IFC International Finance Corporation WORLD BANK GROUP

IFC Portfolio

Default Rate Analysis

March 2024

Disclaimer

Executive Summary

Based on nearly 40 years of data collected by the International Finance Corporation (IFC), this report offers a comprehensive analysis of default rates for the IFC corporate loan portfolio. It provides information potentially useful to understand credit performance in emerging markets.

The report presents aggregate default rates as well as variations observed across different parameters such as industry, region, and country income group. Using a more limited data set, since 2017, the report shows default rates by IFC's internal credit risk rating.

Over the period from 1986 to 2023, the IFC's portfolio exhibited a default rate of 4.1%. The highest historical default rates were observed in 1986 and 2003, reaching 11.5% and 10.3%, respectively. The analysis reveals that the manufacturing, agribusiness, and services industry group exhibited the highest default rates, followed by infrastructure, and financial institutions. Looking at the split of default rates across World Bank regions, Africa exhibited a rate of 6.7%, driven primarily by investments in the earlier part of the observation period, while all other regions ranged between 3.2% and 4.5%. Looking at the data by country income group, low-income economies exhibit the highest default rates, with 8.6%. Based on a more limited data set, from 2017, annual default rates show, generally, the expected correlation with risk rating.

The first sections provide technical details about the methodology and the composition of the underlying data. The following sections present default rates and insights across relevant dimensions.

Methodology and Definitions

The information and statistics contained in this report are based on nearly 40 years of default data collected by IFC since 1986. As part of an annual Default Rate Analysis (DRA), IFC collects and adds to its internal databases the most recent information on default events. The entire data history serves as the basis to generate long-term statistics on default rates.[1]

The calculation of default rates is done at counterparty level. For the DRA, a counterparty is considered in default when at least one of IFC's loans or loan-type investments in the counterparty is in default, even though other loans to the same counterparty may still be current. IFC considers all loans related to a defaulted counterparty to be in default as well. This definition is generally consistent with industry practice for bank loan portfolios. In contrast, an active, non-defaulted ("performing") counterparty is a counterparty that is current on all its obligations.

A counterparty is considered to have defaulted if either of the following occurred: (i) it was assigned non-accrual status or (ii) a portion or all the loan balance was written-off. All loans with payments of principal or interest more than 90 days overdue are assigned non-accrual status, without exception. Additionally, loans are placed in non-accrual if collectability is in doubt or payments of interest or principal are more than 60 days overdue unless management anticipates that collection will occur soon.

The DRA calculates default rates using annual counterparty cohorts. Each annual cohort consists of all counterparties, which are active, have not defaulted previously, and have positive exposure in at least one loan product at the beginning of the cohort period (the "performing" set).

1 Loans in special programs were excluded from this analysis due to their small size and special program status. Also, excluding CDF (Disruptive Technologies and Funds) from the split by industries, as they represent only 0.5% of the count.

The annual cohort tracks the behavior of the cohort counterparties over the subsequent 12-month period. During the cohort period, counterparties can either default ("defaulted set," according to IFC's definition of default), leave IFC's portfolio ("closed", in the case of complete repayment of any outstanding), or migrate to the same or another rating at the end of the cohort period. The end date of the previous cohort equals the start date of the next cohort. Thus, the new cohort is composed of all counterparties, which neither defaulted nor closed previously, plus all new counterparties that entered the portfolio during the previous period, but after the previous cohort start date.

For the DRA, counterparty observations are the observed behaviors of counterparties over one annual cohort. As IFC is a long-term investor, counterparties typically appear in several subsequent cohorts, if they have remaining outstanding exposure and did not default.

The default rate for each cohort is calculated as the observed number of default events over the 'adjusted' total number of counterparty observations. Following rating agency standards, IFC adjusts the number of observations by half the number of closures. This accounts for the reduced length of the observation period for counterparties leaving the portfolio during the cohort period.

Over the 38 annual cohorts from 1986 fiscal year (FY86) to FY23,[2] the default rate analysis contains information on 3,680 individual counterparties which make up a total of 20,655 individual counterparty observations. Out of those, IFC recorded 784 default events.[3] The sections below provide additional information on the distribution of the counterparty observations.

2 The IFC fiscal year runs from July 1st of the previous calendar year, so FY23 covers the period July 1st, 2022, to June 30, 2023. Throughout this document, FY refers to fiscal year.

3 The long-term average default rate is calculated as the sum of all default observations over all cohorts divided by the sum of all counterparty cohort observations, with methodological adjustment for closures.

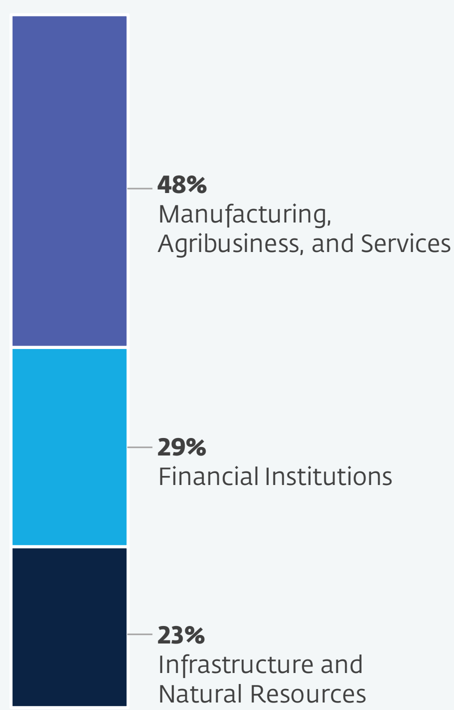
Counterparty Composition

The following charts show the distribution of counterparties that constitute the cohorts in IFC's default rate analysis.

Split according to the three main industry groups, most of IFC's cohort observations stem from the Manufacturing, Agribusiness and Services (MAS) counterparties (48%), followed by Financial Markets (FIG) (29%) and Infrastructure and Natural Resources (Infra) (23%).

FIGURE 1

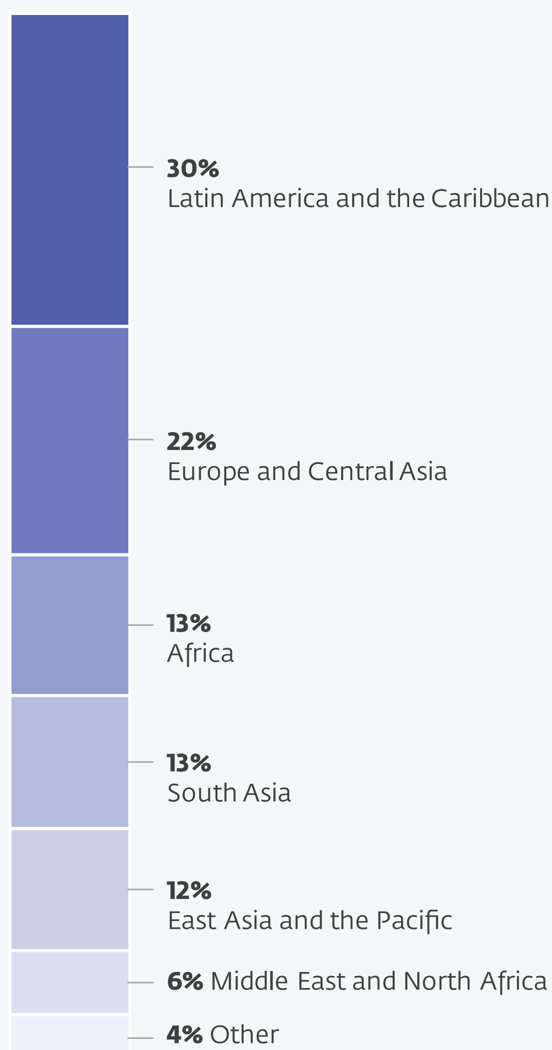
Distribution of Counterparty Observations by Industry Group (FY86-23)



Separating the counterparty observations by geographic region,[4] about half of the cohort counterparties are located in Latin America and the Caribbean (LAC) (30%) or Europe and Central Asia (ECA) (22%) regions. Please also note that counterparties that cannot be allocated to a specific region contribute about 4% of the data points.

FIGURE 2

Distribution of Counterparty Count by Geographic Region (FY86-23)

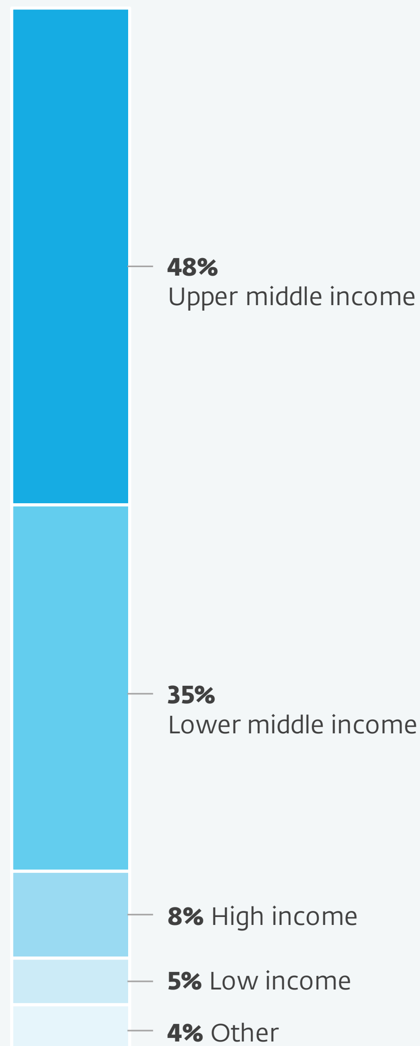


4 The geographic region grouping follows the World Bank Group definition as of the current fiscal year, as detailed in the Glossary section, and regional investments are reported under "Other." Note that starting from the 2022 fiscal year, IFC has consolidated the geographic region classifications in its financial statements to be consistent with internal operational classifications. See further details in IFC's Management's Discussion and Analysis and Consolidated Financial Statements for the fiscal year ended June 30, 2022.

Looking at the country income group distribution, one needs to note that the statistics are based on the FY23 definition of income levels. This does not necessarily correspond to the classification at the moment in history when each cohort period was formed, which is as long as 38 years in the past for the first cohort. Based on current income groups, approximately half of observations stem from upper-middle income economies, and another 8% from high-income countries. Lower-middle income countries provide 35% of observations and low-income countries another 5%. Meanwhile, 4% of observations could not be mapped to a unique income group.

FIGURE 3

Distribution of Counterparty Observations by Country Income Group



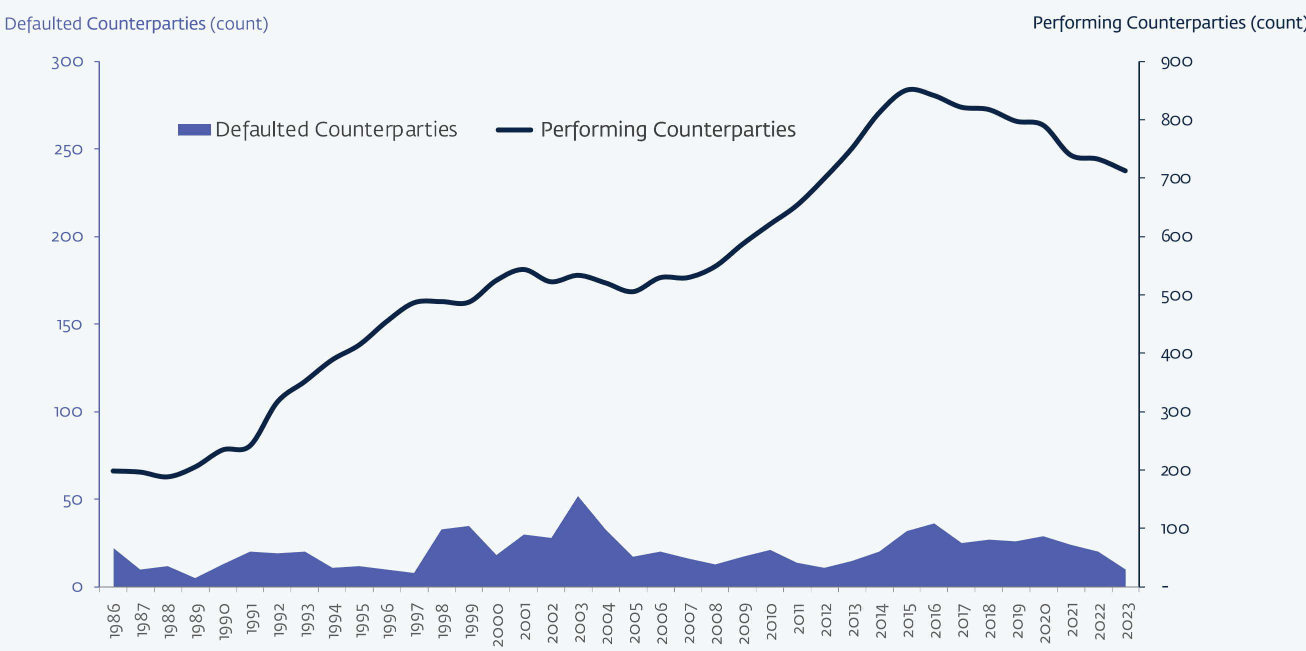
Note: Regional investments are mapped as "Other"

Default Rates

Figure 4 summarizes information on the number of counterparty observations and default events for each cohort year. The right axis represents the total number of counterparties in the performing data set, whereas the left axis represents the number of defaulted counterparties.

FIGURE 4

Performing and Defaulted Counterparties by Count

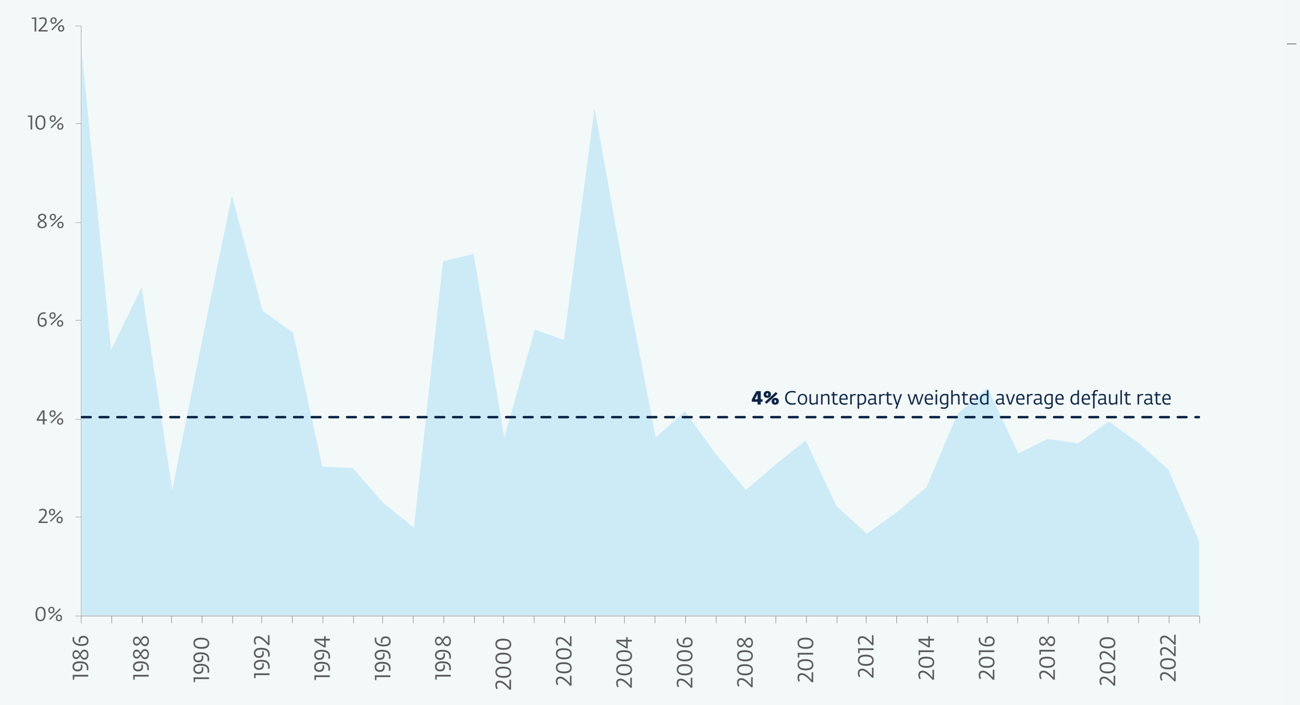


Note: Performing counterparty set at the beginning of cohort year; Defaulted counterparties during the cohort year.

As shown in Figure 5, IFC's long-term default rate is 4.1% for the period FY86 through FY23. The highest historical default rate was observed in FY86 with 11.5%, followed by FY03 with 10.3%. Further peaks in the default rate were in FY91 with 8.5%, FY99 at 7.4%, and FY98 with 7.2%. The lowest observed default rate was in FY23 with 1.5%.

FIGURE 5

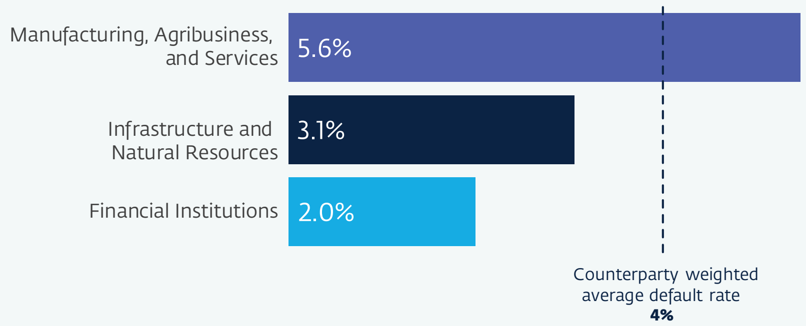
Default Rates by Counterparty Cohort from FY86 to FY23 and Long-Term Average



By industry group, IFC historically observed the highest default rate in MAS, followed by Infra and FIG.

FIGURE 6

Default Rates by Industry Group



Looking at the split of default rates across World Bank regions, the default rate is highest in Africa with 6.7% (Figure 7) while all other regions range between 3.2% and 4.5%. Figure 8 shows the development of regional default rates over historical time periods. The higher historical rate for Africa is largely driven by investments prior to 1996.

FIGURE 7

Default Rates by World Bank Region

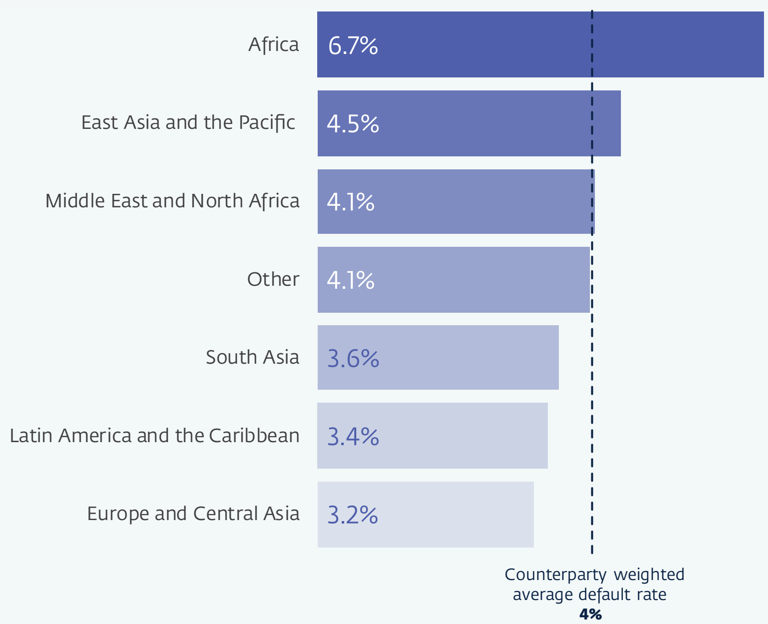
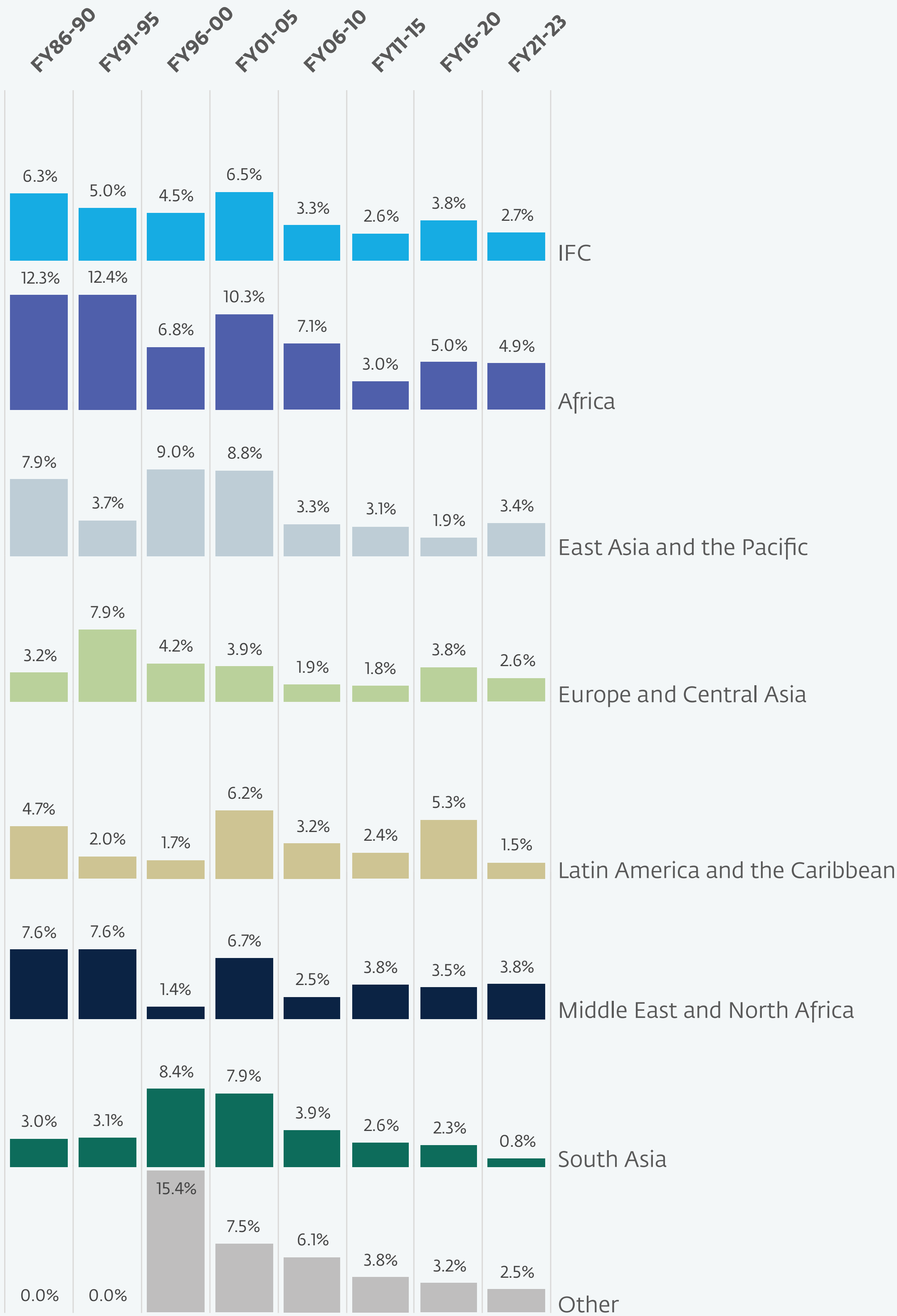


FIGURE 8

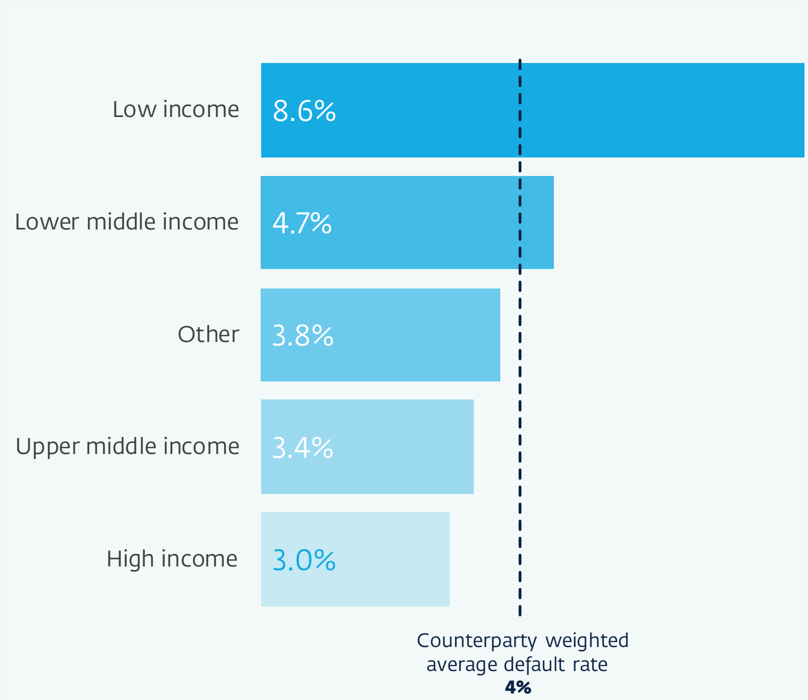
Default Rate by World Bank Region and Time Period



Analysis of data spanning from 1986 to 2023 reveals a negative correlation between default rates and income level across various country income groups. Low-income economies show the highest default rates, with 8.6%.

FIGURE 9

Default Rate by Country Income Group

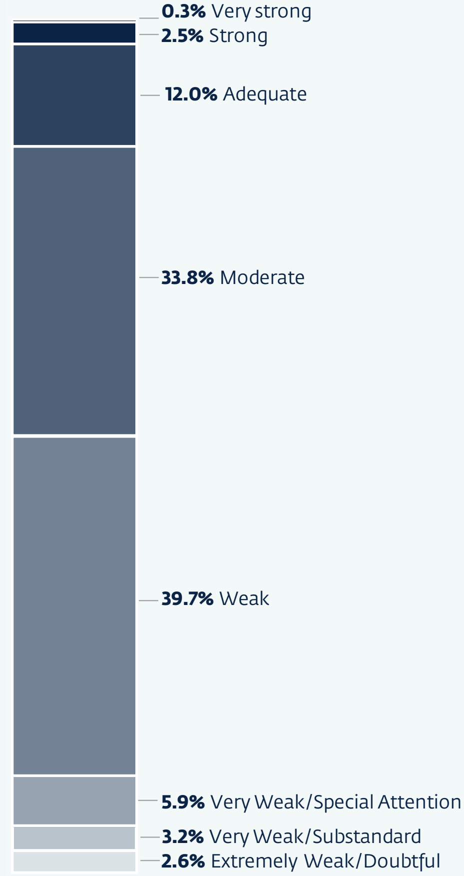


Default Rates by Rating Category

IFC's rating system[5] allows for the grouping of counterparties by rating category and aims to differentiate counterparties by their relative riskiness. The segmentation by rating category is available for counterparty observations from FY17 to FY23, when the new rating scale was introduced. As can be seen from the following charts, most of IFC's counterparty observations are in the "weak" (40%) and "moderate" (34%) risk categories, followed by the "adequate" (12%) category.

FIGURE 10

Distribution of Counterparty Count by Rating Category (FY17-23)

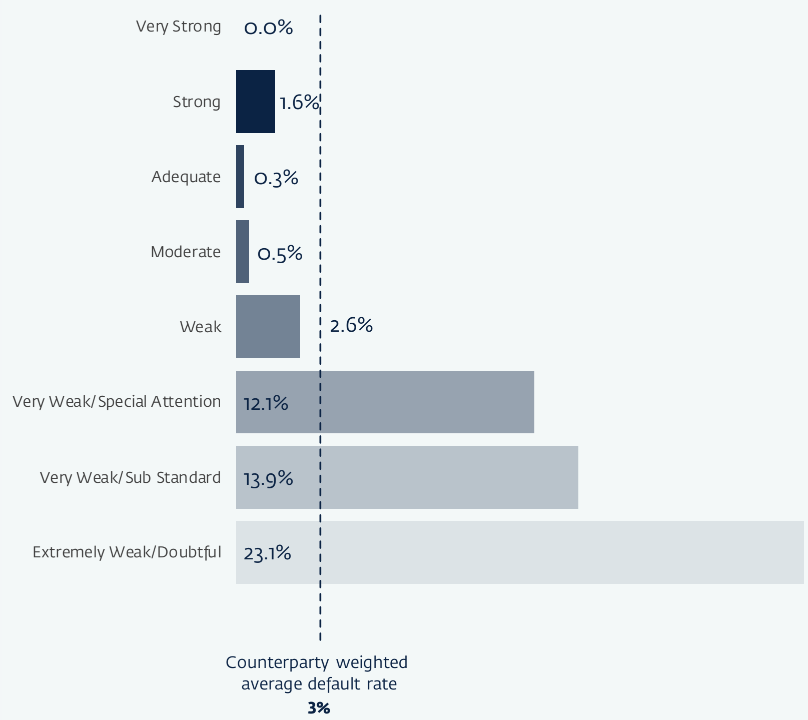


5 Statistics are available since the introduction of IFC's current rating system in FY17, which defines the grouping of counterparties by risk category, as published in IFC's annual financial statements, from "very strong" to "extremely weak/doubtful". Preliminary ratings were applied for the first half of FY17. The accuracy of rating analysis and statistics improves with longer observation period. Please see Annex II for more details.

Using data from 2017 to 2023, observed annual default rates continuously rise with their riskiness, with one exception in the "strong" category. This outlier in the "strong" category can be attributed to the sensitivity of the statistics to the low number of observations in the "strong" rating category, and the sensitivity to single events.

FIGURE 11

Default Rates by Rating Category



Glossary

Industry Group Sector Category (IGSC)

Project-related sectoral hierarchy for each IFC Industry Group (INFRA, MAS, FIG, CDF) to help aggregate project data by sector for internal and external reporting.

- **INFRA:** Infrastructure and Natural Resources
- **MAS:** Manufacturing, Agribusiness, and Services
- **FIG:** Financial Institutions Group
- **CDF:** Disruptive Technologies and Funds

World Bank Country Income Groups

For the 2023 fiscal year, low-income economies are defined as those with a Gross National Income (GNI) per capita, calculated using the World Bank Atlas method, of $1,085 or less in 2021. Lower middle-income economies are those with a GNI per capita between $1,086 and $4,255, upper middle-income economies are those with a GNI per capita between $4,256 and $13,205, and high-income economies are those with a GNI per capita of $13,205 or more. For Venezuela, the latest available classification as of FY21 was used.

World Bank Group Region

SAR	South Asia
AFR	Africa
ECA	Europe and Central Asia
MNA	Middle East and North Africa
LAC	Latin America and Caribbean
EAP	East Asia and Pacific

Annex I

TABLE 1

IFC's historical default rates

Period	Annual Default Rate
1986	11.5%
1987	5.4%
1988	6.7%
1989	2.5%
1990	5.7%
1991	8.5%
1992	6.2%
1993	5.8%
1994	3.0%
1995	3.0%
1996	2.3%
1997	1.8%
1998	7.2%

Period	Annual Default Rate
1999	7.4%
2000	3.6%
2001	5.8%
2002	5.6%
2003	10.3%
2004	6.8%
2005	3.6%
2006	4.1%
2007	3.3%
2008	2.6%
2009	3.1%
2010	3.6%
2011	2.2%

Period	Annual Default Rate
2012	1.7%
2013	2.1%
2014	2.6%
2015	4.1%
2016	4.6%
2017	3.3%
2018	3.6%
2019	3.5%
2020	4.0%
2021	3.5%
2022	3.0%
2023	1.5%

Annex II

Loan Credit Quality Indicators

IFC utilizes a rating system to classify loans according to creditworthiness and risk. A description of each credit rating and categorization in terms of the attributes of the borrower, the business environment in which the borrower operates or the loan itself under the rating system follows:

TABLE 2

Definition of rating categories

Credit Risk Rating	Indicative External Rating	Category	Description
CR-1	AAA, AA+, AA, AA-	Very Strong	An obligor rated CR-1 is the highest rating assigned by IFC. The obligor's ability to meet its financial obligations is very strong.
CR-2	A+, A, A-	Strong	An obligor rated CR-2 is slightly more susceptible to the negative effects of changes in circumstances and economic conditions than obligors rated CR-1. The obligor's ability to meet its financial obligations remains strong.
CR-3	BBB+	Adequate	An obligor rated CR-3 exhibits an adequate financial profile, even though at a weaker level than CR-1 and CR-2.
CR-4	BBB		An obligor rated CR-4 exhibits an adequate financial profile. However, adverse economic conditions or changing circumstances are more likely to lead to a deterioration of the obligor's ability to meet its financial obligations.
CR-5	BBB-		An obligor rated CR-5, as the lowest of the investment grade ratings, exhibits an adequate financial profile. However, adverse economic conditions and/or changing circumstances are morelikely to lead to a weaker financial profile and a deterioration of the obligor's ability to meet its financial obligations.

TABLE 2 (CONTINUED)

Definition of rating categories

Credit Risk Rating	Indicative External Rating	Category	Description
CR-6	BB+	Moderate	An obligor rated CR-6, as the first non-investment grade rating, is less vulnerable to default than other non-investment obligors.
CR-7	BB		An obligor rated CR-7 can face major uncertainties. Exposure to negative business, financial, or economic conditions could lead to the obligor's insufficient financial profile and a deterioration of the obligor's ability to meet its financial obligations.
CR-8	BB-		An obligor rated CR-8 faces major ongoing uncertainties. Exposure to negative business, financial, or economic conditions could lead to the obligor's insufficient financial profile and a deterioration of the obligor's ability to meet its financial obligations.
CR-9	B+	Weak	An obligor rated CR-9 is less vulnerable to default than obligors rated CR-10 or CR-11. Significantly negative business, financial, or economic conditions will likely weaken the obligor's financial profile and ability to meet its financial obligations.
CR-10	B		An obligor rated CR-10 is more vulnerable to default than obligors rated CR-9 but the obligor still has the capacity to meet its financial obligations. Negative business, financial, or economic conditions will likely weaken the obligor's financial profile and ability to meet its financial obligations.
CR-11	B-		An obligor rated CR-11 is more vulnerable to default than obligors rated CR-9 or CR-10. The obligor still has the capacity to meet its obligations but slightly negative business, financial, or economic conditions are more likely to weaken the obligor's financial profile and ability to meet its financial obligations than a company rated CR-10.
CR-12	CCC+	Very Weak/ Special Attention	An obligor rated CR-12 faces significant challenges. While such obligors will likely have some positive characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions. The obligor is dependent upon favorable business, financial, and economic conditions to meet its financial obligations.
CR-13	CCC	Very Weak/ Substandard	An obligor rated CR-13 is currently vulnerable to default, and is dependent upon significantly favorable business, financial, and economic conditions to meet its financial obligations. In the event of negative business, financial, or economic conditions, the obligor is not likely to meet its financial obligations and rescheduling and/or restructuring is likely to be required.
CR-14	CCC-	Extremely Weak/ Doubtful	An obligor rated CR-14 is highly vulnerable to default. It is highly likely that a rescheduling and/or restructuring are required without which a default under IFC's accounting definition would ensue. In some cases, even though default has not occurred yet, cash flow may be insufficient to service debt in full.
CR-15	Worse than CCC- and D	Imminent Default /Default	An obligor rated CR-15 is currently extremely vulnerable to nonpayment and there are indications that the next payment will not be made before meeting IFC's accounting definition of default.
D			An obligor rated D is in payment default according to IFC's definition of default.

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