

Fitch Ratings Global Corporate Finance 2008 Transition and Default Study

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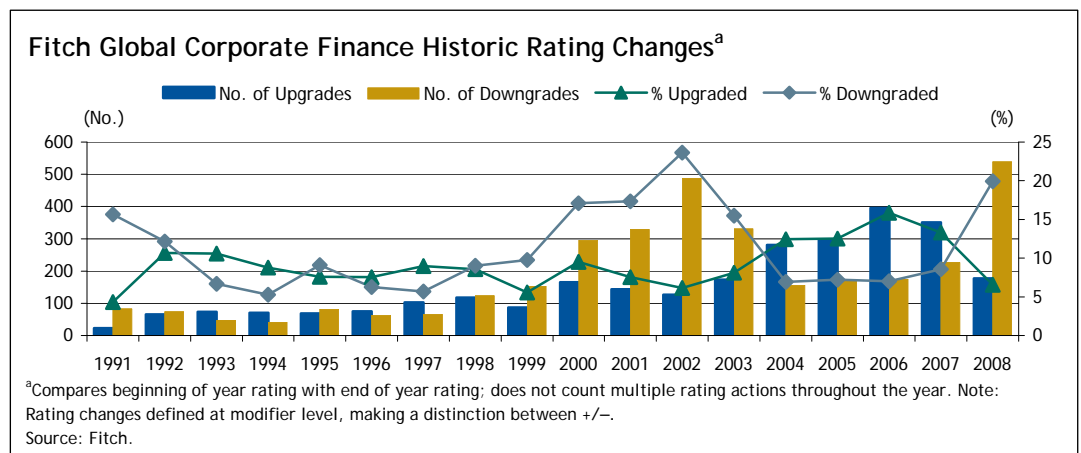
Summary

This study provides data and analysis on the performance of Fitch's global corporate ratings in 2008 and over the long term, capturing the period 1990–2008. The report provides summary statistics on the year's key rating transition and default trends.

Global corporate credit quality deteriorated at an alarming pace in 2008 with downgrades affecting 20% of Fitch-rated corporate finance issuers, up from 8.6% in 2007. The year's events were unprecedented, beginning with the devastating impact of the U.S. housing market downturn on large financial institutions with exposure to mortgage-backed or related securities and ending with debilitated credit markets, plunging consumer and business confidence, and confirmed economic recessions in the U.S. and throughout most of Europe, with emerging market economies also weakening late in the year.

The credit and, ultimately, economic crisis, affected issuers up and down the rating scale. Investment-grade issuers saw downgrades climb year-over-year to 19.2% from 8.7% in 2007 and upgrades fall to 4.7% from 10.5% in 2007. Speculative-grade issuers experienced a similar pattern with downgrades increasing to 21.9% from 8.2% in 2007 and upgrades tumbling to 11.9% from 21.6% a year earlier. Global corporate downgrades exceeded upgrades by a margin of 3-to-1 in 2008, a strong departure from the 0.6-to-1 ratio recorded in 2007 and the first time downgrades topped upgrades since 2003. In addition, Fitch recorded 37 global issuer defaults, up from just three in 2007 for a full-year global corporate default rate of 1.29% compared with 0.11% in 2007.

Given the reach and depth of the still unfolding economic downturn and, in particular, an unparalleled period of stress for large and critically important global financial institutions, Fitch believes corporate rating trends will continue to be bleak in 2009, with continued negative rating drift and rising corporate default rates. Importantly, at the end of 2008, 26% of Fitch-rated global corporate issuers carried a negative outlook or watch assignment compared with just 5% on positive outlook or watch.



Fitch Global Corporate Finance Rating Movements Across Major Rating Categories

(%)

	1990–2007		2007		2008	
	Downgrade	Upgrade	Downgrade	Upgrade	Downgrade	Upgrade
AAA	4.82	NA	8.70	NA	13.64	NA
AA	7.40	0.09	5.84	0.00	21.77	0.00
A	4.91	2.41	3.25	2.04	7.95	1.81
BBB	4.58	4.77	2.93	4.03	6.38	2.55
BB	10.02	9.03	6.89	11.29	15.10	6.84
B	5.45	12.79	2.14	10.32	10.80	5.56
CCC to C	24.50	21.61	6.90	27.59	26.09	8.70

NA – Not applicable. Note: Data enhancement efforts may lead to slightly different results than previously published. Current study supersedes all prior statistics.
Source: Fitch.

Highlights

- Global corporate rating actions turned increasingly negative as 2008 unfolded and in record time exhibited deep recessionary patterns. The ratio of downgrades to upgrades, already in negative territory early in the year, moved from 2-to-1 in the first quarter to 12.5-to-1 in the last quarter. For the full year, downgrades affected 20% of Fitch-rated corporate finance issuers, similar to the 2002 corporate downgrade rate of 23.6%, but again the speed of credit deterioration was far more pronounced than any previously recorded by Fitch. Downgrades totaled 539 in 2008 and upgrades totaled 177. Downgrades were up more than twofold year over year while upgrades fell 49.6%.
- Credit and economic troubles in 2008 resulted in frequent multi-notch downgrades. Multi-notch downgrades outpaced upgrades by 6.8-to-1 compared with a modest 1.3-to-1 in 2007, and slightly below a peak of 7.1-to-1 recorded by Fitch in 2002.
- Not surprisingly, the mix of fallen angels and rising stars reversed direction in 2008. The margin of fallen angels to rising stars settled at 1.9-to-1, closer in line with recessionary results from the 2001–2002 period. Year-over-year rising stars fell 40% and fallen angels soared 86%, as credit quality fell quickly and sharply. Despite the deterioration among financial issuers, non-financial issuers accounted for the majority, or 67%, of fallen angels during the period, a reflection of the relative efficiency of government intervention in the financial sector.

Fitch Global Corporate Finance Rating Actions by Sector — 2008^a

Sector	Downgrades		Upgrades	
	No.	% of Sector Ratings (%)	No.	% of Sector Ratings (%)
Banking and Finance	263	21.8	69	5.7
Industrials	206	21.1	79	8.1
Power and Gas	28	8.4	22	6.6
Insurance	42	21.9	7	3.6
All	539	19.9	177	6.5

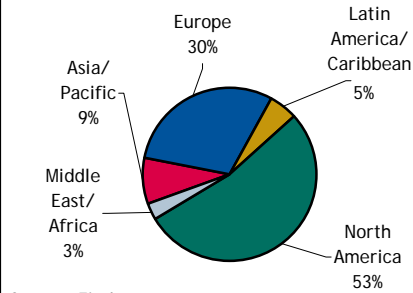
^aCompares beginning of year rating to end of year rating, does not count multiple rating actions throughout the year. Note: Rating changes defined at the modifier level, making a distinction between +/-.
Source: Fitch.

Fitch Global Corporate Finance Rating Actions by Region — 2008^a

Region	Downgrades		Upgrades	
	No.	% of Regional Ratings (%)	No.	% of Regional Ratings (%)
Asia/Pacific	46	10.7	39	9.1
Europe	162	23.1	37	5.3
Latin America and Caribbean	30	16.6	17	9.4
North America	285	22.4	66	5.2
Middle East and Africa	16	13.2	18	14.9
All	539	19.9	177	6.5

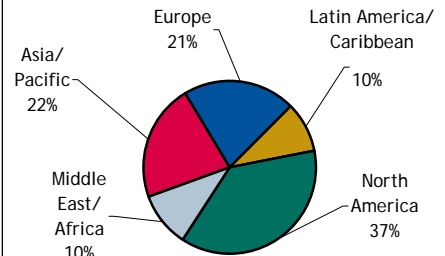
^aCompares beginning of year rating to end of year rating, does not count multiple rating actions throughout the year. Note: Rating changes defined at the modifier level, making a distinction between +/-.
Source: Fitch.

**Fitch Global Corporate Finance
Distribution of Downgrades by
Region — 2008**



Source: Fitch.

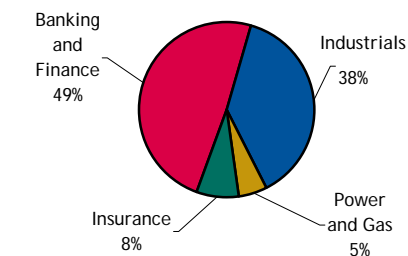
**Fitch Global Corporate Finance
Distribution of Upgrades by
Region — 2008**



Source: Fitch.

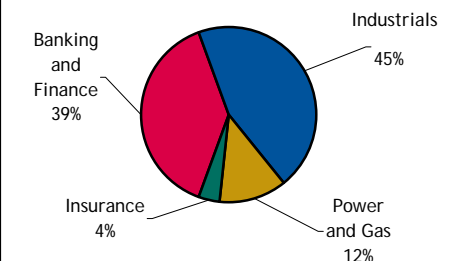
- Regionally, the majority of negative rating activity resided among North American credits, which accounted for 285, or 53%, of corporate finance downgrades in 2008. In fact, 22.4% of all North American corporate issuers received a downgrade in 2008, while only 5.2% received upgrades. However, a nearly comparable share (23%) of European issuers suffered downgrades in 2008 compared with 5% that were upgraded. The mix of downgrades to upgrades was more balanced across Asia/Pacific and Latin America/Caribbean and had a less negative skew across Middle East/Africa. Emerging markets began to feel the pain of the global economic crisis late in the third quarter.
- By sector, banking and finance represented the bulk of 2008 downgrades accounting for 49%, with most downgrades associated with investment losses tied to the severe U.S. housing downturn. However, downgrades affected more than 20% of both outstanding industrial and financial institution ratings in 2008. The share of Fitch-rated power and gas issuers downgraded in 2008 was more moderate at 8.4%. Turning to upgrades, the share of industrial issuers upgraded — 8.1% — was the highest among the four broad market sectors, with power and gas not far off at 6.6%, while banking and finance and insurance upgrade rates were the lowest at 5.7% and 3.6%, respectively.
- Emerging market credit quality came under pressure at the end of 2008. Downgrades outpaced upgrades, although just slightly by 1.1-to-1 in 2008 compared with positive

**Fitch Global Corporate Finance
Distribution of Downgrades by
Sector — 2008**



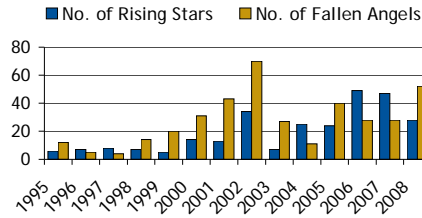
Source: Fitch.

**Fitch Global Corporate Finance
Distribution of Upgrades by
Sector — 2008**



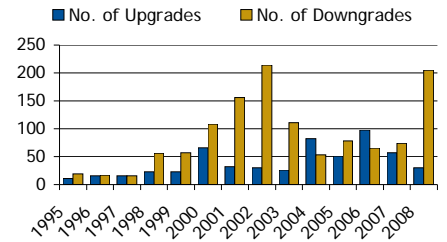
Source: Fitch.

**Fitch Global Corporate Finance
Fallen Angels and Rising Stars^a**



^aA Fallen Angel is an issuer downgraded from an investment grade to a speculative grade rating. A Rising Star is an issuer upgraded from a speculative grade to an investment grade rating.
Source: Fitch.

**Fitch Global Corporate Finance
Multi-Notch Ratings Actions^a**



^aA multi-notch rating action is defined here as an upgrade or a downgrade of more than one notch examining rating changes on a year-over-year basis.
Source: Fitch.

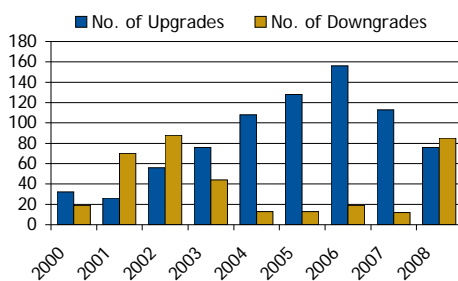
results in 2007, when downgrades trailed upgrades 0.1-to-1. By contrast, developed market issuers registered nearly five downgrades for every one upgrade, showing the disparity between the two market segments in 2008.

- Fitch recorded 37 global corporate defaults in 2008, up sharply from a benign three defaults registered in 2007. The default rate for Fitch-rated global corporate issuers was 1.29% in 2008, up from 0.11% recorded in 2007 and an average annual default rate of 0.68% over the 1990–2008 period. The annual default rate across Fitch’s investment-grade corporate ratings was 0.57% in 2008 and 3.27% across Fitch-rated speculative-grade issuers. The average annual default rate for investment-grade issuers was 0.14% and 2.99% for speculative-grade for the 1990–2008 period.

Fitch 2008 Rating Migration Rates

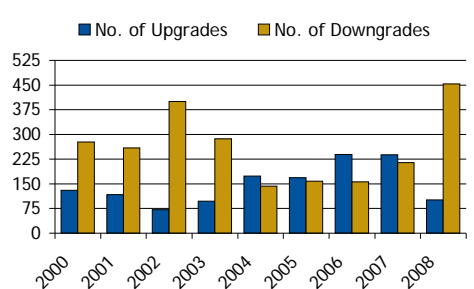
An examination of the 2008 one-year rating migration data at the major rating categories pinpoints the movement of ratings both up and down the rating scale from ‘A’ to ‘BBB’ for example, as opposed to the modifier level, which counts each notch change or that from ‘A’ to ‘A-’. (Please see the Fitch Global Corporate Finance Transition Rates Across the Major Rating Categories and those at the modifier level in the Appendix). Across the major rating categories, the vertical left-hand column identifies ratings outstanding at the beginning of 2008, while the horizontal axis offers

**Fitch Global Corporate Finance
Emerging Markets Historic Rating
Activity^a**



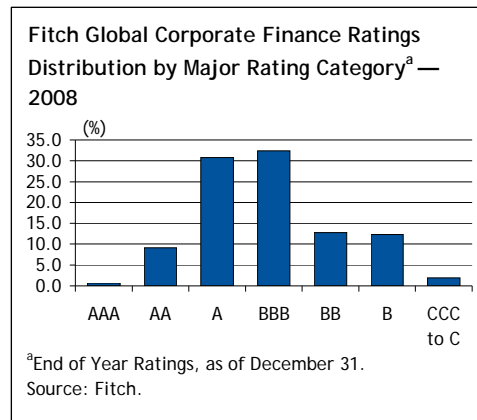
^aCompares beginning of year rating with end of year rating; does not count multiple rating actions throughout the year.
Source: Fitch.

**Fitch Global Corporate Finance
Developed Markets Historic Rating
Activity^a**



^aCompares beginning of year rating with end of year rating; does not count multiple rating actions throughout the year.
Source: Fitch.

information on the migration pattern of those ratings by year's end. The table reads from the top left-hand corner, beginning with 'AAA' at 86.36% and following the diagonal to the right in order to examine the stability of each consecutive rating category. Fitch's 2008 rating migration data revealed continued overall stability, however, with more negative, rather than positive rating volatility. This is in stark contrast to results from recent years and reflective of the current credit environment.



Across the board, each rating category recorded increases in downgrade rates year-over-year. Similarly, upgrade rates dropped across all the major rating categories, excluding 'AA', which remained at zero.

Investment-grade level downgrades at the major rating categories commenced at the top of the rating scale, which is not surprising given the number of highly rated financial institutions affected by the housing crisis over the course of 2008. Among the limited number of issuers rated 'AAA', the downgrade rate increased to 13.6% from 8.7% in 2007. (It is important to note that over the course of 2008, Fitch also withdrew insurer financial

strength ratings (IFS) of five financial guarantors rated 'AAA' at the beginning of 2008. Of these, two were withdrawn at 'AA' and three at 'CCC'. These rating actions are not captured in the table below.)

Fitch Global Corporate Finance Transition Rates Across the Major Rating Categories: 2008

(%, One Year)

	AAA	AA	A	BBB	BB	B	CCC to C	D	Total
AAA	86.36	13.64	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.00	78.23	20.41	0.68	0.00	0.00	0.00	0.68	100.00
A	0.00	1.81	90.24	7.11	0.12	0.00	0.00	0.72	100.00
BBB	0.00	0.00	2.55	91.07	4.99	0.58	0.35	0.46	100.00
BB	0.00	0.00	0.28	6.55	78.06	10.54	1.99	2.56	100.00
B	0.00	0.00	0.00	1.23	4.32	83.64	7.72	3.09	100.00
CCC to C	0.00	0.00	0.00	0.00	0.00	8.70	65.22	26.09	100.00

Source: Fitch.

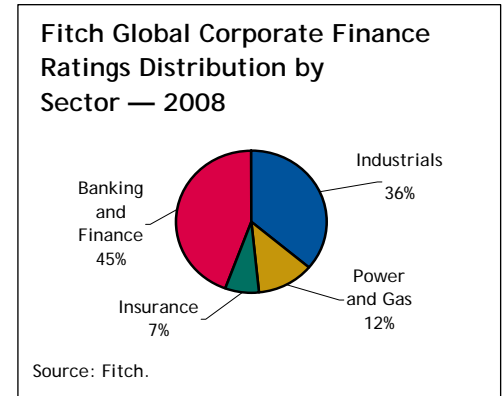
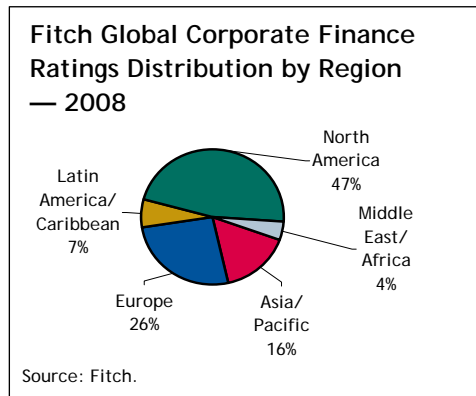
Global Rating Activity By Broad Market Sector: 2008

(%)

	Global Corporates		Financial		Non-Financial	
	Downgrade	Upgrade	Downgrade	Upgrade	Downgrade	Upgrade
AAA	13.64	NA	5.56	NA	50.00	NA
AA	21.77	0.00	22.95	0.00	16.00	0.00
A	7.95	1.81	8.98	1.37	6.29	2.52
BBB	6.38	2.55	5.08	2.94	7.38	2.25
BB	15.10	6.84	19.55	4.51	12.39	8.26
B	10.80	5.56	11.01	1.83	10.70	7.44
CCC to C	26.09	8.70	25.00	12.50	26.67	6.67

NA – Not applicable.

Source: Fitch.



The 'AA' and 'A' rating categories observed downgrade rates of 21.8% and 8.0%, respectively, in 2008. The 21.8%, due almost entirely to the severe credit erosion in the financial sector, was the highest percentage recorded by Fitch in nearly two decades at the 'AA' level. In contrast, issuers at the lowest investment-grade rating category — 'BBB' — were downgraded at a rate of 6.4% in 2008. Clearly, the surge in downgrades in the financial sector in 2008 had a strong disproportionate effect on the top rating categories where most financial ratings reside. At the beginning of 2008, 68% of Fitch's outstanding ratings, for example, 'AAA', 'AA', and 'A', consisted of financial entities and 32% of industrial companies.

Speculative-grade credits typically experience more volatile rating activity during economic highs and lows. For 2008, speculative-grade issuers, at the major rating categories, witnessed a surge in downgrade activity year-over-year. Issuers rated 'BB' in 2008 registered a downgrade rate of 15.1%, while for the 'B' category, a rate of 10.8% was recorded. The combined 'CCC' to 'C' category posted a downgrade rate of 26.1%, essentially consisting of transition to default, a pronounced increase from the 6.9% recorded one year earlier.

Fitch Global Corporate Finance Average Annual Transition Rates: 1990–2008

(%)

	AAA	AA	A	BBB	BB	B	CCC to C	D	Total
AAA	94.90	5.10	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.08	91.65	7.84	0.35	0.02	0.02	0.00	0.04	100.00
A	0.02	2.34	92.48	4.73	0.21	0.07	0.06	0.09	100.00
BBB	0.00	0.24	4.29	90.70	3.71	0.53	0.24	0.28	100.00
BB	0.03	0.06	0.16	8.53	80.63	7.20	1.83	1.55	100.00
B	0.00	0.00	0.26	0.72	10.62	82.07	4.34	1.99	100.00
CCC to C	0.00	0.00	0.00	0.27	1.08	19.46	54.59	24.59	100.00

Source: Fitch.

Global Rating Activity By Broad Market Sector: 1990–2008

(%)

	Global Corporates		Financial		Non-Financial	
	Downgrade	Upgrade	Downgrade	Upgrade	Downgrade	Upgrade
AAA	5.10	NA	4.33	NA	7.07	NA
AA	8.27	0.08	7.04	0.11	11.75	0.00
A	5.16	2.36	3.68	3.41	7.26	0.87
BBB	4.77	4.53	3.58	6.64	5.54	3.15
BB	10.58	8.78	12.05	10.42	9.86	7.98
B	6.33	11.59	5.61	12.86	6.76	10.84
CCC to C	24.59	20.81	18.30	28.10	29.03	15.67

NA - Not applicable.
Source: Fitch.

Examining upgrades within the investment-grade rating categories, all weakened year-over-year but by a more modest amount relative to the sharp changes recorded among downgrades year-over-year. Not surprisingly, there were no upgrades at the 'AA' level mirroring 2007 data. Rating categories 'A' and 'BBB' ended the year with moderate upgrade rates of 1.8% and 2.6%, respectively, compared with 2.0% and 4.0%, respectively, in 2007. Speculative-grade issuers experienced more significant changes in upgrade rates within the 'BB' (6.8%) and 'B' (5.6%) categories, both down nearly five percentage points from year earlier levels. Issuers at the lowest end of the rating scale, 'CCC' to 'C', registered few upgrades, resulting in a rate of 8.7%, down three-fold from the 27.6% recorded a year earlier.

Fitch Global Corporate Finance Issuer Default Rates

(1990–2008)

	Number of Fitch-Rated Defaults	Default Rate (%)
1990	6	1.38
1991	10	1.86
1992	4	0.64
1993	0	0.00
1994	0	0.00
1995	1	0.11
1996	2	0.20
1997	1	0.09
1998	6	0.43
1999	13	0.81
2000	8	0.44
2001	19	0.86
2002	47	2.15
2003	25	1.08
2004	3	0.12
2005	8	0.31
2006	2	0.07
2007	3	0.11
2008	37	1.29

Note: Data enhancement efforts may lead to slightly different results than previously published. Current study supersedes all prior statistics. Source: Fitch.

Briefly examining the migration data by major sector revealed that both the financial and non-financial sector rating activity was net negative on the year at each rating category. The investment-grade rating categories suffered from financial sector downgrades, especially at the 'AA' and 'A' levels, while non-financial negative rating movements had a considerable impact on results for ratings 'BBB' and below.

Comparing the 2008 data to average annual historical results for the 1990–2007 period illustrates that credit quality weakened considerably in the most recent year. Downgrades were significantly higher and upgrades were much lower than the historic averages. In fact, the category with the most significant difference compared with the historic one-year average data again was 'AA' with 78.2% of issuers unchanged in 2008, compared with an

average annual stability rate of 92.5% for the 1990–2007 period. Again, banking and finance issuers contributed heavily to the 2008 high investment-grade downgrades statistics.

Examining the average annual data including 2008 (1990–2008) shows that issuers rated investment-grade exhibit far more stability than speculative-grade level issuers even including times of great economic and credit stress. Each incremental move down the rating scale displays increased negative volatility, atop 'AAA' (5.1%) and 'A' (5.2%) rating categories down through the speculative-grade categories of 'BB' (10.6%) to 'CCC' to 'C' (24.6%).

Defaults Multiply with Global Credit and Economic Crisis

Fitch-rated defaults totaled 37 in 2008, a sizable increase given that only three were observed in 2007. As a result, Fitch recorded an increase in its annual issuer default rate to 1.29%, up from only 0.11% in 2007.

In one respect or another, the global credit crisis played a central part in these defaults. Either directly related to severe real estate-related investment losses that depleted bank capital, or to the effects of highly risk-averse credit markets, which cutoff critical funding for low-rated speculative-grade issuers, or to the precipitous drop in

consumer and business spending that contributed to contracting profits and rising unemployment.

Financial institutions (including insurance) dominated the Fitch-rated defaulters in 2008, accounting for more than half, and of the financial institutions, half were located in the U.S., the epicenter of the credit crisis. The remaining financial institution credits were divided between Europe and Asia/Pacific. Financial institutions accounted for all but one of the investment-grade defaults during the year. Among those defaults included the largest U.S. corporate default in history, brokerage house Lehman Brothers Holdings, Inc., which had far-reaching repercussions throughout the financial markets. Other defaults included the distressed debt exchange of consumer financial giant GMAC LLC (and subsidiaries), while three major Icelandic banks, including Landsbanki Islands, came under state administration, the result of financial stress and heightened risk to the country's overall creditworthiness.

Fitch Global Corporate Finance Average Cumulative Default Rates: 1990–2008

(%)

	One-Year	Two-Year	Three-Year	Four-Year	Five-Year
AAA	0.00	0.00	0.00	0.00	0.00
AA	0.04	0.00	0.00	0.02	0.05
A	0.09	0.22	0.34	0.44	0.62
BBB	0.26	0.77	1.42	2.16	2.86
BB	1.42	3.32	4.94	6.43	8.22
B	1.83	3.76	5.68	7.54	9.20
CCC to C	22.30	27.59	30.64	33.33	36.92
Investment Grade	0.14	0.35	0.61	0.89	1.16
High Yield	2.99	5.22	7.16	8.92	10.81
All Corporates	0.68	1.25	1.77	2.24	2.73

Source: Fitch.

As for non-financial issuers, of the industrial and power and gas credits that defaulted in 2008, the majority originated in the U.S., or 73%. Additionally, all non-financial defaults were speculative-grade at the beginning of the year prior to default, except one, Mexican food retailer Controladora Comercial Mexicana, S.A. de C.V (rated 'BBB-'). Several issuers missed interest payments and regained footing while others succumbed to bankruptcy as business conditions continued to worsen. Familiar names populated the list of 2008 defaults, including Irish crystal and chinemaker Waterford Wedgewood Plc, publisher Tribune Inc., and retailer Linens 'n Things, Inc.

The long-term average annual default rate for Fitch-rated corporate issuers increased to 0.68% through 2008. A marked increase in the average annual default rates at the 'AA' and 'A' categories were the result of financial sector defaults by Lehman Brothers, rated 'AA-', and Icelandic banks, rated 'A', as well as Washington Mutual Inc., rated 'A-', at the beginning of 2008. Therefore, the resulting average annual 'AA' default rate for the 1990–2008 period increased to 0.04% from zero over the 1990–2007 period, while the 'A' moved up to 0.09% through 2008 from 0.03% over 1990–2007. Of note, over the 19-year period from 1990–2008, Fitch recorded two 'AA-', three 'A', and six 'A-' defaults (rated 'AA-', 'A', and 'A-' at the beginning of the year in which they ultimately defaulted).

The complete series of default rates from the one- to five-year periods at the major rating categories is available in the Fitch Global Corporate Finance Average Cumulative Default Rates: 1990–2008 table on page 8. As shown, the probability of default increases considerably with each incremental movement down the rating scale but, in particular, when the movement coincides with a shift from investment-grade to speculative grade. The relationship between Fitch’s ratings and default risk remained strong, as the average annual default rate for Fitch’s global investment-grade corporate ratings, for instance, was 0.14% over the 1990–2008 period, while across Fitch’s global speculative-grade ratings over the same period was 2.99%.

As mentioned in prior studies, it is worth noting with respect to the historical default frequencies displayed in the Average Cumulative Default Rates table on page 8, default rates at the ‘B’ level, for example, appear modest relative to data reported by other sources. This is due to Fitch’s historically more limited coverage of the speculative-grade market. Fitch expects this anomaly will continue to dissipate as both sample sizes and observation years continue to grow. For a detailed description of the methodology used to calculate Fitch’s default rates, please see the Fitch Transition and Default Methodology section below.

Fitch Transition and Default Methodology

All Fitch global, publicly rated, corporate finance long-term debt issuer ratings from 1990 to the present are included in Fitch’s transition and default statistics. Fitch employs a static pool approach in calculating default and transition data. The static pools or, alternatively, cohorts, are created by grouping issuer ratings according to the year in which the ratings are active and outstanding at the beginning of the year. For example, issuers with ratings outstanding at the beginning of 1990 constitute the 1990 static pool or cohort, with the same true for the 1991, 1992 and additional cohorts. Issuers newly rated by Fitch in any given year are included in the following year’s cohort. For example, the performance of ratings initiated in mid-1995 would be followed as part of the 1996 and future cohorts. Ratings withdrawn midyear are excluded from subsequent cohorts since they are no longer active, but they are monitored for defaults. Defaults on withdrawn ratings are included in Fitch’s average annual and multi-year default statistics.

Fitch’s continuing data enhancement efforts may result in slightly different statistics than in previously published studies. Therefore, this most recent study supersedes all prior versions. In addition, comparisons with earlier Fitch corporate finance transition and default studies should be viewed within the context of the differing methodologies, whether rating movements were analyzed across the broad rating categories or at both the modifier and flat levels.

Transition Rates

In order to calculate one-year transition rates, Fitch examines the performance of ratings outstanding at the beginning and end of a calendar year. Withdrawn ratings are excluded from the transition table calculations since they do not fit this criteria, namely the ratings must be outstanding over a full year or over the full period under observation.

Issuer ratings may reside in multiple static pools, as long as their ratings are outstanding at the beginning and end of the year or multiple-year horizons under observation. For example, the annual performance of an issuer rating initiated in 1994, and therefore outstanding at the beginning of 1995, and withdrawn in 1999, would be included in the 1995, 1996, 1997 and 1998 static pools. The rating’s performance over multiple-year horizons would also be included in the two-year, three-year and four-year transition rates for each of the cohorts noted but excluded from five-year transition rates since the rating

Parameters of the Fitch Corporate Issuer Default Rate

- Statistical data captured in this study is based on the long-term IDR, where assigned, or historically, the long-term issuer rating (a proxy of default risk). For those issuers not assigned an issuer-level rating historically, an algorithm was used to derive an IDR proxy from the outstanding rated debt at year end.
- Fitch worldwide publicly rated corporate finance IDRs and long-term issuer ratings encompassing industrials, utilities, insurance, banks and finance companies. This includes Fitch-rated parent companies and their subsidiaries where the subsidiaries have outstanding debt or securities rated by Fitch.
- Structured finance, municipal, private placement and sovereign ratings were excluded from the study.
- Short-term issuer and debt ratings were also excluded from the study.
- The restrictive default (RD) rating is a default and counted as such.
- One-year default rates were calculated by dividing the number of defaulted issuers by the number of outstanding rated issuers at the beginning of each respective year.

was withdrawn in year five and was not outstanding for five full years as part of any cohort. (In other words, as part of the 1995 cohort, this rating's performance would be monitored over a one-year period, 1995; two-year period, 1995–1996; three-year period, 1995–1997; and four-year period, 1995–1998.) In all, Fitch's transition data contain 19 static pools or cohorts from 1990–2008, allowing for 19 unique one-year transition rates, 18 two-year transition rates, 17 three-year transition rates and so on.

The occurrence and timing of both rating upgrades and downgrades for corporate issuers can be attributed to changes in qualitative and/or quantitative factors. Both qualitative and quantitative measures are used to assess the business and financial risks of corporate issuers. Qualitative analysis includes examining industry risk, operating environment, market position, management and accounting policies. In contrast, the quantitative aspect of Fitch's corporate ratings focuses on a company's policies in relation to operating strategies, acquisitions and divestitures, leverage targets, dividend policy and financial goals. An important component in the analysis is the company's ability to generate cash, which is reflected by the ratios that measure profitability and coverage on a cash flow basis.

The rating transitions outlined in this study represent a distinct historical period and may not represent future rating migration patterns. Transition rates are influenced by a number of factors, including macroeconomic variables, credit conditions and corporate strategy. It is useful to examine the performance of Fitch's ratings on a relative scale within each rating category. In addition, it is important to point out that while transition matrices are presented at both the modifier and flat levels in this study, all other statistical analysis was conducted at the modifier level, unless noted otherwise.

Fitch's Definition of Default

Fitch defines a default as one of the following:

- Failure of an obligor to make timely payment of principal and/or interest under contractual terms of any financial obligation;
- The bankruptcy filing, administration, receivership, liquidation or other winding up or cessation of business of an obligor; or
- The distressed or other coercive exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation.

Default Rates

Fitch's default rates are calculated on an issuer basis, as opposed to dollar amounts. First, defaults are examined by year for each static pool and individual rating category. For example, if 25 issuers defaulted in 2002, and the 2002 static pool consisted of 2000 issuer ratings, the resulting annual default rate for all ratings in 2002 would be 1.3%. If 10 of these defaults consisted of defaults among issuers rated 'BB' at the beginning of the year and the 'BB' cohort at the beginning of the year totaled 500, the 'BB' 2002 default rate would be 2% (10/500).

From these annual default rates, Fitch derives average annual default rates by weighing each cohort's default rates by the number of ratings outstanding in the given cohort relative to the number of total ratings outstanding for all cohorts. In other words, following the example above, the 2002 'BB' annual default rate of 2% might be followed by a 2003 'BB' annual default rate of 1%. A straight average of these two rates would ignore potential differences in the size of the two cohorts. Rather, weighing the results based on the relative number of 'BB' ratings outstanding in 2002 and 2003 gives greater emphasis to the results of the 'BB' cohort with the most observations.

The same technique is used to calculate average default rates over multiple-year horizons. For example, the two-year default rate for the 2002 'BB' rating pool would be averaged with the two-year default rate for the 2003 'BB' rating pool by weighing the default rates by the relative size of each pool.

For instance, any defaults produced by the 2002 'BB' cohort (the static pool) over the two-year time horizon are summed and divided by the number of 'BB' ratings outstanding at the beginning of 2002 to arrive at the simple 2002 two-year cumulative default rate (CDR) for the 'BB' category. If a total of 15 issuers carrying 'BB' ratings at the beginning of 2002 default over the subsequent two years and 250 issuers were rated

'BB' at the beginning of 2002, 6.0% would be the resulting two-year CDR for the 'BB' rating category if 10 issuers defaulted in year one and five in year two. The 2002 two-year 'BB' default rate would then be averaged with the 2003 two-year 'BB' default rate (using the same methodology just described) by weighing the results of the two by the relative number of 'BB' ratings outstanding in 2002 and 2003. This is the general approach for calculating average CDRs over multiple-year horizons.

Withdrawn Ratings

With regard to withdrawn ratings, all public ratings are included in the static pool data until the ratings are withdrawn and are then excluded from future static pools.

For the purpose of calculating default rates, however, Fitch tracks withdrawn ratings on a continual basis and includes defaults on withdrawn ratings for the cohorts in which the ratings were active and outstanding. For example, a 'BB' issuer's rating is outstanding in 1995 and is withdrawn in 1997. If the issuer defaults in 1999, the default would be included in the 1995 five-year default rate, 1996 four-year default rate and 1997 three-year default rate.

Appendix 1A: Fitch Global Corporate Finance Average Cumulative Default Rates: 1990–2008

(%, Modifier Level)

	One-Year	Two-Year	Three-Year	Four-Year	Five-Year
AAA	0.00	0.00	0.00	0.00	0.00
AA+	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.07	0.14
AA–	0.07	0.00	0.00	0.00	0.00
A+	0.00	0.14	0.22	0.24	0.31
A	0.08	0.22	0.27	0.40	0.55
A–	0.18	0.30	0.55	0.71	1.03
BBB+	0.20	0.44	0.83	1.32	1.88
BBB	0.15	0.73	1.42	2.31	2.96
BBB–	0.52	1.26	2.20	3.08	4.06
BB+	1.57	3.00	4.10	5.83	7.26
BB	1.20	4.09	6.53	8.12	10.48
BB–	1.45	2.95	4.43	5.52	7.27
B+	1.39	3.41	5.05	6.69	8.02
B	2.24	4.36	6.82	8.31	10.48
B–	1.93	3.56	5.26	7.84	9.32
CCC to C	22.30	27.59	30.64	33.33	36.92
Investment Grade	0.14	0.35	0.61	0.89	1.16
High Yield	2.99	5.22	7.16	8.92	10.81
All Corporates	0.68	1.25	1.77	2.24	2.73

Source: Fitch.

Appendix 1B: Fitch Global Corporate Finance Three-Year Default Statistics

(%)

	AAA	AA	A	BBB	BB	B
10-Year Average of Three-Year Cumulative Default Rates (CDRs)						
1997–2006	0.00	0.00	0.39	1.49	5.13	6.06
Most Recent Three-Year Cumulative Default Rates (CDRs)						
2006	0.00	0.00	0.93	0.82	2.26	3.64
2005	0.00	0.00	0.00	0.37	0.33	1.85

Source: Fitch.

Appendix 2: Fitch Global Corporate Finance Transition Rates Across the Major Rating Categories

(%)

	AAA	AA	A	BBB	BB	B	CCC to C	D	Total
One-Year: 2008									
AAA	86.36	13.64	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.00	78.23	20.41	0.68	0.00	0.00	0.00	0.68	100.00
A	0.00	1.81	90.24	7.11	0.12	0.00	0.00	0.72	100.00
BBB	0.00	0.00	2.55	91.07	4.99	0.58	0.35	0.46	100.00
BB	0.00	0.00	0.28	6.55	78.06	10.54	1.99	2.56	100.00
B	0.00	0.00	0.00	1.23	4.32	83.64	7.72	3.09	100.00
CCC to C	0.00	0.00	0.00	0.00	0.00	8.70	65.22	26.09	100.00
Average Annual: 1990–2008									
AAA	94.90	5.10	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.08	91.65	7.84	0.35	0.02	0.02	0.00	0.04	100.00
A	0.02	2.34	92.48	4.73	0.21	0.07	0.06	0.09	100.00
BBB	0.00	0.24	4.29	90.70	3.71	0.53	0.24	0.28	100.00
BB	0.03	0.06	0.16	8.53	80.63	7.20	1.83	1.55	100.00
B	0.00	0.00	0.26	0.72	10.62	82.07	4.34	1.99	100.00
CCC to C	0.00	0.00	0.00	0.27	1.08	19.46	54.59	24.59	100.00
Average Two-year: 1990–2008									
AAA	90.43	9.41	0.16	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.16	85.03	13.98	0.72	0.12	0.00	0.00	0.00	100.00
A	0.02	4.40	86.09	8.33	0.63	0.20	0.09	0.24	100.00
BBB	0.01	0.49	8.17	83.06	5.63	1.24	0.53	0.86	100.00
BB	0.04	0.20	0.51	16.19	66.56	10.26	2.26	3.98	100.00
B	0.00	0.00	0.41	1.76	20.26	68.80	4.25	4.52	100.00
CCC to C	0.00	0.00	0.00	0.63	1.88	35.00	30.00	32.50	100.00
Average Three-year: 1990–2008									
AAA	85.61	13.67	0.72	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.23	79.03	19.06	1.50	0.15	0.03	0.00	0.00	100.00
A	0.03	6.42	80.39	11.09	1.26	0.32	0.09	0.40	100.00
BBB	0.03	0.76	11.12	77.13	6.72	1.99	0.55	1.69	100.00
BB	0.00	0.29	1.42	21.43	55.28	12.08	3.03	6.46	100.00
B	0.00	0.00	0.63	3.52	26.29	58.81	3.16	7.59	100.00
CCC to C	0.00	0.00	0.00	1.07	5.71	39.64	15.71	37.86	100.00
Average Four-year: 1990–2008									
AAA	80.57	16.56	2.86	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.29	74.20	22.82	2.40	0.20	0.06	0.00	0.03	100.00
A	0.02	8.19	75.52	13.12	2.03	0.45	0.13	0.55	100.00
BBB	0.04	0.92	13.27	72.44	7.30	2.51	0.77	2.74	100.00
BB	0.00	0.25	2.15	23.97	48.71	13.19	2.52	9.21	100.00
B	0.00	0.00	0.94	6.71	28.82	50.24	2.12	11.18	100.00
CCC to C	0.00	0.00	0.43	1.29	9.05	37.93	7.76	43.53	100.00
Average Five-year: 1990–2008									
AAA	75.24	19.58	5.19	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.36	69.76	26.18	3.25	0.33	0.07	0.00	0.07	100.00
A	0.02	9.73	70.72	15.29	2.46	0.83	0.15	0.81	100.00
BBB	0.03	0.98	14.51	69.09	7.89	2.77	0.85	3.88	100.00
BB	0.00	0.16	2.47	25.62	44.29	12.37	2.15	12.93	100.00
B	0.00	0.00	1.38	9.68	27.65	44.70	1.84	14.75	100.00
CCC to C	0.00	0.00	0.52	4.71	6.28	35.60	2.62	50.26	100.00

Source: Fitch.

Appendix 3: Fitch Global Corporate Finance Transition Rates at the Modifier Level

(%)

	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC to C	D	Total
One-Year: 2008																			
AAA	86.36	4.55	9.09	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	100.00
AA+	0.00	52.00	16.00	32.00	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	100.00
AA	0.00	1.18	58.82	15.29	18.82	4.71	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA-	0.00	0.00	0.00	76.63	15.76	4.35	1.63	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	100.00
A+	0.00	0.00	0.00	6.06	73.16	16.45	1.73	1.30	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
A	0.00	0.00	0.00	0.35	3.50	72.03	20.28	1.75	0.00	0.70	0.00	0.35	0.00	0.00	0.00	0.00	0.00	1.05	100.00
A-	0.00	0.00	0.00	0.00	0.32	3.51	80.51	13.42	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	100.00
BBB+	0.00	0.00	0.00	0.00	0.35	0.35	6.27	78.75	10.80	2.79	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00	100.00
BBB	0.00	0.00	0.00	0.00	0.00	0.30	3.90	80.78	10.21	2.70	0.60	0.30	0.00	0.00	0.00	0.00	0.90	0.30	100.00
BBB-	0.00	0.00	0.00	0.00	0.41	0.00	0.00	8.68	75.62	7.02	2.89	2.07	0.41	1.65	0.00	0.00	0.00	1.24	100.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.40	15.20	61.60	8.00	2.40	0.80	0.80	1.60	7.20	100.00	
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	4.35	74.78	7.83	6.09	0.87	2.61	2.61	0.00	100.00
BB-	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	1.80	15.32	58.56	14.41	3.60	3.60	1.80	1.80	0.00	100.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	2.78	0.93	5.56	4.63	61.11	17.59	4.63	0.93	0.93	100.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	5.47	69.53	9.38	10.16	4.69	100.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.00	0.00	2.27	6.82	73.86	12.50	3.41	100.00
CCC to C	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	8.70	65.22	26.09	100.00	
Average Annual: 1990–2008																			
AAA	94.90	2.55	1.98	0.57	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	100.00
AA+	0.48	82.29	13.04	3.54	0.16	0.16	0.16	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
AA	0.00	2.62	80.45	11.18	4.31	0.69	0.19	0.25	0.00	0.25	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	100.00
AA-	0.04	0.04	3.58	84.74	8.45	2.17	0.57	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.08	100.00
A+	0.00	0.10	0.46	5.25	83.16	8.42	1.55	0.43	0.43	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
A	0.05	0.00	0.26	1.00	5.87	81.61	7.82	1.84	0.76	0.21	0.18	0.11	0.03	0.03	0.11	0.00	0.05	0.08	100.00
A-	0.00	0.00	0.12	0.22	0.96	7.34	80.25	8.40	1.40	0.65	0.12	0.16	0.00	0.03	0.00	0.03	0.12	0.19	100.00
BBB+	0.00	0.00	0.03	0.24	0.52	1.15	8.13	77.28	8.90	1.77	0.69	0.24	0.42	0.14	0.03	0.00	0.24	0.21	100.00
BBB	0.00	0.00	0.09	0.13	0.06	0.44	1.32	8.01	80.84	5.53	1.16	1.04	0.38	0.28	0.22	0.06	0.28	0.16	100.00
BBB-	0.00	0.05	0.05	0.14	0.23	0.18	0.23	1.42	11.12	76.43	5.17	2.15	1.14	0.46	0.46	0.05	0.18	0.55	100.00
BB+	0.00	0.17	0.00	0.00	0.00	0.00	0.26	0.77	2.83	14.91	68.21	5.23	1.71	1.11	1.54	0.43	1.11	1.71	100.00
BB	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.40	0.71	2.53	10.93	68.42	6.68	2.33	2.43	1.92	2.23	1.32	100.00
BB-	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.59	1.09	4.06	10.89	66.73	5.74	5.15	1.58	2.28	1.58	100.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27	0.68	0.68	4.50	16.35	63.08	7.77	2.32	2.59	1.50	100.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.15	0.46	0.92	4.31	15.56	65.33	6.32	4.31	2.47	100.00
B-	0.00	0.00	0.00	0.00	0.00	0.52	0.17	0.00	0.35	0.35	0.35	0.52	1.39	3.83	13.04	70.78	6.61	2.09	100.00
CCC to C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.54	0.27	0.27	0.54	3.78	15.14	54.59	24.59	100.00

Source: Fitch.

Appendix 4: Fitch-Rated Defaults 2008^a

Issuer Name	Rating at Beginning of Year	Industry Sector	Country
2008			
Controladora Comercial Mexicana, S.A. de C.V.(CCM)	BBB-	Industrials	Mexico
Corporacion Durango, S.A. de C.V.	B	Industrials	Mexico
Cymbis Finance Australia Limited	B	Banking and Finance	Australia
Education Resources Institute, Inc. (The) (TERI)	A-	Insurance	United States
Fremont General Corporation	CC	Banking and Finance	United States
General Motors Acceptance Corp. of Canada Limited	BB+	Banking and Finance	Canada
Glitnir Banki (Formerly known as Islandsbanki)	A	Banking and Finance	Iceland
GMAC Bank GmbH	BB+	Banking and Finance	Germany
GMAC International Finance B.V.	BB+	Banking and Finance	Netherlands
GMAC LLC	BB+	Banking and Finance	United States
Hanover Finance Limited	BB+	Banking and Finance	New Zealand
Harrahs Entertainment Inc.	BB+	Industrials	United States
Harras's Operating Company	BB+	Industrials	United States
Indover Bank	B+	Banking and Finance	Netherlands
IndyMac Bancorp, Inc.	BBB-	Banking and Finance	United States
IndyMac Bank, FSB	BBB-	Banking and Finance	United States
Kaupthing Bank hf.	A	Banking and Finance	Iceland
LandAmerica Financial Group, Inc.	BBB	Insurance	United States
Landsbanki Islands	A	Banking and Finance	Iceland
Lehman Brothers Holdings Inc. (NY)	AA-	Banking and Finance	United States
Lehman Brothers Holdings PLC	AA-	Banking and Finance	United Kingdom
Linens 'n Things, Inc.	CCC	Industrials	United States
Parex banka	BB+	Banking and Finance	Latvia
Residential Capital, LLC	BB+	Banking and Finance	United States
SemCams Midstream Co.	B	Power and Gas	United States
SemCrude, LP	B	Power and Gas	United States
SemGroup, L.P.	B	Power and Gas	United States
Six Flags Theme Parks, Inc.	B-	Industrials	United States
Six Flags, Inc.	B-	Industrials	United States
Thornburg Mortgage, Inc.	CCC	Banking and Finance	United States
TOUSA, Inc (Technical Olympic USA, Inc.)	C	Industrials	United States
Transtel Intermedia S.A.	CCC	Industrials	Colombia
Tribune Co.	B-	Industrials	United States
Tronox Worldwide/Finance	B	Industrials	United States
Washington Mutual Bank	A-	Banking and Finance	United States
Washington Mutual, Inc.	A-	Banking and Finance	United States
Waterford Wedgwood Plc	CCC	Industrials	Ireland

^aRated by Fitch at the beginning of the year in which they defaulted. Note: Data enhancement efforts may lead to slightly different results than previously published. Current study supersedes all prior statistics.
Source: Fitch.

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