Global Credit Data
by banks for banks

Project Finance

Annual observed recovery rates

February 2025

Green energy recoveries take shape

Green transition: the role of project finance

Project finance by banks is essential for the transition to green energy. Banks need to strategically manage differing risks, including climate risks, of renewable and non-renewable energy projects.

Understanding project risks is the key factor, crucial for both regulatory modeling of advanced IRB models under Basel 3.1 as well as for IFRS9, pricing and decision making. Project finance emerges as a key segment for banks when committing to financial backing for a sustainable future.

1,000 project finance defaults in the GCD loss database

We have collected bank internal loss and recovery data from 34 global banks since 2000. Typical project finance deals are large in size but low in number and the **1,074 defaulted facilities** represent a substantial database.

Historical observed recovery rates are shown here by common risk drivers: region and sector. GCD members receive data in many more categories. They use this to model their underlying risks.

Drivers of loss

Project finance risks vary based on project nature, location and involved parties. Common elements include construction, operating, supply and off-taker risk as well as environmental, social and political risks.

On the next page we investigate the specifics of energy projects and explain the differences between risks of renewable and non-renewable projects.

Observed Recovery Rate is the historical observed nominal average recovery cash flows divided by outstanding at default. It is based on resolved loans for years 2000-2020.

Time to Peak Recovery is the centre point of recovered cash flow.

1,074	81%	1.6
Number of Facilities	Observed Recovery Rate	Time to Peak Recovery (years)

Region

	Number of Facilities	Observed Recovery Rate
Africa & Middle East	24	85%
Asia & Oceania	196	83%
Europe	378	77%
Latin America	62	78%
North America	414	84%

Sector

	Number of Facilities	Observed Recovery Rate
Energy	379	82%
Infrastructure & Transport	189	71%
Intangibles	44	91%
Manufacturing	62	83%
Mining	155	87%
PPP/PFI	44	75%
Telecom	54	81%
Utilities & Environment	136	85%
Unknown	11	63%

Energy includes Renewables and Non-renewable projects. See next page for more details.

Recoveries and losses in Covid and other crisis times

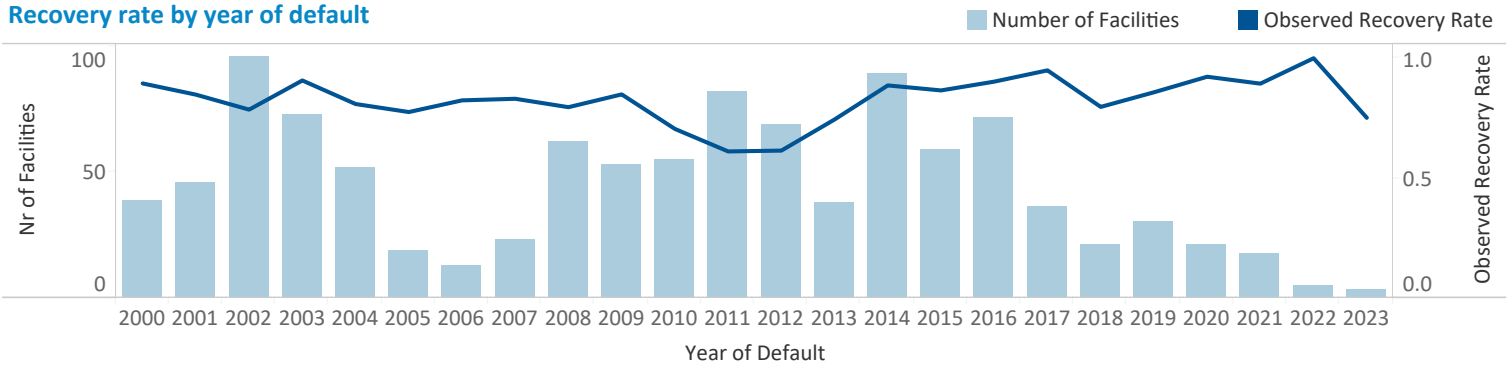
This report shows historical observed recovery rates. When analysed over time, recovery rates were lowest in 2011-2012, mainly due to defaults in Italian and Spanish infrastructure projects and US energy projects. The EU sovereign crisis following the 2008-2009 GFC initially impacted toll-based infrastructure projects through revenue shortfalls, later affecting the energy sector as subsidies were reduced.

So far, there is no noticeable impact of Covid-19 on either default numbers or recovery rates. However, in recent years the increasing portion of yet to be resolved cases adds uncertainty to the outcome. For these unresolved cases the recoveries are unknown and, therefore, we do not include them here.

	Number of Facilities	Observed Recovery Rate
Downturn Covid 2020	21	92%
Downturn GFC 2008-2009	115	82%
Other Years	938	81%

Due to the resolution bias the dataset has few defaults for recent years. The impact of the pandemic will materialize over the next few years.

Recovery rate by year of default



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Powering a sustainable future

Comparing green and fossil fuel energy projects

We have collected data on almost 400 energy projects, including nearly 100 renewables. This provides a robust basis for analysing recovery rates and understanding the risks associated with different energy sectors.

Fossil fuel energy projects

Fossil fuel projects benefit from well-established practices and decades of operational experience. This leads to relatively low construction risks. However, they face increasing challenges due to new technical risks in extraction such as fracking and deeper, more remote sites and shifting regulatory landscapes.

Stricter environmental laws, such as those targeting the handling of toxic byproducts, have heightened operational risks and compliance costs. This can lead to project defaults. Additionally, societal and political momentum toward sustainability has reduced the acceptance of fossil fuel projects but this may come under political pressure in the future.

Renewable energy projects

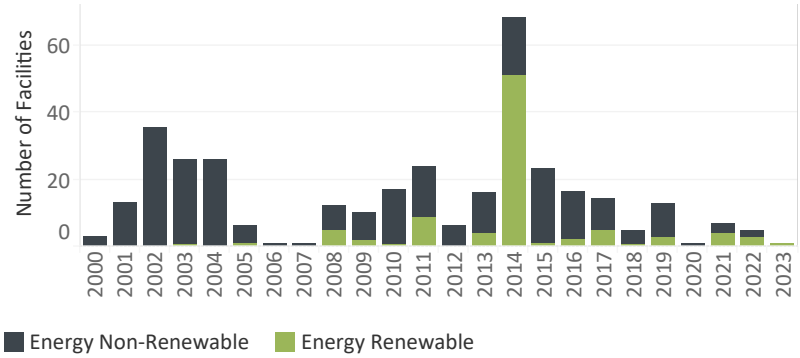
The nearly 100 renewable energy projects in our dataset span solar, wind, biogas, geothermal, and hydro technologies. On average, these projects result in higher recovery rates compared to non-renewable projects. Solar and wind, in particular, stand out with the best recovery rates which may be due to their "off the shelf" technologies with lower technological risk.

However, regulatory changes also impact the renewables sector. In 2014, Spain and Italy implemented reforms that reduced or eliminated fee-in tariffs and other incentives for solar energy projects. These policy shifts led to a peak in defaults during that year (see graph "Time line of defaults").

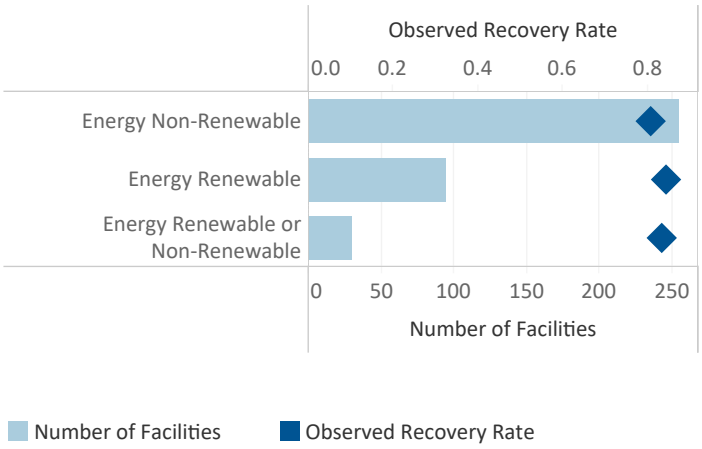
A key challenge remains energy transportation. For example, wind energy is often generated far from where it is needed, making the expansion of power grid infrastructure critical—a task that depends heavily on political will.

Public acceptance of green energy varies; while there is a growing demand for sustainable energy sources, they are not immune to local opposition. Concerns about land use and environmental impact can create barriers to implementation. It is essential to address these issues to ensure the long-term viability and success of renewable projects.

Time line of defaults: Green energy is younger



Renewable vs. fossil fuel energy recovery rates



Recovery rates by energy sub-category

		Number of Facilities	Observed Recovery Rate
Energy Non-Renewable	Extraction – on and off-shore	38	69%
	Production - gas/coal	173	85%
	Refinery	21	69%
	Transport - pipelines, terminals, networks	22	79%
	Upstream Reserves	1	0%
	Total	255	81%
Energy Renewable	Solar	48	98%
	Wind (on and off-shore)	16	94%
	Biogas	8	65%
	Geothermal	4	71%
	Hydro	1	43%
	Energy source not specified	17	51%
	Total	94	84%

Find out more

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ESG and Climate Risk

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Global Credit Data maintains the world's most exhaustive and high quality, member-bank contributed data source for credit risk.

More from Global Credit Data

This report draws on verified information collected from 50+ global or regional banks over 20 years and covers over 300,000 defaulted facilities in total.

Explore our other reports. They provide an instant insight into observed Recovery Rates and other key benchmarks for various exposure classes, industry sectors and collateral types:
Corporates, Banks and Financial Institutions, Sovereigns, Real Estate Finance, Shipping Finance, Aircraft Finance.

To meet the standards set by global regulations like BCBS239 or RDARR GCD has established a robust framework to continously measure, monitor and improve data quality.

About

At GCD we pool credit loss data directly from banks' books, providing vital insights into the financial industry since 2004. As a non-profit organization owned by over 50 member banks we focus on collecting detailed credit risk data, particularly for low default porftolios.

Beyond data pooling we offer a platform to exchange knowledge and foster research. We are actively engaged in understanding and assessing climate risk, demonstrating our commitment to addressing contemporary and future financial challenges.

Joining GCD grants you access to an exclusive community of banks and deep data insights. Gain market understanding and benchmark your performance.

www.globalcreditdata.org

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