

Blended finance and guarantees in infrastructure

This section has been developed in partnership with Convergence, drawing on data from Convergence's historical deals database. It also draws from data in the Berne Union reports.

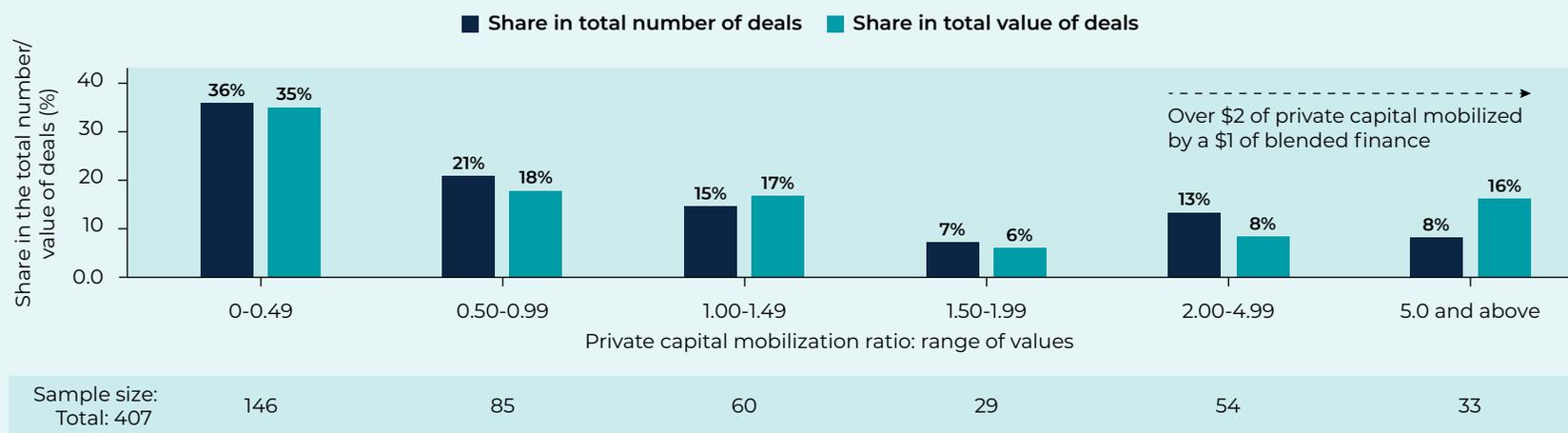


Blended finance and guarantees in infrastructure

Maximizing private capital mobilization leveraging constrained public resources has become central to strategies aimed at closing the infrastructure deficit. Blended finance refers to the various approaches to use limited public or philanthropic finance to increase private investment including the use of guarantees. This section examines blended finance approaches in infrastructure deals, particularly their use in financial structuring and mobilizing private capital. Noting the key role played by guarantees in private capital mobilization, it also evaluates recent trends in the availability and performance of cross-border guarantees for infrastructure and longer-tenor business.

The success in mobilizing private capital varies considerably across infrastructure deals. Over half of the blended finance infrastructure deals mobilized less than a dollar of private capital for a dollar worth of blended finance approaches. Encouragingly, about one-fifth of the infrastructure deals mobilized more than \$2. A sizable share of this variation can be explained by country-specific factors like per capita income, sector of operations, operating structure, macroeconomic conditions, and financial structuring. **Notwithstanding, the more successful deals had some strategies in common including the use of blended finance for early-stage support, future market creation and addressing payment risk, meeting the requirements of financial regulations, enhancing market tradability, and supporting a pathway to commercial viability.**

Blended finance infrastructure deals (2000-2024): Private capital mobilization ratio by range of values



Source: Authors analysis based on Convergence database.

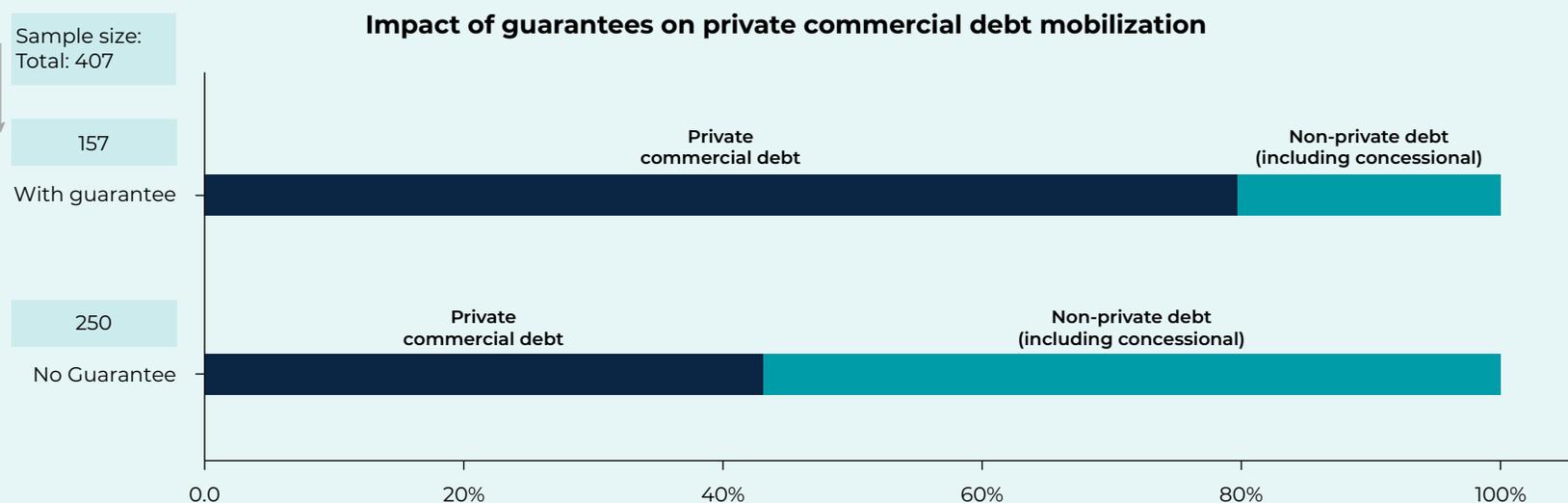
Note: The analysis is based on 407 blended finance infrastructure deals for which the required data was available. The guarantees had both commercial and concessional terms. To control for deal size, the shares of instruments in total deal size were used.

OVERVIEW

Blended finance was most often used for infrastructure project finance structure, with majority of the support to lower-income countries in Sub-Saharan Africa, and to scale renewable energy generation. Higher income countries are more conducive to mobilizing more private capital. Lower income countries often require blended finance particularly guarantees to attract private capital. By region, Sub-Saharan Africa accounted for majority of the blended finance infrastructure projects, with over 90 percent in low-income countries. By sector, renewable energy generation has increasingly dominated blended finance infrastructure projects. MDBs and DFIs financed a large share of blended finance infrastructure projects, especially in large deals in low-income countries.

Guarantees played a key role in mobilizing private capital mainly by increasing the share of debt. Guarantees by creditworthy entities like MDBs/DFIs reduced punitive risk weights and capital charges applicable in banking regulations on low-income countries due to their sub-investment grade sovereign ratings. Holding the support through concessional capital and grants constant at \$1 to estimate the impact of guarantees on private capital mobilization, \$4.7 private commercial debt was mobilized for every \$4.4 of guarantees cover. This may reduce the overall financing cost on an all-in basis if the guarantees are priced at subsidized levels e.g., much below sovereign borrowing costs for a country.

Since the onset of crisis period in 2020, the global share of deals (both by number and value) supported by guarantees seem to have reduced, but the coverage of deal value increased.



Source: Authors analysis based on Convergence database.

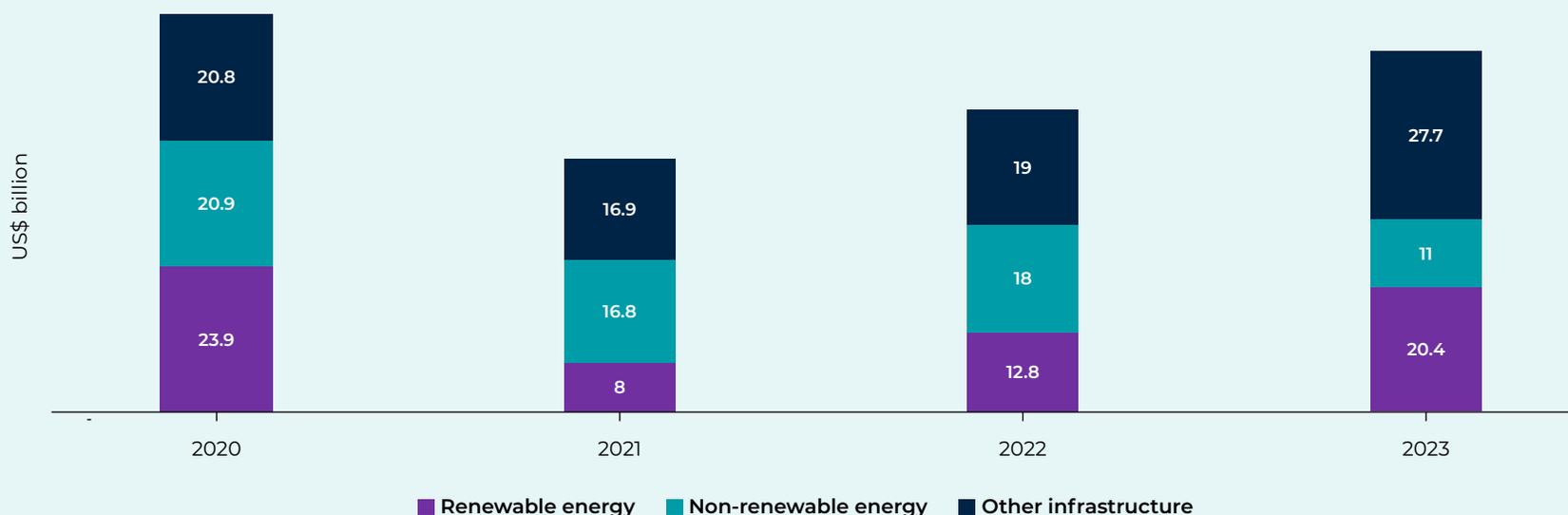
Note: The analysis is based on 407 blended finance infrastructure deals for which the required data was available. The guarantees had both commercial and concessional terms. To control for deal size, the shares of instruments in total deal size were used.

Cross-border guarantees: Recent trends and performance

Within infrastructure, energy transition drove new commitments for cross-border guarantees. In 2023, the guarantees for renewables surpassed non-renewables for the first time. New commitments for cross-border guarantees supporting infrastructure increase in 2023 to US\$59.1 billion driven primarily by renewable energy and other non-energy infrastructure sectors. In 2020, new commitments for non-renewable energy sector were similar to that for renewable energy sector, and by 2023, they were half that for renewable energy sector. In 2023, renewable energy sector registered US\$20.4 billion new commitments of cross-border guarantees across 68 countries. Other innovating guarantees like green guarantees were used to support ambitious climate goals. Other infrastructure sector also noted a record US\$27.7 billion in new commitments of cross-border guarantees driven by recovery of the high-volume transportation sector. Public sector provided around 80 percent of the guarantees supporting longer-tenor business. Lower income countries allocated a higher share of these guarantees to infrastructure sector. The infrastructure sector constitutes 18 percent of these guarantees in high-income countries (HICs), and 30-40 percent in low- and middle-income countries (LMICs).

Global cross-border guarantees by type: New commitments value for infrastructure sector by subsector (US\$ billion)

For infrastructure sector



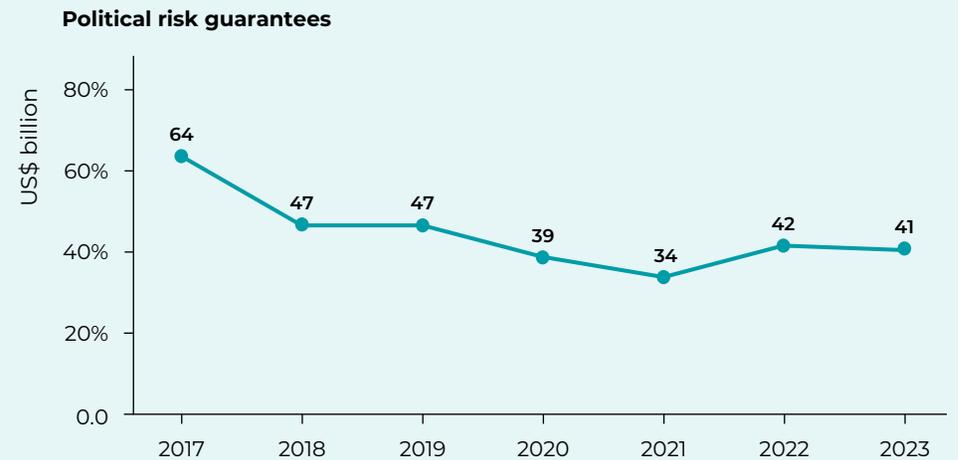
Source: Berne Union (2021, 2022, 2023, 2024).

OVERVIEW

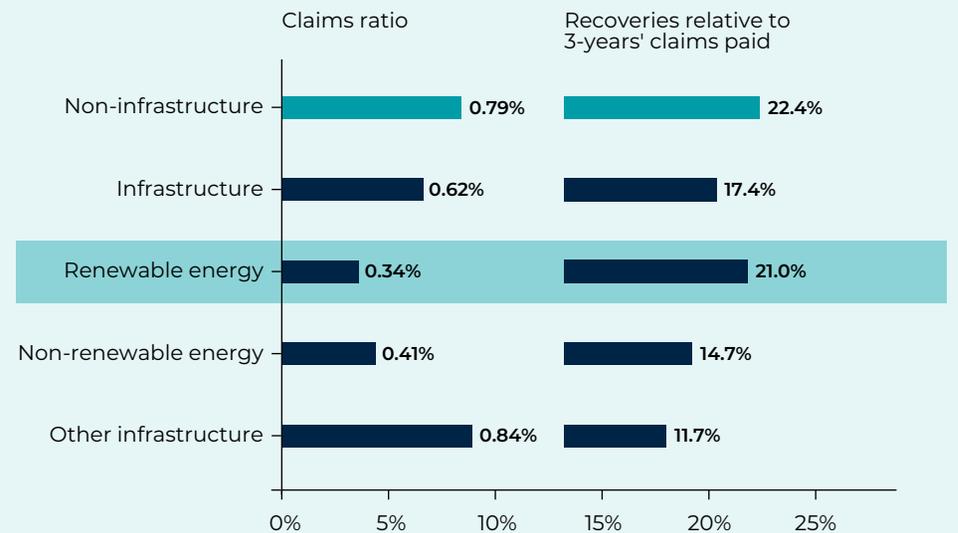
While the new commitments for political risk guarantees slightly declined, they absorbed more risk due to heightened geopolitical conflicts and political risk globally. The value of new commitments for political risk guarantees has been on a long-term declining trend even before the Covid-19 pandemic, falling from US\$64 billion in 2017 to US\$47 billion in 2019 to US\$39 billion in 2020 and further to US\$34 billion in 2021. While still below the pre-pandemic levels, the new commitments for political risk guarantees increased to US\$42 billion in 2022 and maintained similar level at US\$41 billion in 2023. The share of political risk related claims paid for non-performing loans was 55 percent in 2023 in South Asia and Sub-Saharan Africa, and this share was nearly 40 percent in the Middle East and North Africa, and Russia and the Commonwealth of Independent. Besides the Russian invasion of Ukraine, this was due to the political instability driven by difficult economic times.

By sector, renewable energy had the strongest performing cross-border guarantees, with the lowest claims ratio of 0.34 percent and high recoveries relative to 3-years' claims paid.

Global political risk guarantees: New commitments value (US\$ billion)



Global cross-border guarantees performance by sector (% average 2021-2023)



Source: Berne Union (2021, 2022, 2023, 2024).

Blended finance in infrastructure

This section presents currently available evidence on the success of mobilizing private capital for infrastructure through blended finance approaches in low- and middle-income countries (LMICs) and attempts to identify approaches that seem more effective and scalable.

Blended finance is the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development. - Convergence

Private capital mobilization ratio indicates how much private capital was mobilized for infrastructure deals in which blended finance were used. It represents the ratio of capital provided by private investors (debt, equity or mezzanine finance on commercial terms) to the capital provided by non-private (public and philanthropic) investors in a deal (commercial or concessional debt, equity or mezzanine finance, grants, and guarantees).

Blended finance infrastructure deals: Infrastructure deals in which both public and private stakeholders financed the deal were included in this analysis on blended finance.

Data analysis sample: The analysis is based on 407 blended finance infrastructure deals in the Convergence historical deals database for the time period 2000-2024 for which the detailed data required for this analysis was available for LMICs. Through intensive data collection efforts, the analysis sample increased to 407 deals (US\$104.3 billion total deal value) from 162 deals (US\$34 billion total deal value) in the blended finance analysis of Infrastructure Monitor 2023. This allowed for a more detailed and disaggregated data analysis and insights in this year's report. Estimates are presented only when sample size had at least five deals. While the database is not exhaustive, it is the best accessible data to study the use of blended finance in infrastructure. The data availability for recent deals especially those launched after 2010 is better, except limited data was available for deals that closed in 2024.

Scope of participants: The deals represent infrastructure financing by all the main types of public, private and philanthropic investors including national, state, or local government entities or government-owned banks, enterprises and companies; international or regional Multilateral Development Banks (MDBs), Development Finance Institutions (DFIs), Export Credit Agencies (ECAs); foundations and NGOs; commercial investors including commercial banks, developers, insurance companies, pension funds, infrastructure funds, sovereign funds, and impact investors. Capital provided by private investors – commercial investors or impact investors – is considered private capital mobilized.

Note: The sample aims to represent the universe of blended finance infrastructure deals. It is not representative of the World Bank Group deals.

Scope and definition of the types of deal structures:

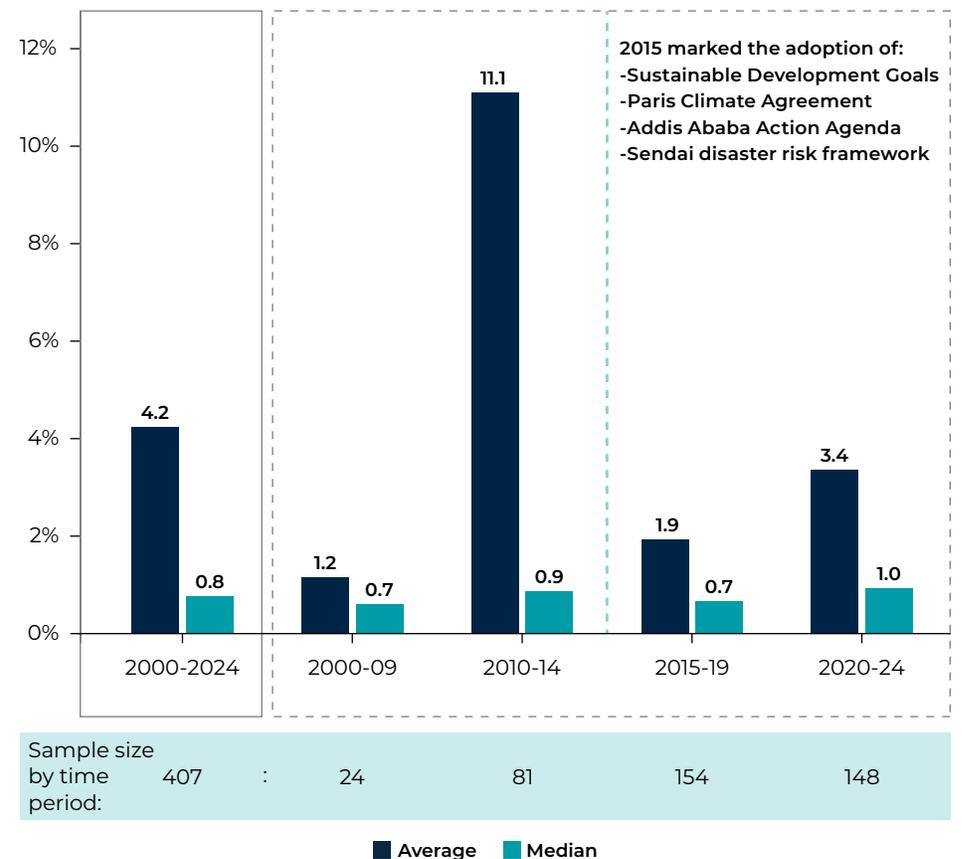
- Projects deal structure include greenfield and brownfield projects, and programs funded through a combination of market-rate and below market-rate capital
- Bonds/notes deal structure include privately placed issuances, listed instruments on public exchanges
- Funds deal structure include limited partnership private equity and debt funds, as well as funds-of-funds
- Facilities deal structure include earmarked allocation of public development resources with private capital at the vehicle level, for deployment towards a specific recipient or intervention
- Companies deal structure include direct private equity and debt financing of businesses on both market-rate and below market-rate terms

Maximizing private capital mobilization leveraging constrained public resources has become central to strategies aimed at closing the infrastructure deficit.

The year 2015 marked the adoption of global sustainable development goals and climate change goals through the legally binding Paris Agreement, as well as the Sendai framework for disaster risk reduction, that call for a significant transformation in foundational structures, that is, infrastructure, required to support the economic transition. United Nations studies estimated that infrastructure will affect the achievement of 92 percent of SDG targets and accounted for 79 percent of global greenhouse gas (GHG) emissions and 88 percent of climate adaptation costs (United Nations, 2022; UNOPS, 2021; UNDDR, 2015). Recognizing the large financing gap to meet the ambitious targets, the Addis Ababa Action Agenda in 2015 called for scaling all sources of financing including domestic public resources, international private finance, and international development finance (United Nations, 2015; OECD, 2023). While government budget deficits and debt stress peaked in controlling the Covid-19 pandemic-induced crisis, the unprecedented spikes in inflation and interest rates have dramatically increased infrastructure development costs and financing gap. In this context, blended finance approaches that can maximize private investments with the use of limited public budgets have taken the centerstage in finding solutions for the global infrastructure financing gap in LMICs.

The overall average ratio was 4.2 while the median was 0.8 indicating wide variations. The median is not affected by extreme values. The median ratio was the highest in 2020-24 time period at 1.0 despite the polycrisis era since the onset of Covid-19 pandemic in 2020. Note: The very high average ratio of 11.1 in 2010-14 and 2020-2024 is driven by a ratio of more than 11 for six out of 81 deals in 2010-14 including deals involving monopoly-like players in commercially viable sectors like telecommunications, airports, water and renewables.

Blended finance infrastructure deals
Private capital mobilisation ratio by time period



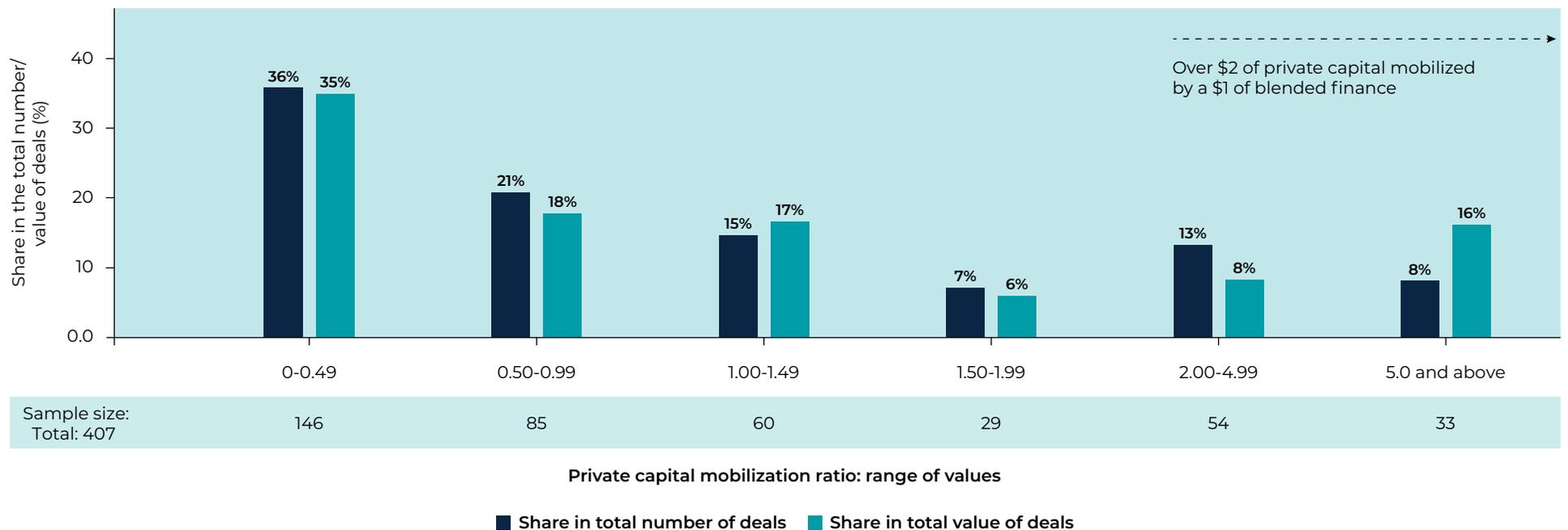
Source: Authors analysis based on Convergence database.
 Note: The analysis is based on 407 blended finance infrastructure deals for which data was available.

More than half of the blended finance infrastructure deals mobilized less than a dollar of private capital for a dollar worth of blended finance approaches.

Over half of the infrastructure deals (by total number or total value) mobilized less than a dollar of private capital for a dollar worth of blended finance approaches. Over one-third of the infrastructure deals mobilized less than half a dollar. This was true across varying time periods during 2000-2024.

Encouragingly, about one-fifth of the infrastructure deals mobilized more than \$2 private capital for a dollar worth of blended finance approaches. This also was true across varying time periods during 2000-2024. After 2010, about 7 percent to 10 percent of the deals reported extreme success in mobilizing private capital by mobilizing more than \$5 for every dollar worth of blended finance approaches. These highly successful deals had all types of operating structures – projects, bond/note, fund/facility, and company. This suggests potential scope to learn from these highly successful deals for enhancing blended finance approaches in the infrastructure space. The more successful deals had some strategies in common including the use of blended finance for early-stage support, future market creation and addressing payment risk, meeting the requirements of financial regulations, enhancing market tradability, and supporting a pathway to commercial viability.

Blended finance infrastructure deals: Private capital mobilization ratio by range of values (2000-2024, %)



Source: Authors analysis based on Convergence database.

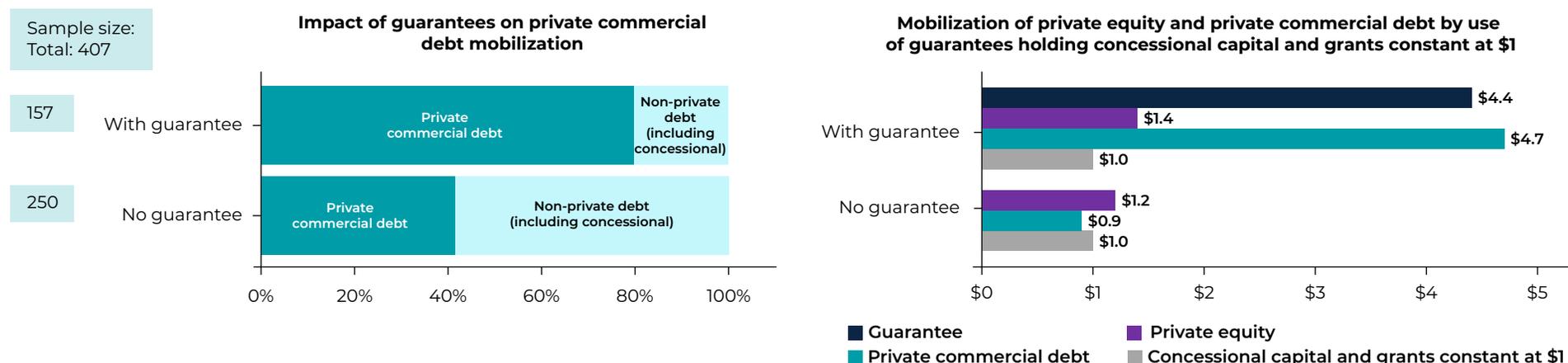
Note: The analysis is based on 407 blended finance infrastructure deals for which data was available.

Holding concessional capital and grants constant at \$1, guarantees had a significant impact on increasing private investment through commercial debt.

The effectiveness of guarantees in mobilizing greater amount of private capital stems from the additional layer of protection provided for repayment of commercial debt.

Holding the support through concessional capital and grants constant at \$1 to estimate the impact of guarantees on private capital mobilization, \$4.7 private commercial debt was mobilized for every \$4.4 of guarantees cover. Without guarantees, \$0.9 of private commercial debt was mobilized. Additionally, guarantees had a small positive impact on increasing the mobilization of private commercial equity from \$1.2 to \$1.4. The increasing popularity of guarantees in the infrastructure community is likely being driven by this effect. By enabling access to more private capital through debt instruments, the financing costs are reduced because debt is cheaper than equity. The benefit is higher for lower-income countries with non-investment grade ratings. However, the nearly one-to-one transfer of risk from debt providers to guarantee/insurance providers needs to be examined in more detail to estimate the effective net benefit in terms of reduced financing costs. Guarantees are effective in mobilizing private debt investors as they can dramatically reduce the punitive risk weights and capital charges applicable in banking regulations (Basel III) on sub-investment grade debt when guarantees are provided by creditworthy entities like the MDBs/DFIs. This may reduce the overall financing cost on an all-in basis if the guarantees are priced at subsidized levels e.g., much below sovereign borrowing costs for a country. Guarantees were provided by public and private sectors on both commercial and concessional terms.

Blended finance infrastructure deals by use of guarantee (2000-2024)



Source: Authors analysis based on Convergence database.

Note: The analysis is based on 407 blended finance infrastructure deals for which data was available. The guarantees had both commercial and concessional terms. The total 2000-2024 sample was divided into two sub-samples: 157 deals with guarantees and 250 deals without guarantees. To control for deal size, the shares of instruments in total deal size were estimated. The shares of guarantees, private equity, private commercial debt were divided by the sum of shares of concessional capital and grants to show the value of the former instruments holding concessional capital and grants constant at \$1.

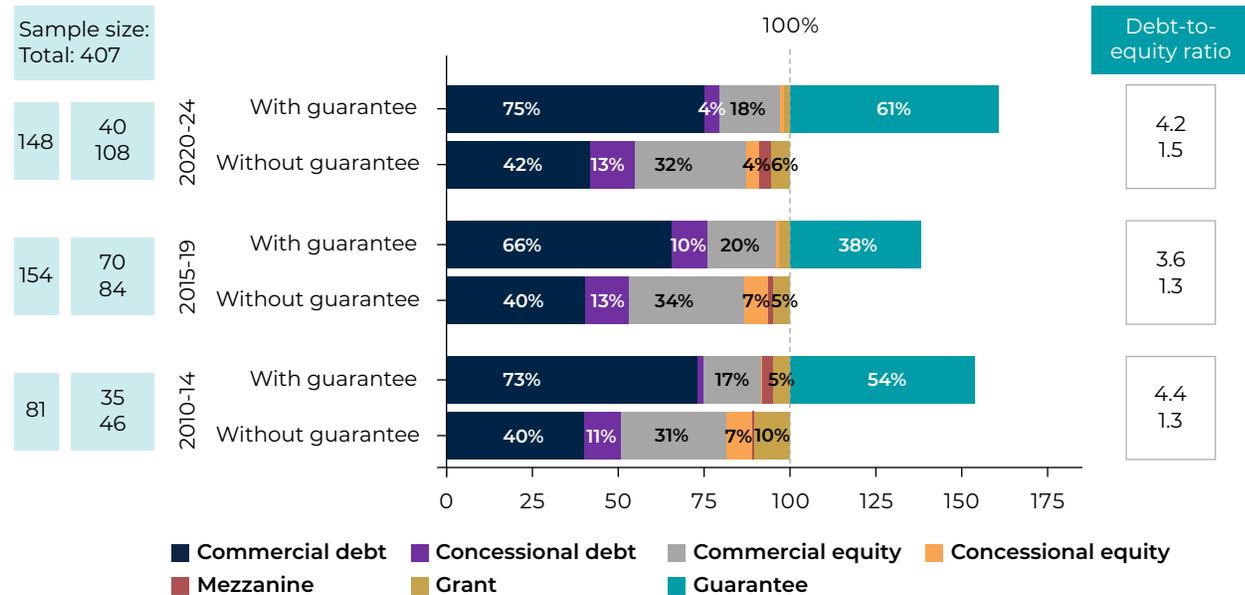
Since the onset of the polycrisis era in 2020, the global share of deals (both by number and value) supported by guarantees reduced, but the coverage of deal value was high.

Since 2020, multiple crisis have increased the general business risk increasing the demand for guarantees but also the cost of providing guarantees. As a share of total number of deals, the deals with guarantees reduced from 45 percent during 2015-19 to 27 percent during 2020-24. The decline was even more as a share of total value of deals which was also seen through decline in the average deal value covered by guarantees.

However, the deals for which guarantees were provided in 2020-24 covered an average deal value of 61 percent, significantly higher than the average cover of 38 percent during 2015-19, and higher than the average coverage provided in 2010-14 and 2000-09, which could be a result of intentional targeting on deals that require more support but can lead to greater development impact. Higher guarantee cover increased the average share of commercial debt to 75 percent from 42 percent. Although for deals with guarantees, concessional debt also decreased from 10 percent in 2015-19 to 4 percent in 2020-24, the increase in guaranteed cover was higher. This increased the debt-to-equity ratio from 3.6:1 in 2015-19 to 4.2:1 in 2020-24.

In 2020-2024, the deals with guarantees had a debt-to-equity ratio of 4.2:1 much higher than 1.5:1 for deals without guarantees. While debt is cheaper than equity, the impact on profitability depends on the cost of guarantees with an average cover of 61 percent.

Blended finance infrastructure deals by use of guarantee and time period (2010-2024): Shares of financial instruments in deal value (%)



Blended finance infrastructure deals by use of guarantee and time period (2010-2024)

Deal characteristics

Number of deals (shares %)



Value of deals (shares %)



Average deal value (US\$ million)



■ Without guarantee ■ With guarantee

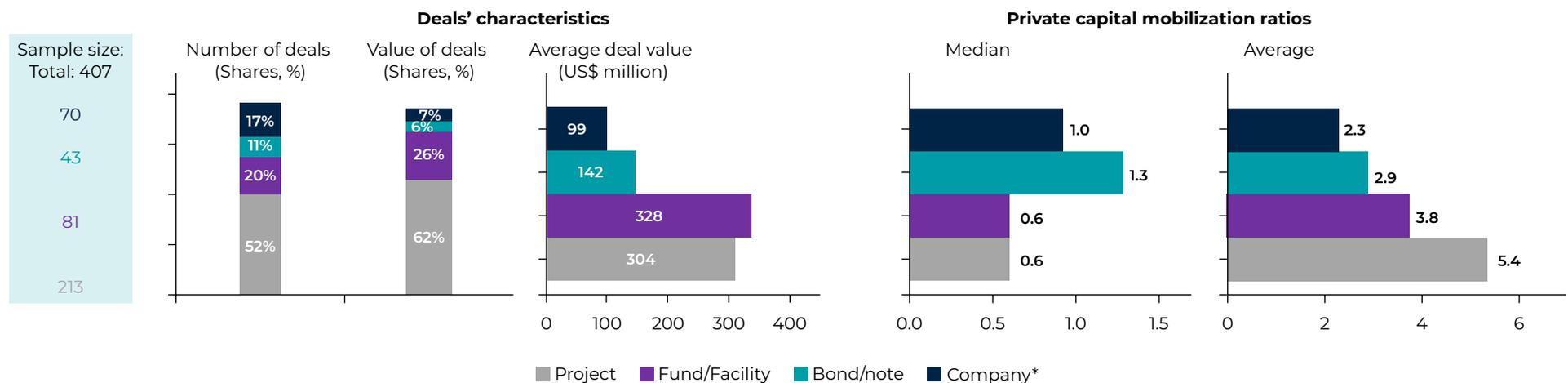
Source: Authors analysis based on Convergence database.

Note: The analysis is based on 407 blended finance infrastructure deals for which data was available.

Projects structures were most often used in blended finance infrastructure deals and had a higher average deal value. Their success in mobilizing private capital widely varied.

- Blended finance strategy is deployed for the infrastructure asset class through different operating structures - project, funds or facilities, bonds or notes, company, to mobilize private capital for infrastructure investments.
- During 2000-2024, projects constituted majority (52 percent) of the blended finance infrastructure deals accounting for 62 percent of total deals value. Funds/facilities constituted one-fifth of the deals accounting for 26 percent of the total deals value. An average blended finance deal value for projects or funds/facilities exceeded US\$300 million. Companies also constitutes about one-fifth of the deal but had lower average deal value of US\$99 million that drove down its share in total value of deals to 7 percent. About 11 percent of blended finance infrastructure deals accounting for 6 percent of the total deals value were structured as bond/note. The average value was also lower at US\$142 million for bonds.
- The success of projects and funds/facilities in mobilizing private capital widely varied. They recorded higher average private capital mobilization ratios of 5.4 and 3.8 respectively than the average ratios of 2.9 and 2.3 for bond/note and company structure, respectively. However, projects and funds/facilities also recorded the lowest median value. For projects and funds/facilities, the private capital mobilization ratio for half of the deals was less than 0.6.
- For bonds, the median value for private capital mobilization ratios was 1.3, and for companies, it was 1.0, which means at least half of the deals with bond or company structure mobilized at least a dollar for a dollar worth of blended finance approaches.

Blended finance infrastructure deals by operating structure (2000-2024)



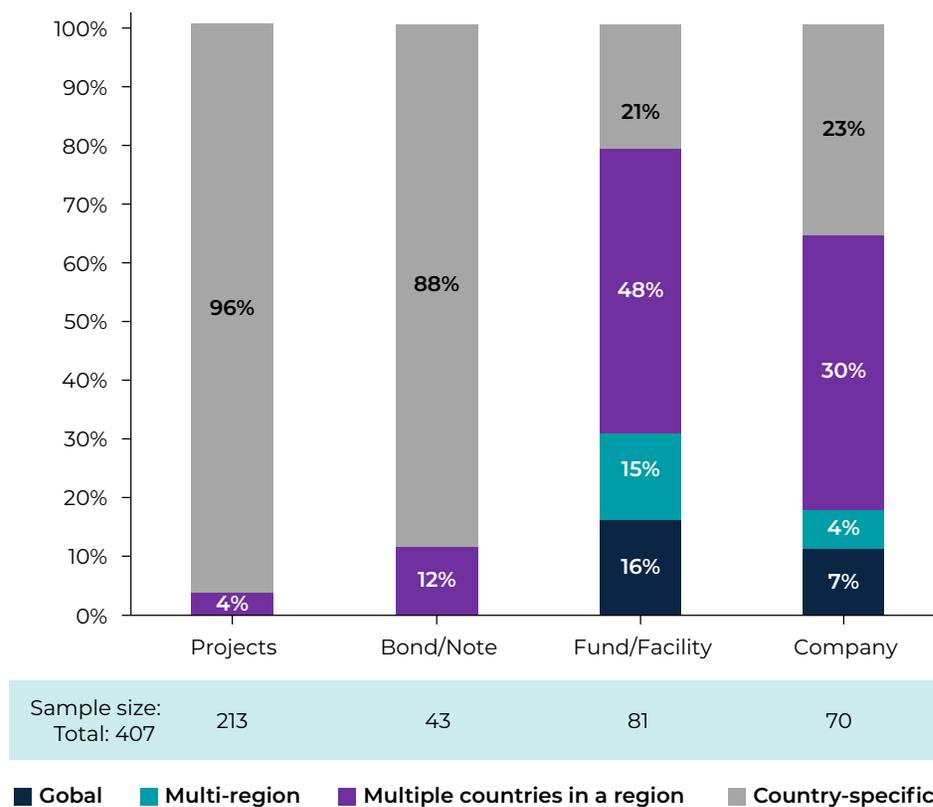
Source: Authors analysis based on Convergence database.

Note: The analysis is based on 407 blended finance infrastructure deals for which data was available.

Project and bond structures were deployed in infrastructure deals within a country. Fund/facilities and company structures were more prevalent for the deals with multiple countries.

- Blended finance strategy for an infrastructure investment with project structure was mostly pursued at a country level (96 percent of the deals sample) and in multiple countries within a region (4 percent of the remaining sample).
- For blended finance infrastructure bonds/note, about 90 percent were used in a specific country, and the remaining 12 percent were used in multiple countries within a region.
- In contrast, the scope was multiple countries in a region for 48 percent of the blended finance infrastructure funds/facilities and 30 percent of the blended finance infrastructure companies. Only about one-fifth of the blended finance infrastructure funds/facilities had a country-specific focus, and only around a quarter of blended finance infrastructure companies had a country-specific focus.
- For a global scope, funds/facilities structure or companies were used to pursue blended finance strategy for mobilizing private capital for the infrastructure asset class. Also, for the scope covering multiple regions, fund/facilities and company structures were used for the blended finance strategy.
- Within blended finance infrastructure funds/facilities, 16 percent had a global scope and 15 percent had a multi-region scope. Within blended finance infrastructure companies, 7 percent had a global scope and 4 percent had a multi-region scope.
- Broadly, blended finance strategy was mostly deployed through a project or bonds/note structure when the geographical scope was a specific country. The funds/facilities and company structure was mostly used for blended finance infrastructure deals with scope involving multiple countries.

**Blended finance infrastructure deals:
Geographical use by operating structure (2000-2024)**
(Shares in total number of deals, %)



Source: Authors analysis based on Convergence database.

Note: The analysis is based on 407 blended finance infrastructure deals for which data was available.

Project finance structure

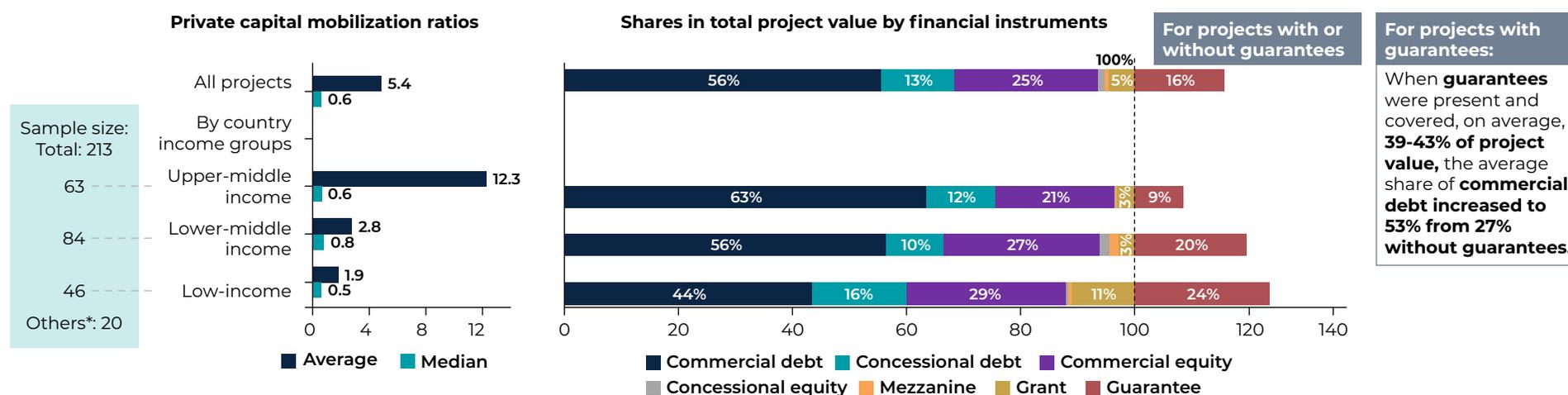


For infrastructure projects by country income groups, higher income countries are more conducive to mobilizing more private capital. Lower income countries often require blended finance especially guarantees to attract private capital.

Simple maximization of private capital mobilization will prove to be an imperfect measure for achieving development outcomes in the short-term, but its trend over time by country income can present improvement in potential to mobilize private capital. Countries with more development challenges are less likely to mobilize more private capital.

- For blended finance infrastructure projects by country income group, higher private capital mobilization ratios were seen for blended finance infrastructure projects in higher income countries. The average ratio was 12.3, 2.8, and 1.9 in upper-middle income, lower-middle income, and low-income country groups, respectively, suggesting that it was more difficult to attain higher private capital mobilization ratios for infrastructure projects in lower income countries, and more scope to scale private investment in higher income countries.
- Guarantees were more often needed in lower income countries to financially close infrastructure projects. Considering all blended finance infrastructure projects with or without guarantees, in upper-middle income countries, guarantees covered 9 percent of the project value, on average, whereas in lower-middle income countries and low-income countries, guarantees covered 20 percent and 24 percent of the project value, respectively.
- Considering only blended finance infrastructure projects with guarantees, guarantees covered a higher share between 39 percent and 43 percent of project value across country income groups.
- The median private capital mobilization ratio in low-income countries of 0.5 was close to the median of 0.6 for all blended finance infrastructure projects.

Blended finance infrastructure projects by country income groups (2000-2024)



Source: Authors analysis based on Convergence database.

Note: The analysis is based on 213 blended finance infrastructure projects for which data was available. Other include global, multi-region or multiple countries' deals.

Illustration: Impact of political risk insurance for a single representative energy project in three differently rated countries.

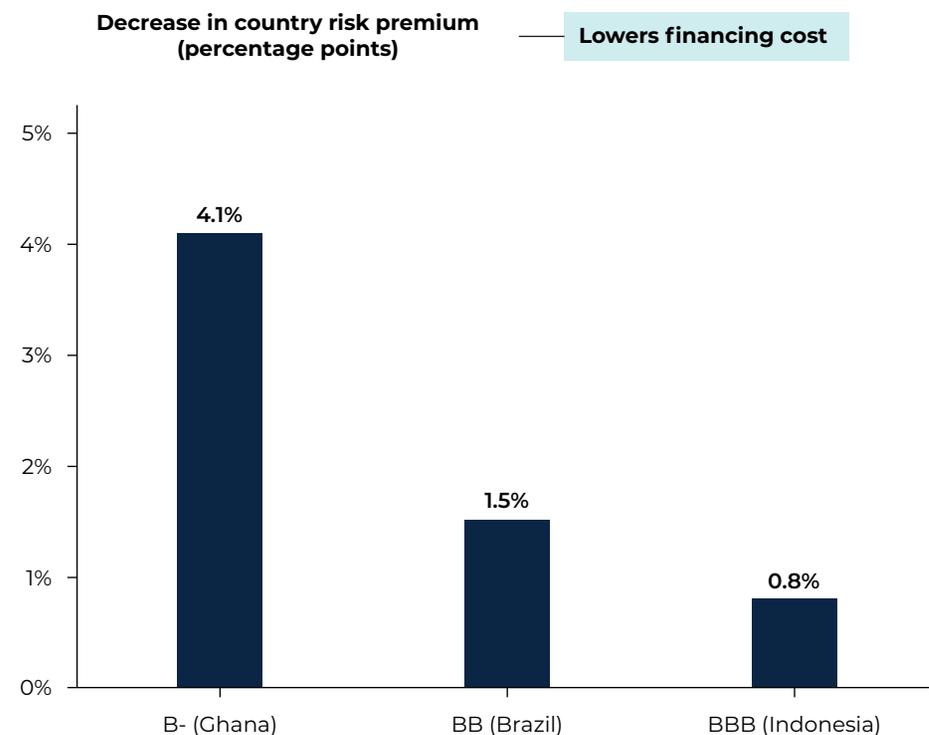
With guarantees, a country with B sovereign debt rating (mostly low-income) could lower its country premium by three to four times a country with BB or BBB sovereign debt rating.

Infrastructure projects are highly susceptible to political and social interference due to their public good nature. Political risks due to high government interference over long lives of infrastructure projects pose more serious concerns for countries that are perceived less creditworthy, that is, countries with lower sovereign debt ratings, which are typically also low-income countries. Investors demand higher premium as a compensation for taking higher country risk. Guarantees/insurance especially help in reducing the financing costs of projects in countries with sovereign debt rating below investment grade.

Lower the sovereign debt rating, higher is the benefit of political risk insurance, but more expensive it is to provide cover for the projects. According to S&P Global (2021), the net benefit is generally positive for countries with sovereign debt rating below investment grade, especially when premiums are tax deductible. The benefit stems from the use of lower discount rate during estimation of project value and rate of return, enabling financing of infrastructure projects at more favorable terms and costs. For a single representative energy project and a standard political risk insurance policy covering 21 country risk events, the country risk premium was estimated to reduce by 4.1 percentage points for a B- rated (Ghana), three to four times higher than the reduction of 1.5 percentage points for a BB rated (Brazil) and a BBB rated (Indonesia) country.

However, political risk insurance is not recognized in key international financial regulations such as the Basel III banking regulation, creating a regulatory roadblock in benefits provided by political risk insurance policy.

Impact of political risk insurance on financing costs by country's credit rating



Source: S&P Global (2021)

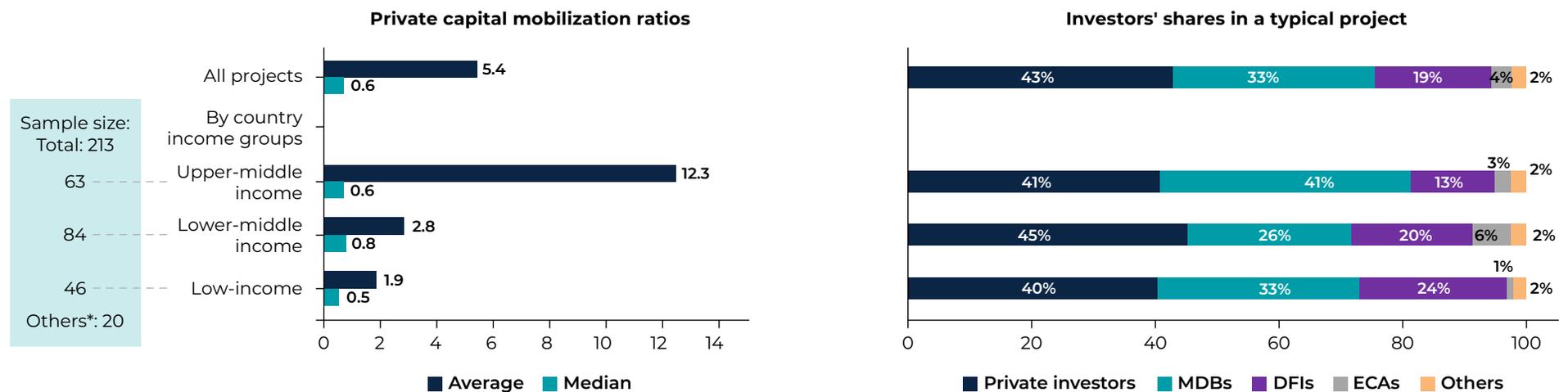
Note: Results are based on S&P Global Country Risk Investment Model for a power purchase agreement (PPA) with a termination payment. The standard political risk insurance policy covered for 21 country risk events.

MDBs and DFIs financed about half of a typical blended finance infrastructure project value, even more in low-income countries.

- MDBs and DFIs provided around half of the investment for a typical blended finance infrastructure project: MDBs’ average share was 33 percent and DFIs average share was 19 percent.
- Private investors and other leading international development finance providers like export credit agencies provided relatively more investment for infrastructure projects of larger size. However, in low-income countries, MDBs led the financing for projects of large size with private investors.

MDBs and DFIs played a crucial role in catalyzing private capital for blended finance infrastructure deals in low-income countries which have less conducive environment for attracting private capital. Intense international focus on maximizing private capital mobilization ratios can conflict with MDBs and DFIs’ development objectives of reducing poverty by creating unintended incentives to reallocate some capital away from low-income countries to higher income countries with more conducive environment for mobilizing more private capital. While tracking private capital mobilization at a country level may create pressures to accelerate economic growth and income that can support higher private capital mobilization ratios, it may also conflict with the development objective of reducing global poverty and even inequality within countries as it is likely to be easier to maximize private capital mobilization in rich neighborhoods. **In this context, it is best to use private capital mobilization metrics as secondary outcomes to retain core development metrics as primary outcomes in the international development arena.**

Blended finance infrastructure projects by country income groups (2000-2024)



Source: Authors analysis based on Convergence database.

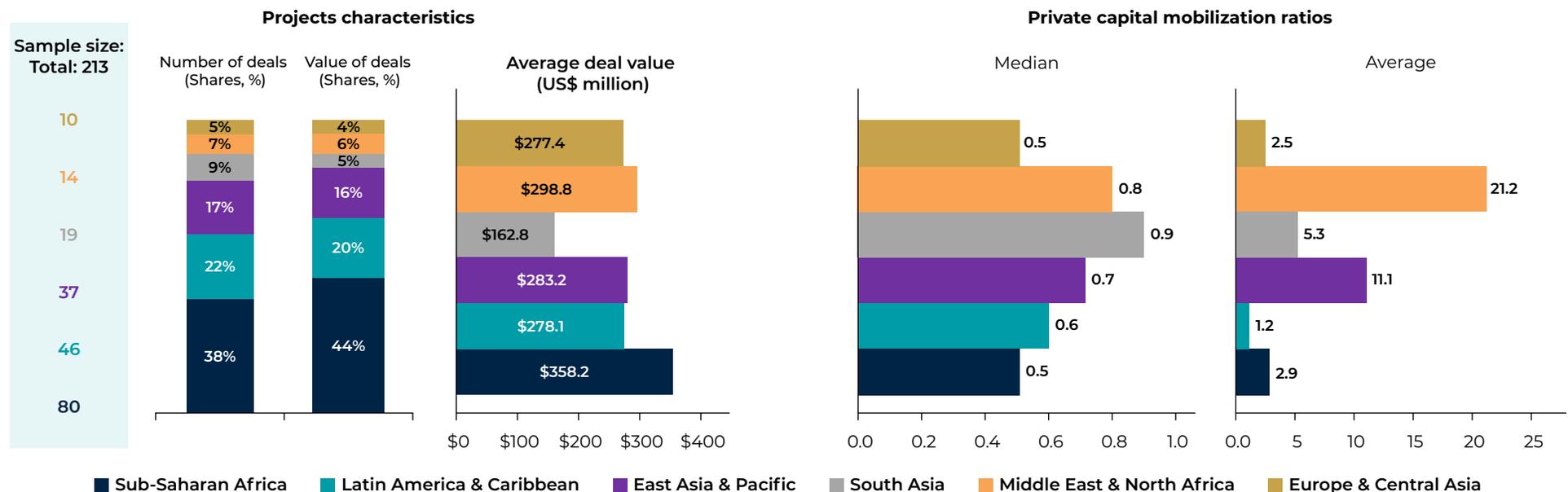
Note: The analysis is based on 213 blended finance infrastructure projects for which data was available. Financing by public investors like MDBs, DFIs, on commercial terms is not considered as private capital mobilized. 'Other' investors includes pension/sovereign funds, central government, state/national banks, state-owned enterprises, foundations and NGOs.

By region, Sub-Saharan Africa accounted for majority of the blended finance infrastructure projects, with over 90 percent in low-income countries where it is more challenging to mobilize private capital.

By region, Sub-Saharan Africa had the highest share in total blended finance infrastructure projects of 38 percent in total number of projects and 44 percent in total value of projects. It also had the highest average value of projects supported at US\$358 million, which suggests that larger projects were supported through blended finance approaches in Sub-Saharan Africa. However, it had one of the lowest private capital mobilization ratio in terms of median value of 0.5, but the average was higher at 2.9 suggesting that some projects were successful in mobilizing private capital. It is important to note that Sub-Saharan Africa accounted for over 90 percent of the blended finance infrastructure deals in low-income countries and country income level is a key determinant of success in private capital mobilization.

Middle East & North Africa, East Asia & Pacific, and South Asia had higher average private capital mobilization ratios of 21.2, 11.1, and 5.3, respectively. These regions also had the highest median private capital mobilization ratios. Hence, these regions were more successful in mobilizing private investment in infrastructure.

Blended finance infrastructure projects by region (2000-2024)



Source: Authors analysis based on Convergence database.

Note: The analysis is based on 213 blended finance infrastructure projects for which data was available.

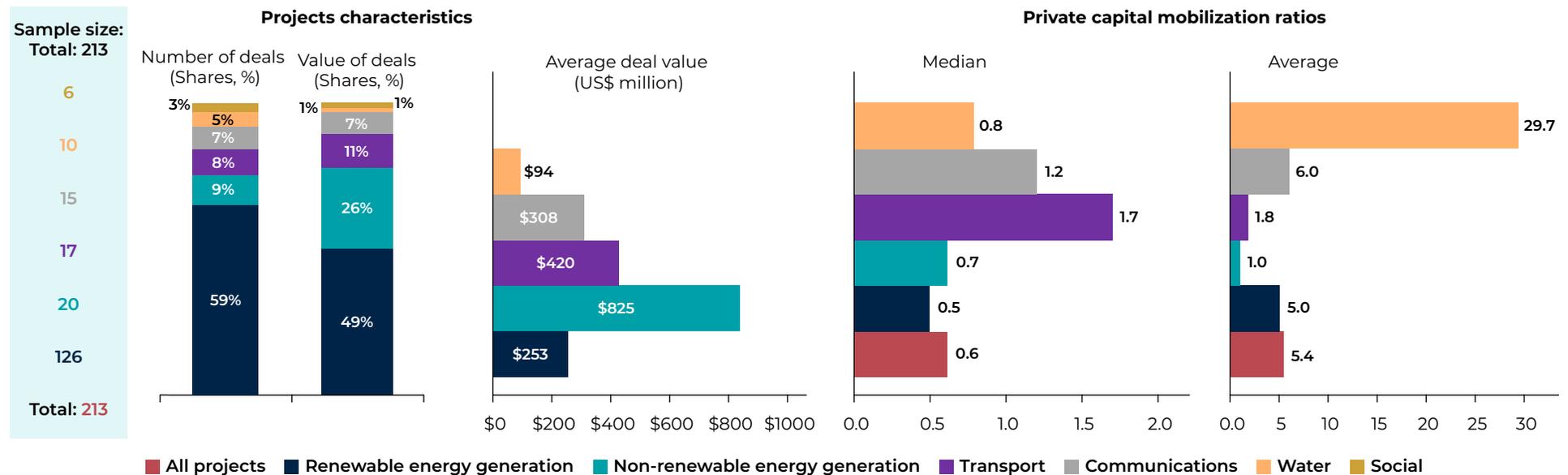
By sector, renewable energy generation dominated the blended finance infrastructure projects.

Renewable energy generation accounted for nearly 60 percent of all the blended finance infrastructure projects over 2000-2024, followed by non-renewable energy generation and transport sectors with 9 percent and 8 percent shares, respectively. The sizably large average size of a non-renewable energy generation project of US\$825 million relative to the size of an average non-renewable energy generation project of US\$253 million changed their respective shares in the total value of blended finance infrastructure projects to 49 percent and 26 percent respectively: still renewable energy generation dominated the blended finance infrastructure projects even as a share of total value of the projects.

The high-end spectrum of private capital mobilization ratios of more than \$2 were dominated by communications, renewable energy generation, and water sectors which had the highest average ratio at 6.0, 5.0, and 29.7, respectively. Transport sector had the highest median value for private capital mobilization ratios at 1.7 which was close to its average ratio at 1.8, which suggests more symmetry in success in mobilizing private capital.

Renewable energy generation sector recorded the lowest median ratio of 0.5, but an analysis by country income group shows that the sector may be using blended finance approaches to support deals for which it was more challenging to attract private capital at the outset. The sample size for other sectors is not large enough to allow a similar analysis.

Blended finance infrastructure projects by sector (2000-2024)



Source: Authors analysis based on Convergence database.

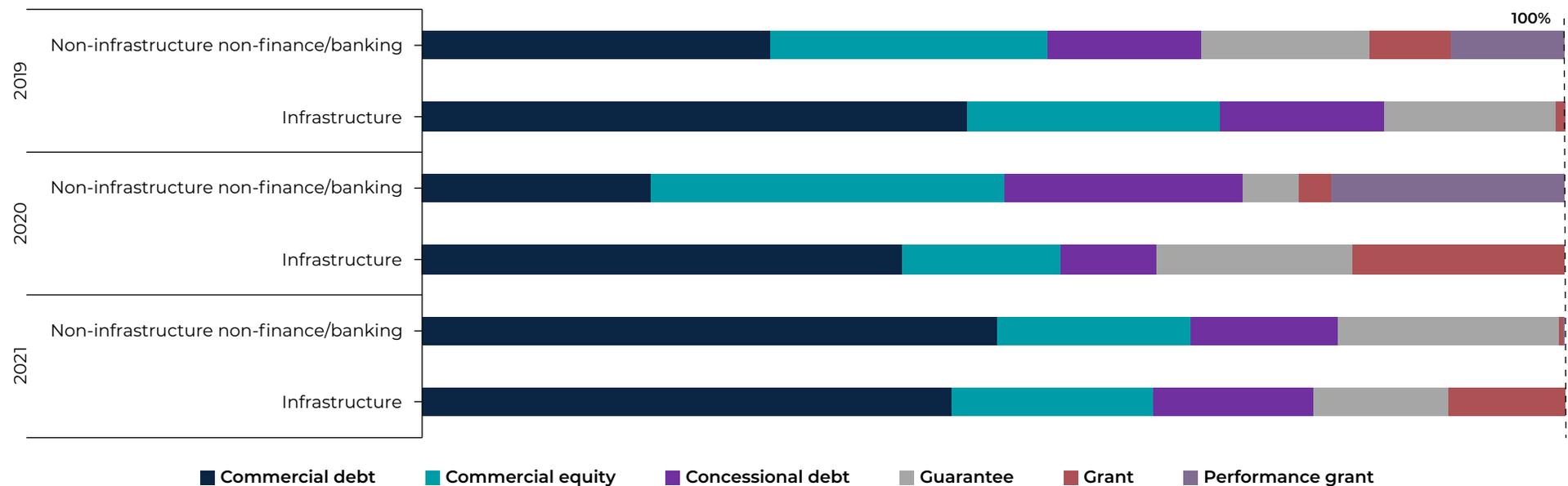
Note: The analysis is based on 213 blended finance infrastructure projects for which data was available. Social includes education, health and social care, housing, tourism, arts and culture infrastructure.

The use of performance grants seemed to be virtually non-existent in the infrastructure sector but was prevalent in other sectors.

The DFI Working Group on Blended Concessional Finance for Private Sector Projects compiles annual data on the use of concessional finance i.e., financing below market rates (or with maturity, grace period, security or rank offered on soft terms) including grants for infrastructure, climate finance, finance/banking and other sectors. The data showed the use of performance grants in climate finance, finance/banking, and other non-infrastructure non-finance/banking sectors, but not in the infrastructure sector in LMICs.

Performance grants were used in the U.S. Bipartisan Infrastructure law which used two types of performance grants: matching grants and regulatory improvement grants. Matching grants encouraged similar levels of investment by state government. The regulatory improvement grants stipulated specific improvements to standards, procedures, and programs, that were necessary to receive the grants (U.S. Department of the Interior). MDBs, DFIs, and other international development actors should enhance the use of performance grants for infrastructure sector to strengthen the enabling environment for mobilizing private capital which has been recommended by several leading studies. For example, the World Bank’s Benchmarking Infrastructure Development outlines a detailed and exhaustive list of internationally recognized good practices by country that LMICs can incorporate to improve the quality of regulatory frameworks to develop infrastructure projects with private sector (World Bank, 2024).

Blended Concessional Finance and Grants for Private Sector Projects Shares by financial instruments, sector and year (% , 2019-2021)



Source: Annual reports of DFI Working Group on Blended Concessional Finance for Private Sector Projects

Structures other than project finance

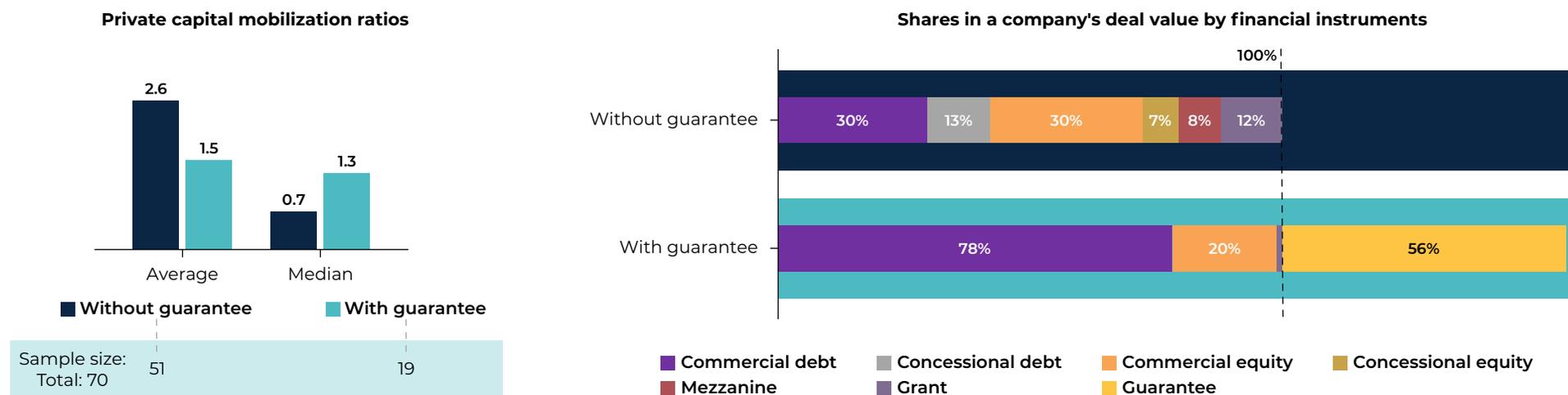


For blended finance infrastructure companies, guarantees significantly increased the share of commercial debt. When guarantees were used, the use of other types of blended finance instruments was negligible.

Private capital mobilization ratio: As seen previously, blended finance infrastructure deals in companies had a higher median private capital mobilization ratio (1.0) than the median for all deals (0.8). For blended finance infrastructure companies, median private capital mobilization ratio was higher at 1.3 when guarantees were used than 0.7 when guarantees were not used. As seen in other blended finance deals, guarantees reduce punitive risk weights and capital charges applicable in banking regulations (Basel III) on companies with sub-investment grade rating, thereby allowing them to mobilize more commercial debt at favorable terms. The banking regulations are more well-defined and differentiated for companies relative to projects, enabling more effective use of guarantees for improving financing terms. Note: The higher average private capital mobilization ratio of 2.6 without guarantees than 1.5 with guarantees is driven by outlier companies with investment-grade ratings that do not significantly benefit from guarantees.

Financial structuring: Blended finance deals of infrastructure companies without guarantees had a higher share of commercial equity and other types of blended finance instruments like concessional debt and equity, mezzanine finance and grants, which collectively financed 70 percent of the deals, while commercial debt financed 30 percent of the deal. When infrastructure companies used guarantees in blended finance deals, the share of commercial debt more than doubled to 78 percent relative to 30 percent share in the deals without guarantees. On average, guarantees provided 56 percent coverage of the deal value. The share of commercial equity reduced to 20 percent relative to 30 percent share in the deals without guarantees. The use of other blended finance instruments was nearly non-existent when guarantees were used.

Blended finance infrastructure companies by use of guarantee (2000-2024)



Source: Authors analysis based on Convergence database. Note: The analysis is based on 70 blended finance infrastructure companies for which data was available.

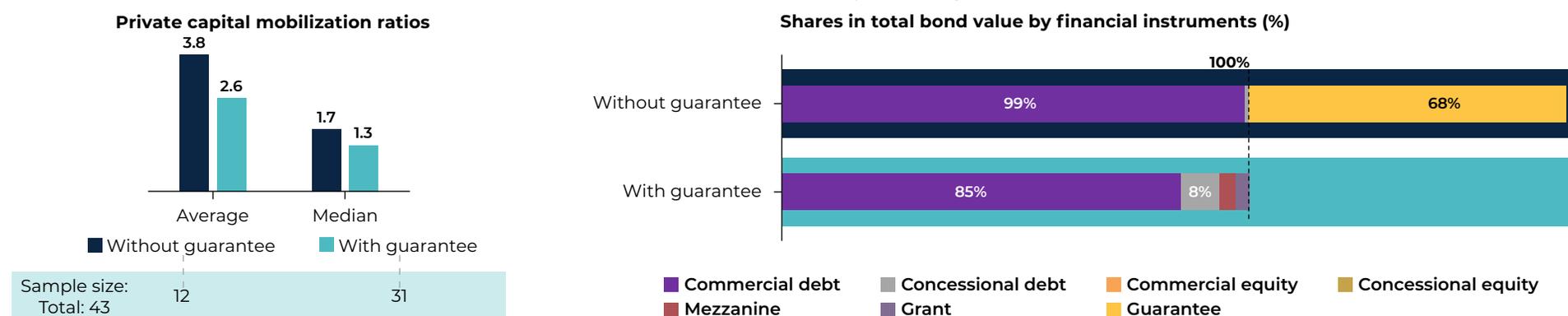
Blended finance infrastructure bonds being a debt instrument significantly benefit from guarantees in attracting private capital, as most low- and middle- income countries have sub-investment grade ratings.

Private capital mobilization ratio: As seen previously, blended finance infrastructure deals in bonds had the highest median private capital mobilization ratio (1.3) across all deal structures. For blended finance infrastructure bonds, the average and median private capital mobilization ratios were higher without guarantees at 3.8 and 1.7 respectively, than the ratios of 2.6 and 1.3 respectively for bonds with guarantee.

Financial structuring: The bonds with guarantees mobilized 99 percent commercial debt with an average 68 percent cover provided by guarantees. The bonds without guarantees mobilized 85 percent commercial debt with 12 percent support through blended finance instruments of concessional debt and grants. The remaining 3 percent was mezzanine finance (hybrid of debt and equity financing). The bonds with guarantees had a lower average value of US\$109 million, less than half the average value of US\$230 for the bonds without guarantees.

The sample size is not large enough to do an analysis by country income groups, but data suggests that lower income countries with non-investment grade sovereign debt ratings required and received these guarantees. In other words, guarantees were used when it may have been more difficult to mobilize private capital at the outset, in line with the recommended blended finance principles. As guarantees are most effective in mobilizing commercial debt, they are likely to be preferred over other blended finance strategies in improving attractiveness of high-risk debt instruments like bonds for private investors. They reduce debt repayment risk through a guaranteed coverage.

Blended finance infrastructure bonds by use of guarantee (2000-2024)



Source: Authors analysis based on Convergence database. Note: The analysis is based on 70 blended finance infrastructure companies for which data was available.

An analysis of blended finance infrastructure funds/facilities is included in the infrastructure funds section of this report. As blended finance national infrastructure funds/facilities operate in a less stringent regulatory environment, a lower guaranteed coverage seem to enable higher commercial debt mobilization, relative to other structures. The international funds/facilities seem to have a high share of equity notwithstanding the presence of guarantees to ensure multiple investor who pooled the capital remain active shareholders.

Cross-border guarantees: Recent trends and performance

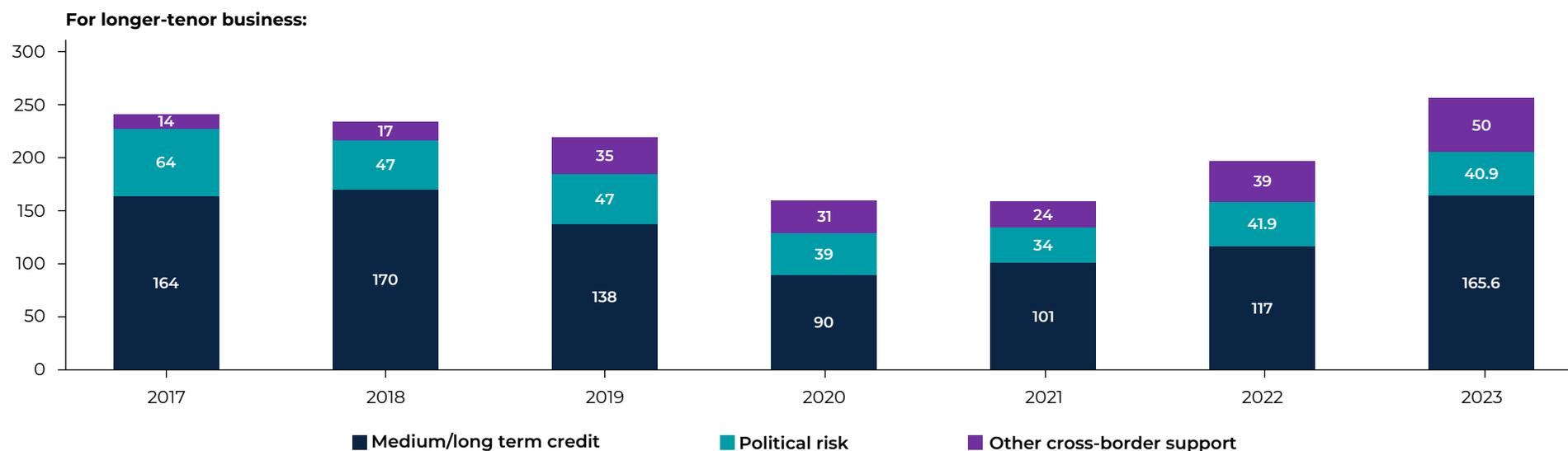
Based on Berne Union reports



Within infrastructure, energy transition drove new commitments for cross-border guarantees. In 2023, the guarantees for renewables surpassed non-renewables for the first time. The growth in political risk guarantees was subdued by heightened political risk.

New commitments for cross-border guarantees supporting longer-tenor business were declining prior to 2020 but suffered a sharper decline in 2020 with the onset of the Covid-19 pandemic. In 2023, new commitments for medium/long term credit guarantees reached a peak of US\$165.6 billion, along with other cross-border support guarantees that peaked at US\$50 billion in 2023. The value of new commitments for political risk guarantees has been on a long-term declining trend even before the Covid-19 pandemic, falling from US\$64 billion in 2017 to US\$47 billion in 2019 to US\$39 billion in 2020 and further to US\$34 billion in 2021. While still below the pre-pandemic levels, the new commitments for political risk guarantees increased to US\$42 billion in 2022 and maintained similar level at US\$41 billion in 2023. While the new commitments for political risk guarantees slightly declined, they absorbed more risk due to heightened geopolitical conflicts and political risk globally.

Global cross-border guarantees by guarantee type: New commitments value (US\$ billion, 2017-2023)



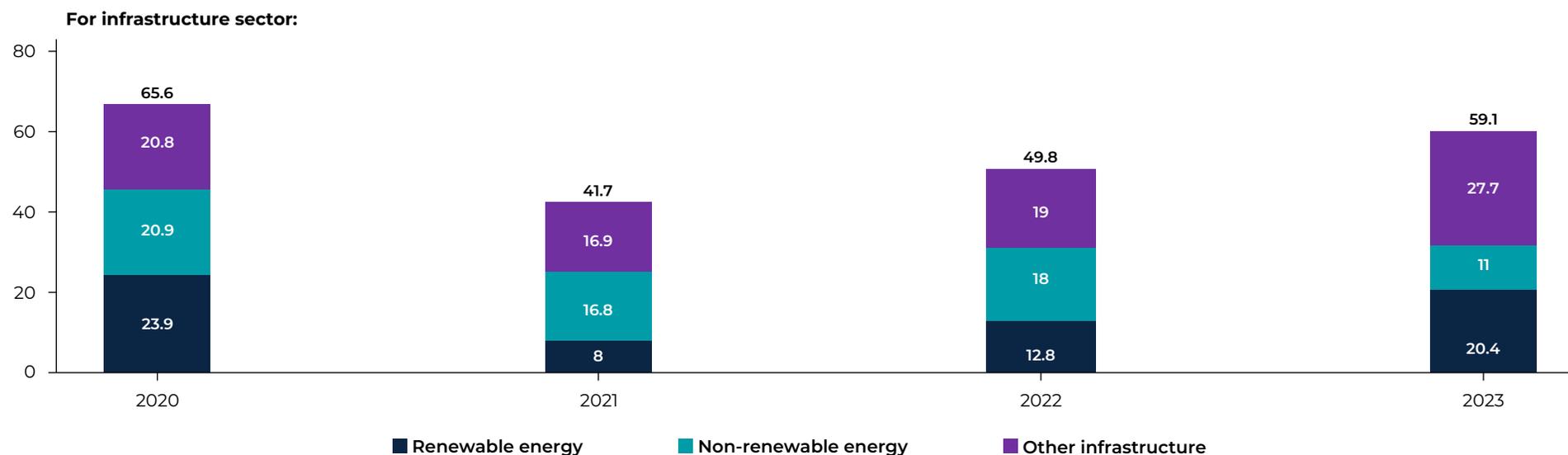
Source: Berne Union (2021, 2022, 2023, 2024).

Note: The International Union of Credit and Investment Insurance industry (Berne Union) reports estimate new commitments for four types of guarantees – short-term credit, medium/long term credit, political risk, and other cross-border support. Excluding short-term credit, these types of guarantees are indicative of longer-tenor instruments typically associated with infrastructure projects.

Data by sector includes medium and long-term, political risk, and other cross-border guarantees. Other Cross-Border guarantees are included in the estimates because of their strategic shift towards long-term solutions and the overall greater support through non-traditional products.

Infrastructure sector received the strongest support from medium/long-term and political risk cross-border guarantees in 2020 accounting for US\$65.6 billion of the US\$129 billion, that is, over 50 percent of the new commitments for these guarantees. In 2021, the new commitments for infrastructure fell to a low of US\$42 billion driven mainly by the 11 percent decline in new commitments for political risk guarantees. The increase in 2023 to US\$59.1 billion was driven primarily by renewable energy and other non-energy infrastructure sectors, while the new commitments for non-renewable energy declined. In 2020, new commitments for non-renewable energy sector were similar to that for renewable energy sector, and by 2023, they were half that for renewable energy sector. In 2023, renewable energy sector registered US\$20.4 billion new commitments of cross-border guarantees across 68 countries. Other innovating guarantees like green guarantees were used to support ambitious climate goals. The support for energy transition from renewables to non-renewables is greater in higher income countries. While higher-income countries have a low overall share for the infrastructure sector in new commitments for these guarantees, they have the highest share for the renewable energy sector. Other infrastructure sector also noted a record US\$27.7 billion in new commitments of cross-border guarantees driven by recovery of the high-volume transportation sector.

Global cross-border guarantees by guarantee type: New commitments value (US\$ billion, 2020-2023)



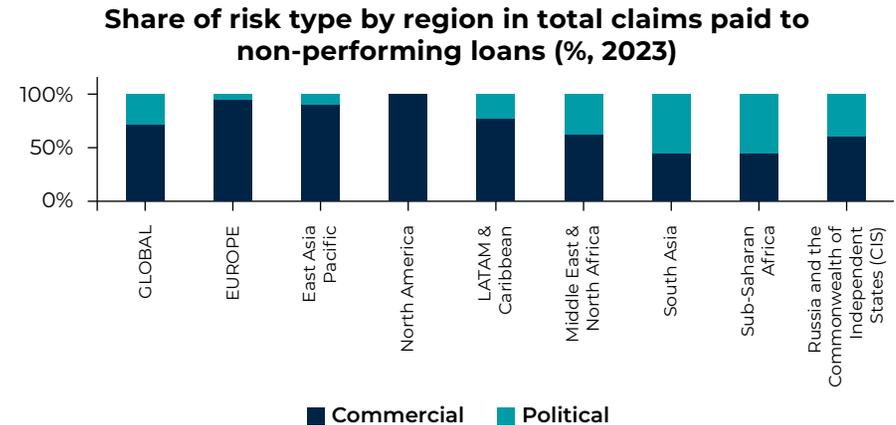
Source: Berne Union (2021, 2022, 2023, 2024).

Note: The International Union of Credit and Investment Insurance industry (Berne Union) reports estimate new commitments for four types of guarantees – short-term credit, medium/long term credit, political risk, and other cross-border support. Excluding short-term credit, these types of guarantees are indicative of longer-tenor instruments typically associated with infrastructure projects.

Data by sector includes medium and long-term, political risk, and other cross-border guarantees. Other Cross-Border guarantees are included in the estimates because of their strategic shift towards long-term solutions and the overall greater support through non-traditional products.

Commitments for political risk guarantees are declining, but they remain crucial in mitigating risks in EMDEs.

The World Bank Finance and Prosperity Report 2024 noted that deteriorating sovereign debt rating, and fragility and conflicts, are the risk categories with the highest risk levels for emerging markets and developing economies. According to the International Union of Credit and Investment Insurance, the share of political risk related claims paid for non-performing loans was 55% in 2023 in South Asia and Sub-Saharan Africa, and this share was nearly 40% in the Middle East and North Africa, and Russia and the Commonwealth of Independent. Besides the Russian invasion of Ukraine, this was due to the political instability driven by difficult economic times.

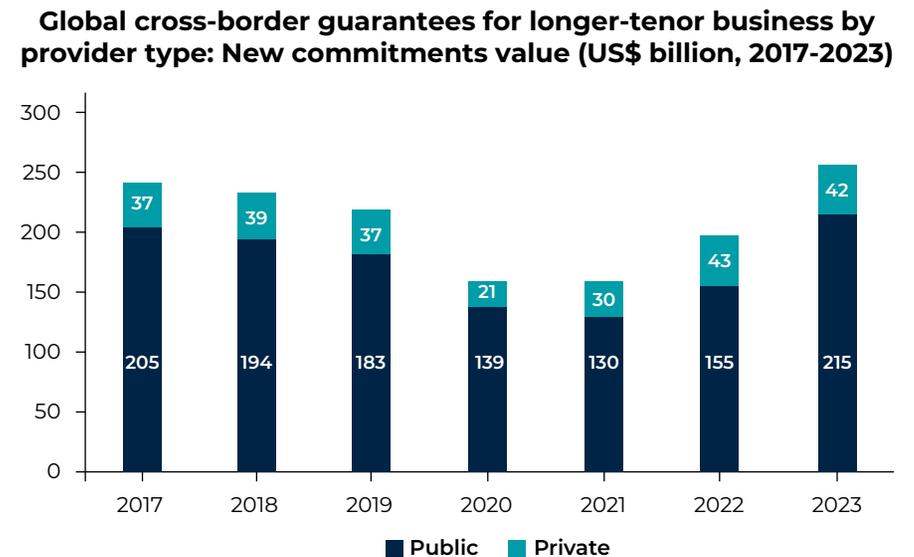


Source: Berne Union (2024)

Public sector provided most of the guarantees supporting longer-tenor business.

In 2023, public sector entities provided US\$215 billion, that is, more than 80 percent of the new commitments to support longer-tenor business through cross-border guarantees, increased sharply from US\$155 billion in 2022 reaching a record high level. Public sector provided most of these guarantees historically as well. Sub-Saharan Africa was the largest recipient of the guarantees. While private sector has mostly provided less than 20 percent of the annual new commitments for these guarantees at around US\$40 billion annually, it provided over half of the new commitments for short-term export credit business exceeding US\$1,000 billion annually.

Generally, the availability of cross-border guarantees support for short-term export credit business is sizably stronger than that for longer-tenor business due to greater complexity in estimating pricing for guarantees covering long time periods. Even public sector provided over US\$1,000 billion new commitments annually to support the short-term business. In 2023, public sector provided US\$1,259 billion and private sector provided US\$1,522 billion of new commitments for short-term export credit business.



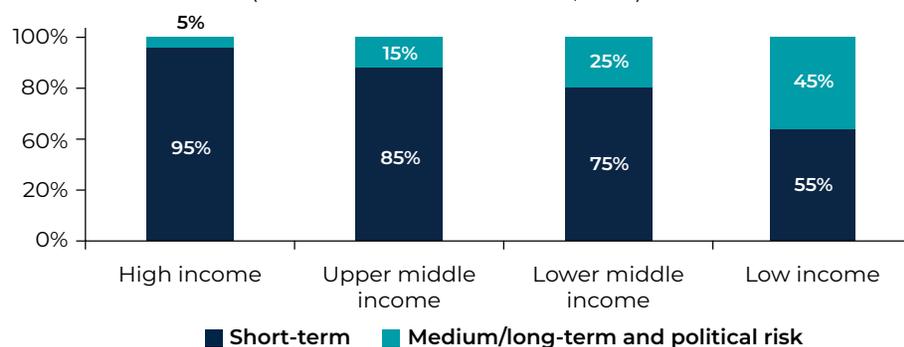
Source: Berne Union (2021, 2022, 2023, 2024).

Low- and middle-income countries attracted a higher share of these guarantees for infrastructure projects. It is more expensive to provide guarantees in these countries.

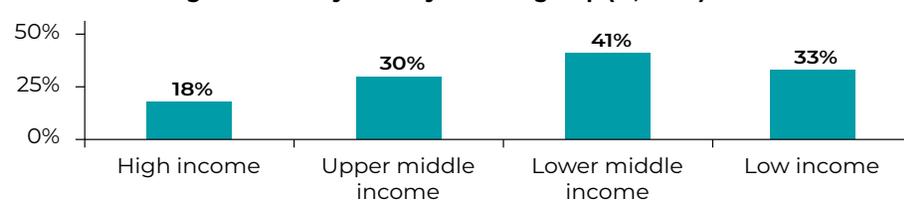
In low-income countries, the share of medium/long-term and political risk guarantees in total cross-border guarantees was 45 percent, while it was only 5 percent in high-income countries. Evidently, there is a greater need for such guarantees in low-income countries which have more macroeconomic and political uncertainty over longer time horizons. Lower income countries allocated a higher share of these guarantees to infrastructure sector. The infrastructure sector constitutes 18 percent of these guarantees in HICs, and 30-40 percent in LMICs.

Given the larger infrastructure deficits in the lower income countries coupled with greater long-term uncertainty, there is a higher demand for guarantees to reduce risk, but it is also more expensive to provide guarantees. In 2024, the average country risk premium in low-income countries at 13.8 percent was more than five times that for high-income countries at 2.5 percent. Even for upper-middle income countries, it was 7.9 percent, three times the level for high-income countries. The sovereign rating was mostly below the minimum cutoff threshold for investment used by most leading global private investors. During 2010-2020, more than 60 percent of private investment in infrastructure projects in middle-income countries was concentrated in only five countries – Brazil, India, China, Turkiye, and Mexico, while the share of low-income countries was barely one percent, according to the World Bank PPI Database.

Global cross-border guarantees by guarantee type and country income group
(% of new commitments value, 2020)

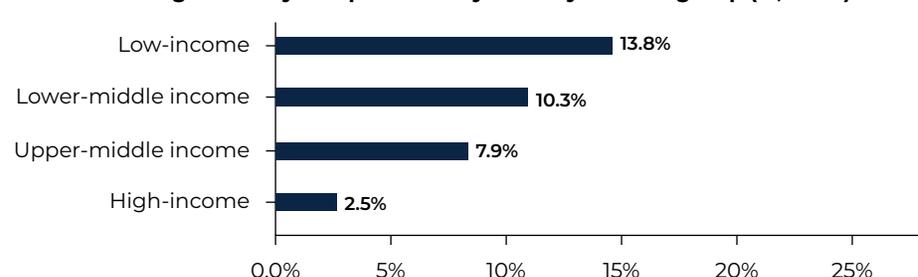


Share of infrastructure in medium/long-term and political risk cross-border guarantees by country income group (% , 2020)

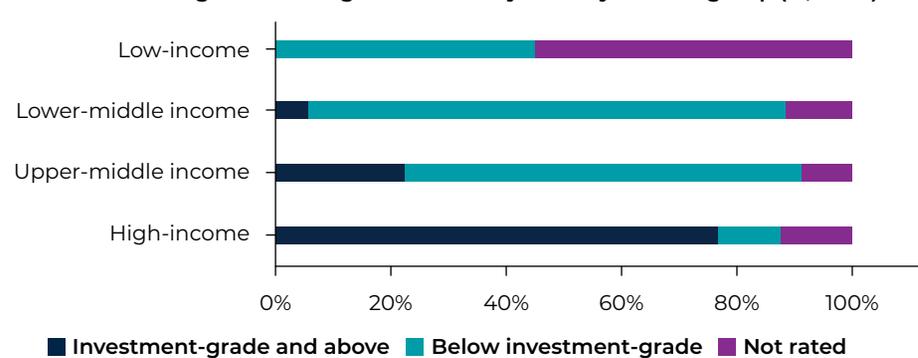


Source: Berne Union (2021).

Average country risk premium by country income group (% , 2024)



Sovereign debt rating level: Share by country income group (% , 2024)



Source: Damodaran, A. (2024).

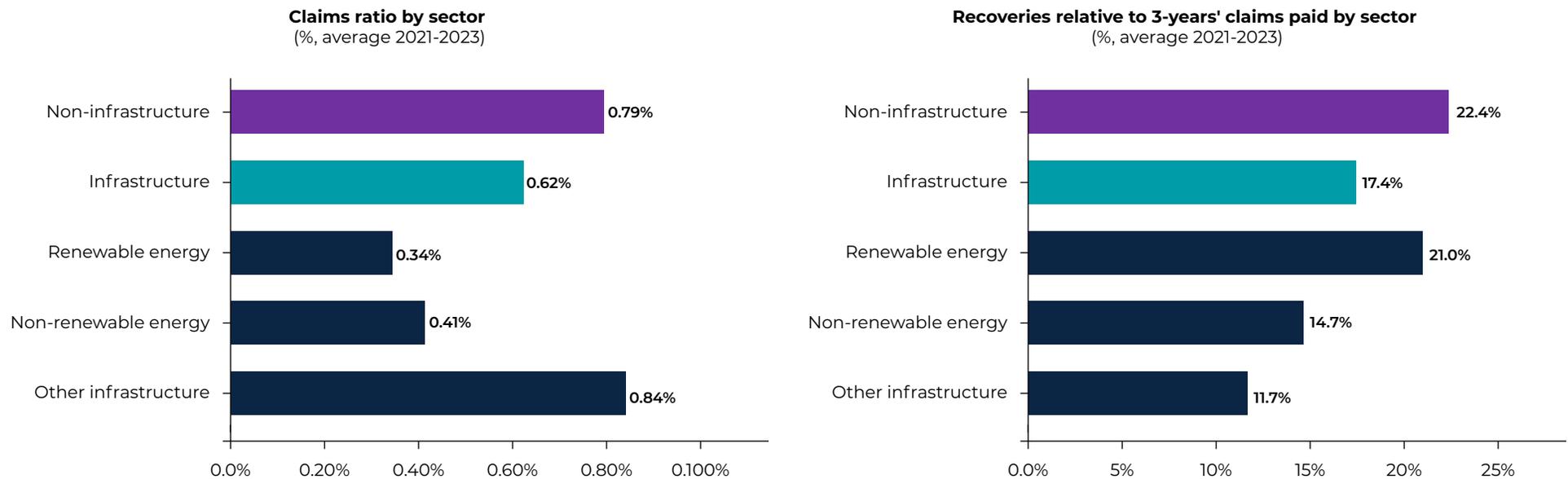
By sector, renewable energy had the strongest financial performance metrics for cross-border guarantees.

Infrastructure sector had a lower claims ratio (0.62 percent) than non-infrastructure sector (0.79 percent), on average during 2021-2023. This was primarily driven by transport related non-infrastructure activities which suffered a setback in demand following the Covid-19 pandemic. Energy sector particularly the renewable energy sector had nearly half the claims ratio (0.34 percent) during the same time. The average claims ratio for non-energy infrastructure (0.84 percent) was similar to non-infrastructure sectors, which was also driven by the setbacks suffered by transport infrastructure due to the Covid-19 pandemic.

Recoveries relative to 3-years' claims paid were also the strong for the renewable energy sector at 21 percent and weaker for other infrastructure sectors at 11.7 percent, on average during 2021-2023. The latter drove the average recoveries relative to 3-years' claims paid for infrastructure to an average of 17.4 percent during 2021-2023, while it was 22.4 percent for non-infrastructure sectors.

The strong performance of renewable energy relative to other sectors is partly driving the supply of longer-tenor and political risk guarantees or insurance products to meet the growing demand and commitment towards scaling renewable energy to meet the climate goals.

Global cross-border guarantees: Medium/long-term and political risk



Source: Berne Union (2021, 2022, 2023, 2024).

Appendix



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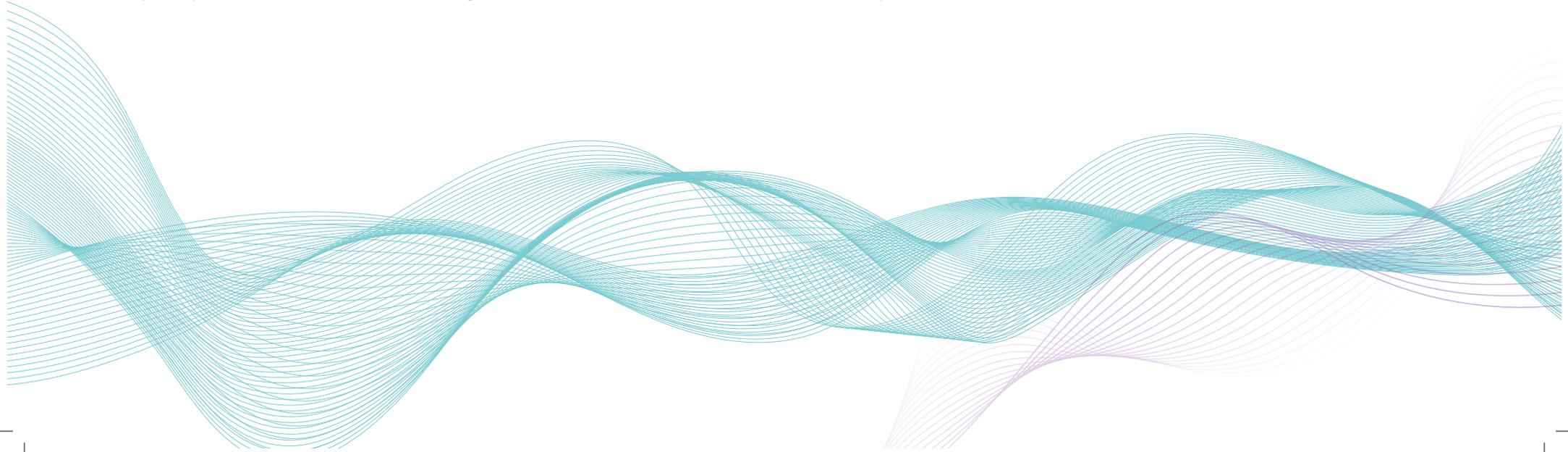
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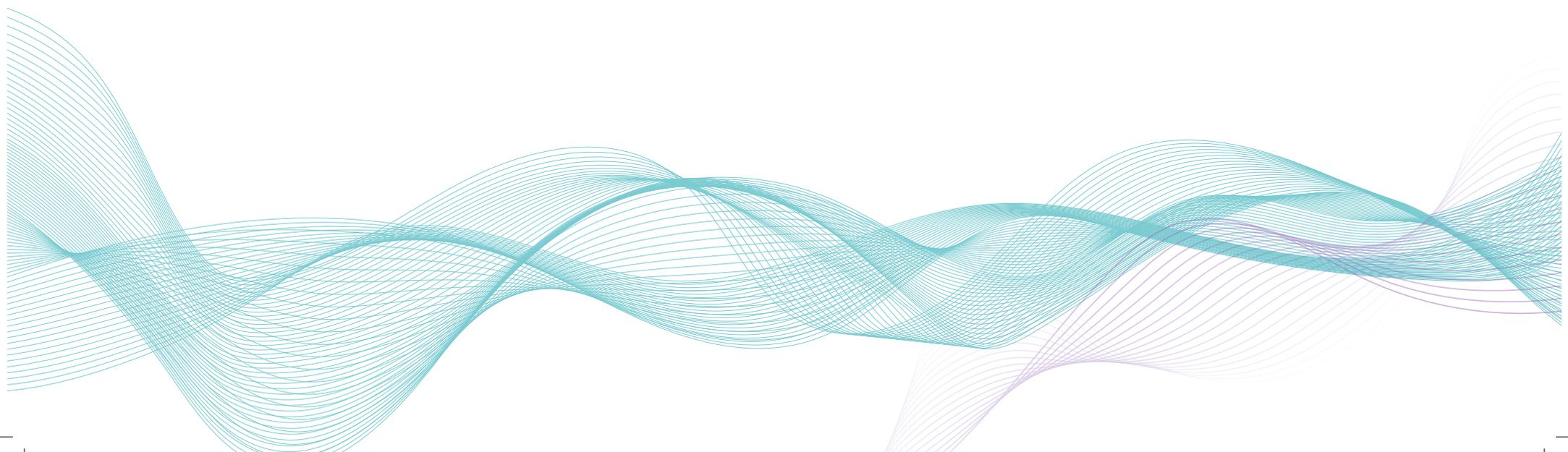
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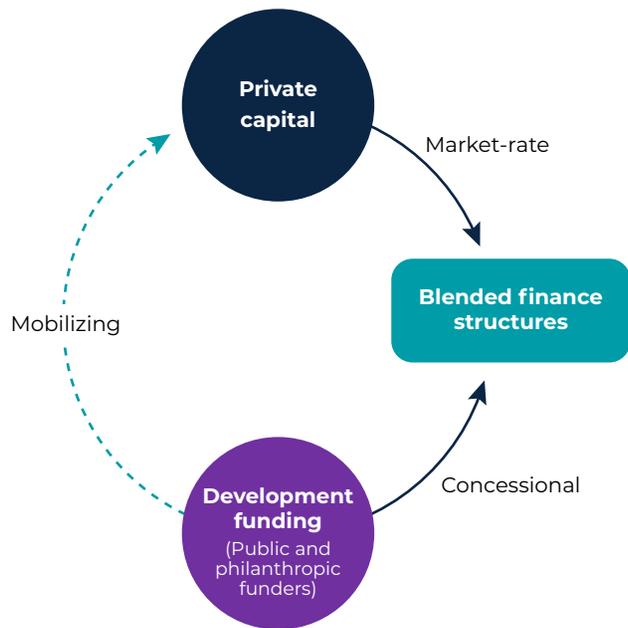
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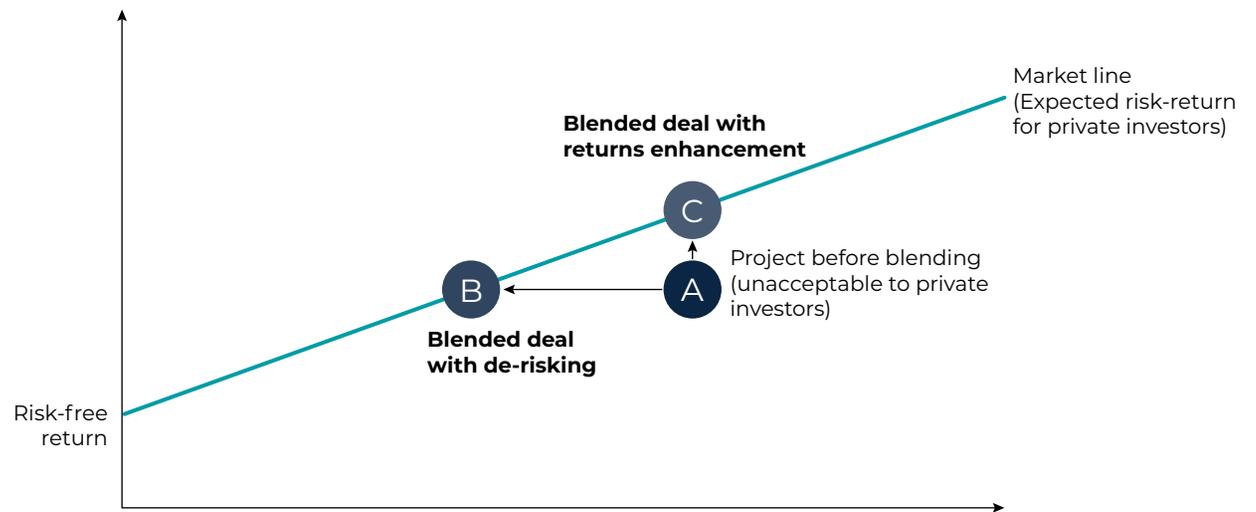
Definition

The blended finance section of the Infrastructure Monitor report is based on Convergence’s definition of blended finance. The analysis also draws from the definitions adopted by the DFI Working Group on Blended Concessional Finance for Private Sector Projects for operational guidance and by the OECD Development Assistance Committee (DAC) for policy guidance.

Convergence defines blended finance as the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development. It is a structuring approach that allows public, private, and philanthropic to work together to address the investment barriers while achieving their own objectives. The main barrier to private investment is unattractiveness of risk-adjusted return. Blended finance approaches either enhance returns by providing concessional capital or grants or reduce risks by providing grants and guarantees.



Blended finance improves risk-return profile of an investment



Source: Convergence.

Definition

DFI Working Group on Blended Concessional Finance for Private Sector Projects (“the DFI working group”) has adopted a specific definition of blended concessional finance for the private sector operations of DFIs, that is, Combining concessional finance from donors or third parties alongside DFIs’ normal own-account finance and/or commercial finance from other investors, to develop private sector markets, address the Sustainable Development Goals (SDGs), and mobilize private resources.

The DFI Working Group has outlined enhanced principles to effectively operationalize blended finance for DFI private sector operations, which are summarized below:

- *Rationale for using blended concessional finance:* DFI support for the private sector should make a contribution that is beyond what is available, or that is otherwise absent from the market, and should not crowd out the private sector. Blended concessional finance should address market failures.
- *Crowding-in and minimum concessionality:* DFI support for the private sector should, to the extent possible, contribute to catalyzing market development and the mobilization of private sector resources and minimize the use of concessional resources.
- *Commercial sustainability:* DFI support for the private sector and the impact achieved by each operation should aim to be sustainable. DFI support must contribute towards the commercial viability of clients. Level of concessionality in a sector should be revisited over time.
- *Reinforcing markets:* DFI support for the private sector should be structured to effectively and efficiently address market failures and minimize the risk of disrupting or unduly distorting markets or crowding out private finance, including new entrants.
- *Promoting high standards:* DFI private sector operations should seek to promote adherence to high standards of conduct in their clients, including in the areas of corporate governance, environmental impact, social inclusion, transparency, integrity, and disclosure.

OECD Development Assistance Committee (DAC) defines blended finance as “the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries”.

The DAC has adopted the five Blended Finance Principles that provide policy guidance for Unlocking Commercial Finance for the Sustainable Development Goals:

- *Principle 1: Anchor blended finance use to a development rationale.* It recommends maximizing development outcomes and impact with commitment to high quality, while linking the deployed development finance to expected results.
- *Principle 2: Design blended finance to increase the mobilization of commercial finance.* It recommends to ensure additionality, seek leverage, address market failures, minimize the use of concessionality, and focus on commercial sustainability.
- *Principle 3: Tailor blended finance to local context.* It recommends to support local development priorities, ensure consistency with the aim of local financial markets development, and align with efforts to promote a sound enabling environment.
- *Principle 4: Focus on effective partnering for blended finance.* It recommends appropriate allocation and sharing of risk between parties, leveraging the complementary motivation of commercial actors while not compromising on the prevailing standards for development finance deployment.
- *Principle 5: Monitor blended finance for transparency and results.* It recommends to agree on metrics from the start, track financial flows, commercial performance and development results, dedicate appropriate resources for monitoring and evaluation, and ensure public transparency and accountability on blended finance operations.

Data source: Blended finance and guarantees

Data Source:

The analysis of blended finance infrastructure deals presented in this section is based on the [Convergence historical deals database](#). The database only covers emerging markets and developing economies.

Convergence maintains the largest and most detailed database of historical blended finance transactions in the market. While this database is not fully comprehensive, it does give a sense of the scale of blended finance. Convergence is continually building out this database to draw better insights about the market. Data is collected from i) credible public sources like press releases, ii) data sharing agreements, and iii) validation exercises with Convergence members.

To be included in Convergence's database, a deal must meet three main criteria: (i) the transaction attracts financial participation from one or more commercial investors that would otherwise not have invested in the opportunity, (ii) the transaction uses catalytic capital in one of the following ways: Public/philanthropic investors are concessional within the capital structure or provided guarantees or risk insurance priced below market-rate, transaction design or preparation is grant funded, transaction is associated with a Technical Assistance facility, and (iii) the transaction intends to create development impact related to the SDGs in developing countries, or directly impacts beneficiaries in developing countries

Sample for analysis:

This analysis is based on a dataset of 407 blended finance infrastructure deals from the Convergence historical deals database with the total deals value of US\$104.3 billion. The deals with launch dates during the years 2000-2024 were selected. The data availability for recent deals especially those launched after 2010 is better, except limited data was available for deals that closed in 2024.

The sample was selected from the full Convergence historical deals database based on the following criteria:

- Completeness and quality of the required data for the deal. Where only some data input were missing, data was assumed based on realistic assumptions or literature review. When only one data point was missing, it was derived based on logical mathematical formulas. When multiple data points were missing, they were filled based on detailed review of data available for the deal in secondary data sources in most cases. In a few cases, assumptions on debt-to-equity ratio by sector were made to fill missing data. Otherwise, the deals were deleted from the sample. The difference between the total deal value and the sum of values by financial instruments or investor type was reduced to less than 5 percent.
- Adherence of the deal to the blended finance definition. Only the deals in which both private and public or philanthropic finance were blended were selected. The deals were deleted when they were purely private or public, when private participation was only in management, refinancing, a company launch for which private investment was unknown.
- Quality of analysis: No metric was estimated for which the sample size of deals was less than 5 after disaggregation of the full sample by variables of interest.

Data source: Infrastructure cross-border guarantees

Longer-tenor business: Export credit and investment insurance

The International Union of Credit and Investment Insurers (Berne Union) includes government backed export credit agencies, private credit and political risk insurers, and multilateral institutions from across the globe who provide direct and indirect support for international trade and cross-border investments through insurance, guarantees, and various direct financing instruments. The Berne Union holds the most comprehensive data set on the business of export credit and investment insurance. Members submit data on their business activities twice annually, covering activity up to the end of the second quarter, and for the full year.

The following two types of products are relevant for the infrastructure asset class and are included in our analysis:

- Medium and long-term export credit: insurance, guarantees, and lending for export/trade finance credit of which the repayment term is greater than 360 days.
- Political risk insurance: insurance or guarantees that indemnify an equity investor or a bank financing the equity investment for losses incurred to a cross-border investment, as a result of political risks.

The metrics analyzed in the report are explained below:

- New commitments: Flow item, showing the total volume of new insurance/guarantee/loan/ etc. commitments issued during the half-year for which commitment has been confirmed. This includes the full amount of new commitments issued during the half-year, even if disbursements are to take place later.
- Claims paid: Flow item recording the total volume of claims paid or non-performing loans, categorized by the type of loss event (political or commercial).
- Claims ratio: Claims paid as a percentage of premiums earned.
- Recoveries: Flow item recording the total volume of recoveries collected, categorized by the type of loss event (political or commercial).

