

Default, Transition, and Recovery:

# 2020 Annual Sovereign Default And Rating Transition Study

April 12, 2021

## Key Takeaways

- Sovereign defaults reached a record high of seven in 2020 as COVID-19 and falling oil prices hurt global credit quality; all the defaulters began the year rated 'B' or lower.
- Sovereign downgrades rose to 26, and most were of speculative-grade issuers from the emerging and frontier markets.
- Despite the unprecedented economic, social, and financial market turmoil in 2020, sovereign credit ratings showed solid performance with a one-year Gini ratio of 91.5%, near the long-term average.
- By the end of 2020, the number of sovereigns rated at the lowest rating levels, 'CCC+' and below, had risen to seven, suggesting defaults could remain elevated in coming years.

The spread of COVID-19 and the collapse of oil prices created challenging credit conditions for sovereigns rated by S&P Global Ratings in 2020. The number of sovereign defaults climbed to a high of seven, while downgrades rose to their highest tally since 2011 and outnumbered upgrades by a ratio of 10 to 1.

With the global economy falling into a sudden recession in the first half of 2020, sovereigns that entered the year with weaker ratings were most exposed. All of the defaults were from sovereigns rated 'B' or lower, and most downgrades were of speculative-grade sovereigns (rated 'BB+' or lower) from the emerging and frontier markets.

In 2021, sovereign ratings may continue to face pressure amid expected massive fiscal and monetary stimulus that will leave a substantial debt overhang for several years to come.

## RATINGS PERFORMANCE ANALYTICS

### Nick W Kraemer, FRM

New York  
+ 1 (212) 438 1698  
nick.kraemer  
@spglobal.com

### Evan M Gunter

New York  
+ 1 (212) 438 6412  
evan.gunter  
@spglobal.com

### Vincent R Conti

Singapore  
+ 65 6216 1188  
vincent.conti  
@spglobal.com

## RESEARCH CONTRIBUTORS

### Abhik Debnath

CRISIL Global Analytical Center, an  
S&P Global Ratings affiliate, Mumbai

### Lyndon Fernandes

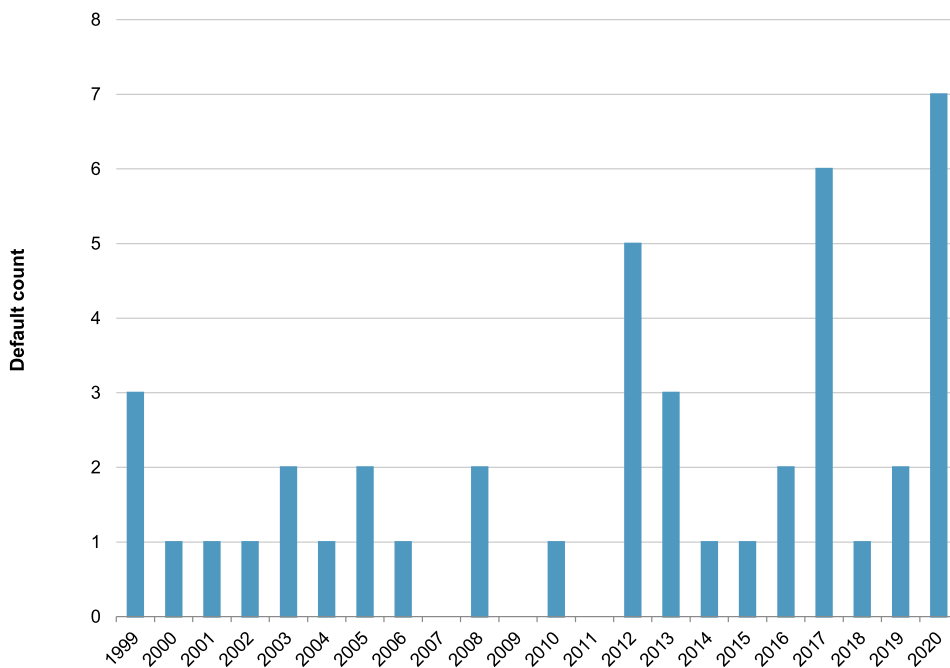
CRISIL Global Analytical Center, an  
S&P affiliate, Mumbai

## Sovereign Defaults Reached A High In 2020

There were seven sovereign defaults in 2020, marking the highest annual tally on record. Before 2020, the high for defaults was six, in 2017. The defaulters in 2020 entered the year with already weakened credit metrics--none were rated above 'B'--and had little room to absorb the impact of the pandemic-induced recession.

Chart 1

### Sovereign Foreign Currency Selective Defaults By Year



2012 includes Mali, which was not rated at the time of its default; we withdrew the rating in 2008.

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Suriname was the highest-rated sovereign to default in 2020, with a 'B' long-term foreign currency rating at the start of the year. Two of the defaulters (Ecuador and Belize) were rated 'B-' as of the beginning of 2020, and three (Zambia, Lebanon, and Argentina) were rated in the lowest rating category, 'CCC'/'CC'.

All of the defaults in 2020 were from emerging and frontier market sovereigns. By region, Latin America had the most defaults, with five, from Argentina, Belize, Ecuador, and Suriname (which defaulted twice). The other two defaulters, Lebanon and Zambia, were from the Middle East and Africa region.

All but one of these sovereign defaults resulted to some extent from the unprecedented credit challenges of COVID-19 and the oil price collapse. Both Ecuador and Suriname grappled with economic shocks as falling oil prices hit exports. This led Ecuador to delay payment on a number of global bonds in April after reaching agreements with a majority of its respective bondholders.

## Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Suriname defaulted twice in 2020: In July it began and completed a distressed debt exchange, and by end-October, the new government proposed a standstill on foreign currency debt service payments.

Meanwhile, Belize faced a sharp economic contraction from the COVID-19 pandemic, and as its tourism industry reeled, the government reached an agreement with bondholders in August to amend the terms on its 2034 bond.

Zambia's access to liquidity and external financing became impaired as investors curtailed their exposure to credit risk in response to the pandemic, and the Zambian government suspended debt service payments to external commercial creditors in October.

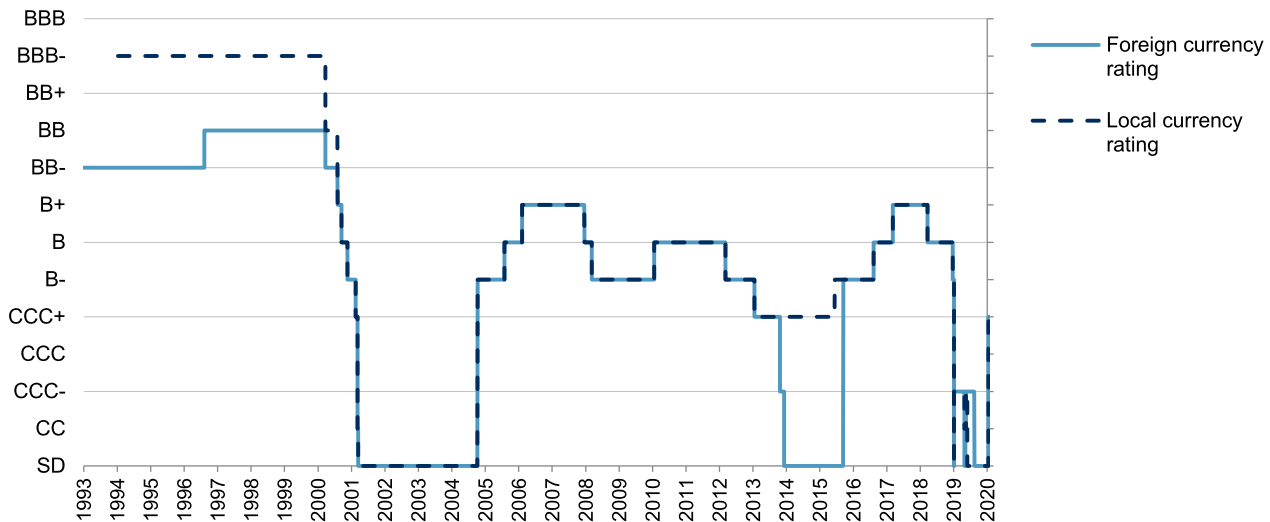
In Argentina, the pandemic heightened the fiscal strain of weaker revenue, higher expenditure, and unfavorable conditions in the external financing markets. The sovereign missed payments of local-law U.S. dollar-denominated bonds in April and of foreign-law foreign currency bonds in June.

Only Lebanon's default was unrelated to COVID-19, with the fiscal, external, and political pressures that led to the eventual default preceding COVID-19's impact on the country. Lebanon confirmed its first case of COVID-19 on Feb. 21, 2020, and in an unrelated rating action on the same day, we lowered our long-term foreign currency rating on the country to 'CC' because a distressed exchange or unilateral default was virtually certain.

Charts 2 through 7 show the rating histories of these sovereigns that defaulted in 2020.

Chart 2

### Argentina: Sovereign Foreign Currency And Local Currency Ratings History

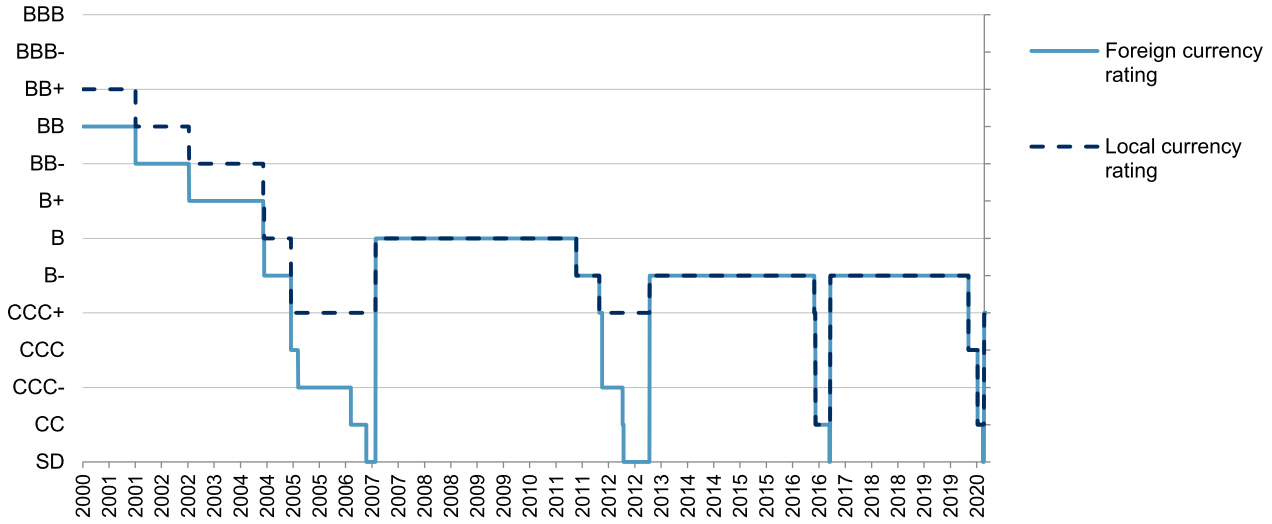


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 3

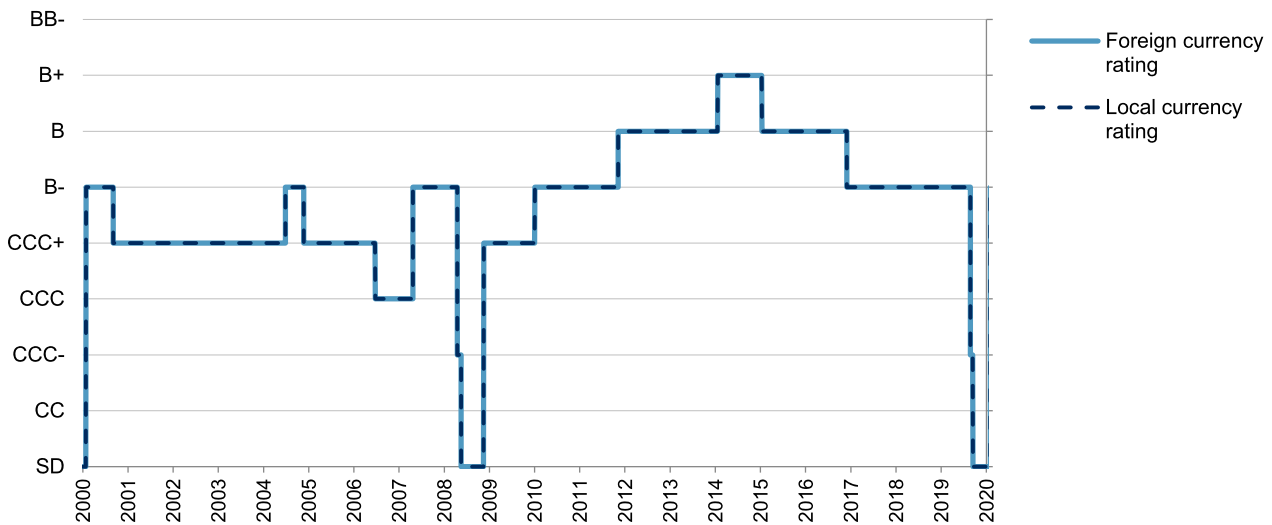
**Belize: Sovereign Foreign Currency And Local Currency Ratings History**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 4

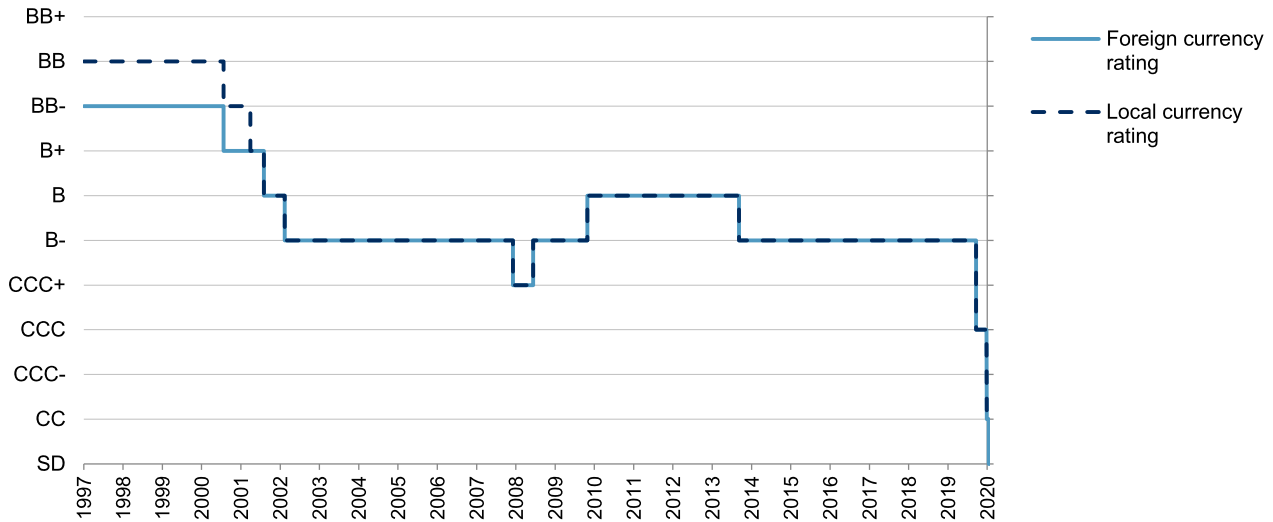
**Ecuador: Sovereign Foreign Currency And Local Currency Ratings History**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 5

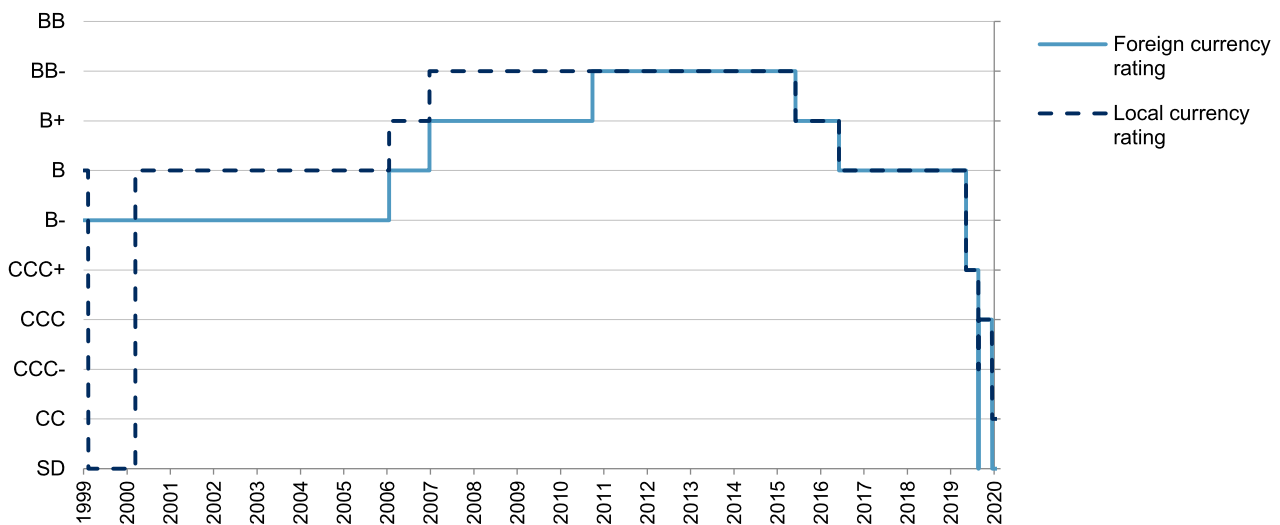
**Lebanon: Sovereign Foreign Currency And Local Currency Ratings History**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 6

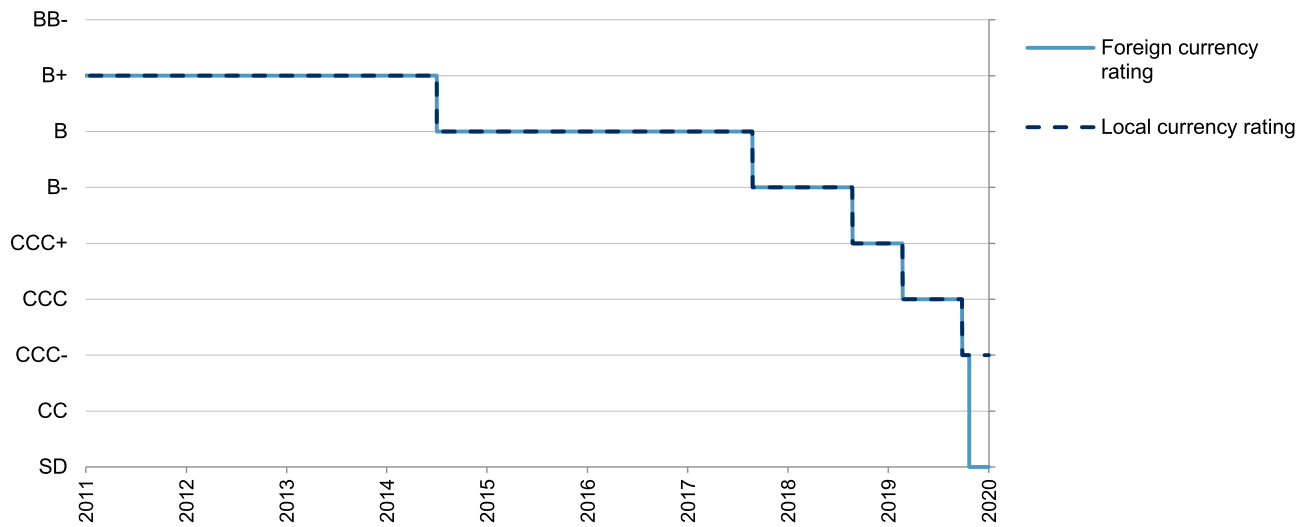
**Suriname: Sovereign Foreign Currency And Local Currency Ratings History**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 7

**Zambia: Sovereign Foreign Currency And Local Currency Ratings History**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

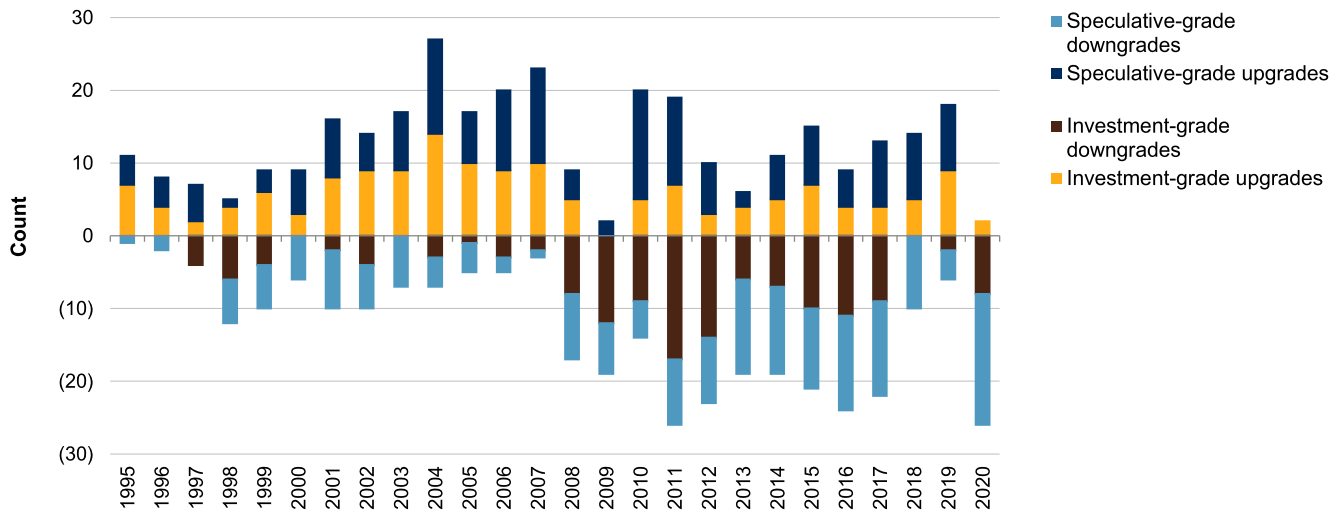
**Rating Movement In 2020**

The COVID-19 pandemic and oil price collapse accounted for most of the sovereign downgrades in 2020. The count of negative rating actions (downgrades and defaults) rose to its highest level since 2011, during the eurozone sovereign debt crisis. However, unlike in 2011, the majority of downgrades in 2020 were of speculative-grade issuers (see chart 8).

Emerging and frontier markets were hardest hit, particularly oil exporters. The Middle East and Africa experienced the most downgrades (including defaults), with 13, followed by Latin America with 11.

Chart 8

**Sovereign Rating Actions**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Nearly 80% of sovereign credit ratings were unchanged in 2020. Of the ratings that changed, 14.9% were lowered, 4.48% defaulted, and 1.49% were raised. Because so few sovereigns were upgraded during this challenging year, the ratio of downgrades to upgrades reached a high of 10 to 1 in 2020 (see table 1).

Table 1

**Summary Of Sovereign Net Annual Foreign Currency Rating Changes**

(%)

Year	Issuer count as of Jan. 1	Upgrades	Downgrades*	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
2000	82	10.98	6.10	1.22	0.00	18.29	81.71	0.56
2001	87	18.39	10.34	1.15	0.00	29.89	70.11	0.56
2002	89	15.73	10.11	1.12	0.00	26.97	73.03	0.64
2003	92	18.48	5.43	2.17	0.00	26.09	73.91	0.29
2004	97	27.84	6.19	1.03	0.00	35.05	64.95	0.22
2005	105	16.19	2.86	1.90	0.00	20.95	79.05	0.18
2006	109	18.35	3.67	0.92	0.00	22.94	77.06	0.20
2007	112	20.54	2.68	0.00	0.00	23.21	76.79	0.13
2008	117	7.69	12.82	1.71	0.85	23.08	76.92	1.67
2009	121	1.65	15.70	0.00	0.83	18.18	81.82	9.50

Table 1

**Summary Of Sovereign Net Annual Foreign Currency Rating Changes (cont.)**

(%)

Year	Issuer count as of Jan. 1	Upgrades	Downgrades*	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
2010	123	16.26	10.57	0.81	0.00	27.64	72.36	0.65
2011	126	15.08	20.63	0.00	0.79	36.51	63.49	1.37
2012	128	7.81	15.63	2.34	0.00	25.78	74.22	2.00
2013	127	4.72	12.60	2.36	2.36	22.05	77.95	2.67
2014	127	8.66	14.17	0.79	1.57	25.20	74.80	1.64
2015	128	11.72	15.63	0.78	0.00	28.13	71.88	1.33
2016	130	6.92	16.92	1.54	1.54	26.92	73.08	2.44
2017	130	10.00	13.08	3.85	0.00	26.92	73.08	1.31
2018	129	10.85	6.98	0.78	0.00	18.60	81.40	0.64
2019	130	13.85	3.85	0.77	0.00	18.46	81.54	0.28
2020	134	1.49	14.93	4.48	0.00	20.90	79.10	10.00
Weighted average		11.14	10.01	1.23	0.32	22.70	77.30	1.67
Median		7.75	6.56	0.00	0.00	18.74	81.26	0.65
Standard deviation		7.80	6.21	1.14	0.50	10.95	10.95	2.36
Minimum		0.00	0.00	0.00	0.00	0.00	63.49	0.09
Maximum		27.84	23.08	4.48	2.36	36.51	100.00	10.00

Note: This table compares the net change in ratings from the first to the last day of each year. All intermediate ratings are disregarded.

\*Excludes downgrades to 'SD', shown separately in the defaults column. Descriptive statistics at the bottom of the table based on data from 1975-2020. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

To varying degrees, COVID-19 and plummeting oil prices led to most of the sovereign downgrades in 2020 by contributing to lower economic growth expectations, higher debt obligations, and reduced external financing. Of the 26 sovereigns that we downgraded during the year, the largest number, seven, were downgraded due to the pressures that COVID-19 placed on the countries' finances. These downgrades included both the Bahamas and Sri Lanka, where COVID-19's impact on tourism strained already narrow fiscal flexibility. Meanwhile, the drop in oil prices pressured the fiscal revenue and the availability of external financing for Nigeria and Congo-Brazzaville.

The downgrades of six sovereigns resulted from increased debt burdens. These downgrades included Oman and Sharjah, which were each downgraded by two notches as they faced higher net debt levels and interest burdens because of the collapse in oil prices.

We downgraded five sovereigns in response to the pressures of the global economy slipping into a sudden recession.

Two sovereigns were downgraded by one notch due to reduced access to liquidity and external financing in March and April. At the time, investors were rapidly paring down exposure to riskier investments before multiple interventions by central banks helped restore liquidity to global credit



## Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

markets.

Six of the sovereigns downgraded in 2020 defaulted. COVID-19 or oil prices factored in all these defaults, with the exception of Lebanon's.

In 2020, we observed 17 sovereign rating transitions of one notch and six rating transitions of two notches. The remaining five rating transitions were each downgrades of four to seven notches to 'SD' (selective default). Table 2 displays the magnitude of the sovereign rating changes in 2020.

Table 2

### Main Causes Of Sovereign Rating Changes (2020)

Number of notches	Debt	Default	Finances	Economy	Liquidity
(7)		Suriname*§			
(6)		Ecuador*§, Belize*			
(5)		Zambia*			
(4)		Lebanon			
(2)	Sharjah*§, Oman*§	Argentina*	Bahamas*, Sri Lanka*	Curacao*	
(1)	Ghana*, Papua New Guinea*§, Panama*, Trinidad and Tobago§		Bolivia*§, Botswana*,Congo-Brazzaville*§, Costa Rica*, Nigeria*§,	Kuwait*§, Mexico*§, Ras Al Khaimah*§, South Africa*	Angola§, Cameroon*§
1	Latvia		Lithuania		

Note: Negative numbers signify downgrades. \*Denotes sovereign ratings that were affected by COVID-19. §Denotes sovereign rating changes due to oil price volatility. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

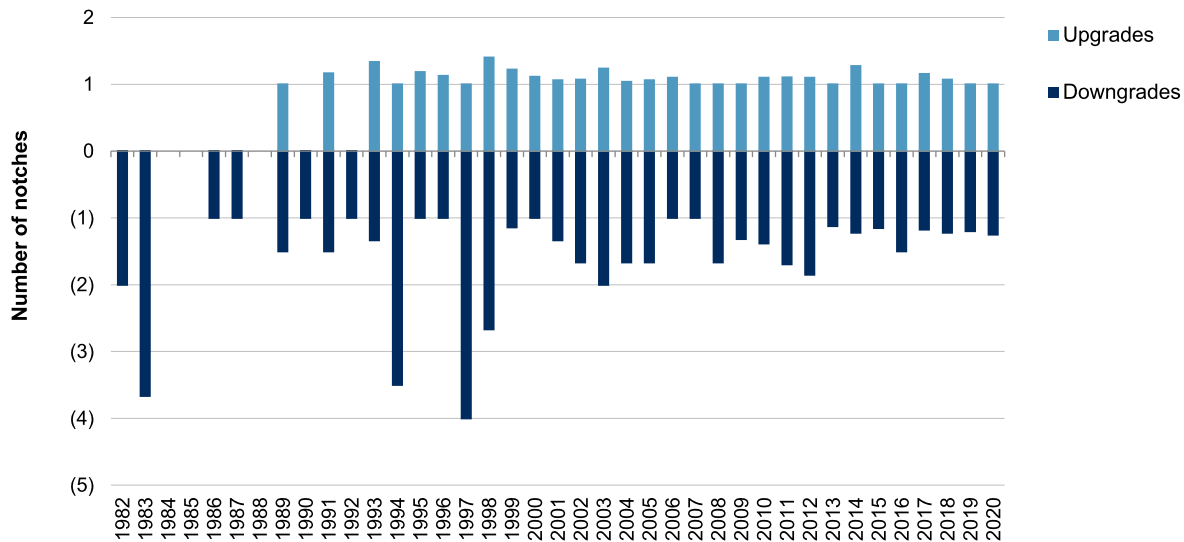
To measure rating transitions over a one-year horizon, we use a static pool approach to compare the issuer credit ratings as of the beginning of the year with those as of year-end. This approach measures the net rating migration for an issuer during the course of the year, rather than the number of times a rating changed. For example, a rating that we lowered twice in 2020 would be counted as one issuer downgrade, rather than as two individual downgrades.

Large rating transitions are not common among sovereigns. Most downgrades are typically of one notch or occasionally two notches. Sovereign upgrades within a calendar year seldom exceed one notch.

In 2020, the average downgrade was 1.25 notches, which was slightly higher than the 1.20-notch average in 2019. The average upgrade in 2020 was of 1.00 notch, unchanged from 2019 (see chart 9).

Chart 9

### Average Annual Notch Changes: Foreign Currency Ratings



Defaults not included. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

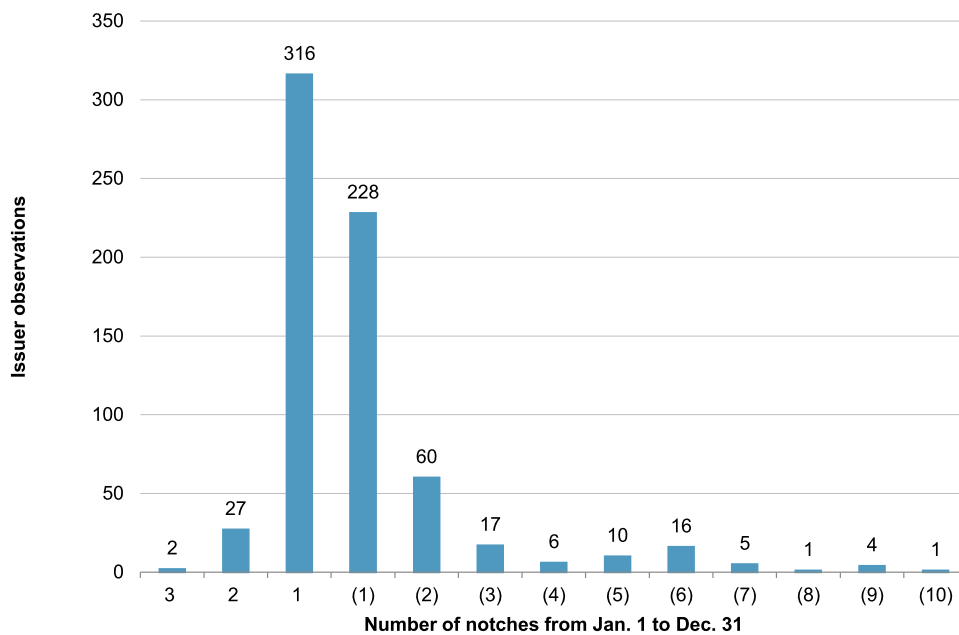
Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Since 1975, 78% of sovereign rating actions have been rating movements of one notch (see chart 10). The majority of all sovereign rating actions and one-notch sovereign rating actions have been upgrades. However, most rating actions of more than one notch have been downgrades, and so the aggregate rating movement--as measured by the cumulative number of notches changed--has been decidedly negative.

Many of the more pronounced, multinotch downgrades have been of sovereigns that defaulted from a low rating category. The largest multinotch downgrade in 2020 was of Suriname, which we downgraded by seven notches during the year, to 'SD', from 'B' at the start of 2020. We downgraded Belize and Ecuador by six notches each during the year, and we downgraded Zambia by five notches.

Chart 10

**Foreign Currency Sovereign Rating Changes: Notch Counts (1975-2020)**



Jan. 1 versus Dec. 31. Positive numbers indicate upgrades; negative numbers indicate downgrades. Includes downgrades to 'SD' but excludes upgrades from 'SD'. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®. Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

The largest rating change ever in a single year was a series of four downgrades of the Republic of Korea (South Korea) in 1997, which brought the sovereign credit rating to 'B+' from 'AA-', a 10-notch drop. This was during the Asian financial crisis, and South Korea was one of the nations hardest hit at the time. Since then, we've raised our rating on South Korea nine times, and the long-term sovereign credit rating is currently 'AA'.

**Gini Ratios And Ratings Performance**

S&P Global Ratings' credit ratings continue to serve as effective indicators of relative default risk. To measure ratings performance, we use the Gini ratio, which is a measure of the rank-ordering power of ratings over a given time horizon, from one through seven years. The Gini ratio shows the ratio of actual rank-ordering performance to a theoretically perfect rank ordering. A Gini coefficient ranges from 0 to 1, with higher values indicating a stronger relationship between lower rating categories and higher default rates. (For details on the Gini methodology, see Appendix 1.)

We found that there is a strong inverse relationship between higher ratings and observed defaults. In other words, sovereigns that have defaulted were generally rated at the lower end of our ratings spectrum prior to doing so.

Despite the unprecedented economic, social, and financial market turmoil in 2020, sovereign ratings performance held in line with the long-term average, with a one-year Gini ratio of 91.5% for

foreign currency ratings. This was slightly higher than the average annual one-year foreign currency Gini ratio of 89.5% and just below the one-year weighted average Gini ratio of 93.08%. Local currency ratings showed even stronger performance in 2020, with a one-year Gini ratio of 91.7%, above both the annual average and weighted average Gini ratios of 88.58% and 86.84%, respectively (see table 3).

Table 3

**Global Average Gini Coefficients For Sovereign Ratings**

(%)	--Time horizon--			
	One-year	Three-year	Five-year	10-year
<b>Foreign currency</b>				
Weighted average	93.08	81.21	75.12	69.34
Average	89.53	80.43	73.48	68.27
Standard deviation	15.24	12.36	12.88	10.55
<b>Local currency</b>				
Weighted average	86.84	73.00	66.65	57.20
Average	88.58	76.85	70.50	66.12
Standard deviation	11.95	17.19	19.26	20.89

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Ratings Distribution**

Rated sovereigns have recorded at least one default annually for nine consecutive years, and the recent increase in defaults in part reflects the growing share of speculative-grade ratings among sovereign ratings. From 2010 to 2020, sovereign defaults averaged 2.6 per year, up from an average of 1.3 per year in 1999-2009. Over this period, the number of speculative-grade sovereigns grew to a peak of 62 in 2016 from 30 in 1999.

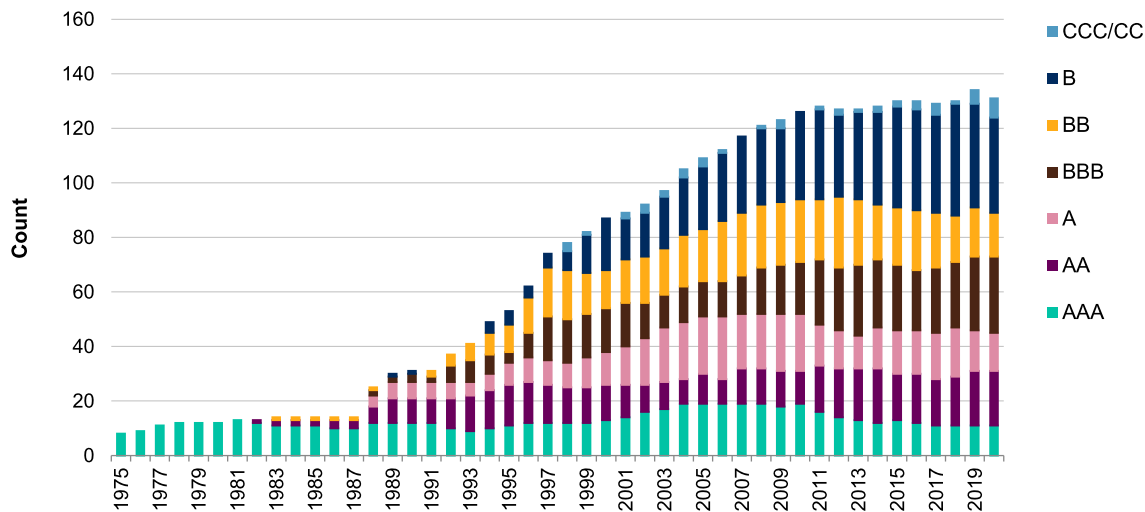
Alongside the growth in speculative-grade ratings, the number of sovereigns rated at the lowest rating levels has also grown. In 2020, the number of sovereigns rated 'CCC+' or lower increased to seven, surpassing its prior high of five from 2019. All seven of these were emerging and frontier market sovereigns. This proportion of sovereigns rated in the highest-risk rating categories suggests defaults could remain elevated in the coming years as governments seek to manage the post-COVID-19 recovery.

Over the longer term, the number of sovereigns we rate has grown with an increasing number of governments raising external financing through international bond markets. We've assigned foreign currency ratings to 145 sovereigns since 1975. Much of the expansion in the number of rated sovereigns occurred between 1988 and 2011, when the tally grew by 103. Given the relatively small and static number of nations in the world, however, another such increase is unlikely. For that reason, the distribution of sovereign ratings will change almost exclusively with the movement of existing ratings.

As the number of rated sovereigns has grown, so too has the share of speculative-grade ratings. The distribution of sovereign ratings has been trending lower since the late 1980s as countries with smaller and less diversified economies have sought credit ratings. At the end of 1989, just 3% of sovereign foreign currency ratings were speculative-grade, but by the end of 2020, 44% were speculative-grade (see chart 11).

Chart 11

### Sovereign Foreign Currency Rating Distribution



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Because a sovereign has flexibility in servicing its local currency debt based on the unique powers it enjoys within its own borders, particularly in its control of domestic financial and monetary systems, S&P Global Ratings assigns both foreign currency and local currency ratings to sovereigns. This study focuses on foreign currency ratings unless otherwise noted.

As of year-end 2020, 18 local currency sovereign credit ratings were higher than the corresponding foreign currency credit ratings. For example, New Zealand is among the sovereigns with a long-term local currency rating ('AA+') above the long-term foreign currency rating ('AA' since 2011) (see table 4).

Additionally, when a foreign currency sovereign credit rating is in default or indicates a near-term risk of default, the local currency rating can be several notches higher if we expect the sovereign not to default on its local currency obligations. Three sovereigns rated 'SD' at the end of 2020--Lebanon, Suriname, and Zambia--were assigned local currency ratings that remained in the 'CCC'/'CC' rating category.

Table 4

### Sovereigns With Different Foreign Currency And Local Currency Ratings As Of Dec. 31, 2020

Country	Foreign currency ratings (long-term/outlook/short-term)	Local currency ratings (long-term/outlook/short-term)
Chile	A+/Negative/A-1	AA-/Negative/A-1+
Colombia	BBB-/Negative/A-3	BBB/Negative/A-2
Czech Republic	AA-/Stable/A-1+	AA/Stable/A-1+
Guatemala	BB-/Stable/B	BB/Stable/B

Table 4

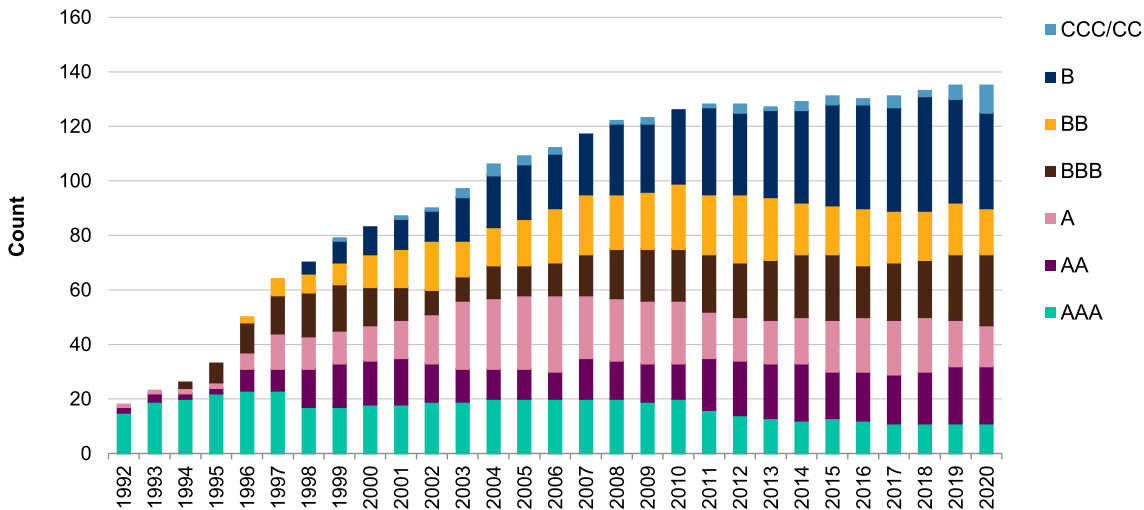
**Sovereigns With Different Foreign Currency And Local Currency Ratings As Of Dec. 31, 2020 (cont.)**

Country	Foreign currency ratings (long-term/outlook/short-term)	Local currency ratings (long-term/outlook/short-term)
Lebanon	SD/--/SD	CC/Negative/C
Malaysia	A-/Negative/A-2	A/Negative/A-1
Mexico	BBB-/Negative/A-2	BBB+/Negative/A-2
Mozambique	CCC+/Stable/C	B-/Stable/B
New Zealand	AA/Positive/A-1+	AA+/Positive/A-1+
Peru	BBB+/Stable/A-2	A-/Stable/A-2
Poland	A-/Stable/A-2	A/Stable/A-1
Russia	BBB-/Stable/A-3	BBB/Stable/A-2
South Africa	BB-/Stable/B	BB/Stable/B
Suriname	SD/--/SD	CC/Negative/C
Thailand	BBB+/Stable/A-2	A-/Stable/A-2
Turkey	B+/Stable/B	BB-/Stable/B
Venezuela	SD/--/D	CCC-/Negative/C
Zambia	SD/--/SD	CCC-/Negative/C

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 12

**Sovereign Local Currency Rating Distribution**



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

## Foreign Currency Sovereign Rating Transition Rates

An analysis of transition rates for sovereigns shows that higher ratings correspond negatively with the observed frequency of default. Furthermore, investment-grade-rated sovereigns ('BBB-' or higher) tend to exhibit greater ratings stability (as measured by the frequency of rating transitions) than those rated speculative-grade.

From 1975 to 2020, on average, 96.76% of sovereigns rated 'AAA' maintained that rating over a one-year horizon. Over a longer period, ratings tend to show higher rates of transition. For example, the stability rate for 'AAA' decreases yet remains elevated at 90.4% over three years, 84.3% over five years, 72.1% over 10 years, and 67.6% over 15 years (see tables 5-9).

Despite this higher rate of transition over a longer horizon, very few 'AAA' rated sovereigns that transitioned over a 15-year period fell below the 'AA' category: On average, 27.97% of sovereigns rated 'AAA' transitioned to the 'AA' category over a 15-year horizon. Over the same horizon, less than 1.5% of 'AAA' sovereigns migrated to speculative-grade, and none transitioned to 'SD'.

Table 5

### Sovereign Foreign Currency Average One-Year Transition Rates (1975-2020)

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	96.76	3.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	2.26	93.91	2.71	0.23	0.23	0.23	0.00	0.00	0.45
A	0.00	3.93	90.53	5.31	0.00	0.00	0.00	0.00	0.23
BBB	0.00	0.00	4.85	90.08	4.43	0.42	0.21	0.00	0.00
BB	0.00	0.00	0.00	6.13	86.76	5.73	0.79	0.40	0.20
B	0.00	0.00	0.00	0.00	4.90	88.07	3.43	2.61	0.98
CCC/CC	0.00	0.00	0.00	0.00	0.00	23.26	30.23	46.51	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 6

### Sovereign Foreign Currency Average Three-Year Transition Rates (1975-2020)

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	90.43	8.69	0.18	0.18	0.35	0.00	0.00	0.00	0.18
AA	7.16	82.72	7.16	1.73	0.49	0.00	0.00	0.00	0.74
A	0.00	11.00	73.00	13.25	1.25	0.25	0.50	0.25	0.50
BBB	0.00	0.00	15.60	70.21	10.87	1.42	0.24	1.18	0.47
BB	0.00	0.00	0.21	17.83	64.76	14.01	0.42	2.12	0.64
B	0.00	0.00	0.00	0.38	12.38	71.11	4.13	9.01	3.00
CCC/CC	0.00	0.00	0.00	0.00	0.00	24.32	13.51	62.16	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 7

**Sovereign Foreign Currency Average Five-Year Transition Rates (1975-2020)**

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	84.29	13.49	0.18	0.92	0.74	0.00	0.00	0.00	0.37
AA	12.70	71.62	12.16	1.89	0.81	0.00	0.00	0.00	0.81
A	0.00	17.71	57.22	19.62	2.72	0.27	0.54	1.36	0.54
BBB	0.00	0.00	22.81	55.97	14.59	2.92	0.27	2.39	1.06
BB	0.00	0.00	1.63	22.38	53.15	16.32	0.93	4.43	1.17
B	0.00	0.00	0.22	2.61	15.00	59.78	3.48	14.13	4.78
CCC/CC	0.00	0.00	0.00	0.00	6.67	16.67	6.67	70.00	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 8

**Sovereign Foreign Currency Average 10-Year Transition Rates (1975-2020)**

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	72.09	22.62	1.27	1.48	0.63	0.42	0.00	0.00	1.48
AA	25.45	52.69	14.34	5.38	2.15	0.00	0.00	0.00	0.00
A	1.69	24.41	40.68	19.66	5.42	1.69	0.68	5.08	0.68
BBB	0.00	3.92	30.59	39.61	14.51	2.35	0.39	5.49	3.14
BB	0.00	0.00	4.75	32.59	31.96	17.41	0.63	11.39	1.27
B	0.00	0.00	0.34	5.44	23.13	40.48	2.04	23.13	5.44
CCC/CC	0.00	0.00	0.00	0.00	4.55	18.18	0.00	77.27	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 9

**Sovereign Foreign Currency Average 15-Year Transition Rates (1975-2020)**

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	67.55	27.97	1.58	0.00	0.53	0.79	0.00	0.00	1.58
AA	33.79	37.90	12.79	12.33	2.28	0.46	0.46	0.00	0.00
A	4.21	28.95	37.89	14.21	2.11	3.68	0.53	8.42	0.00
BBB	0.00	10.92	34.48	22.99	14.94	3.45	0.57	8.05	4.60
BB	0.00	0.00	4.95	44.06	20.79	13.86	0.50	15.84	0.00
B	0.00	0.00	0.65	11.04	19.48	34.42	1.30	31.82	1.30



Table 9

**Sovereign Foreign Currency Average 15-Year Transition Rates (1975-2020) (cont.)**

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
CCC/CC	0.00	0.00	0.00	5.88	0.00	11.76	0.00	82.35	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Another gauge of ratings stability is the average time a sovereign spends at a particular rating. Table 10 shows the average number of years that the particular rating had been effective as of Dec. 31, 2020, grouped by rating category. 'AAA' ratings are much more stable than any other ratings. The 11 'AAA' sovereigns have averaged nearly 20 years at that rating level. The average number of years that each issuer has been at its current rating level tends to be higher in the higher rating categories.

The exception to this is the 'BBB' category, where the issuers have spent less time than those in the 'BB' category. In part, this reflects recent additions to the 'BBB' category, such as Botswana (downgraded to 'BBB+' in 2020), Croatia (upgraded to 'BBB-' in 2019), and Saint Helena (assigned an initial rating of 'BBB-' in 2019). The 'CCC'/CC' category shows the lowest ratings stability, with an average time spent in this rating category of less than one year.

Table 10

**Average Time Spent At Current Rating As Of Dec. 31, 2020**

Rating category	Average years	Issuer count
AAA	19.97	11
AA	4.26	20
A	3.18	14
BBB	2.31	28
BB	2.74	16
B	2.01	35
CCC/CC	0.57	7

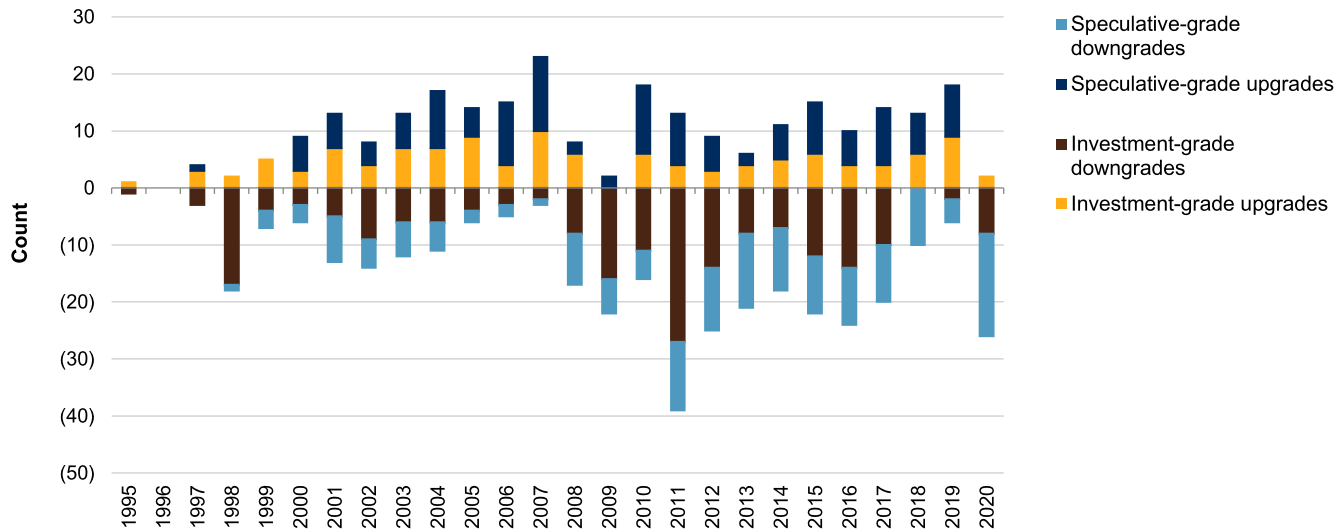
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Local Currency Sovereign Rating Actions And Transitions**

In 2020, the number of local currency negative rating actions, including downgrades and defaults, rose to 26 (from six in 2019). This was the highest number of negative rating actions since 2011, when there were 39 local currency downgrades (see chart 13). With this increase, the ratio of local currency downgrades to upgrades rose to a high of 12 to 1 (see table 11).

Chart 13

**Number Of Local Currency Sovereign Ratings Raised Or Lowered (1995-2020)**



Number of changed local currency sovereign credit ratings, Jan. 1 versus Dec. 31. Positive numbers indicate upgrades; negative numbers indicate downgrades. Multiple rating actions within a calendar year calculated as a single count. Includes downgrades to 'SD'. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Table 11

**Summary Of Sovereign Net Annual Local Currency Rating Changes**

(%)

Year	Issuer count as of Jan. 1	Upgrades	Downgrades*	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
2000	79	11.39	6.33	1.27	0.00	18.99	81.01	0.56
2001	83	15.66	14.46	1.20	0.00	31.33	68.67	0.92
2002	87	9.20	16.09	0.00	0.00	25.29	74.71	1.75
2003	90	14.44	13.33	0.00	0.00	27.78	72.22	0.92
2004	97	17.53	10.31	1.03	0.00	28.87	71.13	0.59
2005	106	13.21	4.72	0.94	0.00	18.87	81.13	0.36
2006	109	13.76	3.67	0.92	0.00	18.35	81.65	0.27
2007	112	20.54	2.68	0.00	0.00	23.21	76.79	0.13
2008	117	6.84	13.68	0.85	0.85	22.22	77.78	2.00
2009	122	1.64	18.03	0.00	1.64	21.31	78.69	11.00

Table 11

**Summary Of Sovereign Net Annual Local Currency Rating Changes (cont.)**

(%)

Year	Issuer count as of Jan. 1	Upgrades	Downgrades*	Defaults	Withdrawn ratings	Changed ratings	Unchanged ratings	Downgrade/upgrade ratio
2010	123	14.63	12.20	0.81	0.00	27.64	72.36	0.83
2011	126	10.32	30.95	0.00	0.79	42.06	57.94	3.00
2012	128	7.03	18.75	0.78	0.00	26.56	73.44	2.67
2013	128	4.69	14.06	2.34	2.34	23.44	76.56	3.00
2014	127	8.66	14.17	0.00	1.57	24.41	75.59	1.64
2015	129	11.63	17.05	0.00	0.00	28.68	71.32	1.47
2016	131	7.63	18.32	0.00	1.53	27.48	72.52	2.40
2017	130	10.77	14.62	0.77	0.00	26.15	73.85	1.36
2018	131	9.92	6.87	0.76	0.00	17.56	82.44	0.69
2019	133	13.53	3.76	0.75	0.00	18.05	81.95	0.28
2020	135	1.48	17.78	1.48	0.00	20.74	79.26	12.00
Weighted average		9.72	12.89	0.63	0.41	23.64	76.36	2.45
Median		8.93	12.76	0.38	0.00	22.72	77.28	1.20
Standard deviation		5.57	7.78	0.64	0.66	9.51	9.51	3.26
Minimum		0.00	0.00	0.00	0.00	0.00	57.94	0.13
Maximum		20.54	30.95	2.34	2.34	42.06	100.00	12.00

Note: This table compares the net change in ratings from the first to the last day of each year. All intermediate ratings are disregarded.

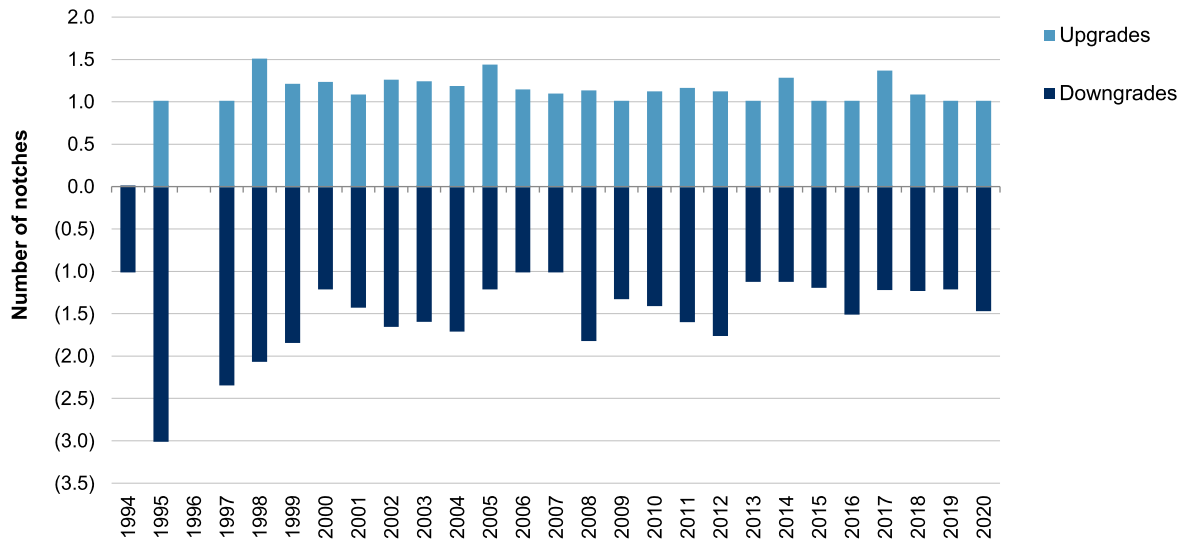
\*Excludes downgrades to 'SD', shown separately in the defaults column. Descriptive statistics at the bottom of the table based on data from 1993-2020. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

In 2020, the average notch change for local currency downgrades (excluding defaults) rose to 1.46--higher than the 1.25 average notches for foreign currency downgrades--from 1.20 in 2019. This was the first time in three years that the average notch change for local currency downgrades exceeded the average for foreign currency downgrades. Rating actions on Suriname, which defaulted on its foreign currency debt but not its local currency debt, were the main cause of this difference in 2020.

Meanwhile, the average notch change of a local currency upgrade in 2020 remained 1.00 (see chart 14).

Chart 14

**Average Annual Notch Changes: Local Currency Ratings**



Defaults not included. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Table 12

**Sovereign Local Currency Average One-Year Transition Rates (1993-2020)**

(%)

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	96.06	3.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	1.33	92.53	5.07	0.53	0.00	0.00	0.00	0.00	0.53
A	0.00	2.86	90.09	6.83	0.00	0.00	0.00	0.00	0.22
BBB	0.00	0.00	4.61	88.35	5.83	0.97	0.24	0.00	0.00
BB	0.00	0.00	0.00	5.22	85.57	7.46	1.00	0.50	0.25
B	0.00	0.00	0.00	0.00	5.00	88.52	3.70	1.48	1.30
CCC/CC	0.00	0.00	0.00	0.00	0.00	33.33	50.00	16.67	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 13

**Sovereign Local Currency Average Five-Year Transition Rates (1993-2020)**

(%)

--Rating five years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	81.01	17.16	0.23	1.14	0.00	0.00	0.00	0.00	0.46
AA	6.35	64.55	23.75	3.68	0.67	0.00	0.00	0.00	1.00
A	0.00	13.53	58.89	19.63	4.51	0.27	0.53	1.33	1.33
BBB	0.00	0.00	18.35	51.99	20.80	6.42	0.31	1.83	0.31
BB	0.00	0.00	1.54	20.92	45.54	25.54	2.15	2.77	1.54
B	0.00	0.00	0.26	2.34	17.97	61.98	5.99	5.47	5.99
CCC/CC	0.00	0.00	0.00	3.45	3.45	44.83	10.34	37.93	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 14

**Sovereign Local Currency Average 15-Year Transition Rates (1993-2020)**

(%)

--Rating 15 years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	65.56	25.93	4.07	1.85	0.37	0.00	0.00	0.00	2.22
AA	2.21	34.56	30.15	22.79	2.94	2.21	1.47	3.68	0.00
A	2.91	23.26	34.88	10.47	9.88	5.23	0.00	8.72	4.65
BBB	0.00	2.99	20.90	41.04	21.64	8.96	0.00	4.48	0.00
BB	0.00	0.00	8.11	27.03	31.53	21.62	1.80	9.91	0.00
B	0.00	0.00	0.00	13.13	18.18	48.48	6.06	12.12	2.02
CCC/CC	0.00	0.00	0.00	7.69	23.08	15.38	7.69	46.15	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Historical Sovereign Default Rates**

Over our rating history, 24 sovereigns have defaulted, and half of these have defaulted multiple times. In line with this, half of the defaulters in 2020 had defaulted previously. Ecuador recorded its second default in 2020, Belize its fourth, and Argentina its fifth. Lebanon, Zambia, and Suriname defaulted for the first time in 2020, and Suriname also experienced its second default within the year. In addition to the foreign currency defaults, there were two local currency defaults in 2020, from Argentina and Ecuador.

Included among the foreign currency defaults of past years are some sovereign members of monetary unions (such as Greece and Cyprus within the eurozone) (see table 15). In our sovereign criteria, defaults of sovereign members of a monetary union are counted as foreign currency defaults because the individual country has no sovereign control over the common currency. In line with this reasoning, the local currency ratings on eurozone sovereigns converged with the (often lower) foreign currency ratings when they joined.

Table 15

**Sovereign Foreign Currency Selective Defaults**

Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating three years before selective default
Russia	Jan. 27, 1999	Dec. 8, 2000	22 months	BB-	-
Pakistan	Jan. 29, 1999	Dec. 21, 1999	11 months	B+	B+
Indonesia, first default	Mar. 29, 1999	Mar. 30, 1999	One day	B-	BBB
Indonesia, second default	Apr. 17, 2000	Oct. 2, 2000	Six months	CCC+	BBB
Argentina, first default	Nov. 6, 2001	Jun. 01, 2005	54 months	BB	BB
Indonesia, third default	Apr. 22, 2002	Sep. 5, 2002	Four months	B-	CCC+
Paraguay	Feb. 13, 2003	Jul. 26, 2004	18 months	B	B
Uruguay	May. 16, 2003	Jun. 02, 2003	One month	BB-	BBB-
Grenada, first default	Dec. 30, 2004	Nov. 18, 2005	11 months	BB-	-
Venezuela, first default	Jan. 18, 2005	Mar. 03, 2005	One month	B-	B
Dominican Republic	Feb. 1, 2005	Jun. 29, 2005	Five months	CCC	BB-
Belize, first default	Dec. 7, 2006	Feb. 20, 2007	Three months	CCC-	B+
Seychelles*	Aug. 7, 2008	-	-	B	-
Ecuador, first default	Dec. 15, 2008	Jun. 15, 2009	Six months	B-	CCC+
Jamaica, first default	Jan. 14, 2010	Feb. 24, 2010	One month	B	B
Greece, first default	Feb. 27, 2012	May. 2, 2012	Two months	BB+	A-
Belize, second default	Aug. 21, 2012	Mar. 20, 2013	Seven months	B-	B
Grenada, second default	Oct. 8, 2012	Oct. 16, 2012	One week	B-	B-
Greece, second default	Dec. 5, 2012	Dec. 18, 2012	Two weeks	CC	A-
Jamaica, second default	Feb. 12, 2013	Mar. 06, 2013	22 days	B-	SD
Grenada*, third default	Mar. 12, 2013	-	-	B-	B-
Cyprus	Jun. 28, 2013	Jul. 03, 2013	Five days	BB+	A+
Argentina, second default	Jul. 30, 2014	May. 06, 2016	22 months	B-	B
Ukraine	Sep. 25, 2015	Oct. 19, 2015	One month	CCC	B+
Mozambique, first default	April 1, 2016	April 15, 2016	15 days	B	B+
Congo-Brazzaville, first default	Aug. 02, 2016	Aug. 09, 2016	One week	B	-
Mozambique, second default	Jan. 18, 2017	-	-	B-	B+
Belize, third default	Mar. 17, 2017	Mar. 23, 2017	Six days	B-	B-
El Salvador, first default	April 20, 2017	May 5, 2017	15 days	B+	BB-
Congo-Brazzaville, second default	Aug. 01, 2017	Sept. 5, 2015	One month	B-	B+
El Salvador, second default*	Oct. 02, 2017	Oct. 03, 2017	One day	B+	BB-
Venezuela, second default	Nov. 13, 2017	-	-	CCC	CCC+

Table 15

**Sovereign Foreign Currency Selective Defaults (cont.)**

Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating three years before selective default
Barbados	Jun. 06, 2018	-	-	CCC+	B
Argentina, third default	Aug. 29, 2019	Aug. 30, 2019	One day	B+	B-
Argentina, fourth default	Dec. 20, 2019	Dec. 30, 2019	Ten days	B	B-
Lebanon	Mar. 11, 2020	-	-	B-	B-
Argentina, fifth default	Apr. 07, 2020	Sep. 07, 2020	Five months	B	B
Ecuador, second default	Apr. 13, 2020	Sep. 01, 2020	Four months	B-	B
Suriname, first default	Jul. 13, 2020	Jul. 16, 2020	Three days	B	B
Belize, fourth default	Aug. 12, 2020	Aug. 21, 2020	Nine days	B-	B-
Zambia	Oct. 21, 2020				
Suriname, second default	Nov. 06, 2020	-	-	B	B

Note: Mali defaulted in 2012; we withdrew the rating in 2008. \*The rating on Seychelles was withdrawn while it was still in default. The rating on Grenada was withdrawn while it was still in default in 2014. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 16

**Sovereign Local Currency Selective Defaults**

Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating three years before selective default
Dominican Republic	Apr. 9, 1999	Jun. 12, 2001	26 months	BB	-
Suriname	Jan. 1, 2000	Feb. 2, 2001	13 months	-	-
Argentina, first default	Nov. 6, 2001	Jun. 1, 2005	43 months	BBB-	BBB-
Cameroon	Sep. 1, 2004	Dec. 3, 2004	Three months	-	-
Grenada, first default	Jan. 1, 2005	Nov. 18, 2005	11 months	BB-	-
Grenada, second default*	Dec. 1, 2006	Apr. 2, 2007	Four months	B-	BB-
Ecuador, first default	Dec. 15, 2008	Jun. 15, 2009	Six months	B-	CCC+
Jamaica, first default	Jan. 14, 2010	Feb. 24, 2010	One month	B	B
Greece, first default	Feb. 27, 2012	May. 2, 2012	Two months	BB+	A-
Greece, second default*	Dec. 5, 2012	Dec. 18, 2012	Two weeks	CC	A-
Jamaica, second default	Feb. 12, 2013	Mar. 06, 2013	22 days	B-	B-

Table 16

**Sovereign Local Currency Selective Defaults (cont.)**

Country	Selective default date	Emergence date	Time in selective default	Rating one year before selective default	Rating three years before selective default
Grenada, third default	Mar. 12, 2013	-	-	B-	B-
Cyprus	Jun. 28, 2013	July 3, 2013	Five days	BB+	A+
El Salvador, first default	Apr. 20, 2017	May 5, 2017	15 days	B+	BB-
El Salvador, second default*	Oct. 02, 2017	Oct. 03, 2017	One day	B+	BB-
Barbados	Aug. 7, 2018	Nov. 16, 2018	Three months	CCC+	B
Argentina, second default	Aug. 29, 2019	Aug. 30, 2019	One day	B+	B-
Argentina, third default	Jan. 21, 2020	Sep. 07, 2020	Eight months	B	B-
Ecuador, second default	Apr. 13, 2020	Sep. 01, 2020	Four months	B-	B

Notes: Cameroon and Grenada (excluding the third default) cured their local currency defaults before the ratings were changed. Mali defaulted in 2012; we withdrew the rating in 2008. \*These defaults followed a prior default that occurred within the stated horizon. When an issuer reemerges from default, we treat it as a new issuer. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

During 1975-2020, no sovereign rated 'AAA' at the beginning of a year defaulted within the ensuing 15 years. Moreover, cumulative default rates were generally higher at lower rating levels, as one would expect. For example, from 1975 to 2020, the five-year average cumulative default rate for sovereigns rated in the 'A' category was only about 1.3%. For comparison, the five-year average cumulative default rate for sovereigns rated in the 'BBB' category was 2.2%; the 'BB' category, 4.1%; the 'B' category, 16.7%; and the 'CCC'/'CC' category, 69.1%.

The 15-year cumulative default rate averaged 3.4% for sovereigns with investment-grade ratings and 28.5% for sovereigns with speculative-grade ratings. The same trends are generally true when calculating default rates disaggregated by rating category.

Lower rating categories generally exhibit higher default rates over each time span (for example, as in the one- to 10-year time horizons shown in table 17). Some exceptions occur, such as when the number of defaults is low or when the underlying number of issuers is very small--such as at the rating modifier level (including the plus or minus after the rating).

One such exception is seen in the cumulative default rates for sovereigns in the 'A' and 'BBB' categories over the 10- to 15-year horizons. The 'A' category includes the defaults of Greece, Cyprus, and Barbados, since these sovereigns had previously been rated in the 'A' category. While we downgraded each of these to speculative-grade years before their eventual defaults, the defaults of Greece and Cyprus lift the cumulative average default rate for the 'A' category to 5.2% in year 11, modestly higher than the 4.9% default rate for the 'BBB' category over the same horizon. Although the cumulative default rates for both the 'A' and 'BBB' categories have declined in recent years, this pair of defaults continues to have an outside impact on the relatively small sample of 'A' issuers.

For more details on annual cumulative default rates for 'A' and 'BBB' category issuers, please see tables 55 and 56 in Appendix 4. And for details on the cumulative default rates at the rating



modifier level, please see table 60.

Table 17

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers (1975-2020)**

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	0.3	0.8	1.3	1.9	2.5	3.1	3.8	4.4	5.2	6.0	6.8	7.3	8.4
BBB	0.0	0.4	1.2	1.7	2.2	2.8	3.4	3.7	4.1	4.5	4.9	5.4	5.9	6.9	7.5
BB	0.40	1.4	2.1	2.7	4.1	5.6	7.2	9.1	10.6	11.5	12.2	12.9	13.7	14.6	15.1
B	2.6	6.6	10.3	13.7	16.7	19.2	21.9	24.6	26.6	28.5	30.6	32.6	34.0	35.5	37.3
CCC/CC	46.5	54.2	62.2	65.7	69.1	76.8	80.7	80.7	80.7	80.7	84.6	84.6	84.6	84.6	84.6
Investment grade	0.0	0.1	0.3	0.6	0.8	1.1	1.3	1.5	1.7	2.0	2.2	2.5	2.8	3.0	3.4
Speculative grade	3.3	6.1	8.6	10.7	12.9	15.1	17.3	19.5	21.2	22.6	24.1	25.3	26.4	27.5	28.5
All rated	1.2	2.3	3.4	4.3	5.3	6.2	7.2	8.1	8.8	9.4	10.0	10.6	11.1	11.7	12.2

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Generally, cumulative default rates by rating category have been higher for foreign currency sovereign credit ratings than for local currency sovereign credit ratings. As our "Sovereign Rating Methodology" explains, we consider that--other things being equal--the probability of default on a sovereign's local currency obligation could be lower than on a foreign currency obligation. Furthermore, the local currency sovereign default rates could be understated because 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.

Table 18

**Sovereign Local Currency Cumulative Average Default Rates Without Rating Modifiers (1993-2020)**

Rating	--Time horizon (years)--														
	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	0.53	1.10	1.72	2.41	3.15
A	0.00	0.00	0.24	0.74	1.27	1.83	2.42	3.04	3.69	4.73	5.48	6.30	7.20	8.20	9.35
BBB	0.00	0.52	1.06	1.35	1.66	1.99	2.71	3.10	3.52	3.52	3.52	3.52	3.52	3.52	3.52
BB	0.50	1.28	1.56	1.84	2.46	3.12	3.47	4.22	5.06	5.52	6.03	6.61	7.26	8.02	8.94
B	1.48	2.87	4.39	5.34	6.37	7.51	8.77	10.17	10.96	12.31	13.33	13.92	14.62	15.43	15.43
CCC/C	16.67	19.35	22.24	28.72	35.84	43.86	48.54	48.54	48.54	48.54	53.69	53.69	53.69	53.69	53.69
Investment grade	0.00	0.12	0.31	0.51	0.72	0.94	1.25	1.49	1.75	2.03	2.33	2.66	3.01	3.39	3.81

Table 18

**Sovereign Local Currency Cumulative Average Default Rates Without Rating Modifiers (1993-2020) (cont.)**

(%)

--Time horizon (years)--

Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Speculative grade	1.73	2.92	3.96	4.84	5.92	7.09	8.05	9.10	9.87	10.74	11.72	12.27	12.91	13.66	14.10
All rated	0.63	1.13	1.62	2.06	2.56	3.10	3.62	4.12	4.54	4.99	5.49	5.87	6.30	6.77	7.19

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Sovereigns that approach default usually experience multiple successive downgrades as the likelihood of default increases. Table 19 shows the last date of the highest rating, the number of intermediate rating actions (including outlook revisions) before default, and the date of the sovereign's default.

Table 19

**Length Of Time To Default**

Government	Date of default	Date of initial rating	Highest rating/outlook before default	Last date of highest rating	Number of intermediate rating actions
<b>Foreign currency sovereign credit rating defaults</b>					
Russia	Jan. 27, 1999	Oct. 7, 1996	BB-/Stable	Jun. 8, 1998	4
Pakistan	Jan. 29, 1999	Nov. 21, 1994	B+/Positive	May. 31, 1998	4
Indonesia, first default	Mar. 29, 1999	Jul. 20, 1992	BBB/Stable	Oct. 9, 1997	7
Indonesia, second default	Apr. 17, 2000	Mar. 30, 1999	CCC+/Stable	Apr. 16, 2000	0
Argentina, first default	Nov. 6, 2001	Aug. 25, 1993	BB/Stable	Nov. 13, 2000	7
Indonesia, third default	Apr. 22, 2001	Oct. 2, 2000	B-/Stable	May. 20, 2001	2
Paraguay	Feb. 13, 2003	Oct. 23, 1995	BB-/Stable	Feb. 3, 1999	3
Uruguay	May. 16, 2003	Feb. 14, 1994	BBB-/Stable	Feb. 13, 2002	7
Grenada, first default	Dec. 30, 2004	Mar. 22, 2002	BB-/Stable	Sep. 16, 2004	2
Venezuela, first default	Jan. 18, 2005	Oct. 5, 1977	AAA	Aug. 12, 1982	14
Dominican Republic	Feb. 1, 2005	Feb. 13, 1997	BB-/Stable	Jun. 9, 2003	5
Belize, first default	Dec. 7, 2006	Aug. 22, 2000	BB/Stable	Oct. 22, 2001	7

**Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study**

Table 19

**Length Of Time To Default (cont.)**

<b>Government</b>	<b>Date of default</b>	<b>Date of initial rating</b>	<b>Highest rating/outlook before default</b>	<b>Last date of highest rating</b>	<b>Number of intermediate rating actions</b>
Seychelles*	Aug. 7, 2008	Sep. 14, 2006	B/Stable	July. 31, 2008	1
Ecuador, first default	Dec. 15, 2008	Aug. 25, 2000	B-/Stable	Nov. 13, 2008	7
Jamaica, first default	Jan. 14, 2010	Nov. 9, 1999	B+/Stable	Jul. 27, 2003	5
Greece, first default	Feb. 27, 2012	Sep. 9, 1988	A+/Stable	Nov. 16, 2004	13
Belize, second default	Aug. 21, 2012	Feb. 20, 2007	B/Stable	Aug. 3, 2011	4
Grenada, second default	Oct. 8, 2012	Nov. 18, 2005	B-/Stable	Oct. 7, 2012	2
Greece, second default	Dec. 5, 2012	May. 2, 2012	CCC/Stable	Dec. 4, 2012	0
Jamaica, second default	Feb. 12, 2013	Feb. 24, 2010	B-/Stable	Feb. 11, 2013	0
Grenada, third default*	Mar. 12, 2013	Oct. 16, 2012	CCC+/Negative	Mar. 11, 2013	0
Cyprus	Jun. 28, 2013	Feb. 14, 1994	AA-/Stable	Nov. 8, 1998	12
Argentina, second default	Jul. 30, 2014	Jun. 01, 2005	B+/Stable	Aug. 10, 2008	8
Ukraine	Sep. 25, 2015	Dec. 21, 2001	BB-/Stable	Jun. 11, 2008	14
Mozambique, first default	Apr. 1, 2016	Jul. 7, 2004	B+/Stable	Feb. 13, 2014	4
Congo-Brazzaville, first default	Aug. 2, 2016	Oct. 22, 2013	B+/Stable	Feb. 8, 2015	2
Mozambique, second default	Jan. 18, 2017	Apr. 15, 2016	B-/Stable	May. 26, 2016	2
Belize, third default	Mar. 17, 2017	Mar. 20, 2013	B-/Positive	Nov. 13, 2016	2
El Salvador, first default	Apr. 20, 2017	Aug. 26, 1996	BB+/Stable	May. 11, 2009	7
Congo-Brazzaville, second default	Aug. 1, 2017	Aug. 9, 2016	B-/Stable	Jul. 6, 2017	1
El Salvador, second default	Oct. 2, 2017	May. 5, 2017	CC/Negative	Oct. 1, 2017	0
Venezuela, second default	Nov. 13, 2017	Mar. 3, 2005	BB-/Positive	Aug. 18, 2011	9
Barbados	Jun. 06, 2018	Dec. 17, 1999	A-/Stable	Aug. 4, 2004	9
Argentina, third default	Aug. 29, 2019	May. 06, 2016	B+/Stable	Oct. 30, 2017	4

**Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study**

Table 19

**Length Of Time To Default (cont.)**

<b>Government</b>	<b>Date of default</b>	<b>Date of initial rating</b>	<b>Highest rating/outlook before default</b>	<b>Last date of highest rating</b>	<b>Number of intermediate rating actions</b>
Argentina, fourth default	Dec. 20, 2019	Aug. 30, 2019	CCC-/Negative	Dec. 19, 2019	0
Lebanon	Mar. 11, 2020	Feb. 26, 1997	BB-/Stable	Feb. 04, 1998	9
Argentina, fifth default	Apr. 07, 2020	Dec. 30, 2019	CCC-/Negative	Apr. 06, 2020	0
Ecuador, second default	Apr. 13, 2020	Jun. 15, 2009	B+/Stable	Aug. 11, 2015	3
Suriname, first default	Jul. 13, 2020	Nov. 23, 1999	BB-/Positive	Apr. 27, 2014	0
Belize, fourth default	Aug. 12, 2020	Mar. 23, 2017	B-/Stable	Apr. 15, 2020	2
Zambia	Oct. 21, 2020	Mar. 22, 2011	B+/Stable	Oct. 24, 2013	5
Suriname, second default	Nov. 06, 2020	Jul. 16, 2020	CCC/Stable	Nov. 05, 2020	3
<b>Local currency sovereign credit rating defaults</b>					
Dominican Republic	Apr. 9, 1999	Nov. 12, 1997	BB/Stable	Apr. 8, 1999	0
Suriname	Jan. 1, 2000	Nov. 23, 1999	B/Stable	Dec. 31, 1999	0
Argentina	Nov. 6, 2001	Sep. 1, 1994	BBB-/Stable	Nov. 13, 2000	6
Cameroon	Sep. 1, 2004	Nov. 26, 2003	B/Stable	Aug. 31, 2004	0
Grenada, first default	Jan. 1, 2005	Mar. 22, 2002	BB-/Stable	Sep. 16, 2004	3
Grenada, second default*	Dec. 1, 2006	Nov. 18, 2005	B-/Stable	Nov. 30, 2006	0
Ecuador, first default	Dec. 15, 2008	Aug. 25, 2000	B-/Stable	Nov. 13, 2008	6
Jamaica, first default	Jan. 14, 2010	Nov. 9, 1999	BB-/Stable	Jul. 27, 2003	6
Greece, first default	Feb. 27, 2012	Mar. 26, 1997	A+/Stable	Nov. 16, 2004	10
Greece, second default	Dec. 5, 2012	May. 2, 2012	CCC/Stable	Dec. 4, 2012	0
Jamaica, second default	Feb. 12, 2013	Feb. 24, 2010	B-/Stable	Feb. 11, 2013	0
Grenada, third default	Mar. 12, 2013	Apr. 2, 2007	B-/Stable	Oct. 7, 2012	2
Cyprus	Jun. 28, 2013	Jul. 16, 1996	AA+/Stable	Nov. 8, 1998	14

Table 19

**Length Of Time To Default (cont.)**

Government	Date of default	Date of initial rating	Highest rating/outlook before default	Last date of highest rating	Number of intermediate rating actions
El Salvador, first default	Apr. 20, 2017	Aug. 26, 1996	BBB+/Stable	Jan. 22, 2001	7
El Salvador, second default	Oct. 2, 2017	May. 5, 2017	CC/Negative	Oct. 1, 2017	0
Barbados	Aug. 7, 2018	Dec. 17, 1999	AA-/Stable	Aug. 19, 2003	11
Argentina, second default	Aug. 29, 2019	Jun. 01, 2005	B+/Stable	Oct. 30, 2017	12
Argentina, third default	Jan. 21, 2020	Aug. 30, 2019	CCC-/Negative	Jan. 20, 2020	0
Ecuador, second default	Apr. 13, 2020	Jun. 15, 2009	B+/Stable	Aug. 11, 2015	3

Notes: Mali defaulted in 2012; we withdrew the rating in 2008. Grenada cured its first two local currency defaults before ratings were changed. \*The ratings on Seychelles and Grenada were withdrawn while they were still in default. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

On average, for those sovereigns that eventually default, there is a correlation between the initial rating and the time to default--the higher the rating, the longer the time to default. For example, for the entire pool of sovereign defaults (1975-2020), the average times to default for issuers that were originally rated in the 'AA' and 'BBB' categories were 19.37 years and 15.08 years, respectively, from the initial ratings, whereas issuers in the 'B' rating category had an average time to default of only 7.06 years.

When an issuer emerges from a default (including selective default), we treat it as a new entity with a newly assigned initial rating. Tables 20 and 21 display the median, average, and standard deviations for the times to default from original foreign currency and local currency ratings. Tables 22 and 23 present the average and median times to default from the date we assigned each entity a unique rating on its path to default, excluding the original rating.

In both cases, the standard deviation of the times to default shrinks progressively as the rating gets lower within speculative-grade. Generally speaking, the average time to default for each rating category is longer when based on the initial rating on a sovereign than when based on later ratings.

Table 20

**Time To Default From Original Rating--Foreign Currency Ratings**

(Years)	Average	Median	Standard deviation	Number of defaults
AAA	27.29	27.29	-	1
AA	19.37	19.37	-	1
A	18.47	18.47	-	1
BBB	15.08	15.08	11.86	2
BB	9.98	7.76	7.74	8
B	7.06	6.89	4.98	21

Table 20

**Time To Default From Original Rating--Foreign Currency Ratings (cont.)**

(Years)	Average	Median	Standard deviation	Number of defaults
CCC/CC	1.77	0.41	3.67	8
Total	8.04	6.79	7.36	42

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 21

**Time To Default From Original Rating--Local Currency Ratings**

(Years)	Average	Median	Standard deviation	Number of defaults
AAA	-	-	-	0
AA	17.80	17.80	1.19	2
A	14.92	14.92	-	1
BBB	13.92	13.92	9.52	2
BB	2.09	2.09	0.97	2
B	5.78	5.64	5.26	8
CCC/CC	3.63	0.59	4.67	5
Total	7.35	6.56	6.80	20

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 22

**Time To Default From Post-Original Ratings--Foreign Currency Ratings**

(Years)	Average	Median	Standard deviation	Number of defaults
AAA	-	-	-	0
AA	22.43	22.43	-	1
A	9.32	8.72	6.10	1
BBB	7.49	5.92	6.48	4
BB	6.25	4.60	5.86	4
B	4.61	3.34	4.54	16
CCC/CC	1.15	0.45	2.06	8
NR	3.74	3.74	-	1
Total	4.22	1.91	5.07	35

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 23

**Time To Default From Post-Original Ratings--Local Currency Ratings**

(Years)	Average	Median	Standard deviation	Number of defaults
AAA	-	-	-	0
AA	14.10	14.10	0.75	1
A	7.96	8.57	4.38	2
BBB	4.55	2.20	3.62	0
BB	5.09	4.71	4.73	3
B	4.10	2.60	4.02	4
CCC/CC	1.14	0.35	2.03	2
NR	4.50	4.50	-	1
Total	4.22	2.29	4.41	13

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Appendix 1: Gini Ratios**

In addition to examining the absolute performance of ratings, we examine their relative performance. We utilize the Lorenz curve, a graphical representation of the proportionality of a distribution, as one measure of relative ratings performance, and we summarize this via the Gini coefficient. For this study, the Lorenz curve is plotted with the x-axis showing the cumulative share of issuers, arranged by rating, while the y-axis represents the cumulative share of defaulters, also arranged by rating. For both axes of the Lorenz curve, the observations are ordered from the low end of the ratings scale ('CCC'/'CC') to the high end ('AAA').

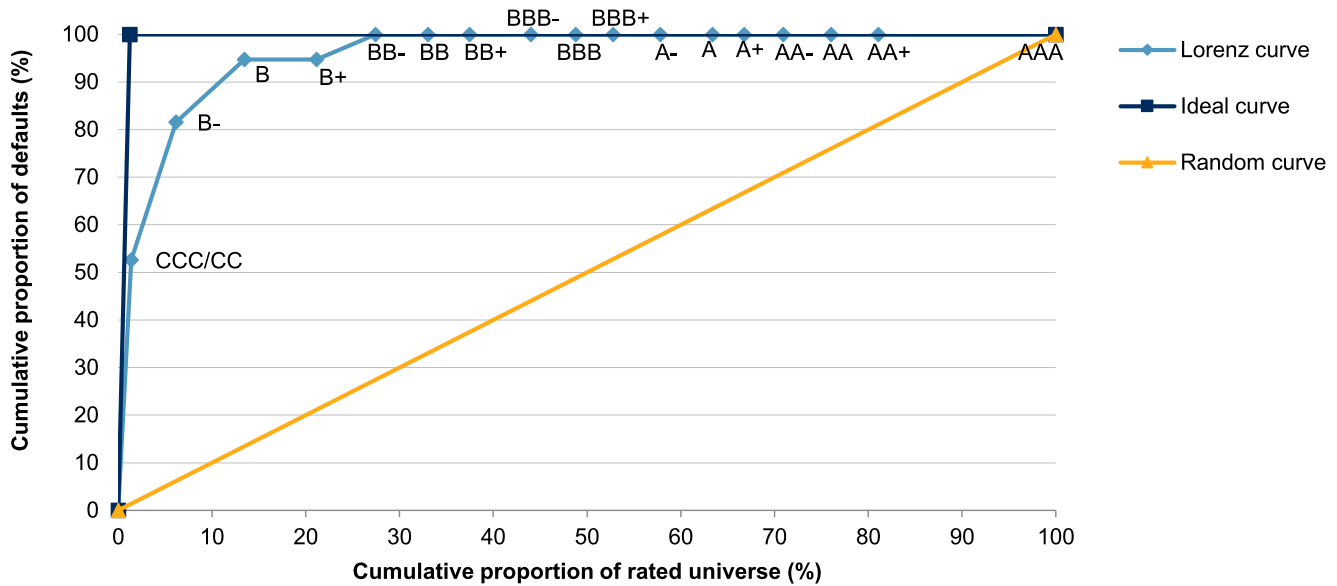
As an example, if entities rated 'CCC+' to 'CC' made up 10% of the total issuers at the start of the time frame examined (x-axis) and 50% of the defaulters (y-axis), then the coordinate (10, 50) would be the first point on the curve. If S&P Global Ratings' sovereign credit ratings only randomly approximated default risk, the Lorenz curve would fall along the diagonal. The Gini coefficient--which is a summary statistic of the Lorenz curve--would thus be zero. If the ratings were perfectly rank ordered so that all defaults occurred only among the lowest-rated entities, the curve would capture all of the area above the diagonal on the graph (the ideal curve), and the Gini coefficient would be 1.

Lorenz curves for foreign currency and local currency sovereign credit ratings resemble the ideal Lorenz curves, though the small sample size results in less accurate readings than in larger sectors. A larger number of data points would register a smooth line that curves as in chart 15. Many of the other charts show lines that take sharp turns, resulting in angles rather than curves.

Chart 15 shows the one-year Lorenz curve for sovereign foreign currency ratings, and table 24 provides further details. The first point indicates that sovereigns rated 'CCC+' and lower accounted for 1.39% of ratings and 52.6% of defaults over a one-year horizon. Sovereigns rated 'B+' and lower accounted for 21.15% of sovereign ratings and yet nearly 95% of defaults. Because there are no defaults at any rating higher than 'BB-', the chart shows a strong relationship between speculative-grade ratings and defaults. Fewer defaults come from the higher-rated cohorts of sovereigns.

Chart 15

### Sovereign Foreign Currency One-Year Rating Performance



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Table 24

### Sovereign One-Year Lorenz Curve Values

(%)	Y-axis: cumulative proportion of defaults	X-axis: cumulative proportion of ratings
AAA	100	100
AA+	100	81.08
AA	100	76.04
AA-	100	70.94
A+	100	66.77
A	100	63.38
A-	100	57.83
BBB+	100	52.79
BBB	100	48.79
BBB-	100	44.01
BB+	100	37.49
BB	100	33.03
BB-	100	27.45
B+	94.74	21.15
B	94.74	13.46



Table 24

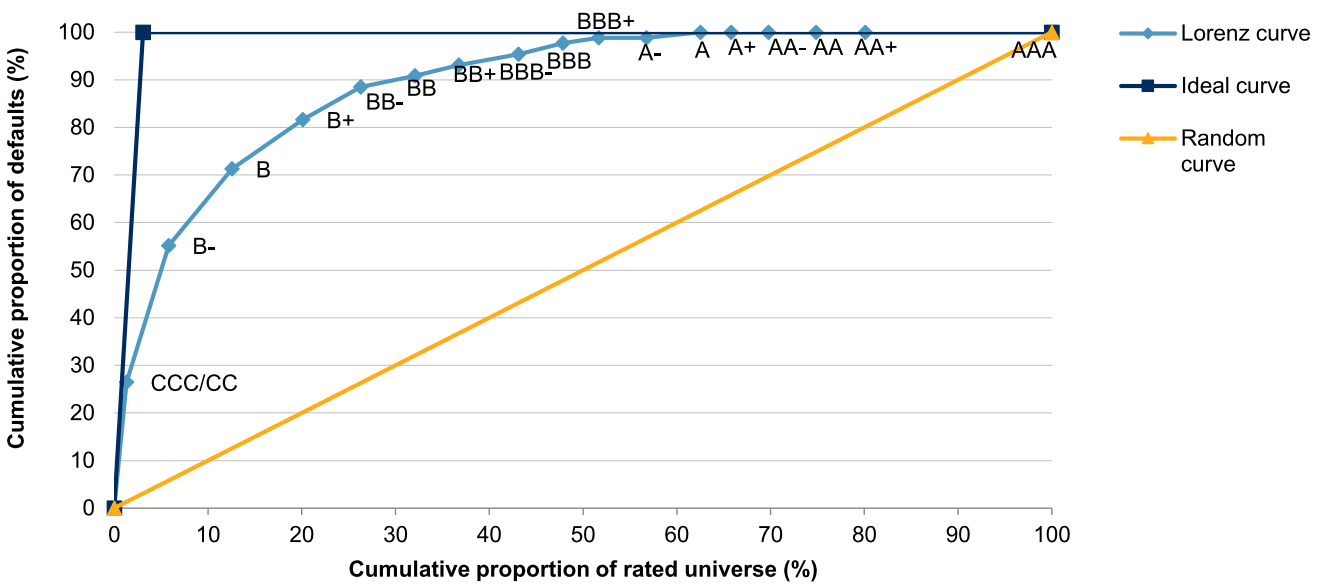
**Sovereign One-Year Lorenz Curve Values (cont.)**

(%)	Y-axis: cumulative proportion of defaults	X-axis: cumulative proportion of ratings
B-	81.58	6.17
CCC/CC	52.63	1.39

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Chart 16

**Sovereign Foreign Currency Three-Year Rating Performance**

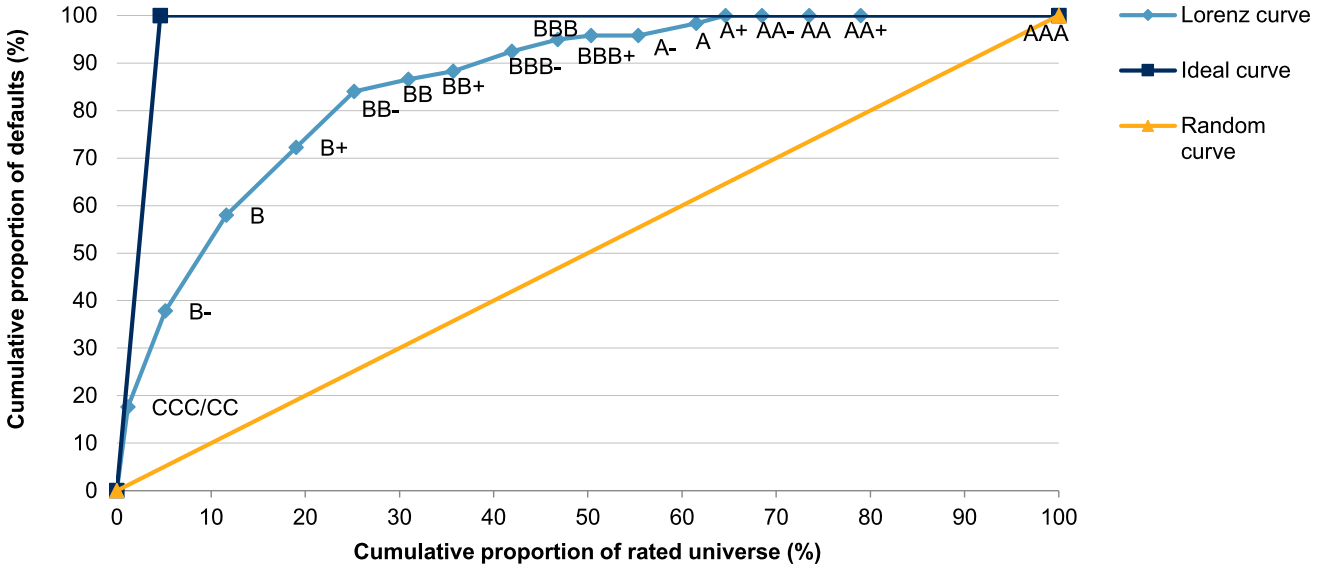


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 17

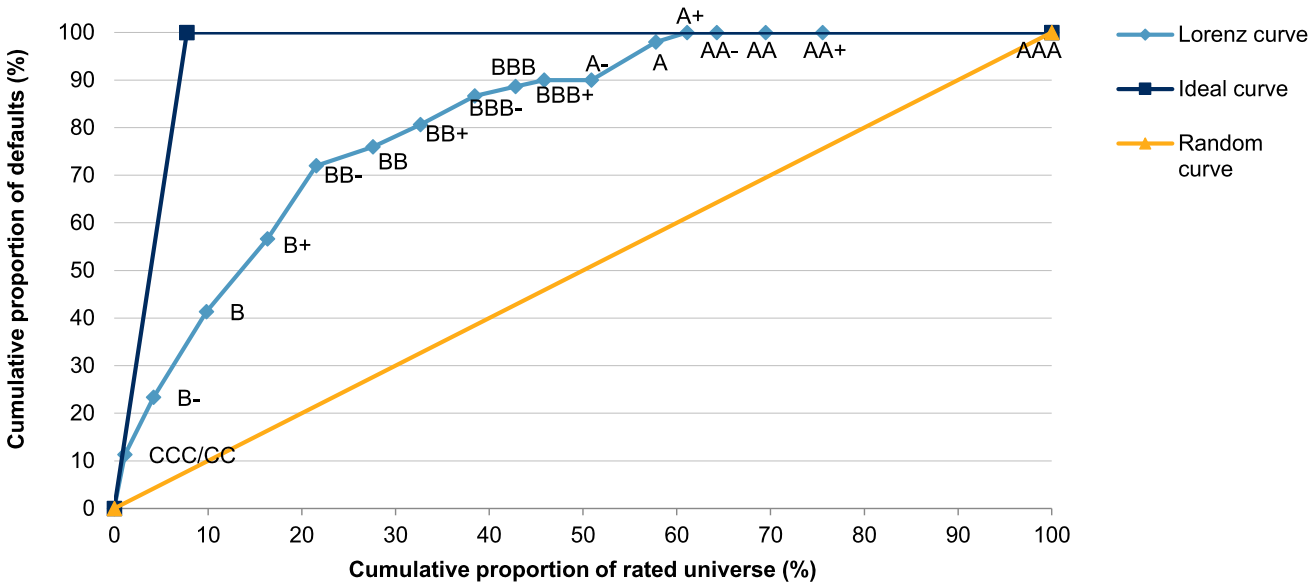
### Sovereign Foreign Currency Five-Year Rating Performance



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 18

### Sovereign Foreign Currency 10-Year Rating Performance

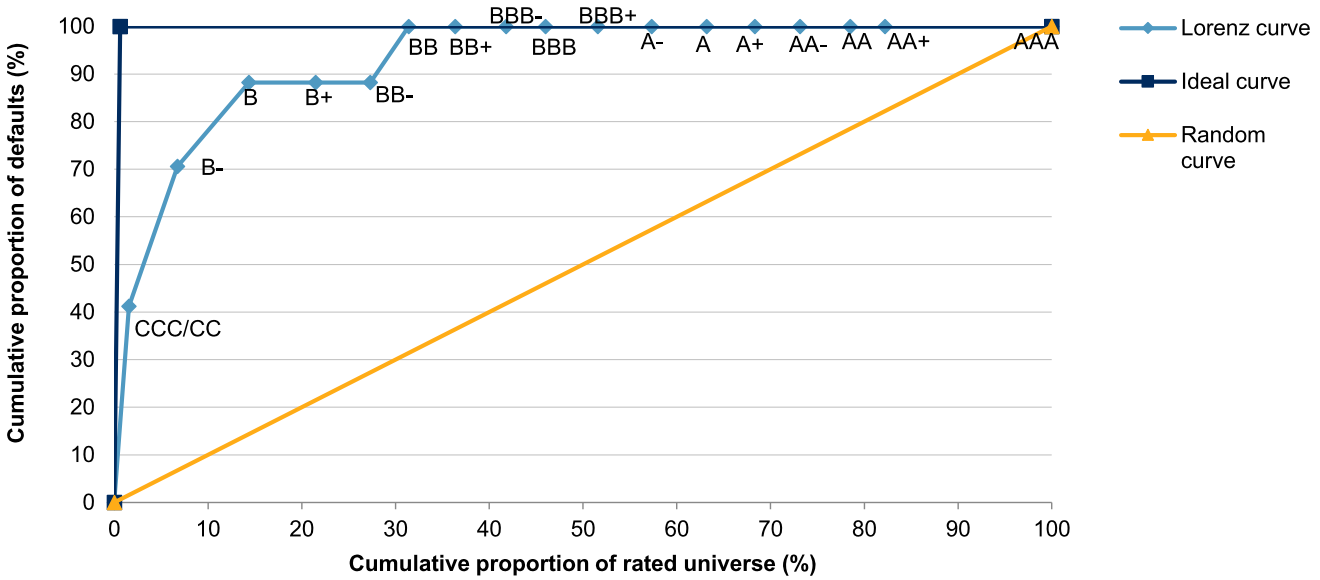


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Over the one-, three-, five-, and 10-year horizons, weighted average Gini coefficients for foreign currency sovereign credit ratings are higher than those of local currency ratings. Foreign currency and local currency Gini coefficients are based on two separate datasets. Foreign currency ratings present a larger sample, with ratings over a longer time horizon and more defaults. The rating history for local currency ratings begins in 1993, and credit events such as the Asian financial crisis in 1997, the global financial crisis in 2008, and the eurozone sovereign debt crisis in 2010-2012 have higher weighting within this shorter sample period (see charts 19-22).

Chart 19

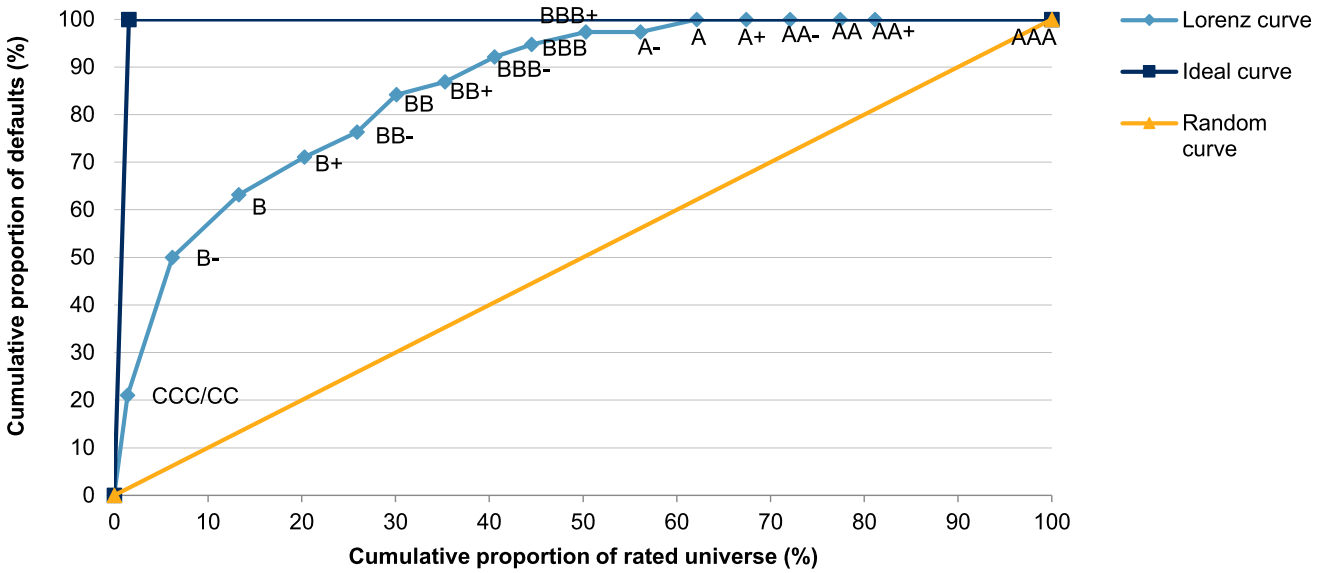
### Sovereign Local Currency One-Year Rating Performance



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 20

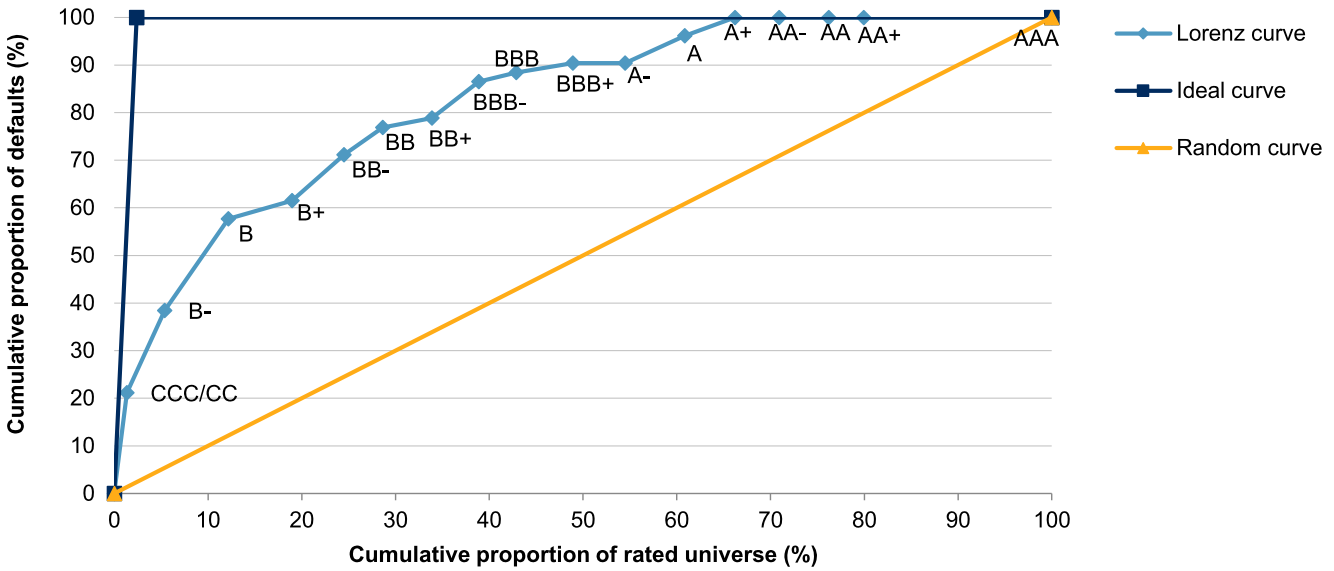
### Sovereign Local Currency Three-Year Rating Performance



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 21

**Sovereign Local Currency Five-Year Rating Performance**

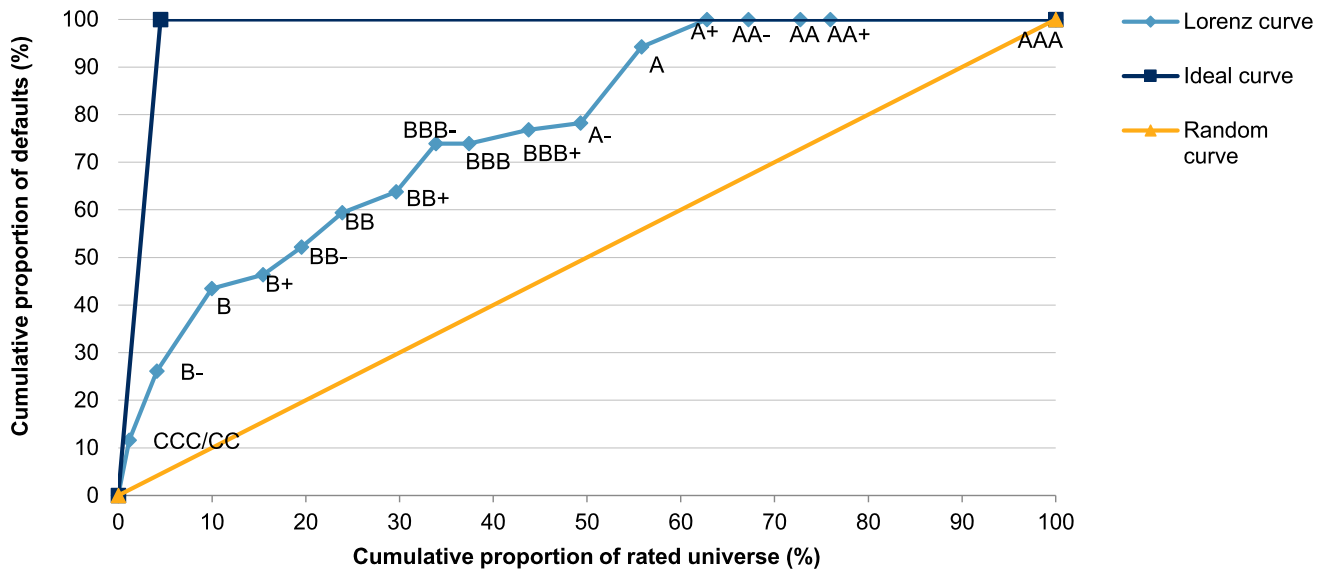


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 22

### Sovereign Local Currency 10-Year Rating Performance



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

## Appendix 2: Regional Ratings Distribution And Rating Actions

### Regional ratings distribution

S&P Global Ratings segments most of the sovereigns it rates into five regional categories:

- Middle East and Africa (including North Africa and sub-Saharan Africa)
- Latin America (including the Caribbean)
- Asia-Pacific
- Eurozone
- Central and Eastern Europe and the Commonwealth of Independent States (CIS)--the former Soviet republics

In this study, we also include a broad designation for the emerging and frontier markets region, consisting of 101 sovereigns (including those currently and formerly rated), which come from all of the categories except the eurozone (see table 25).

**Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study**

Table 25

**Sovereigns By Region**

<b>Middle East And Africa</b>	<b>Latin America</b>	<b>Central and Eastern Europe and Commonwealth of Independent States</b>	<b>Asia-Pacific</b>	<b>Eurozone</b>	<b>--Emerging and frontier markets--</b>		
Abu Dhabi	Argentina	Albania	Australia	Austria	Abu Dhabi	Ethiopia	Papua New Guinea
Angola	Aruba	Azerbaijan	Bangladesh	Belgium	Albania	Fiji	Paraguay
Bahrain	Bahamas	Belarus	Cambodia	Cyprus	Angola	Gabon	Peru
Benin	Barbados	Bosnia and Herzegovina	China	Estonia*	Argentina	Georgia	Philippines
Botswana	Belize	Bulgaria	Cook Islands	Finland	Aruba	Ghana	Poland
Burkina Faso	Bermuda	Croatia	Fiji	France	Azerbaijan	Grenada	Qatar
Cameroon	Bolivia	Czech Republic	Hong Kong	Germany	Bahamas	Guatemala	Ras Al Kaimah
Cape Verde	Brazil	Estonia*	India	Greece	Bahrain	Honduras	Romania
Congo	Chile	Georgia	Indonesia	Ireland	Bangladesh	Hong Kong	Russia
Congo, D.R.	Colombia	Hungary	Japan	Italy	Barbados	Hungary	Rwanda
Egypt	Costa Rica	Kazakhstan	Korea	Latvia*	Belarus	India	Saudi Arabia
Ethiopia	Curacao	Latvia*	Malaysia	Lithuania*	Belize	Indonesia	Senegal
Ghana	Dominican Republic	Lithuania*	Mongolia	Luxembourg	Bermuda	Iraq	Serbia
Iraq	Ecuador	Macedonia	New Zealand	Malta	Bolivia	Israel	Sharjah
Israel	El Salvador	Montenegro	Pakistan	Netherlands	Bosnia & Herzegovina	Jamaica	Singapore
Jordan	Guatemala	Poland	Papua New Guinea	Portugal	Botswana	Jordan	South Africa
Kenya	Honduras	Romania	Philippines	Slovak Republic*	Brazil	Kazakhstan	Sri Lanka
Kuwait	Jamaica	Russia	Singapore	Slovenia*	Bulgaria	Kenya	Suriname
Lebanon	Mexico	Serbia	Sri Lanka	Spain	Burkina Faso	Korea	Taiwan
Morocco	Montserrat	Slovak Republic*	Taiwan		Cambodia	Kuwait	Tajikistan
Mozambique	Nicaragua	Slovenia*	Thailand		Cameroon	Lebanon	Thailand
Nigeria	Panama	Tajikistan	Vietnam		Cape Verde	Macedonia	Togo
Oman	Paraguay	Turkey			Chile	Malaysia	Trinidad & Tobago
Qatar	Peru	Ukraine			China	Mexico	Tunisia
Ras Al Khaimah	Suriname	Uzbekistan			Colombia	Mongolia	Turkey



Table 25

**Sovereigns By Region (cont.)**

Middle East And Africa	Latin America	Central and Eastern Europe and Commonwealth of Independent States	Asia-Pacific	Eurozone	--Emerging and frontier markets--		
Rwanda	Trinidad and Tobago				Congo, D.R.	Montenegro	Turks and Caicos Islands
Saudi Arabia	Turks and Caicos				Congo-Brazzaville (Congo)	Montserrat	Uganda
Senegal	Uruguay				Costa Rica	Morocco	Ukraine
Sharjah	Venezuela				Croatia	Mozambique	Uruguay
South Africa					Curacao	Nicaragua	Uzbekistan
St. Helena					Dominican Republic	Nigeria	Venezuela
Togo					Ecuador	Oman	Vietnam
Uganda					Egypt	Pakistan	Zambia
Zambia					El Salvador	Panama	

\*Included in two European regions. Source: S&P Global Ratings Research.

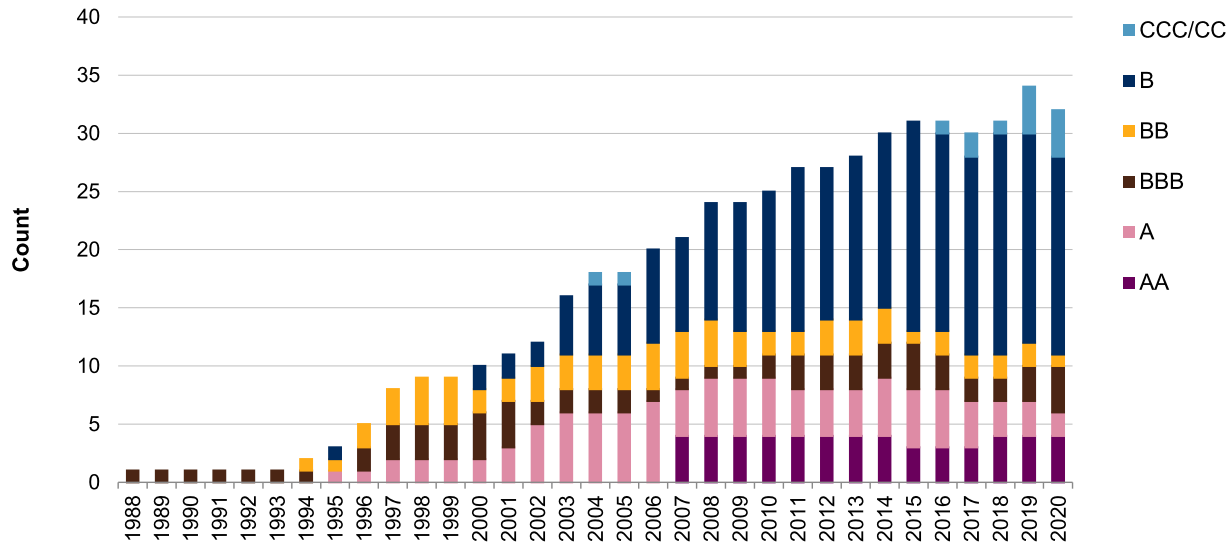
Most new sovereign ratings since 1998 have come from the Middle East, Africa, and Latin America, and these regions have added the most speculative-grade ratings to the pool of sovereign ratings over the past decade. The percentage of sovereign ratings in Central and Eastern Europe and the CIS has also grown substantially over the past 20 years, but the growth is notably smaller on an absolute basis. Asia-Pacific has added fewer ratings than other regions, and its increase has not notably affected the overall quality of sovereign credit ratings. Meanwhile, the eurozone has retained its tally of 19 ratings since 1998.

With much of the growth in sovereign ratings coming from regions with higher concentrations of lower-rated issuers, the overall effect has been reduced credit quality for sovereigns generally, while the global coverage of rated countries has broadened.

**Middle East and Africa.** At the end of 2020, there were 32 sovereign credit ratings in the Middle East and Africa, with an additional two in default. This compares with nine rated sovereigns in the region in 1998. Sovereign ratings in this region are concentrated at the lower rating levels, with 22 speculative-grade ratings and all but one of these in the 'B' category or lower (see chart 23).

Chart 23

### Distribution of Middle East And Africa Sovereign Ratings

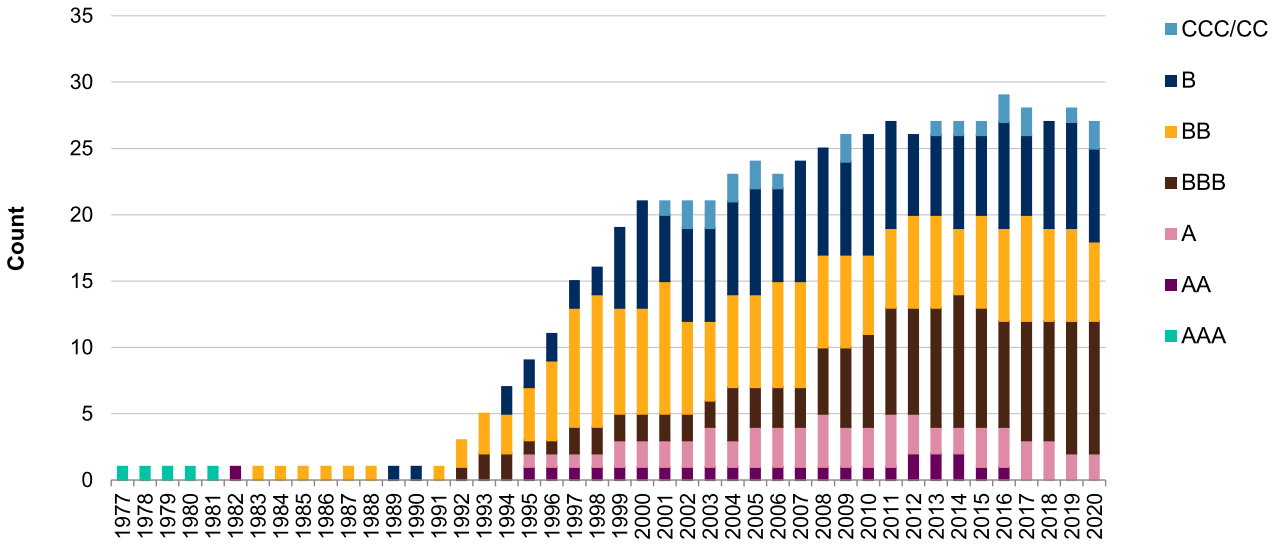


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Latin America.** The number of Latin American sovereign credit ratings has increased steadily since 1993, and the majority have been speculative-grade in all but one year (2014). At the end of 2020, there were 27 Latin American sovereigns with foreign currency sovereign credit ratings, and 15 of these were rated speculative-grade. Furthermore, two additional sovereigns (Suriname and Venezuela) were rated 'SD' at the end of 2020. Among the 12 investment-grade sovereigns, the 'BBB' category is the largest, with 10 sovereigns (see chart 24).

Chart 24

### Distribution Of Latin America Sovereign Ratings

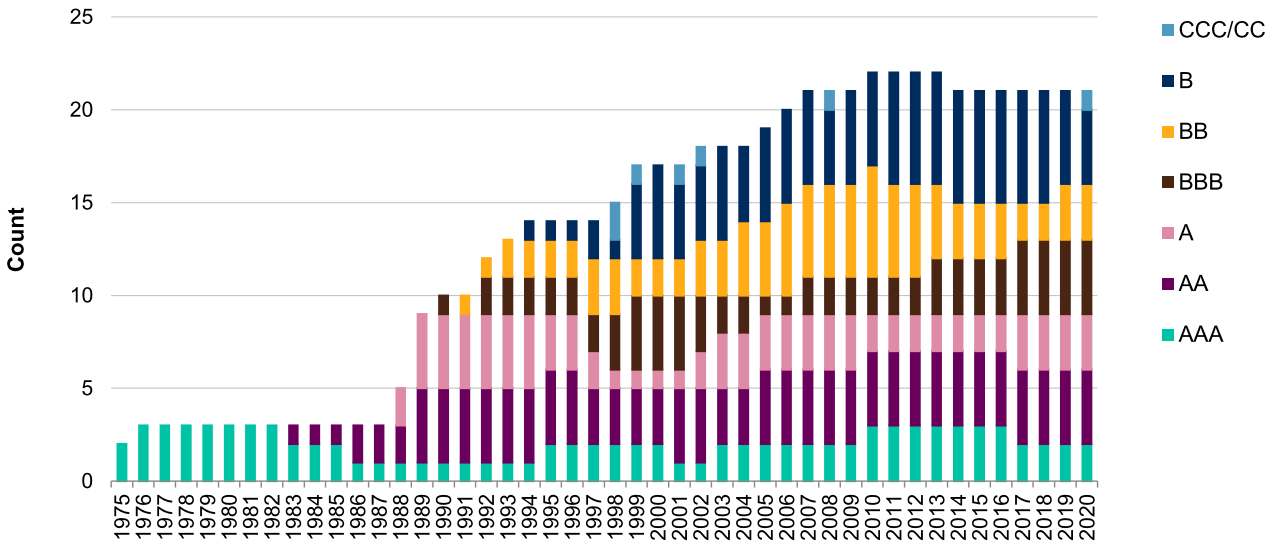


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Asia-Pacific.** At the end of 2020, there were 21 rated Asia-Pacific sovereigns, and this count has been largely steady since 2007. Asia-Pacific sovereigns show a broad range of credit quality. About 62% of rated sovereigns in the region are investment-grade, and two are rated 'AAA': Australia and Singapore. Of the regions we cover, Asia-Pacific has the most even distribution of sovereign ratings, with no single rating category accounting for more than 20% of the region's foreign currency ratings (see chart 25).

Chart 25

### Distribution of Asia-Pacific Sovereign Ratings

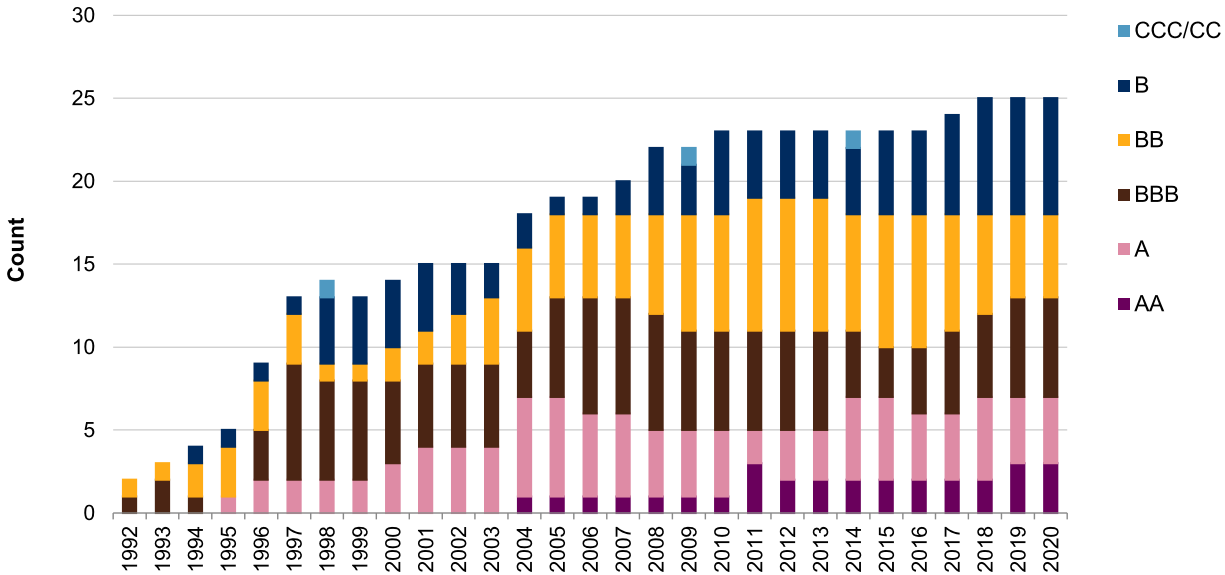


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Central and Eastern Europe and the CIS.** At the end of 2020, there were 25 rated sovereigns from Central and Eastern Europe and the CIS, 48% of which were speculative-grade. This marks the second year in a row with most sovereigns in this region rated investment-grade, after the majority were speculative-grade in each year from 2010 through 2018. By rating category, the 'B' category is the largest, with seven issuers. 'B' category ratings surpassed 'BB' category ratings in 2018 and have since accounted for a growing share of speculative-grade ratings in the region. Within the investment-grade category, the 'BBB' category is largest, with six issuers (see chart 26).

Chart 26

### Distribution Of Central And Eastern Europe And CIS Sovereign Ratings

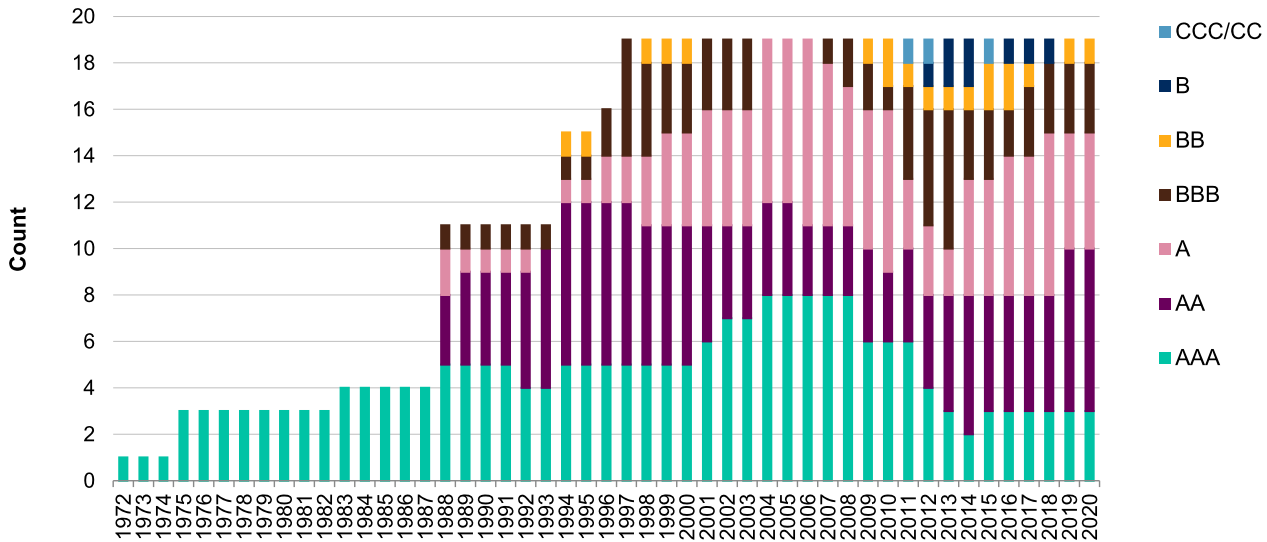


CIS--Commonwealth of Independent States. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Eurozone.** Among all regions, the eurozone has the fewest sovereign credit ratings, with 19, and this number has not changed since 1997. Eurozone ratings are also the highest, with more than half either 'AAA' or in the 'AA' category, and just one sovereign in the region (Greece) is currently rated speculative-grade (see chart 27).

Chart 27

### Distribution Of Eurozone Sovereign Ratings

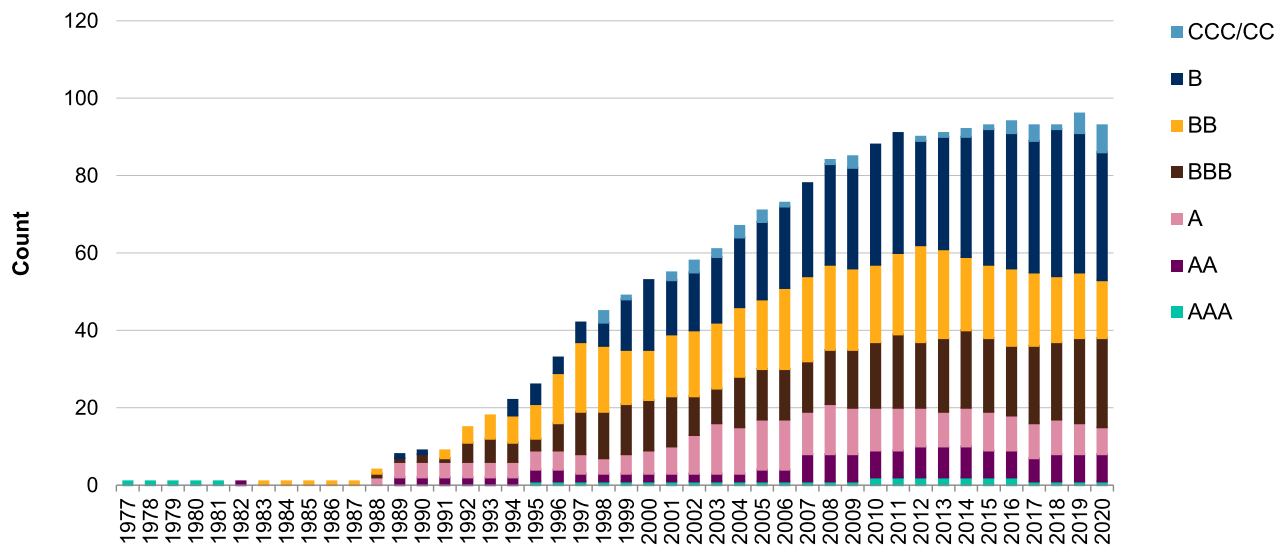


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Emerging and frontier markets.** At the end of 2020, there were 93 rated emerging and frontier market sovereigns not rated 'SD', and 59% of these were speculative-grade. The number of rated emerging market sovereigns has more than doubled since 1998, and the majority have been speculative-grade in each year since. The 'B' rating category is the largest within emerging and frontier markets and accounts for about 60% of speculative-grade issuers in the region. The number of emerging market sovereigns rated 'CCC+' or lower has been rising over the past 10 years, reaching a high of seven by the end of 2020 (see chart 28).

Chart 28

### Distribution Of Emerging And Frontier Market Sovereign Ratings



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

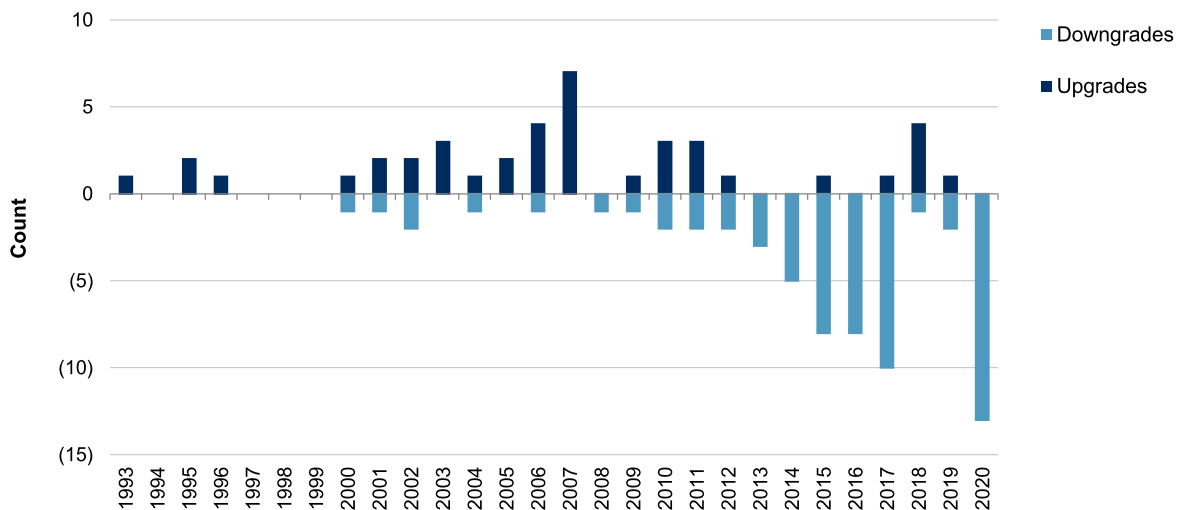
### Regional rating movement

**Middle East and Africa.** Downgrades (including defaults) of Middle Eastern and African sovereigns rose to a high of 13 in 2020. This comes after a period of few downgrades in 2018-2019, which followed a period of credit stress in 2015–2017 that was related to a collapse in oil prices. Downgrades in this region have sharply outnumbered upgrades in the years since the global financial crisis, with 56 downgrades and only 14 upgrades in 2010-2020.

Last year posed unprecedented challenges for the region. Not only did the pandemic depress both domestic and external demand for many sectors, but oil exporters also suffered from extreme price volatility, with crude prices even falling below zero for a short period. The oil price collapse hurt external and fiscal positions for energy exporters. In fact, of the 13 rating actions, only Lebanon's default was not linked to either of these two factors (see chart 29).

Chart 29

### Middle East And Africa Rating Actions



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Latin America.** After falling in 2018 and 2019, Latin American sovereign downgrades rose to a high of 11 in 2020 (up from just three in 2019). These included five downgrades to 'SD' for four sovereigns. There were no upgrades.

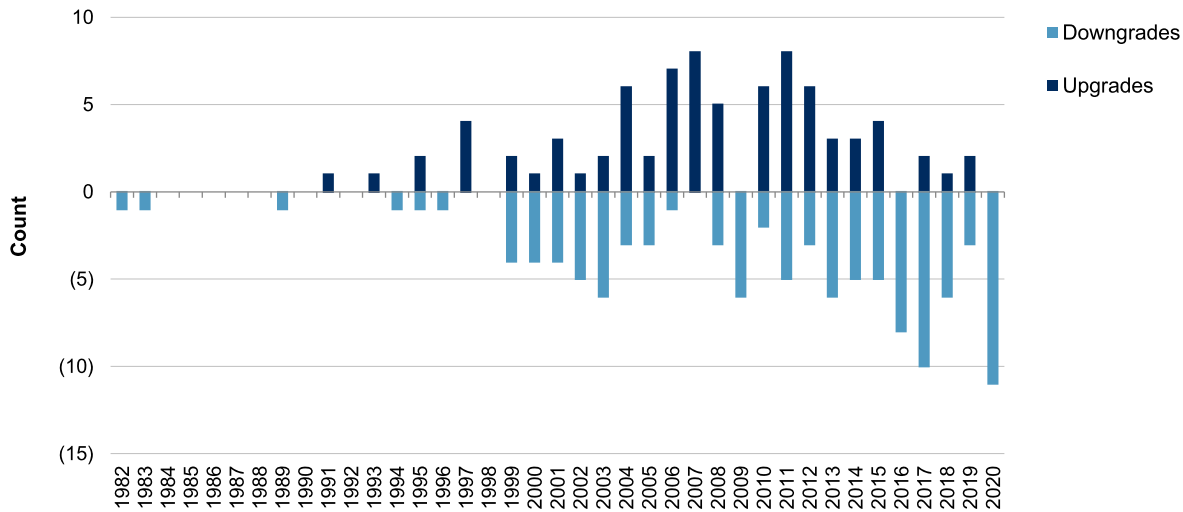
The pandemic was a crucial contributor to economic and fiscal difficulties that resulted in most of the downgrades. Health issues weighed down both production and domestic demand, and economies contracted sharply, which pressured fiscal revenue and credit metrics. External balances also suffered in tourism-dependent economies such as the Bahamas. With its wide-ranging effects, the pandemic was cited as a factor in the rating actions on each of the four sovereigns that defaulted in 2020.

After OPEC+ failed to agree on a reduction in oil supply during a meeting on March 6, 2020, oil prices plunged, and the sell-off was exacerbated by the collapse in demand as COVID-19 brought about a global recession. Lower oil prices pressured fiscal outcomes and external balances for many Latin American sovereigns in 2020, and these lower prices were cited as a factor in five of the downgrades in 2020: Bolivia, Trinidad and Tobago, Mexico, Ecuador, and Suriname (see chart 30).



Chart 30

Latin America Rating Actions



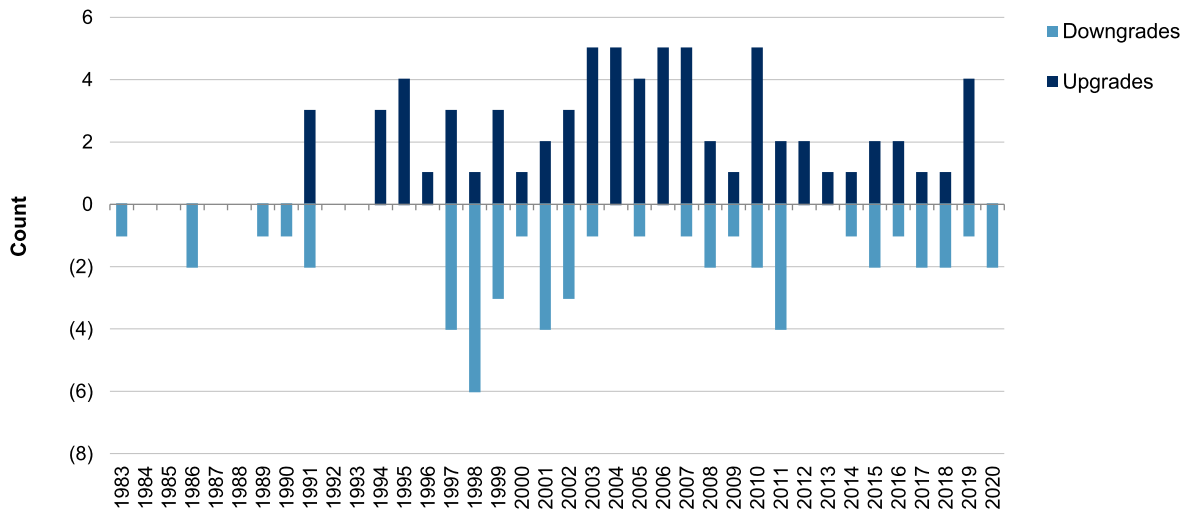
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Asia-Pacific.** Last year was the first year since 1993 that no Asia-Pacific sovereigns were upgraded. Nonetheless, the region's sovereign ratings were more stable during the year than the ratings in other regions, with just two downgrades. The public health outcomes during the pandemic varied across the region, with the more developed economies able to control the virus better and earlier than the rest. Nonetheless, most of the region's economic prospects were supported by strong, resilient demand during the pandemic for export goods, particularly electronics and home office equipment.

There were two negative rating actions in the region in 2020. We downgraded Papua New Guinea to 'B-' from 'B', and we downgraded Sri Lanka twice during the year, to 'CCC+'. The pandemic's economic and budgetary effects weighed on the fiscal metrics of both sovereigns, while low oil and gas prices were a further challenge for the former (see chart 31).

Chart 31

Asia-Pacific Rating Actions

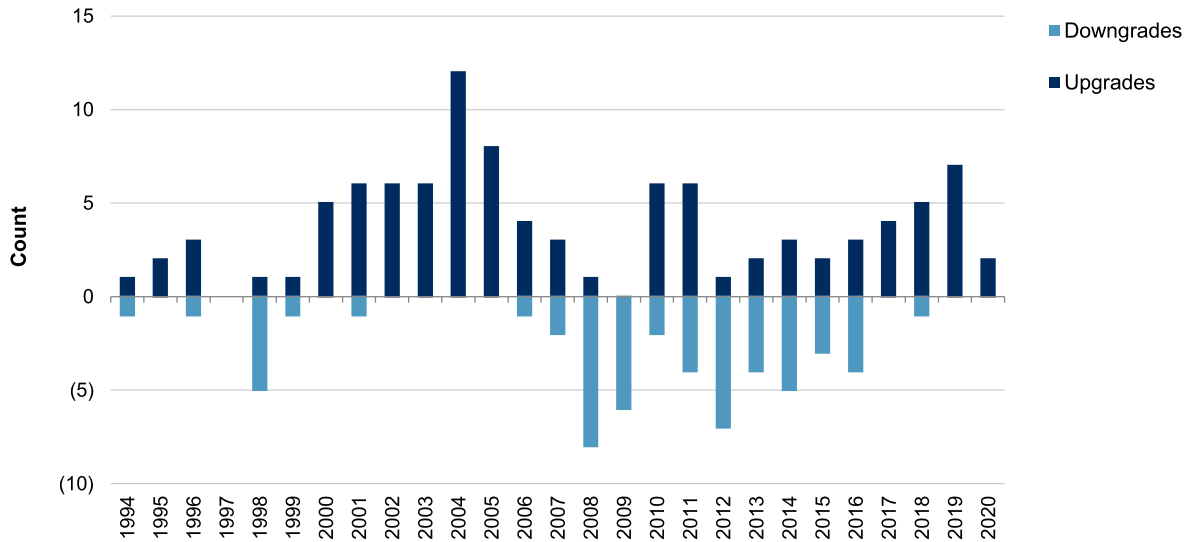


Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Central and Eastern Europe and the CIS.** Although the number of upgrades in Central and Eastern Europe and the CIS dropped in 2020 (after steadily increasing between 2015 and 2019), rating actions in this region remained largely positive for the year, with two upgrades and no downgrades. We upgraded both Lithuania and Latvia by one notch, to 'A+', on the back of strong growth trends and good fiscal outcomes that improved their debt paths. Both sovereigns were upgraded in February, before the extent of COVID-19's global spread was fully known (see chart 32).

Chart 32

### Central And Eastern Europe And CIS Rating Actions



CIS--Commonwealth of Independent States. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

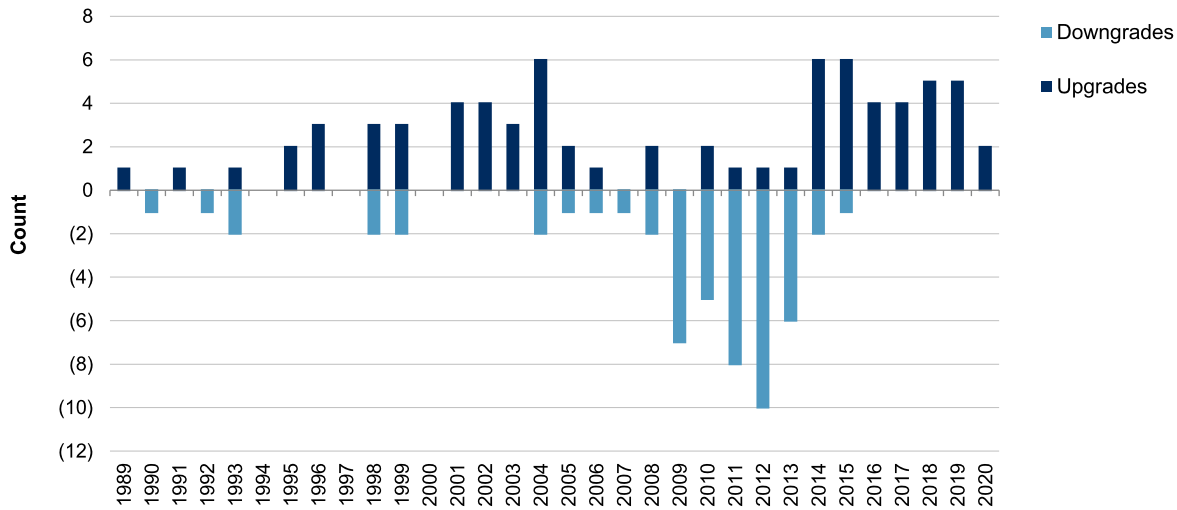
Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Eurozone.** Eurozone sovereign rating actions have been largely positive in the past seven years as the region has recovered from the global financial crisis and the regional sovereign debt crisis. Eurozone sovereigns had two upgrades in 2020, and the region had no downgrades for a fifth consecutive year. However, even with these positive rating actions over the past five years, the region's credit quality remains weaker than before those crises. About 79% of eurozone sovereigns were rated in the 'A' category or higher at the end of 2020, down from 95% at the end of 2007.

COVID-19 has brought the string of upgrades to a halt, at least for now. The pandemic caused eurozone economies to contract, necessitating large increases in public spending. Debt levels have risen substantially for many sovereigns, creating further risks if the economic recovery is much slower than expected (see chart 33).

Chart 33

**Eurozone Rating Actions**



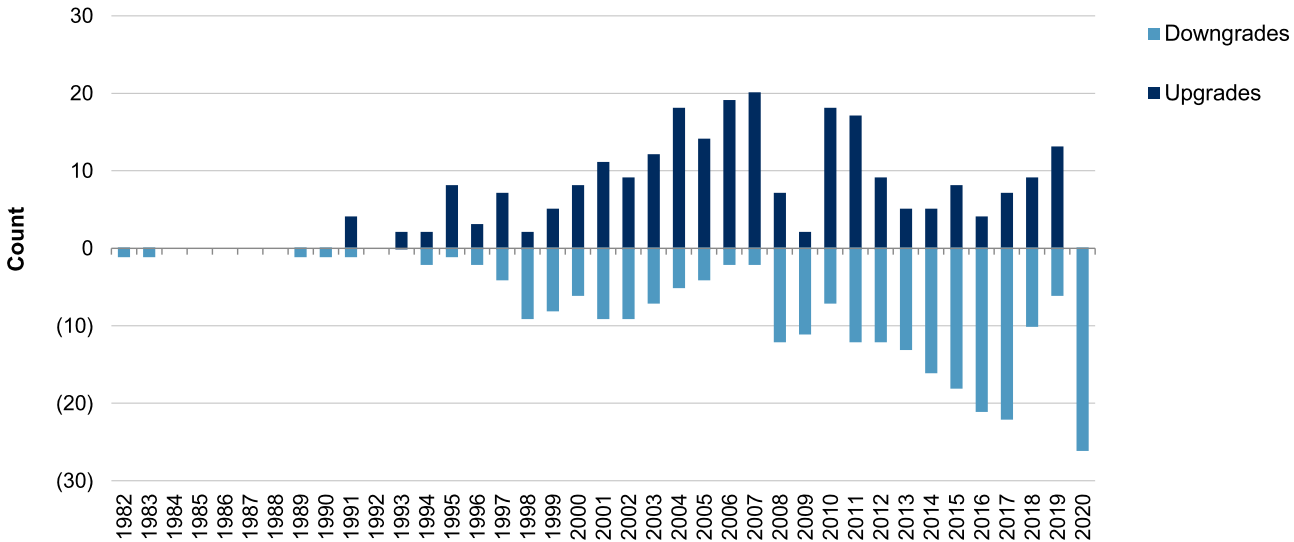
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Emerging and frontier markets.** Emerging and frontier markets, which include countries also included within the other regions, faced challenges from the pandemic and falling oil prices in 2020. All the sovereign defaults during the year were of emerging and frontier market sovereigns. There were no upgrades for the region's sovereigns for the first time since 1992, and we downgraded a record 26 sovereigns from this region. Most of these downgrades were of countries that entered 2020 with speculative-grade ratings, which were less resilient to the unexpected difficulties of 2020.

Speculative-grade issuers accounted for an outside proportion of emerging market downgrades in 2020, with 69% (see chart 34).

Chart 34

### Emerging And Frontier Market Rating Actions



Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.  
 Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

**Other sovereigns.** In addition to the sovereigns grouped in the regions above, 12 rated sovereigns--including the U.S., the U.K., and Canada--are not designated in any of these regional categories (see table 26).

Table 26

### Ratings On Other Sovereigns, Including The U.S., The U.K., And Canada, As Of Dec. 31, 2020

Country	Foreign currency ratings (long-term/outlook/short-term)	Local currency ratings (long-term/outlook/short-term)
U.S.	AA+/Stable/A-1+	AA+/Stable/A-1+
U.K.	AA/Stable/A-1+	AA/Stable/A-1+
Canada	AAA/Stable/A-1+	AAA/Stable/A-1+
Denmark	AAA/Stable/A-1+	AAA/Stable/A-1+
Norway	AAA/Stable/A-1+	AAA/Stable/A-1+
Sweden	AAA/Stable/A-1+	AAA/Stable/A-1+
Switzerland	AAA/Stable/A-1+	AAA/Stable/A-1+
Iceland	A/Stable/A-1	A/Stable/A-1
Liechtenstein	AAA/Stable/A-1+	AAA/Stable/A-1+
Andorra	BBB/Stable/A-2	BBB/Stable/A-2
Guernsey	AA-/Stable/A-1+	AA-/Stable/A-1+

Table 26

**Ratings On Other Sovereigns, Including The U.S., The U.K., And Canada, As Of Dec. 31, 2020 (cont.)**

Country	Foreign currency ratings (long-term/outlook/short-term)	Local currency ratings (long-term/outlook/short-term)
Jersey	AA-/Stable/A-1+	AA-/Stable/A-1+

The sovereign ratings on Isle of Man, Kyrgyzstan, Libya, Madagascar, Mali, and Seychelles were withdrawn. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Appendix 3: Methodology And Definitions**

This study is based on long-term sovereign credit ratings. The methodology tracks rating migrations over time and includes revisions to 'SD' (selective default). An 'SD' rating is more common for sovereign issuers than a 'D' (default) rating because defaulting sovereigns often continue to service some of their debt. This study is based on issuer credit ratings as opposed to issue ratings. In other words, we look at the ratings on the central governments themselves, not the ratings on the individual securities these governments might have issued.

Our metrics treat all issuers equally and are not adjusted for size or influence. Therefore, for the purposes of this study, a default by Argentina counts the same as a default by Mali, even though the latter has a much smaller economy. Our study tracks defaults on a sovereign's commercial debt, including both bonds and bank loans.

Withdrawn ratings (as indicated with the abbreviation NR, which stands for "not rated") are included up until the date of withdrawal. We record defaults after the date of withdrawal if we obtain knowledge of those defaults. As of Dec. 31, 2020, S&P Global Ratings had withdrawn public ratings on 12 sovereigns: Benin, Cambodia, Gabon, Grenada, Guernsey, Isle of Man, Kyrgyz Republic, Libya, Madagascar, Mali, Seychelles, and Tunisia. (We reinstated the ratings on Benin in July 2018 and Guernsey in October 2014.) There are 181 total rating records for sovereigns, including defaulted ratings.

S&P Global Ratings generally defines "default" as the failure to meet a principal or interest payment on the due date in the original terms of a debt issue (see "S&P Global Ratings Definitions," Jan. 5, 2021). However, questions can arise when applying this definition to sovereign obligations. We consider a sovereign to be in default under any of the following circumstances:

- For local currency and foreign currency bonds, notes, and bills issued by the central government and held outside the public sector of the country, a sovereign default occurs when the central government either fails to pay scheduled debt service on the due date or tenders an exchange offer of new debt with less favorable terms than the original issue.
- For 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 for 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, from difficulty in contacting all debtholders to holdouts seeking payment in accordance with original terms, we have observed that participation

in sovereign distressed debt exchanges usually does not reach 100%. This stands in contrast with debt restructurings in the U.S. and many other jurisdictions, where all obligations are typically addressed in bankruptcy reorganization. An entity reorganizing outside of bankruptcy generally must continue payments on the holdouts' debt or face the prospect of an involuntary bankruptcy filing.

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

In general, S&P Global Ratings' sovereign credit 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, S&P Global Ratings eventually withdraws the defaulted ratings based on the diminished prospects for resolution and the defaulted ratings' lack of relevance in the context of the market. For example, S&P Global Ratings has no ratings 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 S&P Global Ratings first rated China in 1992, long after the new government repudiated pre-1949 debt. The default is included in our sovereign default survey, which covers defaults by rated and unrated issuers.

The dataset for this study includes sovereign credit ratings that were withdrawn following default. In those cases, if the sovereign has been rated again, a new record would have been established, and the new rating would not be connected to the defaulted rating. This creates more than one record for defaulted sovereigns. Therefore, there are 181 foreign currency records for 145 sovereigns that we have rated.

### Static pool methodology

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

We use the static pool methodology to avoid certain pitfalls in estimating default rates. For example, this methodology ensures that default rates account for rating migration and can be calculated across multiperiod time horizons. Some other methods for calculating default and rating transition rates might charge defaults against only the initial rating on the issuer, ignoring more recent rating changes that supply more current information. Other methods may calculate default rates using only the most recent year's default and rating data, which may yield comparatively low default rates during periods of high rating activity because they ignore prior years' default activity.

The pools are static in the sense that their membership remains constant over time. Each static pool can be interpreted as a buy-and-hold portfolio. Because errors, if any, are corrected by every new update and because the criteria for inclusion or exclusion of sovereigns in the default study are subject to minor revisions as time goes by, it is not possible to compare static pools across

different studies. Therefore, every update revises results to the same starting date of Dec. 31, 1975, to avoid continuity problems.

For instance, the 1976 static pool consists of all sovereigns rated as of 12:01 a.m. on Jan. 1, 1976. Adding those sovereigns first rated in 1976 to the surviving members of the 1976 static pool forms the 1977 static pool. All rating changes that took place are reflected in the newly formed 1977 static pool through the ratings on these entities as of 12:01 a.m. on Jan. 1, 1977. We used the same method to form static pools for 1978-2020.

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

### Default rate calculations

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

### Transition analysis

Transition rates compare issuer credit ratings at the beginning of a period with the ratings at the end of the period. To compute one-year rating transition rates by rating category, we compared the rating on each entity at the end of a particular year with the rating at the beginning of the same year. An issuer that remained rated for more than one year was counted as many times as the number of years it was rated.

For instance, an issuer continually rated from the middle of 1984 to the middle of 1991 would appear in the seven consecutive one-year transition matrices from 1985 to 1991. If the rating on the issuer was withdrawn in the middle of 1991, it would be included in the column representing transitions to NR in the 1991 transition matrix. Similarly, if it defaulted in the middle of 1991, it would be included in the column representing transitions to 'D' in the 1991 one-year transition matrix.

All 1975 static pool members still rated on Jan. 1, 2020, had 45 one-year transitions, while sovereigns first rated on Jan. 1, 2019, had only one. Table 1 displays the summary of one-year transitions in the investment-grade and speculative-grade rating categories. Each one-year transition matrix displays all rating movements between letter categories from the beginning of the year through year-end. For each rating listed in the matrix's leftmost column, there are nine ratios listed in the rows, corresponding to the ratings from 'AAA' to 'SD', plus an entry for NR.

The only ratings considered in these calculations are those on entities at the beginning of each static pool and those at the end. All rating changes that occur in between are ignored. For example, if an entity was rated 'A' on Jan. 1, 2015, and was downgraded to 'BBB' in the middle of the year and then upgraded to 'A' later in the year (with no other subsequent rating changes), this



entity would be included only in the percentage of issuers that began the year at 'A' that ended the year at 'A'. This also applies to transition matrices that span longer time horizons. If an issuer defaults, we consider the rating as of Dec. 31 of that particular year to be 'D'. Similarly, if we withdraw our rating on an issuer, the methodology considers the issuer as of Dec. 31 of that year to be not rated.

## **Multiyear transitions**

Multiyear transitions were also calculated for periods of two to 15 years. In this case, we compared the rating at the beginning of the multiyear period with the rating at the end. For example, three-year transition matrices were the result of comparing ratings at the beginning of the years 1975-2018 with the ratings at the end of the years 1977-2020. Otherwise, the methodology was identical to that used for single-year transitions.

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

For inclusion in the matrix, the issuer must be in at least one year. In the case of the three-year matrix, we must have rated the sovereign by Jan. 1, 2018; in the case of the 15-year matrix, we must have rated it by Jan. 1, 2006. Thus, there are progressively fewer observations the longer the transition period is, given the growth of sovereign ratings and, of course, given that there will be fewer static pools for each added set of 12 monthly cohorts in the matrix.

## **Annualized 12-month cohorts**

In past studies, we have also included calculations of sovereigns' rating performance based on annualized 12-month cohorts, where static pools were created with monthly start dates and rating transitions were measured over 12-month increments for each monthly static pool. However, unless otherwise noted in this study, we've utilized an annual static pool methodology to calculate average transition rates, default rates, and Gini ratios.

An annual static pool groups all rated entities as of Jan. 1 of a given year and compares those ratings with those on the entities as of Dec. 31 of the same year (for a one-year horizon). By contrast, an annualized 12-month static pool approach would compare the ratings on entities as of the beginning of each month with the ratings on those entities 12 months later (for a one-year horizon). Transition and default rates calculated with this type of annualized monthly static pool approach can be found in tables in Appendix 4 (see tables 27-44 for transition rates and tables 53-54, 60, and 62-68).

Gini ratios based on this annualized monthly static pool approach diverge somewhat from the Ginis shown in table 2 (which utilize the annual static pool approach). Annualized monthly static pools yield weighted average Gini ratios for foreign currency ratings of 90.9%, 80.3%, 74.7%, and 70.5% over one-, three-, five-, and 10-year horizons, respectively. For local currency ratings, annualized monthly static pools result in weighted average Gini ratios of 83.2%, 71.6%, 64.8%, and 56.9% over one-, three-, five-, and 10-year horizons, respectively.

## **Rating modifiers**

## Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

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

## Appendix 4: Additional Exhibits

### Transition rates

Table 27

#### Sovereign Foreign Currency Average One-Year Transition Rates (1975-2020)

From/to	--Rating one year later--								
	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	96.72	3.20	0.01	0.00	0.07	0.00	0.00	0.00	0.00
AA	2.31	93.87	2.74	0.31	0.27	0.04	0.00	0.00	0.46
A	0.00	4.01	90.38	5.02	0.37	0.00	0.00	0.00	0.22
BBB	0.00	0.00	4.93	90.27	4.21	0.43	0.14	0.00	0.02
BB	0.00	0.00	0.00	6.20	86.63	6.03	0.55	0.45	0.13
B	0.00	0.00	0.00	0.01	4.88	87.90	3.16	3.01	1.04
CCC/CC	0.00	0.00	0.00	0.00	0.00	29.30	31.42	39.28	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 28

#### Sovereign Foreign Currency Average Three-Year Transition Rates (1975-2020)

From/to	--Rating three years later--								
	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	90.20	8.67	0.09	0.16	0.43	0.00	0.00	0.00	0.45
AA	7.32	82.15	7.60	2.06	0.29	0.00	0.00	0.00	0.57
A	0.00	11.14	72.54	13.11	1.82	0.11	0.30	0.49	0.49
BBB	0.00	0.00	15.81	70.29	11.08	1.16	0.26	1.04	0.36
BB	0.00	0.00	0.22	18.03	64.13	13.85	0.76	2.35	0.67
B	0.00	0.00	0.00	0.29	12.32	71.59	3.62	9.00	3.18
CCC/CC	0.00	0.00	0.00	0.00	0.98	26.65	12.22	60.15	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 36-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 29

**Sovereign Foreign Currency Average Five-Year Transition Rates (1975-2020)**

(%) --Rating five years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	84.34	13.17	0.14	0.88	0.83	0.00	0.00	0.00	0.64
AA	12.77	71.21	12.47	2.24	0.69	0.00	0.00	0.00	0.62
A	0.00	17.70	56.58	19.91	3.16	0.14	0.33	1.65	0.53
BBB	0.00	0.04	23.52	56.06	14.50	2.31	0.38	2.24	0.94
BB	0.00	0.00	1.58	22.05	53.24	16.09	1.20	4.62	1.22
B	0.00	0.00	0.04	2.78	15.03	60.03	3.03	14.32	4.77
CCC/CC	0.00	0.00	0.00	0.58	5.49	21.97	9.54	62.43	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 30

**Sovereign Foreign Currency Average 10-Year Transition Rates (1975-2020)**

(%) --Rating 10 years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	72.78	22.18	1.21	1.28	0.51	0.54	0.00	0.00	1.50
AA	25.11	52.48	14.19	5.99	2.24	0.00	0.00	0.00	0.00
A	1.62	24.18	41.01	19.45	5.99	1.26	0.41	5.43	0.65
BBB	0.00	4.00	31.51	39.31	14.69	1.97	0.50	5.20	2.83
BB	0.00	0.00	4.93	33.13	32.22	16.40	1.24	11.03	1.05
B	0.00	0.00	0.06	5.88	23.10	39.82	1.40	24.16	5.58
CCC/CC	0.00	0.00	0.00	0.00	3.29	17.70	0.41	78.60	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 120-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 31

**Sovereign Foreign Currency Average 15-Year Transition Rates (1975-2020)**

(%) --Rating 15 years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	67.62	28.22	1.24	0.00	0.47	0.84	0.00	0.00	1.61
AA	33.84	37.22	13.36	11.85	2.99	0.31	0.23	0.19	0.00
A	4.39	29.06	38.02	14.72	1.84	3.07	0.71	8.21	0.00
BBB	0.00	10.86	36.02	22.21	14.68	3.19	0.68	8.26	4.10
BB	0.00	0.00	5.48	44.78	21.06	12.49	0.30	15.88	0.00
B	0.00	0.00	0.12	11.47	18.64	35.30	0.48	32.80	1.19

Table 31

**Sovereign Foreign Currency Average 15-Year Transition Rates (1975-2020) (cont.)**

(%)

--Rating 15 years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
CCC/CC	0.00	0.00	0.00	5.26	0.00	8.55	0.00	86.18	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 32

**Sovereign Local Currency Average One-Year Transition Rates (1993-2020)**

(%)

--Rating one year later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	95.95	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	1.36	92.34	4.91	0.84	0.00	0.00	0.00	0.00	0.55
A	0.00	2.91	90.22	6.17	0.34	0.17	0.00	0.00	0.20
BBB	0.00	0.00	4.80	88.43	6.08	0.57	0.11	0.00	0.02
BB	0.00	0.00	0.00	5.33	85.25	7.69	0.91	0.66	0.17
B	0.00	0.00	0.00	0.00	5.19	88.58	3.14	1.72	1.37
CCC/CC	0.00	0.00	0.00	0.00	0.00	41.23	46.49	12.28	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 33

**Sovereign Local Currency Average Five-Year Transition Rates (1993-2020)**

(%)

--Rating five years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	80.59	17.35	0.16	1.10	0.00	0.00	0.00	0.00	0.81
AA	6.23	64.10	24.45	3.76	0.68	0.00	0.00	0.00	0.77
A	0.00	13.14	58.37	20.06	4.82	0.61	0.32	1.60	1.08
BBB	0.00	0.00	18.85	52.63	20.75	5.05	0.72	1.55	0.45
BB	0.00	0.00	1.55	19.62	45.84	26.09	2.11	3.19	1.61
B	0.00	0.00	0.23	2.30	18.16	63.01	4.49	5.59	6.22
CCC/CC	0.00	0.00	0.00	4.91	3.37	51.84	11.35	28.53	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 34

**Sovereign Local Currency Average 15-Year Transition Rates (1993-2020)**

(%)

--Rating 15 years later--

From/to	AAA	AA	A	BBB	BB	B	CCC/CC	SD	NR
AAA	64.95	26.41	3.68	2.10	0.53	0.00	0.00	0.00	2.33
AA	3.15	32.45	31.58	22.00	3.77	1.79	1.42	3.83	0.00
A	2.45	23.08	34.62	11.75	10.03	4.75	0.31	8.56	4.44
BBB	0.00	2.60	23.08	40.23	21.35	7.81	0.00	4.94	0.00
BB	0.00	0.00	7.24	26.55	34.51	21.48	0.40	9.81	0.00
B	0.00	0.00	0.00	15.10	16.46	50.53	5.13	10.84	1.94
CCC/CC	0.00	0.00	0.00	13.95	27.13	10.08	6.98	41.86	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 35

**Sovereign Foreign Currency Average One-Year Transition Rates With Rating Modifier (1975-2020)**

(%)

--Rating one year later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	96.72	2.76	0.43	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA+	6.54	83.65	6.70	1.80	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	1.31
AA	0.00	5.87	85.27	6.90	0.54	0.43	0.11	0.54	0.00	0.00	0.00	0.33	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	8.67	82.20	7.28	0.20	0.60	0.20	0.00	0.20	0.53	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	0.00	0.00	0.08	14.59	72.62	8.31	2.36	1.06	0.16	0.73	0.08	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	1.21	12.31	77.70	5.55	1.31	0.81	1.01	0.10	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	0.96	11.73	76.85	6.99	0.43	1.60	0.69	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59
BBB+	0.00	0.00	0.00	0.00	0.00	2.44	13.98	69.61	10.38	2.51	0.68	0.27	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
BBB	0.00	0.00	0.00	0.00	0.00	0.00	2.01	17.84	67.45	10.40	0.95	0.12	0.00	0.53	0.24	0.12	0.35	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	0.99	15.85	74.37	5.79	2.26	0.29	0.08	0.16	0.12	0.08	0.00	0.00	0.00	0.00	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	21.00	65.87	10.13	0.98	0.18	0.06	0.00	0.18	0.37	0.00	0.49	0.18	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	14.57	70.86	10.94	1.74	0.70	0.15	0.00	0.00	0.00	0.05	0.10	0.10
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	10.76	73.13	11.41	1.26	0.48	0.17	0.13	0.17	0.17	0.95	0.26
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.99	10.88	68.04	15.41	2.67	0.37	0.22	0.15	0.18	0.69	0.33
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	14.06	68.95	8.83	1.65	0.86	0.23	0.04	2.41	2.33
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.63	16.27	65.57	4.71	1.47	0.80	0.55	7.89	0.12
CCC+	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	3.19	4.26	32.98	30.85	5.67	0.71	0.00	22.34	0.00
CCC	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	2.88	19.23	0.00	21.15	7.69	6.73	42.31	0.00
CCC-	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	2.44	0.00	0.00	4.88	9.76	82.93	0.00	0.00
CC	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	100.00	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 36

**Sovereign Foreign Currency Average Three-Year Transition Rates With Rating Modifier (1975-2020)**

(%)

--Rating three years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	90.20	6.47	1.42	0.78	0.00	0.04	0.04	0.16	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
AA+	19.21	58.88	14.55	4.77	0.00	0.17	0.00	0.52	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55
AA	0.84	15.31	61.84	15.61	1.73	1.20	1.20	0.84	0.30	0.78	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	0.00	2.83	20.58	50.63	15.29	2.76	3.50	0.22	1.12	2.46	0.60	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	5.75	29.12	37.79	13.20	2.26	2.17	2.92	2.83	0.94	1.60	0.00	0.19	0.19	0.00	0.28	0.28	0.00	0.00	0.47	0.00
A	0.00	0.00	0.00	7.45	24.47	45.93	8.09	5.39	3.59	3.28	0.90	0.16	0.11	0.00	0.05	0.00	0.00	0.05	0.00	0.32	0.21	0.00
A-	0.00	0.00	0.00	0.58	5.11	23.22	49.56	12.36	3.08	1.80	0.35	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.81	1.33
BBB+	0.00	0.00	0.00	0.00	2.99	8.65	21.38	38.99	16.43	9.36	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.08
BBB	0.00	0.00	0.00	0.00	0.51	4.12	12.81	19.63	34.36	13.58	7.79	2.06	1.16	1.35	0.32	0.06	0.64	0.00	0.00	0.00	1.42	0.19
BBB-	0.00	0.00	0.00	0.00	0.00	1.10	3.49	10.62	24.68	40.17	9.19	6.34	1.15	0.55	0.69	0.18	0.00	0.09	0.00	0.05	1.06	0.64
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.77	2.17	8.10	33.04	29.91	17.09	4.02	0.96	1.53	0.64	0.38	0.00	0.00	0.00	1.40	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	1.95	9.98	19.01	38.23	19.75	7.13	0.84	0.69	0.00	0.00	0.00	0.05	1.37	0.48
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.96	4.49	20.54	37.26	15.71	6.91	4.11	1.06	0.10	0.29	0.24	3.96	1.35
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.65	1.47	3.47	13.48	39.83	24.51	8.66	0.65	1.31	0.57	0.74	4.08	0.49
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.44	8.45	18.67	38.97	13.25	1.72	0.66	0.40	0.00	8.67	7.93
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.01	4.34	7.01	30.35	32.88	4.12	0.87	0.14	0.51	18.21	0.14
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	10.57	14.10	14.98	16.30	4.41	1.32	0.00	36.56	0.00
CCC	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	16.67	0.98	0.00	0.00	0.00	0.00	82.35	0.00
CCC-	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	2.70	0.00	0.00	0.00	0.00	0.00	0.00	97.30	0.00
CC	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	100.00	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 36-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 37

**Sovereign Foreign Currency Average Five-Year Transition Rates With Rating Modifier (1975-2020)**

(%)

--Rating five years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	84.34	8.54	3.05	1.58	0.00	0.09	0.05	0.64	0.00	0.23	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
AA+	26.43	43.65	20.17	7.04	0.00	0.00	0.00	0.18	0.66	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63
AA	7.19	15.45	44.93	17.86	6.11	3.09	3.76	0.81	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	0.59	8.72	23.54	30.57	18.54	4.32	6.52	0.93	1.52	2.71	0.00	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	0.00	2.60	11.48	31.85	18.20	11.16	2.28	2.93	6.07	7.04	1.19	1.63	0.00	0.22	0.00	0.00	0.00	0.22	0.00	0.00	3.14	0.00
A	0.00	0.00	1.91	12.94	23.05	31.08	8.19	5.68	5.24	6.61	1.31	1.58	0.11	0.00	0.16	0.00	0.16	0.11	0.00	0.38	1.47	0.00
A-	0.00	0.00	0.00	4.20	6.99	23.87	33.83	14.55	6.92	3.56	1.55	1.55	0.45	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.97	1.49
BBB+	0.00	0.00	0.00	0.19	7.16	7.35	20.36	30.63	15.55	12.44	3.58	1.13	0.66	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.09
BBB	0.00	0.00	0.00	0.00	3.80	9.66	14.77	17.67	16.91	11.46	9.18	5.66	2.62	1.79	2.35	0.00	0.00	0.00	0.00	0.00	2.28	1.86

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 37

Sovereign Foreign Currency Average Five-Year Transition Rates With Rating Modifier (1975-2020) (cont.)

(%)

--Rating five years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
BBB-	0.00	0.00	0.00	0.00	0.26	4.98	8.58	15.21	19.68	27.24	10.07	5.65	1.54	0.57	0.98	0.57	0.72	0.10	0.00	0.05	3.08	0.72
BB+	0.00	0.00	0.00	0.00	0.00	0.71	3.76	2.13	18.23	24.54	15.39	17.52	9.08	2.55	0.71	2.27	1.21	0.00	0.00	0.00	1.91	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.67	5.24	13.12	16.51	30.55	17.26	9.26	1.09	0.46	0.00	0.00	0.69	0.12	2.59	0.52
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	1.14	4.54	8.27	22.00	21.14	12.86	8.38	7.84	0.43	0.97	0.00	0.16	8.59	2.81
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.37	0.55	3.32	1.24	2.49	12.76	30.26	24.41	10.59	1.47	0.83	0.23	0.69	9.03	1.66
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15	1.37	0.46	2.24	12.58	16.75	28.00	10.90	0.97	0.25	0.36	0.10	14.97	10.74
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	1.30	1.11	2.13	8.42	14.71	24.98	17.76	4.44	0.28	0.19	0.19	23.77	0.19
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.98	0.00	7.80	5.85	10.24	12.20	4.39	9.76	1.95	0.00	45.85	0.00
CCC	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	22.08	1.30	0.00	0.00	0.00	0.00	76.62	0.00
CCC-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.97	0.00
CC	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	100.00	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 38

Sovereign Foreign Currency Average 10-Year Transition Rates With Rating Modifier (1975-2020)

(%)

--Rating 10 years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	72.78	12.74	6.62	2.82	0.81	0.11	0.29	1.10	0.18	0.00	0.00	0.51	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
AA+	34.81	24.73	26.02	9.86	0.21	0.93	0.71	0.86	0.50	1.36	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	20.98	22.28	12.44	10.71	18.74	2.16	1.21	1.99	2.16	3.28	0.00	4.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	13.35	9.48	8.01	30.71	3.60	10.28	11.08	1.47	2.67	5.74	3.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	7.01	1.72	18.52	1.19	16.01	9.13	13.49	1.19	11.90	13.10	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.35	0.00
A	0.13	1.87	11.43	20.25	13.90	8.89	16.38	7.09	2.07	0.94	0.87	2.54	1.40	2.67	0.20	0.00	0.20	0.27	0.00	0.47	8.42	0.00
A-	0.00	0.00	1.22	12.59	15.02	11.72	18.23	7.47	8.85	10.85	7.73	2.69	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	1.91
BBB+	0.00	0.00	1.98	2.83	1.70	14.87	23.37	18.56	2.69	12.18	6.37	5.10	2.12	0.00	2.97	0.85	2.12	0.00	0.00	0.00	2.27	0.00
BBB	0.00	0.00	0.84	8.17	4.29	12.88	11.94	8.69	10.47	12.67	5.86	7.33	0.63	0.31	0.73	1.47	0.00	0.00	0.00	0.00	4.82	8.90
BBB-	0.00	0.00	0.00	0.00	1.49	18.87	8.43	15.44	13.80	18.49	8.43	4.92	2.54	0.37	0.22	0.00	0.00	0.00	0.00	0.00	7.01	0.00
BB+	0.00	0.00	0.00	0.00	3.16	3.16	7.64	8.79	5.54	20.39	8.17	9.31	12.21	5.10	3.60	5.54	0.53	0.00	0.00	0.00	6.85	0.00
BB	0.00	0.00	0.00	0.00	0.76	0.45	0.00	6.66	15.67	16.50	6.21	13.93	16.20	13.63	2.80	0.83	0.53	0.00	0.00	0.00	5.83	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.34	3.23	12.94	9.02	5.87	15.74	8.43	5.70	6.38	5.45	0.60	1.45	0.34	0.34	20.94	3.23
B+	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	4.96	4.22	2.88	3.62	8.14	19.82	20.12	7.91	0.89	0.81	0.30	0.07	20.34	5.77
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.08	0.87	2.13	4.35	15.81	17.71	13.68	6.56	0.08	1.11	0.00	0.16	26.32	8.14
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	1.95	6.17	20.15	15.49	5.11	4.21	17.74	0.00	0.15	0.00	0.00	27.82	0.30
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.06	0.00	0.00	0.00	1.90	13.92	0.00	0.00	0.63	0.00	78.48	0.00
CCC	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	40.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00

Table 38

**Sovereign Foreign Currency Average 10-Year Transition Rates With Rating Modifier (1975-2020) (cont.)**

From/to	--Rating 10 years later--																			SD	NR	
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-			CC
CCC-	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	100.00	0.00
CC	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	100.00	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 120-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 39

**Sovereign Foreign Currency Average 15-Year Transition Rates With Rating Modifier (1975-2020)**

From/to	--Rating 15 years later--																			SD	NR		
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-			CC	
AAA	67.62	15.65	7.78	4.79	0.95	0.29	0.00	0.00	0.00	0.00	0.00	0.38	0.09	0.47	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61
AA+	40.02	18.43	18.67	11.85	3.41	0.73	1.95	3.41	1.38	0.16	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	32.15	10.79	4.48	10.45	13.32	1.15	0.23	5.63	8.04	7.92	2.76	2.41	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	20.81	11.89	2.34	13.59	17.62	9.13	3.18	0.64	9.13	2.12	1.49	5.31	0.00	0.00	0.42	0.00	0.64	0.64	0.00	0.00	1.06	0.00	
A+	9.37	6.92	7.13	12.02	6.31	20.57	14.46	5.30	1.22	10.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.11	0.00	
A	5.58	3.44	12.93	11.15	8.90	6.88	25.39	8.78	0.12	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.52	0.00	
A-	0.00	0.00	4.71	27.86	21.63	3.56	7.38	8.27	3.18	4.45	3.18	0.89	0.89	4.83	2.67	0.76	1.91	0.00	0.00	0.00	3.82	0.00	
BBB+	0.00	0.00	5.82	19.31	11.90	16.93	17.20	13.49	2.12	1.06	2.38	1.32	3.17	0.79	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.00	
BBB	0.00	0.00	9.45	9.75	14.33	7.24	13.74	5.91	2.95	5.17	2.36	9.01	3.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.20	10.34	
BBB-	0.00	0.00	0.00	0.00	3.25	12.89	16.63	12.11	4.92	12.70	8.76	7.68	0.98	0.10	1.48	4.63	0.59	0.10	0.00	0.69	11.02	1.48	
BB+	0.00	0.00	0.00	0.00	5.21	8.78	0.00	12.48	18.66	27.85	2.47	0.69	1.78	3.02	4.66	2.19	0.00	0.00	0.00	0.00	12.21	0.00	
BB	0.00	0.00	0.00	0.00	0.00	0.00	1.13	11.49	14.41	28.60	0.45	7.88	10.47	9.23	4.50	1.01	0.79	0.00	0.00	0.00	10.02	0.00	
BB-	0.00	0.00	0.00	0.00	2.06	0.00	0.00	11.31	4.11	1.47	7.20	11.01	23.05	6.02	3.08	3.23	0.00	0.00	0.00	0.00	27.46	0.00	
B+	0.00	0.00	0.00	0.00	0.29	0.00	0.00	2.48	3.65	6.42	7.45	10.07	4.38	20.58	4.23	5.40	0.15	0.00	0.00	0.00	34.89	0.00	
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.25	5.09	6.24	2.96	2.13	11.82	17.73	8.54	0.00	0.00	0.00	0.00	36.95	3.28	
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42	7.89	4.21	10.53	9.74	12.89	13.16	13.95	0.79	0.79	0.00	0.26	22.37	0.00	
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91.67	0.00	
CCC	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	14.29	32.14	0.00	0.00	0.00	0.00	53.57	0.00	
CCC-	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	100.00	0.00	
CC	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	100.00	0.00	

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1975 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.



Table 40

**Sovereign Local Currency Average One-Year Transition Rates With Rating Modifier (1993-2020)**

(%)

--Rating one year later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	95.95	2.81	1.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA+	5.05	80.82	8.66	3.03	0.17	0.00	0.25	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	2.02
AA	0.00	2.69	85.43	8.78	0.64	0.64	0.82	0.99	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	5.27	81.73	10.60	0.27	0.80	1.13	0.00	0.20	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	0.74	8.12	76.08	10.89	2.52	0.98	0.06	0.06	0.00	0.00	0.12	0.12	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.66	11.35	73.46	10.91	2.58	0.77	0.16	0.11	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	0.36	14.23	71.01	10.53	1.15	1.30	0.63	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.57
BBB+	0.00	0.00	0.00	0.00	0.00	1.01	10.87	70.59	11.27	3.66	1.30	0.62	0.17	0.00	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.06
BBB	0.00	0.00	0.00	0.00	0.00	0.00	1.23	11.97	70.91	13.35	1.30	0.77	0.23	0.00	0.15	0.00	0.08	0.00	0.00	0.00	0.00	0.00
BBB-	0.00	0.00	0.00	0.00	0.00	0.00	0.06	1.49	12.54	71.40	9.79	2.81	0.66	0.66	0.18	0.18	0.00	0.12	0.00	0.12	0.00	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	1.06	14.04	67.95	11.86	3.48	0.00	0.56	0.00	0.12	0.25	0.00	0.43	0.19	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	15.75	62.46	14.11	2.35	1.65	1.02	0.47	0.00	0.00	0.00	1.41	0.16
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19	8.35	72.52	12.41	2.60	0.76	0.38	0.65	0.00	0.27	0.54	0.33
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	1.32	10.99	67.99	15.60	2.64	0.00	0.00	0.00	0.18	0.55	0.41
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	1.22	11.72	70.60	9.92	1.67	0.37	0.00	0.08	1.22	3.02
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	2.73	15.41	68.04	6.02	1.52	0.19	1.08	4.12	0.13	
CCC+	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	0.37	5.90	40.22	39.85	7.01	1.48	0.74	4.43	0.00
CCC	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	2.70	36.04	1.80	24.32	10.81	3.60	20.72	0.00
CCC-	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	2.78	0.00	0.00	83.33	0.00	13.89	0.00
CC	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	31.58	15.79	0.00	0.00	0.00	10.53	42.11	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 12-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 41

**Sovereign Local Currency Average Three-Year Transition Rates With Rating Modifier (1993-2020)**

(%)

--Rating three years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	87.54	7.64	3.32	0.65	0.00	0.06	0.04	0.20	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	0.56
AA+	14.41	52.20	11.13	13.94	0.28	1.50	1.31	2.15	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53
AA	0.91	4.41	68.46	17.26	1.88	1.62	2.34	1.10	1.17	0.84	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	0.90	14.29	48.50	23.01	4.59	5.34	2.03	0.30	1.05	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	2.43	20.49	43.06	19.00	7.28	2.09	1.95	0.07	0.47	1.15	0.00	0.00	0.13	1.15	0.20	0.20	0.00	0.00	0.34	0.00
A	0.00	0.00	0.00	2.65	18.58	43.83	15.46	10.74	5.25	1.47	1.00	0.18	0.12	0.00	0.06	0.00	0.06	0.00	0.35	0.24	0.00	
A-	0.00	0.00	0.00	0.58	9.51	24.42	37.94	13.40	4.06	3.83	0.35	2.96	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.06	0.81	1.39
BBB+	0.00	0.00	0.00	0.00	2.60	6.05	18.92	37.67	13.54	10.76	6.11	1.21	0.60	0.00	0.73	0.97	0.00	0.12	0.00	0.12	0.42	0.18
BBB	0.00	0.00	0.00	0.00	0.00	0.54	5.73	19.25	39.12	17.82	12.44	2.33	1.07	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.27	1.25

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 41

**Sovereign Local Currency Average Three-Year Transition Rates With Rating Modifier (1993-2020) (cont.)**

From/to	--Rating three years later--																					
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
BBB-	0.00	0.00	0.00	0.00	0.00	1.23	1.37	4.79	18.33	42.13	13.34	6.50	4.99	1.23	3.21	0.75	0.41	0.00	0.00	0.07	1.64	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	1.06	3.44	9.12	16.59	39.72	18.11	8.33	0.20	1.59	0.66	0.00	0.00	0.00	0.00	1.19	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.38	3.10	9.22	19.48	19.48	21.98	9.83	1.98	9.31	1.47	0.00	0.00	0.00	1.98	0.78
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	3.02	2.90	12.72	39.38	19.63	9.88	4.32	1.23	1.23	0.00	0.56	2.47	1.73
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.42	1.46	2.71	14.58	43.28	24.43	7.71	0.83	0.83	0.00	0.16	1.46	1.82
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	1.21	2.38	8.40	15.68	41.99	14.32	2.67	1.21	0.24	0.19	3.20	8.20
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.55	3.43	3.43	4.68	28.57	40.59	5.85	0.94	0.16	1.33	9.91	0.16
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.16	0.87	0.87	8.23	25.97	27.71	14.29	4.33	2.60	0.00	12.99	0.00
CCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92	0.00	4.81	1.92	21.15	15.38	0.00	0.00	27.88	0.00	26.92	0.00
CCC-	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	12.50	0.00	0.00	0.00	0.00	75.00	0.00	12.50	0.00
CC	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	25.71	25.71	11.43	0.00	0.00	0.00	0.00	37.14	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 36-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 42

**Sovereign Local Currency Average Five-Year Transition Rates With Rating Modifier (1993-2020)**

From/to	--Rating five years later--																					
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	80.59	11.12	4.98	1.24	0.00	0.12	0.04	0.81	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
AA+	17.79	37.13	10.13	19.75	1.76	3.41	1.45	2.07	2.59	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79
AA	2.99	3.13	56.19	17.84	8.51	3.43	5.37	0.90	0.45	1.19	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-	0.58	2.40	17.16	27.69	26.87	9.95	9.87	2.24	0.00	1.24	0.00	1.99	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	6.73	25.52	26.04	17.01	9.84	4.66	3.70	1.85	0.00	1.11	0.00	0.00	0.00	1.26	0.00	0.15	0.00	0.00	2.14	0.00
A	0.00	0.00	0.88	5.92	12.29	34.47	16.19	8.82	8.25	5.61	1.51	2.39	0.50	0.00	0.44	0.00	0.19	0.13	0.00	0.44	1.70	0.25
A-	0.00	0.00	0.00	2.60	15.29	21.30	21.90	13.42	7.74	5.01	4.27	2.47	1.87	0.07	0.00	0.13	0.00	0.00	0.00	0.00	1.00	2.94
BBB+	0.00	0.00	0.00	0.00	8.31	9.24	17.41	21.20	11.69	13.95	9.24	2.13	1.66	0.47	2.66	1.13	0.00	0.13	0.00	0.13	0.47	0.20
BBB	0.00	0.00	0.00	0.00	0.00	3.11	8.16	19.32	26.21	12.43	15.44	5.73	5.44	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.29	1.36
BBB-	0.00	0.00	0.00	0.00	0.17	3.31	1.82	4.46	15.79	35.04	13.88	5.54	5.95	2.40	2.40	3.39	0.83	0.99	0.00	0.08	3.97	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	2.81	5.25	11.09	15.01	32.77	13.83	12.50	0.30	0.22	2.37	1.18	0.96	0.00	0.15	1.55	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	1.54	4.32	9.31	9.50	16.31	8.35	12.76	17.18	2.69	14.59	0.38	0.00	0.00	0.00	2.21	0.86
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.93	2.28	2.49	0.93	11.40	26.99	20.23	12.32	9.69	1.42	1.64	0.00	0.14	5.48	3.70
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.61	1.58	1.64	5.42	11.56	31.83	29.28	9.98	1.16	0.97	0.73	0.00	1.22	3.59
B	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	1.14	1.43	0.68	4.28	14.55	14.55	27.61	15.86	1.60	0.23	0.57	0.00	5.25	11.92
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.53	0.53	2.32	5.38	7.17	9.81	26.79	21.62	8.02	0.53	0.95	1.69	13.82	0.21
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	0.93	0.93	0.00	3.70	6.48	25.93	19.91	4.17	4.63	2.78	0.46	27.78	0.00
CCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	9.76	0.00	0.00	0.00	2.44	43.90	0.00	0.00	0.00	13.41	0.00	29.27	0.00

Table 42

**Sovereign Local Currency Average Five-Year Transition Rates With Rating Modifier (1993-2020) (cont.)**

(%)

--Rating five years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
CCC-	0.00	0.00	0.00	0.00	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	50.00	0.00
CC	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	7.69	61.54	0.00	0.00	0.00	0.00	0.00	30.77	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 60-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 43

**Sovereign Local Currency Average 10-Year Transition Rates With Rating Modifier (1993-2020)**

(%)

--Rating 10 years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	72.67	13.53	5.00	3.11	1.52	0.14	0.38	1.45	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.97
AA+	6.20	15.26	25.12	9.06	10.33	10.81	1.59	6.36	4.29	10.97	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	3.88	4.49	29.08	14.49	23.27	6.12	5.61	2.45	2.55	3.88	0.00	4.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA-	8.13	0.13	8.00	35.38	11.38	5.50	12.13	2.50	2.13	7.38	5.50	0.63	0.00	0.00	0.25	0.00	0.38	0.38	0.00	0.00	0.25	0.00
A+	0.16	2.29	19.61	13.81	10.29	12.01	12.50	6.37	7.84	3.51	4.74	0.90	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.23	0.00
A	0.00	0.00	4.56	7.16	7.96	18.16	18.07	5.90	4.92	3.31	0.72	6.71	2.42	3.58	0.45	0.00	0.00	0.09	0.00	0.63	9.66	5.72
A-	0.00	0.00	1.31	5.71	4.03	20.97	20.69	10.49	5.81	9.55	9.46	1.50	0.37	0.00	1.97	0.56	0.56	0.84	0.00	0.19	1.97	4.03
BBB+	0.00	0.00	0.73	3.21	17.25	13.49	5.69	2.84	11.93	10.28	17.34	7.98	5.69	1.47	0.28	0.00	0.00	0.00	0.00	0.00	1.83	0.00
BBB	0.00	0.00	0.00	0.00	1.70	6.97	0.00	16.56	12.54	40.56	2.32	1.24	8.36	5.88	2.63	0.77	0.46	0.00	0.00	0.00	0.00	0.00
BBB-	0.00	0.00	0.00	0.00	0.29	0.43	2.89	7.09	18.96	28.22	1.59	2.60	6.66	1.45	7.53	10.71	0.43	0.00	0.00	0.00	11.14	0.00
BB+	0.00	0.00	0.00	0.00	0.10	0.59	4.62	13.18	11.21	9.64	15.73	12.98	15.44	7.47	2.95	2.75	0.00	0.00	0.00	0.00	3.34	0.00
BB	0.00	0.00	0.00	0.00	1.31	0.79	2.63	4.47	13.27	3.55	12.61	0.53	14.19	12.48	14.32	11.56	2.89	0.00	0.00	0.00	5.39	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57	10.13	0.29	3.57	3.42	7.56	23.25	15.98	9.56	1.00	3.00	5.99	0.29	7.99	5.42
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	3.14	1.28	3.61	1.63	7.92	27.71	17.93	18.74	1.51	0.93	0.00	0.00	3.03	11.76
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	3.43	3.91	1.33	4.86	22.50	12.96	12.68	13.35	1.05	0.95	0.00	1.33	12.30	8.77
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.08	0.76	6.44	10.98	21.02	5.68	0.76	9.28	18.56	1.52	0.19	0.00	0.00	22.35	0.38
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.91	0.00	0.00	0.00	0.00	0.00	0.00	2.34	32.03	0.00	0.00	0.78	2.34	58.59	0.00
CCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	3.33	0.00	1.67	26.67	3.33	28.33	0.00	0.00	0.00	0.00	0.00	21.67	0.00
CCC-	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	100.00	0.00
CC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.53	0.00	0.00	5.26	78.95	0.00	0.00	0.00	0.00	0.00	0.00	5.26	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 120-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 44

**Sovereign Local Currency Average 15-Year Transition Rates With Rating Modifier (1993-2020)**

(%)

--Rating 15 years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	64.95	16.15	7.50	2.76	2.50	0.76	0.43	1.55	0.00	0.56	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33
AA+	0.20	5.48	18.00	7.24	12.13	15.66	7.44	13.89	5.48	10.18	1.37	0.39	0.00	0.00	0.39	0.00	0.59	0.59	0.00	0.00	0.98	0.00
AA	2.61	5.22	15.17	15.82	17.13	3.59	9.14	0.33	11.42	10.11	3.92	3.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00
AA-	6.88	8.10	9.72	11.74	24.70	0.61	4.66	6.28	8.10	0.00	0.00	1.42	0.00	0.00	4.25	1.21	1.21	1.82	0.00	0.40	8.91	0.00
A+	7.44	4.59	26.58	11.08	1.58	8.39	18.35	6.80	0.00	3.16	4.11	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.12	0.00
A	0.00	0.00	3.86	9.27	2.12	12.74	10.62	4.63	4.63	3.67	6.18	5.41	2.12	7.14	0.77	0.00	0.00	0.00	0.00	0.00	10.42	16.41
A-	0.00	0.00	1.83	12.16	10.07	16.73	19.22	6.54	2.48	3.40	7.45	3.14	1.18	0.52	1.31	4.71	0.78	0.00	0.00	0.00	8.50	0.00
BBB+	0.00	0.00	3.45	1.46	5.17	20.29	14.19	3.71	12.33	14.46	6.63	9.81	5.31	1.72	0.00	1.46	0.00	0.00	0.00	0.00	0.00	0.00
BBB	0.00	0.00	0.00	0.00	0.00	3.10	2.54	10.42	22.25	42.54	4.23	2.25	0.00	8.45	0.85	3.38	0.00	0.00	0.00	0.00	0.00	0.00
BBB-	0.00	0.00	0.00	0.51	0.00	0.00	6.92	3.59	3.85	19.74	6.92	4.62	22.56	4.87	7.44	0.00	0.00	0.00	0.00	0.00	18.97	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	15.81	6.48	12.00	16.57	2.67	16.00	11.62	5.14	1.71	3.43	0.00	0.00	0.00	0.00	8.57	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	1.18	7.35	12.09	3.32	3.79	20.14	18.01	10.43	6.87	10.90	0.00	0.00	0.00	0.95	4.98	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.68	9.46	2.36	5.07	8.78	13.85	8.78	11.82	7.43	12.50	0.34	0.00	0.00	0.00	18.92	0.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.60	10.71	4.87	1.30	3.90	32.47	20.13	13.31	0.00	0.00	1.62	0.00	9.09	0.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33	9.61	2.84	1.53	3.49	13.54	20.31	20.96	0.66	0.87	2.62	0.44	12.45	4.37
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.99	9.74	23.60	7.49	7.49	13.86	0.00	11.61	0.00	1.12	4.87	4.12	10.11	0.00
CCC+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.58	0.00	0.00	0.00	0.00	0.00	0.00	7.58	3.03	0.00	3.03	78.79	0.00
CCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.73	2.27	0.00	38.64	4.55	0.00	9.09	20.45	0.00	0.00	0.00	0.00	2.27	0.00
CCC-	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	0.00	0.00
CC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.53	0.00	0.00	0.00	84.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.26	0.00

Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Average transitions over each 180-month cohort between 1993 and 2020 annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 45

**Sovereign Foreign Currency Ratings One-Year Transition Matrix (2020)**

(%)

--Rating one year later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	100.00	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	0.00	0
AA+	0.00	100.00	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	0
AA	0.00	0.00	85.71	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	0.00	0
AA-	0.00	0.00	0.00	100.00	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
A+	0.00	0.00	0.00	0.00	100.00	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
A	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	0.00	0.00	0.00	0.00	0
A-	0.00	0.00	0.00	0.00	0.00	0.00	80.00	20.00	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
BBB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.56	22.22	22.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
BBB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	87.50	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 45

Sovereign Foreign Currency Ratings One-Year Transition Matrix (2020) (cont.)

From/to	--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
BBB-	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66.67	0.00	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	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	0.00	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91.67	8.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.50	25.00	6.25	0.00	0.00	0.00	6.25	0.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	20.00	0.00	0.00	0.00	20.00	0.00
CCC+	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	66.67	0.00	0.00	0.00	33.33	0.00
CCC	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	100.00	0.00
CCC-	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	0.00	0.00
CC	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	100.00	0.00

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 46

Sovereign Foreign Currency Ratings Three-Year Transition Matrix (2018-2020)

From/to	--Rating three years later--																					
	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	100.00	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	0.00	0.00
AA+	0.00	100.00	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	0.00
AA	0.00	0.00	85.71	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	0.00	0.00
AA-	0.00	0.00	0.00	100.00	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+	0.00	0.00	0.00	37.50	62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-	0.00	0.00	0.00	0.00	28.57	0.00	42.86	14.29	0.00	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
BBB+	0.00	0.00	0.00	0.00	0.00	11.11	11.11	44.44	11.11	22.22	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	0.00	0.00	0.00	0.00	0.00	0.00	20.00	80.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	25.00	0.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.50	12.50	12.50	25.00	37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	62.50	0.00	12.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	58.33	0.00	16.67	8.33	0.00	0.00	0.00	8.33	0.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.38	46.15	23.08	0.00	0.00	0.00	0.00	15.38	0.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.09	0.00	27.27	27.27	9.09	0.00	0.00	0.00	27.27	0.00
CCC+	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	25.00	50.00	0.00	0.00	0.00	25.00	0.00
CCC	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	0.00	0.00

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 46

**Sovereign Foreign Currency Ratings Three-Year Transition Matrix (2018-2020) (cont.)**

(%)

--Rating three years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
CCC-	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	0.00	0.00
CC	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	0.00	0.00

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 47

**Sovereign Foreign Currency Ratings 10-Year Transition Matrix (2011-2020)**

(%)

--Rating 10 years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR	
AAA	57.89	21.05	10.53	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	0.00	0.00	0.00	0.00	0.00	5.26	
AA+	0.00	0.00	100.00	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	0.00
AA	0.00	0.00	16.67	33.33	33.33	16.67	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-	0.00	0.00	0.00	50.00	25.00	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	0.00	0.00	0.00	0.00	0.00
A+	0.00	0.00	0.00	0.00	66.67	0.00	0.00	0.00	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	0.00
A	0.00	0.00	8.33	33.33	0.00	0.00	16.67	0.00	8.33	8.33	0.00	0.00	0.00	16.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	0.00
A-	0.00	0.00	0.00	0.00	0.00	0.00	33.33	33.33	16.67	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	16.67
BBB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33	0.00	0.00	0.00	0.00	66.67	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	16.67	0.00	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	16.67
BBB-	0.00	0.00	0.00	0.00	0.00	10.00	0.00	10.00	20.00	40.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00
BB+	0.00	0.00	0.00	0.00	16.67	0.00	0.00	0.00	0.00	33.33	16.67	0.00	0.00	0.00	16.67	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	20.00	0.00	0.00	0.00	20.00	30.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.29	14.29	14.29	14.29	14.29	0.00	0.00	0.00	0.00	0.00	0.00	14.29	14.29
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.76	0.00	17.65	23.53	11.76	11.76	0.00	0.00	0.00	0.00	17.65	5.88
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	10.00	20.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	60.00	0.00
CCC+	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	0.00	0.00	0.00
CCC	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	0.00	0.00	0.00
CCC-	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	0.00	0.00	0.00
CC	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	0.00	0.00	0.00

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 48

**Sovereign Foreign Currency Ratings Original-To-Last Transition Matrix**

(%)

From/to	Total	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD	NR
AAA	20	50.00	15.00	15.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	5.00

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 48

Sovereign Foreign Currency Ratings Original-To-Last Transition Matrix (cont.)

(%)

From/to	Total	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD	NR
AA+	3	0.00	0.00	33.33	33.33	0.00	0.00	0.00	0.00	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	5	20.00	0.00	20.00	20.00	20.00	20.00	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-	2	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	50.00	0.00
A+	3	0.00	33.33	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	0.00	0.00
A	9	0.00	0.00	0.00	22.22	0.00	11.11	33.33	11.11	11.11	11.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-	8	0.00	0.00	0.00	0.00	0.00	0.00	12.50	25.00	0.00	12.50	0.00	0.00	12.50	12.50	0.00	0.00	0.00	12.50	12.50
BBB+	2	0.00	0.00	0.00	50.00	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	0.00
BBB	8	0.00	0.00	0.00	25.00	37.50	0.00	0.00	0.00	0.00	12.50	0.00	0.00	0.00	12.50	0.00	0.00	0.00	12.50	0.00
BBB-	10	0.00	0.00	0.00	10.00	10.00	0.00	0.00	0.00	0.00	40.00	0.00	0.00	0.00	10.00	10.00	0.00	0.00	10.00	10.00
BB+	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	16.67	16.67	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00
BB	10	0.00	0.00	0.00	0.00	0.00	0.00	10.00	10.00	0.00	10.00	0.00	0.00	30.00	10.00	10.00	0.00	0.00	20.00	0.00
BB-	16	0.00	0.00	0.00	0.00	6.25	0.00	0.00	6.25	0.00	12.50	0.00	6.25	18.75	6.25	0.00	6.25	0.00	31.25	6.25
B+	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	4.55	22.73	18.18	13.64	9.09	18.18	4.55
B	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.56	0.00	0.00	0.00	11.11	5.56	22.22	5.56	0.00	33.33	16.67
B-	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.35	4.35	0.00	4.35	4.35	4.35	4.35	21.74	4.35	47.83	0.00
CCC+	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.09	9.09	0.00	0.00	0.00	9.09	0.00	9.09	36.36	27.27	0.00
CCC	2	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	100.00	0.00
CC	2	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

Original-to-last transition rates compare the issuer credit rating from the time of first rating to the last rating, regardless of the time elapsed in the interim. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 49

Sovereign Local Currency Ratings One-Year Transition Matrix (2020)

(%)

--Rating one year later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD	NR
AAA	100.00	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
AA+	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.00	0.00	85.71	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
AA-	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	0.00	0.00	0.00	0.00	100.00	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	28.57	57.14	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
A-	0.00	0.00	0.00	0.00	0.00	0.00	66.67	33.33	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	0.00	0.00	0.00	0.00	0.00	0.00	50.00	16.67	33.33	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	90.00	10.00	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	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 49

Sovereign Local Currency Ratings One-Year Transition Matrix (2020) (cont.)

(%)

--Rating one year later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD	NR
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	25.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	10.00	0.00	0.00	0.00	0.00	0.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.91	9.09	0.00	0.00	0.00	0.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.50	25.00	6.25	0.00	0.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.64	27.27	9.09	0.00
CCC+	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	50.00	0.00	0.00
CCC	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-	0.00	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	0.00	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

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 50

Sovereign Local Currency Ratings Three-Year Transition Matrix (2018-2020)

(%)

--Rating three years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	100.00	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	0.00	0.00
AA+	0.00	100.00	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	0.00
AA	0.00	0.00	85.71	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	0.00	0.00
AA-	0.00	0.00	0.00	100.00	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+	0.00	0.00	0.00	42.86	57.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	0.00	0.00	0.00	0.00	0.00	66.67	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	0.00	0.00
A-	0.00	0.00	0.00	0.00	20.00	10.00	40.00	20.00	0.00	10.00	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	0.00	0.00	0.00	0.00	20.00	0.00	40.00	0.00	40.00	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	0.00	0.00	0.00	0.00	0.00	0.00	16.67	83.33	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-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.29	14.29	28.57	14.29	28.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.57	57.14	0.00	14.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	58.33	0.00	16.67	8.33	0.00	0.00	0.00	8.33	0.00
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.38	46.15	23.08	0.00	0.00	0.00	7.69	7.69	0.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	0.00	23.08	30.77	23.08	0.00	0.00	7.69	7.69	0.00
CCC+	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	50.00	50.00	0.00	0.00	0.00	0.00	0.00
CCC	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	100.00	0.00
CCC-	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	0.00	0.00



Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 50

**Sovereign Local Currency Ratings Three-Year Transition Matrix (2018-2020) (cont.)**

(%)

--Rating three years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
CC	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	0.00	0.00

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 51

**Sovereign Local Currency Ratings 10-Year Transition Matrix (2011-2020)**

(%)

--Rating 10 years later--

From/to	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	SD	NR
AAA	55.00	25.00	10.00	5.00	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	5.00
AA+	0.00	0.00	100.00	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
AA	0.00	0.00	14.29	42.86	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-	0.00	0.00	0.00	60.00	20.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A+	0.00	0.00	28.57	0.00	14.29	14.29	0.00	0.00	14.29	14.29	0.00	14.29	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	18.18	0.00	9.09	18.18	18.18	9.09	0.00	0.00	0.00	0.00	18.18	0.00	0.00	0.00	0.00	0.00	0.00	9.09	0.00
A-	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00
BBB+	0.00	0.00	0.00	0.00	0.00	0.00	14.29	0.00	28.57	28.57	0.00	0.00	28.57	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	33.33	33.33	0.00	0.00	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-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.22	44.44	0.00	0.00	0.00	11.11	11.11	0.00	0.00	0.00	0.00	0.00	11.11	0.00
BB+	0.00	0.00	0.00	0.00	11.11	0.00	0.00	11.11	11.11	0.00	11.11	11.11	22.22	0.00	11.11	0.00	0.00	0.00	0.00	0.00	11.11	0.00
BB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	20.00	0.00	20.00	20.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00
BB-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	10.00	10.00	20.00	10.00	10.00	0.00	10.00	10.00	0.00	10.00
B+	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	25.00	25.00	16.67	8.33	0.00	0.00	0.00	0.00	8.33
B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.27	18.18	9.09	18.18	9.09	0.00	0.00	9.09	9.09	0.00
B-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	75.00	0.00
CCC+	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	0.00	0.00
CCC	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	0.00	0.00
CCC-	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	0.00	0.00
CC	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	0.00	0.00

Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 52

**Sovereign Local Currency Ratings Original-To-Last Transition Matrix**

(%)

From/to	Total	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD	NR
AAA	25	44.00	16.00	12.00	8.00	4.00	4.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
AA+	6	0.00	0.00	0.00	33.33	0.00	33.33	16.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00

Table 52

**Sovereign Local Currency Ratings Original-To-Last Transition Matrix (cont.)**

(%)

From/to	Total	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	SD	NR	
AA	7	0.00	0.00	42.86	28.57	14.29	0.00	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
AA-	4	0.00	0.00	0.00	25.00	0.00	0.00	0.00	25.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00
A+	6	0.00	16.67	0.00	16.67	0.00	0.00	16.67	16.67	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	5	0.00	0.00	0.00	0.00	20.00	0.00	20.00	0.00	0.00	20.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	20.00
A-	11	0.00	0.00	0.00	9.09	9.09	9.09	0.00	9.09	9.09	18.18	0.00	0.00	9.09	0.00	9.09	0.00	0.00	9.09	9.09	9.09
BBB+	8	0.00	0.00	0.00	12.50	25.00	0.00	0.00	12.50	0.00	25.00	0.00	12.50	0.00	0.00	0.00	0.00	0.00	12.50	0.00	0.00
BBB	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	25.00	25.00	0.00	0.00	0.00	25.00	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	14.29	0.00	0.00	42.86	0.00	14.29	0.00	14.29	0.00	0.00	0.00	14.29	0.00	0.00
BB+	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	0.00	12.50	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	0.00	11.11	22.22	11.11	11.11	22.22	0.00	11.11	0.00	0.00
BB-	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33	16.67	0.00	0.00	16.67	16.67	16.67	16.67
B+	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.26	5.26	15.79	15.79	15.79	10.53	10.53	5.26	10.53	0.00
B	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.67	0.00	0.00	0.00	0.00	6.67	33.33	13.33	0.00	20.00	13.33	0.00
B-	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	8.33	0.00	33.33	8.33	33.33	0.00	0.00
CCC+	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	0.00	0.00	16.67	0.00	16.67	16.67	33.33	0.00	0.00
CCC	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33.33	0.00	0.00	0.00	0.00	0.00	0.00	33.33	0.00	33.33	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	100.00	0.00	0.00
CC	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	100.00	0.00	0.00

Original-to-last transition rates compare the issuer credit rating from the time of first rating to the last rating, regardless of the time elapsed in the interim. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Cumulative default rates**

Table 53

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers (1975-2020)**

(%)

--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	0.19
A	0.00	0.02	0.48	1.01	1.56	2.13	2.73	3.35	4.01	4.70	5.44	6.25	6.79	7.36	8.20
BBB	0.00	0.48	0.99	1.48	2.01	2.57	3.07	3.40	3.75	4.14	4.56	5.02	5.88	6.84	7.40
BB	0.45	1.46	2.24	2.89	4.25	5.73	7.31	9.00	10.52	11.55	12.52	13.55	14.37	15.03	15.53
B	3.05	6.75	10.53	14.22	17.11	19.83	22.51	25.08	27.29	29.36	30.94	32.41	34.04	35.78	37.64

Table 53

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers (1975-2020) (cont.)**

(%)		--Time horizon (years)--														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
CCC/CC	40.93	52.19	58.07	60.51	63.85	70.30	76.00	78.62	78.62	80.15	83.97	86.15	87.12	87.12	87.12	

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 54

**Sovereign Local Currency Cumulative Average Default Rates Without Rating Modifiers (1993-2020)**

(%)		--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	0.08	0.60	1.16	1.77	2.43	3.15	
A	0.00	0.02	0.46	0.96	1.49	2.05	2.63	3.25	3.90	4.82	5.56	6.38	7.28	8.29	9.39	
BBB	0.00	0.44	0.76	1.05	1.36	1.70	2.40	2.86	3.29	3.37	3.37	3.37	3.37	3.37	3.37	
BB	0.65	1.34	1.75	2.13	2.75	3.41	3.96	4.72	5.40	5.86	6.37	6.95	7.61	8.37	9.26	
B	1.70	3.06	4.45	5.54	6.48	7.53	8.65	9.85	11.16	12.38	12.98	13.59	14.30	15.14	15.29	
CCC/CC	11.28	15.00	18.05	21.71	28.87	37.80	42.16	45.19	45.19	46.99	51.48	51.48	51.48	51.48	51.48	

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 55

**Foreign Currency 'A' Static Pools And Default Rates (1992-2020)**

(%)		--Time horizon (years)--														
Date	Number of issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1992	6	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
1/1/1993	6	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
1/1/1994	5	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
1/1/1995	6	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
1/1/1996	8	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
1/1/1997	9	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
1/1/1998	9	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
1/1/1999	9	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	11.11
1/1/2000	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	18.18	18.18
1/1/2001	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.33	16.67	16.67	16.67

Table 55

**Foreign Currency 'A' Static Pools And Default Rates (1992-2020) (cont.)**

(%)		--Time horizon (years)--														
Date	Number of issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/2002	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.14	14.29	14.29	14.29	14.29
1/1/2003	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.88	11.76	11.76	11.76	11.76	11.76
1/1/2004	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	10.00	10.00	10.00	10.00	10.00	15.00
1/1/2005	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.76	9.52	9.52	9.52	9.52	9.52	9.52	9.52
1/1/2006	21	0.00	0.00	0.00	0.00	0.00	0.00	4.76	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52
1/1/2007	23	0.00	0.00	0.00	0.00	0.00	4.35	8.70	8.70	8.70	8.70	8.70	8.70	8.70	8.70	8.70
1/1/2008	20	0.00	0.00	0.00	0.00	5.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
1/1/2009	20	0.00	0.00	0.00	5.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
1/1/2010	21	0.00	0.00	0.00	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
1/1/2011	21	0.00	0.00	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
1/1/2012	15	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
1/1/2013	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	0.00	0.00	0.00
1/1/2014	12	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
1/1/2015	15	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
1/1/2016	16	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
1/1/2017	16	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
1/1/2018	17	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
1/1/2019	18	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
1/1/2020	15	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
Cumulative default rate*		0.00	0.00	0.25	0.77	1.32	1.89	2.48	3.10	3.75	4.43	5.17	5.97	6.83	7.30	8.35

Note: Implied senior debt ratings through 1995; sovereign credit ratings thereafter. \*From the rating category row in table 14. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 56

**Foreign Currency 'BBB' Static Pools And Default Rates (1992-2020)**

(%)		--Time horizon (years)--														
Date	Number of issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1992	2	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
1/1/1993	6	0.00	0.00	0.00	0.00	0.00	0.00	16.67	16.67	16.67	16.67	16.67	16.67	16.67	16.67	16.67
1/1/1994	8	0.00	0.00	0.00	0.00	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
1/1/1995	7	0.00	0.00	0.00	0.00	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29
1/1/1996	4	0.00	0.00	0.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 56

Foreign Currency 'BBB' Static Pools And Default Rates (1992-2020) (cont.)

Date	Number of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1997	9	0.00	0.00	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
1/1/1998	16	0.00	0.00	0.00	0.00	0.00	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	12.50
1/1/1999	16	0.00	0.00	0.00	0.00	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	12.50	12.50
1/1/2000	16	0.00	0.00	0.00	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
1/1/2001	16	0.00	0.00	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
1/1/2002	16	0.00	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
1/1/2003	13	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
1/1/2004	12	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
1/1/2005	13	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	7.69	7.69
1/1/2006	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	7.69	7.69
1/1/2007	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	7.69	7.69	
1/1/2008	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.14	7.14	7.14		
1/1/2009	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.88	5.88	5.88			
1/1/2010	18	0.00	0.00	5.56	5.56	5.56	5.56	5.56	5.56	11.11	11.11	11.11				
1/1/2011	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.26	5.26	5.26					
1/1/2012	24	0.00	4.17	4.17	4.17	4.17	4.17	8.33	8.33	8.33						
1/1/2013	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
1/1/2014	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
1/1/2015	25	0.00	0.00	0.00	0.00	0.00	0.00									
1/1/2016	24	0.00	0.00	0.00	0.00	0.00										
1/1/2017	22	0.00	0.00	0.00	0.00											
1/1/2018	24	0.00	0.00	0.00												
1/1/2019	24	0.00	0.00													
1/1/2020	27	0.00														
Cumulative default rate*		0.00	0.45	1.16	1.66	2.19	2.76	3.37	3.71	4.07	4.47	4.89	5.36	5.86	6.93	7.51

Note: Implied senior debt ratings through 1995; sovereign credit ratings thereafter. \*From the rating category row in table 14. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 57

Foreign Currency 'BB' Static Pools And Default Rates (1992-2020)

Date	Number of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1992	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00
1/1/1993	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	25.00	25.00	25.00
1/1/1994	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	16.67	16.67	16.67	33.33	33.33	33.33	33.33
1/1/1995	8	0.00	0.00	0.00	0.00	0.00	0.00	12.50	12.50	25.00	25.00	25.00	25.00	25.00	25.00	25.00
1/1/1996	10	0.00	0.00	0.00	0.00	0.00	10.00	10.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
1/1/1997	13	0.00	0.00	7.69	7.69	15.38	15.38	30.77	30.77	30.77	30.77	30.77	30.77	30.77	30.77	30.77
1/1/1998	18	0.00	11.11	11.11	16.67	16.67	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22	22.22
1/1/1999	18	0.00	0.00	5.56	5.56	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11	11.11
1/1/2000	15	0.00	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67	6.67
1/1/2001	14	7.14	7.14	7.14	7.14	7.14	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29	14.29
1/1/2002	16	0.00	0.00	0.00	6.25	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
1/1/2003	17	0.00	5.88	11.76	11.76	11.76	11.76	11.76	11.76	11.76	11.76	11.76	11.76	11.76	11.76	17.65
1/1/2004	17	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	11.76	11.76
1/1/2005	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.26	5.26	5.26
1/1/2006	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.26	5.26	10.53	10.53	10.53	10.53
1/1/2007	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	4.55	13.64	13.64	13.64	13.64	
1/1/2008	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.35	4.35	13.04	13.04	13.04	13.04		
1/1/2009	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.70	8.70	8.70	8.70			
1/1/2010	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.70	8.70	8.70	8.70				
1/1/2011	23	0.00	4.35	4.35	4.35	4.35	4.35	13.04	13.04	13.04	13.04					
1/1/2012	22	0.00	0.00	0.00	0.00	0.00	4.55	4.55	4.55	9.09						
1/1/2013	26	0.00	0.00	0.00	0.00	3.85	7.69	7.69	11.54							
1/1/2014	24	0.00	0.00	0.00	4.17	8.33	8.33	12.50								
1/1/2015	20	0.00	0.00	0.00	0.00	0.00	5.00									
1/1/2016	21	0.00	0.00	0.00	0.00	4.76										
1/1/2017	22	0.00	0.00	0.00	0.00											
1/1/2018	20	0.00	0.00	0.00												
1/1/2019	17	0.00	0.00													
1/1/2020	18	0.00														
Cumulative default rate*		0.40	1.42	2.06	2.72	4.13	5.60	7.15	9.08	10.55	11.50	12.18	12.92	13.74	14.63	15.13

Note: Implied senior debt ratings through 1995; sovereign credit ratings thereafter. \*From the rating category row in table 14. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 58

Foreign Currency 'B' Static Pools And Default Rates (1995-2020)

Date	Number of issuers	--Time horizon (years)--														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1995	4	0.00	0.00	0.00	0.00	25.00	25.00	25.00	25.00	25.00	25.00	50.00	50.00	50.00	50.00	50.00
1/1/1996	5	0.00	0.00	0.00	20.00	20.00	20.00	20.00	20.00	20.00	40.00	40.00	40.00	40.00	40.00	40.00
1/1/1997	4	0.00	0.00	25.00	25.00	25.00	25.00	25.00	25.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
1/1/1998	5	0.00	20.00	20.00	20.00	20.00	20.00	20.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
1/1/1999	7	0.00	0.00	0.00	0.00	0.00	0.00	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57	28.57
1/1/2000	14	0.00	0.00	0.00	7.14	7.14	21.43	21.43	21.43	21.43	21.43	28.57	28.57	28.57	28.57	28.57
1/1/2001	19	0.00	5.26	10.53	10.53	21.05	21.05	21.05	26.32	26.32	31.58	31.58	31.58	31.58	31.58	31.58
1/1/2002	15	0.00	6.67	6.67	13.33	13.33	13.33	13.33	13.33	20.00	20.00	20.00	20.00	20.00	26.67	26.67
1/1/2003	16	12.50	12.50	12.50	18.75	18.75	18.75	18.75	25.00	25.00	25.00	25.00	25.00	31.25	31.25	31.25
1/1/2004	19	0.00	5.26	10.53	10.53	10.53	10.53	15.79	15.79	15.79	15.79	15.79	21.05	21.05	21.05	21.05
1/1/2005	21	4.76	9.52	9.52	9.52	9.52	14.29	14.29	19.05	19.05	19.05	23.81	28.57	28.57	28.57	28.57
1/1/2006	23	0.00	0.00	0.00	0.00	4.35	4.35	13.04	13.04	17.39	17.39	21.74	26.09	26.09	26.09	34.78
1/1/2007	25	0.00	4.00	4.00	8.00	8.00	16.00	16.00	20.00	20.00	24.00	24.00	24.00	24.00	32.00	
1/1/2008	28	7.14	7.14	10.71	10.71	21.43	21.43	25.00	25.00	28.57	28.57	28.57	28.57	35.71		
1/1/2009	28	0.00	3.57	3.57	10.71	10.71	14.29	17.86	21.43	21.43	21.43	21.43	28.57			
1/1/2010	27	0.00	0.00	7.41	7.41	11.11	11.11	14.81	14.81	14.81	14.81	22.22				
1/1/2011	32	0.00	6.25	9.38	12.50	15.63	18.75	18.75	18.75	18.75	28.13					
1/1/2012	33	6.06	9.09	12.12	15.15	18.18	21.21	21.21	21.21	30.30						
1/1/2013	30	3.33	6.67	10.00	13.33	16.67	16.67	16.67	26.67							
1/1/2014	32	0.00	3.13	9.38	15.63	15.63	15.63	25.00								
1/1/2015	34	0.00	5.88	11.76	14.71	14.71	23.53									
1/1/2016	37	5.41	10.81	13.51	13.51	21.62										
1/1/2017	37	5.41	8.11	10.81	21.62											
1/1/2018	36	0.00	2.78	16.67												
1/1/2019	41	2.44	14.63													
1/1/2020	38	7.89														
Cumulative default rate*		2.61	6.61	10.32	13.69	16.65	19.17	21.89	24.57	26.60	28.51	30.65	32.64	34.00	35.54	37.3

Note: Implied senior debt ratings through 1995; sovereign credit ratings thereafter. \*From the rating category row in table 14. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Default, Transition, and Recovery: 2020 Annual Sovereign Default And Rating Transition Study

Table 59

Foreign Currency 'CCC'/'CC' Static Pools And Default Rates (1999-2020)

(%)

--Time horizon (years)--

Date	Number of issuers	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1/1/1999	3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1/1/2000	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1/1/2001	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
1/1/2002	2	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1/1/2003	3	0.00	0.00	33.33	33.33	33.33	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67
1/1/2004	2	0.00	50.00	50.00	50.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1/1/2005	3	33.33	33.33	33.33	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67
1/1/2006	3	33.33	33.33	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67	66.67
1/1/2007	1	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
1/1/2008	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	
1/1/2009	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		
1/1/2010	3	33.33	33.33	33.33	33.33	33.33	66.67	66.67	66.67	66.67	66.67	100.00				
1/1/2011	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
1/1/2012	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00						
1/1/2013	2	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00							
1/1/2014	1	100.00	100.00	100.00	100.00	100.00	100.00	100.00								
1/1/2015	2	50.00	50.00	100.00	100.00	100.00	100.00									
1/1/2016	2	0.00	50.00	50.00	50.00	50.00										
1/1/2017	3	100.00	100.00	100.00	100.00											
1/1/2018	4	25.00	25.00	25.00												
1/1/2019	1	0.00	0.00													
1/1/2020	5	60.00														
Cumulative default rate*		46.51	54.15	62.24	65.68	69.11	76.83	80.69	80.69	80.69	80.69	84.55	84.55	84.55	84.55	84.55

Note: Implied senior debt ratings through 1995; sovereign credit ratings thereafter. \*From the rating category row in table 14. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 60

Sovereign Foreign Currency Cumulative Average Default Rates With Rating Modifiers (1975-2020)

(%)

--Time horizon (annualized months)--

Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Table 60

**Sovereign Foreign Currency Cumulative Average Default Rates With Rating Modifiers (1975-2020) (cont.)**

(%)	--Time horizon (annualized months)--														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
A+	0.0	0.0	0.5	1.6	2.9	3.1	3.1	4.2	5.2	5.2	5.2	5.2	5.2	6.3	7.6
A	0.0	0.0	0.2	0.8	1.4	2.7	4.0	4.9	5.9	7.5	9.1	10.0	11.1	11.7	11.7
A-	0.0	0.1	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.1	2.4	2.6	4.1
BBB+	0.0	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.2	3.9	5.8	7.8	9.8	9.8
BBB	0.0	0.6	1.4	2.1	2.1	2.1	2.1	2.4	3.6	3.6	3.6	3.6	4.7	5.1	5.1
BBB-	0.0	0.5	1.0	1.6	2.8	4.1	5.3	5.7	5.7	5.7	5.7	5.7	5.7	6.6	7.8
BB+	0.2	1.3	1.3	1.3	1.7	2.6	3.5	4.5	6.5	7.7	8.8	10.0	11.2	12.7	14.2
BB	0.1	0.7	1.3	2.0	2.4	3.0	3.8	4.5	4.5	4.5	4.6	5.7	6.8	7.4	7.4
BB-	0.9	2.2	3.7	4.9	7.9	10.7	13.6	16.9	19.7	21.7	23.4	24.3	24.3	24.3	24.3
B+	0.7	2.3	4.2	7.1	9.4	12.6	16.2	19.8	21.3	23.4	25.4	26.9	28.0	28.7	30.5
B	2.5	5.9	10.5	14.6	18.1	20.3	22.6	25.1	27.7	30.3	31.7	33.5	35.8	37.7	37.7
B-	7.9	15.4	21.3	25.7	28.6	31.4	33.0	33.7	36.6	37.7	38.9	39.9	41.4	44.1	48.1
CCC+	22.2	27.4	34.1	38.5	44.5	56.1	66.4	71.3	71.3	74.3	81.9	86.7	89.2	89.2	89.2
CCC	49.2	77.1	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
CCC-	84.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
CC	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Investment grade	0.0	0.1	0.3	0.6	0.8	1.1	1.3	1.5	1.7	2.0	2.2	2.5	2.7	3.0	3.4
Speculative grade	3.3	6.1	8.6	10.8	13.0	15.3	17.5	19.6	21.4	23.0	24.3	25.6	26.7	27.8	28.9
All rated	1.2	2.3	3.4	4.4	5.3	6.2	7.2	8.1	8.8	9.5	10.1	10.6	11.2	11.7	12.2

Default rates conditional on survival. Horizons consist of monthly cohorts for specified periods annualized. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 61

**Sovereign Foreign Currency Cumulative Average Default Rates With Rating Modifiers (1975-2020)**

(%)	--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	
A+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
BBB+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.4
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	0.4	0.4	0.5	0.5	0.6	0.6

Table 61

**Sovereign Foreign Currency Cumulative Average Default Rates With Rating Modifiers (1975-2020) (cont.)**

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	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5
BB+	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	0.6	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3
BB	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	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7
BB-	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.1	2.2
B+	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	1.3	1.4	1.6	1.8	2.0	2.1	2.2	2.3
B	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.2	2.5	2.8	3.1	3.3	3.6	3.9	4.1	4.4	4.6	4.9	5.2	5.6	5.9
B-	0.3	1.0	1.6	2.1	2.8	3.5	4.3	5.0	5.8	6.4	7.2	7.9	8.6	9.1	9.8	10.5	11.2	11.9	12.5	13.1	13.8	14.4	14.9	15.4
CCC+	1.5	3.4	5.6	7.9	10.2	12.2	13.9	15.6	17.6	19.7	21.1	22.2	23.3	24.0	24.4	24.4	24.4	24.4	24.7	25.5	25.9	26.2	26.6	27.4
CCC	5.1	11.9	19.5	26.3	32.2	36.4	39.8	43.2	44.1	45.8	47.5	49.2	51.7	55.1	57.6	60.2	62.7	65.3	68.6	71.2	72.9	74.6	76.3	77.1
CCC-	19.6	32.6	45.7	54.3	58.7	65.2	69.6	73.9	78.3	80.4	82.6	84.8	87.0	89.1	91.3	93.5	95.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8
CC	27.7	44.7	57.4	72.3	80.9	85.1	89.4	91.5	93.6	95.7	97.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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	0.0	0.1	0.1	0.1	0.1	0.1
Speculative grade	0.3	0.6	0.9	1.2	1.5	1.7	2.0	2.3	2.5	2.8	3.1	3.3	3.6	3.8	4.1	4.3	4.5	4.8	5.0	5.2	5.4	5.7	5.9	6.1
All rated	0.1	0.2	0.3	0.4	0.6	0.7	0.8	0.9	0.9	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	2.2	2.3

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 62

**Sovereign Local Currency Cumulative Average Default Rates With Rating Modifiers (1993-2020)**

Rating	--Time horizon (annualized months)--														
	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	1.0
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	0.9	2.0
AA-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.8	3.5	5.4	6.5	6.5
A+	0.0	0.0	0.3	1.2	2.0	2.2	2.2	2.9	4.0	4.8	4.8	4.8	4.8	4.8	6.5
A	0.0	0.0	0.2	0.9	1.6	3.1	4.7	5.8	6.6	7.7	8.7	8.7	8.7	8.7	8.7
A-	0.0	0.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.8	3.0	5.5	8.1	10.8	12.1
BBB+	0.0	0.3	0.4	0.4	0.4	0.4	0.4	0.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7
BBB	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
BBB-	0.0	0.7	1.5	2.4	3.3	4.4	6.7	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
BB+	0.2	1.1	1.1	1.1	1.3	2.3	2.3	2.4	3.4	4.5	5.8	7.2	8.8	10.6	12.6
BB	1.4	1.8	1.8	1.8	1.8	1.8	2.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
BB-	0.5	1.2	2.3	3.3	4.8	5.7	6.4	7.6	8.5	8.5	8.5	8.5	8.5	8.5	8.5

Table 62

**Sovereign Local Currency Cumulative Average Default Rates With Rating Modifiers (1993-2020) (cont.)**

Rating	--Time horizon (annualized months)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B+	0.5	1.6	1.8	1.8	2.0	2.6	3.0	3.0	3.4	4.6	4.9	6.7	8.4	8.4	8.4
B	1.2	1.8	3.2	4.8	6.3	7.9	9.6	12.0	13.4	13.4	13.6	13.6	13.9	14.7	14.7
B-	4.1	7.0	10.2	12.1	13.3	14.2	15.5	16.5	19.5	23.1	25.0	25.0	26.8	27.3	
CCC+	4.1	6.4	11.5	17.4	28.4	41.7	48.3	53.0	53.0	56.3	64.6	64.6	64.6	64.6	64.6
CCC	19.1	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
CCC-	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	N.A.	N.A.	N.A.
CC	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
Investment grade	0.0	0.1	0.3	0.5	0.7	0.9	1.2	1.5	1.8	2.0	2.3	2.7	3.0	3.4	3.8
Speculative grade	1.7	2.8	3.9	4.8	5.8	7.0	7.9	9.0	10.0	10.8	11.6	12.1	12.8	13.5	14.0
All rated	0.6	1.1	1.6	2.0	2.5	3.0	3.6	4.1	4.6	5.0	5.4	5.8	6.3	6.7	7.2

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. N.A.--Not available (no observations for this horizon). Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 63

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers: Middle East And Africa (1975-2020)**

Rating	--Time horizon (annualized months)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	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.
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	N.A.	N.A.
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	0.00	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
BB	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
B	1.68	3.64	5.78	7.62	9.64	11.90	14.41	17.18	20.31	23.40	26.25	28.48	30.24	32.78	36.02
CCC/CC	21.87	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	24.04	39.87	46.20	46.20	46.20
Investment grade	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
Speculative grade	1.96	3.44	4.97	6.27	7.68	9.21	10.87	12.67	14.66	16.54	18.17	19.79	20.85	22.08	23.53
All rated	1.13	1.97	2.83	3.55	4.32	5.14	6.04	7.01	8.08	9.08	9.94	10.78	11.32	11.94	12.65

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. N.A.--Not available (no observations for this horizon). Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 64

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers: Latin America (1975-2020)**

(%)	--Time horizon (annualized months)--														
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	0.80	6.02
BBB	0.00	0.61	1.49	2.45	3.49	4.66	5.98	7.48	9.22	11.24	13.60	16.30	19.37	22.16	22.16
BB	0.26	1.11	2.61	4.32	7.83	11.64	15.62	19.21	22.12	23.75	25.63	27.79	29.46	30.79	31.76
B	7.06	15.50	24.21	32.24	37.23	41.83	45.68	49.74	53.22	56.32	57.79	59.03	60.81	62.64	65.42
CCC/CC	39.80	56.22	66.54	70.63	76.14	81.64	87.15	91.05	91.05	93.61	100.00	100.00	100.00	100.00	100.00
Investment grade	0.00	0.36	0.86	1.39	1.97	2.59	3.27	4.02	4.85	5.79	6.82	7.98	9.27	10.70	12.29
Speculative grade	5.43	10.46	15.58	20.21	24.50	28.78	32.81	36.65	39.66	41.97	43.88	45.51	47.12	48.54	50.11
All rated	3.41	6.71	10.17	13.35	16.35	19.41	22.39	25.31	27.73	29.71	31.45	33.02	34.61	36.11	37.76

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 65

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers: Asia-Pacific (1975-2020)**

(%)	--Time horizon (annualized months)--														
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	1.07	2.57	4.17	5.86	7.64	8.89	8.89	8.89	8.89	8.89	8.89	8.89	8.89	8.89
BB	0.00	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
B	0.67	2.20	3.19	4.23	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41
CCC/CC	67.24	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97	68.97
Investment grade	0.00	0.21	0.49	0.78	1.09	1.40	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
Speculative grade	1.92	2.83	3.35	3.89	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
All rated	0.68	1.14	1.50	1.88	2.12	2.32	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 66

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers: Central And Eastern Europe And CIS (1975-2020)**

Rating	--Time horizon (annualized months)--														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	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.
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	0.3	1.1	1.3	1.3	1.3	1.3	1.3	2.3	3.7	5.3	5.8	5.8	5.8	5.8	5.8
B	0.2	0.6	2.0	3.5	5.2	6.1	6.9	7.4	7.4	7.4	9.2	12.1	15.4	17.9	17.9
CCC/CC	44.7	65.8	65.8	65.8	65.8	81.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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
Speculative grade	0.9	1.9	2.5	3.1	3.7	4.3	5.0	5.8	6.7	7.6	8.6	9.8	11.2	12.2	12.2
All rated	0.4	0.9	1.2	1.4	1.7	2.0	2.3	2.6	2.9	3.3	3.7	4.2	4.7	5.1	5.1

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. CIS--Commonwealth of Independent States. N.A.--Not available (no observations for this horizon). Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 67

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers: Eurozone (1975-2020)**

Rating	--Time horizon (annualized months)--														
	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	0.45
A	0.00	0.07	1.67	3.51	5.47	7.52	9.69	11.94	14.25	16.69	19.31	22.17	24.11	25.86	27.00
BBB	0.00	0.98	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	3.30	6.12	8.96
BB	3.01	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59
B	3.06	3.06	3.06	3.06	3.06	3.06	3.06	3.06	3.06	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CCC/CC	61.76	61.76	61.76	61.76	61.76	61.76	61.76	61.76	61.76	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Investment grade	0.00	0.14	0.52	0.91	1.32	1.74	2.17	2.62	3.09	3.58	4.08	4.61	5.16	5.75	6.36
Speculative grade	8.40	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.60
All rated	0.44	0.78	1.14	1.52	1.91	2.31	2.73	3.17	3.62	4.10	4.59	5.11	5.65	6.22	6.82

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. N.A.--Not available (no observations for this horizon). Horizons consist of monthly cohorts for specified periods annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

Table 68

**Sovereign Foreign Currency Cumulative Average Default Rates Without Rating Modifiers: Emerging And Frontier Markets (1975-2020)**

(%)

--Time horizon (annualized months)--

Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
AAA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.1	1.1
BBB	0.0	0.4	1.0	1.6	2.2	2.9	3.6	4.0	4.4	4.9	5.4	5.9	6.5	7.1	7.1
BB	0.4	1.1	2.0	2.7	4.1	5.7	7.3	9.1	10.7	11.8	12.8	13.9	14.7	15.4	15.9
B	3.1	6.9	11.0	15.0	17.9	20.6	23.2	25.8	28.1	30.4	32.1	33.7	35.5	37.4	39.4
CCC/CC	39.5	51.6	57.9	60.6	64.3	71.0	76.8	79.4	79.4	80.9	84.5	86.6	87.6	87.6	87.6
Investment grade	0.0	0.2	0.5	0.7	1.0	1.4	1.6	1.8	2.0	2.2	2.5	2.7	3.0	3.3	3.6
Speculative grade	3.2	6.0	8.6	11.0	13.2	15.5	17.8	20.0	21.9	23.5	24.9	26.3	27.5	28.7	29.8
All rated	1.8	3.5	5.1	6.6	8.0	9.4	10.8	12.1	13.2	14.2	15.2	16.0	16.8	17.6	18.3

Default rates conditional on survival. Implied senior debt ratings through 1995; sovereign credit ratings thereafter. Horizons consist of monthly cohorts for specified periods annualized. Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

**Related Publications**

**Related Criteria**

- Sovereign Rating Methodology, Dec. 18, 2017

**Related Research**

- Sovereign Ratings List, March 10, 2021
- Sizing Sovereign Debt And The Great Fiscal Unwind, Feb. 2, 2021
- European Developed Sovereign Rating Trends 2021, Jan. 28, 2021
- Americas Sovereign Rating Trends 2021, Jan. 27, 2021
- Asia-Pacific Sovereign Rating Trends 2021, Jan. 27, 2021
- EMEA Emerging Market Sovereign Rating Trends 2021, Jan. 27, 2021
- Global Sovereign Rating Trends 2021: Mounting Debt And Uncertainty Underpin A Negative Outlook Bias, Jan. 27, 2021

The use of the term "methodology" in this article refers to data aggregation and calculation methods used in conducting the research. It does not relate to S&P Global Ratings' methodologies, which are publicly available criteria used to determine credit ratings.

This report does not constitute a rating action.

Copyright © 2021 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge), and [www.ratingsdirect.com](http://www.ratingsdirect.com) (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.