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Default, Transition, and Recovery: 2014 Annual Sovereign Default Study And Rating Transitions

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Default, Transition, and Recovery:

2014 Annual Sovereign Default Study And Rating Transitions

In 2014, one sovereign that Standard & Poor's Ratings Services rates defaulted: We lowered the foreign-currency sovereign credit rating on Argentina to 'SD' from 'CCC-' in July after it failed to make an interest payment. Of the 127 active sovereign ratings as of the beginning of 2014, we lowered 19 (including Argentina), raised 11, and withdrew two by the end of the year. Ratings on 95 sovereigns remained the same throughout 2014, and we assigned new ratings to three.

Overview

- The rank ordering of sovereign ratings has been consistent with historical default experience, and these ratings continue to serve as effective indicators of relative credit risk. For 1975-2014, the one-, three-, five-, and seven-year average foreign-currency Gini coefficients were 93.49%, 77.95%, 74.01%, and 75.30%, respectively.
- Of the 128 active sovereign ratings at the end of 2014, 72 (56%) were investment-grade and 56 (44%) were speculative-grade.
- Sovereign ratings generally exhibited greater stability at higher rating levels than at lower levels, as one would expect. For 1975-2014, for example, 96.8% of sovereigns rated 'AAA', on average, remained 'AAA' after a year, while only 87.4% of sovereigns rated 'BB' held the same rating after one year.
- The ratio of downgrades to upgrades decreased to 1.72x in 2014 from 3.17x in 2013. In addition, the average number of notches of foreign-currency downgrades declined to 1.16 from 1.58. The average number of notches for upgrades increased marginally to 1.08 from 1.
- On average, there is a negative correlation between the initial rating on a sovereign and its time to default. For the entire pool of sovereign defaults (1975-2014), the average times to default for issuers that were originally rated in the 'AA' and 'BBB' categories were 19.37 years and 15.08 years, respectively, from initial rating, whereas issuers in the 'B' rating category had an average time to default of only 6.43 years.

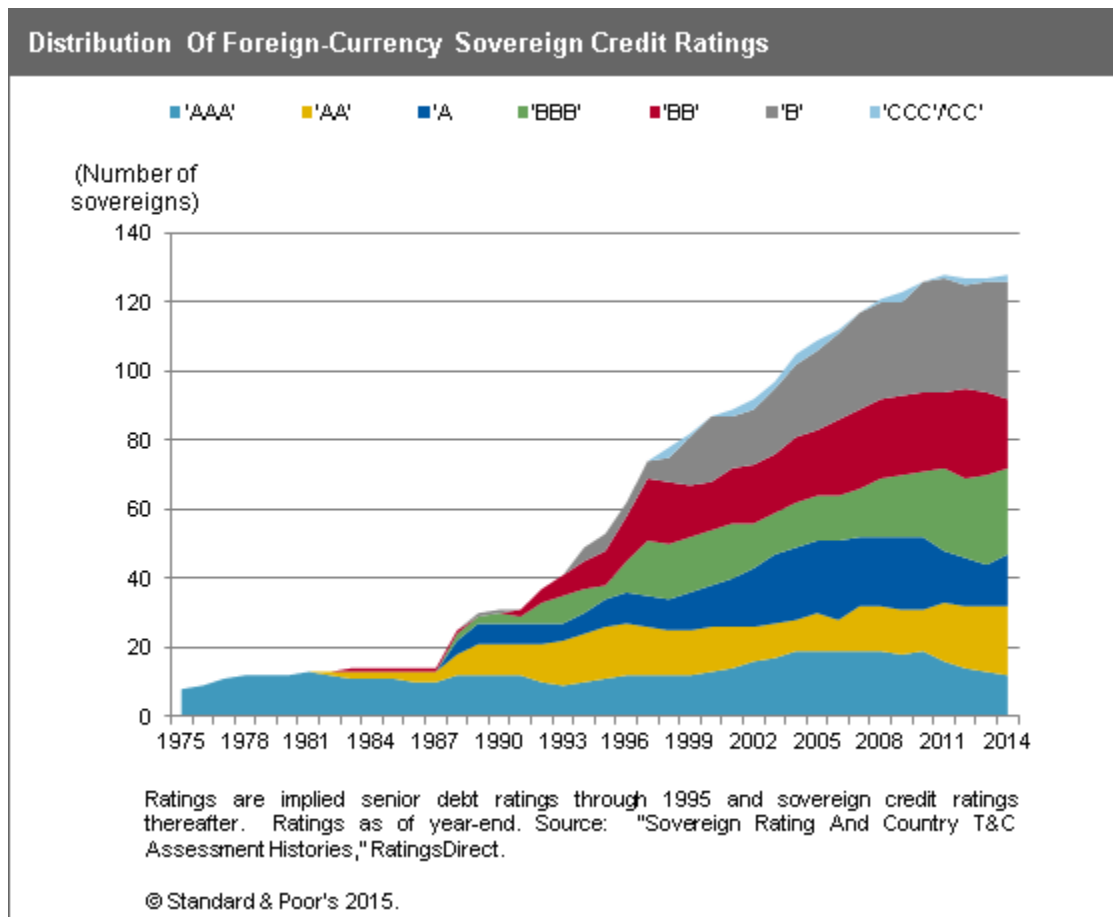
This study is based on long-term sovereign credit ratings. The methodology tracks rating migrations over time and includes revisions to 'SD' (selective default). An 'SD' rating is more common for sovereign issuers than 'D', as defaulting sovereigns often continue to service some of their debt. This is an issuer ratings-based study as opposed to being based on issue ratings. In other words, we look at the sovereign ratings on the central governments themselves, not the ratings on the individual securities these governments might have issued. (Watch the related CreditMatters TV segment titled, "The Key Takeaways From Standard & Poor's Sovereign Default And Rating Transitions Study," dated May 18, 2015.)

Our metrics treat all issuers equally and are not adjusted for size or influence. Therefore, for the purposes of this study, a default by Argentina counts the same as a default by Mali, even though the latter has a much smaller economy. Our study tracks defaults on a sovereign's commercial debt, including both bonds and bank loans (see Appendix 1). When tallying defaults for the study, we use solicited or unsolicited public ratings as of the start of the cohort period. Withdrawn ratings (as indicated with the abbreviation 'NR,' which stands for "not rated") are included up until the date

of withdrawal. As of Dec. 31, 2014, Standard & Poor's had withdrawn nine public sovereign ratings: Benin, Cambodia, Guernsey, Isle of Man, Libya, Madagascar, Mali, Seychelles, and Tunisia. (We reinstated the rating on Guernsey in October 2014.)

The number of sovereigns that we rate has grown as more governments access the international bond markets. We have rated 158 sovereigns (foreign currency) since 1975, and 128 of these had active ratings at the end of 2014 (see Chart 1). In the 1990s, speculative-grade rated sovereigns became more common as we started rating smaller and less-diversified economies. Eighty-eight of the initial sovereign ratings we have assigned have been speculative-grade; we assigned the first to Hungary in April 1992. As of the end of 2014, 15 of the 88 sovereigns with initial speculative-grade ratings were investment-grade, 19 defaulted at some point, and four had withdrawn ratings. On the other hand, of the 70 initial investment-grade ratings we issued since 1975, four were speculative-grade at the end of 2014, five defaulted, and three ratings were withdrawn. Of the 128 sovereigns with active foreign-currency ratings at the end of 2014, 72 (56%) were investment-grade and 56 (44%) were speculative-grade.

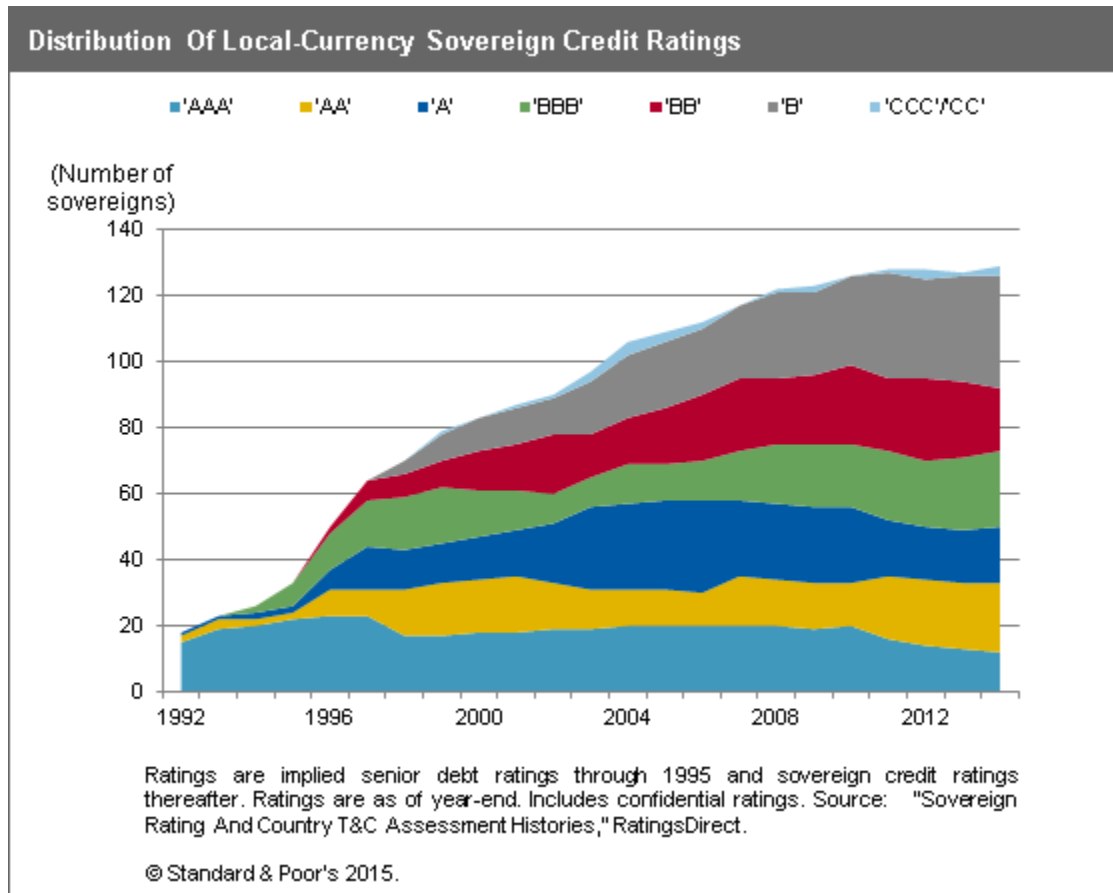
Chart 1



For local-currency sovereign ratings, there were 17 that were higher than the corresponding foreign-currency credit ratings as of year-end 2014 (see Chart 2). This reflects Standard & Poor's view that a sovereign has inherent flexibility in servicing its local-currency debt based on the unique powers it enjoys within its own borders, particularly in its

control of domestic financial and monetary systems.

Chart 2



Standard & Poor's credit ratings continue to serve as effective indicators of relative credit risk. From 1975-2014, the one-, three-, five-, and seven-year average foreign currency Gini coefficients were 93.49%, 77.95%, 74.01%, and 75.30% respectively. We used sovereign counts at the beginning of the year as the weights for the weighted averages. Gini ratios are measures of the rank-ordering power of ratings over a given time horizon. They show the ratio of actual rank-ordering performance to theoretically perfect rank-ordering. (For details on the Gini methodology, see Appendix II.) Moreover, we find that there is a strong negative correlation between our ratings assessments and default occurrences. In other words, sovereigns that have defaulted on their obligations were generally rated at the lower end of our ratings spectrum prior to defaulting.

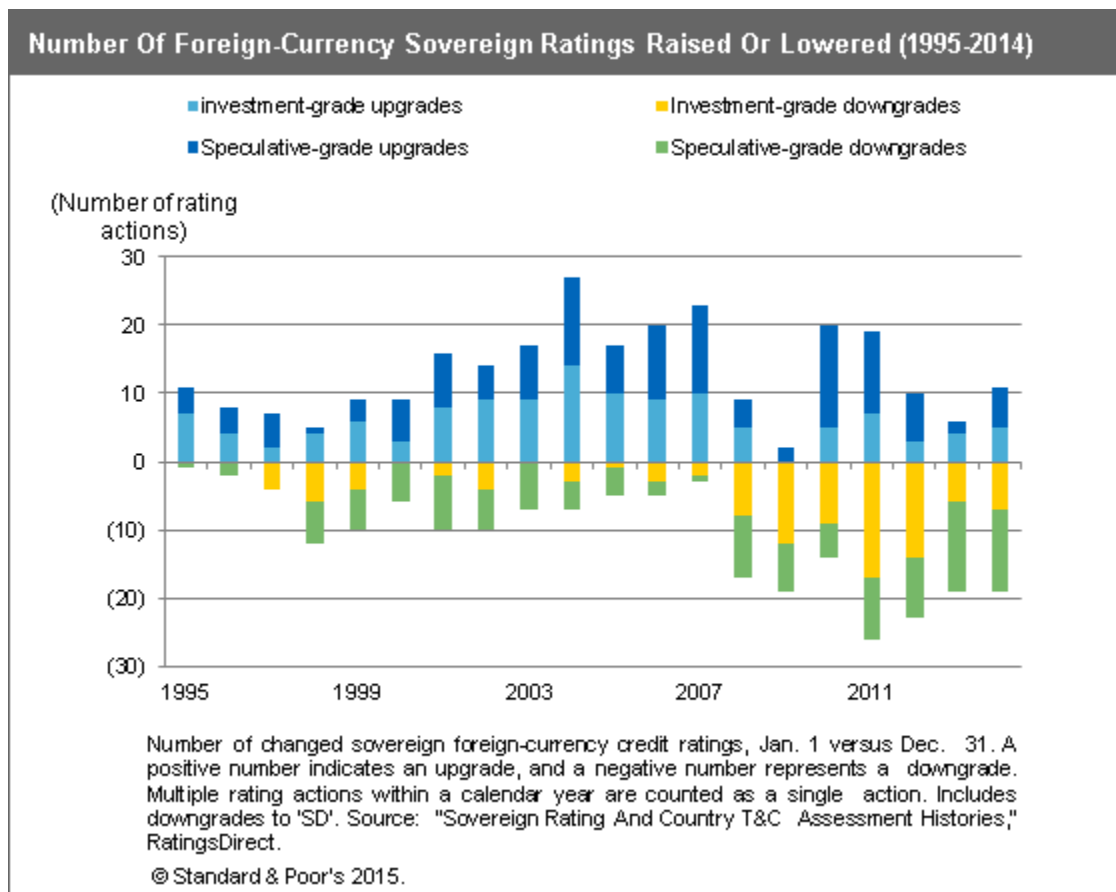
Sovereign Foreign-Currency Rating Changes And Migration

Standard & Poor's had active ratings on 127 sovereigns in the beginning of 2014. Out of those, 19 had lower ratings, 11 had higher ratings, and 95 remained unchanged at the end of the year. The 19 downgrades included Argentina's selective default. In addition, in 2014 three new sovereign ratings were assigned (Ethiopia, Sharjah, and Turks and Caicos) and two sovereign ratings were withdrawn (Cambodia and Isle of Man). As a result, we had 128 actively rated

sovereigns at the end of 2014.

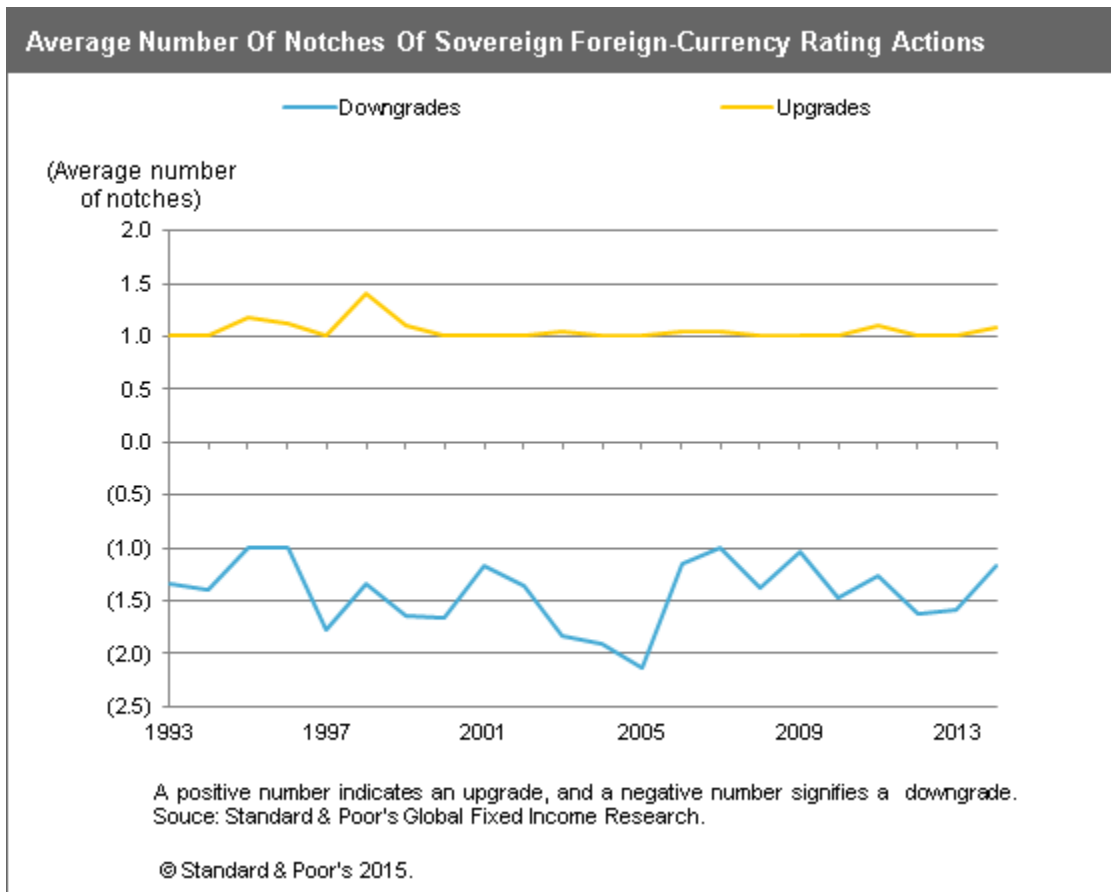
Chart 3 shows the number of foreign-currency rating actions since 1995. For the purposes of this chart, we count multiple rating actions during a calendar year as a single action. Although downgrades have outnumbered upgrades in six of the last seven years, the ratio of downgrades to upgrades decreased to 1.72x in 2014 from 3.17x in 2013. By contrast, from 2000-2008, upgrades were consistently more commonplace than downgrades. At year-end 2014, 15 sovereigns had ratings with negative outlooks or ratings that were on CreditWatch with negative implications, while only eight sovereign ratings had positive outlooks. This indicates that downgrades will likely continue to outnumber upgrades in 2015.

Chart 3



There were few multi-notch rating changes in 2014. Excluding Argentina, there were only four multi-notch sovereign rating actions during the year: Bulgaria (downgraded two notches to 'BB+'), Cyprus (upgraded two notches to 'B+'), Ireland (upgraded two notches to 'A'), and Ukraine (downgraded three notches to 'CCC-'). As a result, the average notch upgrade was 1.08 in 2014, up slightly from 1.00 in 2013; the average notch downgrade was 1.17, down from 1.58 in 2013 (see Chart 4).

Chart 4



This study also looks at ratings migration. We find that upgrades and downgrades occurred less frequently at higher ratings than at lower ratings. Thus, sovereigns with higher ratings tend to keep the same ratings longer than lower-rated sovereigns. This is generally the case at both short and longer time horizons. This is not surprising given that sovereigns with higher ratings are perceived to have better credit quality and are therefore less prone to ratings transitions.

From 1975-2014, on average, 96.8% of sovereigns rated 'AAA' at the beginning of the year were rated 'AAA' at the end of the year, 90.6% after three years, 86.3% after five years, 77.1% after 10 years, and 70.8% after 15 years (see Tables 1-5). Moreover, in the 15-year transition rate table, 27.4% (on average) of sovereigns rated 'AAA' at the beginning of the period were rated in the 'AA' category at the end of 15 years. The tables show that ratings were generally more stable when the time horizon is shorter and the rating is higher. Upgrades and downgrades are broadly balanced in the shorter time horizons, with some greater preponderance of upgrades at longer time horizons at 'BB' ratings and above.

Table 1

Sovereign Foreign-Currency Average One-Year Transition Rates (1975-2014)*									
--Rating one year later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	96.8	3.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
AA	2.8	93.7	2.1	0.4	0.4	0.1	0.0	0.0	0.6
A	0.0	4.0	90.8	4.5	0.5	0.0	0.0	0.0	0.3
BBB	0.0	0.0	5.6	89.9	3.6	0.6	0.2	0.0	0.0
BB	0.0	0.0	0.0	6.3	87.4	4.8	0.7	0.6	0.2
B	0.0	0.0	0.0	0.0	6.4	86.8	3.1	2.7	1.0
CCC/CC	0.0	0.0	0.0	0.0	0.0	35.6	25.8	38.6	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 2

Sovereign Foreign-Currency Average Three-Year Transition Rates (1975-2014)*									
--Rating three years later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	90.6	8.1	0.1	0.2	0.5	0.0	0.0	0.0	0.5
AA	9.3	82.2	5.2	2.8	0.4	0.0	0.0	0.0	0.1
A	0.0	11.4	74.0	10.9	1.9	0.1	0.4	0.6	0.6
BBB	0.0	0.0	17.7	69.9	8.8	1.2	0.4	1.6	0.4
BB	0.0	0.0	0.2	18.5	66.8	10.8	0.8	2.9	0.0
B	0.0	0.0	0.0	0.5	16.9	69.4	2.6	7.5	3.1
CCC/CC	0.0	0.0	0.0	0.0	0.0	34.0	15.6	50.4	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 36-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 3

Sovereign Foreign-Currency Average Five-Year Transition Rates (1975-2014)*									
--Rating five years later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	86.3	11.1	0.2	1.1	1.0	0.0	0.0	0.0	0.4
AA	16.4	72.4	7.9	2.3	1.0	0.0	0.0	0.0	0.0
A	0.0	17.8	59.8	17.3	2.5	0.2	0.4	1.7	0.3
BBB	0.0	0.1	29.4	54.7	10.3	1.4	0.5	3.3	0.5
BB	0.0	0.0	1.5	22.8	58.6	11.7	0.8	4.6	0.0
B	0.0	0.0	0.1	4.2	19.7	55.7	2.8	13.0	4.6
CCC/CC	0.0	0.0	0.0	0.0	3.4	24.4	13.2	59.0	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 4

Sovereign Foreign-Currency Average 10-Year Transition Rates (1975-2014)*									
--Rating 10 years later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	77.1	20.3	0.2	0.8	0.7	0.7	0.0	0.0	0.3
AA	32.8	53.4	8.5	3.6	1.7	0.0	0.0	0.0	0.0
A	2.6	24.7	43.1	21.0	4.7	0.2	0.7	2.9	0.0
BBB	0.0	6.0	44.1	29.4	11.8	1.7	0.0	6.3	0.7
BB	0.0	0.0	7.5	36.2	33.3	8.6	1.0	13.3	0.0
B	0.0	0.0	0.1	10.6	28.9	30.0	1.0	27.9	1.5
CCC/CC	0.0	0.0	0.0	0.0	6.5	0.8	0.0	92.7	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 120-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 5

Sovereign Foreign Currency Average 15-Year Transition Rates (1975-2014)*									
--Rating 15 years later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	70.8	27.4	0.0	0.0	0.6	1.1	0.0	0.0	0.0
AA	41.7	38.7	9.1	6.9	2.5	0.4	0.3	0.3	0.0
A	6.5	25.9	44.5	21.2	0.0	0.2	0.0	1.7	0.0
BBB	0.0	11.6	42.3	12.7	15.0	3.4	1.3	12.4	1.2
BB	0.0	0.0	9.5	41.2	20.2	9.0	0.6	19.5	0.0
B	0.0	0.0	0.5	19.2	23.3	12.3	0.0	44.7	0.0
CCC/CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Another gauge of ratings stability is the average time a sovereign spends with a particular rating. Table 6 shows the average number of years spent at all ratings held prior to the rating on Dec. 31, 2014. The number of years declines as we move down the rating spectrum, signaling less stability at lower ratings. In addition, the average time spent with a rating below 'B-' is less than one year.

Table 6

Average Time Spent At All Ratings Prior To Rating On Dec. 31, 2014		
Rating	Average (years)	Issuer count
AAA	20.19	16
AA+	5.56	21
AA	4.07	21
AA-	2.73	19
A+	2.68	25
A	3.63	34
A-	2.52	36
BBB+	1.86	33

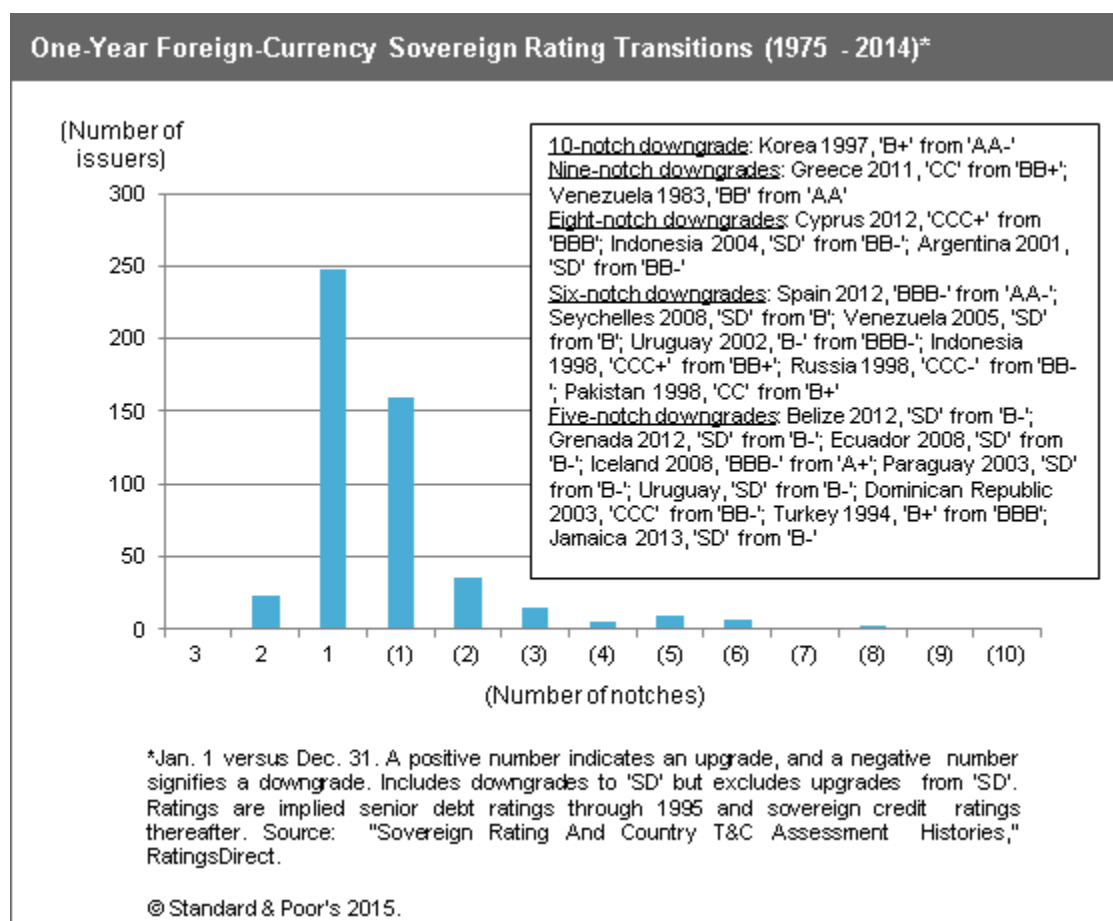
Table 6

Average Time Spent At All Ratings Prior To Rating On Dec. 31, 2014 (cont.)		
BBB	2.26	45
BBB-	2.64	43
BB+	2.66	40
BB	2.52	42
BB-	2.43	46
B+	1.95	63
B	2.03	63
B-	1.44	45
CCC+	0.70	23
CCC	0.37	15
CCC-	0.39	6
CC	0.32	7
NR	2.74	2

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

Large rating transitions are not common among sovereigns (see Chart 5). The more pronounced, multi-notch downgrades were on sovereigns that defaulted. For example, lowering a rating to 'SD' from 'B' within the calendar year constitutes a six-notch downgrade. Outside of these, the vast majority of downgrades are one or--to a much lesser extent--two notches. Sovereign upgrades seldom exceed a notch over a calendar year.

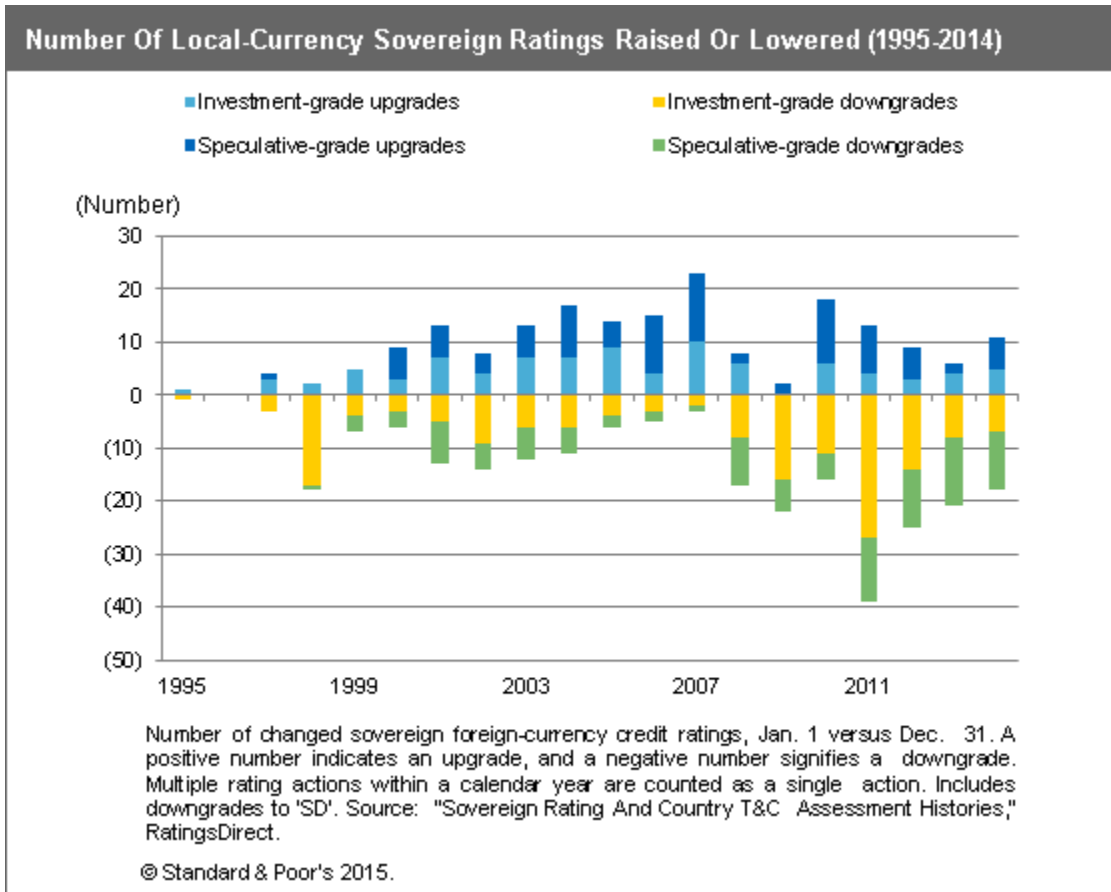
Chart 5



Sovereign Local-Currency Rating Transition Rates

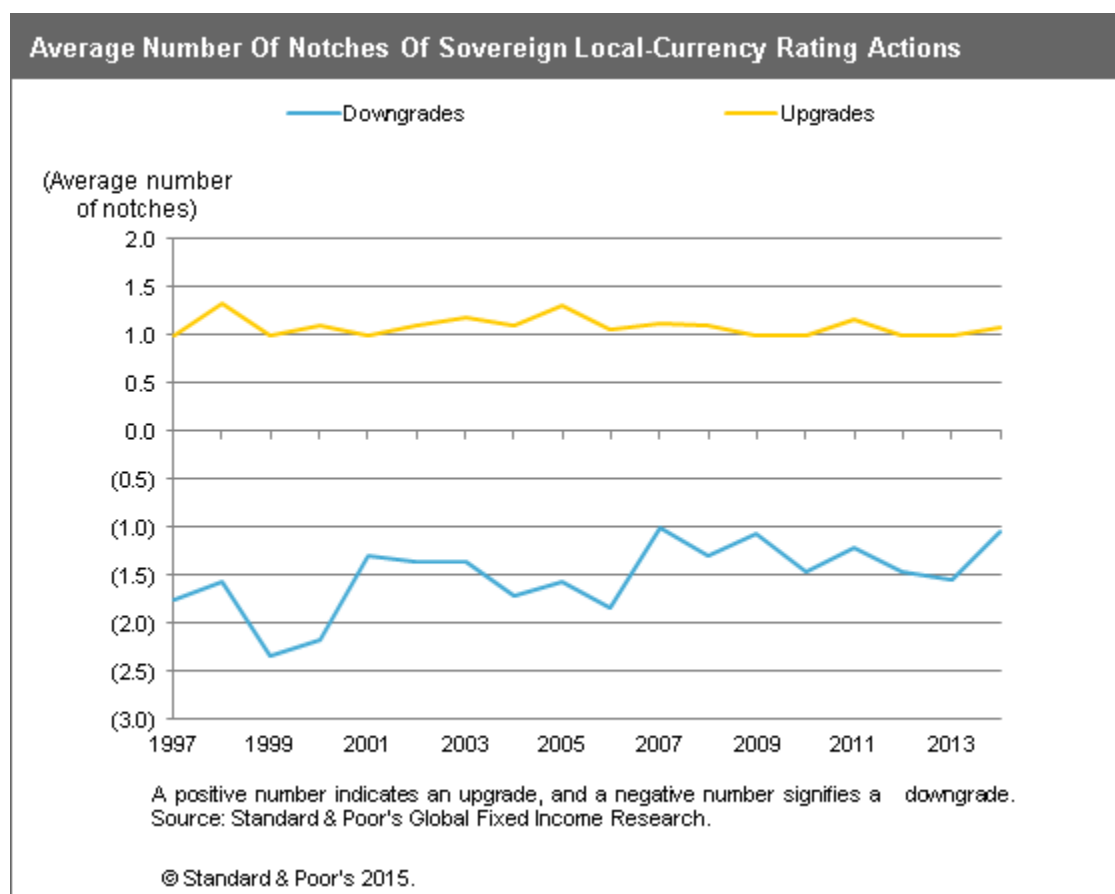
As with foreign-currency sovereign credit ratings, local-currency ratings have generally been more stable at higher rating levels than at lower levels (see Tables 18-22).

Chart 6



The average magnitude of a rating change has remained close to one notch in recent years, signifying fewer multi-notch rating actions on a sovereign during a short time period. The decline in the average is more prominent when we look at the local-currency downgrades, where the average has declined to 1.05 in 2014 from 2.3 in 1999 (see Chart 7).

Chart 7



Sovereign Default Rates

On July 30, 2014, Standard & Poor's lowered its long- and short-term foreign-currency sovereign credit ratings on Argentina to 'SD' (selective default) from 'CCC-/C', indicating that Argentina defaulted on some of its foreign-currency obligations. On June 30, 2014, the Republic of Argentina failed to make a US\$539 million interest payment on its discount bonds maturing in December 2033. Under the terms of these bonds, Argentina had a 30-day grace period for payment, and this period expired on July 30 without bondholders receiving their payment (see "Argentina Foreign Currency Ratings Lowered To 'SD' After Holders Of Discount Bonds Did Not Receive Interest Payment," July 30, 2014.)

In the context of sovereign ratings, we treat governments that selectively default as a complete default. The foreign-currency sovereign defaults included in the data occurred in Argentina, Belize, Cyprus, the Dominican Republic, Ecuador, Greece, Grenada, Indonesia, Jamaica, Mali, Pakistan, Paraguay, Russia, Seychelles, Uruguay, and Venezuela (see Table 7). Of this group, the default of Argentina in 2014 was that sovereign's second default. (In this list, we include Cyprus, the government of which undertook what we viewed as a distressed exchange in June 2013, because we regard the euro as comparable to a foreign currency for Cyprus.)

Chart 8

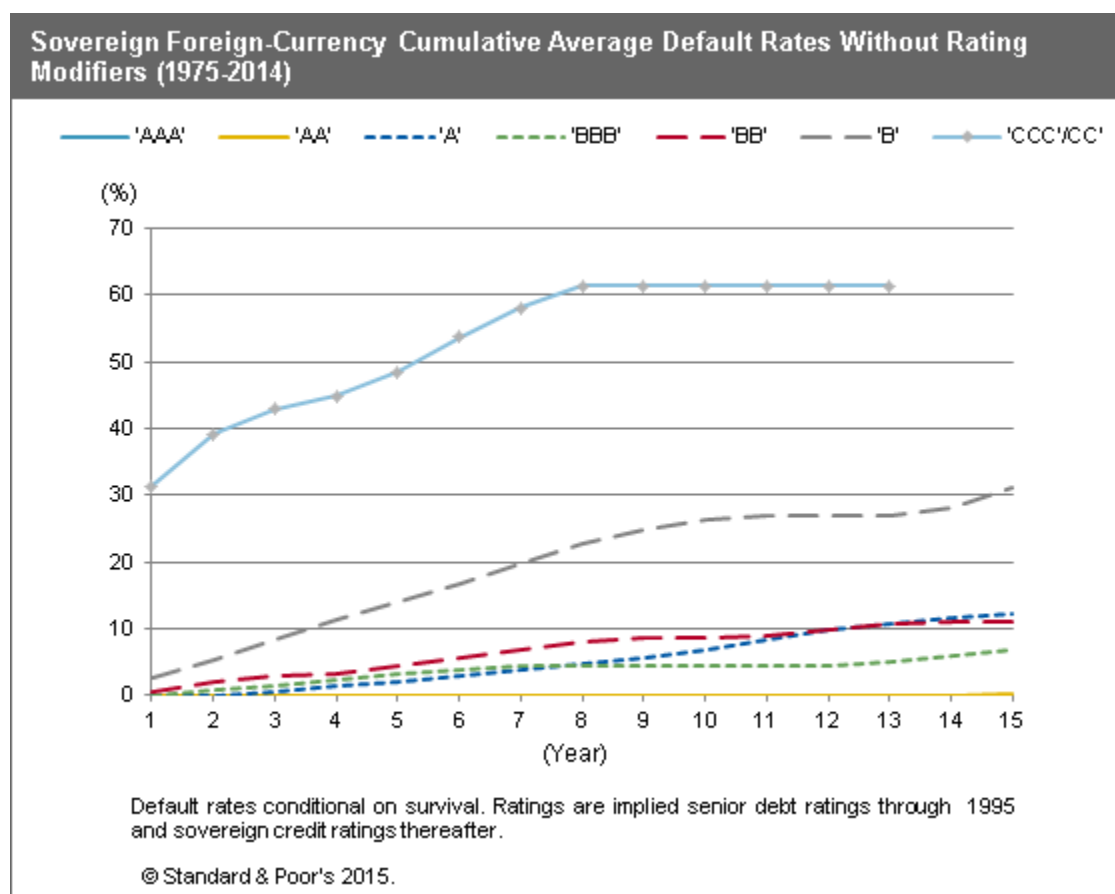


Table 7

Sovereign Foreign-Currency Selective Defaults					
Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating three years before selective default
Russia	Jan. 27, 1999	Dec. 8, 2000	22 months	BB-	-
Pakistan	Jan. 29, 1999	Dec. 21, 1999	11 months	B+	B+
Indonesia, first default	Mar. 30, 1999	Mar. 31, 1999	One day	B-	BBB
Indonesia, second default¶	Apr. 17, 2000	Oct. 2, 2000	Six months	CCC+	-
Argentina, first default	Nov. 6, 2001	Jun. 1, 2005	54 months	BB	BB
Indonesia, third default¶	Apr. 23, 2002	Sep. 5, 2002	Four months	B-	-
Paraguay	Feb. 13, 2003	Jul. 26, 2004	18 months	B	B
Uruguay	May. 16, 2003	Jun. 2, 2003	One month	BB-	BBB-
Grenada, first default	Dec. 30, 2004	Nov. 18, 2005	11 months	BB-	-
Venezuela	Jan. 18, 2005	Mar. 3, 2005	One month	B-	B
Dominican Republic	Feb. 1, 2005	Jun. 29, 2005	Five months	CCC	BB-
Belize, first default	Dec. 7, 2006	Feb. 20, 2007	Three months	CCC-	B+
Seychelles*	Aug. 7, 2008	-	-	B	-
Ecuador	Dec. 15, 2008	Jun. 15, 2009	Six months	B-	CCC+

Table 7

Sovereign Foreign-Currency Selective Defaults (cont.)					
Jamaica, first default	Jan. 14, 2010	Feb. 24, 2010	One month	B	B
Greece, first default	Feb. 27, 2012	May. 2, 2012	Three months	BB+	A-
Belize, second default	Aug. 21, 2012	Mar. 20, 2013	Seven months	B-	B
Grenada, second default	Oct. 8, 2012	Oct. 16, 2012	One week	B-	B-
Greece, second default¶	Dec. 5, 2012	Dec. 18, 2012	Two weeks	-	-
Jamaica, second default¶	Feb. 12, 2013	Mar. 06, 2013	22 days	B-	-
Grenada, third default¶	Mar. 12, 2013	-	-	-	-
Cyprus	Jun. 28, 2013	Jul. 03, 2013	Five days	BB+	A+
Argentina, second default	Jul. 30, 2014			B-	B

Note: Mali defaulted in 2012; we withdrew the rating in 2008. *The rating on Seychelles was withdrawn while it was still in default. ¶This default instance followed a prior default that occurred within the stated horizon. When an issuer reemerges from default, we treat it as a new issuer. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

From 1975 to 2014, no sovereign rated 'AAA' in the beginning of the month has defaulted within the ensuing 180 months (see Table 23). Moreover, the cumulative default rates were generally higher at lower rating tiers, as one would expect. For example, from 1975-2014, the five-year average cumulative default rate for sovereigns rated in the 'A' category was only about 2.0% (see Table 24). By comparison, the five-year average cumulative default rate for sovereigns rated in the 'BBB' category was 3.1%; the 'BB' category, 4.3%; the 'B' category, 14.1%; and the 'CCC'/'CC' categories, 48.4%. Fifteen-year cumulative default rates for sovereigns averaged 3.7% for investment-grade sovereigns and 21.6% for speculative-grade ones. The same trends are generally true when calculating default rates disaggregated by rating category. Apart from 'A+' and 'A', which include the defaults of Greece and Cyprus, the cumulative default rates for ratings with modifiers were higher at lower ratings. These statistics of many years of monthly data suggest that foreign-currency ratings have been strong indicators of default probability and the imminence of default.

Chart 9

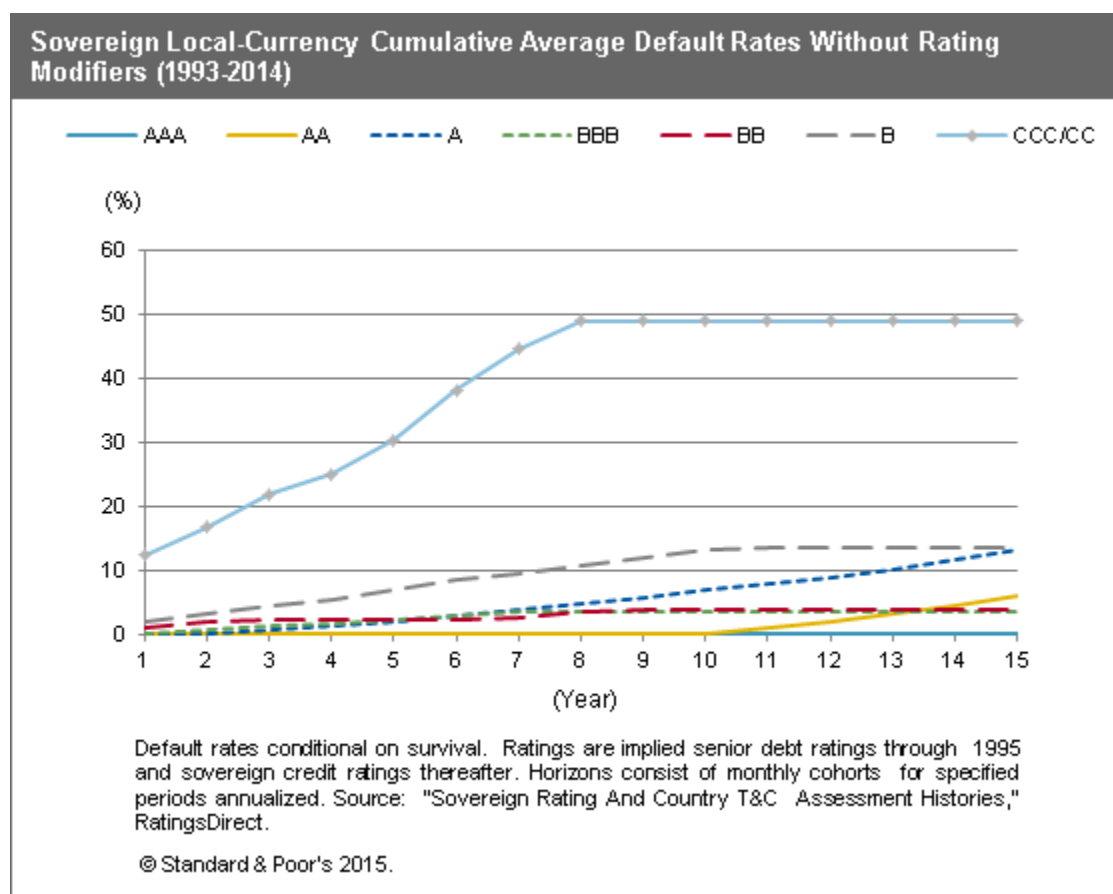


Table 8

Sovereign Local-Currency Selective Defaults

Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating three years before selective default
Dominican Republic	Apr. 9, 1999	Jun. 12, 2001	26 months	BB	-
Suriname	Jan. 1, 2000	Jan. 1, 2002	60 months	B	-
Argentina	Nov. 6, 2001	Jun. 1, 2005	43 months	BBB-	BBB-
Cameroon	Sep. 1, 2004	Dec. 3, 2004	Three months	-	-
Grenada, first default	Jan. 1, 2005	Nov. 18, 2005	11 months	BB-	-
Grenada, second default*	Dec. 1, 2006	Apr. 2, 2007	Four months	B-	-
Ecuador	Dec. 15, 2008	Jun. 15, 2009	Six months	B-	CCC+
Jamaica, first default	Jan. 14, 2010	Feb. 24, 2010	One month	B	B
Greece, first default	Feb. 27, 2012	May. 2, 2012	Two months	BB+	A-
Greece, second default*	Dec. 5, 2012	Dec. 18, 2012	Two weeks	-	-
Jamaica, second default	Feb. 12, 2013	March 6, 2013	22 days	B-	B-
Grenada, third default	Mar. 12, 2013	-	-	B-	B-

Table 8

Sovereign Local-Currency Selective Defaults (cont.)					
Cyprus	Jun. 28, 2013	July 3, 2013	Five days	BB+	A+

Note: Cameroon and Grenada (excluding the third default) cured their local-currency defaults before the ratings were changed. Mali defaulted in 2012; we withdrew the rating in 2008. *This default instance followed a prior default that occurred within the stated horizon. When an issuer reemerges from default, we treat it as a new issuer. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Generally, the cumulative default rates by rating category for foreign-currency sovereign credit ratings have been higher than for local-currency sovereign credit ratings (see Tables 23 and 31). The discrepancy may be attributable to the smaller local-currency universe compared to the foreign-currency universe (the foreign-currency series begins in 1975, while the local-currency one begins in 1992). Also, the local-currency sovereign default rates could be understated, as it is hard to detect forced rollovers of domestic bank debt or coerced exchanges of local-law, local-currency debt when domestic financial institutions hold the debt.

On average, there is a negative correlation between the initial rating on a sovereign and its time to default, if that occurs. For example, for the entire pool of sovereign defaults (1975-2014), the average times to default for issuers that were originally rated in the 'AA' and 'BBB' categories were 19.37 years and 15.08 years, respectively, from the initial ratings, whereas issuers in the 'B' rating category had an average time to default of only 6.43 years. When an issuer emerges from a default (including selective default), we treat it as a new entity. Similarly, we consider the first rating we assign after the default event to be the original rating on this new entity. Tables 9 and 10 displays the median, average, and standard deviations for the time to default from the original rating for foreign- and local-currency ratings. Tables 11 and 12 present the average and median times to default from each rating category and include both rating originations and transitions to each category. In both cases, the standard deviation of the times to default shrinks progressively as the rating gets lower. Generally speaking, the average time to default for each rating category is longer when based on the initial rating on a sovereign than it is based on ratings reached later in the sovereign's history.

Table 9

Time To Default From Original Rating (Foreign-Currency Ratings)				
	Average (years)	Median (years)	Standard deviation (years)	Number of defaults
AAA	27.29	27.29	-	1
AA	19.37	19.37	-	1
A	-	-	-	0
BBB	15.08	15.08	11.86	2
BB	6.02	6.80	2.87	6
B	6.43	7.90	3.32	5
CCC/C	-	-	-	0
Total	9.67	7.90	7.66	15

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

Table 10

Time To Default From Original Rating (Local-Currency Ratings)				
	Average (years)	Median (years)	Standard deviation (years)	Number of defaults
AAA	-	-	-	0
AA	16.95	16.95	-	1

Table 10

Time To Default From Original Rating (Local-Currency Ratings) (cont.)				
A	14.92	14.92	-	1
BBB	7.18	7.18	-	1
BB	2.09	2.09	0.97	2
B	5.60	8.31	4.78	5
CCC/C	-	-	-	0
Total	7.13	7.74	5.89	10

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

Table 11

Time To Default From All But Original Rating (Foreign-Currency Ratings)				
	Average (years)	Median (years)	Standard deviation (years)	Number of defaults
AAA	-	-	-	0
AA	22.43	22.43	-	1
A	9.32	8.72	6.10	11
BBB	6.50	3.07	7.26	8
BB	4.67	1.46	6.10	15
B	3.58	2.27	3.53	49
CCC/C	1.00	0.50	1.53	38
NR	3.74	3.74	-	1
Total	3.77	1.52	4.96	123

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

Table 12

Time To Default From All But Original Rating (Local-Currency Ratings)				
	Average (years)	Median (years)	Standard deviation (years)	Number of defaults
AAA	-	-	-	0
AA	14.10	14.10	0.75	2
A	6.51	7.28	3.31	9
BBB	1.93	1.92	0.26	3
BB	2.47	1.22	3.08	6
B	2.08	0.83	2.27	15
CCC/C	1.44	0.48	2.30	16
NR	4.50	4.50	-	1
Total	3.19	1.56	3.71	52

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

Sovereigns that approach default usually experience multiple successive downgrades as the likelihood of default increases. Table 13 shows the last date of the highest rating, the number of intermediate rating actions (including outlook changes) before default, and the date of the sovereign's default. Charts 10-13 depict the rating movements and show how defaulted sovereigns that were rated higher generally took longer to default than lower-rated sovereigns.

Chart 10

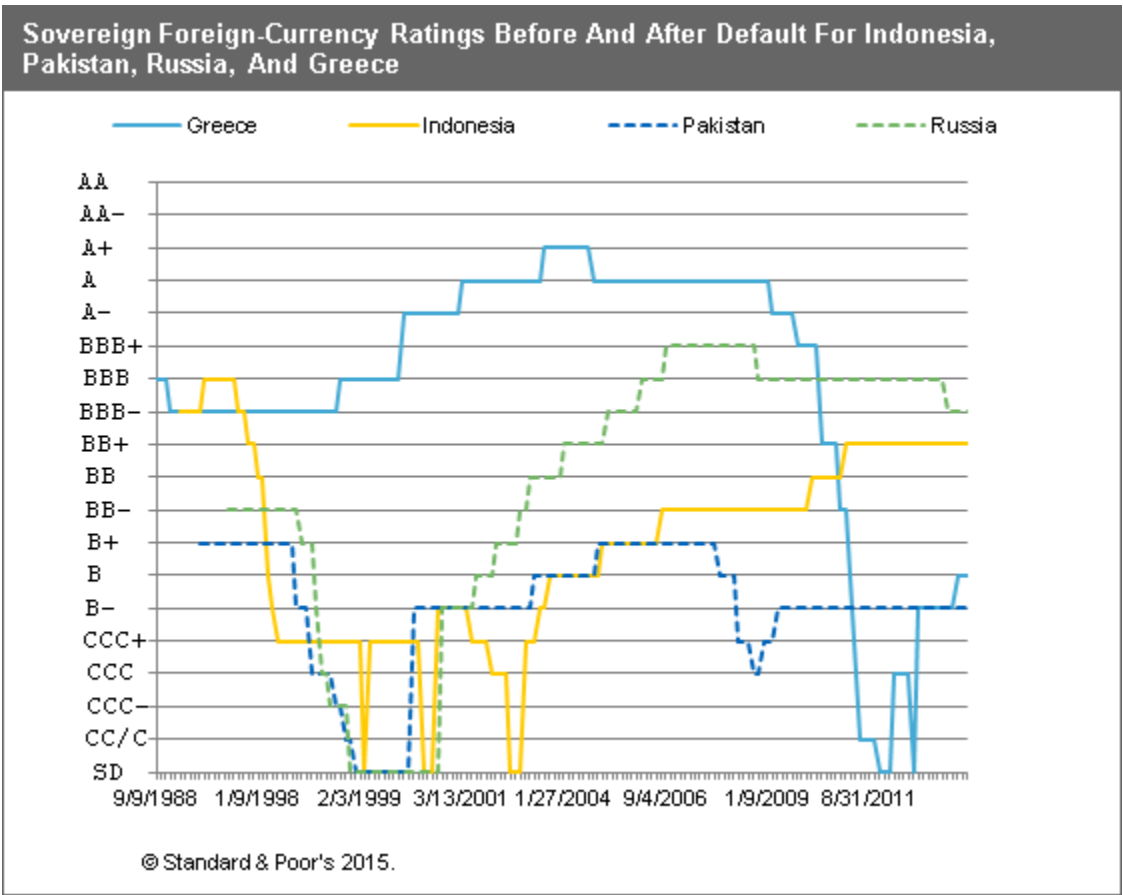


Chart 11

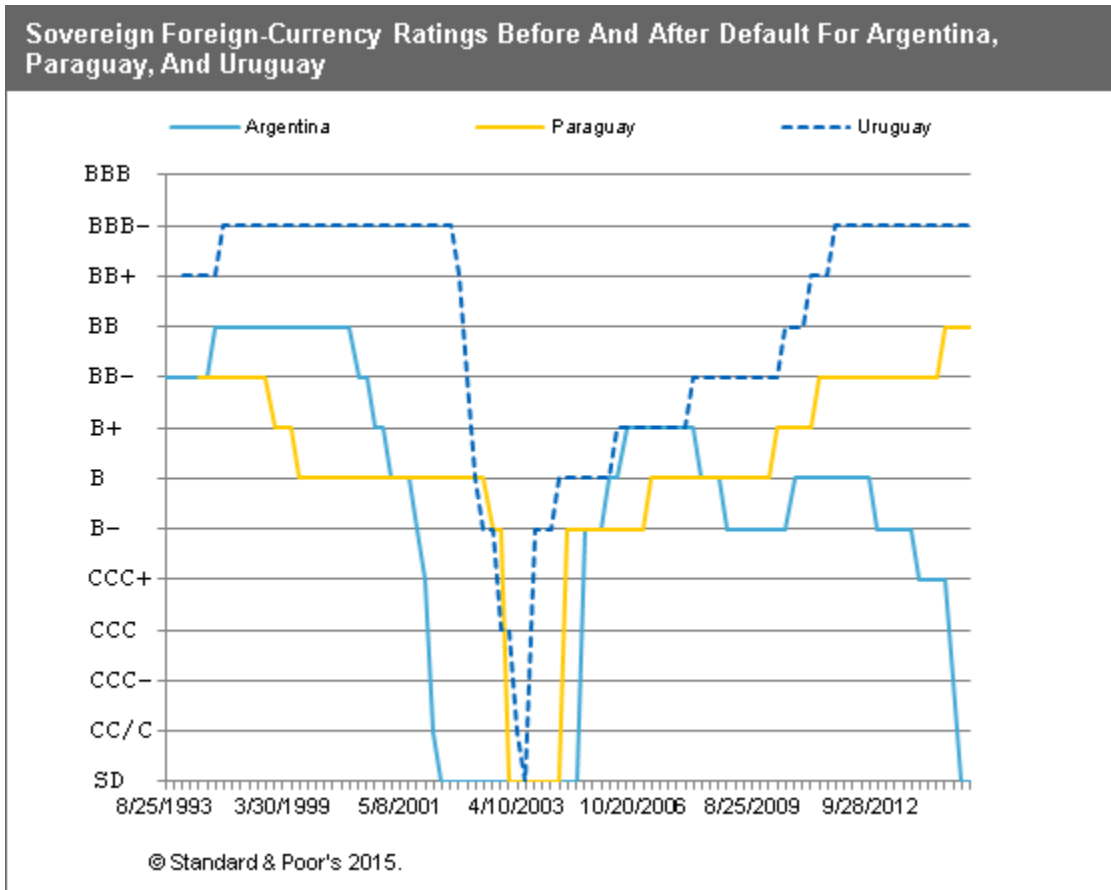


Chart 12

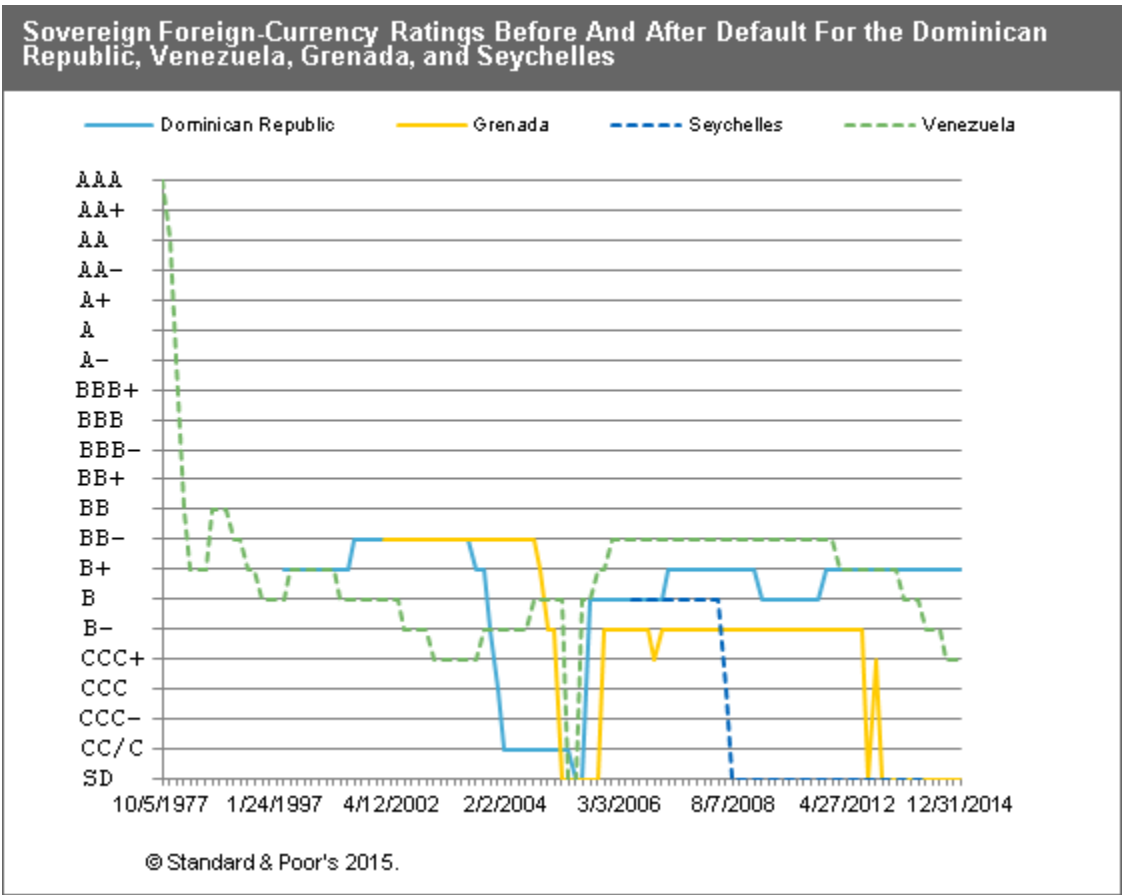


Chart 13

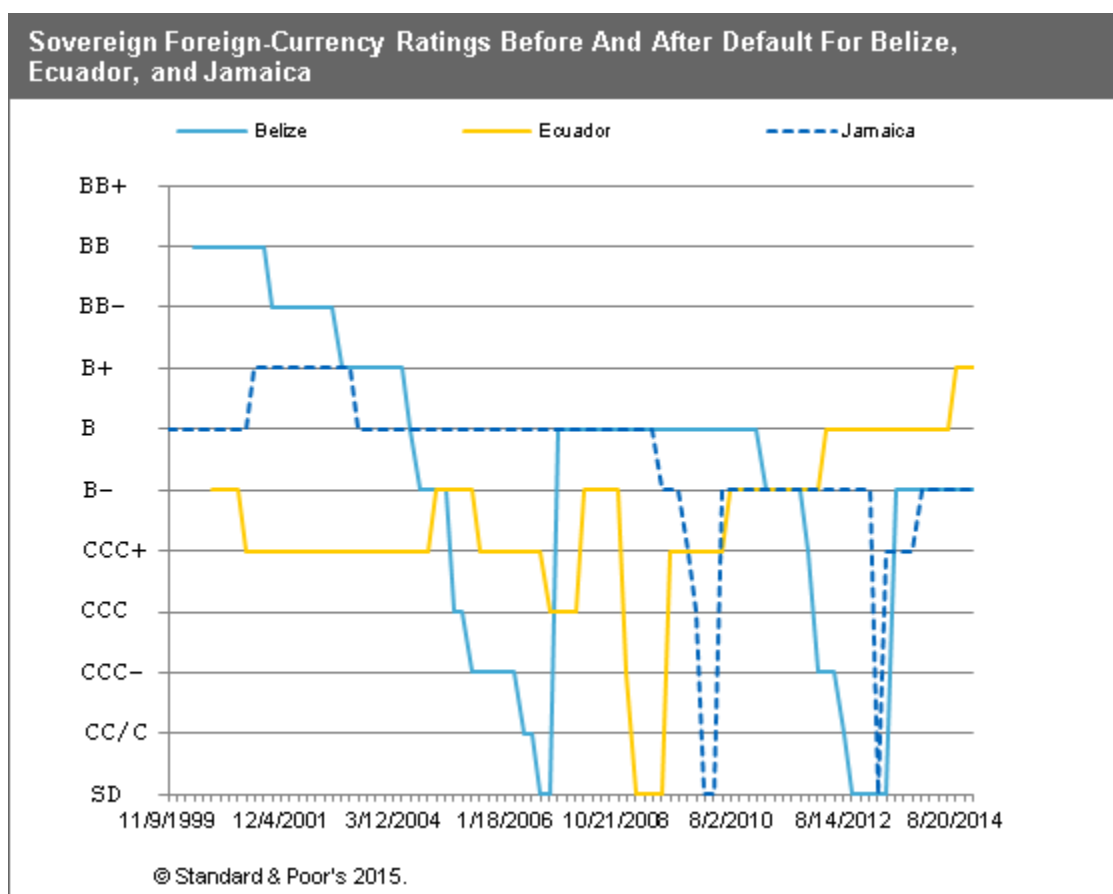


Table 13

Length Of Time To Default

Government	Date of initial rating	Highest rating/outlook before default	Last date of highest rating	Number of intermediate rating actions	Selective default	Days elapsed between highest rating and default
Foreign-currency sovereign credit rating defaults						
Russia	Oct. 14, 2006	BB-/Stable	Dec. 18, 1997	7	Jan. 27, 1999	405
Pakistan	Sep. 21, 1994	B+/Positive	Aug. 2, 1995	8	Jan. 29, 1999	1,276
Indonesia, first default	Jul. 20, 1992	BBB/Stable	Oct. 9, 1997	8	Mar. 29, 1999	536
Indonesia, second default	Jul. 20, 1992	CCC+/Stable	Sep. 12, 1999	2	Apr. 17, 2000	218
Argentina	Aug. 25, 1993	BB/Stable	Oct. 30, 2000	10	Nov. 6, 2001	372
Indonesia, third default	Jul. 20, 1992	B-/Stable	Mar. 7, 2001	5	Apr. 23, 2002	412
Paraguay	Oct. 23, 1995	BB-/Stable	Nov. 18, 1998	5	Feb. 13, 2003	1,548
Uruguay	Feb. 14, 1994	BBB-/Stable	Jan. 10, 2002	8	May. 16, 2003	491
Grenada, first default	Mar. 22, 2002	BB-/Stable/B	Sep. 16, 2004	2	Dec. 30, 2004	105

Table 13

Length Of Time To Default (cont.)						
Venezuela	Oct. 5, 1977	AAA	Aug. 12, 1982	26	Jan. 18, 2005	8,195
Dominican Republic	Feb. 13, 1997	BB-/Stable	Oct. 22, 2001	5	Feb. 1, 2005	1,198
Belize, first default	Aug. 18, 2000	BB/Stable	Aug. 18, 2000	7	Dec. 7, 2006	2,302
Seychelles*	Sep. 15, 2006	B/Stable	Nov. 1, 2007	2	Aug. 7, 2008	280
Ecuador	Jul. 29, 2000	B-/Stable	Nov. 13, 2008	1	Dec. 15, 2008	32
Jamaica, first default	Nov. 9, 1999	B+/Positive	Jul. 27, 2003	8	Jan. 14, 2010	2,363
Greece, first default	Sep. 9, 1988	A+/Stable	Nov. 16, 2004	8	Feb. 27, 2012	2,659
Belize, second default	Feb. 20, 2007	B/Stable	Aug. 3, 2011	4	Aug. 21, 2012	384
Grenada, second default	Nov. 18, 2005	B-/Stable	Jul. 31, 2007	0	Oct. 8, 2012	1,896
Greece, second default	May. 2, 2012	CCC/Stable	Dec. 4, 2012	0	Dec. 5, 2012	1
Jamaica, second default	2/24/2010	B-/Stable	Oct. 31, 2011	1	2/12/2013	470
Grenada, third default	10/16/2012	CCC+/Negative	Mar. 11, 2013	0	3/12/2013	1
Cyprus	2/14/1994	AA-/Stable	Nov. 09, 1998	16	6/28/2013	5,345
Argentina, second default	6/1/2005	B+/Stable	Oct. 02, 2006	9	7/30/2014	2,858
Local-currency sovereign credit rating defaults						
Dominican Republic	Feb. 13, 1997	BB/Stable	Sep. 30, 1998	2	Apr. 09, 1999	191
Suriname	Nov. 23, 1999	B/Stable	Dec. 31, 1999	1	Jan. 01, 2000	1
Argentina	Sep. 1, 1994	BBB-/Stable	Oct. 30, 2000	10	Nov. 06, 2001	372
Ecuador	Jul. 29, 2000	B-/Stable	Nov. 13, 2008	1	Dec. 15, 2008	32
Jamaica	Nov. 9, 1999	BB-/Stable	Jul. 27, 2003	8	Jan. 14, 2010	2,363
Greece	Mar. 26, 2007	A+/Stable	Nov. 16, 2004	8	Feb. 27, 2012	2659
Greece, second default	May. 2, 2012	CCC/Stable	Dec. 04, 2012	0	Dec. 05, 2012	1
Jamaica, second default	2/24/2010	B-/Stable	Oct. 31, 2011	1	2/12/2013	470
Grenada, third default	3/22/2002	BB-/Stable	Sep. 17, 2004	7	3/12/2013	3098
Cyprus	7/16/1996	AA+/Stable	Nov. 09, 1998	19	6/28/2013	5345

The rating on Seychelles was withdrawn while it was still in default. Mali defaulted in 2012; we withdrew the rating in 2008. Grenada cured its first two local-currency defaults before ratings were changed. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Gini Ratios

The sovereign foreign-currency Gini coefficients for the one-, three-, five-, and seven-year horizons are 0.93, 0.78, 0.74, and 0.75, respectively. The sovereign local-currency Gini coefficients for the one-, three-, five-, and seven-year horizons are 0.88, 0.72, 0.67, and 0.69, respectively (see Charts 14-17). For a more detailed description of the methodology, please see Appendix II.

Chart 14

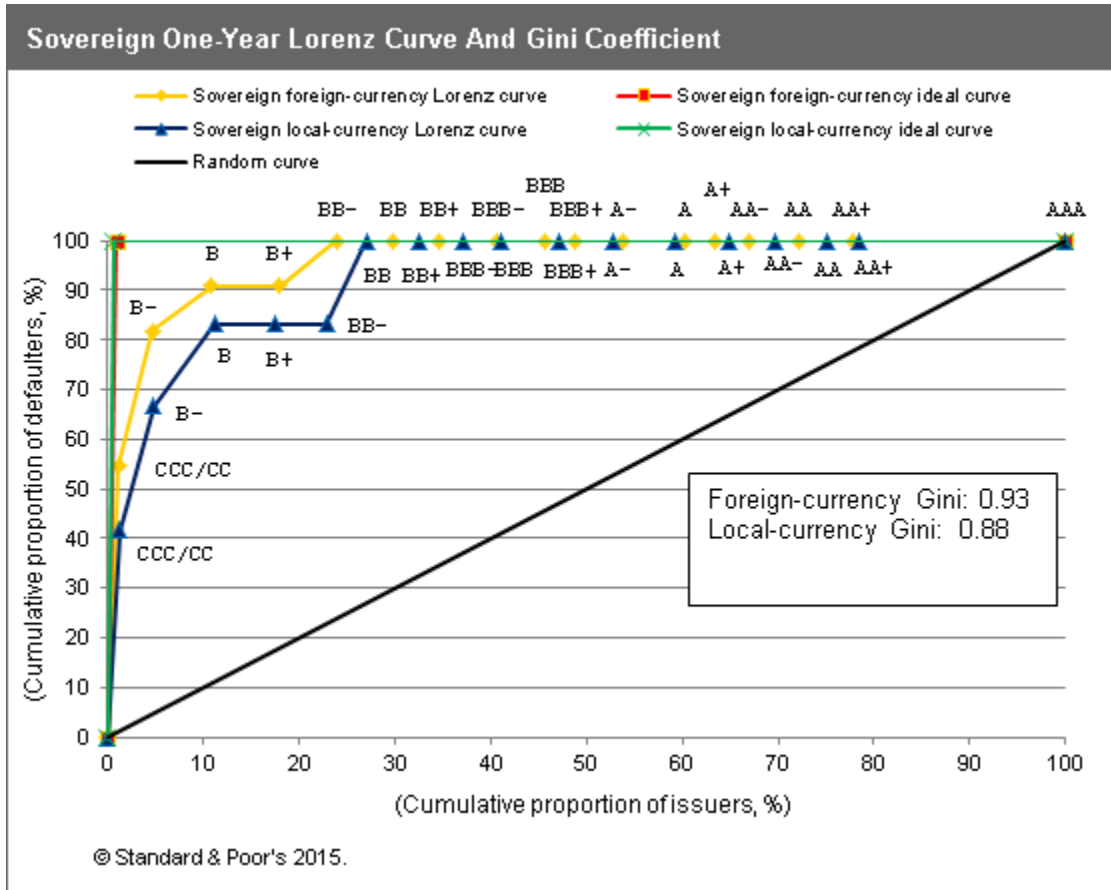


Chart 15

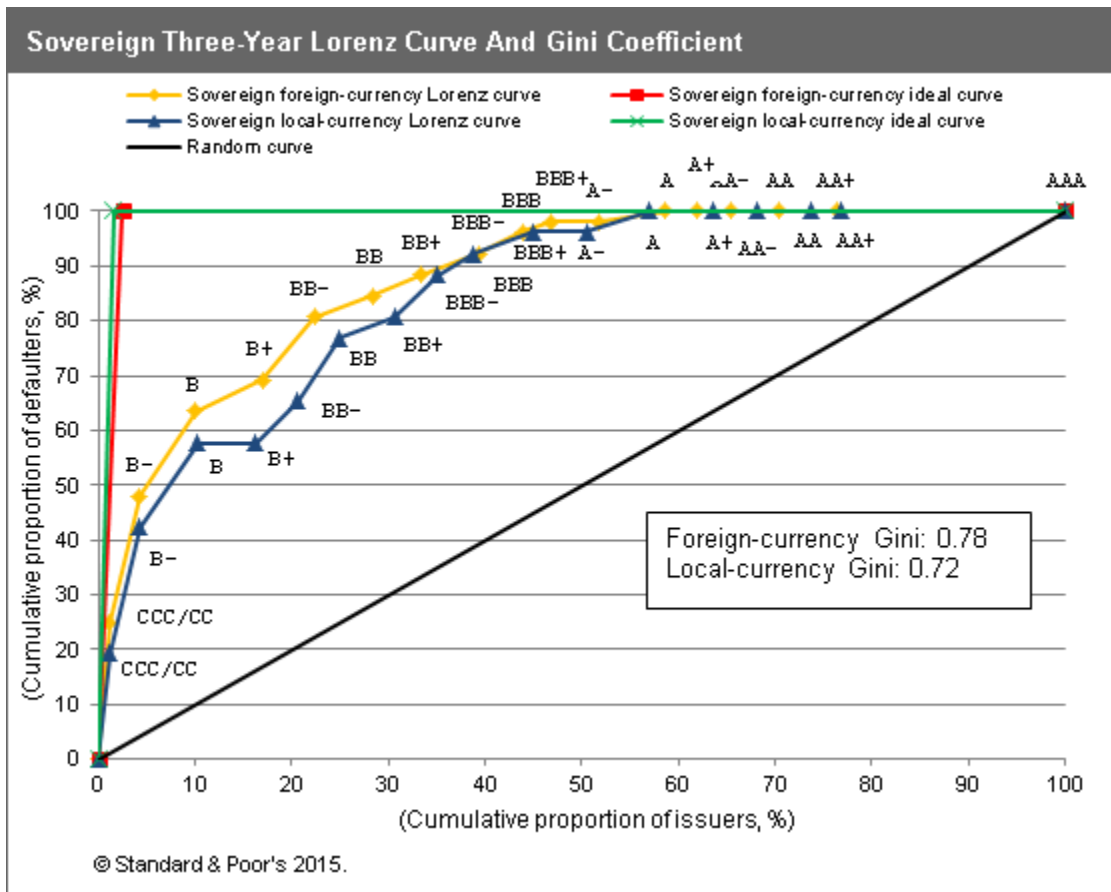


Chart 16

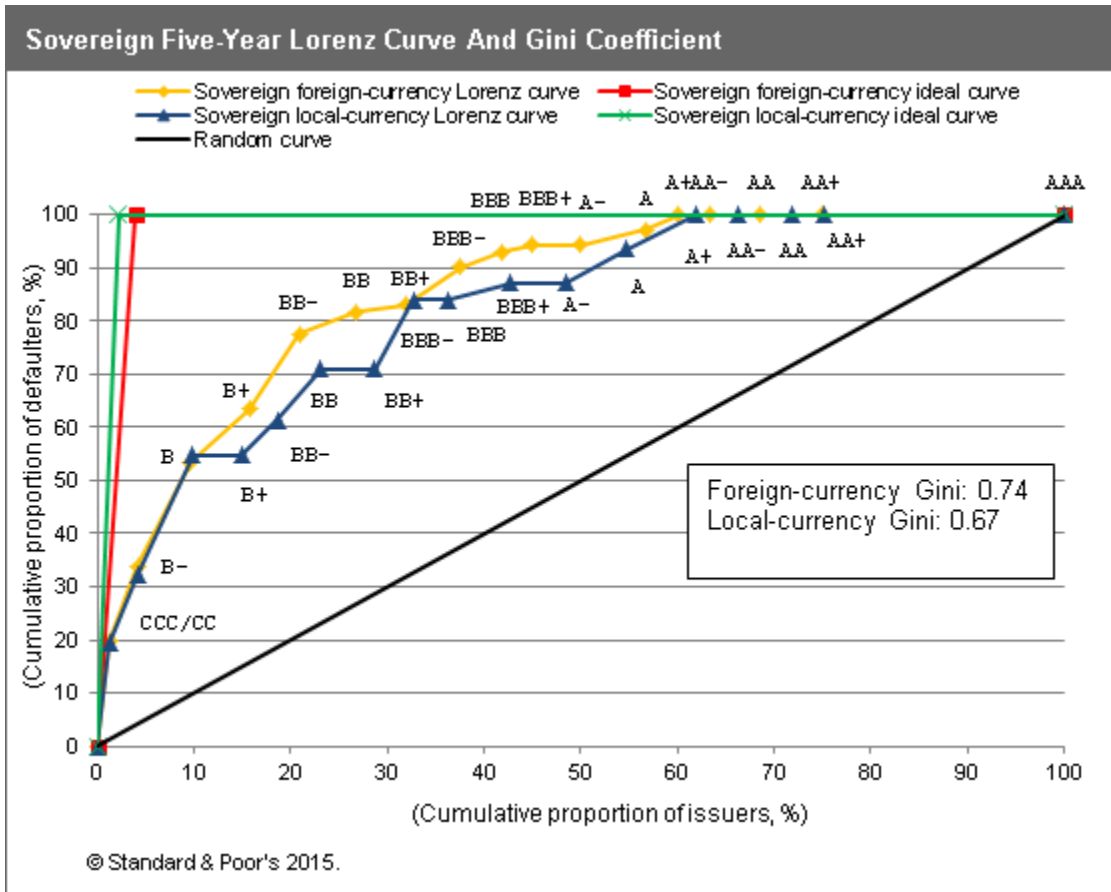
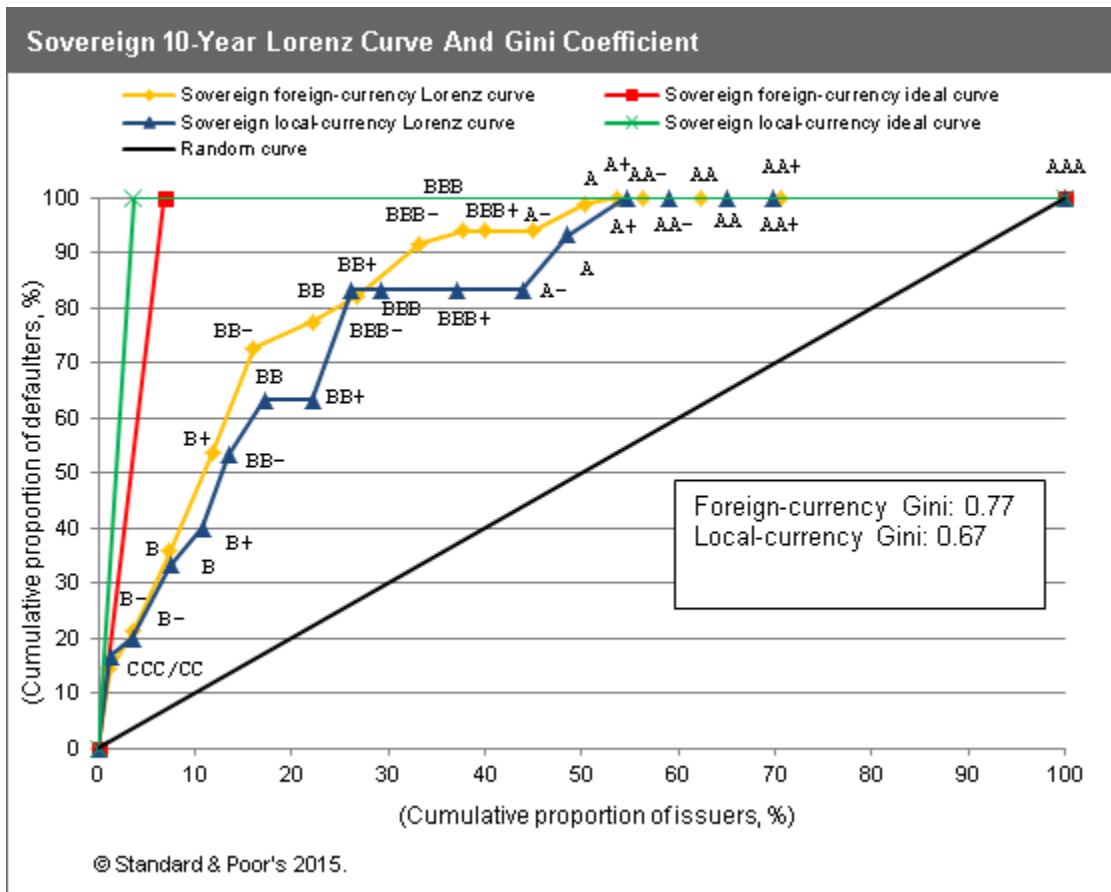


Chart 17



Appendix 1: Methodology And Definitions

Standard & Poor's generally defines "default" as the failure to meet a principal or interest payment on the due date contained in the original terms of a debt issue (see "Methodology: Timeliness Of Payments: Grace Periods, Guarantees, And Use Of 'D' And 'SD' Ratings," Oct. 24, 2013). However, questions can arise when applying this definition to sovereign obligations. We consider a sovereign to be in default under any of the following circumstances:

- For local- and foreign-currency bonds, notes, and bills issued by the central government and held outside the public sector of the country, a sovereign default occurs when the central government either fails to pay scheduled debt service on the due date or tenders an exchange offer of new debt with less-favorable terms than the original issue.
- For local currency issued by the central bank, a sovereign default takes place when notes are converted into a new currency of less-than-equivalent face value.
- For private-sector bank loans incurred by the central government, a sovereign default occurs when the central government either fails to pay scheduled debt service on the due date or negotiates with the bank creditors a rescheduling of principal or interest at less-favorable terms than in the original loan.

Emergence from default also can be a complicated analytical issue for sovereigns. Sovereigns often undertake debt restructurings through exchange offers that, we find, rarely close the books on the restructured debt. For a number of

reasons, ranging from difficulty in contacting all debtholders to holdouts seeking payment in accordance with original terms, we have observed that participation in sovereign distressed debt exchanges usually does not reach 100%. This stands in contrast with corporate debt restructurings in the U.S. and in many other jurisdictions, where all obligations are typically addressed in bankruptcy reorganization. A corporate entity reorganizing outside of bankruptcy generally must continue payments on the holdouts' debt or face the prospect of an involuntary bankruptcy filing.

Less common among sovereign defaults is the repudiation of debt, which most often follows a revolutionary change of regime (as occurred in Russia in 1917, China in 1949, and Cuba in 1960). Standard & Poor's takes no position on the propriety of government debt defaults, repudiations, and the like. Standard & Poor's also does not take a position on the course of negotiations (or the absence thereof) between creditors and the government about working out debt that is repudiated or on the parameters of any settlements between creditors and governments that could occur. Instead, Standard & Poor's ratings are an opinion of the probability of default on a forward-looking basis. We analyze historical defaults to form our own view as to the extent that they could affect the likelihood of the sovereign defaulting in the future.

In general, Standard & Poor's sovereign ratings apply only to debt that the present government acknowledges as its own. If there is no resolution of a default through the courts or by the parties involved, Standard & Poor's eventually withdraws the default ratings based on the diminished prospects for resolution and the lack of relevance of the default ratings in the context of the market. For example, Standard & Poor's has no rating on direct and guaranteed debt of the government of China issued prior to the founding of the People's Republic of China in 1949 because Standard & Poor's first rated China in 1992, long after the new government repudiated pre-1949 debt. The default is included in Standard & Poor's sovereign default survey, which covers defaults by rated and unrated issuers.

Static pool methodology

Standard & Poor's conducts its default studies on the basis of groupings called static pools. For the purposes of this study, we form static pools by grouping issuers by rating category at the beginning of each year, quarter, or month that the database covers. Each static pool is followed from that point forward. All issuers included in the study are assigned to one or more static pools. When an issuer defaults, we assign that default back to all of the static pools to which the issuer belonged.

Standard & Poor's uses the static pool methodology to avoid certain pitfalls in estimating default rates. This is to ensure that default rates account for rating migration and to allow for default rates to be calculated across multi-period time horizons. Some methods for calculating default and rating transition rates might charge defaults against only the initial rating on the issuer, ignoring more recent rating changes that supply more current information. Other methods may calculate default rates using only the most recent year's default and rating data, which may yield comparatively low default rates during periods of high rating activity because they ignore prior years' default activity.

The pools are static in the sense that their membership remains constant over time. Each static pool can be interpreted as a buy-and-hold portfolio. Because errors, if any, are corrected by every new update and because the criteria for inclusion or exclusion of companies in the default study are subject to minor revisions as time goes by, it is not possible to compare static pools across different studies. Therefore, every new update revises results back to the same starting date of Dec. 31, 1975, so as to avoid continuity problems.

For instance, the 1976 static pool consists of all companies rated as of 12:01 a.m. Jan. 1, 1976. Adding those companies first rated in 1976 to the surviving members of the 1976 static pool forms the 1977 static pool. All rating changes that took place are reflected in the newly formed 1977 static pool through the ratings on these entities as of 12:01 a.m. Jan. 1, 1977. We used the same method to form static pools for 1978 through 2014.

Consider the following example for annual static pools: A sovereign is originally rated 'BB' in mid-1986 and is downgraded to 'B' in 1988. This is followed by a default in 1993. We would include this hypothetical issuer in the 1987 and 1988 pools with the 'BB' rating, which it was rated at the beginning of those years. Likewise, it would be included in the 1989 through 1993 pools with the 'B' rating. Yet each of the seven pools in which this company was included (1987-1993) would record its 1993 default at the appropriate time horizon.

Default rate calculations

Cumulative default rates average the experience of all static pools in a select period of time by calculating marginal weighted-average default rates conditional on survival (survivors being nondefaulters) for each possible time horizon and accumulating marginal default rates. We calculate conditional-on-survival default rates by dividing the number of issuers in a static pool that default within a specific time horizon by the number of issuers that had survived (had not defaulted) up to that point in time. In the context of sovereign ratings, we treat governments that selectively default as a complete default. We based weights on the number of issuers in each static pool and base these calculations on monthly start dates for 12-month increments.

Transition analysis

Transition rates compare issuer ratings at the beginning of a time period with ratings at the end of the period. To compute one-year rating transition rates by rating category, we compared the rating on each entity at the end of a particular year with the rating at the beginning of the same year. An issuer 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 from the middle of 1984 to the middle of 1991 would appear in the seven consecutive one-year transition matrices from 1985 to 1991. If the rating on the issuer was withdrawn in the middle of 1991, it would be included in the column representing transitions to 'NR' in the 1991 transition matrix. Similarly, if it defaulted in the middle of 1991, it would be included in the column representing transitions to 'D' in the 1991 one-year transition matrix.

All 1975 static pool members still rated on Jan. 1, 2014, had 40 one-year transitions, while companies first rated on Jan. 1, 2014, had only one. Table 1 displays the summary of one-year transitions in the investment-grade and speculative-grade rating categories. 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 the ratings from 'AAA' to 'SD', plus an entry for 'NR'.

We note that the only ratings considered in these calculations are those on entities at the beginning of each static pool and those at the end. All rating changes that occur in between are ignored. For example, if an entity was rated 'A' on Jan. 1, 2014, and was downgraded to 'BBB' in the middle of the year and then later upgraded to 'A' later in the year (with no other subsequent rating changes), this entity would only be included in the percentage of issuers that began the year as 'A' that ended the year as 'A'. This also applies to transition matrices that span longer time horizons. If an issuer defaults, we consider the rating as of Dec. 31 of that particular year to be 'D'. Similarly, if we withdraw our rating

on an issuer, the methodology considers the rating as of Dec. 31 of that year to be 'NR'.

Multiyear transitions

Multi-year transitions were also calculated for periods of two to 15 years. In this case, we compared the rating at the beginning of the multi-year period with the rating at the end. For example, three-year transition matrices were the result of comparing ratings at the beginning of the years 1975-2012 with the ratings at the end of the years 1977-2014. Otherwise, the methodology was identical to that used for single-year transitions.

We calculated average transition matrices on the basis of the multi-year matrices described. These average matrices are a true summary, the ratios of which represent the historical incidence of the ratings listed on the first column, changing to the ones listed on the top row over the course of the multi-year period. Transition matrices that present averages over multiple time horizons are also calculated as issuer-weighted averages.

For inclusion in the matrix, the issuer must be in at least one year. In the case of the three-year matrix, we must have rated the sovereign by Jan. 1, 2012; in the case of the 15-year matrix, we must have rated it by Jan. 1, 2000. Thus, there are progressively fewer observations the longer the transition period is, given the growth of sovereign ratings and, of course, given that there will be fewer static pools for each added set of 12 monthly cohorts in the matrix.

Rating modifiers

Our calculations of the upgrade and downgrade percentages as well as the magnitude of rating changes considered the specific rating as opposed to the rating category. (To illustrate the difference, 'A-', 'A', and 'A+' or ratings with modifiers "+" and "-" are the ratings that fall within the 'A' rating category.) However, for practical reasons, some transition tables may use rating categories. Doing so means that actions such as a downgrade to 'AA-' from 'AA' or an upgrade to 'BBB+' from 'BBB-' are not considered to be transitions because the ratings remained within the same rating category.

Table 14

Rating History Of Argentina	
Date	Long-term foreign-currency rating
30-Jul-14	SD/NM
1-Jul-14	CCC-/Watch Neg
17-Jun-14	CCC-/Negative
10-Sep-13	CCC+/Negative
30-Oct-12	B-/Negative
23-Apr-12	B/Negative
13-Sep-10	B/Stable
31-Oct-08	B-/Stable
11-Aug-08	B/Stable
25-Apr-08	B+/Negative
2-Oct-06	B+/Stable
23-Mar-06	B/Stable
1-Jun-05	B-/Stable
6-Nov-01	SD/NM
30-Oct-01	CC/Negative
9-Oct-01	CCC+/Negative

Table 14

Rating History Of Argentina (cont.)	
12-Jul-01	B-/Negative
6-Jun-01	B/Negative
8-May-01	B/Watch Neg
26-Mar-01	B+/Watch Neg
19-Mar-01	BB-/Watch Neg
14-Nov-00	BB-/Stable
22-Sep-00	BB/Watch Neg
10-Feb-00	BB/Stable
22-Jul-99	BB/Negative
2-Apr-97	BB/Stable
8-Mar-95	BB-/Stable
4-Feb-94	BB-/Positive
25-Aug-93	BB-/Stable

NM--Not meaningful. Source: Standard & Poor's Ratings Direct.

Table 15

Sovereign Foreign-Currency Average One-Year Transition Rates With Rating Modifier (1975 - 2014)*																						
--Rating one year later (%)--																						
Rating as of 1st of the month	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	96.8	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	7.0	82.9	7.4	1.2	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	1.5
AA	0.0	8.0	82.2	7.1	0.7	0.6	0.1	0.7	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	0.0	12.0	80.2	5.8	0.3	0.1	0.3	0.0	0.3	0.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	0.0	0.0	0.0	15.5	66.6	12.0	2.9	1.5	0.2	1.1	0.1	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	1.4	11.1	79.6	5.0	0.6	0.9	1.2	0.1	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	0.9	12.5	76.9	6.1	0.6	1.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
BBB+	0.0	0.0	0.0	0.0	0.0	2.4	18.4	63.4	11.9	2.1	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
BBB	0.0	0.0	0.0	0.0	0.0	0.0	2.4	20.3	66.7	8.1	0.6	0.2	0.0	0.7	0.3	0.2	0.5	0.0	0.0	0.0	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	17.0	74.5	5.0	1.6	0.3	0.1	0.2	0.2	0.1	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	0.7	19.5	67.1	9.8	1.1	0.2	0.1	0.0	0.2	0.5	0.0	0.6	0.2	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	15.0	72.2	9.0	1.4	0.9	0.2	0.0	0.0	0.0	0.1	0.1	0.1
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	12.4	72.8	9.1	1.1	0.7	0.3	0.2	0.3	0.3	1.4	0.4
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.4	12.7	65.9	14.9	3.1	0.5	0.3	0.2	0.3	0.5	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	1.0	16.7	68.3	5.7	1.8	1.4	0.4	0.0	0.0	2.2	2.5
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	3.1	18.5	63.8	4.0	0.7	1.3	0.2	8.2	0.2
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	4.8	6.5	32.8	27.4	5.4	0.0	0.0	23.1	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	5.4	35.7	0.0	8.9	3.6	3.6	42.9	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	0.0	7.4	14.8	77.8	0.0
CC	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	0.0	0.0	0.0	100.0	0.0

Table 15

Sovereign Foreign-Currency Average One-Year Transition Rates With Rating Modifier (1975 - 2014)* (cont.)

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 16

Sovereign Foreign-Currency Average Five-Year Transition Rates With Rating Modifier (1975 - 2014)*

--Rating five years later (%)--

Rating as of 1st of the month	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	86.3	7.2	2.1	1.8	0.0	0.1	0.1	0.8	0.0	0.3	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
AA+	29.7	44.7	19.9	4.6	0.0	0.0	0.0	0.2	0.6	0.3	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	9.8	21.1	36.9	18.6	6.0	3.4	3.6	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	1.0	14.7	35.6	21.8	5.5	6.8	3.0	1.1	2.6	4.6	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	0.0	3.5	10.1	31.4	14.6	13.3	2.6	3.6	8.1	6.1	1.6	1.7	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0	2.7	0.0
A	0.0	0.0	1.6	13.5	24.8	35.0	8.8	2.7	5.4	3.8	1.3	0.1	0.1	0.0	0.2	0.0	0.2	0.1	0.0	0.5	1.7	0.0
A-	0.0	0.0	0.0	3.7	5.8	32.4	28.9	11.9	7.2	4.8	1.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9
BBB+	0.0	0.0	0.0	0.3	5.7	10.0	26.5	23.1	20.1	6.4	4.8	1.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
BBB	0.0	0.0	0.0	0.0	6.3	12.4	18.9	16.7	22.4	9.0	2.3	2.9	1.4	0.0	2.9	0.0	0.0	0.0	0.0	0.0	3.4	1.5
BBB-	0.0	0.0	0.0	0.0	0.4	4.6	11.7	20.9	20.0	21.1	9.2	5.0	0.1	0.0	0.6	0.4	0.8	0.2	0.0	0.1	4.9	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.9	3.4	2.8	16.1	21.7	17.1	22.6	11.3	0.5	0.9	1.8	0.6	0.0	0.0	0.0	0.4	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.4	2.5	14.5	20.7	37.4	9.7	6.5	1.0	0.0	0.0	0.0	1.0	0.2	3.6	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.7	6.8	12.5	27.5	16.1	11.6	5.4	7.6	0.4	0.0	0.0	0.3	9.7	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	1.0	5.2	2.3	2.5	14.1	25.9	24.5	12.9	1.3	0.2	0.0	1.0	8.0	0.3
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.9	0.8	2.2	17.2	18.0	25.0	4.6	1.7	0.3	0.5	0.0	16.0	11.4
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.5	2.0	3.2	14.9	20.0	17.9	18.2	3.8	0.0	0.2	0.0	17.0	0.3
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	5.4	3.4	6.0	16.8	6.0	13.4	1.3	0.0	47.7	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	37.8	2.2	0.0	0.0	0.0	0.0	60.0	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	0.0	0.0	0.0	100.0	0.0
CC	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	0.0	0.0	0.0	100.0	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 17

Sovereign Foreign-Currency Average 15-Year Transition Rates With Rating Modifier (1975 - 2014)*

--Rating 15 years later (%)--

Rating as of 1st of the month	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	70.8	15.0	6.6	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	44.0	24.4	10.4	15.5	2.1	0.1	0.7	1.6	1.0	0.2	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	43.7	14.7	6.1	11.1	6.6	1.6	0.3	7.6	2.7	2.8	0.0	2.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	31.4	16.0	3.5	2.6	11.9	10.3	4.8	1.0	1.0	3.2	2.2	8.0	0.0	0.6	0.0	1.0	1.0	0.0	0.0	1.6	0.0	0.0

Table 17

Sovereign Foreign-Currency Average 15-Year Transition Rates With Rating Modifier (1975 - 2014)* (cont.)																						
A+	10.0	0.0	0.0	7.0	6.3	24.4	25.5	5.2	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	
A	7.6	6.5	17.0	17.9	8.9	10.3	15.4	9.6	0.2	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	
A-	0.0	0.0	0.0	17.7	31.8	4.1	14.1	29.5	0.9	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.9	0.0	
BBB+	0.0	0.0	0.0	44.3	16.5	37.4	1.7	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	
BBB	0.0	0.0	15.4	7.5	18.7	16.1	5.6	4.6	2.3	2.0	3.3	4.3	6.6	0.0	0.0	0.0	0.0	0.0	0.0	13.8	0.0	
BBB-	0.0	0.0	0.0	0.0	3.0	18.4	19.4	4.5	6.3	6.3	11.2	5.4	1.6	0.2	2.4	3.0	1.0	0.2	0.0	1.1	13.9	2.1
BB+	0.0	0.0	0.0	0.0	5.3	13.5	0.0	15.8	16.5	31.9	4.2	1.2	1.9	0.2	0.0	0.0	0.0	0.0	0.0	9.5	0.0	
BB	0.0	0.0	0.0	0.0	0.0	0.0	2.8	11.8	14.9	10.2	0.0	12.4	10.7	5.8	9.1	2.5	1.9	0.0	0.0	0.0	17.9	0.0
BB-	0.0	0.0	0.0	0.0	4.6	0.0	0.0	7.2	6.8	0.0	8.5	9.1	17.3	0.0	6.8	4.6	0.0	0.0	0.0	0.0	35.2	0.0
B+	0.0	0.0	0.0	0.0	0.7	0.0	0.0	5.8	2.6	9.5	1.8	12.0	3.6	4.4	1.8	2.6	0.0	0.0	0.0	0.0	55.1	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	15.9	26.1	17.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	31.8	0.0
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	15.6	0.0	4.4	53.3	0.0	2.2	0.0	0.0	0.0	0.0	6.7	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	0.0	0.0	0.0	100.0	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	0.0	0.0	0.0	100.0	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	0.0	0.0	0.0	100.0	0.0
CC	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	0.0	0.0	0.0	100.0	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1975 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 18

Sovereign Local-Currency Average One-Year Transition Rates (1993 - 2014)*									
--Rating one year later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	96.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	1.6	90.9	5.5	1.2	0.0	0.0	0.0	0.0	0.8
A	0.0	3.0	89.9	6.2	0.4	0.2	0.0	0.0	0.3
BBB	0.0	0.0	5.6	87.3	6.1	0.8	0.2	0.0	0.0
BB	0.0	0.0	0.0	5.3	85.3	7.0	1.3	0.9	0.2
B	0.0	0.0	0.0	0.0	7.5	86.5	2.4	2.1	1.6
CCC/CC	0.0	0.0	0.0	0.0	0.0	52.8	34.5	12.7	0.0

*Ratings are implied senior debt rating through 1995 and sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1993 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 19

Sovereign Local-Currency Average Five-Year Transition Rates (1993 - 2014)*									
--Rating five years later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	82.9	15.1	0.2	1.4	0.0	0.0	0.0	0.0	0.5
AA	8.2	60.7	25.2	4.9	1.1	0.0	0.0	0.0	0.0
A	0.0	14.2	60.5	18.1	3.5	0.8	0.4	1.7	0.7
BBB	0.0	0.0	19.6	51.9	20.1	5.0	1.0	2.2	0.0
BB	0.0	0.0	1.4	20.0	49.4	25.2	1.6	2.3	0.0

Table 19

Sovereign Local-Currency Average Five-Year Transition Rates (1993 - 2014)* (cont.)									
B	0.0	0.0	0.5	3.7	28.1	51.3	2.6	6.4	7.4
CCC/CC	0.0	0.0	0.0	7.0	0.0	58.2	10.0	24.9	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1993 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 20

Sovereign Local-Currency Average 15-Year Transition Rates (1993 - 2014)*									
--Rating 15 years later (%)--									
Rating as of 1st of the month	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	70.2	22.0	3.2	3.6	0.9	0.0	0.0	0.0	0.0
AA	5.4	31.9	31.4	21.8	4.9	0.5	1.0	3.2	0.0
A	6.3	19.7	24.2	16.2	17.3	6.3	1.1	6.3	2.4
BBB	0.0	3.7	29.8	25.0	30.2	1.6	0.0	9.6	0.0
BB	0.0	0.0	11.5	35.2	27.0	19.3	0.0	7.0	0.0
B	0.0	0.0	0.0	24.4	34.9	36.0	0.0	4.7	0.0
CCC/CC	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1993 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 21

Sovereign Local-Currency Average One-Year Transition Rates With Rating Modifier (1993 - 2014)*																						
--Rating one year later (%)--																						
Rating as of 1st of the month	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	96.0	2.8	1.1	0.1	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	0.0
AA+	6.0	77.6	10.1	2.8	0.3	0.0	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	2.9
AA	0.0	3.9	82.8	8.9	0.9	0.9	1.2	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	0.0	6.4	79.7	11.3	0.4	0.4	1.6	0.0	0.3	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	0.9	7.4	73.2	13.6	2.8	1.2	0.1	0.1	0.0	0.0	0.2	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
A	0.0	0.0	0.0	0.9	11.0	73.8	10.7	2.3	1.0	0.2	0.1	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	0.1	16.2	67.9	11.4	1.7	0.7	0.9	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8
BBB+	0.0	0.0	0.0	0.0	0.0	0.2	12.1	71.5	10.9	2.4	1.6	0.3	0.2	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1
BBB	0.0	0.0	0.0	0.0	0.0	0.0	1.5	13.1	71.1	11.5	0.9	1.2	0.3	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.9	10.2	71.0	11.1	2.6	0.9	1.1	0.3	0.3	0.0	0.2	0.0	0.2	0.0	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	11.8	69.2	12.1	3.5	0.0	0.7	0.0	0.2	0.3	0.0	0.5	0.2	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	16.0	60.3	13.5	2.9	2.3	1.4	0.7	0.0	0.0	0.0	2.0	0.2
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	9.0	71.8	9.9	3.2	1.2	0.6	1.1	0.0	0.4	0.9	0.5
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.1	13.5	65.3	14.8	3.2	0.0	0.0	0.0	0.3	0.2	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.0	13.2	71.0	6.3	1.9	0.3	0.0	0.0	0.0	1.3	3.7
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.8	18.9	61.5	6.2	0.0	0.1	0.3	0.3	7.3	0.3
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	0.6	9.5	39.6	37.9	5.9	0.0	0.0	6.5	0.0

Table 21

Sovereign Local-Currency Average One-Year Transition Rates With Rating Modifier (1993 - 2014)* (cont.)																								
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	4.2	56.3	2.8	14.1	0.0	2.8	19.7	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	0.0	0.0	0.0	0.0	0.0	100.0	0.0
CC	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	46.2	7.7	0.0	0.0	0.0	15.4	30.8	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1993 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 22

Sovereign Local-Currency Average 15-Year Transition Rates With Rating Modifier (1993 - 2014)*																						
--Rating 15-years later (%)--																						
Rating as of 1st of the month	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	70.2	12.5	6.0	3.5	1.9	0.6	0.7	2.7	0.0	1.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	0.4	1.3	8.5	8.1	15.7	11.1	7.7	12.8	5.5	19.6	3.0	0.9	0.0	0.0	0.9	0.0	1.3	1.3	0.0	0.0	2.1	0.0
AA	6.7	10.4	29.6	6.7	2.9	4.2	16.3	0.8	7.1	4.6	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0
AA-	12.7	0.0	11.9	17.8	38.1	2.5	0.8	8.5	0.0	0.0	0.0	5.9	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.8	0.0
A+	21.7	18.5	24.8	0.6	0.0	2.5	0.0	21.0	0.0	0.0	10.8	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	1.9	8.7	29.1	2.9	12.6	1.0	0.0	0.0	21.4	5.8	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	12.6
A-	0.0	0.0	0.0	12.6	0.0	18.8	11.6	5.1	2.5	6.9	12.6	4.7	0.0	0.4	3.6	6.9	2.2	0.0	0.0	0.0	12.3	0.0
BBB+	0.0	0.0	3.1	2.8	1.8	27.6	14.9	2.8	7.7	17.3	8.2	3.1	10.3	0.3	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	13.9	0.0	0.0	11.1	43.1	20.8	11.1	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	1.0	0.0	0.0	8.2	3.8	0.0	5.8	13.0	8.7	24.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	30.8	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	16.4	17.2	23.4	2.3	0.0	29.7	10.9	0.0	0.0	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	6.3	6.3	0.0	0.0	6.3	0.0	0.0	15.2	26.6	17.7	0.0	0.0	0.0	0.0	21.5	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	5.4	70.3	0.0	0.0	5.4	18.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	72.7	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	18.2	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6	45.2	6.5	0.0	0.0	3.2	0.0	16.1	0.0	0.0	0.0	0.0	6.5	0.0
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	54.5	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0
CCC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	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
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	0.0	0.0	0.0	0.0	0.0
CC	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	0.0	0.0	0.0	0.0	0.0

*Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1993 and 2014 annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 23

Sovereign Foreign-Currency Cumulative Average Default Rate* Without Rating Modifiers (1975 - 2014)																	
--Time horizon, annualized months (years)--																	
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
AAA	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	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	0.3		
A	0.0	0.0	0.6	1.3	2.0	2.8	3.7	4.6	5.7	6.9	8.2	9.7	10.7	11.7	12.3		
BBB	0.0	0.7	1.5	2.2	3.1	3.9	4.3	4.3	4.3	4.3	4.3	4.3	4.9	5.8	7.0		

Table 23

Sovereign Foreign-Currency Cumulative Average Default Rate* Without Rating Modifiers (1975 - 2014) (cont.)															
BB	0.6	2.0	2.8	3.3	4.3	5.5	6.9	7.9	8.6	8.7	9.0	9.8	10.6	11.1	11.1
B	2.6	5.4	8.2	11.4	14.1	16.8	19.7	22.6	24.8	26.4	27.0	27.0	27.0	28.1	31.1
CCC/CC	31.3	39.1	42.9	44.9	48.4	53.6	58.1	61.3	61.3	61.3	61.3	61.3	61.3	N/A	N/A
Investment grade	0.0	0.2	0.4	0.8	1.1	1.4	1.7	1.9	2.1	2.3	2.5	2.8	3.1	3.3	3.7
Speculative grade	2.7	5.1	7.0	8.8	10.7	12.7	14.9	16.9	18.1	18.8	19.3	19.7	20.2	20.8	21.6
All rated	1.0	1.8	2.7	3.5	4.3	5.2	6.0	6.7	7.2	7.5	7.8	8.1	8.4	8.8	9.1

*Default rates are conditional on survival. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. N/A--Not available; there are no observations for this horizon. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 24

(Transition to default rates; %)	# of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1992	6	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
1/1/1993	6	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
1/1/1994	5	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
1/1/1995	6	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
1/1/1996	8	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
1/1/1997	9	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
1/1/1998	9	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
1/1/1999	9	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	11.1
1/1/2000	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	18.2	18.2
1/1/2001	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	16.7	16.7	
1/1/2002	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	14.3	14.3			
1/1/2003	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	11.8	11.8				
1/1/2004	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	10.0	10.0					
1/1/2005	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	9.5	9.5					
1/1/2006	21	0.0	0.0	0.0	0.0	0.0	0.0	4.8	9.5	9.5						
1/1/2007	23	0.0	0.0	0.0	0.0	0.0	4.3	8.7	8.7							
1/1/2008	20	0.0	0.0	0.0	0.0	5.0	10.0	10.0								
1/1/2009	20	0.0	0.0	0.0	5.0	10.0	10.0									
1/1/2010	21	0.0	0.0	0.0	4.8	4.8										
1/1/2011	21	0.0	0.0	4.8	4.8											
1/1/2012	15	0.0	0.0	0.0												
1/1/2013	14	0.0	0.0													
1/1/2014	12	0.0														
Cumulative default rate*		0.0	0.0	0.6	1.3	2.0	2.8	3.7	4.6	5.7	6.9	8.2	9.7	10.7	11.7	12.3

*From the Rating Category row in Table 19. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 25

Foreign-Currency 'BBB' Static Pools And Default Rates (1992 - 2014)																
(Transition to default rates, %)	# of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1992	2	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
1/1/1993	6	0.0	0.0	0.0	0.0	0.0	0.0	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
1/1/1994	8	0.0	0.0	0.0	0.0	0.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
1/1/1995	7	0.0	0.0	0.0	0.0	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1/1/1996	4	0.0	0.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
1/1/1997	9	0.0	0.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
1/1/1998	16	0.0	0.0	0.0	0.0	0.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	12.5
1/1/1999	16	0.0	0.0	0.0	0.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	12.5	12.5
1/1/2000	16	0.0	0.0	0.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
1/1/2001	16	0.0	0.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
1/1/2002	16	0.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
1/1/2003	13	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
1/1/2004	12	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
1/1/2005	13	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
1/1/2006	13	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
1/1/2007	13	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
1/1/2008	14	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
1/1/2009	17	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
1/1/2010	18	0.0	0.0	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
1/1/2011	19	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
1/1/2012	24	0.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
1/1/2013	23	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
1/1/2014	26	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
Cumulative default rate*		0.0	0.7	1.5	2.2	3.1	3.9	4.3	4.3	4.3	4.3	4.3	4.3	4.9	5.8	7.0

*From the Rating Category row in Table 19. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 26

Foreign-Currency 'BB' Static Pools And Default Rates (1992 - 2014)																
(Transition to default rates, %)	# of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1992	2	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	50.0
1/1/1993	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	25.0	25.0	25.0
1/1/1994	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	16.7	16.7	16.7	33.3	33.3	33.3	33.3
1/1/1995	8	0.0	0.0	0.0	0.0	0.0	0.0	12.5	12.5	25.0	25.0	25.0	25.0	25.0	25.0	25.0
1/1/1996	10	0.0	0.0	0.0	0.0	0.0	10.0	10.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
1/1/1997	13	0.0	0.0	7.7	7.7	15.4	15.4	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8
1/1/1998	18	0.0	11.1	11.1	16.7	16.7	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2

Table 26

Foreign-Currency 'BB' Static Pools And Default Rates (1992 - 2014) (cont.)																
1/1/1999	18	0.0	0.0	5.6	5.6	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
1/1/2000	15	0.0	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
1/1/2001	14	7.1	7.1	7.1	7.1	7.1	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	
1/1/2002	16	0.0	0.0	0.0	6.3	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	
1/1/2003	17	0.0	5.9	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	
1/1/2004	17	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	
1/1/2005	19	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	
1/1/2006	19	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	
1/1/2007	22	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	
1/1/2008	23	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	
1/1/2009	23	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	
1/1/2010	23	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	
1/1/2011	23	0.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	
1/1/2012	22	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	
1/1/2013	26	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	
1/1/2014	24	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	
Cumulative default rate*		0.6	2.0	2.8	3.3	4.3	5.5	6.9	7.9	8.6	8.7	9.0	9.8	10.6	11.1	11.1

*From the Rating Category row in Table 19. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 27

Foreign-Currency 'B' Static Pools And Default Rates (1995 - 2014)																
(Transition to default rates; %)	# of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1995	4	0.0	0.0	0.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0	50.0	50.0	50.0	50.0	50.0
1/1/1996	5	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
1/1/1997	4	0.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1/1/1998	5	0.0	20.0	20.0	20.0	20.0	20.0	20.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
1/1/1999	7	0.0	0.0	0.0	0.0	0.0	0.0	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6
1/1/2000	14	0.0	0.0	0.0	7.1	7.1	21.4	21.4	21.4	21.4	21.4	28.6	28.6	28.6	28.6	28.6
1/1/2001	20	0.0	5.0	10.0	10.0	20.0	20.0	20.0	25.0	25.0	30.0	30.0	30.0	30.0	30.0	30.0
1/1/2002	15	0.0	6.7	6.7	13.3	13.3	13.3	13.3	13.3	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1/1/2003	16	12.5	12.5	12.5	18.8	18.8	18.8	18.8	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
1/1/2004	19	0.0	5.3	10.5	10.5	10.5	10.5	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
1/1/2005	21	4.8	9.5	9.5	9.5	9.5	14.3	14.3	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
1/1/2006	23	0.0	0.0	0.0	0.0	4.3	4.3	13.0	13.0	17.4	17.4	17.4	17.4	17.4	17.4	17.4
1/1/2007	25	0.0	4.0	4.0	8.0	8.0	16.0	16.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
1/1/2008	29	6.9	6.9	10.3	10.3	20.7	20.7	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
1/1/2009	28	0.0	3.6	3.6	10.7	10.7	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
1/1/2010	27	0.0	0.0	7.4	7.4	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
1/1/2011	32	0.0	6.3	9.4	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5

Table 27

Foreign-Currency 'B' Static Pools And Default Rates (1995 - 2014) (cont.)																
1/1/2012	33	6.1	9.1	12.1												
1/1/2013	30	3.3	6.7													
1/1/2014	32	0.0														
Cumulative default rate*		2.6	5.4	8.2	11.4	14.1	16.8	19.7	22.6	24.8	26.4	27.0	27.0	27.0	28.1	31.1

*From the Rating Category row in Table 19. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 28

(Transition to default rates, %)	# of issuers	--Time horizon (years)--													
		1	2	3	4	5	6	7	8	9	10	11			
1/1/1999	3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1/1/2000	1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1/1/2001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2002	3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	66.7	66.7	66.7	66.7	66.7	66.7	66.7
1/1/2003	4	0.0	0.0	25.0	25.0	25.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1/1/2004	3	0.0	33.3	33.3	33.3	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
1/1/2005	4	25.0	25.0	25.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1/1/2006	4	25.0	25.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1/1/2007	2	0.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
1/1/2008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2009	1	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
1/1/2010	3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
1/1/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/1/2012	1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1/1/2013	2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1/1/2014	1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cumulative default rate*		31.3	39.1	42.9	44.9	48.4	53.6	58.1	61.3	61.3	61.3	61.3	61.3	61.3	61.3

*From the Rating Category row in Table 19. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. N/A--Not applicable; there are no observations for this horizon. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, and <http://creditpro.standardandpoors.com>.

Table 29

Rating	--Time horizon, annualized months (years)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	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+	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	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-	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	1.6
A+	0.0	0.0	0.6	2.2	3.8	4.1	4.1	5.7	7.2	7.2	7.2	7.2	7.2	9.1	11.5

Table 29

Sovereign Foreign-Currency Cumulative Average Default Rate* Without Rating Modifiers, Annualized Months (1975 - 2014) (cont.)															
A	0.0	0.0	0.2	1.0	1.8	3.5	5.5	6.9	8.6	11.5	14.5	16.1	17.9	18.8	18.8
A-	0.0	0.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.4	3.8	4.6	4.6	4.6
BBB+	0.0	0.6	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
BBB	0.0	0.8	2.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	5.0	5.7	5.7
BBB-	0.0	0.7	1.5	2.4	4.3	6.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	8.2	10.1
BB+	0.2	1.7	1.7	1.7	1.7	1.8	3.1	4.5	6.1	6.5	6.5	6.5	6.5	6.5	6.5
BB	0.1	0.9	1.7	2.6	3.1	4.0	4.4	4.4	4.4	4.4	4.7	6.7	9.0	10.4	10.4
BB-	1.4	3.3	5.1	5.5	8.1	10.6	13.3	15.3	15.8	15.8	16.6	16.6	16.6	16.6	16.6
B+	0.5	1.4	2.6	5.1	6.2	8.5	13.0	18.0	19.4	21.5	22.7	22.7	22.7	24.9	30.8
B	2.1	5.4	9.3	13.7	17.7	20.8	22.8	25.0	27.8	30.0	30.4	30.4	30.4	30.4	30.4
B-	7.6	13.7	17.7	20.2	23.6	26.2	28.0	28.7	31.1	31.3	31.3	31.3	31.3	31.3	31.3
CCC+	18.7	22.1	27.6	30.6	35.8	43.8	50.8	55.7	55.7	55.7	55.7	55.7	55.7	N/A	N/A
CCC	32.9	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	55.3	N/A	N/A	N/A	N/A	N/A
CCC-	75.9	96.6	96.6	96.6	96.6	96.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CC	100.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Investment grade	0.0	0.2	0.4	0.8	1.1	1.4	1.7	1.9	2.1	2.3	2.5	2.8	3.1	3.3	3.7
Speculative grade	2.7	5.1	7.0	8.8	10.7	12.7	14.9	16.9	18.1	18.8	19.3	19.7	20.2	20.8	21.6
All rated	1.0	1.8	2.7	3.5	4.3	5.2	6.0	6.7	7.2	7.5	7.8	8.1	8.4	8.8	9.1

*Default rates are conditional on survival. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. N/A--Not applicable; there are no observations for this horizon. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 30

Sovereign Foreign-Currency Cumulative Average Default Rate* With Rating Modifiers, Months (1975 - 2014)																						
--Time horizon (months)--																						
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A+	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	0.0	0.0	0.0	0.0	0.0
A	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	0.0	0.0	0.0	0.0	0.0
A-	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	0.0	0.0	0.0	0.0	0.0
BBB+	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	0.0	0.0	0.0	0.1	0.2
BBB	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	0.2	0.3	0.5	0.6	0.7
BBB-	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	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5
BB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.7	1.0	1.1	1.3	1.4	1.5	1.5	1.6	1.7	1.7
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8
BB-	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.5	0.8	1.1	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.3	2.4	2.6	2.8	2.8
B+	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	1.0	1.1	1.2	1.2	1.3	1.3
B	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.4	1.6	1.8	2.0	2.1	2.4	2.7	3.0	3.2	3.5	3.7	4.0	4.2	4.5	4.8
B-	0.4	1.0	1.5	2.1	2.5	3.1	3.9	4.5	5.2	5.9	6.6	7.6	8.2	8.8	9.5	10.2	10.8	11.4	11.8	12.1	12.6	13.0
CCC+	1.2	2.7	4.7	7.0	9.3	11.3	12.9	14.4	16.0	17.5	18.3	18.7	19.1	19.1	19.1	19.1	19.1	19.1	19.5	20.0	20.4	20.8
CCC	5.3	11.9	17.4	21.5	27.1	30.0	31.4	32.9	32.9	32.9	32.9	32.9	34.5	37.7	39.3	40.9	42.5	44.1	47.3	50.5	52.1	53.7
CCC-	13.8	24.1	34.5	41.4	48.3	55.2	58.6	62.1	65.5	69.0	72.4	75.9	79.3	82.8	86.2	89.7	93.1	96.6	96.6	96.6	96.6	96.6

Table 30

Sovereign Foreign-Currency Cumulative Average Default Rate* With Rating Modifiers, Months (1975 - 2014) (cont.)																					
CC	23.1	34.6	46.2	57.7	65.4	73.1	80.8	84.6	88.5	92.3	96.2	100.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Investment grade	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	0.0	0.1	0.1	0.1
Speculative grade	0.2	0.5	0.7	0.9	1.2	1.4	1.6	1.9	2.1	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.5
All rated	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.7

*Default rates are conditional on survival. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. N/A--Not applicable; there are no observations for this horizon. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect. For expanded table, see HTML file on RatingsDirect.

Table 31

Sovereign Local-Currency Cumulative Average Default Rate* Without Rating Modifiers (1993 - 2014)																
--Time horizon, annualized months (years)--																
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
AAA	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	1.9	3.0	4.4	6.1	
A	0.0	0.0	0.6	1.3	2.0	2.8	3.7	4.7	5.8	7.0	7.8	8.8	10.0	11.5	13.2	
BBB	0.0	0.7	1.2	1.6	2.2	2.7	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
BB	0.9	1.9	2.2	2.2	2.2	2.2	2.6	3.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
B	2.0	3.1	4.4	5.5	6.9	8.4	9.5	10.7	11.9	13.2	13.4	13.4	13.4	13.4	13.4	
CCC/C	12.3	16.7	21.9	25.0	30.3	38.2	44.6	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0	
Investment grade	0.0	0.1	0.4	0.7	1.0	1.3	1.7	1.9	2.2	2.5	2.9	3.3	3.7	4.2	4.8	
Speculative grade	1.9	3.1	4.0	4.7	5.6	6.7	7.7	8.8	9.7	10.2	10.3	10.3	10.3	10.3	10.3	
All rated	0.6	1.1	1.6	1.9	2.4	3.0	3.5	4.0	4.4	4.7	5.0	5.4	5.7	6.2	6.7	

*Default rates are conditional on survival. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 32

Sovereign Local-Currency Cumulative Average Default Rate* With Rating Modifiers																
--Time horizon, annualized months (years)--																
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
AAA	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+	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	2.0	
AA	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	1.9	4.4	
AA-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.4	6.7	10.9	13.4	13.4	
A+	0.0	0.0	0.4	1.3	2.4	2.5	2.5	3.7	5.7	7.3	7.3	7.3	7.3	7.3	7.3	
A	0.0	0.0	0.3	1.3	2.4	4.6	7.4	9.4	11.0	13.5	16.3	16.3	16.3	16.3	16.3	
A-	0.0	0.1	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.5	3.7	6.4	9.5	13.1	
BBB+	0.0	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
BBB	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
BBB-	0.0	1.3	2.7	4.3	6.2	8.4	10.8	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	
BB+	0.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	

Table 32

Sovereign Local-Currency Cumulative Average Default Rate* With Rating Modifiers (cont.)															
BB	1.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
BB-	0.8	2.0	3.1	3.1	3.1	3.1	4.6	7.9	10.6	10.6	10.6	10.6	10.6	10.6	10.6
B+	0.2	0.2	0.2	0.2	0.2	0.4	1.4	1.4	2.7	7.2	8.1	8.1	8.1	8.1	8.1
B	1.2	2.1	3.1	4.2	6.2	8.9	10.6	12.6	13.9	13.9	13.9	13.9	13.9	13.9	13.9
B-	6.8	10.7	14.6	17.6	19.9	21.3	21.3	22.3	23.4	23.4	23.4	23.4	23.4	23.4	23.4
CCC+	6.2	6.9	15.6	20.9	30.1	44.7	57.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3	N/A
CCC	19.7	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
CCC-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CC	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	N/A	N/A	N/A	N/A
Investment grade	0.0	0.1	0.4	0.7	1.0	1.3	1.7	1.9	2.2	2.5	2.9	3.3	3.7	4.2	4.8
Speculative grade	1.9	3.1	4.0	4.7	5.6	6.7	7.7	8.8	9.7	10.2	10.3	10.3	10.3	10.3	10.3
All rated	0.6	1.1	1.6	1.9	2.4	3.0	3.5	4.0	4.4	4.7	5.0	5.4	5.7	6.2	6.7

*Default rates are conditional on survival. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. N/A--Not applicable; there are no observations for this horizon. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 33

Sovereign Versus Corporate Ratings Default Rates Without Rating Modifiers (1975 - 2014)*	--One-year--			--Three-year--			--Five-year--			--10-year--			--15-year--		
	Sov. FC	Sov. LC	Corp.	Sov. FC	Sov. LC	Corp.	Sov. FC	Sov. LC	Corp.	Sov. FC	Sov. LC	Corp.	Sov. FC	Sov. LC	Corp.
(%)															
AAA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.7	0.8	0.0	0.0	1.0
AA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.8	0.8	0.3	6.1	1.2
A	0.0	0.0	0.1	0.6	0.6	0.3	2.0	2.0	0.6	6.9	1.5	1.5	12.3	13.2	2.3
BBB	0.0	0.0	0.2	1.5	1.2	1.0	3.1	2.2	2.0	4.3	4.1	4.3	7.0	3.5	5.8
BB	0.6	0.9	0.8	2.8	2.2	4.2	4.3	2.2	7.7	8.7	13.7	14.7	11.1	4.0	16.8
B	2.6	2.0	3.9	8.2	4.4	13.0	14.1	6.9	18.7	26.4	25.9	27.2	31.1	13.4	29.5
CCC/CC	31.3	12.3	26.4	42.9	21.9	40.7	48.4	30.3	46.3	61.3	50.7	52.3	N/A	49.0	53.4
Investment grade	0.0	0.0	0.1	0.4	0.4	0.5	1.1	1.0	1.0	2.3	2.2	2.3	3.7	4.8	3.2
Speculative grade	2.7	1.9	3.9	7.0	4.0	10.8	10.7	5.6	15.5	18.8	22.0	23.2	21.6	10.3	25.2
All rated	1.0	0.6	1.5	2.7	1.6	4.2	4.3	2.4	6.2	7.5	9.2	9.4	9.1	6.7	10.8

*Sovereign ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sovereign ratings are for 1975-2014, and corporate ratings are for 1981-2014. Both were compiled on calendar-year basis. FC--Foreign currency. LC--Local currency. NA--Not applicable.

Chart 18

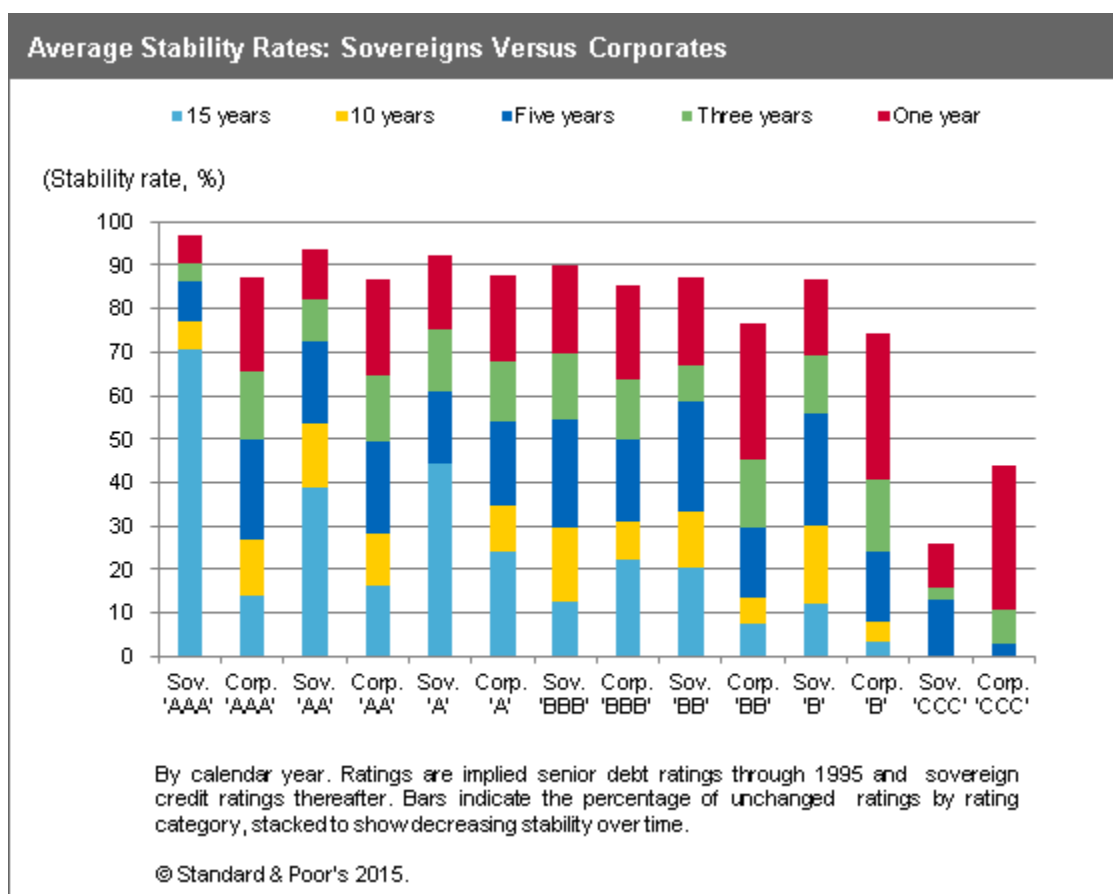


Table 34

Sovereign Foreign-Currency Ratings One-Year Average Transition Matrices (1975 - 2014)

Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C	SD	NR
AAA	96.7	2.7	0.6	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
AA+	6.9	83.8	6.9	0.8	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	1.5
AA	0.0	7.7	82.1	8.5	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	0.0	11.6	79.1	5.8	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
A+	0.0	0.0	0.0	15.3	68.1	13.9	1.4	0.0	0.0	1.4	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	1.3	10.7	78.5	4.0	2.7	2.0	0.7	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	0.9	13.0	78.3	6.1	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
BBB+	0.0	0.0	0.0	0.0	0.0	2.7	17.3	64.0	13.3	1.3	1.3	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	3.5	18.4	64.0	9.6	2.6	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	16.5	74.8	5.0	2.2	0.0	0.0	0.0	0.7	0.0	0.0	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	17.9	67.0	8.9	0.9	0.9	0.0	0.0	1.8	0.0	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	15.3	73.0	8.8	1.5	0.0	0.0	0.0	0.0	0.7
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	12.2	72.7	8.6	2.2	0.7	1.4	1.4	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.8	12.7	66.1	13.3	4.2	1.2	0.0	0.0

Table 34

Sovereign Foreign-Currency Ratings One-Year Average Transition Matrices (1975 - 2014) (cont.)																				
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	16.9	69.7	6.3	2.8	1.4	2.8
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	4.9	17.1	63.4	7.3	7.3	0.0
CCC/CC	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	3.8	3.8	19.2	26.9	46.2	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each annual cohort between 1975 and 2014. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 35

Sovereign Foreign-Currency Ratings Three-Year Average Transition Matrices (1975 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	90.6	6.1	1.2	1.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2
AA+	21.7	58.3	15.8	2.5	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
AA	0.9	20.8	53.8	17.0	1.9	1.9	0.9	0.9	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	2.9	32.9	44.3	5.7	4.3	2.9	0.0	2.9	2.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	0.0	0.0	4.4	27.9	32.4	19.1	1.5	1.5	4.4	4.4	0.0	1.5	0.0	1.5	0.0	0.0	1.5	0.0	0.0
A	0.0	0.0	0.0	7.9	24.3	47.9	6.4	4.3	5.0	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0
A-	0.0	0.0	0.0	1.0	2.9	29.4	50.0	9.8	2.0	1.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
BBB+	0.0	0.0	0.0	0.0	1.6	9.5	23.8	31.7	22.2	7.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0
BBB	0.0	0.0	0.0	0.0	1.1	6.5	14.0	19.4	36.6	9.7	5.4	1.1	0.0	1.1	1.1	0.0	1.1	2.2	1.1
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	5.7	11.4	25.2	38.2	9.8	4.9	0.8	0.0	0.8	0.8	0.0	1.6	0.8
BB+	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.9	5.8	30.1	32.0	19.4	2.9	1.0	0.0	1.9	0.0	1.9	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.2	8.8	20.8	41.6	16.0	6.4	0.8	0.0	0.0	1.6	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	7.3	23.6	36.4	12.7	4.5	4.5	1.8	5.5	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	1.4	4.9	16.2	36.6	23.9	9.2	4.2	2.1	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	12.5	20.8	36.7	10.0	2.5	8.3	7.5
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	4.6	10.8	27.7	33.8	1.5	18.5	0.0
CCC/CC	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	4.3	17.4	8.7	13.0	56.5	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each three-year cohort between 1975 and 2014. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 36

Sovereigns Foreign-Currency Ratings 10-Year Average Transition Matrices (1975 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	76.1	11.9	6.1	2.8	0.0	0.3	0.0	0.8	0.3	0.0	0.0	0.8	0.0	0.6	0.0	0.0	0.0	0.0	0.3
AA+	42.2	23.5	20.6	10.8	0.0	1.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	25.7	29.7	10.8	12.2	8.1	1.4	1.4	2.7	1.4	1.4	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	21.9	15.6	6.3	28.1	0.0	18.8	6.3	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	10.0	2.5	20.0	0.0	7.5	12.5	17.5	2.5	5.0	17.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
A	1.5	3.0	14.9	16.4	16.4	13.4	13.4	9.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.0	0.0
A-	0.0	0.0	1.6	14.5	19.4	16.1	9.7	1.6	14.5	11.3	4.8	4.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	0.0	0.0	3.7	3.7	3.7	29.6	40.7	7.4	7.4	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
BBB	0.0	0.0	1.8	12.7	3.6	18.2	14.5	7.3	12.7	7.3	3.6	7.3	0.0	1.8	0.0	1.8	0.0	3.6	3.6

Table 36

Sovereigns Foreign-Currency Ratings 10-Year Average Transition Matrices (1975 - 2014) (cont.)																			
BBB-	0.0	0.0	0.0	0.0	2.5	21.5	12.7	17.7	13.9	3.8	11.4	5.1	0.0	1.3	0.0	0.0	0.0	10.1	0.0
BB+	0.0	0.0	0.0	0.0	5.3	5.3	10.5	10.5	5.3	12.3	10.5	15.8	10.5	1.8	0.0	5.3	0.0	7.0	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	17.6	24.3	10.8	14.9	6.8	6.8	2.7	1.4	1.4	5.4	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	11.5	11.5	3.8	21.2	5.8	1.9	1.9	7.7	0.0	30.8	0.0
B+	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	7.3	7.3	5.5	5.5	9.1	16.4	10.9	3.6	1.8	27.3	3.6
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	2.2	4.3	0.0	23.9	17.4	8.7	8.7	2.2	26.1	2.2
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	10.0	20.0	16.7	6.7	3.3	16.7	0.0	20.0	0.0
CCC/CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	7.1	0.0	0.0	85.7	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 10-year cohort between 1975 and 2014. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 37

Sovereigns Foreign-Currency Ratings One-Year Most Recent Transition Matrices (2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	92.3	7.7	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
AA+	0.0	80.0	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	20.0
AA	0.0	0.0	100.0	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
AA-	0.0	0.0	0.0	100.0	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
A+	0.0	0.0	0.0	0.0	100.0	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
A	0.0	0.0	0.0	0.0	0.0	100.0	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
A-	0.0	0.0	0.0	0.0	0.0	0.0	83.3	16.7	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	12.5	12.5	75.0	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	0.0	10.0	0.0	40.0	40.0	10.0	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	0.0	0.0	25.0	75.0	0.0	0.0	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	0.0	25.0	50.0	25.0	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	0.0	0.0	0.0	100.0	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	0.0	0.0	0.0	12.5	62.5	18.8	6.3	0.0	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	80.0	20.0	0.0	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	9.1	63.6	18.2	0.0	0.0	9.1
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	9.1	9.1	63.6	18.2	0.0	0.0
CCC/CC	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	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over one year for the 2014 cohort. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 38

Sovereigns Foreign-Currency Ratings Three-Year Most Recent Transition Matrices (2011 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	75.0	18.8	6.3	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
AA+	0.0	66.7	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	33.3
AA	0.0	0.0	100.0	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
AA-	0.0	0.0	0.0	77.8	0.0	0.0	11.1	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 38

Sovereigns Foreign-Currency Ratings Three-Year Most Recent Transition Matrices (2011 - 2014) (cont.)																			
A+	0.0	0.0	0.0	33.3	33.3	33.3	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
A	0.0	0.0	0.0	0.0	14.3	42.9	0.0	28.6	0.0	14.3	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	0.0	0.0	80.0	20.0	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	25.0	0.0	50.0	0.0	25.0	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	11.1	22.2	22.2	22.2	11.1	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	45.5	0.0	18.2	0.0	0.0	9.1	0.0	0.0	0.0	9.1
BB+	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	40.0	20.0	20.0	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	12.5	0.0	12.5	25.0	37.5	12.5	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	0.0	0.0	0.0	11.1	66.7	22.2	0.0	0.0	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	6.3	6.3	43.8	25.0	6.3	12.5	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	45.5	27.3	0.0	9.1	18.2
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	16.7	0.0	33.3	0.0	50.0	0.0
CCC/CC	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	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over three years for the 2012 cohort. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 39

Sovereigns Foreign-Currency Ratings 10-Year Most Recent Transition Matrices (2004 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	57.9	21.1	5.3	0.0	0.0	5.3	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
AA+	0.0	0.0	100.0	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
AA	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	0.0	0.0	50.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	25.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	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	42.9	0.0	0.0	14.3	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.6	0.0
A-	0.0	0.0	0.0	10.0	20.0	10.0	30.0	0.0	20.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	0.0	0.0	0.0	16.7	0.0	33.3	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0
BBB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	25.0	25.0	0.0	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	0.0	50.0	0.0	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	30.0	20.0	0.0	10.0	20.0	10.0	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	0.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	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	14.3	0.0	14.3	14.3	0.0	28.6	14.3	0.0	14.3
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	22.2	11.1	11.1	0.0	33.3	11.1
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	20.0	0.0	0.0	20.0	0.0	20.0	0.0
CCC/CC	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	33.3	0.0	0.0	66.7	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over 10 years for the 2005 cohort. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 40

Sovereign Foreign-Currency Ratings Original-To-Last Transition Matrices																						
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	50.0	25.0	10.0	5.0	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	5.0	5.0
AA+	0.0	33.3	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	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	20.0	0.0	20.0	40.0	0.0	0.0	0.0	0.0	20.0	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	0.0	0.0	0.0	0.0	0.0	0.0	50.0	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	0.0
A+	33.3	0.0	0.0	0.0	33.3	33.3	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
A	0.0	0.0	11.1	11.1	0.0	22.2	22.2	11.1	0.0	11.1	0.0	11.1	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	0.0	0.0	25.0	25.0	25.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	12.5
BBB+	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	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
BBB	0.0	0.0	12.5	37.5	0.0	0.0	12.5	0.0	0.0	12.5	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0
BBB-	0.0	0.0	0.0	0.0	11.1	11.1	11.1	0.0	11.1	11.1	0.0	11.1	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	11.1	11.1
BB+	0.0	0.0	0.0	0.0	0.0	16.7	0.0	16.7	16.7	16.7	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0	0.0	20.0	0.0	20.0	10.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
BB-	0.0	0.0	0.0	0.0	0.0	6.7	0.0	6.7	6.7	6.7	0.0	6.7	26.7	0.0	6.7	6.7	0.0	0.0	0.0	0.0	26.7	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	19.0	28.6	23.8	9.5	0.0	0.0	0.0	0.0	9.5	9.5
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	6.3	0.0	0.0	12.5	25.0	6.3	6.3	0.0	6.3	0.0	25.0	6.3
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	7.7	7.7	7.7	7.7	23.1	0.0	0.0	0.0	0.0	30.8	0.0
CCC+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	33.3	0.0	16.7	0.0	0.0	0.0	0.0	33.3	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	0.0	0.0	0.0	100.0	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	0.0	0.0	0.0	0.0	0.0
CC	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	0.0	0.0	0.0	0.0	0.0

Original-to-last transition rates compare the issuer rating from the time of first rating to the last rating, regardless of the time elapsed in the interim. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 41

Sovereigns Local-Currency Ratings One-Year Average Transition Matrices (1993 - 2014)																					
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR		
AAA	95.9	2.7	1.5	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	0.0
AA+	6.0	79.1	10.4	1.5	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	3.0	0.0	0.0
AA	0.0	3.9	82.4	9.8	0.0	2.0	1.0	1.0	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	0.0	5.4	80.4	12.0	1.1	0.0	0.0	0.0	1.1	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	0.9	7.3	73.6	14.5	1.8	1.8	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
A	0.0	0.0	0.0	0.8	10.6	72.4	9.8	4.9	1.6	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	0.0	15.7	69.4	12.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
BBB+	0.0	0.0	0.0	0.0	0.0	1.7	11.2	69.8	12.1	1.7	1.7	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
BBB	0.0	0.0	0.0	0.0	0.0	0.0	1.3	13.3	68.0	13.3	1.3	1.3	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	9.0	70.8	9.0	4.5	1.1	2.2	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	1.9	12.3	70.8	11.3	2.8	0.0	0.0	0.0	0.9	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	16.3	61.3	12.5	3.8	0.0	1.3	1.3	2.5	1.3	0.0	0.0

Table 41

Sovereigns Local-Currency Ratings One-Year Average Transition Matrices (1993 - 2014) (cont.)																			
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	8.8	71.6	11.8	4.9	0.0	2.0	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	0.8	2.5	13.1	64.8	13.9	4.9	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	0.8	13.0	71.5	6.5	2.4	1.6	4.1
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	1.5	7.4	16.2	61.8	8.8	4.4	0.0
CCC/CC	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	8.7	30.4	39.1	21.7	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each annual cohort between 1993 and 2014. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 42

Sovereign Local-Currency Ratings Three-Year Average Transition Matrices (1993 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	87.8	7.3	3.4	0.8	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
AA+	20.8	43.4	13.2	13.2	0.0	1.9	1.9	1.9	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
AA	1.1	6.6	62.6	17.6	2.2	3.3	2.2	2.2	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	1.3	15.6	46.8	19.5	6.5	5.2	2.6	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	0.0	0.0	2.8	19.3	41.3	20.2	8.3	2.8	2.8	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.9	0.0	0.0
A	0.0	0.0	0.0	2.8	18.3	46.8	11.9	10.1	6.4	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0
A-	0.0	0.0	0.0	1.1	9.9	29.7	31.9	13.2	3.3	4.4	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	3.3
BBB+	0.0	0.0	0.0	0.0	2.9	4.9	19.4	40.8	12.6	8.7	5.8	0.0	0.0	0.0	1.9	1.9	0.0	1.0	0.0
BBB	0.0	0.0	0.0	0.0	0.0	0.0	3.3	21.3	45.9	13.1	9.8	3.3	0.0	0.0	0.0	0.0	0.0	1.6	1.6
BBB-	0.0	0.0	0.0	0.0	0.0	1.4	1.4	5.4	9.5	40.5	16.2	8.1	6.8	1.4	4.1	2.7	0.0	2.7	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.2	6.3	13.5	43.8	19.8	7.3	1.0	0.0	0.0	0.0	1.0	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.2	7.0	21.1	16.9	16.9	11.3	2.8	12.7	1.4	4.2	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.7	4.1	11.0	38.4	20.5	8.2	5.5	5.5	2.7	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	5.1	19.2	39.4	26.3	3.0	2.0	0.0	2.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	13.9	15.8	39.6	7.9	4.0	4.0	9.9
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.8	3.9	5.9	27.5	37.3	3.9	11.8	0.0
CCC/CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	5.3	31.6	15.8	15.8	26.3	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each three-year cohort between 1993 and 2014. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 43

Sovereign Local-Currency Ratings 10-Year Average Transition Matrices (1993 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	79.6	10.4	3.2	3.6	0.8	0.4	0.0	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
AA+	10.3	10.3	20.5	10.3	10.3	15.4	0.0	5.1	2.6	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	4.1	6.1	34.7	16.3	12.2	6.1	6.1	4.1	2.0	2.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	10.8	0.0	5.4	29.7	13.5	10.8	10.8	2.7	2.7	8.1	2.7	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
A+	2.0	4.0	18.0	28.0	6.0	10.0	10.0	6.0	4.0	2.0	4.0	0.0	2.0	0.0	0.0	0.0	0.0	4.0	0.0
A	0.0	0.0	5.1	2.6	10.3	23.1	12.8	5.1	12.8	2.6	0.0	10.3	0.0	0.0	0.0	0.0	2.6	7.7	5.1
A-	0.0	0.0	1.8	5.4	5.4	32.1	17.9	10.7	7.1	8.9	7.1	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0

Table 43

Sovereign Local-Currency Ratings 10-Year Average Transition Matrices (1993 - 2014) (cont.)																			
BBB+	0.0	0.0	1.6	3.1	25.0	15.6	1.6	4.7	7.8	4.7	23.4	6.3	3.1	3.1	0.0	0.0	0.0	0.0	0.0
BBB	0.0	0.0	0.0	0.0	0.0	7.7	0.0	26.9	15.4	26.9	3.8	0.0	7.7	3.8	3.8	3.8	0.0	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	3.0	0.0	0.0	9.1	30.3	15.2	0.0	6.1	0.0	0.0	6.1	12.1	0.0	18.2	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	7.3	22.0	7.3	9.8	24.4	9.8	9.8	2.4	2.4	4.9	0.0	0.0	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	6.5	9.7	16.1	3.2	12.9	0.0	16.1	6.5	6.5	12.9	0.0	9.7	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	13.6	0.0	4.5	0.0	4.5	27.3	9.1	13.6	4.5	18.2	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	3.7	11.1	0.0	7.4	29.6	3.7	14.8	7.4	7.4	7.4
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	9.1	3.0	0.0	33.3	12.1	9.1	9.1	3.0	12.1	3.0
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	21.1	21.1	21.1	5.3	0.0	5.3	15.8	0.0	5.3	0.0
CCC/CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	10.0	20.0	10.0	0.0	0.0	50.0	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over each 10-year cohort between 1975 and 2014. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 44

Sovereign Local-Currency Ratings One-Year Most Recent Transition Matrices (2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	92.3	7.7	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
AA+	0.0	85.7	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	14.3
AA	0.0	0.0	100.0	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
AA-	0.0	0.0	0.0	100.0	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
A+	0.0	0.0	0.0	0.0	100.0	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
A	0.0	0.0	0.0	0.0	0.0	100.0	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
A-	0.0	0.0	0.0	0.0	0.0	0.0	62.5	37.5	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	14.3	14.3	57.1	14.3	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	0.0	14.3	0.0	57.1	14.3	14.3	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	0.0	0.0	25.0	75.0	0.0	0.0	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	0.0	0.0	25.0	50.0	25.0	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	0.0	0.0	0.0	0.0	100.0	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	0.0	0.0	0.0	0.0	12.5	62.5	18.8	6.3	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	80.0	20.0	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	9.1	63.6	18.2	0.0	9.1
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	9.1	9.1	63.6	18.2	0.0
CCC/CC	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	0.0	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over one year for the 2014 cohort. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 45

Sovereign Local-Currency Ratings Three-Year Most Recent Transition Matrices (2011 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	75.0	18.8	6.3	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
AA+	0.0	75.0	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	25.0

Table 45

Sovereign Local-Currency Ratings Three-Year Most Recent Transition Matrices (2011 - 2014) (cont.)																		
AA	0.0	16.7	83.3	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-	0.0	0.0	0.0	66.7	11.1	0.0	11.1	0.0	11.1	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	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	0.0	0.0	0.0	0.0	0.0	55.6	0.0	33.3	0.0	11.1	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	0.0	16.7	50.0	33.3	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	20.0	20.0	40.0	20.0	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	14.3	0.0	28.6	14.3	14.3	0.0	0.0	0.0	0.0	0.0	0.0	14.3
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	44.4	0.0	22.2	0.0	0.0	11.1	0.0	0.0	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	12.5	25.0	25.0	25.0	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	0.0	0.0	0.0	0.0	75.0	25.0	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	0.0	0.0	0.0	10.0	60.0	30.0	0.0	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	6.7	6.7	40.0	26.7	6.7	13.3	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	45.5	27.3	9.1	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	16.7	0.0	50.0	0.0	33.3
CCC/CC	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

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over three years for the 2012 cohort. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 46

Sovereign Local-Currency Ratings 10-Year Most Recent Transition Matrices (2004 - 2014)																			
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/CC	SD	NR
AAA	55.0	25.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
AA+	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	0.0	20.0	0.0	20.0	0.0	0.0	20.0	20.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	25.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	0.0	0.0	25.0	25.0	12.5	12.5	12.5	12.5	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	10.0	10.0	0.0	10.0	10.0	10.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	20.0	10.0
A-	0.0	0.0	0.0	0.0	0.0	50.0	25.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0
BBB+	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	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	0.0	40.0	0.0	20.0	20.0	0.0	20.0	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	0.0	0.0	40.0	40.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	0.0	20.0	20.0	20.0	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	12.5	25.0	0.0	25.0	0.0	12.5	12.5	0.0	12.5	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	0.0	0.0	0.0	100.0	0.0	0.0	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	16.7	33.3	0.0	16.7	16.7	0.0	16.7
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	10.0	10.0	10.0	20.0	10.0	20.0	10.0
B-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	33.3	0.0	0.0	0.0
CCC/CC	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	25.0	25.0	0.0	0.0	50.0	0.0

Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Average transitions over 10 years for the 2005 cohort. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Table 47

Sovereigns Local-Currency Ratings Original-To-Last Transition Matrices																						
Rating as of Jan. 1	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	44.0	24.0	8.0	4.0	0.0	4.0	0.0	0.0	4.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
AA+	0.0	16.7	0.0	16.7	0.0	16.7	0.0	16.7	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0
AA	0.0	14.3	28.6	28.6	0.0	0.0	28.6	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-	0.0	0.0	0.0	0.0	25.0	25.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	16.7	0.0	16.7	16.7	0.0	0.0	16.7	16.7	0.0	0.0	16.7	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	0.0	60.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
A-	0.0	0.0	0.0	9.1	0.0	9.1	18.2	9.1	9.1	0.0	0.0	18.2	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	9.1	9.1
BBB+	0.0	0.0	12.5	12.5	0.0	12.5	12.5	25.0	0.0	12.5	0.0	0.0	0.0	12.5	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	25.0	0.0	0.0	25.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	33.3	0.0	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0
BB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	12.5	12.5	12.5	25.0	12.5	0.0	0.0	12.5	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	11.1	0.0	0.0	0.0	0.0	22.2	22.2	11.1	22.2	0.0	0.0	0.0	0.0	11.1	0.0
BB-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
B+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	16.7	22.2	27.8	5.6	0.0	0.0	0.0	0.0	5.6	16.7
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	7.7	7.7	23.1	15.4	7.7	0.0	0.0	0.0	23.1	7.7
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	12.5	12.5	12.5	25.0	0.0	0.0	0.0	37.5	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	50.0	0.0	25.0	0.0	0.0	0.0	0.0	25.0	0.0
CCC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	33.3	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	0.0	0.0	0.0	0.0	0.0
CC	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	0.0	0.0	0.0	0.0	0.0

Original-to-last transition rates compare the rating from the time of first rating to the last rating, regardless of the time elapsed in the interim. Ratings are implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect.

Appendix II: Gini Methodology

To measure relative ratings performance, we utilize the Lorenz curve as a graphical representation of the proportionality of a distribution, and summarize this via the Gini coefficient. For this study, the Lorenz curve is a plotted with the X-axis showing the cumulative share of issuers, arranged by rating, while the Y-axis represents the cumulative share of defaulters - also arranged by rating. Within both axis of the Lorenz curve, the observations are ordered from the low end of the ratings scale ('CCC'/'C') to the high end ('AAA'). As an example, if 'CCC'/'C' rated entities made up 10% of the total population of issuers at the start of the time frame examined (X-axis), and 50% of the defaulters (Y-axis), then the coordinate (10, 50) would be the first point on the curve. If Standard & Poor's corporate ratings only randomly approximated default risk, the Lorenz curve would fall along the diagonal. Its Gini coefficient--which is a summary statistic of the Lorenz curve--would thus be zero. If corporate ratings were perfectly rank ordered so that all defaults occurred only among the lowest-rated entities, the curve would capture all of the area above the diagonal on the graph (the ideal curve) and its Gini coefficient would be 1. In other words, the Gini coefficient captures the extent to which actual ratings accuracy diverges from the random scenario and aspires to the

ideal scenario.

The Lorenz curve was developed by Max O. Lorenz as a graphical representation of the proportionality of a distribution. Used with ratings, it is one indication of the appropriateness of the rating distribution's rank ordering. The Lorenz curve is derived by plotting out the cumulative proportion of issuers by rating category with the cumulative proportion of defaulters by rating category. To determine relative performance of the Lorenz curve, we compare it with an ideal curve and a random curve. In the ideal curve, all issuers in the lowest rating category ('CCC'/'CC', in this case) default, and all defaults are in the lowest rating category. In the random curve, all defaults occur randomly throughout the rating distribution, so it lies along the diagonal of the chart. The Gini coefficient is a ratio of two areas: the area bounded by the Lorenz curve and the random curve divided by the area bounded by the ideal curve and random curve. The result is a relative performance measure that is between one and zero, one being a Gini coefficient with perfect rank ordering (all defaults in the lowest rating category and all issuers in the lowest rating category default) and zero being a random rank ordering.

Related Criteria And Research

- Sovereign Rating And Country T&C Assessment Histories, updated regularly
- 2014 Annual Global Corporate Default Study And Rating Transitions, April 30, 2015
- An Overview Of The Dec. 23, 2014, Sovereign Criteria Update, Dec. 23, 2014
- Sovereign Rating Methodology, Dec. 23, 2014
- Sovereign Government Rating Methodology And Assumptions, RatingsDirect, June 24, 2013
- Distressed Sovereign Debt Exchanges: Examples From The Past And Lessons For The Future, June 28, 2011
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- Argentina Emerges From Default, Although Some Debt Issues Are Still Rated 'D' June 1, 2005

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