

Multilateral Development Banks and Development Finance Institutions

# DEFAULT STATISTICS

**SOVEREIGN AND  
SOVEREIGN GUARANTEED  
LENDING 1998-2022**

**VOLUME 2**



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# Multilateral Development Banks and Development Finance Institutions — Default Statistics.

## Sovereign and Sovereign-Guaranteed Lending, 1998-2022

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# Foreword

Global Emerging Markets Risk Database Consortium (GEMs) was established in 2009 as a joint initiative between the European Investment Bank Group and the World Bank Group to pool credit default risk data. Today, the GEMs risk database is a unique example of a tangible common good that can help catalyse investment in emerging markets. Built by the GEMs Consortium, the database is a joint endeavour supporting technical cooperation between international institutions. As of year-end 2022, the GEMs Consortium comprised 23 multilateral development banks (MDBs) and development finance institutions (DFIs), providing leading coverage of emerging markets and developing economies, in particular.

This report is the second GEMs publication on sovereign and sovereign-guaranteed lending, and provides statistics derived from pooled GEMs data going back to 1998. This type of lending by MDBs includes loans either given to sovereigns directly or guaranteed by them. All such loans within each country are linked through cross-default clauses and, therefore, have identical default behaviour.

This report relies on data from the 11 MDBs providing such sovereign and sovereign-guaranteed lending, working together under the GEMs framework. Future versions of this report will aim to further enhance the scope and significance of the statistics presented, maximising value for member institutions and the wider community.

Compiling the report required extensive collaboration and technical harmonisation between

the MDBs that provide this type of financing — representing a major achievement of GEMs. The presented outputs give important insights into MDBs' default statistics. Moreover, this report highlights the unique features and potential of the GEMs risk database, and explains the methodological framework and various applications of GEMs statistics. Such output statistics are presented in the final section, which provides aggregated default statistics on sovereign-guaranteed lending.

This report provides an update to the 2020 report, which was the first publication sharing such insights beyond GEMs members.

In parallel with this report, GEMs is publishing a similar default statistics report focusing on *Private and sub-sovereign lending 1994-2022* (the data subset without sovereign guarantees).

GEMs is pleased to make this publication freely available as a public good offering readers valuable and unique insights into the credit experiences of MDBs and DFIs. Further refinements and developments will doubtless be needed to make GEMs statistics as reliable and relevant as possible. Nonetheless, we hope this report will offer readers valuable and unique insights into the credit experiences of MDBs' sovereign and sovereign-guaranteed lending. GEMs looks forward to gathering feedback and working with stakeholders to maximise the value it can bring to the wider community.

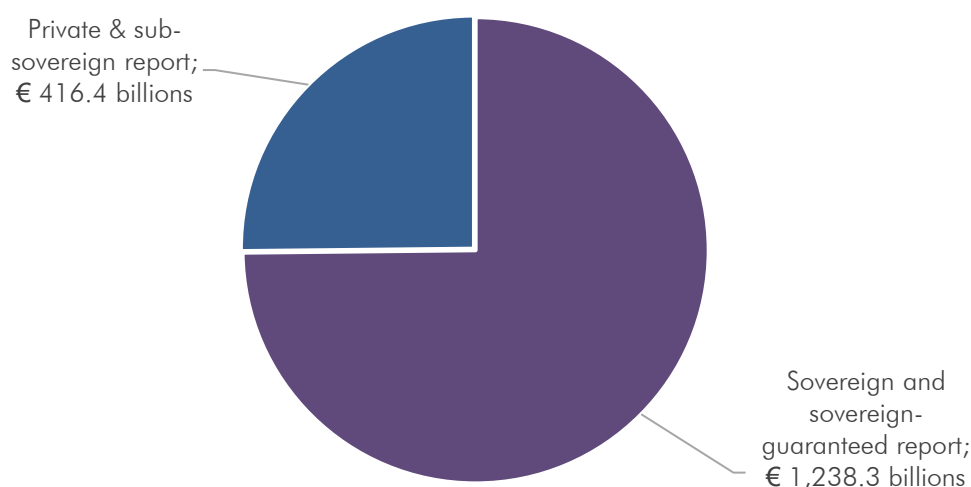
## GEMs at a glance

GEMs collects de-identified data from MDBs and DFIs on their performing and non-performing exposures. In return, these member institutions gain access to GEMs output statistics across various dimensions, such as geography, sector and time period. Detailed GEMs statistics allow members to calibrate and benchmark internal models, set capital requirements, and make more informed investment decisions. The GEMs Consortium also helps to build technical alignment and to share best practices among member institutions, including through semi-annual working-level meetings. The compilation of GEMs risk statistics relies on a sound, shared methodological framework. Bringing together data and expertise from over 20 public DFIs, the GEMs Consortium offers a...

- ✓ **Harmonised dataset** reflecting 25 years of experience investing in emerging markets and a total contract amount of €1 238.3 billion in sovereign and sovereign-guaranteed lending alone.
- ✓ **Framework for MDB and DFI collaboration** among 23 member institutions to improve risk management practices across the industry.
- ✓ **Trusted data collection and processing platform** hosting a scalable data model, which can be expanded to cover other contract-level data related to investment projects
- ✓ **Statistics resource for member MDBs and DFIs** — GEMs outputs, default rates, recovery rates and rating migrations enable better-informed investment decisions for emerging market investments by member institutions.
- ✓ **Public good data source for aggregated statistics** — the default rates published in the two reports on *Private and Sub-Sovereign Lending* and on *Sovereign-guaranteed Lending* serve to anchor risk perceptions.
- ✓ **Risk data hub of contract-level information** for private and sub-sovereign lending, as well as sovereign-guaranteed lending. The GEMs dataset for emerging markets and developing economies is among the largest of its kind.



Graph 1: Distribution by report of total contract volumes (amount signed)



Greater volumes of private investment are needed to realise the full potential of emerging markets, tackle climate change and achieve the Sustainable Development Goals. Accordingly, institutions must work together to address some of the hurdles that currently hold back investments. Key priorities include supporting the preparation of well-designed projects, facilitating the use of public resources to mitigate risks, promoting and enabling legal and contractual environment, and ensuring a greater level of standardisation, transparency and data availability. Given the scarcity of high-quality data and the strictness of regulatory requirements for more sophisticated risk management practices, reliable metrics are needed.

Through GEMs, MDBs and DFIs are committed to addressing the investment gap by sharing their experience and market knowledge among themselves and with investors. Currently, 23 MDBs and DFIs collaborate to pool and harmonise their data, thereby generating superior statistics to those available to any individual market participant. Thus, GEMs is a unique and complementary data source for current and potential investors in emerging markets, helping to refine their risk perceptions and make better-informed decisions. Members work together to build a joined-up “system” delivering more than the sum of its parts — as highlighted by

the G20 Eminent Persons Group on Global Financial Governance. This is true, however, not only for MDBs and DFIs but also private investors and other stakeholders limited by the same persistent data gap.

The scarcity of readily available, standardised and transparent high-quality data on investment projects in emerging markets leads to skewed risk perceptions and, in turn, suboptimal investment decisions. Institutions with little or no experience in such markets have to rely on risk assumptions based on limited data. Also, many investors are required by regulators to invest only in assets with certain risk profiles. By anchoring risk perceptions with actual data, GEMs aims to help unlock capital to fill investment gaps.

Rating agencies have long acknowledged the specificities of MDBs providing sovereign and sovereign-guaranteed lending such as Preferred Creditor Status (PCS). However, lacking comprehensive, high-quality data on the extent of this preferential treatment, agencies have assessed its impact conservatively, thereby limiting the potential leverage that MDBs could achieve. By compiling robust statistics on the combined default and loss experiences of MDBs, GEMs aims to provide a better foundation for rating agency methodological assessments of MDBs.

With input data from member institutions, GEMs produces high-quality statistics that enable the calibration and benchmarking of internal models, and better estimate provisioning, leading to greater accuracy in setting capital requirements, and better-informed investment decisions. GEMs statistics serve as an objective, reliable and statistically significant base for discussing regulatory compliance, capital adequacy and risk management practices with auditors, rating agencies and supervisors. Moreover, GEMs statistics can be a powerful tool for balance sheet optimisation, enabling transparent assessment of portfolio risks when third parties engage in risk transfer or co-financing Qoperations with MDBs/DFIs — thereby supporting crowding-in of additional funding to emerging markets.

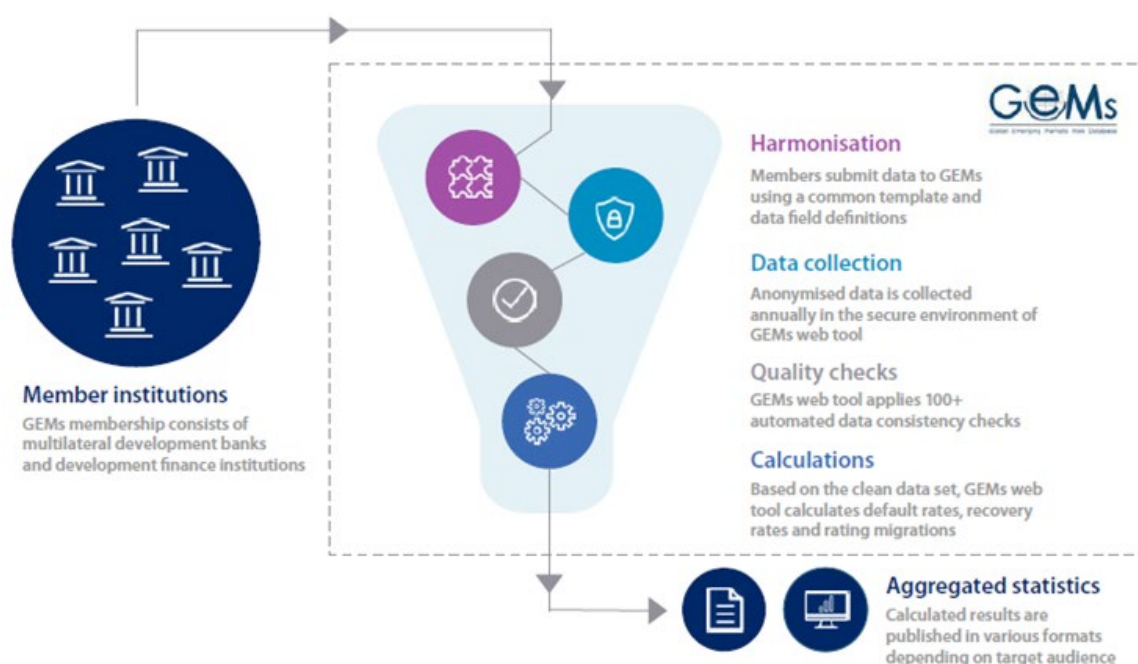
To date, only consortium members have had access to GEMs statistics. Yet publications such as this one mark a move by GEMs towards sharing aggregated statistics outside the Consortium. These statistics may be of significant value to a diverse group of stakeholders, ranging from academics to regulators and commercial entities. The specific application of GEMs statistics may vary across different institutions. As a result, GEMs looks forward to receiving feedback from readers of this report and working with stakeholders to improve the focus and content of future publications.

## From data to statistics

### Data processing and quality controls

The GEMs Consortium has jointly developed a submission process and risk methodology that aim to protect data confidentiality, ensure high-quality data, and enable the compilation of various types of output statistics.

Graph 2: GEMs data aggregation process



The complete GEMs historical dataset is submitted annually by Consortium members, leading to updates of previous data and additions of new data. Thus, over time, data quality continuously improves. Following the independent audit of the GEMs data submission process in 2017, the necessary action points have been addressed to ensure consistency and adherence to GEMs guidelines by all submitting institutions. All information provided by the institutions is de-identified and held in confidence.

**The dataset analysed and discussed in this report contains data from the 11 GEMs member institutions that provide sovereign and sovereign-guaranteed lending.** The data have been pooled following the GEMs process described above, building on historical data. Although the covered period is 1998-2022, seven of the 11 could only provide data from 2000 onwards or for an even shorter period. Consequently, sovereign defaults experienced by these institutions before that year do not appear in the statistics. The data included in this report already represent the vast majority of GEMs data on sovereign and sovereign-guaranteed lending. Nevertheless, the GEMs Consortium intends to expand the dataset in future public reports to cover more institutions and a longer time period.

# Methodology

The GEMs risk database includes credit data for debt products. The data structure of the underlying database allows for calculating default and loss statistics along various relevant dimensions, providing quantitative facts around specific lending segments, such as particular sectors or country groups.

For reporting on sovereign and sovereign-guaranteed lending, the reference data are organised by sovereign counterpart and include, among others, information on the respective geographic region and country income group. Regional and income classifications follow the World Bank's country groupings, thus facilitating the dissemination of information and comparative analysis across widely available data sources. Detailed descriptions can be found in the glossary.

Sovereign lending by MDBs constitutes direct lending to sovereign countries, while sovereign-guaranteed lending directs finance to states, municipalities, institutions and agencies with an explicit guarantee by the corresponding sovereign to pay overdue amounts if individual borrowers do not pay on time. All such lending operations within a country are connected via contractual cross-default clauses within the remit of each lending institution. This means that if any operation falls into arrears, the MDB will apply arrears sanctions simultaneously to all operations guaranteed by the corresponding sovereign. To reflect the specific format of sovereign and sovereign-guaranteed lending, the following methodology has been utilised to prepare this report:

- Default events are defined as a payment delay above a pre-defined materiality threshold on any operation. Severe sanction triggers applicable to each respective MDB, do not follow the above threshold rule.
- Default events are only considered as resolved upon full payment of all overdue amounts (principle, interest and any applicable charges) on all loans pertaining to the sovereign in default.
- In cases where multiple MDBs have exposure to a sovereign,
  - a default event occurs if a contractual obligation towards any lending institution is breached; and
  - the amounts of exposure are combined and counted as one exposure.
- To the extent available, the average of ratings by the main rating agencies (Standard & Poor's, Moody's, Fitch) is used as the GEMs rating for a given sovereign, thus ensuring use of a consistent rating scale among member MDBs contributing data to GEMs. In cases where no such rating is available, OECD or WRR ratings<sup>1</sup> are utilised. A sovereign is categorised as not rated ("NR") if neither of the additional sources provides a rating.

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<sup>1</sup> The Organization for Economic Cooperation and Development (OECD) and the World Risk Report (WRR) have provided credit ratings for countries since 1999 and 2009, respectively.

# Highlights

The default rates presented in this report are substantially lower than those found in other publications on sovereign and sovereign-guaranteed lending, such as the databases maintained by rating agencies.

This superior performance is explained by the specific features of MDBs: multilateral institutions benefit from stringent arrears policies, solid shareholding structures and PCS for their sovereign and sovereign-guaranteed loans.

In particular, PCS is a widely accepted principle under which MDBs have historically been given priority for debt repayment if a borrower experiences financial distress.

PCS has been a cornerstone for MDBs, allowing them to operate with low losses. Although not legally enforceable, it entails the following expectations:

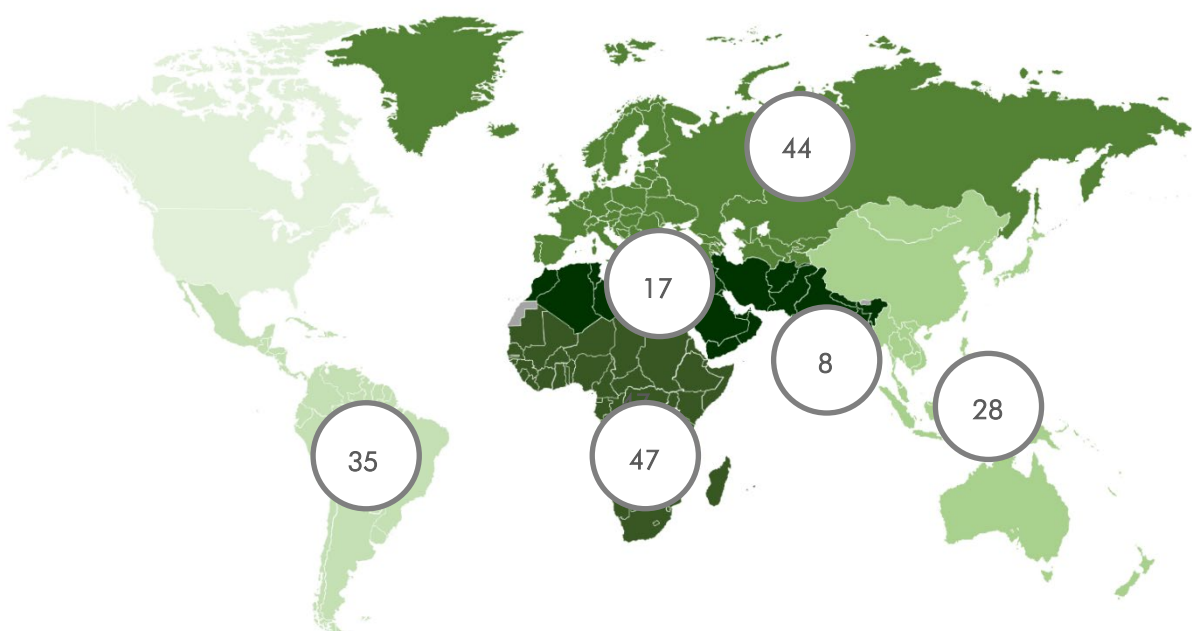
1. Countries commit themselves to timely payment of their obligations to MDBs.
2. Countries commit to exempt MDBs from generalised payment moratoria or exchange-rate controls.
3. The International Monetary Fund typically requests PCS for itself and for MDBs with global reach - categorised as international institutions -, as a condition for providing funding to a country in crisis.
4. MDBs are exempt from participating in sovereign debt rescheduling. This benefit is granted by official creditors organised under the Paris Club and officially recognised in the "Paris Club Agreed Minutes." It exempts MDBs from the "comparability of treatment" clause, which requires all creditors to seek rescheduling terms comparable to those agreed by the Paris Club.

# Report dataset composition

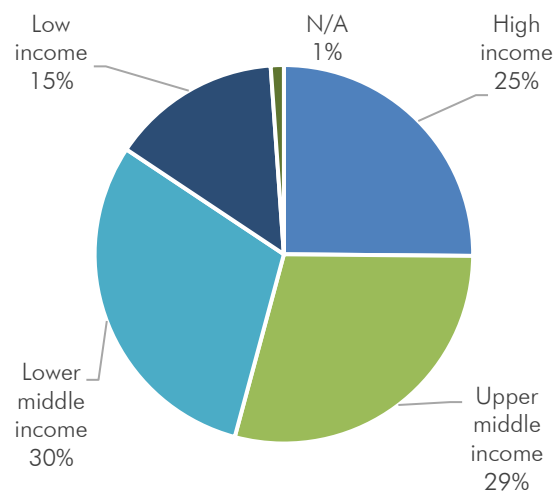
## Geographical distribution

The 11 MDBs contributing to this report are all mandated to support a wide range of economies, including emerging markets and low-income countries: African Development Bank (AfDB), Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB), Central American Bank for Economic Integration (CABEI), Council of Europe Development Bank (CEB), European Investment Bank (EIB), Inter-American Development Bank (IDB), International Bank for Reconstruction and Development (IBRD), International Fund for Agricultural Development (IFAD), Islamic Development Bank (IsDB), and New Development Bank (NDB).

Graph 3: Coverage of sovereigns by World Bank Group region

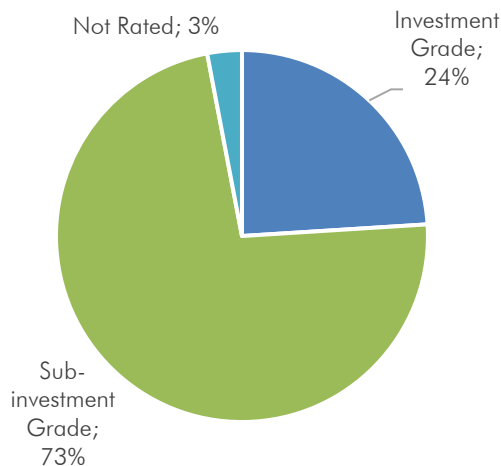


Graph 4: Distribution of sovereigns by World Bank Group country income group<sup>2</sup> as of year-end 2022



The dataset covers a broad spectrum of countries ranging from low- to high-income countries. Middle- and low-income countries account for 74% of the data.

Graph 5: Distribution of sovereigns by credit rating grade as of year-end 2022



Exposure to non-investment-grade sovereigns (not rated or with a sub-investment-grade GEMs rating) account for 76% of the data. These data thus provide unique statistics on these investment categories.

<sup>2</sup> A few countries are not assigned to an income group by the World Bank. These are shown as “N/A”.

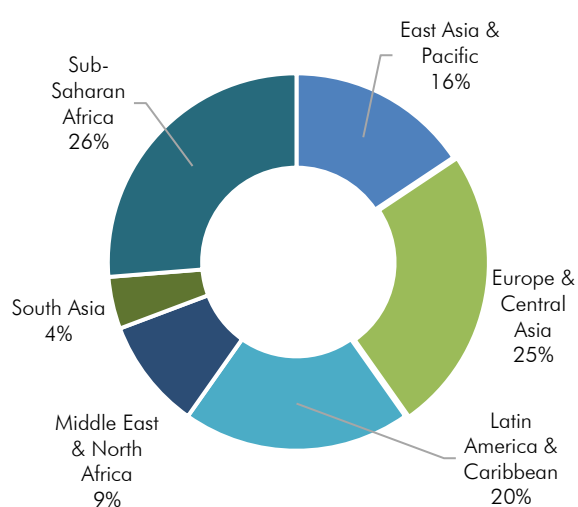
## Distribution of sovereigns as per World Bank Group regions

For the period 1998-2022, 23 default events have been recorded by GEMs members. The dataset covers MDBs' exposure to 179 sovereigns encompassing all continents except Antarctica.<sup>3</sup> The following tables and graphs provide an overview of the composition of this dataset.

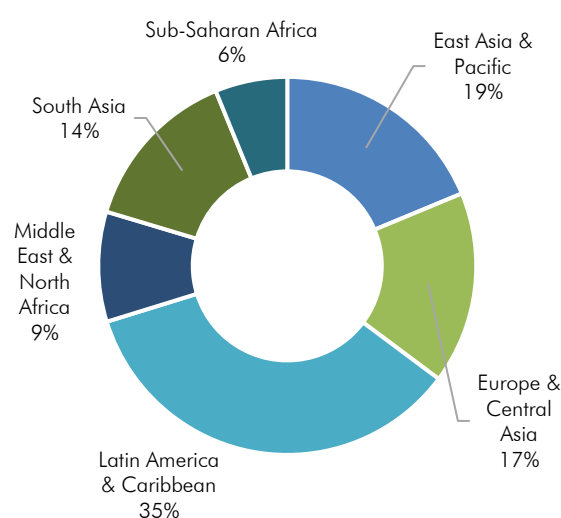
**Table 1: Dataset composition by World Bank Group region**

Region	Number of Sovereigns	Number of Default Events	Volume (bn €)
East Asia & Pacific	28	3	232.1
Europe & Central Asia	44	2	203.8
Latin America & Caribbean	35	3	433.6
Middle East & North Africa	17	4	116.6
South Asia	8	1	175.7
Sub-Saharan Africa	47	10	76.6
<b>Total</b>	<b>179</b>	<b>23</b>	<b>1,238.3</b>

**Graph 6: Distribution of number of sovereigns by World Bank Group region**



**Graph 7: Distribution of contract volumes (signed amount) by World Bank Group region**



<sup>3</sup> The Glossary lists all countries comprising each region in the World Bank Group classification system. Data in this report do not entail exposure to every sovereign listed in these definitions.



Table 2: Dataset composition by 2022 OECD membership

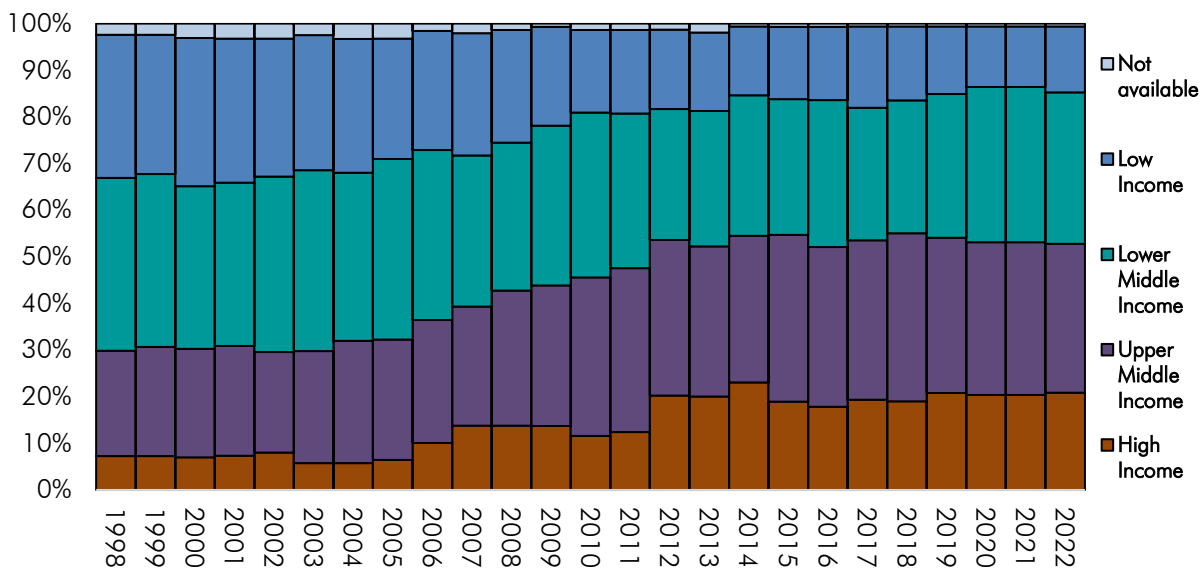
	Number of Sovereigns	Number of Default events	Volume (bn €)
OECD/Non-OECD			
OECD	21	0	162.0
Non-OECD	158	23	1,076.4
<b>Total</b>	<b>179</b>	<b>23</b>	<b>1,238.3</b>

Table 3 shows the distribution by country income group at year-end 2022, while Graph 8 illustrates how the income group distribution has evolved over time. Together, these demonstrate the strong willingness of MDBs to invest, in line with their mandates, in lower income segments of emerging markets, while also reflecting the transition of many countries, over time, into higher income categories.

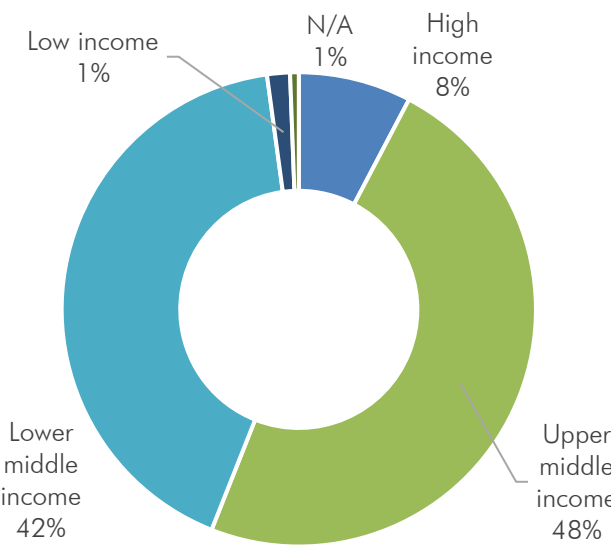
Table 3: Dataset composition by World Bank Group country income group as of year-end 2022

WB Country Income Group	Number of Sovereigns	Number of Default event	Volume (bn €)
High income	45	2	95.3
Upper middle income	52	5	598.1
Lower middle income	54	6	518.2
Low income	26	9	19.4
N/A	2	1	7.4
<b>Total</b>	<b>179</b>	<b>23</b>	<b>1,238.3</b>

Graph 8: Dataset composition by World Bank Group country income group from 1998 to 2022

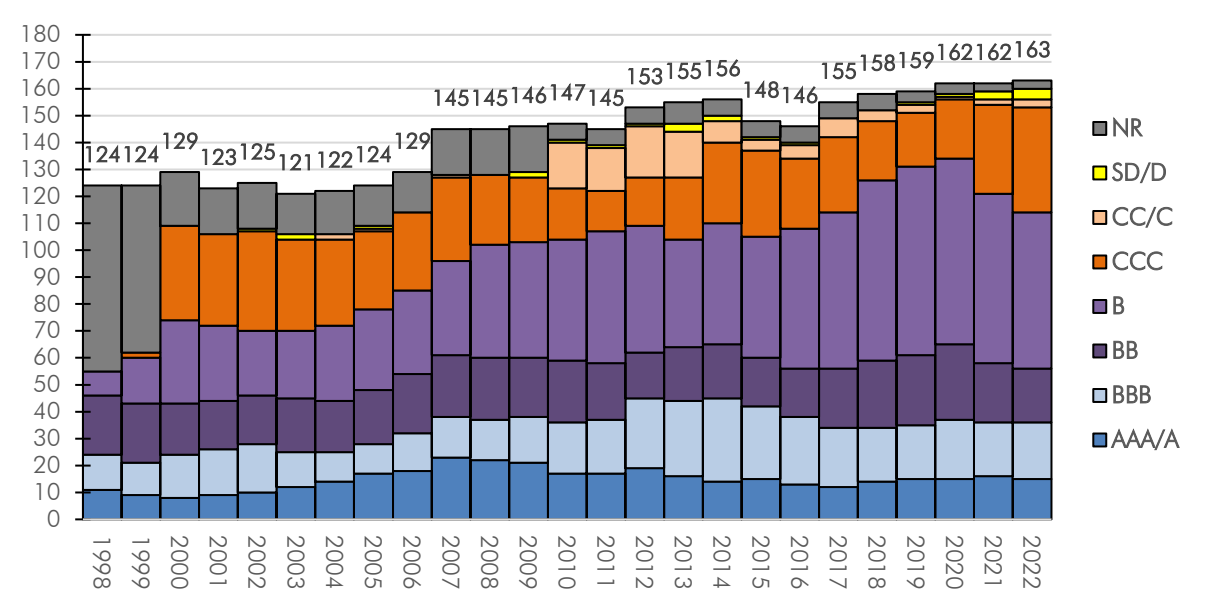


Graph 9: Distribution of contract volumes (based on total signed amount) by country income group as of year-end 2022



Graph 10 highlights the evolution of GEMs ratings for sovereigns over time. It shows that a large proportion of MDBs’ sovereign exposure has consistently been rated sub-investment grade.

Graph 10: Evolution of sovereigns by rating categories\*



(\*) NR = This category refers to sovereigns with no rating by a rating agency, the OECD and WRR. Rating categories as of 1 January of each year.

Table 4: Aggregate loan amount per country at year-end 2022 (€ million)

Afghanistan	693.8	Gambia, The	341.5	Oman	1,356.8
Albania	2,956.1	Georgia	6,775.0	Pakistan	39,316.5
Algeria	4,209.2	Germany	133.8	Palau	115.4
Andorra	16.0	Ghana	644.0	Panama	11,401.2
Angola	6,953.7	Greece	301.0	Papua New Guinea	3,386.5
Antigua and Barbuda	16.6	Grenada	49.9	Paraguay	7,959.3
Argentina	64,451.3	Guatemala	11,431.3	Peru	23,776.3
Armenia	2,323.3	Guinea	1,290.7	Philippines	35,533.7
Austria	50.0	Guinea-Bissau	58.9	Poland	12,129.5
Azerbaijan	7,441.9	Guyana	1,356.4	Portugal	459.6
Bahamas, The	1,407.1	Haiti	72.8	Qatar	0.3
Bahrain	1,049.4	Honduras	8,149.3	Romania	11,637.9
Bangladesh	25,255.7	Hungary	9,881.0	Russian Federation	6,159.5
Barbados	1,585.0	Iceland	3.0	Rwanda	1,035.2
Belarus	1,865.1	India	93,385.3	Samoa	139.4
Belize	464.4	Indonesia	69,787.9	San Marino	10.2
Benin	1,222.1	Iran, Islamic Rep.	3,463.6	São Tomé and Príncipe	30.7
Bhutan	599.0	Iraq	4,657.9	Saudi Arabia	174.2
Bolivia	8,581.1	Ireland	556.0	Senegal	4,208.8
Bosnia and Herzegovina	2,965.6	Italy	858.0	Serbia	10,064.5
Botswana	2,522.9	Jamaica	5,205.2	Seychelles	384.2
Brazil	83,091.5	Jordan	7,865.1	Sierra Leone	341.8
British Virgin Islands	5.5	Kazakhstan	12,905.3	Sint Maarten (Dutch part)	44.2
Brunei Darussalam	4.7	Kenya	3,667.8	Slovak Republic	1,211.9
Bulgaria	2,459.4	Kiribati	27.5	Slovenia	132.5
Burkina Faso	1,298.3	Korea, Rep.	7,774.4	Solomon Islands	126.5
Burundi	177.4	Kosovo	458.0	South Africa	11,729.9
Cabo Verde	520.7	Kyrgyz Republic	1,518.6	South Sudan	1.6
Cambodia	3,171.3	Lao PDR	1,791.3	Spain	1,411.4
Cameroon	4,508.7	Latvia	715.8	Sri Lanka	10,660.8
Central African Republic	53.0	Lebanon	3,949.3	St. Kitts and Nevis	23.8
Chad	795.6	Lesotho	298.8	St. Lucia	53.5
Chile	9,032.9	Liberia	213.0	St. Vincent and the Grenadines	27.8
China	77,461.2	Lithuania	892.8	Sudan	825.1
Colombia	48,056.9	Madagascar	535.2	Suriname	1,215.6
Comoros	30.9	Malawi	489.7	Syrian Arab Republic	1,536.3
Congo, Dem. Rep.	1,599.3	Malaysia	1,933.6	Tajikistan	907.6
Congo, Rep.	1,132.9	Maldives	410.4	Tanzania	1,764.7
Cook Islands	166.2	Mali	1,040.2	Thailand	7,869.5
Costa Rica	9,202.4	Malta	101.0	Timor-Leste	247.4
Côte d'Ivoire	4,200.9	Marshall Islands	82.5	Togo	279.3
Croatia	5,365.0	Mauritania	746.4	Tonga	68.9
Cuba	47.9	Mauritius	1,378.8	Trinidad and Tobago	2,008.2
Cyprus	869.7	Mexico	66,708.4	Tunisia	26,225.7
Czech Republic	300.0	Micronesia, Fed. Sts.	76.4	Turkey	58,098.2
Djibouti	168.3	Moldova	978.3	Turkmenistan	1,481.0
Dominica	13.5	Mongolia	3,016.6	Tuvalu	7.5
Dominican Republic	12,367.6	Montenegro	1,856.0	Uganda	2,243.6
Ecuador	18,608.0	Morocco	32,713.1	Ukraine	18,937.6
Egypt, Arab Rep.	28,683.1	Mozambique	951.2	United Kingdom	37.9
El Salvador	11,207.7	Myanmar	2,058.9	Uruguay	11,654.9
Equatorial Guinea	128.2	Namibia	1,901.6	Uzbekistan	13,592.3
Eritrea	43.5	Nauru	4.4	Vanuatu	105.7
Estonia	252.0	Nepal	5,331.3	Venezuela, RB	7,189.2
Eswatini	1,020.3	Netherlands	35.2	Vietnam	16,174.0
Ethiopia	1,207.4	New Caledonia	20.0	West Bank and Gaza	183.1
Fiji	964.3	Nicaragua	7,166.8	Yemen, Rep.	242.7
Finland	4.0	Niger	717.8	Zambia	1,343.5
French Polynesia	7.5	Nigeria	6,281.9	Zimbabwe	1,074.9
Gabon	3,316.3	North Macedonia	2,796.9	<b>Total</b>	<b>1,238,344.8</b>

Table 5: Numbers of MDBs with sovereign exposure per country at year-end 2022.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Afghanistan					1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Albania	3	3	3	3	3	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Algeria	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1
Andorra																							1	1	1
Angola	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	4	4	4	4	4
Antigua and Barbuda	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1
Argentina	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5
Armenia	2	2	2	2	2	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Austria																								1	1
Azerbaijan	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5
Bahamas, The	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2
Bahrain	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Bangladesh	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	4	4	5	5	5	5	5	5	5
Barbados	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Belarus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Belize	3	3	3	3	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Benin	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
Bhutan	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Bolivia	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4
Bosnia and Herzegovina	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Botswana	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
Brazil	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5
British Virgin Islands	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									
Brunei Darussalam								1	1	1	1	1	1	1	1										
Bulgaria	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Burkina Faso	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Burundi	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Cabo Verde	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Cambodia	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	4
Cameroon	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Central African Republic	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chad	2	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	2	2	2	2	2	2
Chile	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
China	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	6	6	6	6
Colombia	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Comoros	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Congo, Dem. Rep.	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Congo, Rep.	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Cook Islands	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Costa Rica	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Côte d'Ivoire	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6
Croatia	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
Cuba																1	1	1	1	1	1	1	1	1	1
Cyprus	3	3	3	3	3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Czech Republic	1	1	1	1	1	1	1	1	1	1	1												1	1	1
Djibouti	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dominica	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2
Dominican Republic	2	2	2	2	2	2	2	2	2	2	2	4	5	5	5	5	5	5	5	5	5	5	5	5	5
Ecuador	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
Egypt, Arab Rep.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6
El Salvador	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5
Equatorial Guinea	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Eritrea	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
Estonia	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1
Eswatini	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ethiopia	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Fiji	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	5	5	4
Finland						1	1	1	1	1	1	1	1	1	1	1	1								
French Polynesia																1	1	1	1	1	1	1	1	1	1
Gabon	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4

Table 5: Numbers of MDBs with sovereign exposure per country at year-end 2022 (continued).

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Gambia, The	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Georgia	2	2	2	2	2	2	2	2	2	2	3	3	4	4	4	4	4	4	4	5	5	6	6	6	6
Germany									1	1	1	1	2	2	2	2	2	2	1	1	1	1			
Ghana	4	4	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
Greece	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Grenada	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
Guatemala	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Guinea	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Guinea-Bissau	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Guyana	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	3	3
Haiti	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Honduras	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4	4	4	4
Hungary	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2
Iceland						1	1	1	1	1	1	1	1	1	1	1	1	1							
India	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6
Indonesia	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	5	5
Iran, Islamic Rep.	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Iraq	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Ireland												1	1	1	1	1	1	1	1	1	1	1	1	1	1
Italy						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Jamaica	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Jordan	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5
Kazakhstan	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
Kenya	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Kiribati	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
Korea, Rep.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2									
Kosovo				1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	3	3	3	4	4	4
Kyrgyz Republic	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	5	5	5
Lao PDR	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
Latvia	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
Lebanon	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Lesotho	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2
Liberia	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2
Lithuania	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1
Madagascar	3	3	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Malawi	4	4	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
Malaysia	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	1	1
Maldives	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	5	5	5	5
Mali	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Malta				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Marshall Islands	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mauritania	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3
Mauritius	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mexico	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Micronesia, Fed. Sts.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Moldova	1	1	2	2	2	2	2	2	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mongolia	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	4	5	5	5	5
Montenegro				2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4
Morocco	3	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mozambique	4	4	4	4	4	4	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3
Myanmar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Namibia	2	2	2	2	2	2	2	2	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	1
Nauru		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									
Nepal	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4
Netherlands	1	1	1	1	1	1	1	1	1	1	1	1	1								1	1	1	1	1
New Caledonia																	1	1	1	1	1	1	1	1	1
Nicaragua	4	4	4	4	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Niger	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Nigeria	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
North Macedonia	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Table 5: Numbers of MDBs with sovereign exposure per country at year-end 2022 (continued)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Oman	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pakistan	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6
Palau									1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1
Panama	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
Papua New Guinea	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
Paraguay	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Peru	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3
Philippines	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4
Poland	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Portugal	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Qatar								1	1	1	1	1	1	1	1	1									
Romania	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
Russian Federation	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3
Rwanda	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	3	3
Samoa	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
San Marino				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
São Tomé and Príncipe	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Saudi Arabia		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				1	1	1	1
Senegal	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Serbia	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Seychelles	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4
Sierra Leone	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
Sint Maarten (Dutch part)																						1	1	1	1
Slovak Republic	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1
Slovenia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1
Solomon Islands	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
South Africa	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
South Sudan																								1	1
Spain						1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1
Sri Lanka	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5
St. Kitts and Nevis	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1		
St. Lucia	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
St. Vincent and the Grenadines	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Sudan	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Suriname	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
Syrian Arab Republic	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Tajikistan	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	5	5	5	5	5	5	5
Tanzania	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Thailand	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Timor-Leste															1	2	2	2	2	2	2	2	2	2	2
Togo	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Tonga	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2
Trinidad and Tobago	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
Tunisia	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Turkey	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6
Turkmenistan	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
Tuvalu		1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
Uganda	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ukraine	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
United Kingdom	1	1	1	1	1	1	1	1	1	1	1	1													
Uruguay	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Uzbekistan	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	6	6	6
Vanuatu	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
Venezuela, RB	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
Vietnam	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
West Bank and Gaza	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Yemen, Rep.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Zambia	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Zimbabwe	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	1	1	1	1	1

Graph 11: Sovereigns with non-accrual events (over 180 days overdue) at year-end 2022

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Afghanistan																									
Burundi																									
Belarus																									
Congo, The Democratic Republic of																									
Congo																									
Cote d'Ivoire																									
Cuba																									
Iran, Islamic Republic of																									
Lebanon																									
Marshall Islands																									
Mali																									
Myanmar																									
Nauru																									
Russia Federation																									
Seychelles																									
Sudan																									
Sierra Leone																									
Suriname																									
Syrian Arab Republic																									
Togo																									
Venezuela																									
Yemen																									
Zimbabwe																									



## Default rate statistics

The GEMs default rate calculation is sovereign-based and follows the cohort approach used by rating agencies. The statistics derived from GEMs members' data are presented at an aggregated level to maintain database integrity and ensure data are not identifiable.

Table 6: Average annual default rate by rating group, 1998-2022

Year	Default rate		
	All ratings	Investment grades	Sub-investment grades and Not Rated
1998	1.6%	0.0%	2.0%
1999	0.8%	0.0%	1.0%
2000	3.9%	0.0%	4.8%
2001	0.8%	0.0%	1.0%
2002	0.0%	0.0%	0.0%
2003	0.0%	0.0%	0.0%
2004	0.0%	0.0%	0.0%
2005	0.0%	0.0%	0.0%
2006	0.8%	0.0%	1.0%
2007	0.0%	0.0%	0.0%
2008	0.0%	0.0%	0.0%
2009	0.0%	0.0%	0.0%
2010	0.7%	0.0%	0.9%
2011	0.0%	0.0%	0.0%
2012	0.7%	0.0%	0.9%
2013	1.3%	0.0%	1.8%
2014	0.6%	0.0%	0.9%
2015	0.0%	0.0%	0.0%
2016	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%
2018	1.3%	0.0%	1.6%
2019	0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%
2021	0.0%	0.0%	0.0%
2022	3.7%	2.8%	3.9%
Simple Average 1998 - 2022	0.64%	0.11%	0.79%
Weighted Average* 1998 - 2022	0.64%	0.12%	0.81%

\* Weighted by number of countries included in the dataset per year.

Graph 12: Annual default rates of sovereigns per investment-grade group

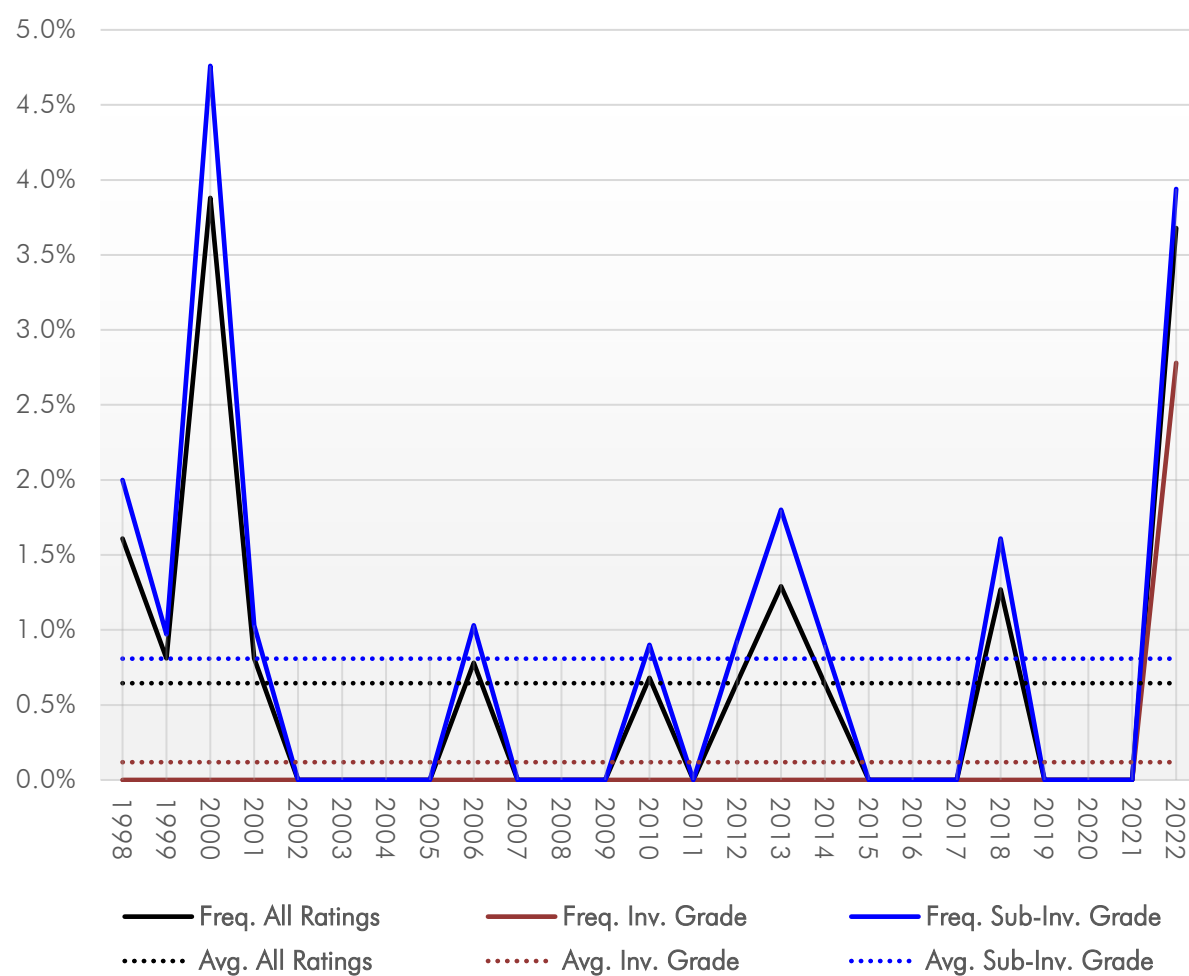
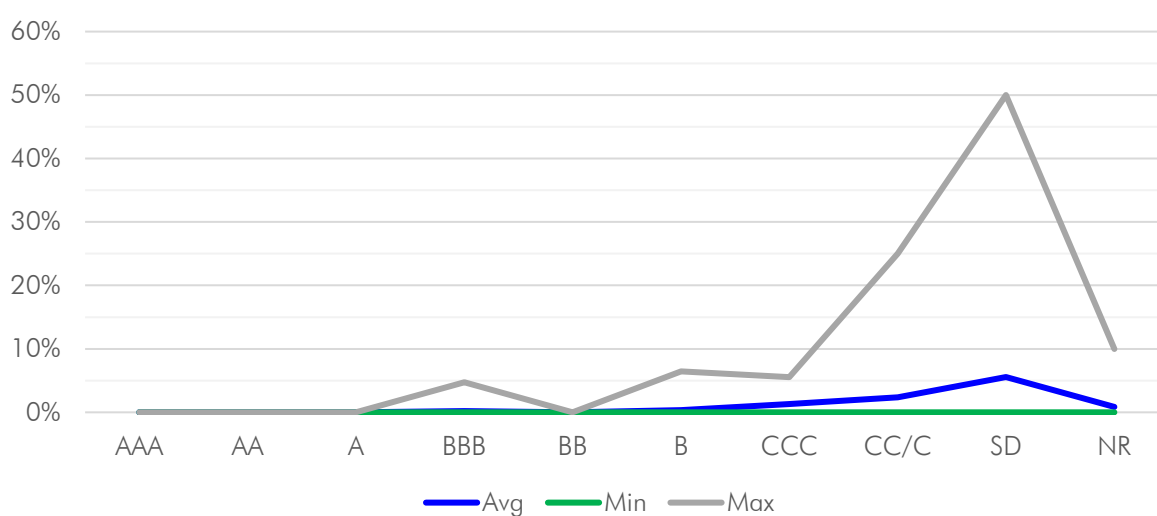


Table 7: Average annual default rate by rating category, 1998-2022

	AAA	AA	A	BBB	BB	B	CCC	CC/C	SD	NR
1998	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				2.9%
1999	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			1.6%
2000	0.0%	0.0%	0.0%	0.0%	0.0%	6.5%	2.9%			10.0%
2001	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%			0.0%
2002	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%
2003	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%
2004	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
2005	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2006	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			6.7%
2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
2008	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%
2009	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%
2010	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	0.0%
2011	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%
2013	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	33.3%	0.0%
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%
2015	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2016	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
2018	0.0%		0.0%	0.0%	0.0%	0.0%	4.6%	25.0%		0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2021	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2022	0.0%	0.0%	0.0%	4.8%	0.0%	1.7%	5.1%	0.0%	50.0%	0.0%

Table 8 and Graph 13: Annual default rate statistics<sup>4</sup> by rating category

	Avg	StdDev	Min	Max
AAA	0.0%	0.0%	0.0%	0.0%
AA	0.0%	0.0%	0.0%	0.0%
A	0.0%	0.0%	0.0%	0.0%
BBB	0.2%	0.9%	0.0%	4.8%
BB	0.0%	0.0%	0.0%	0.0%
B	0.3%	1.3%	0.0%	6.5%
CCC	1.3%	2.1%	0.0%	5.6%
CC/C	2.3%	6.7%	0.0%	25.0%
SD	5.6%	15.0%	0.0%	50.0%
NR	0.9%	2.4%	0.0%	10.0%



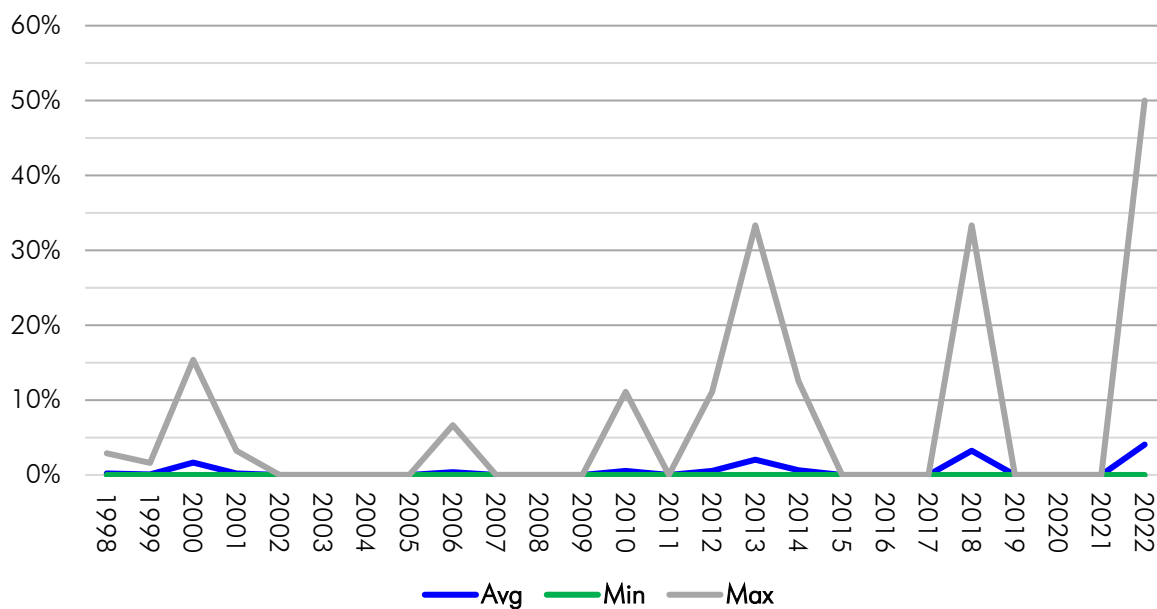
<sup>4</sup> The statistics displayed in table 8 and its graphical interpretation have been calculated based on the results for each rating during the period 1998–2022. For each rating and year, the number of defaults during that year was divided by the number of sovereigns with active exposure to calculate default rates.

Table 9: Annual default rates for sovereigns by rating and year during the period 1998-2022

	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	SD	NR
1998	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%								2.9%
1999	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%				1.6%
2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.4%	0.0%	0.0%	3.0%				10.0%
2001	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		3.2%				0.0%
2002	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%
2003	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%			0.0%	0.0%
2004	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%			0.0%
2005	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%
2006	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				6.7%
2007	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%
2008	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%				0.0%
2009	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%
2010	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%		0.0%	0.0%	0.0%
2011	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%		0.0%	0.0%	0.0%
2012	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		11.1%	0.0%	0.0%	0.0%	0.0%
2013	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%		0.0%		0.0%	33.3%	0.0%
2014	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		12.5%	0.0%	0.0%
2015	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%
2016	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2017	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
2018	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%		25.0%		0.0%
2019	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%
2020	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%
2021	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%
2022	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	4.3%	0.0%	10.0%		0.0%	50.0%	0.0%

Table 10 and Graph 14: Annual default rate statistics<sup>5</sup> by year

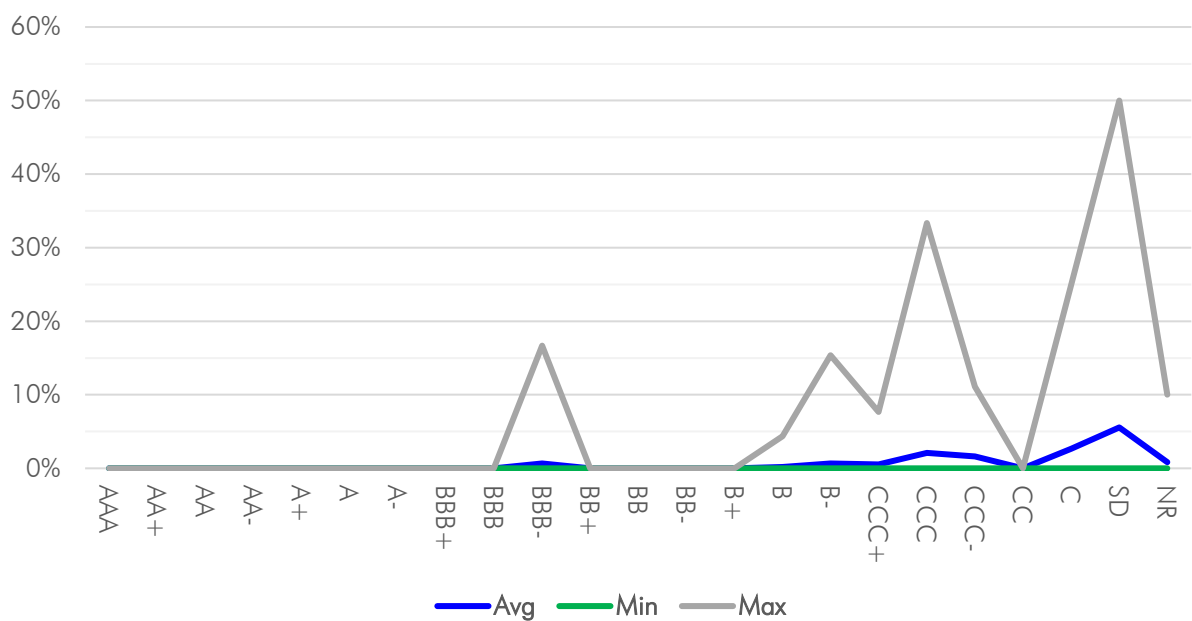
	Avg	StdDev	Min	Max
1998	0.21%	0.77%	0.00%	2.90%
1999	0.09%	0.39%	0.00%	1.61%
2000	1.67%	4.32%	0.00%	15.38%
2001	0.20%	0.81%	0.00%	3.23%
2002	0.00%	0.00%	0.00%	0.00%
2003	0.00%	0.00%	0.00%	0.00%
2004	0.00%	0.00%	0.00%	0.00%
2005	0.00%	0.00%	0.00%	0.00%
2006	0.39%	1.62%	0.00%	6.67%
2007	0.00%	0.00%	0.00%	0.00%
2008	0.00%	0.00%	0.00%	0.00%
2009	0.00%	0.00%	0.00%	0.00%
2010	0.53%	2.42%	0.00%	11.11%
2011	0.00%	0.00%	0.00%	0.00%
2012	0.53%	2.42%	0.00%	11.11%
2013	2.05%	7.56%	0.00%	33.33%
2014	0.63%	2.80%	0.00%	12.50%
2015	0.00%	0.00%	0.00%	0.00%
2016	0.00%	0.00%	0.00%	0.00%
2017	0.00%	0.00%	0.00%	0.00%
2018	3.24%	9.54%	0.00%	33.33%
2019	0.00%	0.00%	0.00%	0.00%
2020	0.00%	0.00%	0.00%	0.00%
2021	0.00%	0.00%	0.00%	0.00%
2022	4.06%	11.33%	0.00%	50.00%



<sup>5</sup> To calculate the default rate for each rating and year, the number of defaults for a given rating and year was divided by the number of sovereigns with active exposure.

Table 11 and Graph 15: Annual default rate statistics<sup>6</sup> by rating

	Avg	StdDev	Min	Max
AAA	0.0%	0.0%	0.0%	0.0%
AA+	0.0%	0.0%	0.0%	0.0%
AA	0.0%	0.0%	0.0%	0.0%
AA-	0.0%	0.0%	0.0%	0.0%
A+	0.0%	0.0%	0.0%	0.0%
A	0.0%	0.0%	0.0%	0.0%
A-	0.0%	0.0%	0.0%	0.0%
BBB+	0.0%	0.0%	0.0%	0.0%
BBB	0.0%	0.0%	0.0%	0.0%
BBB-	0.7%	3.3%	0.0%	16.7%
BB+	0.0%	0.0%	0.0%	0.0%
BB	0.0%	0.0%	0.0%	0.0%
BB-	0.0%	0.0%	0.0%	0.0%
B+	0.0%	0.0%	0.0%	0.0%
B	0.2%	0.9%	0.0%	4.4%
B-	0.6%	3.1%	0.0%	15.4%
CCC+	0.5%	1.8%	0.0%	7.7%
CCC	2.1%	8.3%	0.0%	33.3%
CCC-	1.6%	3.6%	0.0%	11.1%
CC	0.0%	0.0%	0.0%	0.0%
C	2.7%	7.2%	0.0%	25.0%
SD	5.6%	15.0%	0.0%	50.0%
NR	0.9%	2.4%	0.0%	10.0%



<sup>6</sup> See footnote 4.

# Glossary

Term	Definition
Cohort approach	A cohort consists of all counterparts with the same rating at a given formation date, which for GEMs is always end of day 31 December. Every year, a new cohort $j$ is formed. The default or survival status of every counterpart in each cohort is then followed over a time horizon in yearly increments. For every year, the marginal default rate is calculated as the proportion of counterparts defaulting in that year to total counterparts in the cohort.
Credit rating	Available ratings from the main rating agencies (Standard & Poor's, Moody's, Fitch) have been averaged to produce a consistent rating scale among the MDBs contributing data to GEMs. In cases with no such ratings available, sovereign credit ratings have been drawn from OECD or WRR ratings or, if those are unavailable too, categorised as not rated ("NR").
Default	A default event is defined as a payment delay on any sovereign-guaranteed operation that triggers the materiality threshold of internal lending and sanctioning procedures for each respective MDB.
Default rate	A default rate is computed through a static cohort approach similar to that used by rating agencies. The number of counterparts in each cohort stays constant over time. This means it is not adjusted for matured or defaulted counterparts. In this report, default rates always refer to conditional default rates.
East Asia and Pacific	World Bank Group region definition (2022): American Samoa, Australia, Brunei Darussalam, Cambodia, China, Fiji, French Polynesia, Guam, Hong Kong SAR, China, Indonesia, Japan, Kiribati, Korea, Dem. People's Rep., Korea, Rep., Lao PDR, Macao SAR, China, Malaysia, Marshall Islands, Micronesia, Fed. Sts., Mongolia, Myanmar, Nauru, New Caledonia, New Zealand, Northern Mariana Islands, Palau, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Taiwan, China, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, Vietnam
Europe and Central Asia	World Bank Group region definition (2022): Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Channel Islands, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Georgia, Germany, Gibraltar, Greece, Greenland, Hungary, Iceland, Ireland, Isle of Man, Italy, Kazakhstan, Kosovo, Kyrgyz Republic, Latvia, Liechtenstein, Lithuania, Luxembourg, Moldova, Monaco, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan
Exposure	The signed amount of the loan as of signature date, denominated in euros.
GEMs dataset	<b>Sovereign-guaranteed</b> Includes all MDB-issued sovereign-guaranteed loans reported to GEMs and originated from 1 January 1998 to 31 December 2022.
Investment grade	Investment-grade credit ratings are those equivalent to BBB- or better.
Latin America & the Caribbean	World Bank Group region definition (2022): Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Curaçao, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Sint Maarten (Dutch part), St. Kitts and Nevis, St. Lucia, St. Martin (French part), St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, Venezuela, RB, Virgin Islands (U.S.)
Middle East and North Africa	World Bank Group region definition (2022): Algeria, Bahrain, Djibouti, Egypt, Arab Rep., Iran, Islamic Rep., Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates, West Bank and Gaza, Yemen, Rep.
OECD	The Organisation for Economic Co-operation and Development, an intergovernmental economic organisation with 36 member countries. The OECD was founded in 1961 to stimulate economic progress and world trade.
Sovereign counterpart	A self-governing nation state as defined by each MDB according to its internal processes.



Term	Definition
<b>Sovereign-guaranteed counterpart</b>	A counterpart that does not constitute a self-governing nation, but whose lending obligations are guaranteed by such.
<b>South Asia</b>	World Bank Group region definition (2022): Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
<b>Sub-investment grade</b>	Sub-investment (or speculative) grade credit ratings are those rated below investment-grade credit ratings (that is, below a BBB- equivalent rating).
<b>Sub-Saharan Africa</b>	World Bank Group region definition (2022): Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Dem. Rep., Congo, Rep., Côte d'Ivoire, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, The, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe





# DEFAULT STATISTICS



## **SOVEREIGN AND SOVEREIGN GUARANTEED LENDING 1998-2022 VOLUME 2**



Global Emerging Markets Risk Database

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