

Sovereign Defaults And Rating Transition Data, 2011 Update

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Related Research

Sovereign Defaults And Rating Transition Data, 2011 Update

Standard & Poor's Ratings Services has updated its data on the performance and default rates of sovereign ratings through year-end 2011. (1) From our reading of the data, we conclude that, in general:

- The relative rank ordering of sovereign ratings has been consistent with historical default experience.
- Sovereign ratings have exhibited greater stability at higher rating levels than at lower levels.
- Sovereign ratings have been no more volatile than other credit ratings of private-sector corporations and financial institutions; large rating movements in either direction are the exception and not the rule, even over several years.
- The sovereign rating default experience has been in line with Basel II reference default rates, even though default rates for individual years vary widely.
- Since the recession of 2008/2009, sovereign upgrades and downgrades have come more into balance in the shorter time horizons, and a downward bias for local-currency sovereign ratings has emerged.

Background And Methodology

Standard & Poor's published its first sovereign rating transition study for foreign-currency ratings in 1999. (2) We have enhanced, expanded, and updated the study annually, following the same methodology used for our corporate and structured finance default studies. (3) We find that examining default rates reveals a strong correlation between our assessments of credit quality and default remoteness: empirically, the higher the rating, the lower the default experience. Many default studies, including this one, also look at transition rates, which gauge the degree to which ratings change—either up or down—over time. We find that these transition studies have demonstrated that higher ratings have tended to be more stable than lower ratings.

This study is based on long-term sovereign credit ratings. The methodology tracks rating changes over time, including revisions to 'D' (default) or, more commonly for sovereign issuers, 'SD' (selective default), as defaulting sovereigns often continue to service some of their debt to commercial and official creditors. The study is based on issuer (in this case, central government) ratings, not issue ratings. Issuers are not adjusted for size (that is, they are not dollar-weighted), so for the purposes of this study, a default by Argentina counts the same as a default by Seychelles. 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 both public and confidential ratings. We indicate withdrawn ratings with the abbreviation NR (not rated).

Standard & Poor's has withdrawn public sovereign ratings four times—those on the Republics of Madagascar, Mali, and Seychelles as well as Libya.

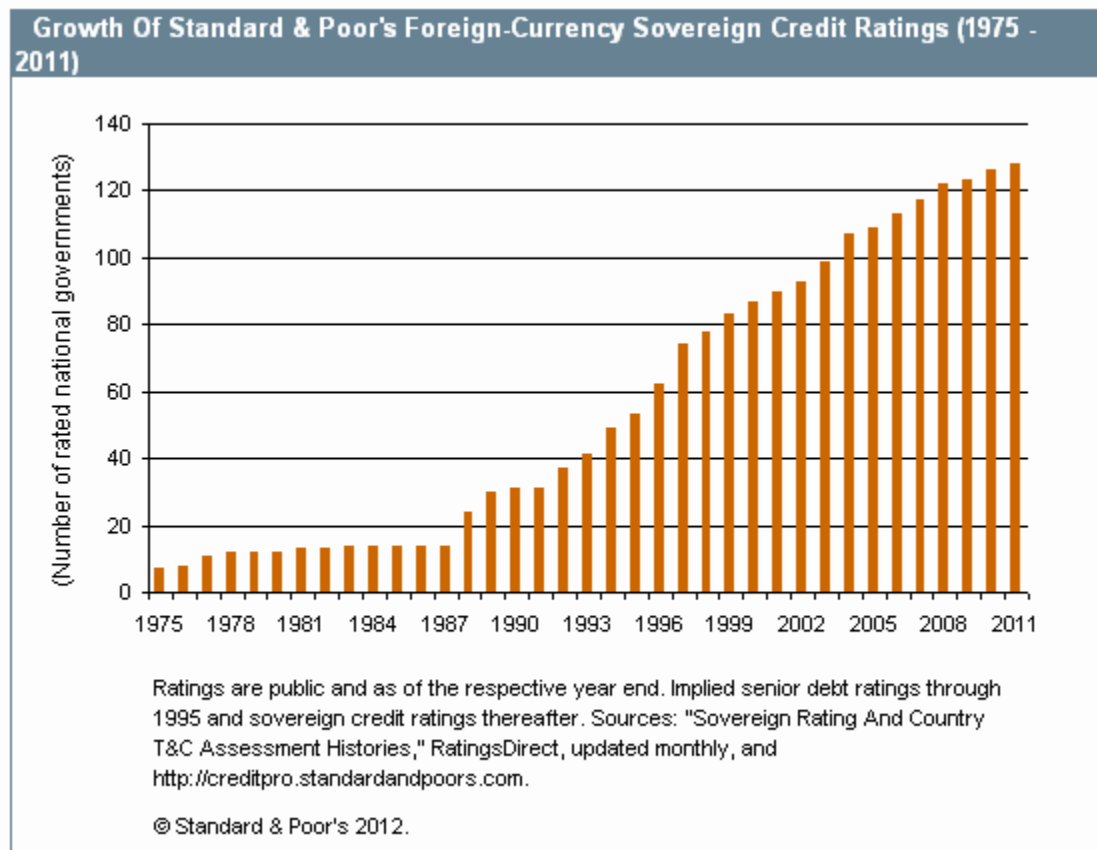
We compile the data using static pools. A static pool is a portfolio of issuers defined on Jan. 1 of each year. The study tracks rating migrations and defaults for each static pool going forward from that point to the end of a specified time horizon, and the results for each static pool are averaged to calculate the average rating migrations for each rating category over specific time horizons. In other words, transition studies measure rating changes at one period end versus a subsequent period end. In addition, the grouping of obligors in a specific static pool remains constant, and the pools are aggregated and weighted by the number of issuers by rating category. Thus, in our analysis, static pools from earlier years, when there were fewer sovereign ratings, count less in the study than do

pools from more recent years, when there are many more sovereign ratings.

Universe dynamics

Chart 1 shows the growth in the number of sovereigns publicly rated by Standard & Poor's.

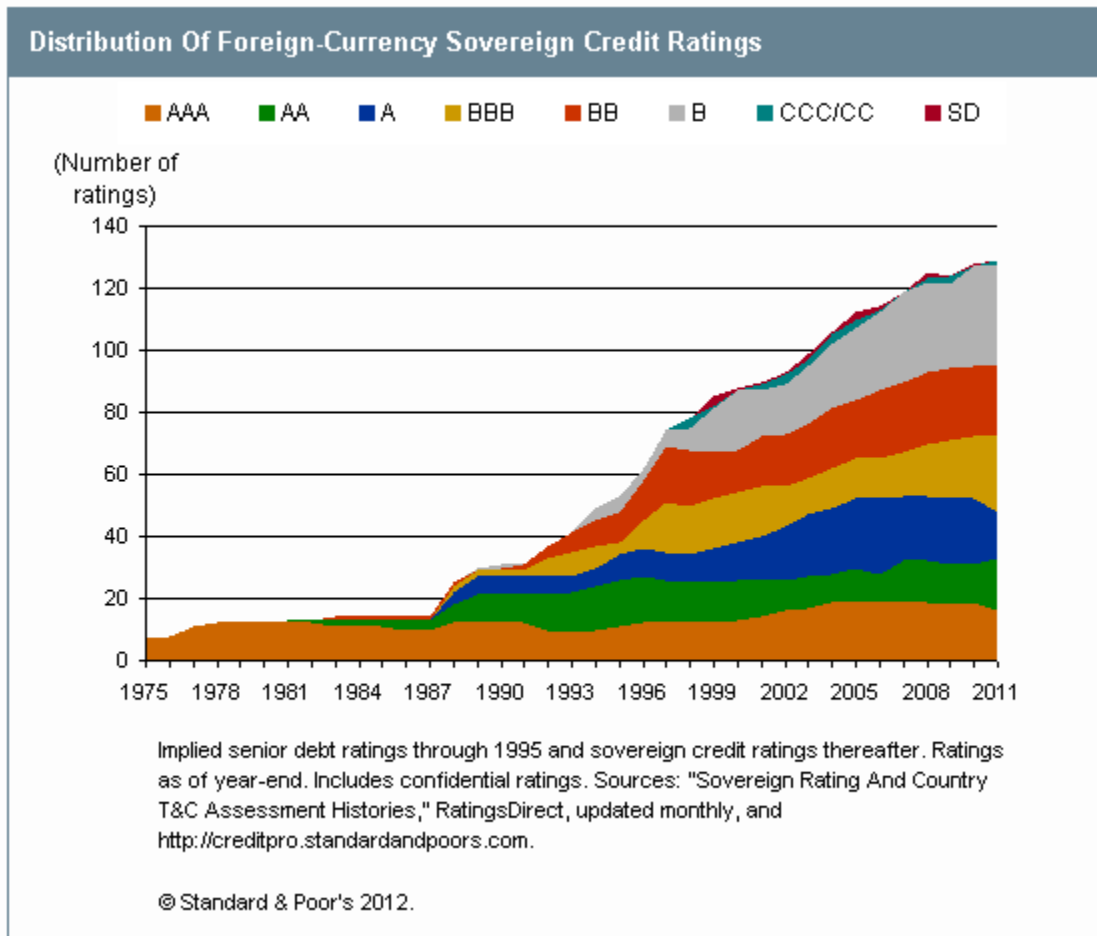
Chart 1



As described in Appendix 2, Standard & Poor's predecessor institutions started rating sovereign governments in the 1920s. However, after the Great Depression, World War II, and the imposition of the Interest Equalization Tax (IET) in the U.S. in 1963, sovereign ratings lapsed except on the U.S. and Canada. The Yankee bond market again became attractive for foreign governments with the repeal of IET in 1974, and demand for sovereign ratings resumed from American investors (Standard & Poor's original base of demand). The number of rated sovereigns rose to 12 in 1980 from two at the time of IET's 1974 repeal. The figure almost tripled by 1990, to 31, with all but one sovereign rated investment grade.

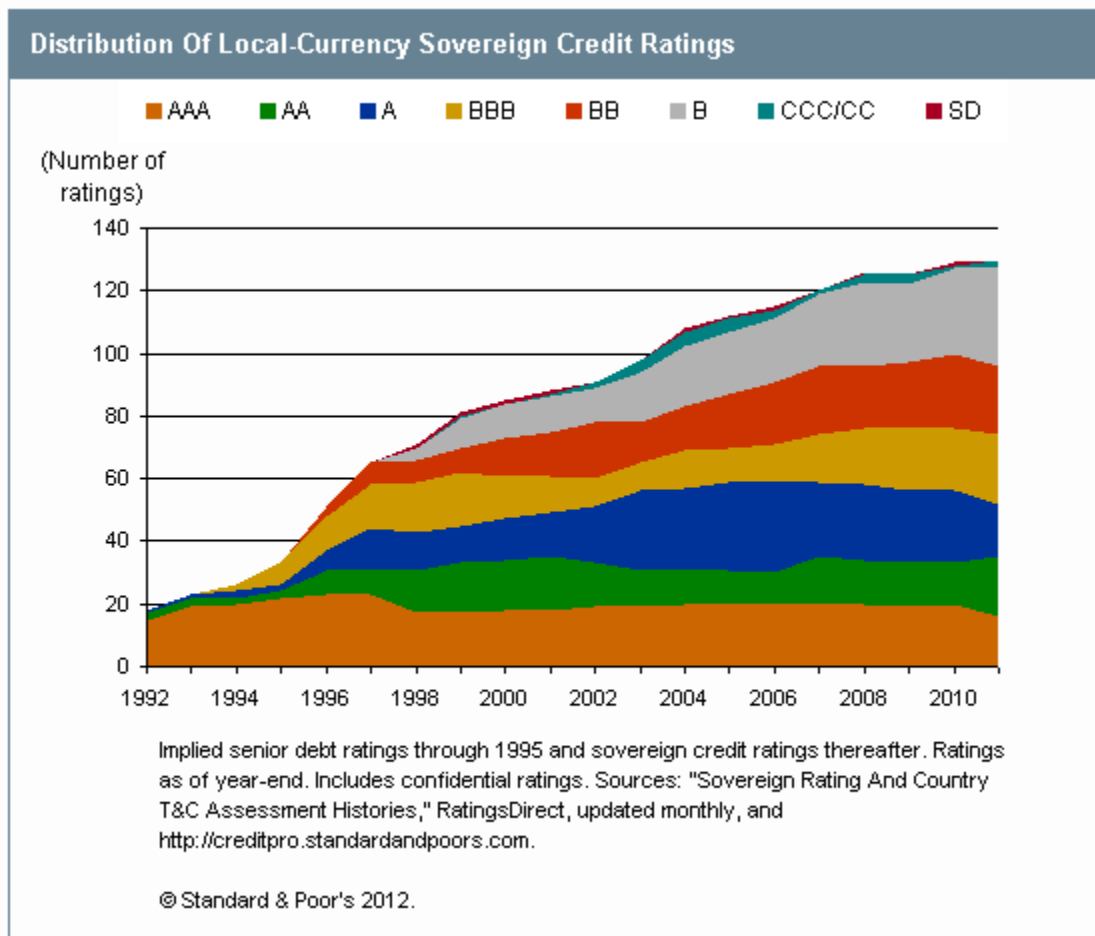
From that point on, there was a marked increase in the number of ratings and an expansion into lower rating categories. The increase stemmed from the successful restructuring of Mexico's defaulted bank debt into Brady bonds, thus opening up speculative-grade sovereigns as an attractive asset class. Our rating history and transition data suggest that the growth in speculative-grade issuers is not a function of downgrades but rather a result of issuers that we initially rated in lower categories as they first accessed international bond markets (see Chart 2). Today, Standard & Poor's rates the governments of virtually every major economy in the world.

Chart 2



Standard & Poor's assigned only a few local-currency sovereign debt ratings before 1992; we aligned most of these with the foreign-currency debt rating on the sovereign. Today, all rated sovereigns have both foreign- and local-currency credit ratings. In 1992, Standard & Poor's revised its view of a sovereign's greater inherent flexibility in servicing its local-currency debt based on the unique powers a sovereign enjoys within its own borders—particularly in its control of domestic financial and monetary systems. (4) As a result, as of year-end 2011, 21 sovereigns have local-currency credit ratings that are higher than the foreign-currency credit ratings (see Chart 3).

Chart 3



Sovereign Annual Upgrades Versus Downgrades

Charts 4 and 5 show the balance of foreign-currency rating actions since 1995. (5) The charts show rating actions (both across and within rating categories) between Jan. 1 and Dec. 31 for each year covered. We count multiple rating actions during a calendar year as a single action. In 2011, 35.1% of sovereign foreign-currency ratings changed. Downgrades outnumbered upgrades in 2011. We downgraded 20.3% of rated sovereigns between Jan. 1, 2011, and Dec. 31, 2011, and upgraded 14.8% over the same period. In the last 17 years, however, upgrades have outnumbered downgrades 13 times. (The three previous down years were 1999, 2008, and 2009.) However, there was some convergence of ratings in 2010. Among sovereigns rated investment grade in 2011, we upgraded 9.7% versus 23.6% downgraded, whereas among speculative grade-sovereigns, we hiked 21.8% and cut 16.3%. We expect that sovereign credit conditions will continue to worsen in 2012: At year-end 2011, we had assigned negative outlooks to or placed on CreditWatch with negative implications the ratings on 36 sovereigns, whereas only 13 sovereign ratings had positive outlooks. (6)

Chart 4

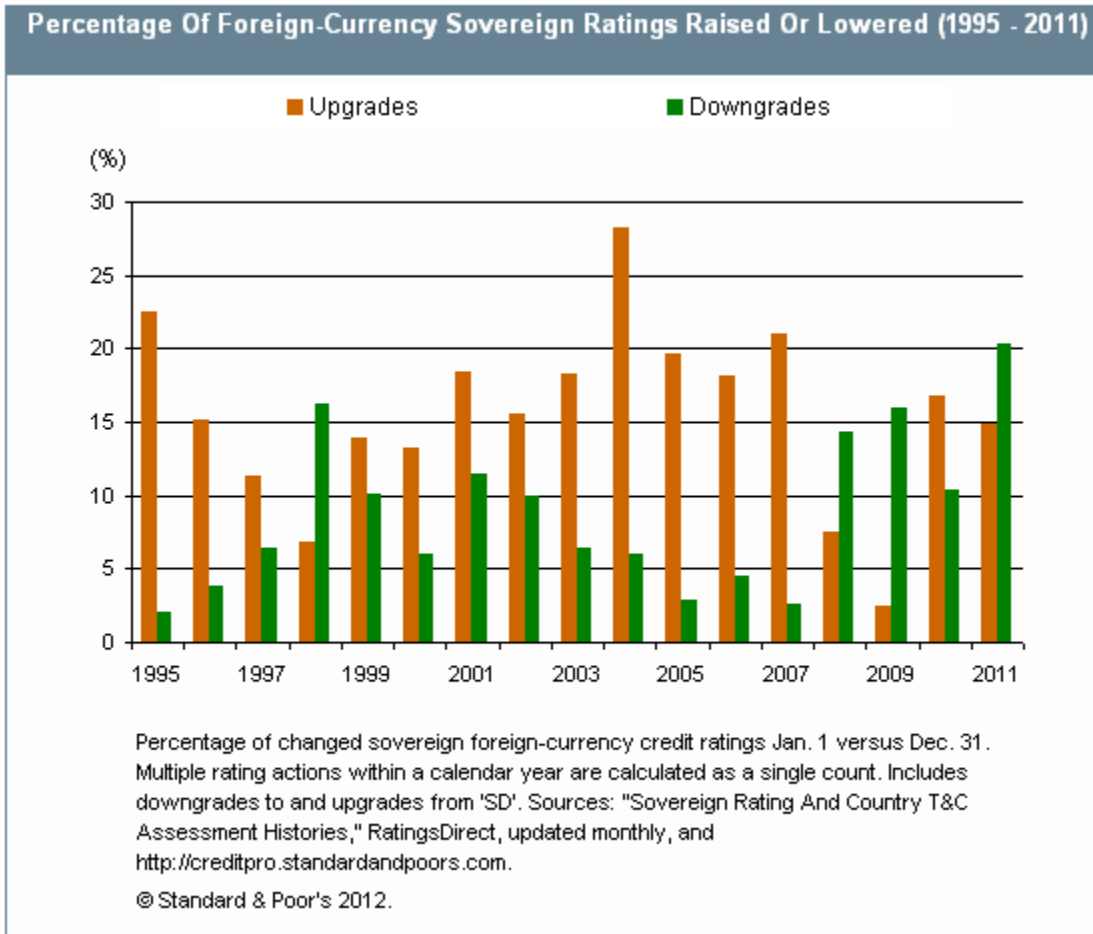
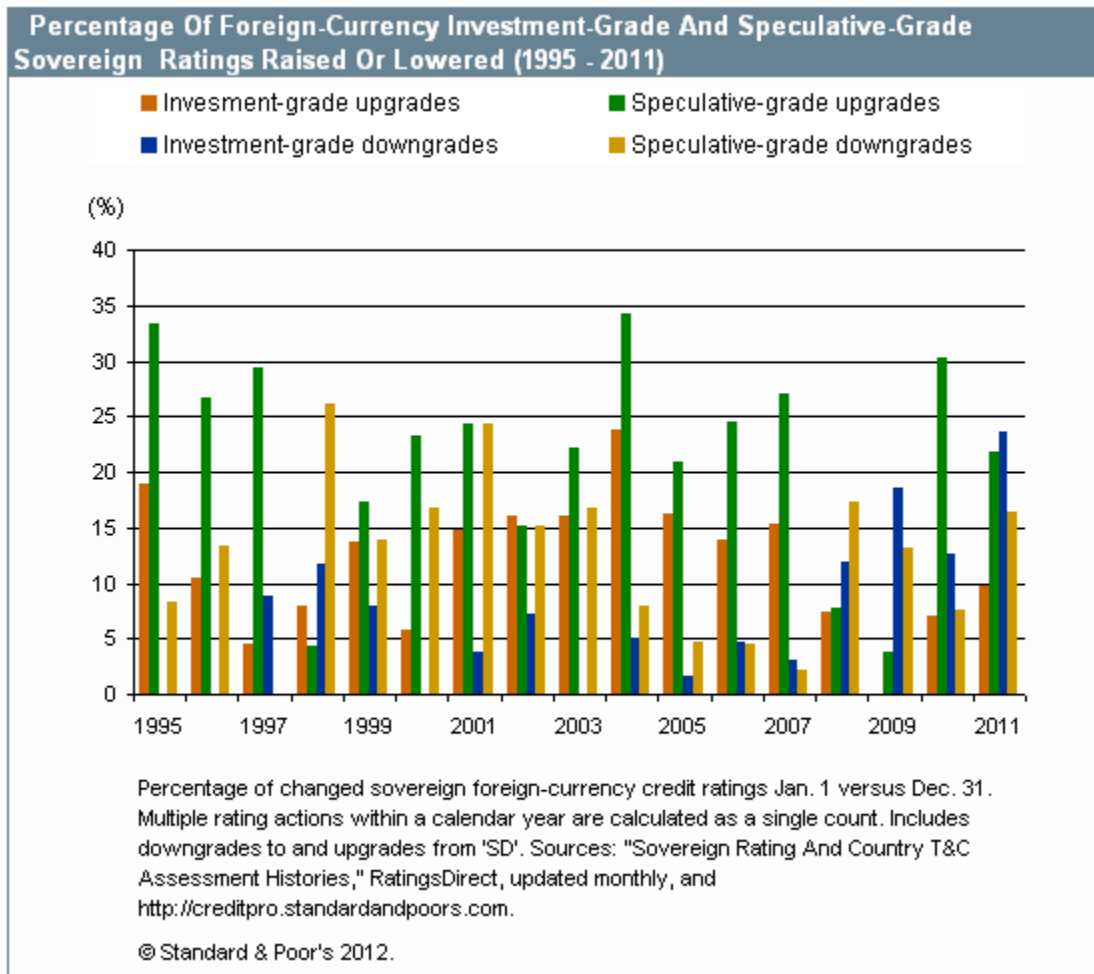


Chart 5



Sovereign Foreign-Currency Rating Transition Rates

Turning to aggregate data for rating changes, Charts 6 through 11 and Tables 6 through 10 (which are found, along with the other large tables, at the end of this article) present the weighted average transition matrices for foreign-currency ratings by rating category during the 37-year period beginning in 1975. (7) The charts group the data by rating category, and the tables present the data by time horizon. For example, Chart 6 displays the rating transition for 'AAA' credits. It shows that on average since 1975, 97.2% of sovereigns rated 'AAA' at the beginning of the year were rated 'AAA' at the end of the year, 92.8% after three years, 88.6% after five years, 78.0% after 10 years, and 71.9% after 15 years. These data correspond to the cell that captures the intersection of the 'AAA' row showing ratings at the beginning of a year and the 'AAA' column showing ratings at the end of a year in Tables 6 through 10. The red bar shows the percentage of downgrades that resulted in a rating in the 'AA' category. Thus, after 15 years, on average, 26.0% of sovereigns rated 'AAA' at the beginning of the period were rated in the 'AA' category at the end.

Charts 6 through 11 show the stability and dispersion of foreign-currency sovereign ratings over time that is shown numerically in Tables 6 through 10. If ratings never changed, a single bar would fill each column of the chart, and

100% would appear along the diagonal of the transition tables. In general, these charts and tables show that ratings have been 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.

Chart 6

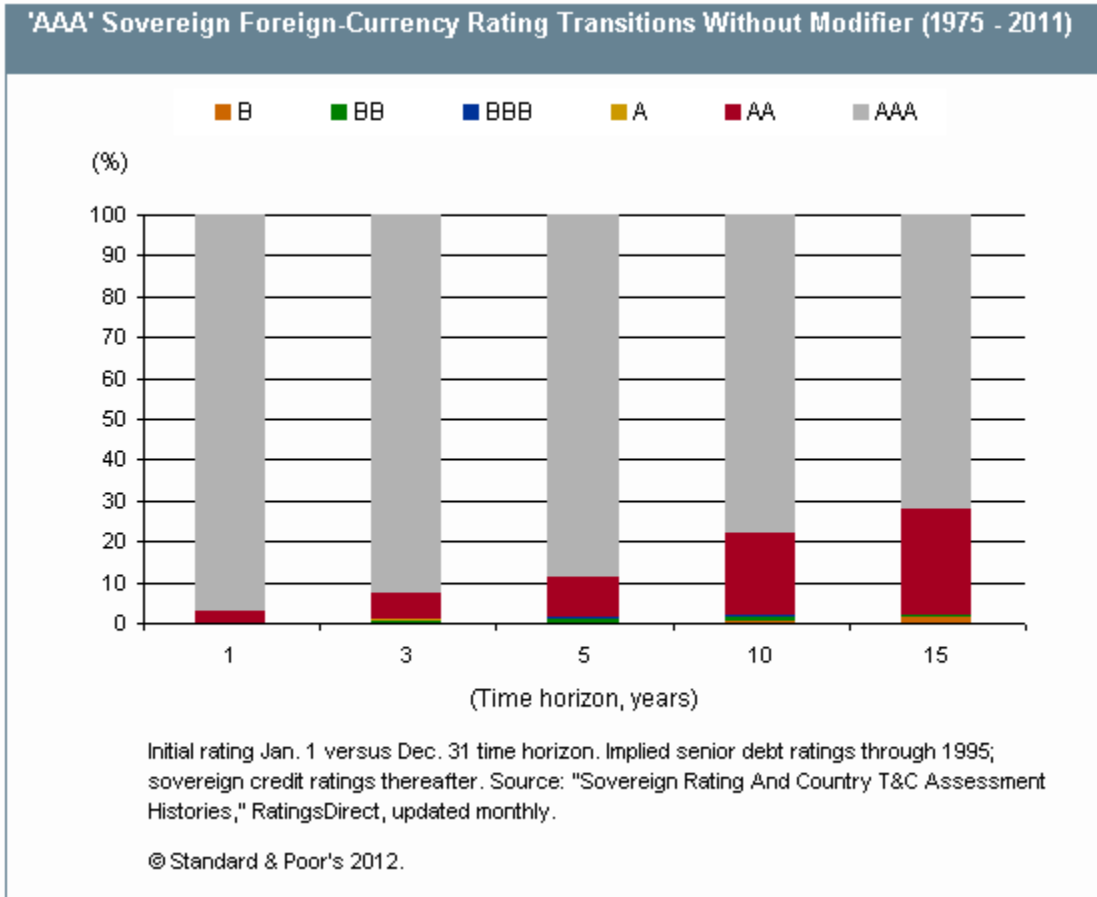


Chart 7

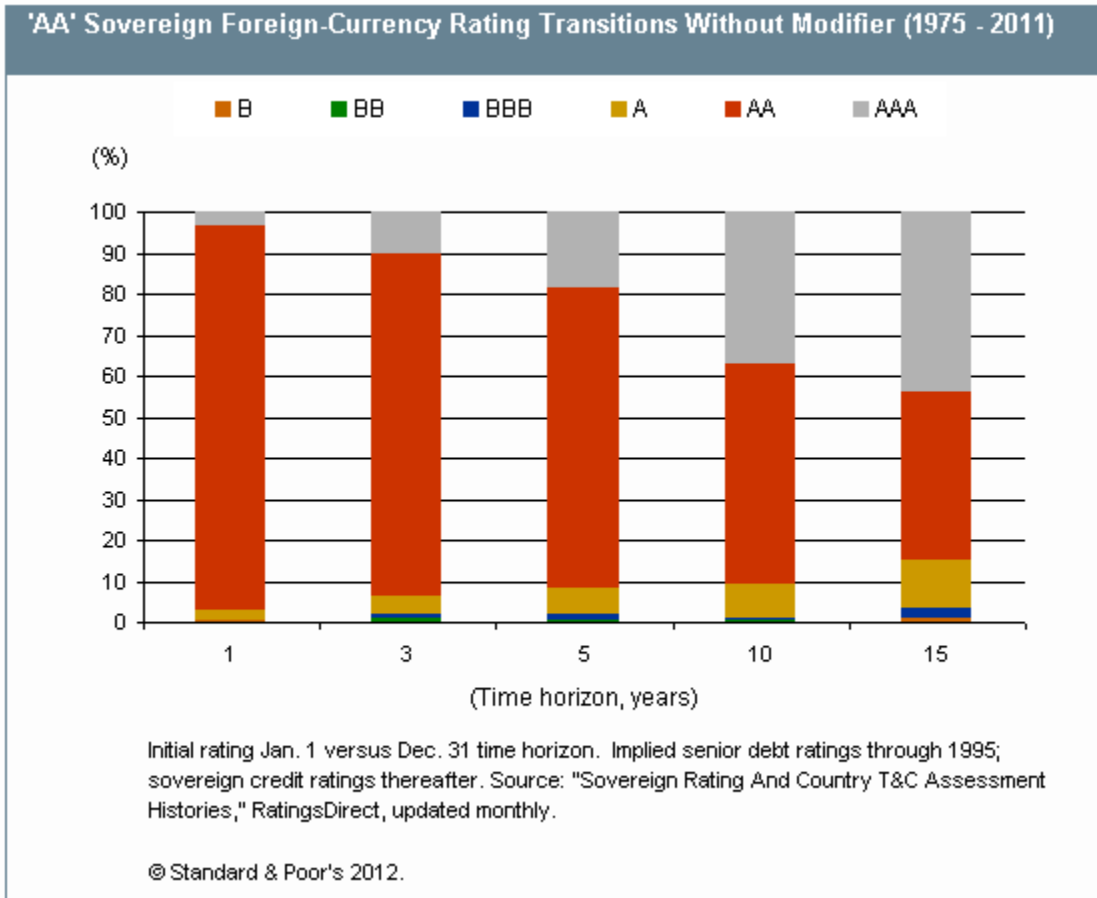


Chart 8

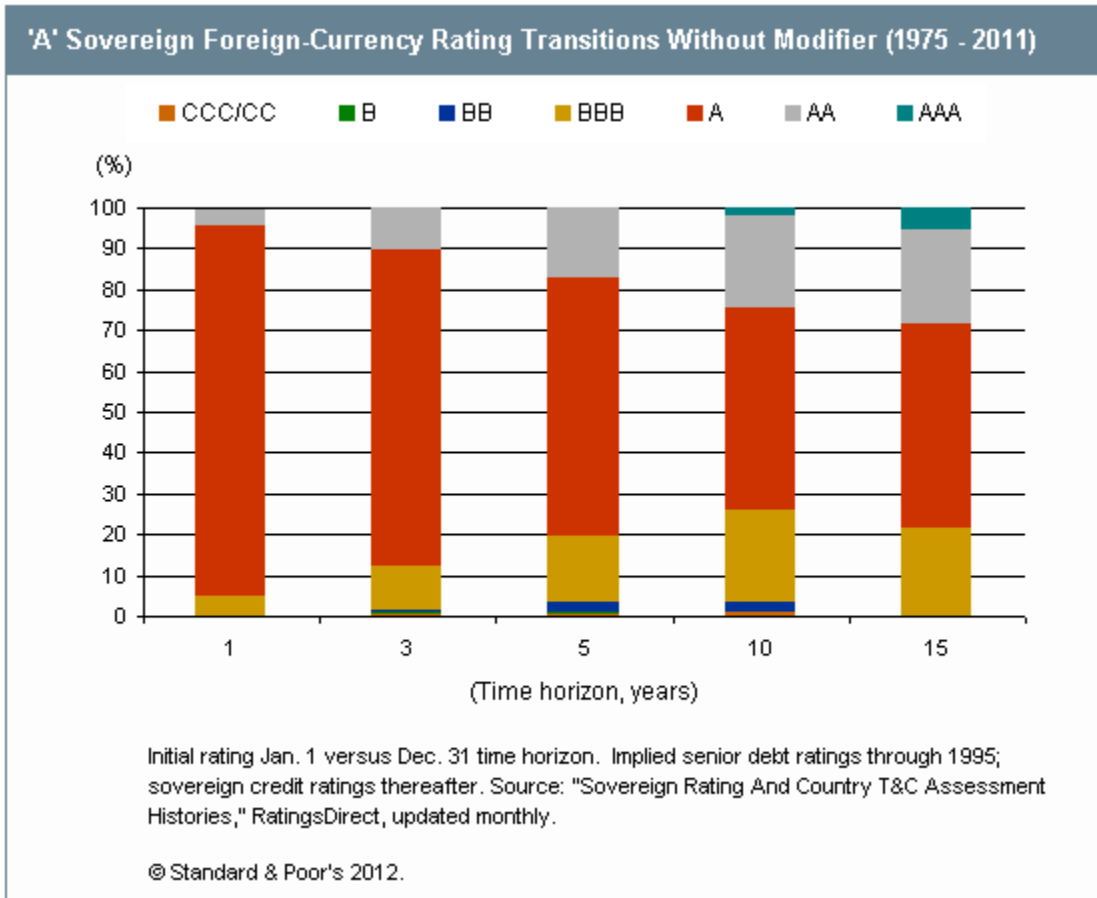


Chart 9

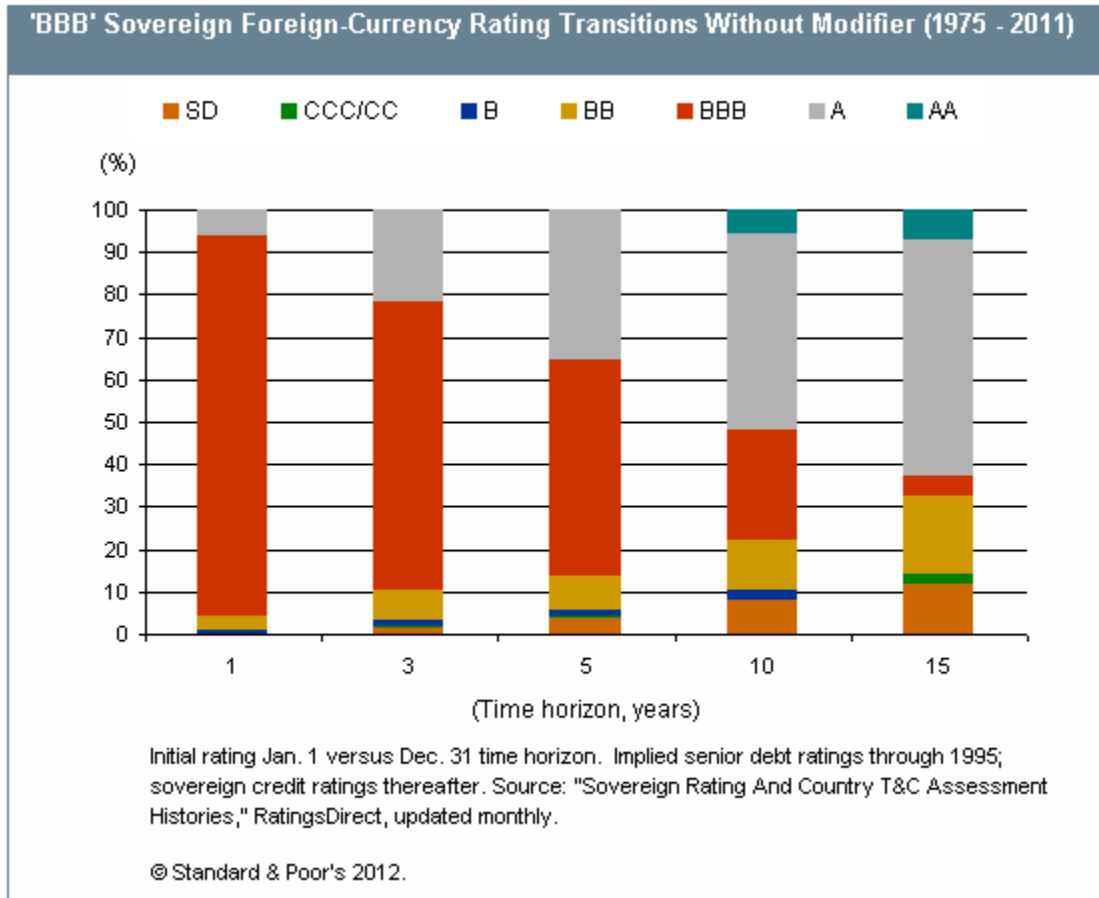


Chart 10

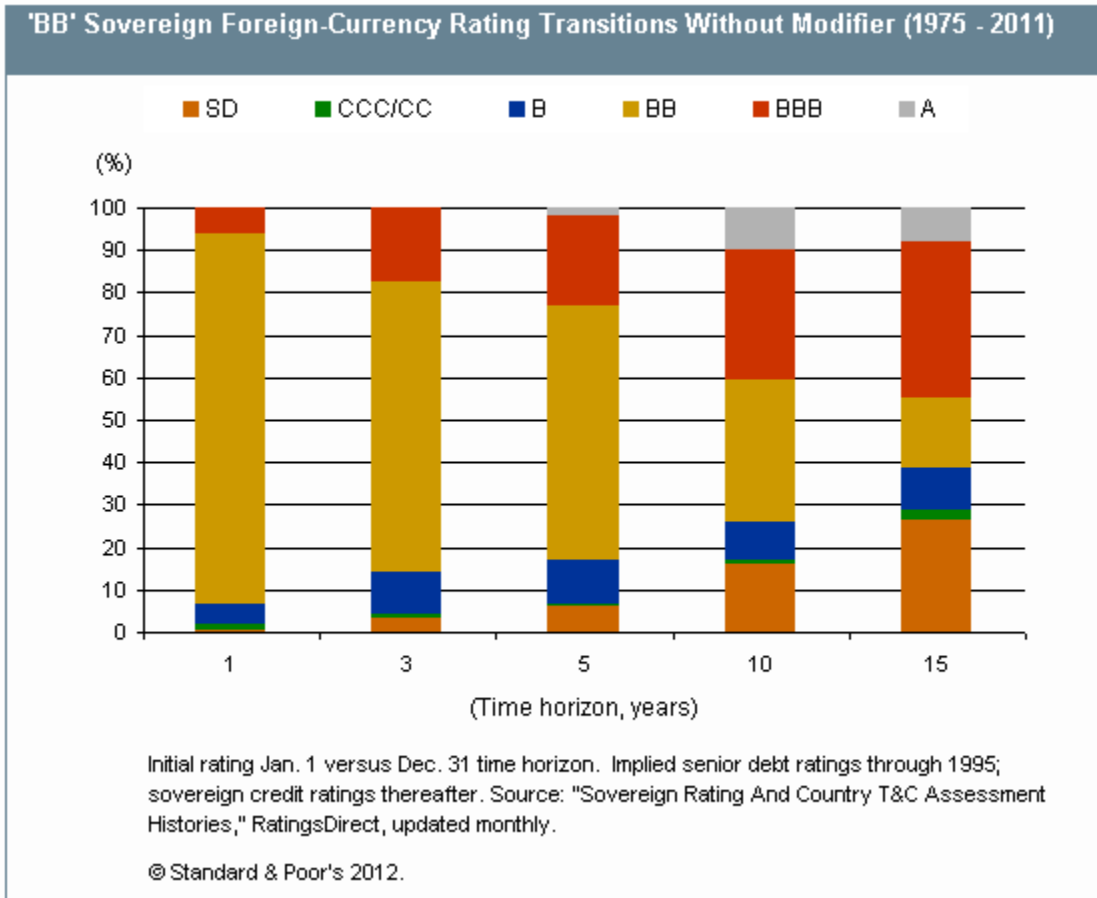
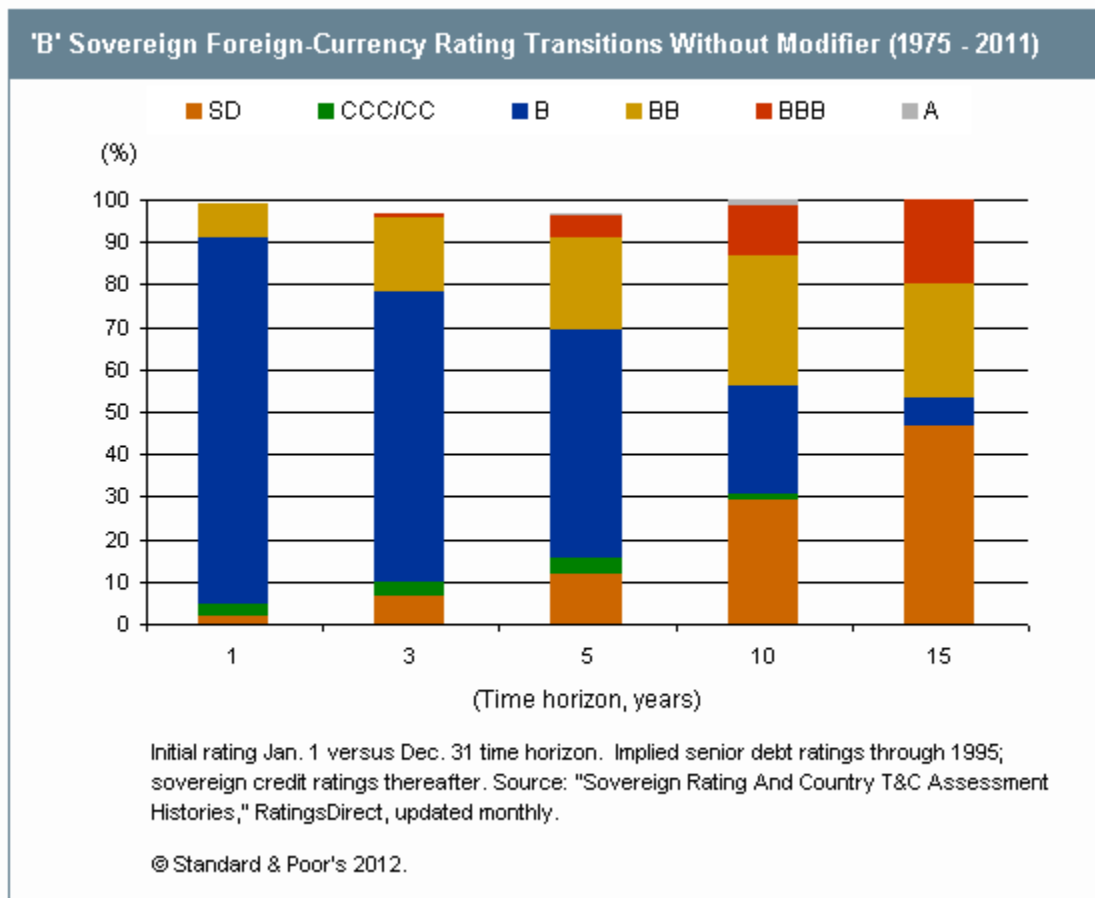


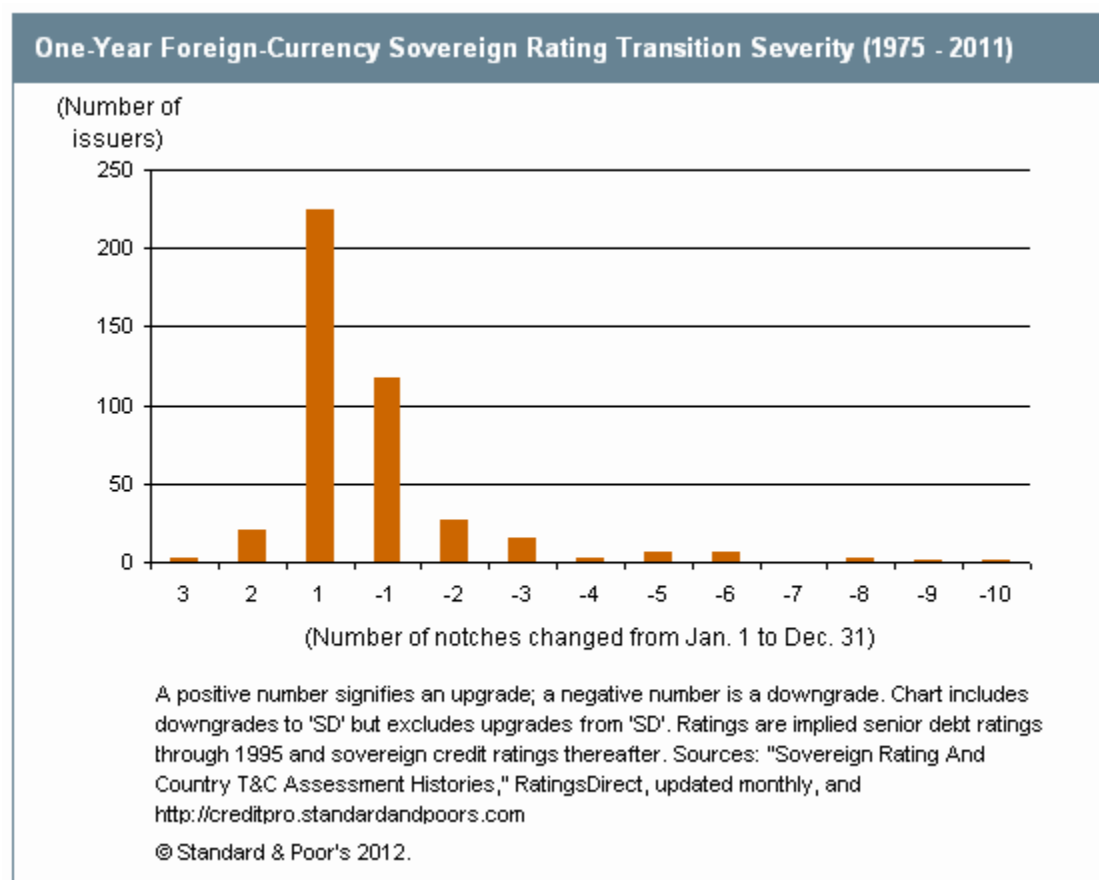
Chart 11



Standard & Poor's has also updated its weighted-average one-, three-, five-, and 10-year matrices for sovereign foreign-currency ratings with rating modifiers. These data—contained in Tables 11 through 14—also show broadly balanced upgrades and downgrades in the shorter time horizons, a general upward bias of rating actions in the longer time horizons, and, of course, a higher frequency of rating actions within rating categories. (Recall that upgrades are represented by data below the diagonal in the transition tables, downgrades by the data above the diagonal.) Tables 15 through 17 show the data for the latest cohort for one-, three-, and 10-year foreign-currency sovereign rating transitions with rating modifiers. Comparing these tables, which capture a year of a high frequency of rating changes as seen in Chart 4, with tables 11, 12, and 14, one sees the variance around average transition rates can be wide. In the most recent cohorts, the largest rating transitions included Bahrain, Cyprus, Egypt, and Greece in the one-year horizon; Ireland, Portugal, and Greece in the three-year horizon; and Greece in the 10-year horizon. (8) We find that large rating transitions are the exception, not the rule. Chart 12 presents the transition severity of foreign-currency sovereign ratings with modifiers on a one-year horizon during 1975-2011. Although there have been more upgrade transitions than downgrade transitions, downgrade transitions have been more pronounced. We believe this reflects that sovereign creditworthiness usually improves gradually with time but that policy errors made in a difficult external environment can lead to a significant deterioration in a sovereign's capacity to pay its debt. (9) Table 18 shows foreign-currency rating transitions from first to last ratings. This table combines different time horizons. For example, the data for Venezuela are over three decades, while those for Angola cover

just a single year. Here, too, most foreign-currency sovereign ratings are within a couple of notches of their starting point.

Chart 12



Correlation Of Successive Rating Actions

Table 1 shows the historical correlation between two subsequent identical rating actions over a two-year horizon. Between 1975 and 2011, there were 227 foreign-currency sovereign credit rating upgrades. Of this set, 35% of ratings were raised again over the course of the next two years, 59% remained unchanged, and 6% were lowered. (10) Similarly, during these 37 years, we lowered foreign-currency sovereign credit ratings 194 times. Of this set, we lowered 55% again within two years, 36% remained the same, and we raised 10%. (11) The data suggest that there has typically been a small correlation within two years between an upgrade and a subsequent upgrade of 0.30, and there has typically been a moderate correlation between a downgrade and a subsequent downgrade of 0.45.

Table 1

Sovereign Foreign-Currency Rating Action Correlation (1975 - 2011)				
(%, unless otherwise indicated)	Total (#)	Followed by the same rating action within two years	Stayed the same after two years	Followed by the opposite rating action within two years
Upgrades*	227	35.2	59.0	5.7
Downgrades†	194	54.6	35.6	9.8

Table 1**Sovereign Foreign-Currency Rating Action Correlation (1975 - 2011) (cont.)**

*Excludes upgrades from SD. †Including downgrade to SD. Correlation between an upgrade and a subsequent upgrade: 0.30. Correlation between a downgrade and a subsequent downgrade: .45. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

We believe that the nature of credit explains the moderate correlation for downgrades: It results from the use of discrete measures in the form of credit ratings to model a continuous real-world variable of long-term credit quality. When a sovereign's creditworthiness deteriorates, we could lower a rating more than once over two years. Multiple downgrades reflect our changing opinion of the relatively pronounced movement in credit quality as rating committee analysts attempt to distinguish the long-term trend, which Standard & Poor's ratings seek to address, from the effects of a credit cycle. (12) Rating committees analyze data that national governments collect and frequently revise. In addition, policy execution often trails policy intent. Surprises are usually on the downside. On the other hand, when a sovereign's creditworthiness is increasing, we have observed that improvements are usually incremental and tend to be more easily anticipated.

Sovereign Local-Currency Rating Transition Rates

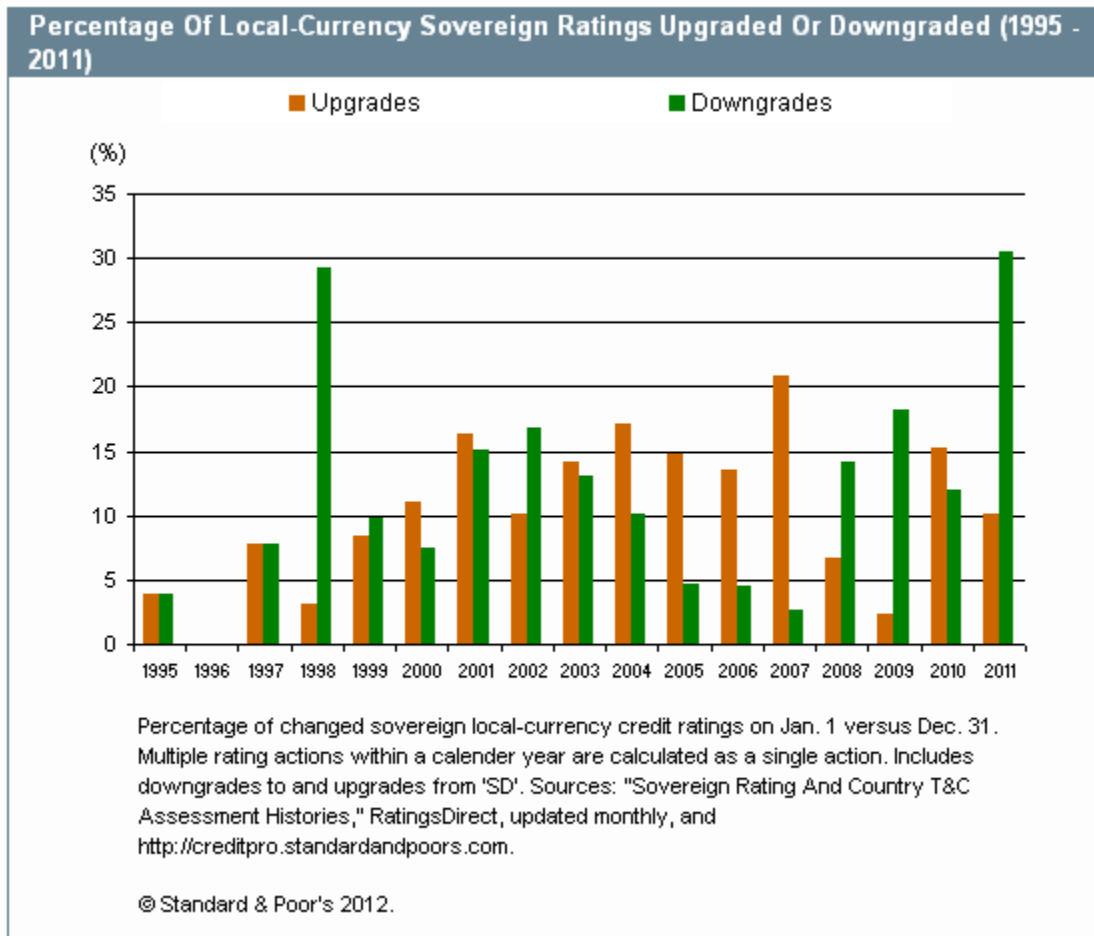
Tables 19, 20, 21, 22, and 23 contain weighted-average transition matrices for local-currency sovereign credit ratings from one to 15 years. There are fewer data points for local-currency sovereign ratings than for foreign-currency sovereign credit ratings, so the results are correspondingly more limited, particularly for the transition matrices for longer periods and for lower ratings. Like foreign-currency sovereign credit ratings, local-currency ratings have generally exhibited greater comparative stability at higher rating levels than at lower levels. However, the absolute level of stability for local-currency sovereign credit ratings has been usually slightly less at most levels than for foreign-currency sovereign credit ratings.

Local-currency rating actions that crossed rating categories have shown a greater downward bias than foreign-currency rating actions. We believe this resulted mostly from three factors:

- After countries entered the eurozone, their foreign- and local-currency ratings converged (if they hadn't already done so), most often at the lower level.
- With our latest criteria revision ("Sovereign Government Rating Methodology And Assumptions," RatingsDirect, June 30, 2011), we've narrowed the gapping between the two ratings, given the difficulty in predicting ex ante which categories of debt will be included in a distressed exchange.
- We effected some downgrades after revising our criteria following Mexico's near default in 1995 on its tesobonos and Russia's 1998 default on its GKO's.

Tables 24, 25, 26, 27, and 28 contain weighted-average one-year through 10-year transition matrices for local-currency sovereign credit ratings with rating modifiers as well as a first-to-last rating matrix. Tables 29, 30, and 31 contain the latest one-, three-, and 10-year cohorts. We believe these tables, which show single-notch rating actions from one calendar year to the next, substantiate our views regarding local-currency rating movements across rating categories. There are few counts in the longer horizons, so conclusions are tentative. A time series (see Chart 13) shows that since 1995 for the one-year rating horizon, we have raised more local-currency ratings than we lowered eight times, and the reverse occurred six times.

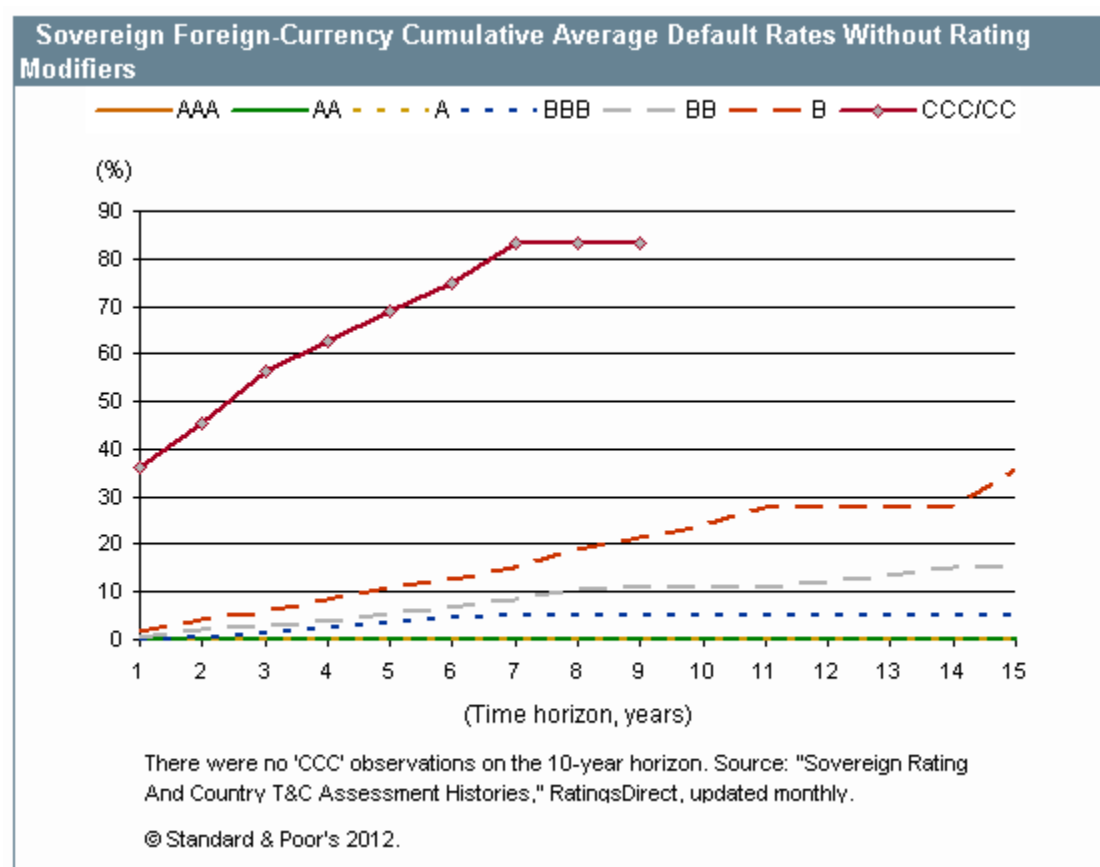
Chart 13



Sovereign Default Rates

Chart 14 and Table 32 display the cumulative foreign-currency default rates for 1975-2011 by rating category, for both public and confidential sovereign ratings. 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. These component calculations are found in Tables 33 through 36. (13) 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.

Chart 14



The cumulative default rate is 1 minus the proportion of survivors (nondefaulters). At some point, the cumulative default rate will not increase as the horizon expands because the lengthened horizon captures no additional defaults. The cumulative default rate (conditional on survival) differs from the transition-to-default rate (seen in the 'SD' column at the right of the transition matrices) in that the former counts defaults only once, while transition rates count defaults once per observation horizon and averages them. In addition, cumulative default rates capture defaults that have occurred before a cohort period ends. (14)

The foreign-currency sovereign defaults included in the data occurred in Argentina, Belize, the Dominican Republic, Ecuador, Grenada, Indonesia, Jamaica, Pakistan, Paraguay, Russia, Seychelles, Uruguay, and Venezuela (see Table 2).

Table 2

Sovereign Foreign-Currency Selective Defaults					
Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating at emergence from selective default
Russia	Jan. 27, 1999	Dec. 8, 2000	22 months	BB-	B-
Pakistan	Jan. 29, 1999	Dec. 21, 1999	11 months	B+	B-
Indonesia	March 30, 1999	March 31, 1999	One day	B-	CCC+
Indonesia	April 17, 2000	Oct. 2, 2000	Six months	CCC+	B-
Argentina	Nov. 6, 2001	June 1, 2005	54 months	BB	B-

Table 2

Sovereign Foreign-Currency Selective Defaults (cont.)					
Indonesia	April 23, 2002	Sept. 5, 2002	Four months	B-	CCC+
Paraguay	Feb. 13, 2003	July 26, 2004	18 months	B	B-
Uruguay	May 16, 2003	June 2, 2003	One month	BB-	B-
Grenada	Dec. 30, 2004	Nov. 18, 2005	11 months	BB-	B-
Venezuela	Jan. 18, 2005	March 3, 2005	One month	B-	B
Dominican Republic	Feb. 1, 2005	June 29, 2005	Five months	CCC	B
Belize	Dec. 7, 2006	Feb. 20, 2007	Three months	CCC-	B
Seychelles	Aug. 7, 2008	N/A		B	N/A
Ecuador	Dec. 15, 2008	June 15, 2009	Six months	B-	CCC+
Jamaica	Jan. 14, 2010	Feb. 24, 2010	One month	B	B-

N/A—Not applicable; the rating on Seychelles was withdrawn while it was still in default. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Given the small universe, any conclusions are tentative. For foreign-currency sovereign defaults, the data indicate that no sovereign rated in the 'A' category or higher on Jan. 1 has defaulted within 15 years (see Table 32) through Dec. 31, 2011. (15) Cumulative default rates have increased progressively—though not linearly—as ratings have declined. Thus, for 1975-2011, in the three-year cumulative default column, 1.34% of sovereigns rated in the 'BBB' category on Jan. 1, on average annually, defaulted within three years after Jan. 1. (The 1.34% figure pertains to Indonesia and Uruguay.) The figure rises to 3.11% for the 'BB' category, 6.05% for the 'B' category, and 56.36% for the 'CCC'/'CC' categories. Fifteen-year cumulative default rates for sovereigns averaged 0.95% for investment-grade sovereigns and 24.80% for speculative-grade ones.

Looking at the 37 years of data disaggregated by rating modifier (see Table 37), we believe that most of the same observations made regarding defaults by rating category are valid. In the column for one-year cumulative default rates, the data indicate that no sovereign rated 'BB' or higher on Jan. 1 defaulted on its foreign-currency debt within the calendar year. Moving to the next column, the data again indicate no sovereign rated 'BBB' or higher defaulted within two calendar years, and no sovereign rated 'BBB+' or higher defaulted within 15 years. By and large, we observe that cumulative default rates for ratings with modifiers have tended to increase progressively as ratings decline (apart from the 'BBB-' and 'BB-' levels and a few other minor exceptions).

Chart 15 and Table 38 display the local-currency cumulative default rates for 1993-2011 by rating category, and Table 39 displays them by rating modifier. Both tables include public and confidential sovereign ratings. The public local-currency sovereign defaults included in the data were in Argentina, Cameroon, the Dominican Republic, Ecuador, Grenada, Jamaica, and Suriname (see Table 3).

Chart 15

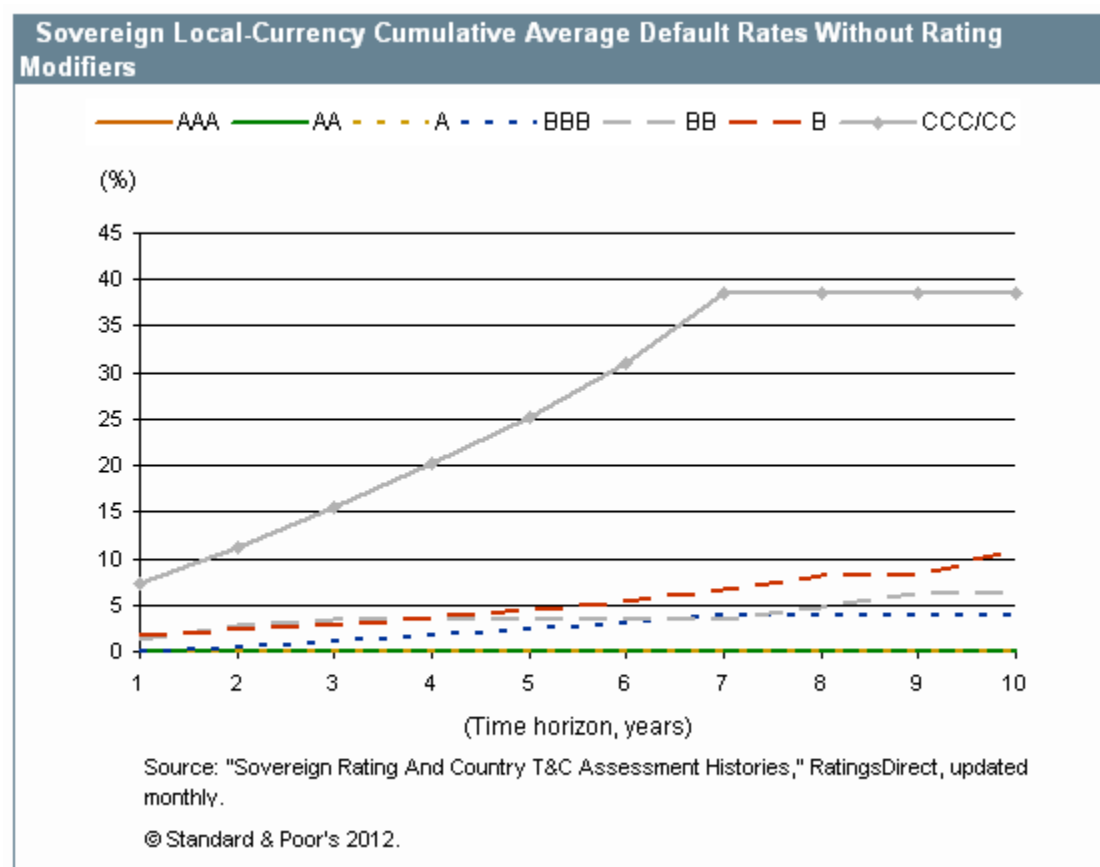


Table 3

Sovereign Local-Currency Selective Defaults					
Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating at emergence from selective default
Country 1*	Sept. 11, 1998	May 7, 1999	Eight months	BB+	CCC
Dominican Republic	April 9, 1999	June 12, 2001	26 months	BB	B-
Argentina	Nov. 6, 2001	June 1, 2005	43 months	BBB-	B-
Cameroon	Sept. 1, 2004	Dec. 3, 2004	Three months	B	CCC
Grenada	Jan. 1, 2005	Nov. 18, 2005	11 months	BB-	B-
Grenada	Dec. 1, 2006	April 2, 2007	Four months	B-	CCC+
Ecuador	Dec. 15, 2008	June 15, 2009	Six months	B-	CCC+
Jamaica	Jan. 14, 2010	Feb. 24, 2010	One month	B	B-

*Confidential rating. Cameroon, Grenada, and Suriname cured their local-currency defaults before the ratings were changed. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Except for the one- through three-year periods for the 'BB' level, the two-year period for the 'BBB' level, and the one-year period for the 'B' level, cumulative default rates by rating category for local-currency sovereign credit ratings have been lower than for foreign-currency sovereign credit ratings (see Tables 32 and 38). Local-currency cumulative default rates disaggregated by rating modifier appear to have been relatively less well ordered at the

'BBB-' and lower rating categories than they are for the same data set for foreign-currency sovereign ratings (see Table 39). The universe of local-currency ratings is smaller than the foreign-currency one (one series begins in 1975, the other in 1992), which could account for the discrepancy. Also, the local-currency sovereign default rate 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.

Tables 40 through 43 show the components of the local-currency default rates broken down by rating category and by year. As with the components of the foreign-currency default rates, there have been no defaults within 15 years in the 'AAA', 'AA', and 'A' categories, so the tables show only the lower categories. As with the yearly components of the foreign-currency default rates, we observe a high variation of the yearly local-currency default rates. (16)

Comparison Of Sovereign Default Rates With Basel II Benchmarks

Under the auspices of The Bank for International Settlements, the G-10 governments established revised guidelines in 2004 for banks in their setting of risk weighting of assets for capital adequacy calculations. These guidelines established targeted absolute default rates for normal credit conditions (reference rates) and tolerance thresholds (monitoring and trigger levels) for stressed credit conditions for banks' use of internal credit scoring systems or external credit ratings. The reference rates are based on the latest 10-year average of the three-year cumulative default rate and the tolerance thresholds are based on the last three-year cohort. Commonly known as the Basel II framework, these guidelines are being revised again in light of credit performance during the global recession (Basel III framework).

Tables 44 and 45 display Standard & Poor's sovereign rating performance during the last decade against these Basel II benchmarks. According to our analysis, foreign-currency sovereign ratings have breached no trigger-level benchmarks since 2005. All foreign-currency sovereign rating categories were below the long-run reference threshold, except for the 'BBB' rating category, which had two defaults: Indonesia in 1999 and Uruguay in 2003. Similarly, our data indicate that all the average three-year cumulative default rates for local-currency sovereign ratings for the past decade were below the Basel II benchmark thresholds, except for the 'BBB' long-run reference benchmark threshold. That result stems from one default: Argentina in 2002. When the universe of observations (i.e., the denominator) is small, only a few defaults (the numerator) will surpass the Basel II benchmarks. Standard & Poor's expects that local- and foreign-currency defaults of speculative-grade-rated sovereigns are likely to rise from current levels given the deterioration of public finances during the global recession of 2008/2009. (17)

Comparisons Of Government Default Rates With Those In The Private Sector

Table 46 compares the one-, five-, 10-, and 15-year weighted cumulative average default rates by category for sovereigns to those of Standard & Poor's private-sector ratings. The data span Jan. 1, 1981, through Dec. 31, 2011, for the private-sector ratings, whereas the sovereign data range from Jan. 1, 1975, to Dec. 31, 2011, for the foreign-currency ratings and Jan. 1, 1993, to Dec. 31, 2011, for the local-currency ratings. Like the sovereign default data, the private-sector default data comprise both public and confidential ratings. The private-sector data represent local-currency ratings on corporations and financial institutions, whereas both local- and foreign-currency default rates are shown for the sovereign set. According to our criteria, only a sovereign-imposed limitation on foreign exchange would likely account for a private-sector entity's foreign-currency debt default that would not lead to a default on the entity's local-currency debt. At rating levels 'A' and higher, the cumulative default experience for

sovereigns has been lower than that for private-sector entities. Our data suggest that the trend has been mixed at lower rating levels, with sovereign default rates higher in some instances (for example, at the 'BBB-' and 'BB-' levels plus and 'CCC'/'CC' rating categories for most time horizons) and lower in most others—but generally comparable overall. As is the case when comparing relative ratings, Standard & Poor's expects that the default rates of the sovereign and private sectors will converge further over time.

Comparison Of The Stability Of Sovereign And Private-Sector Ratings

Charts 16 through 20 compare the stability of sovereign and private-sector ratings by rating category. Consistent with the view embodied in our criteria that only a sovereign-imposed limitation on foreign exchange would likely account for a foreign-currency debt default of a private-sector entity that did not lead to a default on the corporation's local-currency debt, we compare foreign-currency sovereign credit ratings with private-sector local-currency ratings. Again, we observe that sovereign ratings have exhibited greater relative stability, except for a few periods at the 'BBB' level and most of the periods for the 'CCC'/'CC' level. In our view, differences in rating performance could stem from the different factors that influence public versus private finance or from the composition of the private-sector universe (consisting heavily of U.S. firms, which are subject to the U.S. economic cycle) versus the sovereign universe (which, by its nature, is global in scope). (18)

Chart 16

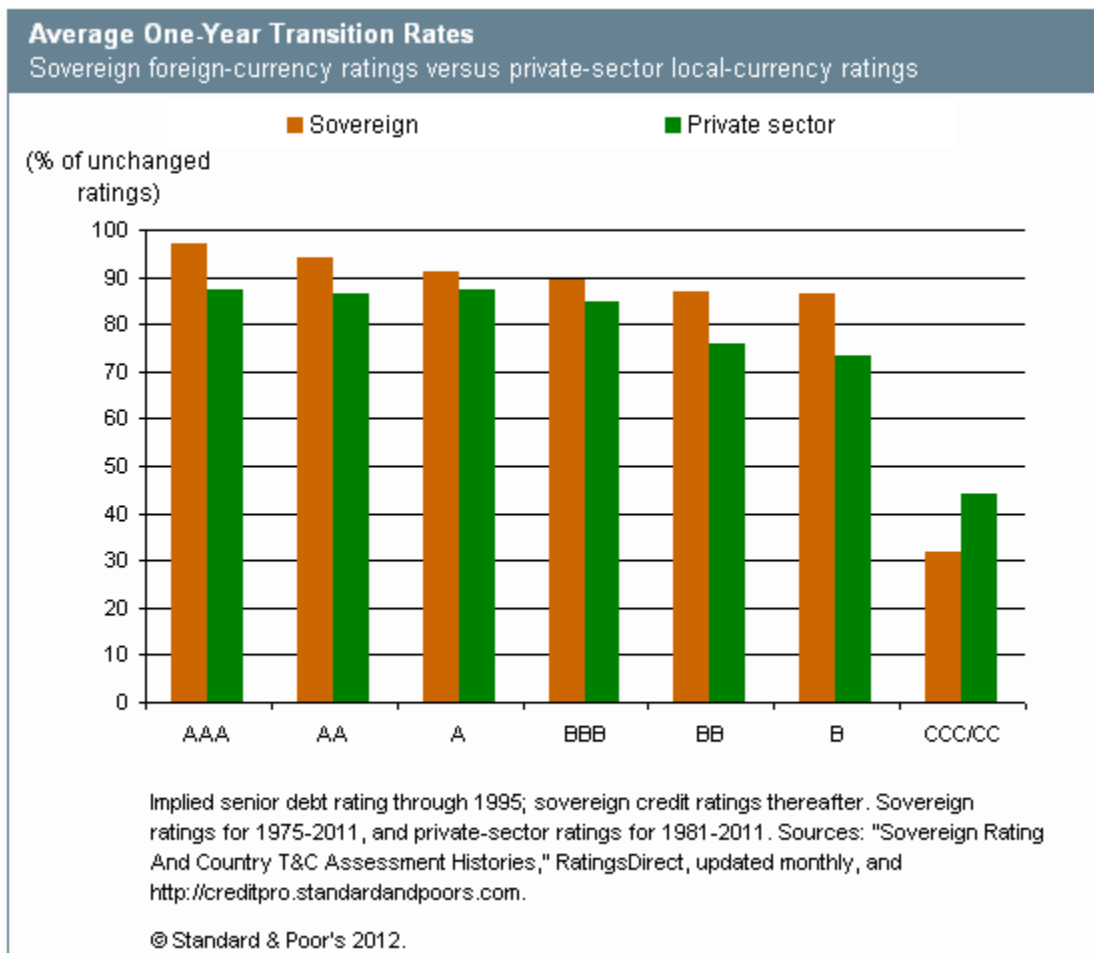


Chart 17

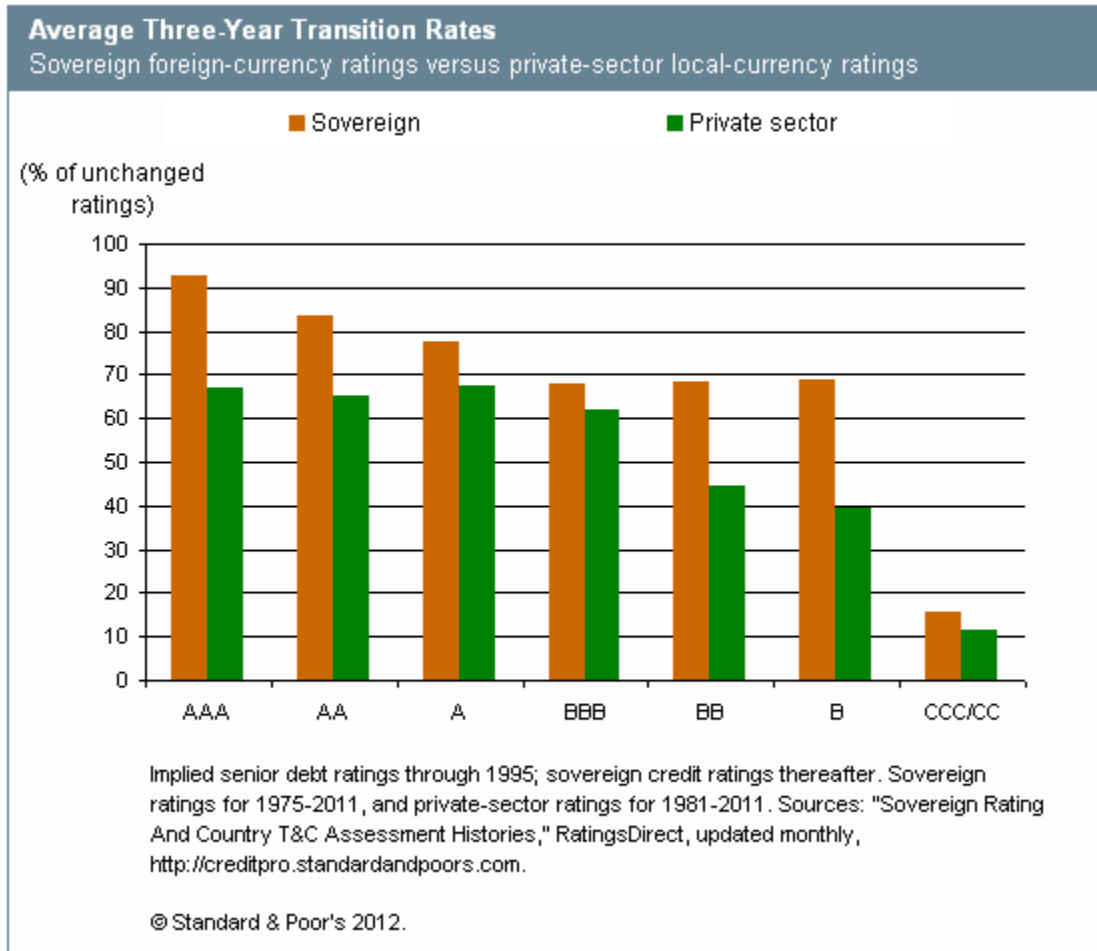


Chart 18

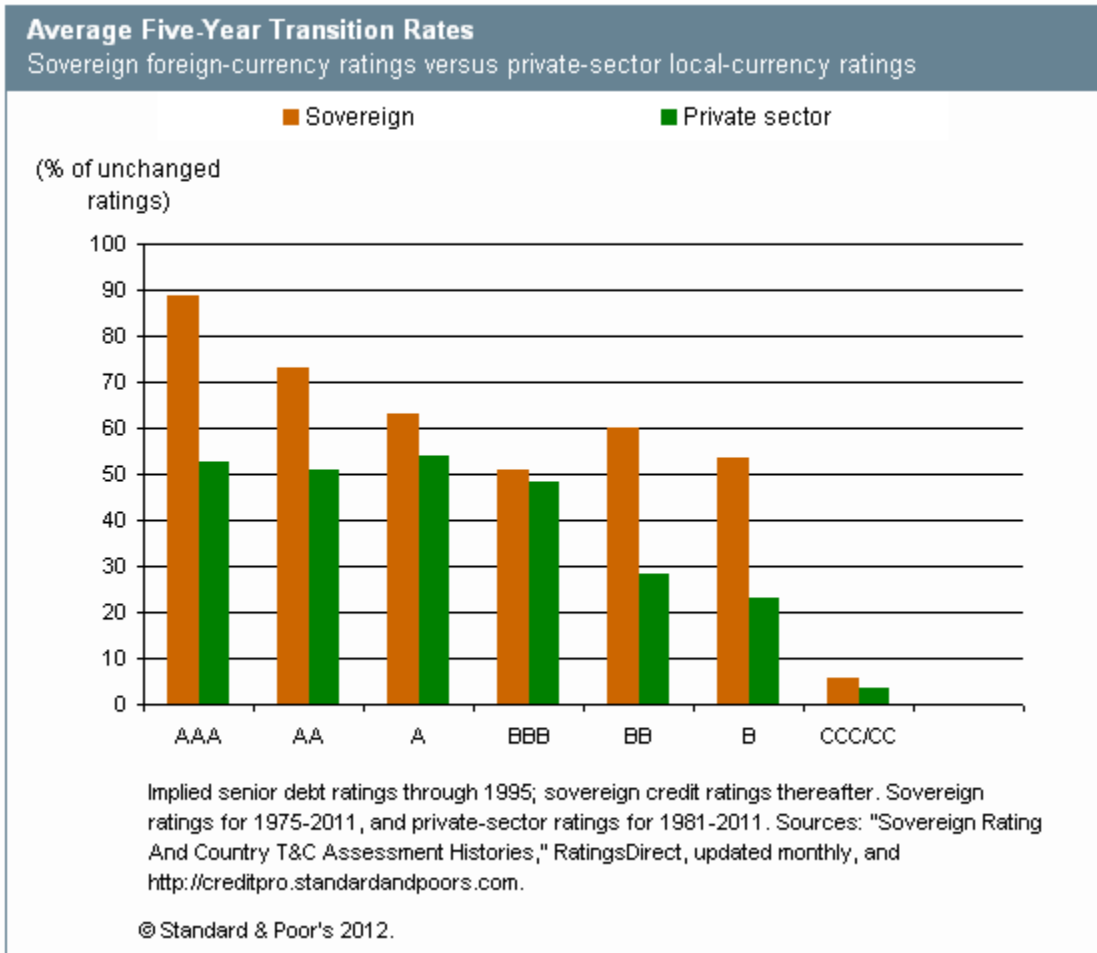


Chart 19

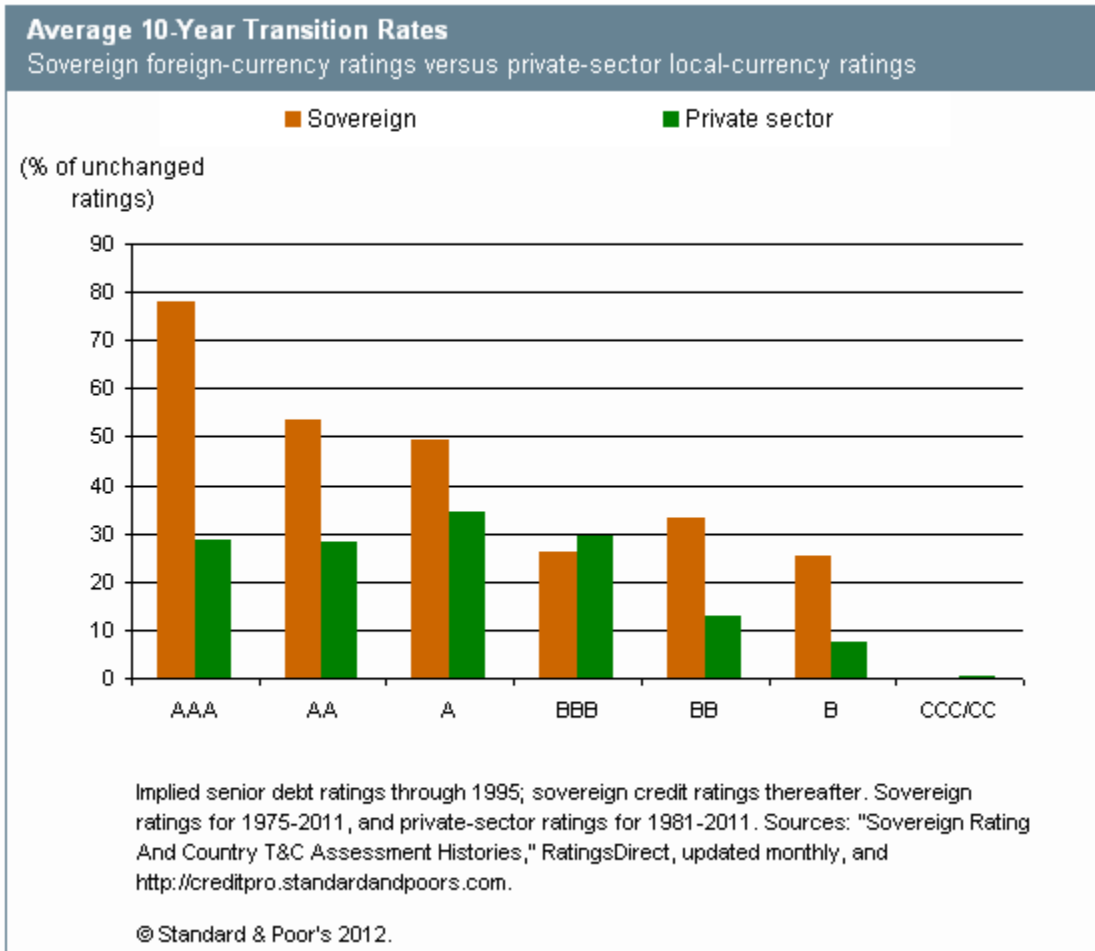
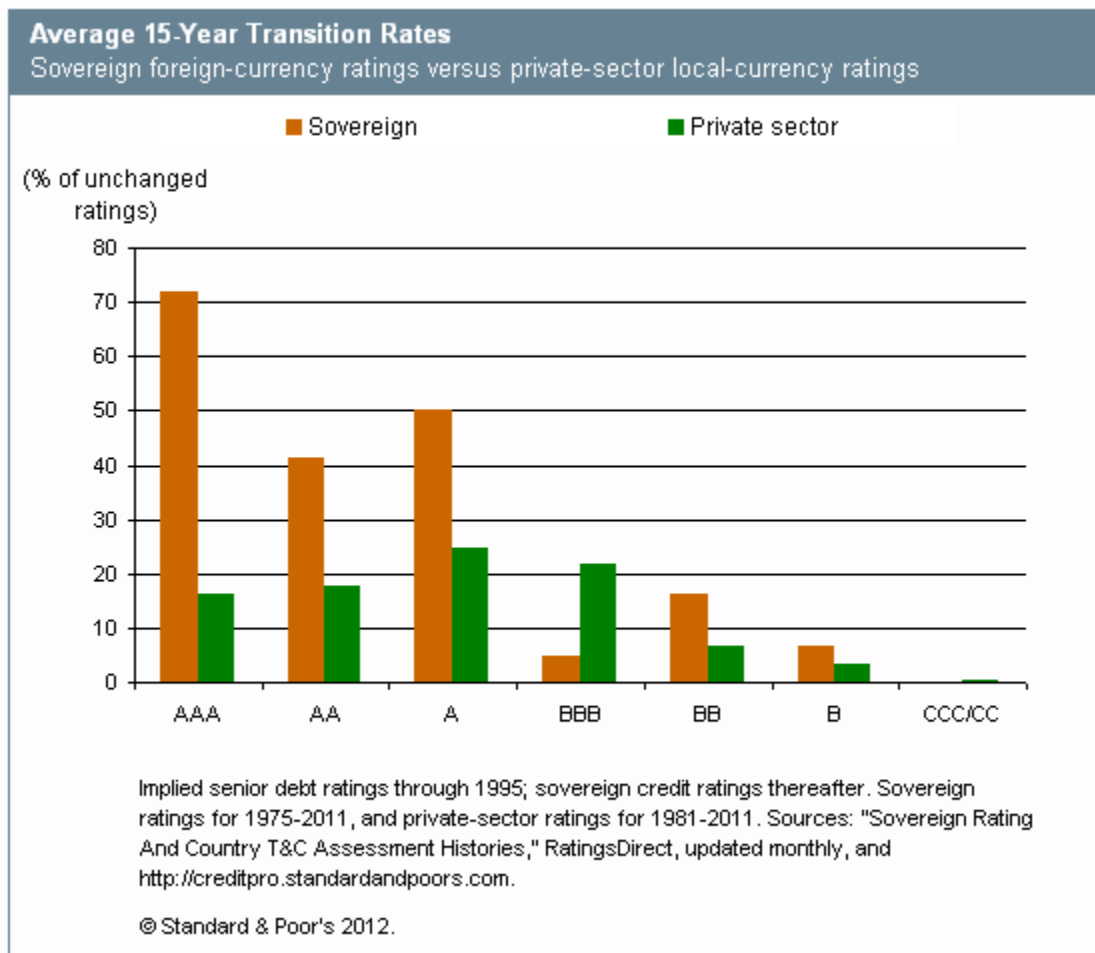


Chart 20



Relative Rating Performance

In addition to examining the absolute performance of sovereign ratings, Standard & Poor's examines their relative performance. One technique we use to measure relative performance is the Gini coefficient. The Gini coefficient is a summary statistic of the Lorenz curve. (19) We believe that Lorenz curves and Gini coefficients are useful when compared with other Lorenz curves' Gini coefficients.

In the eight charts that follow, Standard & Poor's presents two series of comparisons. In Charts 21 through 24, Standard & Poor's plots the sovereign foreign-currency Lorenz curve for 1975-2011 against the Standard & Poor's private-sector Lorenz curve for 1981-2011. The private-sector Lorenz curve uses local-currency ratings; consistent with the view expressed in our criteria, the only scenario we see in which a private-sector institution would default on its foreign-currency debt and not on its local-currency debt would be if the central bank restricted access to foreign exchange for debt service. As the charts indicate, the sovereign ratings Lorenz curve dominates the Standard & Poor's private-sector Lorenz curve on all horizons. Standard & Poor's expects the sovereign and private-sector curves to converge further over time. Sovereign and private-sector analysts use the same rating scale with the same definitions, but the sovereign universe is small compared with the number of corporate and bank ratings. The

sovereign foreign-currency Gini coefficients for the one-, three-, five-, and 10-year horizons are 0.92, 0.82, 0.80, and 0.82, respectively. The Gini coefficients for Standard & Poor's private-sector ratings for the one-, three-, five-, and 10-year horizons are 0.82, 0.75, 0.72, and 0.69, respectively.

Chart 21

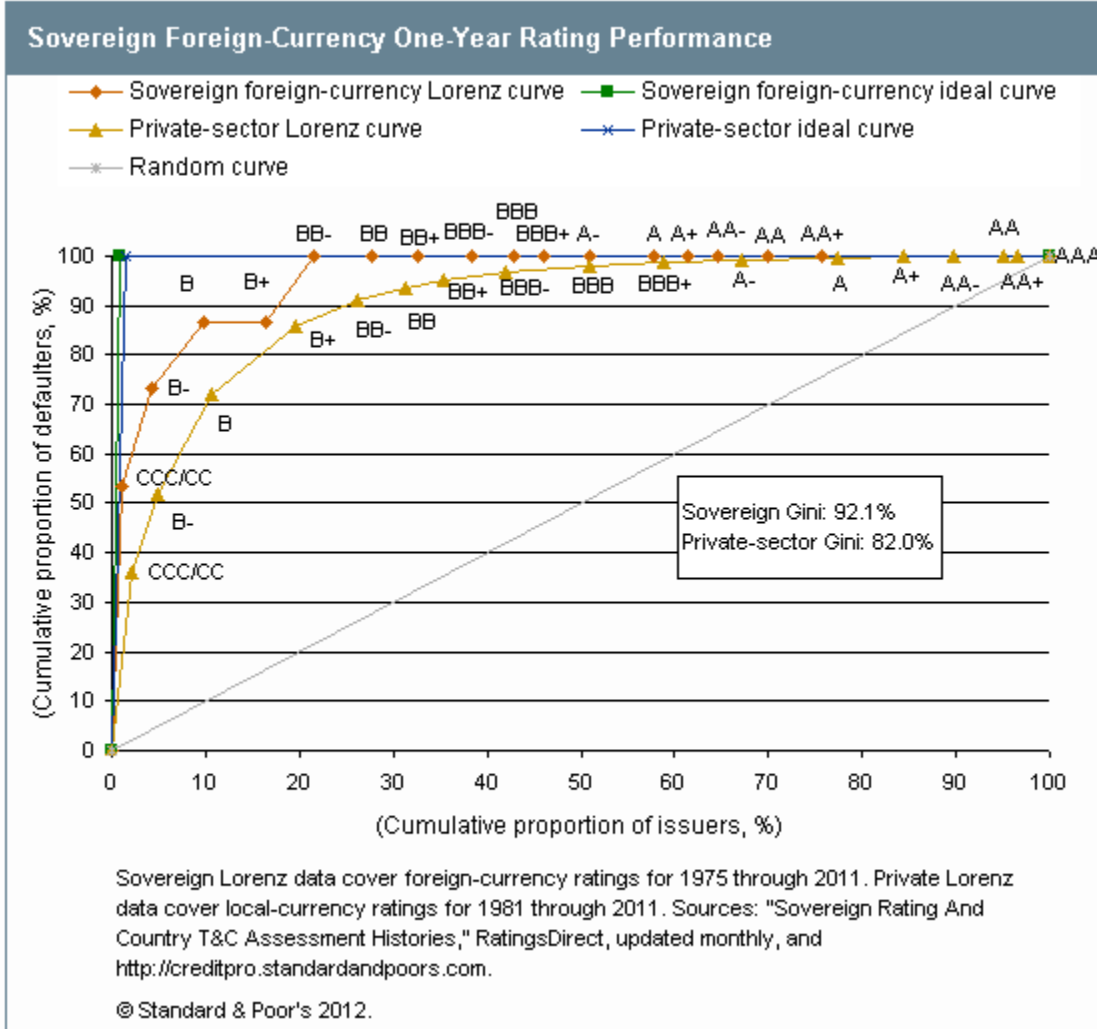


Chart 22

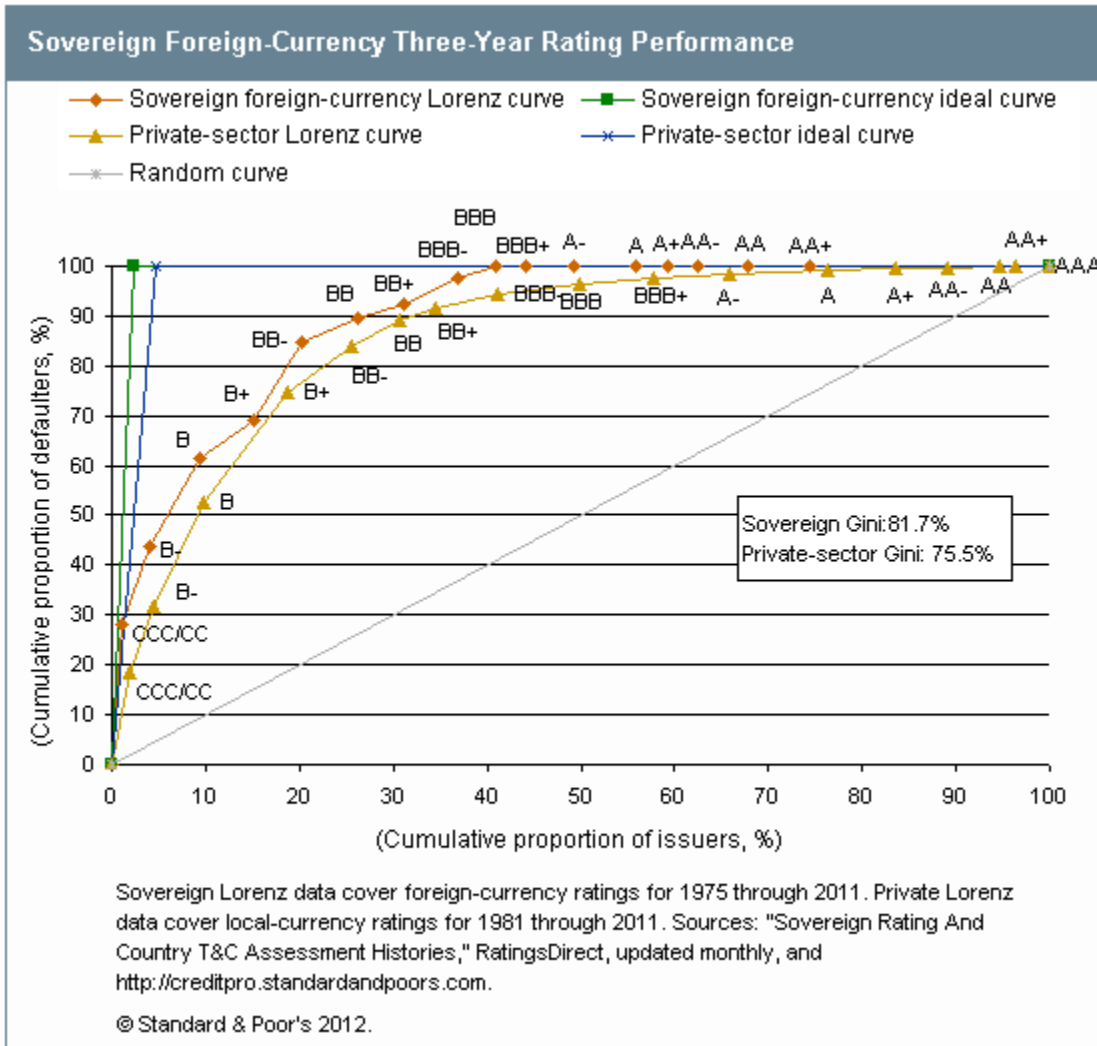


Chart 23

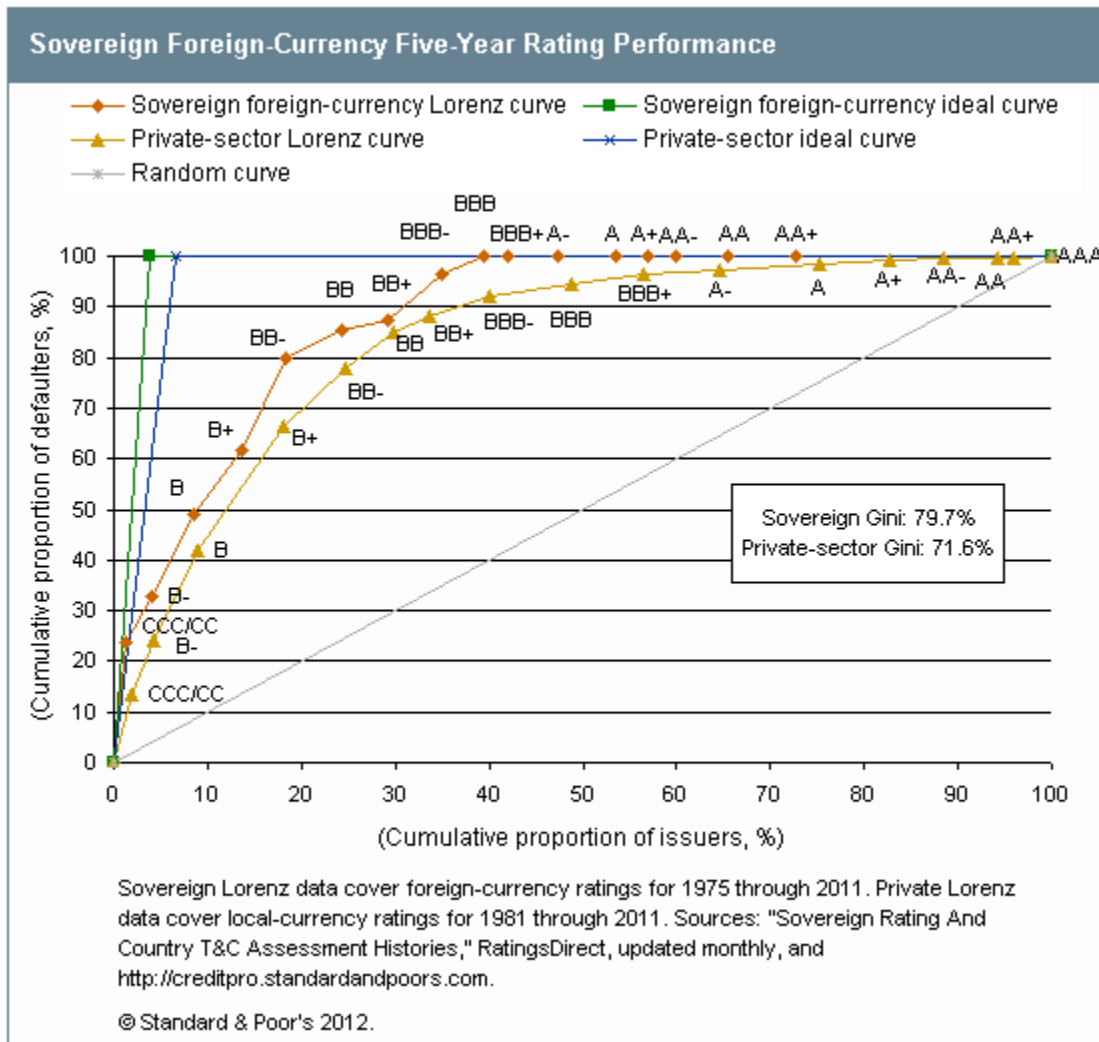


Chart 24

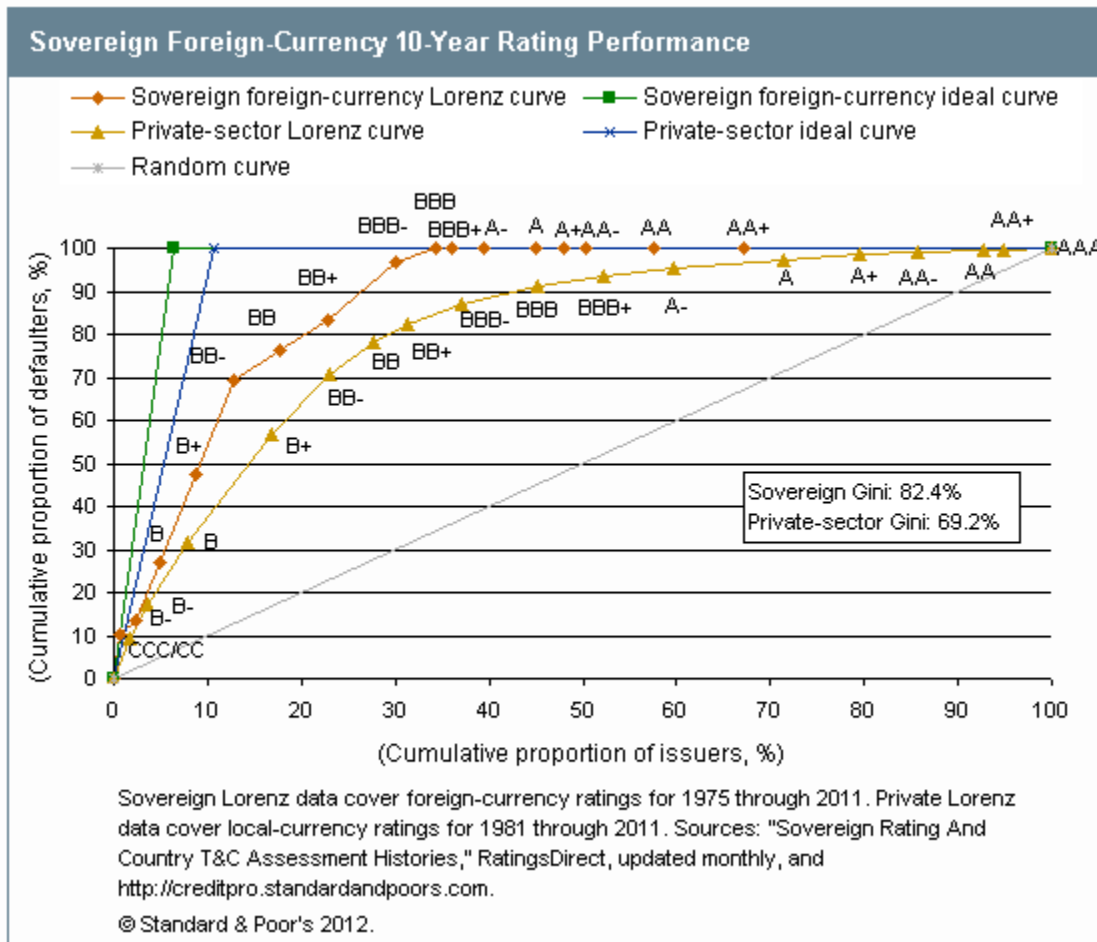


Table 47 contains the summary data underlying the Gini coefficients. In the one-year transition matrix, 100% of cumulative defaults occurred at the 'BB-' level or lower, and ratings falling to 'BB-' or lower accounted for only 21.6% of the set. Similarly, 73.3% of the cumulative one-year foreign-currency sovereign defaults occurred at the 'B-' level or lower; 95.8% of the counts (observations) of sovereign ratings exceeded 'B-'. Looking at the 10-year transition matrix, 100% of cumulative defaults occurred at the 'BBB' level or lower, and the counts falling at 'BBB' or lower constituted only 34.3% of the universe. Speculative-grade issuers were 83.1% of cumulative defaults and only 22.7% of the set. If the rank ordering of ratings had little correlation with defaults, we would expect that the cumulative share of defaulting sovereigns and the cumulative share of all sovereign ratings would be nearly the same.

In Charts 25 through 28, Standard & Poor's plots the sovereign local-currency Lorenz curve for 1993-2011 against the Standard & Poor's private-sector Lorenz curve for 1981-2011. For this data set, the private-sector curve dominates the sovereign curve in the one- and three-year horizons for ratings below 'BB'; in the five- and ten-year horizons, the sovereign ratings curve dominates, particularly in investment grade. The sovereign local-currency Gini coefficients for the one-, three-, five-, and 10-year horizons are 0.81, 0.75, 0.76, and 0.79, respectively. See Table 48 for the data points.

Chart 25

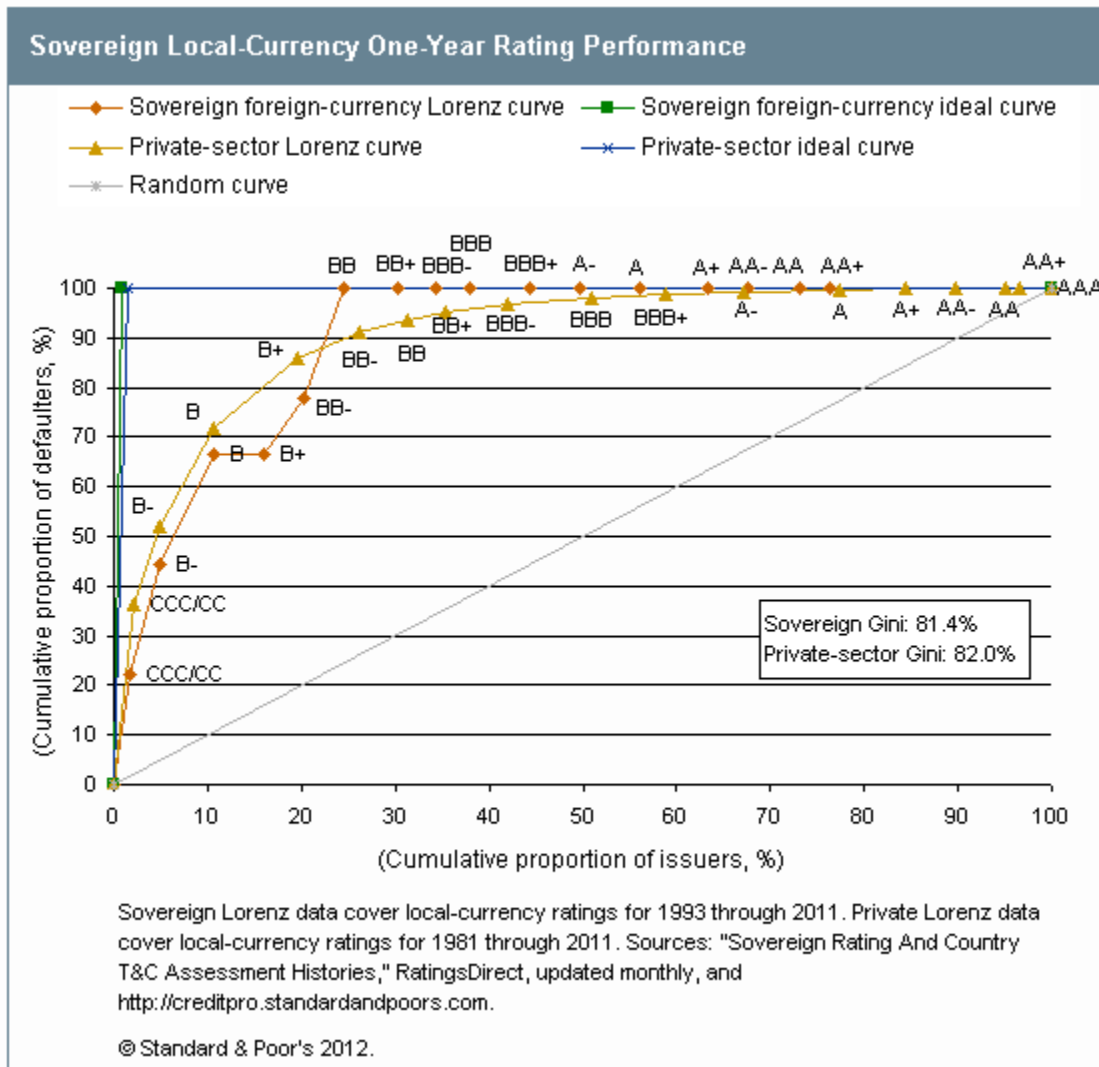


Chart 26

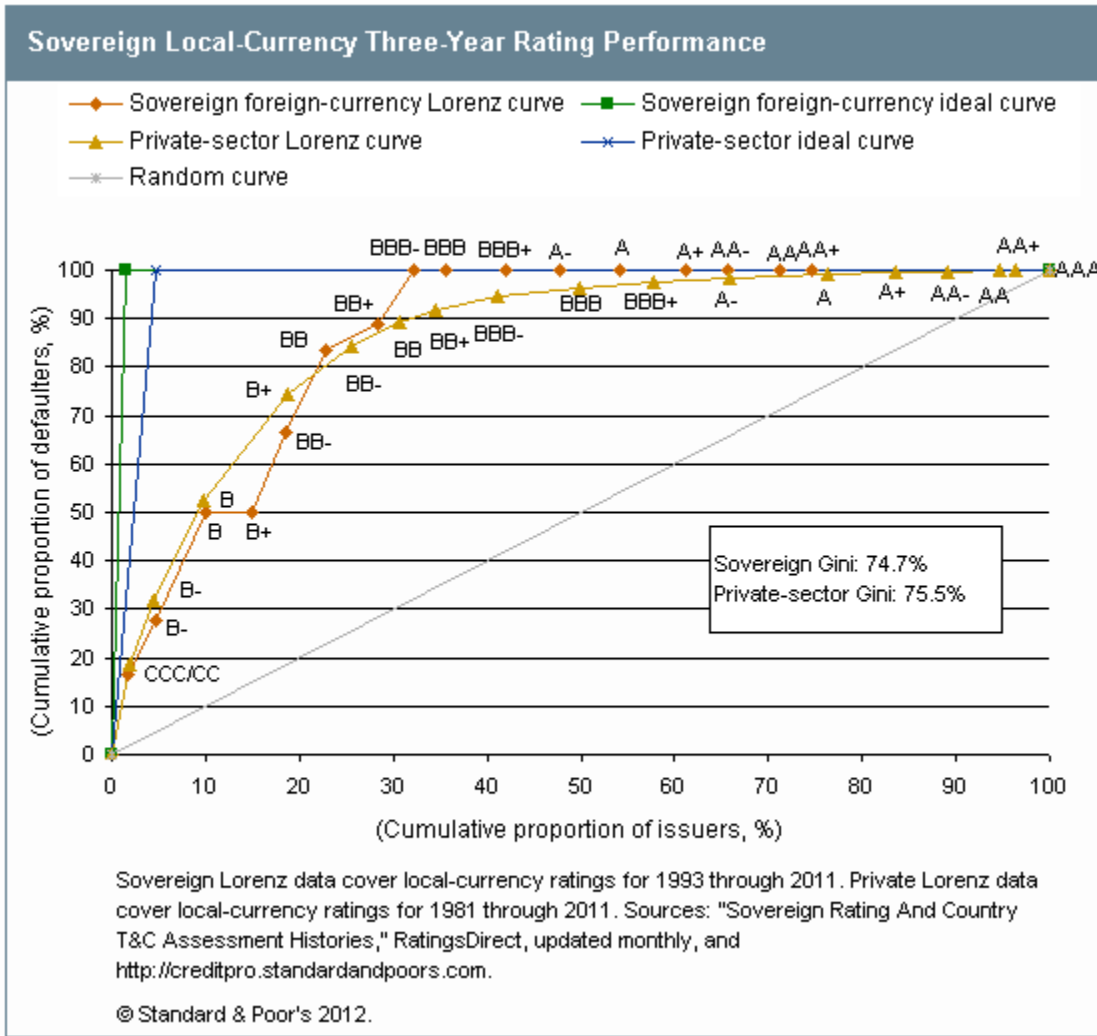


Chart 27

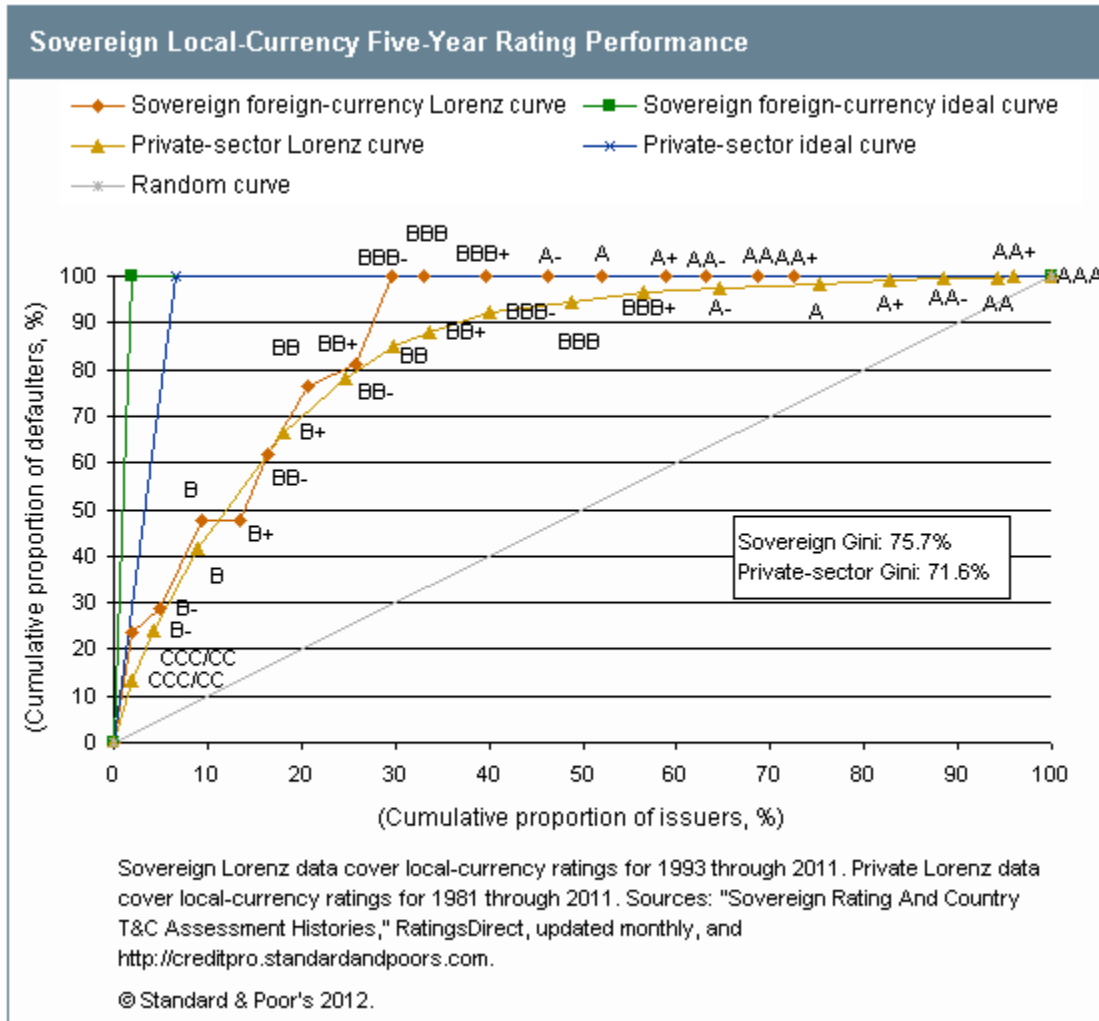
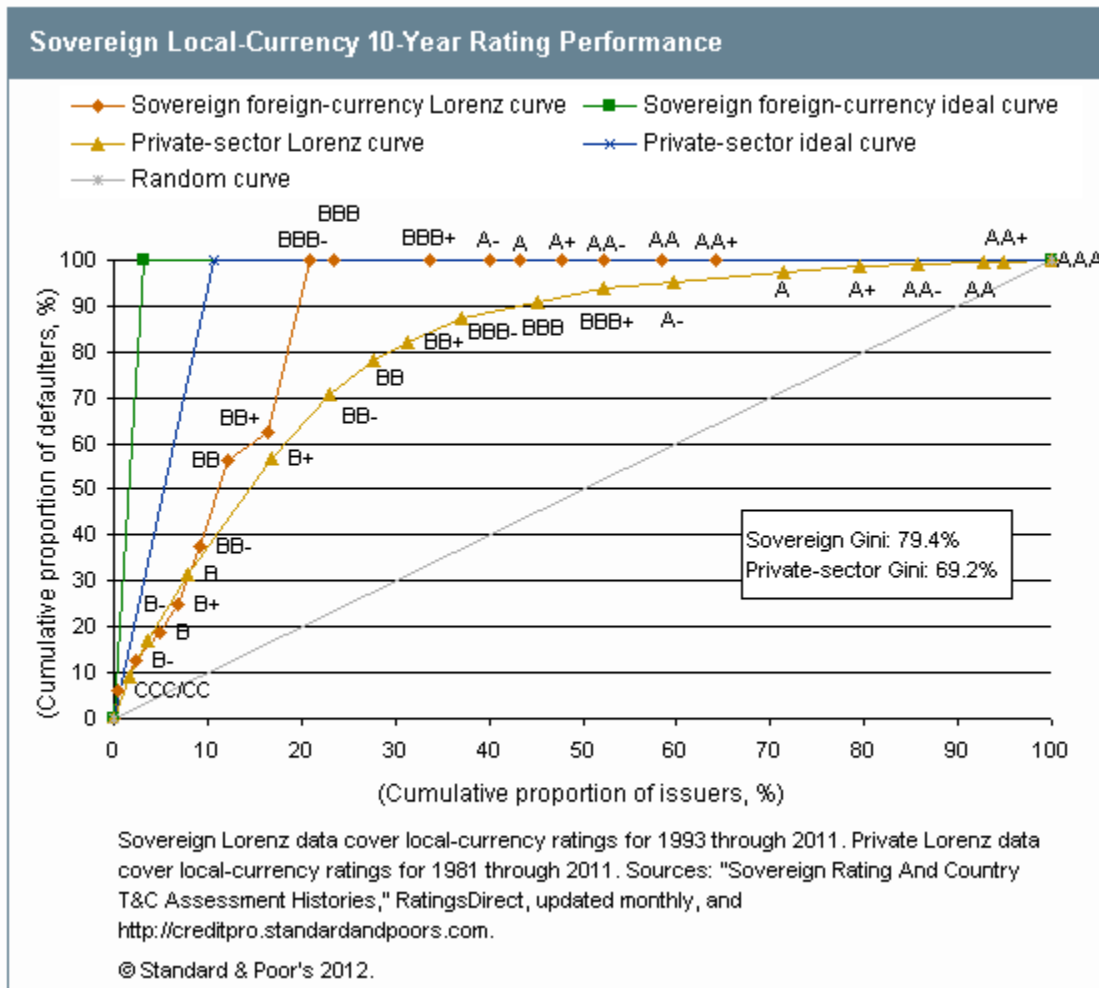


Chart 28



Appendix 1: Sovereign Default Definitions And Emergence From Default

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. (20)

Questions can arise, however, when applying this definition in different situations and to different types of sovereign obligations. Standard & Poor's considers 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. (21)
- 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 debt holders 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 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 the 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. Nor does Standard & Poor's 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. (22) 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 (see "Sovereign Defaults At 26-Year Low, To Show Little Change in 2007," Sept. 18, 2006, RatingsDirect).

Appendix 2: Sovereign Ratings Before The Repeal Of The Interest Equalization Tax

(Editor's note: This appendix was first published in Standard & Poor's "CreditWeek International," May 25, 1987.)

Standard & Poor's has rated sovereign debt issues since the 1920s. However, prior to the imposition of the Interest Equalization Tax (IET) in 1963, the system of analysis was less rigorous than that used today. During this period, Standard & Poor's had to rely strictly on public information. Indeed, the lack of what we considered to be timely and comprehensive information led Standard & Poor's to place an asterisk beside the ratings on sovereign debt issues to indicate that they were not directly comparable with domestic corporate and municipal ratings. No such qualifications are needed today, as rated sovereigns meet Standard & Poor's information requirements through frequent discussions with senior government officials.

During the 1920s, a large number of foreign borrowers tapped the expanding U.S. capital market. Standard Statistics Co. and Poor's Publishing Co., which merged in 1941 to form Standard & Poor's Corp., began rating foreign government financings in the U.S. in the late 1920s. Table 4 shows that the ratings covered most major European nations, several Latin American governments, Australia, Canada, Japan, and China. In 1929, Poor's

Publishing's sovereign ratings ranged from A*** for Canada (roughly equivalent to a current 'AAA') to B* for China and the Hellenic Republic (Greece) (equivalent to a 'BB'). Every Latin American rating was speculative grade except for that on Argentina, which was rated A* ('A'). Two interesting aspects of the rating system at that time were the special ratings of A***** ('AAAAA') for the U.S. government and A**** ('AAAA') for agencies of the U.S. government, categories that no longer exist.

Most sovereign ratings were lowered during the 1930s depression. At that time, the ratings on Germany and Japan fell into the speculative-grade categories. With the approach of World War II, ratings on European nations fell rapidly. By 1939, all ratings in the region were speculative grade except the U.K., which was still rated 'A-1' ('AA') by Standard Statistics. The rating on Germany moved to 'D' in October 1939. As all of Europe (except neutral Kingdom of Sweden and the Swiss Confederation) became engulfed in war in June 1940, Standard Statistics suspended most of its sovereign debt ratings. The few exceptions were the 'A-1' ('AA') ratings on Canada's Yankee bond issues and several speculative-grade ratings on bonds of a few Latin American nations.

After the war, Standard & Poor's again began to rate Yankee bond issues by several major industrialized nations. Ratings included Australia; the Republic of Austria; the Kingdoms of Belgium, Denmark, and Norway; and Japan. Except the existing 'AA' rating on Canada, all sovereign bond issues during this period were rated 'BBB'. In 1951, the rating on Canada was raised to 'AAA'. As investor interest in the Yankee market waned following the imposition of IET, Standard & Poor's suspended all remaining sovereign ratings in 1968 except for that on Canada, which was exempt from IET.

Table 4

	Poor's Publishing	—Standard Statistics—		Standard & Poor's
	1929	1935	1939	1960
Argentina	A	A	A	—
Australia	AA	A	A	BBB
Austria	BBB	BBB	CCC	BBB
Belgium	A	AA	BB	BBB
Canada	AAA	AA	AA	AAA
Chile	BB	D	C	—
China	B	C	C	—
Colombia	BB	CCC	D	—
Denmark	AA	A	BB	BBB
Finland	BB	A	A	—
France	BBB	AA	BB	—
Germany	BBB	CCC	D	—
Great Britain	AA	AA	AA	—
Greece	B	CC	CC	—
Hungary	BB	CCC	CCC	—
Italy	BB	BB	B	—
Japan	BBB	B	B	BBB
Norway	AA	A	BB	BBB
Peru	BB	D	D	—
Uruguay	BB	CCC	CCC	—

Table 4

History of Ratings Prior To Interest Equalization Tax (cont.)

Source: CreditWeek International, a publication of Standard & Poor's, May 25, 1987.

Appendix 3: Sovereigns' Path To Default

This article captures ratings at discrete dates. It does not capture rating changes between dates, though we made adjustments to reflect defaults that occur and are cured within periods. As an issuer (in this case, a sovereign) approaches default, we usually lower the rating several times in succession as the probability of default rises. Table 5 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 29 through 32 show the rating movements graphically.

Table 5

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						
Argentina	Aug. 25, 1993	BB/Stable	Oct. 30, 2000	10	Nov. 6, 2001	372
Belize	Aug. 18, 2000	BB/Stable	Aug. 18, 2000	7	Dec. 7, 2006	2,302
Dominican Republic	Feb. 13, 1997	BB-/Stable	Oct. 22, 2001	5	Feb. 1, 2005	1,198
Ecuador	July 29, 2000	B-/Stable	Nov. 13, 2008	1	Dec. 15, 2008	32
Grenada	March 22, 2002	BB-/Stable/B	Sept. 16, 2004	2	Dec. 30, 2004	105
Indonesia, first default	July 20, 1992	BBB/Stable	Oct. 9, 1997	8	March 29, 1999	536
Indonesia, second default	July 20, 1992	CCC+/Stable	Sept. 12, 1999	2	April 17, 2000	218
Indonesia, third default	July 20, 1992	B-/Stable	March 7, 2001	5	April 23, 2002	412
Jamaica	Nov. 9, 1999	B+/Positive	July 27, 2003	8	Jan. 14, 2010	2,363
Pakistan	Sept. 21, 1994	B+/Positive	Aug. 2, 1995	8	Jan. 29, 1999	1,276
Paraguay	Oct. 23, 1995	BB-/Stable	Nov. 18, 1998	5	Feb. 13, 2003	1,548
Russia	Oct. 14, 2006	BB-/Stable	Dec. 18, 1997	7	Jan. 27, 1999	405
Seychelles	Sept. 15, 2006	B/Stable	Nov. 1, 2007	2	Aug. 7, 2008	280
Uruguay	Feb. 14, 1994	BBB-/Stable	Jan. 10, 2002	8	May 16, 2003	491
Venezuela	Oct. 5, 1977	AAA	Aug. 12, 1982	26	Jan. 18, 2005	8,195
Local-currency sovereign credit rating defaults						
Argentina	Sept. 1, 1994	BBB-/Stable	Oct. 30, 2000	10	Nov. 6, 2001	372
Dominican Republic	Feb. 13, 1997	BB/Stable	Sept. 30, 1998	2	April 9, 1999	191

Table 5

Length Of Time To Default (cont.)						
Ecuador	July 29, 2000	B-/Stable	Nov. 13, 2008	1	Dec. 15, 2008	32
Jamaica	Nov. 9, 1999	BB-/Stable	July 27, 2003	7	Jan. 14, 2010	2,363
Suriname	Nov. 23, 1999	B/Stable	Dec. 31, 1999	1	Jan. 1, 2000	1

Source: "Sovereign Rating And Country T&C Assessment Histories", RatingsDirect, updated monthly.

Chart 29

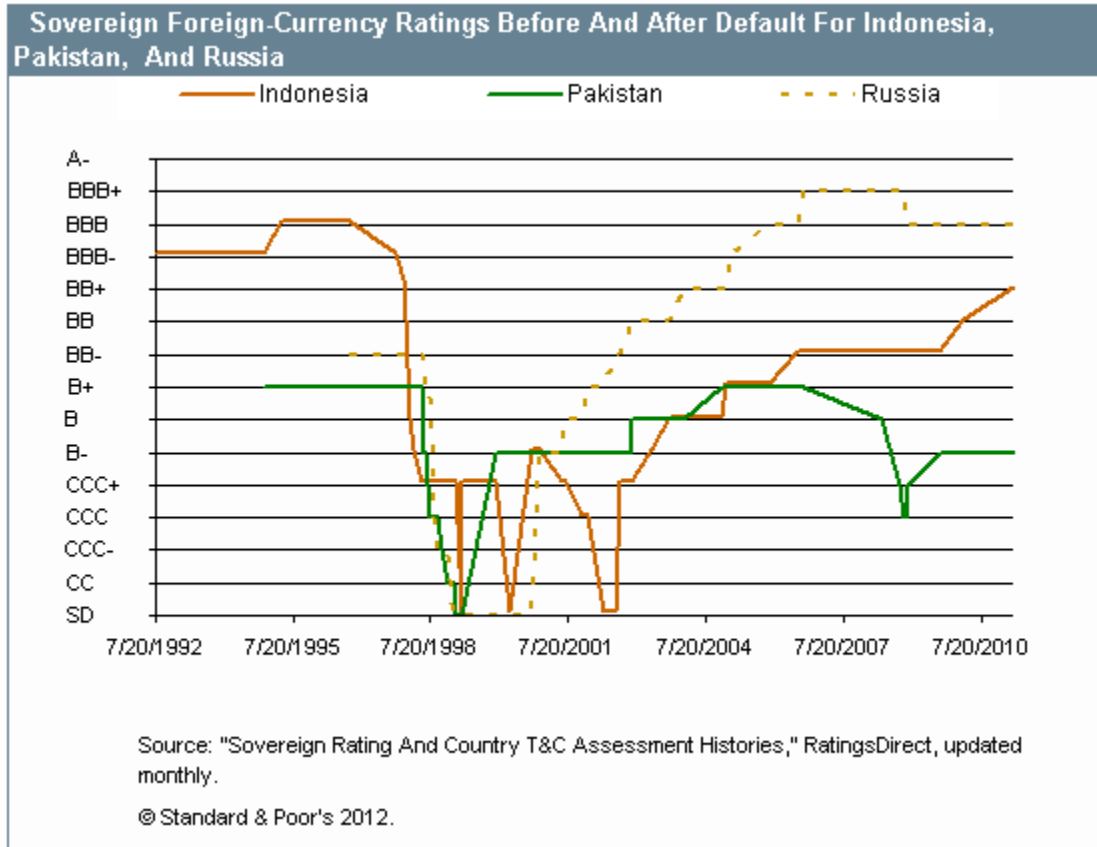


Chart 30

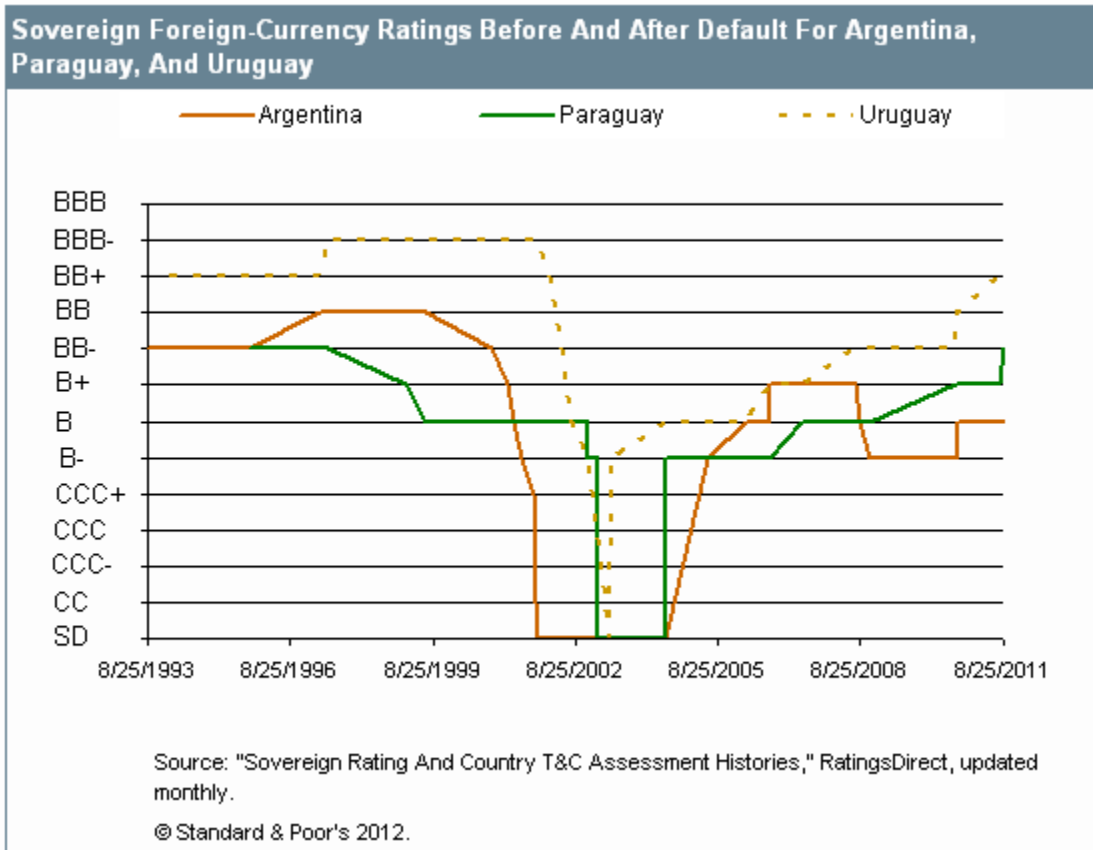


Chart 31

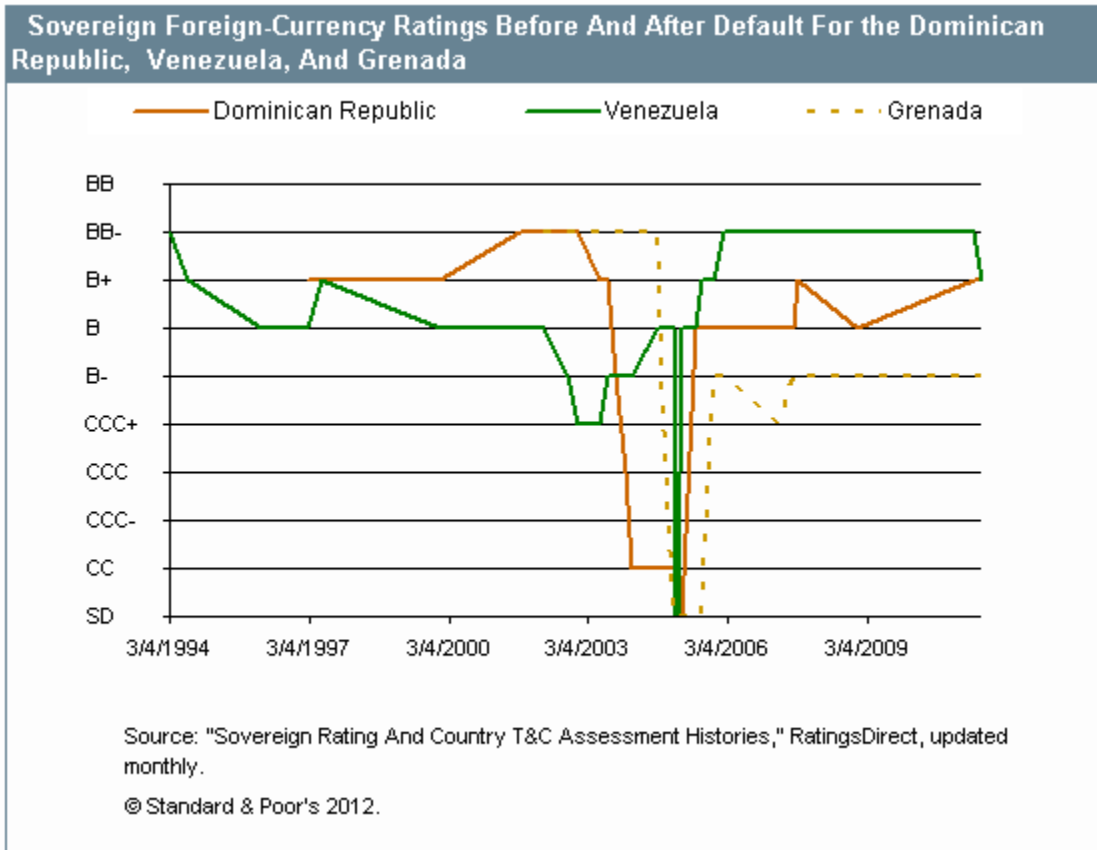
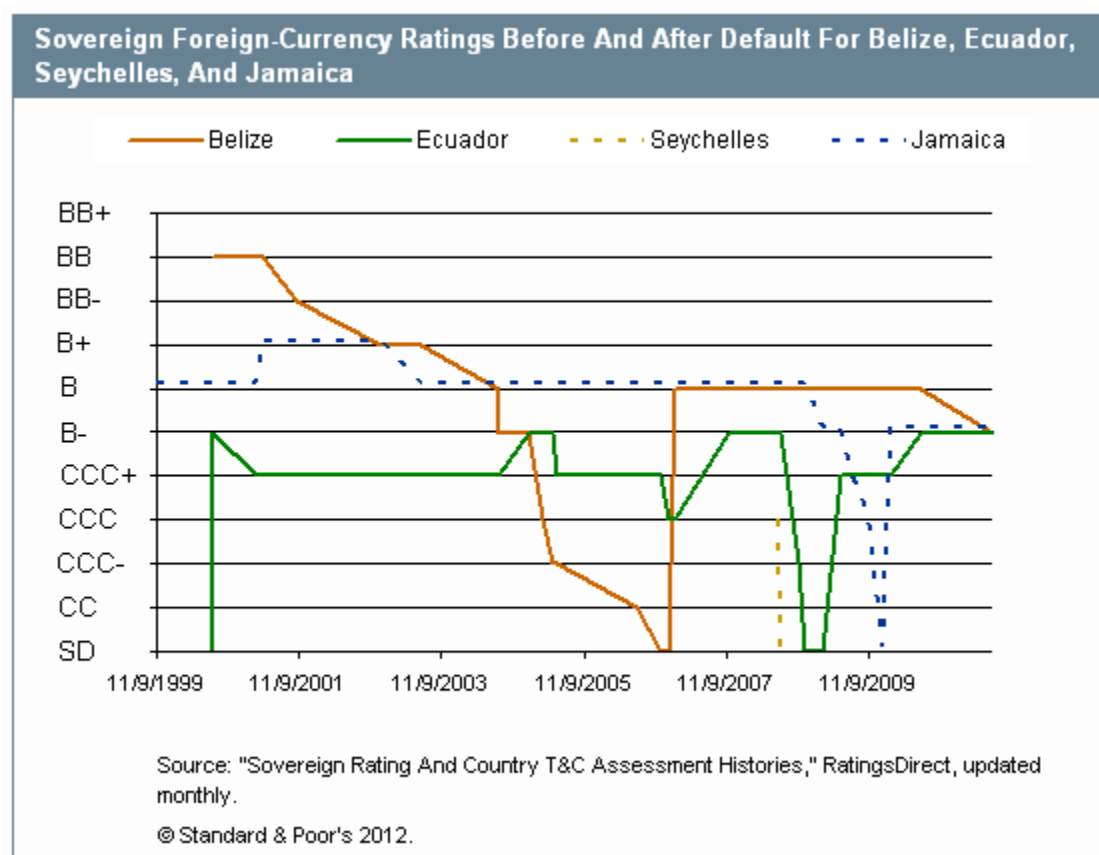


Chart 32



Appendix 4: Sovereign Transition Data By Monthly Cohorts

The data presented in this report to this point have displayed annual default and transition rates. Tables 49 and 50 show monthly cumulative default rates by rating modifier. In Table 49, we see that foreign currency cumulative default rates mostly increase as ratings become lower, with sharp increases in the 'CCC' and 'CC' categories. These monthly data suggest that historically foreign currency ratings have been strong indicators of default probability and the imminence of default. Monthly local currency cumulative default rates are displayed in Table 50. The data in Table 50 are less well ordered than the data in Table 49. Both sets of data need to be interpreted with care given the few numbers of defaults, as seen in Tables 2 and 3.

Table 6

Ratings as of Jan. 1	Number	—Rating one year later (%)—								
		AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	468	97.23	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	279	3.23	93.91	2.15	0.00	0.36	0.36	0.00	0.00	0.00
A	299	0.00	4.01	90.97	4.68	0.00	0.00	0.00	0.00	0.33
BBB	257	0.00	0.00	6.23	89.49	3.50	0.78	0.00	0.00	0.00
BB	316	0.00	0.00	0.00	6.33	87.03	4.75	1.27	0.63	0.00

Table 6

Sovereign Foreign-Currency Average One-Year Transition Rates (1975 - 2011*) (cont.)										
B	296	0.00	0.00	0.00	0.00	7.77	86.49	3.04	1.69	1.01
CCC/CC	22	0.00	0.00	0.00	0.00	0.00	31.82	31.82	36.36	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 7

Sovereign Foreign-Currency Average Three-Year Transition Rates (1975 - 2011*)										
		—Rating three years later (%)—								
Ratings as of Jan. 1	Number	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	431	92.84	6.24	0.23	0.23	0.46	0.00	0.00	0.00	0.00
AA	254	10.24	83.46	4.33	1.18	0.79	0.00	0.00	0.00	0.00
A	257	0.00	10.12	77.43	10.89	0.78	0.39	0.39	0.00	0.00
BBB	218	0.00	0.00	21.56	67.89	7.34	1.38	0.46	1.38	0.00
BB	270	0.00	0.00	0.00	17.41	68.52	10.00	0.74	3.33	0.00
B	237	0.00	0.00	0.00	0.84	17.30	68.78	2.95	6.75	3.38
CCC/CC	19	0.00	0.00	0.00	0.00	0.00	26.32	15.79	57.89	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 8

Sovereign Foreign-Currency Average Five-Year Transition Rates (1975 - 2011*)										
		—Rating five years later (%)—								
Ratings as of Jan. 1	Number	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	393	88.61	9.87	0.25	0.25	1.01	0.00	0.00	0.00	0.00
AA	228	18.42	73.25	6.14	1.75	0.44	0.00	0.00	0.00	0.00
A	215	0.00	17.21	63.26	16.28	2.33	0.47	0.47	0.00	0.00
BBB	187	0.00	0.00	35.29	50.80	8.02	1.60	0.53	3.74	0.00
BB	224	0.00	0.00	1.79	21.43	59.82	10.27	0.45	6.25	0.00
B	179	0.00	0.00	0.56	5.03	21.79	53.63	3.91	11.73	3.35
CCC/CC	18	0.00	0.00	0.00	0.00	5.56	16.67	5.56	72.22	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 9

Sovereign Foreign-Currency Average 10-Year Transition Rates (1975 - 2011*)										
		—Rating 10 years later (%)—								
Ratings as of Jan. 1	Number	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	303	78.03	20.00	0.00	0.33	0.98	0.66	0.00	0.00	0.00
AA	179	36.87	53.63	8.38	0.56	0.56	0.00	0.00	0.00	0.00
A	111	1.80	22.52	49.55	22.52	2.70	0.00	0.90	0.00	0.00
BBB	123	0.00	5.69	46.34	26.02	11.38	2.44	0.00	8.13	0.00
BB	130	0.00	0.00	10.00	30.77	33.08	9.23	0.77	16.15	0.00
B	75	0.00	0.00	1.33	12.00	30.67	25.33	1.33	29.33	0.00
CCC/CC	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00

Table 9

Sovereign Foreign-Currency Average 10-Year Transition Rates (1975 - 2011*) (cont.)

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 10

Sovereign Foreign-Currency Average 15-Year Transition Rates (1975 - 2011*)

Ratings as of Jan. 1	Number	—Rating 15 years later (%)—								
		AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	240	71.90	26.03	0.00	0.00	0.83	1.24	0.00	0.00	0.00
AA	114	43.86	41.23	11.40	2.63	0.00	0.88	0.00	0.00	0.00
A	56	5.36	23.21	50.00	21.43	0.00	0.00	0.00	0.00	0.00
BBB	43	0.00	6.98	55.81	4.65	18.60	0.00	2.33	11.63	0.00
BB	49	0.00	0.00	8.16	36.73	16.33	10.20	2.04	26.53	0.00
B	15	0.00	0.00	0.00	20.00	26.67	6.67	0.00	46.67	0.00
CCC/CC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 11

Sovereign Foreign-Currency Average One-Year Transition Rates With Rating Modifier (1975 - 2011*)

Rating	#	—Rating one year later (%)—																					
		AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	468	97.2	2.1	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	0.0	0.0	0.0
AA+	115	7.8	84.4	7.0	0.9	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	0.0	0.0	0.0
AA	103	0.0	8.7	79.6	9.7	0.0	1.0	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	0.0	0.0
AA-	61	0.0	0.0	16.4	73.8	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	69	0.0	0.0	0.0	14.5	68.1	13.0	1.5	1.5	0.0	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
A	133	0.0	0.0	0.0	1.5	11.3	79.7	2.3	2.3	2.3	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
A-	97	0.0	0.0	0.0	0.0	1.0	15.5	77.3	4.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
BBB+	61	0.0	0.0	0.0	0.0	0.0	1.6	19.7	62.3	13.1	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	84	0.0	0.0	0.0	0.0	0.0	0.0	3.6	21.4	63.1	8.3	2.4	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	112	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	17.0	75.9	4.5	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
BB+	98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	17.4	69.4	8.2	0.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0
BB	117	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	16.2	74.4	6.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB-	101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	14.9	68.3	8.9	2.0	1.0	0.0	1.0	1.0	0.0	2.0	0.0	0.0
B+	126	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.4	15.1	63.5	12.7	4.0	0.8	0.0	0.0	0.8	0.0	0.0
B	111	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8	68.5	3.6	1.8	1.8	0.0	0.0	1.8	2.7
B-	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	20.3	64.4	1.7	1.7	1.7	0.0	5.1	0.0
CCC+	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	7.7	7.7	30.8	38.5	0.0	0.0	0.0	15.4	0.0
CCC	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	20.0	0.0	20.0	0.0	20.0	40.0	0.0
CCC-	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	0.0	0.0	0.0	100.0	0.0
CC	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	0.0	0.0	0.0	100.0	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 12

Sovereign Foreign-Currency Average Three-Year Transition Rates With Rating Modifier (1975 - 2011*)																							
—Rating three years later (%)—																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	431	92.8	3.9	1.2	1.2	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	109	22.9	61.5	12.8	2.8	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	0.0	0.0	0.0
AA	92	1.1	23.9	55.4	15.2	2.2	1.1	0.0	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
AA-	53	0.0	3.8	37.7	35.9	7.6	5.7	1.9	0.0	1.9	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	59	0.0	0.0	5.1	25.4	37.3	17.0	0.0	5.1	3.4	5.1	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	112	0.0	0.0	0.0	7.1	25.9	51.8	5.4	1.8	4.5	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
A-	86	0.0	0.0	0.0	0.0	3.5	34.9	47.7	9.3	2.3	1.2	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	52	0.0	0.0	0.0	0.0	1.9	9.6	28.9	30.8	19.2	7.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	71	0.0	0.0	0.0	0.0	1.4	8.5	16.9	19.7	35.2	9.9	2.8	0.0	0.0	1.4	1.4	0.0	1.4	0.0	0.0	0.0	1.4	0.0
BBB-	95	0.0	0.0	0.0	0.0	0.0	0.0	7.4	12.6	26.3	36.8	11.6	2.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	2.1	0.0
BB+	85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	4.7	29.4	35.3	22.4	2.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
BB	99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	9.1	23.2	44.4	11.1	6.1	1.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
BB-	86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	7.0	27.9	30.2	11.6	5.8	4.7	1.2	0.0	0.0	1.2	7.0	0.0
B+	98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	6.1	15.3	34.7	23.5	9.2	1.0	1.0	1.0	1.0	3.1	0.0
B	90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	13.3	22.2	34.4	8.9	1.1	1.1	0.0	0.0	7.8	8.9
B-	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	4.1	12.2	30.6	34.7	2.0	0.0	0.0	0.0	12.2	0.0
CCC+	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	0.0	9.1	0.0	18.2	27.3	0.0	0.0	0.0	45.5	0.0
CCC	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	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
CCC-	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	0.0	0.0	0.0	100.0	0.0
CC	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	0.0	0.0	0.0	100.0	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 13

Sovereign Foreign-Currency Average Five-Year Transition Rates With Rating Modifier (1975 - 2011*)																							
—Rating five years later (%)—																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	393	88.6	5.1	2.8	2.0	0.0	0.3	0.0	0.3	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	0.0
AA+	104	32.7	47.1	16.4	3.9	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	0.0	0.0	0.0
AA	82	8.5	25.6	40.2	15.9	6.1	2.4	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	42	2.4	16.7	35.7	19.1	4.8	9.5	2.4	2.4	2.4	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	49	0.0	4.1	12.2	26.5	18.4	16.3	0.0	4.1	8.2	6.1	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	88	0.0	0.0	2.3	12.5	26.1	38.6	6.8	2.3	4.6	4.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
A-	78	0.0	0.0	0.0	3.9	7.7	37.2	26.9	11.5	5.1	3.9	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	39	0.0	0.0	0.0	0.0	5.1	15.4	33.3	23.1	12.8	7.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	64	0.0	0.0	0.0	0.0	9.4	12.5	21.9	17.2	21.9	9.4	1.6	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0
BBB-	84	0.0	0.0	0.0	0.0	0.0	6.0	14.3	21.4	21.4	13.1	10.7	4.8	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	6.0	0.0
BB+	68	0.0	0.0	0.0	0.0	0.0	1.5	4.4	0.0	16.2	20.6	20.6	27.9	5.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
BB	88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4	13.6	26.1	37.5	5.7	4.6	1.1	0.0	0.0	0.0	1.1	0.0	3.4	0.0
BB-	68	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	5.9	8.8	33.8	10.3	11.8	4.4	8.8	0.0	0.0	0.0	0.0	14.7	0.0
B+	73	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	4.1	4.1	2.7	16.4	23.3	19.2	11.0	2.7	1.4	0.0	1.4	9.6	0.0

Table 13

Sovereign Foreign-Currency Average Five-Year Transition Rates With Rating Modifier (1975 - 2011*) (cont.)																								
B	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.5	3.1	18.5	20.0	23.1	4.6	1.5	1.5	0.0	0.0	13.9	9.2
B-	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	12.2	24.4	19.5	19.5	2.4	0.0	0.0	0.0	12.2	0.0
CCC+	10	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	70.0	0.0
CCC	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
CCC-	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	0.0	0.0	0.0	0.0	100.0	0.0
CC	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	0.0	0.0	0.0	0.0	100.0	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 14

Sovereign Foreign-Currency Average 10-Year Transition Rates With Rating Modifier (1975 - 2011*)																							
—Rating 10 years later (%)—																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	303	78.0	10.2	6.6	3.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	89	44.9	24.7	16.9	12.4	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	0.0	0.0	0.0	0.0	0.0
AA	67	28.4	35.8	11.9	9.0	9.0	1.5	1.5	0.0	0.0	1.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	23	30.4	21.7	8.7	13.0	0.0	26.1	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
A+	27	3.7	3.7	11.1	0.0	11.1	18.5	22.2	3.7	7.4	14.8	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	51	2.0	3.9	19.6	13.7	21.6	15.7	9.8	7.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
A-	33	0.0	0.0	0.0	6.1	18.2	27.3	6.1	3.0	12.1	21.2	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	15	0.0	0.0	6.7	0.0	6.7	40.0	46.7	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
BBB	40	0.0	0.0	2.5	12.5	5.0	12.5	20.0	7.5	12.5	7.5	5.0	5.0	0.0	2.5	0.0	2.5	0.0	0.0	0.0	0.0	5.0	0.0
BBB-	68	0.0	0.0	0.0	0.0	2.9	23.5	14.7	14.7	13.2	2.9	8.8	5.9	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	11.8	0.0
BB+	46	0.0	0.0	0.0	0.0	6.5	6.5	13.0	10.9	4.4	10.9	10.9	19.6	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0
BB	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	8.7	21.7	15.2	15.2	4.4	8.7	4.4	2.2	2.2	0.0	0.0	0.0	8.7	0.0
BB-	38	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	13.2	13.2	2.6	21.1	0.0	0.0	2.6	10.5	0.0	0.0	0.0	0.0	34.2	0.0
B+	35	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	5.7	11.4	0.0	8.6	8.6	14.3	14.3	0.0	0.0	0.0	0.0	0.0	34.3	0.0
B	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	4.0	0.0	36.0	12.0	4.0	0.0	0.0	4.0	0.0	0.0	32.0	0.0
B-	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	20.0	20.0	6.7	13.3	0.0	20.0	0.0	0.0	0.0	0.0	13.3	0.0
CCC+	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	0.0	0.0	0.0	0.0	100.0	0.0
CCC	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	0.0	0.0	100.0	0.0
CCC-	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	0.0	0.0	100.0	0.0
CC	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	0.0	0.0	100.0	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 15

Sovereign Foreign-Currency Most Recent One-Year Transition Matrix*																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	19	84.2	15.8	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	0.0	0.0	0.0	0.0	0.0
AA+	2	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	0.0	0.0	0.0
AA	6	0.0	0.0	33.3	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	0.0	0.0
AA-	4	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	3	0.0	0.0	0.0	0.0	66.7	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

Table 15

Sovereign Foreign-Currency Most Recent One-Year Transition Matrix* (cont.)																					
A	12	0.0	0.0	0.0	16.7	8.3	50.0	0.0	8.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A-	6	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7
BBB+	4	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	66.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	70.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB+	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	0.0
BB	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	70.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB-	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	57.1	28.6	0.0	0.0	0.0	0.0	0.0	0.0
B+	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	23.5	58.8	11.8	5.9	0.0	0.0	0.0	0.0
B	10	0.0	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	70.0	10.0	0.0	0.0	0.0	0.0
B-	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	20.0	80.0	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
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
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
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

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 16

Sovereign Foreign-Currency Most Recent Three-Year Transition Matrix																					
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CC	SD	NR
AAA	19	78.95	10.53	0.00	5.26	0.00	0.00	0.00	5.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA+	3	33.33	0.00	66.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	4	0.00	0.00	25.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	6	0.00	0.00	33.33	33.33	0.00	16.67	0.00	0.00	0.00	16.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	6	0.00	0.00	0.00	16.67	33.33	16.67	0.00	16.67	16.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	11	0.00	0.00	0.00	18.18	9.09	45.45	9.09	0.00	9.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.09	0.00	0.00
A-	4	0.00	0.00	0.00	0.00	0.00	0.00	75.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB+	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	40.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	40.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB-	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.29	28.57	42.86	14.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB+	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.44	11.11	22.22	11.11	11.11	0.00	0.00	0.00	0.00	0.00	0.00
BB	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	20.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
BB-	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.22	33.33	22.22	22.22	0.00	0.00	0.00	0.00	0.00	0.00
B+	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.09	45.45	36.36	9.09	0.00	0.00	0.00	0.00
B	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.29	28.57	28.57	7.14	0.00	0.00	7.14	14.29
B-	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	50.00	25.00	0.00	0.00	0.00	0.00
CCC+	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00
CCC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CCC-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: No data points for 'CCC' and 'CCC-'. *Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 17

Sovereign Foreign-Currency Most Recent 10-Year Transition Matrix																					
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CC	SD	NR
AAA	14	78.57	14.29	0.00	0.00	0.00	0.00	0.00	7.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA+	7	57.14	0.00	28.57	14.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	5	0.00	0.00	0.00	60.00	0.00	20.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	2	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	6	0.00	0.00	16.67	16.67	0.00	16.67	16.67	0.00	16.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	0.00
A-	6	0.00	0.00	0.00	33.33	33.33	0.00	0.00	0.00	0.00	16.67	16.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB+	3	0.00	0.00	33.33	0.00	0.00	33.33	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	5	0.00	0.00	0.00	20.00	0.00	20.00	20.00	0.00	0.00	20.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB-	8	0.00	0.00	0.00	0.00	12.50	12.50	0.00	25.00	12.50	12.50	0.00	0.00	0.00	12.50	0.00	0.00	0.00	0.00	12.50	0.00
BB+	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33	0.00	0.00	33.33	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.29	0.00	57.14	0.00	28.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB-	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	16.67	0.00	0.00	0.00	0.00	0.00	0.00	33.33	0.00
B+	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	25.00
B	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.50	0.00	12.50	37.50	12.50	0.00	0.00	0.00	0.00	25.00
B-	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33	33.33	0.00	0.00	33.33	0.00	0.00	0.00	0.00
CCC+	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00
CCC	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
CCC-	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: No data points for 'CCC' and 'CCC-'. *Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 18

Sovereign Foreign-Currency First-To-Last Transition Rates With Rating Modifier (1975 - 2011*)																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	D	NR
AAA	20	70.0	15.0	5.0	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	0.0
AA+	2	0.0	0.0	50.0	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	0.0	0.0
AA	5	20.0	0.0	20.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	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-	2	0.0	0.0	0.0	0.0	0.0	50.0	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
A+	4	25.0	0.0	0.0	0.0	0.0	25.0	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
A	8	0.0	0.0	12.5	25.0	0.0	25.0	12.5	0.0	0.0	25.0	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-	8	0.0	0.0	0.0	0.0	0.0	0.0	37.5	12.5	25.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
BBB+	1	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	0.0	0.0	0.0
BBB	8	0.0	0.0	12.5	25.0	12.5	0.0	0.0	0.0	0.0	12.5	12.5	12.5	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0
BBB-	9	0.0	0.0	0.0	0.0	11.1	11.1	0.0	0.0	11.1	44.4	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0
BB+	6	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7	33.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0
BB	10	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0	10.0	10.0	0.0	40.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0
BB-	15	0.0	0.0	0.0	0.0	6.7	0.0	0.0	6.7	0.0	0.0	6.7	6.7	20.0	13.3	13.3	0.0	0.0	0.0	0.0	0.0	26.7	0.0
B+	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	10.0	40.0	25.0	5.0	0.0	0.0	0.0	0.0	10.0	0.0
B	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	6.3	25.0	18.8	6.3	0.0	0.0	0.0	0.0	12.5	18.8
B-	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	9.1	0.0	18.2	9.1	9.1	27.3	0.0	0.0	0.0	0.0	18.2	0.0

Table 18

Sovereign Foreign-Currency First-To-Last Transition Rates With Rating Modifier (1975 - 2011*) (cont.)																						
CCC+	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	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
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
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

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 19

Sovereign Local-Currency Average One-Year Transition Rates (1993 - 2011*)										
Rating as of Jan. 1	Number	—Rating one year later (%)—								
		AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	369	96.48	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	202	1.98	91.09	6.44	0.50	0.00	0.00	0.00	0.00	0.00
A	296	0.00	3.04	89.86	6.76	0.00	0.00	0.00	0.00	0.34
BBB	219	0.00	0.00	5.48	87.21	5.48	1.83	0.00	0.00	0.00
BB	220	0.00	0.00	0.00	5.00	84.55	7.27	1.82	1.36	0.00
B	223	0.00	0.00	0.00	0.00	8.97	85.20	2.24	1.79	1.79
CCC/CC	27	0.00	0.00	0.00	0.00	0.00	29.63	62.96	7.41	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 20

Sovereign Local-Currency Average Three-Year Transition Rates (1993 - 2011*)										
Rating as of Jan. 1	Number	—Rating three years later (%)—								
		AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	330	90.91	8.48	0.30	0.30	0.00	0.00	0.00	0.00	0.00
AA	175	6.29	74.29	16.00	3.43	0.00	0.00	0.00	0.00	0.00
A	250	0.00	8.00	76.80	13.60	0.80	0.40	0.40	0.00	0.00
BBB	179	0.00	0.00	14.53	67.04	13.41	3.91	0.00	1.12	0.00
BB	175	0.00	0.00	0.57	13.14	61.71	17.71	2.86	4.00	0.00
B	171	0.00	0.00	0.00	1.17	23.39	62.57	2.92	3.51	6.43
CCC/CC	23	0.00	0.00	0.00	0.00	4.35	39.13	43.48	13.04	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 21

Sovereign Local-Currency Average Five-Year Transition Rates (1993 - 2011*)										
Rating as of Jan. 1	Number	—Rating five years later (%)—								
		AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	290	86.55	12.76	0.34	0.34	0.00	0.00	0.00	0.00	0.00
AA	146	9.59	58.90	26.71	4.79	0.00	0.00	0.00	0.00	0.00
A	202	0.00	13.86	65.84	17.33	1.98	0.50	0.50	0.00	0.00
BBB	146	0.00	0.00	22.60	49.32	18.49	6.16	0.68	2.74	0.00
BB	133	0.00	0.00	1.50	21.05	48.12	21.80	2.26	5.26	0.00

Table 21

Sovereign Local-Currency Average Five-Year Transition Rates (1993 - 2011*) (cont.)										
B	121	0.00	0.00	0.83	4.96	35.54	44.63	4.13	4.13	5.79
CCC/CC	20	0.00	0.00	0.00	5.00	0.00	40.00	30.00	25.00	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 22

Sovereign Local-Currency Average 10-Year Transition Rates (1993 - 2011*)										
—Rating 10 years later (%)—										
Rating as of Jan. 1	Number	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	192	84.90	13.54	1.04	0.52	0.00	0.00	0.00	0.00	0.00
AA	88	7.95	47.73	34.09	10.23	0.00	0.00	0.00	0.00	0.00
A	76	1.32	18.42	46.05	23.68	9.21	0.00	1.32	0.00	0.00
BBB	93	0.00	2.15	29.03	34.41	19.35	8.60	0.00	6.45	0.00
BB	51	0.00	0.00	1.96	31.37	27.45	27.45	0.00	11.76	0.00
B	35	0.00	0.00	0.00	22.86	34.29	22.86	11.43	8.57	0.00
CCC/CC	2	0.00	0.00	0.00	50.00	0.00	0.00	0.00	50.00	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 23

Sovereign Local-Currency Average 15-Year Transition Rates (1993 - 2011*)										
—Rating 15 years later (%)—										
Rating as of Jan. 1	Number	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	99	75.76	17.17	5.05	2.02	0.00	0.00	0.00	0.00	0.00
AA	17	0.00	41.18	47.06	11.76	0.00	0.00	0.00	0.00	0.00
A	12	16.67	25.00	25.00	16.67	16.67	0.00	0.00	0.00	0.00
BBB	20	0.00	0.00	25.00	10.00	45.00	5.00	0.00	15.00	0.00
BB	3	0.00	0.00	33.33	33.33	0.00	0.00	0.00	33.33	0.00
B	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CCC/CC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 24

Sovereign Local-Currency Average One-Year Transition Rates With Rating Modifier (1993 - 2011*)																							
—Rating one year later (%)—																							
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	369	96.5	1.9	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	49	8.2	77.6	12.2	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	0.0	0.0
AA	85	0.0	3.5	80.0	11.8	0.0	2.4	1.2	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
AA-	68	0.0	0.0	7.4	77.9	14.7	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
A+	111	0.0	0.0	0.9	6.3	74.8	13.5	1.8	2.7	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
A	100	0.0	0.0	0.0	1.0	13.0	71.0	8.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 24

Sovereign Local-Currency Average One-Year Transition Rates With Rating Modifier (1993 - 2011*) (cont.)																						
A-	85	0.0	0.0	0.0	0.0	0.0	0.0	18.8	68.2	9.4	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
BBB+	100	0.0	0.0	0.0	0.0	0.0	0.0	1.0	11.0	70.0	12.0	2.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
BBB	54	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	68.5	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	6.2	70.8	9.2	4.6	1.5	3.1	0.0	0.0	0.0	0.0	0.0	0.0
BB+	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	11.2	73.0	10.1	3.4	0.0	0.0	0.0	0.0	0.0	1.1	0.0
BB	67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4	61.2	9.0	4.5	0.0	1.5	1.5	0.0	0.0	3.0
BB-	64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	10.9	64.1	12.5	6.3	0.0	0.0	3.1	0.0	1.6
B+	84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.6	16.7	60.7	13.1	4.8	0.0	0.0	0.0	0.0
B	91	0.0	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	15.4	70.3	3.3	1.1	2.2	0.0	4.4
B-	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	8.3	18.8	62.5	4.2	0.0	0.0	4.2
CCC+	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	5.3	15.8	79.0	0.0	0.0	0.0
CCC	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	42.9	0.0	14.3	0.0	28.6
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
CC	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	100.0	0.0	0.0	0.0	0.0	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 25

Sovereign Local-Currency Average Three-Year Transition Rates With Rating Modifier (1993 - 2011*)																							
—Rating three years later (%)—																							
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	330	90.9	4.2	3.3	0.9	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	0.0	0.0	0.0	
AA+	45	22.2	44.4	11.1	15.6	0.0	2.2	2.2	2.2	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	
AA	72	1.4	4.2	68.1	16.7	2.8	2.8	1.4	1.4	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	
AA-	58	0.0	1.7	15.5	41.4	22.4	8.6	5.2	3.5	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
A+	92	0.0	0.0	1.1	18.5	50.0	16.3	5.4	5.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	
A	83	0.0	0.0	0.0	2.4	24.1	47.0	10.8	7.2	6.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	
A-	75	0.0	0.0	0.0	0.0	12.0	34.7	30.7	12.0	4.0	5.3	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BBB+	83	0.0	0.0	0.0	0.0	3.6	4.8	19.3	41.0	12.1	8.4	6.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0	0.0	0.0	
BBB	45	0.0	0.0	0.0	0.0	0.0	0.0	2.2	26.7	46.7	13.3	8.9	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BBB-	51	0.0	0.0	0.0	0.0	0.0	2.0	2.0	7.8	7.8	43.1	17.7	3.9	5.9	2.0	3.9	0.0	0.0	0.0	0.0	3.9	0.0	
BB+	71	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.6	4.2	11.3	49.3	19.7	5.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.4	
BB	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.5	5.3	26.3	21.1	8.8	10.5	3.5	12.3	1.8	0.0	0.0	0.0	5.3	
BB-	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	6.4	14.9	27.7	14.9	12.8	4.3	4.3	2.1	0.0	2.1	6.4	
B+	63	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	1.6	6.4	20.6	38.1	23.8	3.2	0.0	0.0	0.0	0.0	3.2	
B	69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.4	15.9	17.4	34.8	4.4	0.0	1.5	0.0	0.0	5.8	
B-	39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	10.3	2.6	5.1	30.8	33.3	10.3	0.0	0.0	0.0	5.1	
CCC+	16	0.0	0.0	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	62.5	0.0	0.0	0.0	12.5	
CCC	6	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	0.0	50.0	16.7	0.0	0.0	0.0	0.0	16.7	
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	
CC	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	

Table 25

Sovereign Local-Currency Average Three-Year Transition Rates With Rating Modifier (1993 - 2011*) (cont.)

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 26

Sovereign Local-Currency Average Five-Year Transition Rates With Rating Modifier (1993 - 2011*)

—Rating five years later (%)—

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	290	86.6	6.6	4.5	1.7	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	0.0	0.0	0.0	0.0
AA+	42	26.2	31.0	7.1	16.7	2.4	7.1	2.4	4.8	2.4	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
AA	59	3.4	1.7	59.3	17.0	11.9	3.4	1.7	0.0	0.0	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
AA-	45	2.2	4.4	13.3	20.0	20.0	22.2	11.1	4.4	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	71	0.0	0.0	4.2	28.2	38.0	11.3	7.0	5.6	4.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
A	62	0.0	0.0	1.6	4.8	21.0	35.5	17.7	3.2	11.3	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
A-	69	0.0	0.0	0.0	1.5	18.8	36.2	13.0	11.6	4.4	10.1	2.9	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB+	71	0.0	0.0	0.0	0.0	9.9	15.5	16.9	21.1	7.0	7.0	14.1	0.0	0.0	1.4	2.8	4.2	0.0	0.0	0.0	0.0	0.0	0.0
BBB	35	0.0	0.0	0.0	0.0	0.0	0.0	5.7	28.6	40.0	8.6	14.3	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	40	0.0	0.0	0.0	0.0	2.5	0.0	0.0	5.0	17.5	27.5	15.0	5.0	7.5	5.0	2.5	0.0	0.0	2.5	0.0	0.0	10.0	0.0
BB+	55	0.0	0.0	0.0	0.0	0.0	0.0	3.6	10.9	1.8	14.6	43.6	14.6	3.6	0.0	0.0	3.6	1.8	0.0	0.0	0.0	1.8	0.0
BB	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	4.4	6.5	28.3	15.2	2.2	8.7	0.0	17.4	2.2	0.0	0.0	0.0	6.5	0.0
BB-	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	6.3	3.1	0.0	12.5	15.6	15.6	18.8	12.5	3.1	0.0	0.0	0.0	9.4	0.0
B+	42	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.4	0.0	7.1	14.3	19.1	26.2	21.4	4.8	0.0	0.0	0.0	0.0	0.0	2.4
B	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	4.2	0.0	10.4	25.0	12.5	18.8	2.1	0.0	2.1	0.0	0.0	8.3	12.5
B-	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	6.5	9.7	12.9	16.1	22.6	12.9	12.9	0.0	0.0	0.0	3.2	0.0
CCC+	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	7.7	15.4	46.2	0.0	0.0	0.0	30.8	0.0
CCC	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	16.7	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	0.0
CC	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 27

Sovereign Local-Currency Average 10-Year Transition Rates With Rating Modifier (1993 - 2011*)

—Rating 10-years later (%)—

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	192	84.9	5.7	3.1	4.7	1.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	31	12.9	12.9	16.1	12.9	12.9	19.4	0.0	6.5	3.2	3.2	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	34	5.9	0.0	50.0	14.7	17.7	5.9	2.9	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	23	4.4	0.0	8.7	21.7	21.7	17.4	8.7	4.4	4.4	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A+	24	4.2	8.3	8.3	33.3	4.2	8.3	8.3	4.2	8.3	4.2	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	18	0.0	0.0	0.0	0.0	22.2	38.9	11.1	5.6	11.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0
A-	34	0.0	0.0	2.9	2.9	8.8	26.5	14.7	14.7	0.0	14.7	11.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 27

Sovereign Local-Currency Average 10-Year Transition Rates With Rating Modifier (1993 - 2011*) (cont.)																							
BBB+	55	0.0	0.0	1.8	1.8	29.1	12.7	1.8	5.5	7.3	5.5	21.8	5.5	3.6	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BBB	14	0.0	0.0	0.0	0.0	0.0	14.3	0.0	21.4	21.4	28.6	0.0	0.0	0.0	7.1	7.1	0.0	0.0	0.0	0.0	0.0	0.0	
BBB-	24	0.0	0.0	0.0	0.0	4.2	0.0	0.0	8.3	29.2	12.5	0.0	4.2	0.0	0.0	8.3	8.3	0.0	0.0	0.0	0.0	25.0	0.0
BB+	23	0.0	0.0	0.0	0.0	0.0	0.0	4.4	21.7	8.7	4.4	34.8	4.4	4.4	0.0	4.4	8.7	0.0	0.0	0.0	0.0	4.4	0.0
BB	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	6.3	6.3	6.3	0.0	12.5	6.3	12.5	18.8	0.0	0.0	0.0	0.0	18.8	0.0
BB-	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	25.0	0.0	0.0	0.0	8.3	25.0	16.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0
B+	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	9.1	18.2	0.0	0.0	18.2	0.0	27.3	0.0	9.1	0.0	0.0	9.1	0.0
B	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	15.4	7.7	0.0	30.8	15.4	7.7	0.0	0.0	0.0	0.0	0.0	7.7	0.0
B-	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	9.1	27.3	18.2	0.0	0.0	0.0	0.0	27.3	0.0	0.0	0.0	9.1	0.0
CCC+	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	0.0	0.0	100.0	0.0
CCC	1	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	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	0.0
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	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 28

Sovereign Local-Currency First-To-Last Transition Rates With Rating Modifier (1993 - 2011*)																							
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	25	60.0	16.0	4.0	8.0	0.0	4.0	0.0	4.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	5	0.0	0.0	0.0	20.0	0.0	40.0	0.0	0.0	20.0	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
AA	7	0.0	0.0	42.9	28.6	14.3	0.0	14.3	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-	4	0.0	0.0	0.0	25.0	0.0	25.0	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	0.0	0.0	0.0
A+	7	14.3	0.0	14.3	14.3	0.0	0.0	14.3	28.6	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	4	0.0	0.0	0.0	0.0	25.0	25.0	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
A-	11	0.0	0.0	0.0	9.1	0.0	9.1	18.2	0.0	9.1	9.1	18.2	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	9.1	0.0	9.1
BBB+	7	0.0	0.0	14.3	14.3	0.0	28.6	0.0	0.0	14.3	14.3	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB	4	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	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
BBB-	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	16.7	16.7	16.7	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0
BB+	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	11.1	0.0
BB	9	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	11.1	11.1	22.2	22.2	11.1	0.0	0.0	0.0	0.0	11.1	0.0
BB-	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	60.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
B+	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	5.9	11.8	35.3	29.4	0.0	0.0	0.0	0.0	0.0	5.9	5.9
B	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	15.4	15.4	15.4	7.7	0.0	0.0	0.0	0.0	15.4	23.1
B-	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	28.6	14.3	14.3	14.3	0.0	0.0	0.0	28.6	0.0
CCC+	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0
CCC	2	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	50.0	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	0.0
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	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 29

Sovereign Local-Currency Most Recent One-Year Transition Matrix																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	20	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	1	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	0.0	0.0	0.0
AA	7	0.0	0.0	42.9	57.1	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-	5	0.0	0.0	20.0	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	0.0	0.0
A+	7	0.0	0.0	14.3	0.0	28.6	57.1	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
A	11	0.0	0.0	0.0	9.1	0.0	45.5	18.2	9.1	18.2	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
A-	5	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
BBB+	8	0.0	0.0	0.0	0.0	0.0	0.0	12.5	62.5	25.0	0.0	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	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	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
BBB-	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.6	22.2	11.1	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB+	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	55.6	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0
BB	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	40.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0
BB-	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	50.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B+	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	25.0	58.3	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	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	0.0	18.2	72.7	9.1	0.0	0.0	0.0	0.0	0.0	0.0
B-	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
CCC+	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	100.0	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	0.0
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	0.0
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	0.0

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 30

Sovereign Local-Currency Most Recent Three-Year Transition Matrix																							
Rating	Issuers	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	20	75.0	15.0	0.0	5.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	2	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	5	0.0	0.0	40.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	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-	7	0.0	0.0	28.6	42.9	0.0	14.3	0.0	0.0	0.0	14.3	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+	12	0.0	0.0	8.3	8.3	16.7	33.3	16.7	8.3	8.3	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	9	0.0	0.0	0.0	11.1	0.0	44.4	11.1	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0
A-	3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	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
BBB+	7	0.0	0.0	0.0	0.0	0.0	0.0	14.3	42.9	14.3	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
BBB	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	40.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBB-	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	16.7	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB+	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	44.4	11.1	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	50.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
BB-	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	14.3	42.9	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B+	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	45.5	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	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	16.7	16.7	25.0	8.3	0.0	0.0	0.0	0.0	8.3
B-	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	25.0	50.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
CCC+	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	50.0	50.0	0.0	0.0	0.0	0.0	0.0

Table 30

Sovereign Local-Currency Most Recent Three-Year Transition Matrix (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	0.0	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
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

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 31

Sovereign Local-Currency Most Recent 10-Year Transition Matrix																							
Rating	#	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	18	77.8	16.7	0.0	0.0	0.0	0.0	0.0	5.6	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	
AA+	4	25.0	0.0	25.0	25.0	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	0.0	0.0	
AA	7	0.0	0.0	14.3	57.1	0.0	14.3	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
AA-	6	16.7	0.0	16.7	16.7	0.0	16.7	0.0	0.0	16.7	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+	5	0.0	0.0	20.0	0.0	20.0	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	0.0	0.0	0.0	
A	3	0.0	0.0	0.0	0.0	0.0	33.3	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	33.3	0.0	
A-	6	0.0	0.0	16.7	16.7	16.7	16.7	16.7	0.0	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	
BBB+	8	0.0	0.0	0.0	0.0	0.0	25.0	12.5	0.0	12.5	12.5	25.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BBB	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	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-	2	0.0	0.0	0.0	0.0	0.0	0.0	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	
BB+	6	0.0	0.0	0.0	0.0	0.0	0.0	16.7	33.3	0.0	0.0	33.3	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
BB	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	0.0	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	
BB-	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	50.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	
B+	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	
B	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	50.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	
B-	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	
CCC+	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	0.0	0.0	100.0	
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	
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	
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	

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 32

Sovereign Foreign-Currency Cumulative Average Default Rate Without Rating Modifiers (1975 - 2011)*																
Rating	—Time horizon, 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	
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	
BBB	0.0	0.4	1.3	2.3	3.4	4.6	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	
BB	0.6	2.0	3.1	3.9	5.3	6.8	8.5	10.4	11.1	11.1	11.1	12.2	13.5	15.2	15.2	
B	1.7	4.4	6.1	8.5	10.7	12.7	15.1	18.9	21.3	24.1	27.8	27.8	27.8	27.8	35.9	
CCC/CC	36.4	45.5	56.4	62.6	68.8	75.1	83.4	83.4	83.4	N/A	N/A	N/A	N/A	N/A	N/A	
Investment grade	0.0	0.1	0.3	0.4	0.6	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Speculative grade	2.4	4.6	6.3	8.1	10.0	11.9	14.1	16.7	18.0	19.0	20.2	20.9	21.8	23.1	24.8	

Table 32

Sovereign Foreign-Currency Cumulative Average Default Rate Without Rating Modifiers (1975 - 2011)* (cont.)																
All rated	0.8	1.6	2.2	2.8	3.5	4.2	4.9	5.5	5.8	6.0	6.3	6.4	6.5	6.7	6.9	

N/A—Not available, there are no observations for this horizon. *Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 33

Foreign-Currency 'BBB' Static Pools And Default Rates																
Transition to default rates (%)		—Time horizon, years*—														
Date	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
01/01/1989	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
01/01/1990	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
01/01/1991	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
01/01/1992	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
01/01/1993	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
01/01/1994	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
01/01/1995	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
01/01/1996	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
01/01/1997	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
01/01/1998	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	6.3
01/01/1999	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	6.3	
01/01/2000	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		
01/01/2001	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			
01/01/2002	16	0.0	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3					
01/01/2003	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
01/01/2004	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							
01/01/2005	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
01/01/2006	13	0.0	0.0	0.0	0.0	0.0	0.0									
01/01/2007	13	0.0	0.0	0.0	0.0	0.0										
01/01/2008	14	0.0	0.0	0.0	0.0											
01/01/2009	17	0.0	0.0	0.0												
01/01/2010	19	0.0	0.0													
01/01/2011	20	0.0														
Marginal default rate¶		0.0	0.5	1.0	1.1	1.2	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cumulative default rate§		0.0	0.4	1.3	2.3	3.4	4.6	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2

*First year in the cohort beginning Jan. 1. ¶From the Rating Category row in Table 51. §From the Rating Category row in Table 32. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 34

Foreign-Currency 'BB' Static Pools And Default Rates																
Transition to default rates (%)		—Time horizon, years*—														
Date	Issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
01/01/1984	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
01/01/1985	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

Table 34

Foreign-Currency 'BB' Static Pools And Default Rates (cont.)																
01/01/1986	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
01/01/1987	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
01/01/1988	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
01/01/1989	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
01/01/1990	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	N/A
01/01/1991	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	N/A
01/01/1992	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
01/01/1993	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
01/01/1994	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
01/01/1995	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
01/01/1996	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
01/01/1997	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
01/01/1998	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
01/01/1999	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
01/01/2000	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
01/01/2001	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	14.3
01/01/2002	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	12.5
01/01/2003	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	11.8
01/01/2004	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	5.9
01/01/2005	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	0.0
01/01/2006	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	0.0
01/01/2007	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	0.0
01/01/2008	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	0.0
01/01/2009	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	0.0
01/01/2010	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	0.0
01/01/2011	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
Marginal default rate¶		0.6	1.4	1.1	0.8	1.4	1.6	1.8	2.1	0.8	0.0	0.0	1.2	1.5	2.0	0.0
Cummulative default rate§		0.6	2.0	3.1	3.9	5.3	6.8	8.5	10.4	11.1	11.1	11.1	12.2	13.5	15.2	15.2

*First year in the cohort beginning Jan. 1. ¶From the Rating Category row in Table 51. §From the Rating Category row in Table 32. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 35

Foreign-Currency 'B' Static Pools And Default Rates																
Date	Issuers	—Time horizon, years*—														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
01/01/1990	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
01/01/1991	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	100.0
01/01/1992	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	N/A
01/01/1993	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	N/A
01/01/1994	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	N/A
01/01/1995	4	0.0	0.0	0.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	50.0	50.0	50.0	50.0
01/01/1996	5	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0

Table 35

Foreign-Currency 'B' Static Pools And Default Rates (cont.)																
01/01/1997	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
01/01/1998	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
01/01/1999	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
01/01/2000	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			
01/01/2001	19	0.0	5.3	10.5	10.5	21.1	21.1	21.1	26.3	26.3	31.6	31.6				
01/01/2002	15	0.0	6.7	6.7	13.3	13.3	13.3	13.3	13.3	20.0	20.0					
01/01/2003	16	12.5	12.5	12.5	18.8	18.8	18.8	18.8	25.0	25.0						
01/01/2004	19	0.0	5.3	10.5	10.5	10.5	10.5	15.8	15.8							
01/01/2005	21	4.8	9.5	9.5	9.5	9.5	14.3	14.3								
01/01/2006	23	0.0	0.0	0.0	0.0	4.4	4.4									
01/01/2007	25	0.0	4.0	4.0	8.0	8.0										
01/01/2008	29	6.9	6.9	10.3	10.3											
01/01/2009	29	0.0	3.5	3.5												
01/01/2010	27	0.0	0.0													
01/01/2011	32	0.0														
Marginal default rate¶		1.7	2.7	1.8	2.6	2.5	2.2	2.7	4.5	2.9	3.6	4.9	0.0	0.0	0.0	11.1
Cumulative default rates§		1.7	4.4	6.1	8.5	10.7	12.7	15.1	18.9	21.3	24.1	27.8	27.8	27.8	27.8	35.9

*First year in the cohort beginning Jan. 1. ¶From the Rating Category row in Table 51. §From the Rating Category row in Table 32. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 36

Foreign-Currency 'CCC'/'CC' Static Pools And Default Rates														
Date	Transition to default rates (%)	Issuers	—Time horizon, years*—											
			1	2	3	4	5	6	7	8	9	10	11	12
01/01/1999		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
01/01/2000		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
01/01/2001		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
01/01/2002		2	50.0	50.0	50.0	50.0	50.0	50.0	100.0	100.0	100.0	100.0		
01/01/2003		3	0.0	0.0	33.3	33.3	33.3	66.7	66.7	66.7	66.7			
01/01/2004		2	0.0	50.0	50.0	50.0	100.0	100.0	100.0	100.0				
01/01/2005		3	33.3	33.3	33.3	66.7	66.7	66.7	66.7					
01/01/2006		3	33.3	33.3	66.7	66.7	66.7	66.7						
01/01/2007		1	0.0	100.0	100.0	100.0	100.0							
01/01/2008		N/A	N/A	N/A	N/A	N/A								
01/01/2009		1	0.0	0.0	0.0									
01/01/2010		3	33.3	33.3										
01/01/2011		N/A	N/A											
Marginal default rate¶			30.0	14.3	20.0	14.3	16.7	20.0	33.3	0.0	0.0	0.0	0.0	0.0
Cumulative default rates§			36.4	45.5	56.4	62.6	68.8	75.1	83.4	83.4	83.4	N/A	N/A	N/A

*First year in the cohort beginning Jan. 1. ¶From the Rating Category row in Table 51. §From the Rating Category row in Table 32. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 37

Sovereign Foreign-Currency Cumulative Average Default Rate With Rating Modifiers (1975 - 2011*)										
(%)	—Time horizon, years—									
Rating	1	2	3	4	5	6	7	8	9	10
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	0.00	0.00	1.41	2.93	2.93	2.93	2.93	2.93	2.93	2.93
BBB-	0.00	0.98	2.03	3.17	5.56	8.02	9.29	9.29	9.29	9.29
BB+	0.00	1.09	1.09	1.09	1.09	1.09	2.85	4.76	6.83	6.83
BB	0.00	0.93	1.95	3.01	3.01	4.27	4.27	4.27	4.27	4.27
BB-	1.98	4.11	6.45	7.77	12.30	15.81	20.02	24.87	24.87	24.87
B+	0.00	0.92	2.96	5.27	8.06	9.70	13.54	20.37	23.11	26.32
B	1.80	4.78	7.02	11.00	14.07	17.65	19.82	19.82	23.16	27.43
B-	5.08	10.67	10.67	10.67	10.67	10.67	10.67	14.92	14.92	14.92
CCC+	15.38	23.08	42.31	53.85	65.38	76.92	88.46	88.46	88.46	N/A
CCC	40.00	60.00	60.00	60.00	60.00	60.00	60.00	N/A	N/A	N/A
CCC-	100.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CC	100.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Investment grade	0.00	0.08	0.25	0.44	0.63	0.84	0.95	0.95	0.95	0.95
Speculative grade	2.37	4.62	6.34	8.05	9.98	11.90	14.11	16.68	17.96	18.96
All rated	0.77	1.55	2.20	2.84	3.53	4.21	4.87	5.50	5.79	6.01

N/A—Not available; there are no observations for this horizon. *Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 38

Sovereign Local-Currency Cumulative Average Default Rate Without Rating Modifiers (1993 - 2011*)										
(%)	—Time horizon, years—									
Rating	1	2	3	4	5	6	7	8	9	10
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	0.00	0.50	1.06	1.68	2.37	3.12	3.94	3.94	3.94	3.94
BB	1.36	2.90	3.47	3.47	3.47	3.47	3.47	4.76	6.29	6.29
B	1.79	2.31	2.89	3.59	4.42	5.40	6.61	8.20	8.20	10.98
CCC/CC	7.41	11.27	15.49	20.19	25.17	30.93	38.60	38.60	38.60	38.60
Investment grade	0.00	0.10	0.21	0.32	0.45	0.59	0.75	0.75	0.75	0.75
Speculative grade	1.91	3.11	3.93	4.56	5.30	6.17	7.24	8.58	9.42	10.57
All rated	0.58	1.00	1.31	1.56	1.84	2.16	2.52	2.80	2.96	3.14

Table 38

Sovereign Local-Currency Cumulative Average Default Rate Without Rating Modifiers (1993 - 2011*) (cont.)

*Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 39

Sovereign Local-Currency Cumulative Average Default Rate With Rating Modifiers (1993 - 2011*)

Rating	—Time horizon, years—									
	1	2	3	4	5	6	7	8	9	10
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB-	0.00	1.79	3.75	5.99	8.53	11.39	14.55	14.55	14.55	14.55
BB+	0.00	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
BB	2.99	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60
BB-	1.56	3.42	5.57	5.57	5.57	5.57	5.57	10.54	16.13	16.13
B+	0.00	0.00	0.00	0.00	0.00	0.00	3.70	3.70	3.70	12.46
B	2.20	3.45	4.91	6.68	8.75	11.15	11.15	11.15	11.15	11.15
B-	4.17	4.17	4.17	4.17	4.17	4.17	4.17	9.21	9.21	9.21
CCC+	0.00	5.56	11.85	19.20	27.28	37.67	53.25	53.25	53.25	N/A
CCC	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57
CCC-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A
Investment grade	0.00	0.10	0.21	0.32	0.45	0.59	0.75	0.75	0.75	0.75
Speculative grade	1.91	3.11	3.93	4.56	5.30	6.17	7.24	8.58	9.42	10.57
All rated	0.58	1.00	1.31	1.56	1.84	2.16	2.52	2.80	2.96	3.14

N/A—Not available; there are no observations for this horizon. *Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 40

Local-Currency 'BBB' Static Pools And Default Rates

Date	Issuers	—Time horizon, years*—									
		1	2	3	4	5	6	7	8	9	10
01/01/1995	2	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	50.00	50.00
01/01/1996	7	0.00	0.00	0.00	0.00	0.00	14.29	14.29	14.29	14.29	14.29
01/01/1997	11	0.00	0.00	0.00	0.00	9.09	9.09	9.09	9.09	9.09	9.09
01/01/1998	14	0.00	0.00	0.00	7.14	7.14	7.14	7.14	7.14	7.14	7.14
01/01/1999	16	0.00	0.00	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
01/01/2000	17	0.00	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88

Table 40

Local-Currency 'BBB' Static Pools And Default Rates (cont.)											
01/01/2001	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2002	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2003	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
01/01/2004	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
01/01/2005	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
01/01/2006	11	0.00	0.00	0.00	0.00	0.00	0.00				
01/01/2007	12	0.00	0.00	0.00	0.00	0.00					
01/01/2008	15	0.00	0.00	0.00	0.00						
01/01/2009	18	0.00	0.00	0.00							
01/01/2010	20	0.00	0.00								
01/01/2011	20	0.00									
Marginal default rate¶		0.00	0.50	0.56	0.63	0.70	0.77	0.85	0.00	0.00	0.00
Cummulative default rate§		0.00	0.50	1.06	1.68	2.37	3.12	3.94	3.94	3.94	3.94

*First year in the cohort beginning Jan 1. ¶From the Rating Category row in Table 52. §From the Rating Category row in Table 38. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 41

Local-Currency 'BB' Static Pools And Default Rates											
Transition to default rates (%)		—Time horizon, years*—									
Date	Issuers	1	2	3	4	5	6	7	8	9	10
01/01/1997	3	0.00	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33	33.33
01/01/1998	7	14.29	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57
01/01/1999	7	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29
01/01/2000	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2001	12	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33	8.33
01/01/2002	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.14	7.14
01/01/2003	18	0.00	0.00	5.56	5.56	5.56	5.56	5.56	11.11	11.11	
01/01/2004	13	0.00	7.69	7.69	7.69	7.69	7.69	7.69	7.69		
01/01/2005	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
01/01/2006	17	0.00	0.00	0.00	0.00	0.00	0.00				
01/01/2007	20	0.00	0.00	0.00	0.00	0.00					
01/01/2008	22	0.00	0.00	0.00	0.00						
01/01/2009	20	0.00	0.00	0.00							
01/01/2010	21	0.00	0.00								
01/01/2011	24	0.00									
Marginal default rate¶		1.36	1.55	0.59	0.00	0.00	0.00	0.00	1.33	1.61	0.00
Cummulative default rate§		1.36	2.90	3.47	3.47	3.47	3.47	3.47	4.76	6.29	6.29

*First year in the cohort beginning Jan 1. ¶From the Rating Category row in Table 52. §From the Rating Category row in Table 38. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 42

Local-Currency 'B' Static Pools And Default Rates											
Transition to default rates (%)		—Time horizon, years*—									
Date	Issuers	1	2	3	4	5	6	7	8	9	10
01/01/1999	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2000	9	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
01/01/2001	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.09	9.09	18.18
01/01/2002	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2003	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2004	16	6.25	6.25	6.25	6.25	6.25	6.25	12.50	12.50		
01/01/2005	19	0.00	0.00	0.00	0.00	0.00	5.26	5.26			
01/01/2006	20	5.00	5.00	5.00	5.00	10.00	10.00				
01/01/2007	20	0.00	0.00	0.00	5.00	5.00					
01/01/2008	23	4.35	4.35	8.70	8.70						
01/01/2009	27	0.00	3.70	3.70							
01/01/2010	25	0.00	0.00								
01/01/2011	27	0.00									
Marginal default rate¶		1.79	0.52	0.60	0.72	0.85	1.03	1.28	1.69	0.00	3.03
Cummulative default rate§		1.79	2.31	2.89	3.59	4.42	5.40	6.61	8.20	8.20	10.98

*First year in the cohort beginning Jan 1. ¶From the Rating Category row in Table 52. §From the Rating Category row in Table 38. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 43

Local Currency 'CCC'/'CC' Static Pools And Default Rates											
Transition to default rates (%)		—Time horizon, years*—									
Date	Issuers	1	2	3	4	5	6	7	8	9	10
01/01/2000	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01/01/2001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
01/01/2002	1	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	100.00	100.00
01/01/2003	2	0.00	0.00	0.00	0.00	0.00	50.00	50.00	50.00	50.00	
01/01/2004	4	0.00	0.00	0.00	0.00	25.00	25.00	25.00	25.00		
01/01/2005	5	20.00	20.00	20.00	40.00	40.00	40.00	40.00			
01/01/2006	4	0.00	0.00	25.00	25.00	25.00	25.00				
01/01/2007	3	0.00	33.33	33.33	33.33	33.33					
01/01/2008	1	0.00	0.00	0.00	0.00						
01/01/2009	2	0.00	0.00	0.00							
01/01/2010	3	33.33	33.33								
01/01/2011	1	0.00									
Marginal default rate¶		7.41	4.17	4.76	5.56	6.25	7.69	11.11	0.00	0.00	0.00
Cummulative default rate§		7.41	11.27	15.49	20.19	25.17	30.93	38.60	38.60	38.60	38.60

*First year in the cohort beginning Jan 1. ¶From the Rating Category row in Table 52. §From the Rating Category row in Table 38. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 44

Basel II Cumulative Default Rate Benchmark Comparison With Sovereign Foreign-Currency Default Rates														
—Sovereign local currency—											—Basel II benchmarks—			
—Three-year CDRs*—											10-year average of three-year CDRs	—Three-year CDR—		10-year average of three-year CDRs
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2002-2011	Monitoring level	Trigger level	Long run reference
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.20	0.01
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.20	0.01
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.30	0.03
BBB	0.00	6.25	6.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	2.40	3.00	1.00
BB	6.67	7.14	0.00	11.76	5.88	0.00	0.00	0.00	0.00	0.00	3.15	11.00	12.40	7.50
B	0.00	10.53	6.67	12.50	10.53	9.52	0.00	4.00	10.34	3.45	6.75	28.6	35.00	20.00

*Last year in the static pool. Calculated using 10 three-year cohorts beginning January 2000 - December 2002 and ending January 2009 - December 2011. CDR—Cumulative default rate. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 45

Basel II Cumulative Default Rate Benchmark Comparison With Sovereign Local-Currency Default Rates														
—Sovereign local currency—											—Basel II benchmarks—			
—Three-year CDRs*—											10-year average of three-year CDRs	—Three-year CDR—		10-year average of three-year CDRs
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2002-2011	Monitoring level	Trigger level	Long run reference
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.20	0.01
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.20	0.01
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.30	0.03
BBB	5.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	2.40	3.00	1.00
BB	0.00	8.33	0.00	5.56	7.69	0.00	0.00	0.00	0.00	0.00	2.16	11.00	12.40	7.50
B	11.11	0.00	0.00	0.00	6.25	0.00	5.00	0.00	8.70	3.70	3.48	28.6	35.00	20.00

*Last year in the static pool. Calculated using 10 three-year cohorts beginning January 2000 - December 2002 and ending January 2009 - December 2011. CDR—Cumulative default rate. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 46

Sovereign Versus Private-Sector Ratings Default Rates With Rating Modifiers (1975 - 2011*)																
(%)	—One year—			—Three years—			—Five years—			—10 years—			—15 years—			
	Sov. FC	Sov. LC	Private sector	Sov. FC	Sov. LC	Private sector	Sov. FC	Sov. LC	Private sector	Sov. FC	Sov. LC	Private sector	Sov. FC	Sov. LC	Private sector	
AAA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.8	0.0	0.0	1.1	
AA+	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.5	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	0.0	0.9	0.0	0.0	1.3	
AA-	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.9	0.0	0.0	1.2	
A+	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.6	0.0	0.0	1.4	0.0	0.0	2.6	
A	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.6	0.0	0.0	1.8	0.0	0.0	2.7	
A-	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.0	0.8	0.0	0.0	2.0	0.0	0.0	2.7	

Table 46

Sovereign Versus Private-Sector Ratings Default Rates With Rating Modifiers (1975 - 2011*) (cont.)															
BBB+	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0	1.4	0.0	0.0	3.2	0.0	0.0	5.1
BBB	0.0	0.0	0.2	1.4	0.0	0.9	2.9	0.0	1.8	2.9	0.0	4.2	2.9	0.0	6.1
BBB-	0.0	0.0	0.4	2.0	3.8	2.0	5.6	8.5	4.0	9.3	14.6	7.9	9.3	14.6	11.4
BB+	0.0	0.0	0.5	1.1	1.3	2.6	1.1	1.3	5.0	6.8	1.3	9.9	6.8	1.3	13.1
BB	0.0	3.0	0.8	2.0	4.6	4.5	3.0	4.6	8.3	4.3	4.6	14.7	16.0	4.6	17.6
BB-	2.0	1.6	1.2	6.5	5.6	6.3	12.3	5.6	11.0	24.9	16.1	19.7	24.9	N/A	24.2
B+	0.0	0.0	2.5	3.0	0.0	10.9	8.1	0.0	17.2	26.3	12.5	26.1	40.0	N/A	31.0
B	1.8	2.2	5.5	7.0	4.9	16.8	14.1	8.8	22.9	27.4	11.2	29.6	34.0	N/A	33.5
B-	5.1	4.2	8.7	10.7	4.2	21.9	10.7	4.2	28.8	14.9	9.2	34.6	N/A	N/A	36.8
CCC/C	36.4	7.4	26.8	56.4	15.5	41.2	68.8	25.2	46.7	N/A	38.6	51.7	N/A	N/A	55.1
Investment grade	0.0	0.0	0.1	0.3	0.2	0.6	0.6	0.5	1.2	1.0	0.8	2.6	1.0	0.8	3.7
Speculative grade	2.4	1.9	4.2	6.3	3.9	11.7	10.0	5.3	16.8	19.0	10.6	24.1	24.8	12.2	28.0
All rated	0.8	0.6	1.6	2.2	1.3	4.5	3.5	1.8	6.6	6.0	3.1	9.8	6.9	3.4	11.7

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sovereign ratings for 1975-2011; corporate ratings for 1981-2011. FC—Foreign currency. LC—Local currency. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 47

Sovereign Foreign-Currency Lorenz Curve Data Points	—One year—		—Three years—		—Five years—		—10 years—	
	Cumulative share of issuers	Cumulative share of defaulters	Cumulative share of issuers	Cumulative share of defaulters	Cumulative share of issuers	Cumulative share of defaulters	Cumulative share of issuers	Cumulative share of defaulters
(%)								
AAA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AA+	75.8	100.0	74.3	100.0	72.7	100.0	67.2	100.0
AA	69.8	100.0	67.9	100.0	65.5	100.0	57.6	100.0
AA-	64.5	100.0	62.4	100.0	59.8	100.0	50.4	100.0
A+	61.4	100.0	59.3	100.0	56.9	100.0	47.9	100.0
A	57.8	100.0	55.8	100.0	53.5	100.0	45.0	100.0
A-	51.0	100.0	49.2	100.0	47.4	100.0	39.5	100.0
BBB+	46.0	100.0	44.1	100.0	42.0	100.0	36.0	100.0
BBB	42.8	100.0	41.0	100.0	39.3	100.0	34.3	100.0
BBB-	38.5	100.0	36.8	97.4	34.9	96.4	30.0	96.6
BB+	32.7	100.0	31.2	92.3	29.1	87.3	22.7	83.1
BB	27.6	100.0	26.1	89.7	24.4	85.5	17.8	76.3
BB-	21.6	100.0	20.3	84.6	18.3	80.0	12.8	69.5
B+	16.4	86.7	15.2	69.2	13.6	61.8	8.7	47.5
B	9.9	86.7	9.4	61.5	8.6	49.1	5.0	27.1
B-	4.2	73.3	4.0	43.6	4.1	32.7	2.3	13.6
CCC/CC	1.1	53.3	1.1	28.2	1.2	23.6	0.6	10.2

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter.

Table 48

Sovereign Local-Currency Lorenz Curve Data Points								
(%)	—One year—		—Three years—		—Five years—		—10 years—	
	Cumulative share of issuers	Cumulative share of defaulters	Cumulative share of issuers	Cumulative share of defaulters	Cumulative share of issuers	Cumulative share of defaulters	Cumulative share of issuers	Cumulative share of defaulters
AAA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AA+	76.3	100.0	74.7	100.0	72.6	100.0	64.2	100.0
AA	73.1	100.0	71.2	100.0	68.6	100.0	58.5	100.0
AA-	67.7	100.0	65.7	100.0	63.0	100.0	52.1	100.0
A+	63.3	100.0	61.2	100.0	58.8	100.0	47.9	100.0
A	56.2	100.0	54.2	100.0	52.1	100.0	43.4	100.0
A-	49.7	100.0	47.8	100.0	46.2	100.0	40.0	100.0
BBB+	44.3	100.0	42.1	100.0	39.7	100.0	33.7	100.0
BBB	37.9	100.0	35.7	100.0	33.0	100.0	23.5	100.0
BBB-	34.4	100.0	32.2	100.0	29.7	100.0	20.9	100.0
BB+	30.2	100.0	28.3	88.9	25.9	81.0	16.4	62.5
BB	24.5	100.0	22.9	83.3	20.7	76.2	12.1	56.3
BB-	20.2	77.8	18.5	66.7	16.4	61.9	9.1	37.5
B+	16.1	66.7	14.9	50.0	13.3	47.6	6.9	25.0
B	10.7	66.7	10.1	50.0	9.4	47.6	4.8	18.8
B-	4.8	44.4	4.8	27.8	4.8	28.6	2.4	12.5
CCC/CC	1.7	22.2	1.8	16.7	1.9	23.8	0.4	6.3

*Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Source: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly.

Table 49

Sovereign Foreign-Currency Average Monthly Default Rates (Annualized) With Rating Modifiers (1975 - 2011*)																								
Rating	—Time horizon, months—																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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	0.1	0.2	0.3	0.4	0.6	0.7	0.8
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	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9
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	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0
BB-	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.5	0.7	1.0	1.3	1.7	1.8	2.0	2.2	2.3	2.5	2.7	2.9	3.1	3.3	3.6	3.9	4.1
B+	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.3	1.5	1.6	1.7	1.8	1.9	2.0
B	0.1	0.3	0.4	0.7	0.9	1.2	1.4	1.6	1.8	2.1	2.3	2.5	2.8	3.2	3.4	3.6	3.9	4.1	4.4	4.6	4.9	5.1	5.4	5.6
B-	0.3	0.8	1.2	1.7	1.9	2.5	3.1	3.5	4.0	4.4	4.8	5.4	5.9	6.2	6.6	7.1	7.4	7.7	7.7	7.7	7.9	8.1	8.2	8.4
CCC+	1.3	2.5	4.4	6.3	8.2	10.1	12.0	13.9	15.8	17.7	19.0	19.6	20.3	20.3	20.3	20.3	20.3	20.3	20.9	21.5	22.2	22.8	23.5	24.8
CCC	4.3	10.9	15.2	19.6	26.1	28.3	28.3	28.3	28.3	28.3	28.3	28.3	30.5	35.0	37.2	39.5	41.7	44.0	48.4	52.9	55.2	57.4	59.6	59.6
CCC-	9.5	19.0	28.6	33.3	38.1	42.9	47.6	52.4	57.1	61.9	66.7	71.4	76.2	81.0	85.7	90.5	95.2	100.0	N/A	N/A	N/A	N/A	N/A	N/A
CC	20.0	28.4	37.4	47.0	52.3	58.3	65.2	72.2	79.1	86.1	93.0	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
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	0.1	0.1	0.1
Speculative grade	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0	4.2	4.3	4.5

Table 49

Sovereign Foreign-Currency Average Monthly Default Rates (Annualized) With Rating Modifiers (1975 - 2011*) (cont.)																								
All rated	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	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.5	1.5

N/A—Not available; there are no observations for this horizon. *Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 50

Sovereign Local-Currency Average Monthly Default Rates (Annualized) With Rating Modifiers (1993 - 2011)*																								
(%)	—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	23	24
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	0.1	0.3	0.4	0.6	0.7	0.9	1.1	1.2	1.4	1.5	1.7	1.9
BB+	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	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.4
BB	0.1	0.2	0.4	0.5	0.6	0.8	0.9	1.0	1.3	1.5	1.8	2.0	2.2	2.3	2.4	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
BB-	0.0	0.0	0.0	0.1	0.4	0.6	0.9	1.2	1.4	1.6	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	3.0	3.2	3.3	3.5	3.7
B+	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
B	0.2	0.3	0.4	0.5	0.7	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6
B-	0.2	0.8	1.5	2.0	2.3	2.8	3.3	3.9	4.4	4.9	5.2	5.6	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
CCC+	0.0	0.0	0.7	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.0
CCC	4.8	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8.1	9.7	11.4	13.0	14.7	16.3	17.9	19.6	21.2	22.9	22.9
CCC-	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CC	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	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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	0.1	0.1	0.1
Speculative grade	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.3	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.7	2.8
All rated	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9

N/A—Not available; there are no observations for this horizon. *Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 51

Sovereign Foreign-Currency Marginal Default Rate Without Rating Modifiers (1975 - 2011*)															
(%)	—Time horizon, years—														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	0.00	0.42	0.92	1.01	1.10	1.20	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	0.63	1.37	1.14	0.84	1.41	1.60	1.81	2.08	0.80	0.00	0.00	1.20	1.47	1.96	0.00
B	1.69	2.70	1.78	2.59	2.47	2.22	2.73	4.49	2.90	3.64	4.88	0.00	0.00	0.00	11.11
CCC/CC	36.36	14.29	20.00	14.29	16.67	20.00	33.33	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Investment grade	0.00	0.08	0.17	0.18	0.20	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speculative grade	2.37	2.30	1.80	1.83	2.10	2.13	2.51	2.99	1.54	1.22	1.47	0.92	1.19	1.61	2.22
All rated	0.77	0.78	0.66	0.65	0.71	0.70	0.68	0.66	0.31	0.23	0.25	0.14	0.16	0.18	0.20

N/A—Not available; there are no observations for this horizon. *Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

Table 52

Sovereign Local-Currency Marginal Default Rate Without Rating Modifiers (1993 - 2011*)										
(%)	—Time horizon, years—									
Rating	1	2	3	4	5	6	7	8	9	10
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BBB	0.00	0.50	0.56	0.63	0.70	0.77	0.85	0.00	0.00	0.00
BB	1.36	1.55	0.59	0.00	0.00	0.00	0.00	1.33	1.61	0.00
B	1.79	0.52	0.60	0.72	0.85	1.03	1.28	1.69	0.00	3.03
CCC/CC	10.53	5.88	6.67	7.69	8.33	10.00	14.29	0.00	0.00	0.00
Investment grade	0.00	0.10	0.11	0.12	0.13	0.14	0.16	0.00	0.00	0.00
Speculative grade	1.95	1.24	0.86	0.67	0.78	0.94	1.15	1.45	0.93	1.27
All fated	0.58	0.42	0.31	0.26	0.29	0.33	0.37	0.28	0.16	0.19

*Default rates conditional on survival. Implied senior debt ratings through 1995 and sovereign credit ratings thereafter. Sources: "Sovereign Rating And Country T&C Assessment Histories," RatingsDirect, updated monthly, and <http://creditpro.standardandpoors.com>.

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Notes

(1) See "Sovereign Rating And Country T&C Assessment Histories," updated regularly on RatingsDirect.

(2) "Sovereign Ratings Display Stability Over Two Decades," April 5, 1999, RatingsDirect.

(3) "Global Structured Finance Default Study—1978-2010: Credit Trends Started To Improve In 2010, But U.S. RMBS Faces Challenges," March 28, 2011, and "2010 Annual Global Corporate Default Study And Rating Transitions," March 30, 2011.

(4) "Sovereign Foreign and Local Currency Rating Differentials," Oct. 19, 2005, RatingsDirect.

(5) Before 1995, as seen in Chart 1, the universe of sovereign ratings was small, and most were investment grade, which as discussed below, have experienced more stable transition rates than speculative-grade sovereigns. As a result, upgrade-to-downgrade percentages are less meaningful. For individual rating changes between 1975 and 1995, see "Sovereign Rating And Country T&C Assessment Histories," *ibid*.

(6) Cf. Sovereign Rating History, *ibid*. and "Outlooks: The Sovereign Credit Weathervane, 2010/2011 Update," RatingsDirect, May 11, 2011.

(7) For inclusion in the matrix, the issuer must be in at least one static pool. In other words, we must have rated it by the start of the last period. In the case of the three-year matrix, we must have rated the sovereign by Jan. 1, 2009; in the case of the 15-year matrix, by Jan. 1, 1997. Thus, there are progressively fewer counts (or observations) the longer the transition period is, given the growth of sovereign ratings and, of course, given that there will be one fewer static pool for each added year in the matrix.

(8) In 2011, we lowered our rating on Bahrain twice by a total of three notches to 'BBB', the rating on Cyprus thrice

in 2011 for a total of three notches to 'BBB', and the rating on Egypt thrice to 'B+'. The rating on Greece fell by a total of nine notches to 'CC' from 'BB+' during the calendar year in four rating actions. Greece was subsequently lowered to 'SD' on Feb. 27, 2012; this default will be captured in next year's update of this study. In 2009 through 2011, we lowered the rating on Ireland six times for a total of seven notches to 'BBB+'; we lowered our rating on Portugal four times for a total of six notches to 'BBB-'; and we lowered the rating on Greece seven times by a total of 14 notches to 'CC'. In the 2002 to 2011 decade, the largest transition was Greece's, beginning at 'A' and ending at 'CC'.

(9) The five-notch foreign-currency sovereign rating declines between Jan. 1 and Dec. 31 comprise the Dominican Republic, Iceland, and Turkey plus three sovereigns that defaulted from a 'B-' rating at the beginning of the year: Ecuador, Paraguay, and Uruguay. The six-notch downgrades between Jan. 1 and Dec. 31 consist of Indonesia, Pakistan, Russia, Uruguay, and Venezuela plus two sovereigns that defaulted from a 'B' rating at the beginning of the year: Seychelles and Venezuela. Both eight-notch downgrades from Jan. 1 to Dec. 31 pertained to the sovereign defaults from 'BB-' of Argentina and Grenada. The nine-notch downgrade was to Greece, and the 10-notch downgrade was to Korea.

(10) In other words, to be captured in this calculation, a foreign-currency sovereign rating first needed to be raised sometime between Jan. 1, 1975, and Dec. 31, 2009. Then, the calculation sets a two-year horizon from the date of the initial rating action to measure the correlation of subsequent rating actions.

(11) The correlation between two subsequent identical rating actions is a number between 1, which means a perfect positive correlation (every rating action is followed by the same rating action), and negative 1, which means a perfect negative correlation (every rating action is followed by the opposite rating action). A correlation of zero would mean perfectly random rating behavior.

(12) "Sovereign Government Rating Methodology and Assumptions," RatingsDirect, June 30, 2011.

(13) As there have been no defaults within 15 years in the 'AAA', 'AA', and 'A' categories, the tables only show the lower categories. The data fields contain the transition-to-default data, which are also weight-averaged in the 'SD' column of Tables 6 through 10. The cumulative default rate (conditioned on survival) is presented at the bottom. We observe that these component data highlight the small size of the universe: The numerator in each yearly calculation comprises only one or two defaults. We also note that the default rate in a single year can vary a great deal. Thus, in Table 33, the five-year cumulative default rate for 'BBB' is 14.3% in 1995, 25.0% in 1996, 11.1% in 1997, 0.0% in 1998, and 6.3% in 1999 through 2002. The first three calculations represent the defaults of Indonesia, and the last set is Uruguay's default. Carmen Reinhart and Kenneth Rogoff, in their book "This Time Is Different" (Princeton University Press, 2009), argue that after the post World War II period of few sovereign defaults as a share of the total number of central governments, investors can expect high variation of default rates and higher absolute default rates for given levels of creditworthiness in the years ahead.

(14) "Basel II: Compliance of Global Ratings," Oct. 20, 2006, RatingsDirect.

(15) Greece was lowered to 'SD' on Feb. 27, 2012; this default will be captured in next year's update of this study.

(16) The point holds true for longer periods and for unrated sovereigns as well. See "Default Study: Sovereign Defaults At 26-Year Low, To Show Little Change In 2007," Sept. 18, 2006, RatingsDirect.

(17) See "Sovereign Ratings Sag Under The Global Economic Strain," Jan. 27, 2009, RatingsDirect; "European

Government Finances: Fixing The Roof After The Storm," RatingsDirect, Oct. 4, 2010; and "Credit FAQ: Factors Behind Our Rating Actions On Eurozone Sovereign Governments," RatingsDirect, Jan. 13, 2012.

(18) "Standard & Poor's To Explicitly Recognize Credit Stability As A Rating Factor," Oct. 15, 2008, RatingsDirect.

(19) 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 1 and 0, 1 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 0 being a random rank ordering.

(20) "Timeliness Of Payments: Grace Periods, Guarantees, And Use Of 'D' And 'SD' Ratings," RatingsDirect, Dec. 23, 2010.

(21) See "Rating Implications Of Exchange Offers And Similar Restructurings, Update," RatingsDirect, May 12, 2009; "When Would A "Reprofiling" Of Sovereign Debt Constitute A Default?," RatingsDirect, June 3, 2011; and "Distressed Sovereign Debt Exchanges: Examples From The Past And Lessons For The Future," RatingsDirect, June 28, 2011.

(22) "Argentina Emerges From Default, Although Some Debt Issues Are Still Rated 'D'," RatingsDirect, June 1, 2005, RatingsDirect.

Related Research

- Watch the CreditMatters TV segment titled, "Standard & Poor's 2011 Sovereign Default And Rating Transitions Study," April 27, 2012.
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