201	21.4	0.5	19.9	1.5	3.5
1997	201	16.9	1.5	14.9	1.5	3.0
1998	201	16.4	2.0	13.9	2.5	4.0
1999	201	14.9	1.5	12.9	2.5	3.3
2000¶	201	12.9	0.5	11.9	2.5	2.0

\*Bank debt & bonds. ¶Through third quarter.  
Source: Standard & Poor's.

ings, notably on Russia's MinFin bonds and Indonesia's commercial bank debt. These, when added to the earlier deals on Russia's London Club debt and Ecuador's and Ukraine's foreign currency bonds, could reduce the total value of debt in default in 2001 by more than \$35 billion.

Regarding possible new defaults, the evidence is also relatively reassuring. Credit quality among the 86 sovereigns monitored by Standard & Poor's (the median foreign

currency rating of which is 'BBB') has improved in 2000: upgrades (eight) lead downgrades (two) by a factor of four to one. Fourteen sovereigns have positive rating outlooks, while the outlooks for another five are negative. Encouraging, too, is the fact that rating outlooks are either stable or positive for 16 governments rated in the 'B' category or lower, where the risk of default is highest. Rated sovereigns include virtually all government issuers active in the cross-border bond and bank debt markets.

There are, of course, some potential clouds on the horizon. The main one is a less favorable global macroeconomic environment. The IMF, for example, is forecasting real GDP growth in industrial countries to slow to 3.2% in 2001 from 4.2% in 2000. With interest rates near their peak in the U.S. and unlikely to rise sharply in Europe and Japan, the impact on emerging markets should be relatively muted. Indeed, the IMF's forecast for output growth in developing countries, at 5.7% next year, is little changed from 5.6% in 2000. The oil market could disturb this sanguine picture, however. A prolonged period of high petroleum prices would lead to weaker growth in both industrialized and emerging market countries in 2001 and help trigger a turn in the sovereign credit cycle.

A related imponderable element is market sentiment and its potential impact on global capital flows. Secondary market yield spreads for emerging market sovereigns have been markedly less volatile this year (as measured by J.P. Morgan's EMBI+ index ranging between 634 and 904 basis points over U.S. Treasuries) than during 1997-1999. Also, until recently spreads have been on a declining trend. Lower credit spreads clearly reflect a more positive view by investors about credit fundamentals. Judging from the speed at which recent debt workouts have been completed, they may also indicate that investors are adapting to periodic sovereign defaults; even without major reforms to the global financial system. If so, the combination of stable credit fundamentals and less volatility in capital markets should help the number of sovereign defaults to decline further in 2001. 