

CREDIT OPINION

18 June 2021

New Issue

Closing date

18 June 2021

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Bayfront Infrastructure Capital II Pte. Ltd.

New issue – A project finance and infrastructure loan-backed transaction

Capital structure

Exhibit 1

Definitive ratings

Class	Ratings	Amount (\$ millions)	Share of Capital Structure (%)	Effective Subordination (%)(a)	Coupon(b)
Class A1 Notes	Aaa (sf)	176.90	44.09	26.00	6m USD Libor + 1.25%
Class A1-SU Notes	Aaa (sf)	120.00	29.91	26.00	6m USD Libor + 1.20%
Class B Notes	Aa1 (sf)	33.30	8.30	17.70	6m USD Libor + 1.85%
Class C Notes	A3 (sf)	22.10	5.51	12.19	6m USD Libor + 2.35%
Class D Notes	Baa3 (sf)	8.80	2.19	10.00	6m USD Libor + 3.40%
Preference Shares	Not rated	40.12	10.00	n/a	Residual
Total		401.22	100.00		

(a) Effective subordination is based on the target par amount of the portfolio.

(b) 6m USD-Libor = six-month USD-Libor. Upon a change in notes' payment frequency from semiannual to quarterly, the reference rate would change to three-month USD-Libor.

Source: Joint Global Coordinators

Summary

Bayfront Infrastructure Capital II Pte. Ltd. (the issuer) is a project finance collateralized loans obligation (the CLO or the transaction) cash flow securitization, backed by a \$401.2 million portfolio of bank-syndicated senior secured project finance and infrastructure loans to projects in Asia-Pacific, Middle East and South America. The issuer has entered into a purchase and sale agreement with [Bayfront Infrastructure Management Pte. Ltd.](#) (Bayfront or the sponsor; Rated P-1) to acquire or to participate in the loans that form the \$401.2 million initial portfolio. In our credit analysis, we considered the attributes of the underlying assets, including the assets' average default probability, average recovery rate, asset correlation, loan participation exposure, average life, average spread, industry sectors and sub-sectors and geographical concentration.

BIM Asset Management Pte. Ltd. (BIMAM or the collateral manager), a wholly owned subsidiary of Bayfront, will manage this transaction and all future project finance CLOs sponsored by Bayfront. Based on our knowledge of its organizational structure, staffing, experience in the infrastructure loan market, systems and controls, we believe that the collateral manager is capable of managing this transaction. For further discussion about the collateral manager, see the "Asset description" section of this report.

The issuer has issued several classes of notes that receive semiannual interest payments and principal payments, in order of seniority. In addition, the issuer has also issued preference shares that receive residual interest and principal payments.

We measured the credit risk of the notes using Moody's CDOROM™ and CDOEdge™ models, which incorporate the transaction's structural features and asset characteristics noted above.

Credit strengths

- » **High credit quality portfolio:** The weighted average rating factor (WARF) of the identified portfolio, based on credit estimates, is 748 before applying the credit estimate notching adjustments, and 937 after applying the credit estimate notching adjustment. (See "Asset description")
- » **High asset recovery prospects:** Bank-syndicated senior secured project finance and infrastructure loans historically have had high recovery rates. Part of the portfolio in this transaction has also benefited from external credit support, which will also improve loan's recovery prospects. (See "Asset analysis - Additional asset analysis")
- » **Short transaction life:** The weighted average life of the identified portfolio is about six years and the transaction has a three-year reinvestment period. (See "Asset description - Assets as of the closing date")
- » **No currency mismatch and limited interest rate mismatch:** Both the loans and the notes are denominated in US dollars and pay floating-rate interest payments linked to USD-Libor. (See "Asset description")
- » **No long-dated assets:** All the loans in the identified portfolio have maturities before the legal maturity date of the transaction. The collateral manager has no right to consent to asset maturity amendments that result in the asset's maturity extending beyond the transaction's legal maturity date. (See "Asset analysis - Additional asset analysis")
- » **Remote likelihood of an OC-based event of default:** An over-collateralization (OC)-based event of default and the associated liquidation of the portfolio are unlikely because the event of default par ratio trigger of 102.5% is well below the initial OC level of 135.1%. (See "Securitization structure analysis - Additional structural analysis")

Credit challenges

- » **Unrated loan portfolio:** None of the underlying project and infrastructure loans are rated by us. We assigned a credit estimate to each of the loans in the portfolio. (See "Asset description" and "Asset analysis - Additional asset analysis")
- » **High loan and sector concentration risk:** The identified portfolio only includes loans relating to 25 projects, with a high exposure to a few projects and in energy-related sectors such as power generation renewables and non-renewables, and oil and gas. Certain projects also involve common off-takers or guarantors. (See "Asset analysis - Additional asset analysis")
- » **High loan participation exposure:** The issuer has acquired indirect loan exposure to about 32% of the identified portfolio by entering into participation agreements with several highly rated banks, instead of being a direct lender of record. (See "Asset analysis - Additional asset analysis")
- » **High country risk:** Of the identified portfolio, 27% portfolio exposure is to projects located in countries with speculative-grade foreign-currency country ceilings, although almost half of these projects benefit from external credit support in the form of guarantees or insurance policies. (See "Asset analysis - Additional asset analysis")
- » **Recovery period may be long:** The recovery after a loan default may take several years because liquidity for defaulted project finance and infrastructure loans in these regions is uncertain and any workout may take a long time. (See "Asset analysis - Additional asset analysis")

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

- » **Limited CLO experience of the collateral manager:** The collateral manager has experience in managing project finance and infrastructure loans, but transaction of this type is the second being managed by the collateral manager. The portfolio is not likely to be actively traded by the collateral manager. The collateral manager has no right to conduct discretionary trading in this transaction. This mitigates the concerns on their experience. (See "Asset description" and "Asset analysis - Additional asset analysis")

ESG considerations

In general, our fundamental credit analysis of each underlying issuer takes into consideration environmental, social and governance (ESG) risks at the asset level. Additionally, the diversified nature of the portfolio helps mitigate environmental risks to the transaction. Under our ESG framework, we consider the coronavirus pandemic a key social risk as described below. Furthermore, the transaction structure and characteristics of the transaction parties largely mitigate governance risks. Our [General Principles for Assessing Environmental, Social and Governance Risks Methodology](#) explains our general principles for assessing ESG risks in our credit analysis for all sectors globally.

The ESG considerations included in this new issue report are based on the identified portfolio, draft transaction documents, and structure and characteristics of the transaction provided to us. Accordingly, the ESG considerations are current as of the date of this report. However, the ESG information may not reflect the future composition of the transaction's portfolio.

- » **Environmental:** Most of this transaction's underlying assets in the identified portfolio are categorized within sectors that have been assigned an environmental score of "moderate risk". (See "Asset description - ESG - Environmental considerations")
- » **Social:** We regard the coronavirus pandemic as a social risk under our ESG framework, given the substantial implications for public health and safety. The pandemic has had a significant impact on economic activity. Although global economies have shown a remarkable degree of resilience to date and are returning to growth, the uneven effects on individual businesses, sectors and regions will continue throughout 2021 and will endure as a challenge to the world's economies well beyond the end of the year. While persistent virus fears remain the main risk for a recovery in demand, the economy will recover faster if vaccines and further fiscal and monetary policy responses bring forward a normalization of activity. As a result, there is a heightened degree of uncertainty around our forecasts. Our analysis has considered the effect on the performance of project finance and infrastructure assets from a gradual and unbalanced recovery in the Asia-Pacific, Middle East and South American countries' economic activity. Excluding the pandemic-related risks, most of this transaction's underlying assets in the identified portfolio are categorized within sectors that have been assigned a social score of "moderate risk". (See "Asset description - ESG - Social considerations")
- » **Governance:** This transaction's governance risk is low and is typical of other CLOs in the market. However, for this transaction, we considered additional governance factors, as described in the "ESG - Governance considerations" section. (See "Additional structural analysis - ESG - Governance considerations")

In addition to the ESG considerations above, we also note the following ESG-related details:

- » **Bayfront's environmental and social (E&S) risk assessment framework:** Bayfront has developed an E&S Framework to ensure that E&S risks associated with Bayfront-sponsored transactions are effectively identified, assessed and managed. BIMAM will follow the same framework to manage the portfolio. The framework is aligned with international and multilateral standards, and BIMAM will apply this framework on an ongoing basis to its assessment and monitoring of the portfolio. The portfolio has been predominantly acquired from originating banks that have adopted the Equator Principles, and hence, these project finance and infrastructure loans have already been subject to environmental and social due diligence by the originating banks. Additionally, all the loans in the portfolio have been screened by Bayfront before their acquisition for compliance with Bayfront's E&S framework.

Key characteristics

Exhibit 2

Asset characteristics

Portfolio Metrics	Identified Pool*	Covered Sub-Pool***	Uncovered Sub-Pool***
Portfolio Par Amount	\$401,224,153	\$78,326,314	\$322,897,839
Weighted Average Rating Factor (WARF) before notching adjustment	748	149	894
Weighted Average Rating Factor (WARF) after notching adjustment**	937	149	1,128
Weighted Average Spread (WAS)	2.3%		
Weighted Average Recovery Rate (WARR)	74%		
Weighted Average Life (WAL)	5.9 years		
Moody's Asset Correlation	26%		
Key Asset Types			
Participation Loan	32%		
Long-Dated Assets	Nil		
Key Party			
Collateral Manager	BIM Asset Management Pte. Ltd.		
Sponsor	Bayfront Infrastructure Management Pte. Ltd.		

*The identified portfolio represents the assets in the initial portfolio at closing.

**A two-notch downward adjustment was applied to the largest credit estimates representing 30% of the total portfolio in accordance with the [Moody's Approach to Using Credit Estimates in Its Rating Analysis](#) cross-sector rating methodology.

***Covered sub-pool includes the covered portion of loans in the identified portfolio that is covered by an external credit providers under certain types of guarantees or insurance policies. The uncovered portion of the covered loans is included in the uncovered sub-pool.

****The WARF indicated above has not accounted for the stress that we applied to the idealized default probability, based on the rating factor of each asset, in our model for the project finance and infrastructure assets in accordance with footnote 12 in [Project Finance and Infrastructure Asset CDOs Methodology](#).

Sources: Joint Global Coordinators and Moody's Investors Service

Exhibit 3

Securitization structure characteristics

Key Dates	
Closing Date	June 18, 2021
Latest Effective Date	Closing date
First Payment Date and Payment Frequency	January 11, 2022 and semiannually thereafter
End of Non-Call Period	July 11, 2024
End of Reinvestment Period	July 11, 2024
Legal Final Maturity	January 11, 2044
Key Parties	
Issuer	Bayfront Infrastructure Capital II Pte. Ltd.
Collateral Manager	BIM Asset Management Pte. Ltd.
Trustee	DB International Trust (Singapore) Limited
Transaction Administrator	Sanne (Singapore) Pte. Ltd.
Joint Global Coordinators	Citigroup Global Markets Singapore Pte. Ltd, ING Bank N.V., Singapore Branch and Standard Chartered Bank (Singapore) Limited
Lead Managers	Citigroup Global Markets Singapore Pte. Ltd, ING Bank N.V., Singapore Branch and Standard Chartered Bank (Singapore) Limited
Class	Effective Subordination(%)
A1 Notes	26.0
A1-SU Notes	26.0
B Notes	17.7
C Notes	12.2
D Notes	10.0

Source: Joint Global Coordinators

Asset description

The transaction is backed by a portfolio of 27 bank-syndicated senior secured project finance and infrastructure loans to 25 projects in various countries in Asia-Pacific, Middle East and South America at closing.

The collateral manager selected the identified portfolio for an amount equal to \$401.2 million, the target initial par amount of the portfolio.

Assets as of the closing date

Target initial par amount

The transaction's target initial par amount represents the aggregate par amount of assets in the initial portfolio.

Asset acquisition guidelines

Identified portfolio

The exhibits below provide information about the identified portfolio. All the loans in the identified portfolio are denominated in US dollars and pay USD-Libor-linked interest, either quarterly or semiannually.

None of the loans are rated by us. We have undertaken credit estimates for each of them, assessing some of them at the investment-grade level (Moody's credit estimate rating factor of 610 or lower) and some of them at the non-investment-grade level (Moody's credit estimate rating factor of 940 or higher).

Exhibit 4

Credit estimate rating factor distribution of the identified portfolio

Percentage relative to the identified portfolio's par amount

Credit Estimate Rating Factor	% of pool (after notching adjustment)*	% of pool (before notching adjustment)
10-40	16.9%	16.9%
70-180	13.8%	21.3%
260-610	20.3%	20.0%
940-1766	34.3%	41.6%
2220-3490	14.7%	0.2%
Total	100%	100%

*A two-notch downward adjustment was applied to the largest credit estimates representing 30% of the total portfolio in accordance with the [Moody's Approach to Using Credit Estimates in Its Rating Analysis](#) cross-sector rating methodology.

Source: Moody's Investors Service

Exhibit 5

Sector and subsector distribution of the identified portfolio

Percentage relative to the identified portfolio's par amount

Sectors and Sub-sectors	% of Identified Pool	Covered Sub-Pool*	Uncovered Sub-Pool*
Power Generation Non-Renewables			
Power- Electricity Contracted (Coal/Gas)**	36.4%	3.1%	33.4%
Power Generation Renewables			
Power-Renewables: Hydro	3.5%	3.5%	0.0%
Power-Renewables: Solar***	13.5%	0.0%	13.5%
Power-Renewables: Wind	8.6%	3.9%	4.7%
Oil/Gas and Commodities			
LNG	13.0%	0.0%	13.0%
Oil	9.5%	0.0%	9.5%
Regulated Assets/Utilities			
Electricity distribution or transmission	4.2%	4.0%	0.2%
Gas distribution or transmission	5.0%	0.0%	5.0%
Availability based PPP/PFI****			
Roads-Availability Based	5.1%	5.1%	0.0%
Large Infrastructure (Market Risk)			
Mining*****	1.2%	0.0%	1.2%
Total	100.0%	19.5%	80.5%

*Covered sub-pool includes the covered portion of loans in the identified portfolio that is covered by an external credit provider under certain types of guarantees or insurance policies. Uncovered portion of the covered loans is included in the uncovered sub-pool.

**There are no coal-fired power generation projects in the Power- Electricity Contracted (Coal/Gas) category of the identified portfolio. However, there is one oil-fired project within this category.

***There is a project within the Power-Renewables: Solar category that includes both Solar and Wind-based power generation capacity

****PPP/PFI refers to public private partnership/private finance initiative infrastructure projects.

*****This relates to a metals pre-export facility. There are no mining projects in the identified portfolio.

Source: Moody's Investors Service

Exhibit 6

Country distribution of the identified portfolio

Percentage relative to the identified portfolio's par amount

Country of Project	Foreign Currency Country Ceiling	Foreign Currency Country Rating	% of Identified Pool	Covered Sub-Pool*	Uncovered Sub-Pool*
Australia	Aaa	Aaa	8.3%	0.0%	8.3%
United Arab Emirates	Aaa	Aa2	7.7%	0.0%	7.7%
Qatar	Aa1	Aa3	10.2%	0.0%	10.2%
Kuwait	Aa2	A1	4.8%	0.0%	4.8%
Saudi Arabia	Aa2	A1	7.2%	0.0%	7.2%
Philippines	A2	Baa2	4.4%	3.9%	0.5%
India	A3	Baa3	17.7%	0.0%	17.7%
Indonesia	A3	Baa2	3.5%	3.5%	0.0%
Brazil	Baa2	Ba2	9.5%	0.0%	9.5%
Bangladesh	Ba2	Ba3	10.3%	3.1%	7.2%
Vietnam	Ba2	Ba3	7.5%	5.1%	2.5%
Cambodia	B1	B2	4.2%	4.0%	0.2%
Papua New Guinea	B1	B2	4.7%	0.0%	4.7%
Total			100.0%	19.5%	80.5%

*Covered sub-pool includes the covered portion of loans in the identified portfolio that is covered by external credit provider under certain types of guarantees or insurance policies. Uncovered portion of the covered loans is included in the uncovered sub-pool.

Source: Moody's Investors Service

ESG - Environmental considerations

Most of the underlying assets in the transaction's identified portfolio are categorized within sectors that have been assigned an environmental score of moderate and low risk.¹

As explained in our [environmental credit risk heat map](#), our environmental sector classifications are broadly based on our rating methodologies. In addition, our overall sector environmental risk scoring scale includes scores of "very high risk", "high risk", "moderate risk" and "low risk". The transaction's identified portfolio does include assets that are categorized within sectors that have been assigned an environmental score of high risk and a small exposure categorized as very high risk. However, the portfolio also has exposure to assets categorized as low risk, and the exposure to the low risk assets is marginally higher than the exposure to high and very high risk assets.

ESG - Social considerations

Without regard to the pandemic-related risks, a large majority of the underlying assets in the transaction's identified portfolio are categorized within sectors that have been assigned a social score of moderate risk.²

As explained in our publication [ESG – Global: Heat map: Social considerations](#), our social sector classifications are broadly based on our rating methodologies and reflect only entities we rate within a given sector. In addition, our overall sector social risk scoring scale includes scores of "very high risk", "high risk", "moderate risk", and "low risk". The transaction's identified portfolio does not include assets that are categorized within sectors that have been assigned a social score of high or very high risk.

Collateral manager and sponsor

BIM Asset Management Pte. Ltd. (BIMAM or the collateral manager), a wholly owned subsidiary of Bayfront Infrastructure Management Pte. Ltd. (Bayfront or the sponsor), is the collateral manager of the transaction. Bayfront acquired the preference shares at closing and intends to retain the preference shares.

Bayfront was established in Singapore in 2019, in connection with the Infrastructure Take-Out Facility initiative sponsored by the Monetary Authority of Singapore, which was designed to help mobilize institutional capital for infrastructure debt in Asia. It is 70% owned by Clifford Capital Holdings Pte. Ltd. (CCH) and 30% by the [Asian Infrastructure Investment Bank \(AIIB, Aaa Stable\)](#). CCH was established in March 2020 following the corporate reorganisation of Clifford Capital Pte Ltd (CCPL), the collateral manager of the previous similar transaction [Bayfront Infrastructure Capital Pte. Ltd.](#), as the holding company for several operating subsidiaries, which include CCPL and Bayfront that seek to achieve different institutional mandates under the new organization structure. Additionally, BIMAM has been acting as the sub-manager of Bayfront Infrastructure Capital Pte. Ltd. transaction since April 2020.

Bayfront focuses on acquiring predominantly brownfield project and infrastructure loans from financial institutions, warehousing and managing them with the primary objective of sponsoring future project finance CLOs. Bayfront sponsors, structures and manages such distribution issuances, and invests in the equity tranches of its securitization. BIMAM has been established and appointed by Bayfront to manage this transaction and all future issuance of project finance CLOs sponsored by Bayfront. The core personnel of CCPL who were involved in the Bayfront Infrastructure Capital Pte. Ltd. transaction have been transferred to BIMAM since April 2020.

The collateral manager, as an agent for the transaction, is responsible mainly for selecting the initial portfolio of assets; identifying new assets for the issuer to purchase following the receipt of unscheduled principal collections, on cancellation or expiry of the availability period in connection with undrawn loan commitments and proceeds from the sale of assets during the reinvestment period; identifying credit-impaired assets, and deciding whether to sell credit-impaired and defaulted assets during the transaction life; and ensuring that the transaction is in compliance with its contractual obligations, and periodic reporting, along with the transaction's trustee and transaction administrator.

The exhibit below details key attributes of the collateral manager.

Exhibit 7

Collateral manager details

Attribute	Collateral Manager
Management Entity	BIM Asset Management Pte. Ltd
Assets Under Management	\$0.8 billion as of 30 April 2021
CLO Team	Staff span across different departments
Number of Staff	12 (excluding support functions)
Average Number of Years of Experience	About 15 years
Number of CLOs Currently Managed	1
Number of Obligors Covered by Credit Analysts	About 50 project finance loans and investments

Source: Bayfront Infrastructure Management Pte. Ltd.

Assets after the closing date

The portfolio is not likely to be actively traded during the entire transaction life.

The collateral manager may direct the issuer to sell defaulted assets and certain credit-impaired assets. The sale of credit-impaired assets is subject to the satisfaction of all OC and interest coverage (IC) tests (the coverage tests), and the aggregate principal amount of credit-impaired assets that are sold within six months cannot exceed 15% of the initial portfolio par amount. Any further sale of credit-impaired assets would be subject to it not resulting in a reduction or withdrawal of the then outstanding rating of each class of the rated notes.

The trading of assets at the collateral manager's discretion is not allowed.

Undrawn loan commitments

In the identified portfolio, five loans currently stand to be not fully disbursed. The undrawn loan amount aggregates to 15.7% of the portfolio size. The drawdowns are scheduled to take place within the next seven months, that is, between June 2021 and January 2022. An amount equal to the aggregate of all undrawn loan commitments is held in an account in the name of the issuer.

Upon cancellation or expiry of the availability period for each undrawn loan commitment, the collateral manager has the option to either replenish the portfolio, during the reinvestment period in accordance with the replenishment criteria, or repay the senior-most outstanding class of notes.

Reinvestment period

There is a three-year reinvestment period in this transaction, which begins on the closing date. During the reinvestment period, the collateral manager may direct the issuer to use unscheduled principal collections, on cancellation or expiry of the availability period in connection with undrawn loan commitments and proceeds from the sale of assets to purchase new assets, provided no event of default is happening, all coverage tests are satisfied and the proposed asset purchase does not result in a reduction or withdrawal of the then outstanding rating of each class of rated notes. All new purchased assets must have a public rating or a credit estimate assigned by us.

During the reinvestment period, all scheduled asset collections, and if no eligible investment can be found, all unscheduled collections, upon cancellation or expiry of the availability period for each undrawn loan commitment and sale proceeds will be used to amortize the rated notes sequentially accordingly to the principal priority of payment. The collateral manager would have a period of 45 business days to complete the replenishment process.

Amortization period

The transaction does not permit any reinvestment or asset purchase after the reinvestment period. Scheduled and unscheduled principal collections and proceeds from the sale of assets will be used to amortize the rated notes sequentially.

Asset analysis**Primary asset analysis****Modeling**

Our CDOROM™ and CDOEdge™ models are the principal models that we use to rate this transaction. We apply the Monte Carlo simulation framework in CDOROM™ to model the collateral loss distribution for this transaction. The simulated defaults and recoveries for each of the Monte Carlo scenarios define the pool's loss distribution.

The country ceiling event risk is modeled in two steps in CDOROM™. In the first step, we simulate whether a country ceiling event occurs. All loans with projects domiciled in countries where country ceiling events are simulated to occur would be simulated to default in the model.

In the second step, for loans with projects in countries where country ceiling events are simulated not to occur in the first step, we simulate whether the loans default.

For loans under participation agreements, the loans would default if either the loan or the counterparty to the participation agreement is simulated to default in CDOROM™.

The identified portfolio is used in our initial rating analysis because the portfolio is likely to be fully acquired at closing and is not likely to be actively traded by the collateral manager, with no discretionary trading. Furthermore, the credit characteristics of the portfolio will be reassessed by us at the time we receive each new asset purchase proposal from the collateral manager.

We note the following portfolio characteristics of the identified portfolio.

Exhibit 8

Base-case modeling assumptions

Attribute	Metric
Portfolio Par Amount	401,224,153
WARF (after credit estimate adjustment)	937
Asset correlation of the portfolio	26%
WAS	2.3%
WARR	74%

Sources: Joint Global Coordinators and Moody's Investors Service

Comparables

Comparison with a previous similar transaction

Bayfront Infrastructure Capital II Pte. Ltd. is very similar to the previous similar transaction, with some differences in portfolio characteristics.

Exhibit 9

Comparison of characteristics with a previous similar transaction

Deal	Bayfront Infrastructure Capital II Pte. Ltd.	Bayfront Infrastructure Capital Pte. Ltd.
Number of loans and projects	27 loans to 25 projects	37 loans to 30 projects
Floating loan proportion	100.0%	100.0%
Portfolio Par Amount (in USD millions)	401.2	458
Covered pool proportion	19.5%	30.4%
Uncovered pool proportion	80.5%	69.6%
Top 3 sector exposure		
Largest	Power Generation Non-Renewables - 36.4%	Oil, Gas and Commodities - 39.5%
Second largest	Power Generation Renewables - 25.5%	Power Generation Non-Renewables - 28.4%
Third largest	Oil, Gas and Commodities - 22.5%	Power Generation Renewables - 13.1%
Weighted Average Rating Factor (WARF) – At Loan Level	748	722
Covered pool	149	183
Uncovered pool	894	958
Weighted Average Spread (WAS) before taxes	2.3%	2.5%
Weighted Average Recovery Rate (WARR)	74.3%	76.0%
Weighted Average Life (WAL in years)	5.9	5.4

Sources: Bayfront Infrastructure Management Pte. Ltd. and Moody's Investors Service

Additional asset analysis

Notch-down adjustment on credit estimates

None of loans in the identified portfolio is rated by us. We will assign a credit estimate to all assets before such assets can be included in the portfolio.

The portfolio is concentrated in 27 loans across 25 projects only, and many of them constitute more than 3% of the portfolio individually at closing. The loans related to the largest credit estimates representing 30% of the pool will be subject to a two-notch haircut.

This adjustment is primarily to account for the unmonitored nature of credit estimates (hence, credit estimates are subject to potentially higher volatility than ratings) and also the fact that credit estimates are typically assigned based on limited analysis than for ratings.

We expect to review the credit estimates as the collateral manager requests and provides updated information to us at least once every 12 months from each of the last assignment dates.

External credit support

A portion of the identified portfolio benefits from external credit support such as political risk insurance or commercial risk insurance (covered loans) provided by export credit agencies, insurers or multilateral financial institutions such that the issuer (or lender of record in the case of a loan under a participation agreement) will be able to recover losses from the cover providers.

Some of the external credit support only provides a partial coverage of the loss amount, meaning the issuer or the beneficiary of such credit support will not be able to claim the full loss amount.

The covered portion of the identified portfolio is about 20% of the initial par amount of the portfolio.

In our analysis of credit estimates for covered loans, we take into account the terms and coverage of the credit support arrangements. For partially covered loans, we assign a separate credit estimate to the covered portion and the uncovered portion of each covered loan.

We use a higher mean and lower standard deviation as the recovery assumptions of the covered portion, to reflect that these exposures generally have a higher recovery prospect.

Adjustment on default probability on project finance and infrastructure loans

We apply a default probability adjustment on the loans so that along with applying high recovery assumptions of the loans, the modeled expected loss would be equal to the idealized expected loss commensurate with the credit estimate of the loans.

For instance, for project finance and infrastructure loans with a mean recovery rate assumption of 75%, the default probability stress is 120% and for project finance and infrastructure loans with a mean recovery rate assumption of 65%, the default probability stress is around 57%.

Our ratings or credit estimates of the loans address the expected loss of the loans, which quantitatively is the product of default probability and loss severity of the loan. The adjustment on the modeled default probability is to counterbalance our high mean recovery rate assumptions (that is, low severity) on the project finance and infrastructure loans such that the expected loss of the loans represented by the ratings or credit estimates will be maintained.

High project concentration

The identified portfolio only includes 27 loans relating to 25 projects, with a high exposure to a few of them. We correlate loans at 100% for those that relate to the same project or same loan guarantor so that when one of them defaults, all of them would default in the same simulation.

The largest and second-largest project exposures account for almost 7.5% and 7.2% of the target closing portfolio, respectively, both of which are uncovered.

The Class A1, A1-SU, B, C and D notes' credit enhancement is sufficient to cover the largest uncovered project exposures in the target closing portfolio.

High sector concentration

The identified portfolio of loans is concentrated in certain sectors such as power generation non-renewables (36.4%) and renewables (25.5%), oil, gas and commodities (22.5%). Credit quality deterioration in a single sector may have an outsized negative impact on the transaction. External credit support and notes' subordination are key mitigants to this risk.

We reviewed the nature of each project in the oil, gas and commodities as well as power generation non-renewables sectors, and expect a small part of them (or 17% of the identified portfolio) to be hurt by a severe fall in oil or liquefied natural gas (LNG) prices. For instance, projects that are commodity users versus commodity sellers will face different impacts from the commodity price movement.

We consider stress scenarios assuming higher asset correlation or by lowering the credit estimates on a portion of the pool in which the projects are expected to be hurt by declining commodity prices (see Exhibit 11).

We also considered other stress scenarios assuming generally higher asset correlation across the entire pool. We determined that the potential rating volatility of the notes under these stress scenarios was acceptable.

High country risk

The underlying projects are domiciled in various countries in the Asia-Pacific, South America and Middle East regions. Most of the projects are domiciled in countries with a non-Aaa foreign-currency country ceiling assigned by us (see Exhibit 6).

Of the loan portfolio, 27% portfolio exposure is to projects located in countries with speculative-grade foreign-currency country ceilings, although almost half of these projects benefit from external credit support in the form of guarantees or insurance policies.

A further 35% of the loan portfolio is to projects located in countries with foreign-currency country ceilings in the single-A and Baa range.

We take the country risk into account in our quantitative analysis. External credit support and notes' subordination are key mitigants to this risk.

Moderate loan participation exposure

The issuer has acquired indirect exposures for about a third of the portfolio of loans by entering into participation agreements with several highly rated banks that are the lenders of record of those loans, instead of purchasing them directly.

As such, the transaction is exposed to the counterparty risk of those banks, the risk that they do not comply with its covenants under the participation agreements and the operational risk of relying on them to pass on the cash flow of the loans to the transaction.

Of all the participation loans, 59% relate to Aa-rated lenders of record and 41% relate to single-A-rated lenders of record. We take this counterparty risk into account in our quantitative analysis.

Long recovery period for defaulted loans

The recovery period following the default of project finance and infrastructure loans may span several years because the liquidity of the trading market in Asia may be low and the workout may take a long time. The collateral manager is not obliged to direct the issuer to sell the defaulted loans by a certain date.

In our default study research ([click here for *Default and recovery rates for project finance bank loans, 1983-2019*](#)), we observed a longer recovery period for defaulted bank project finance and infrastructure loans in Asia, compared with that in North America and Western Europe. Default history in the Middle East has been limited, with only nine defaults in the study data set, however, we do observe long recovery periods in those instances.

We expect the covered loans to receive recoveries sooner than the uncovered loans because there is a claim process in place that will facilitate orderly recoveries.

For the uncovered portion of the pool, we model that recoveries will be received three years following loan default and assume that the recoveries will increase at an accretion rate equal to Libor plus 1.5% per annum. This accretion rate has considered the weighted

average interest rate of the identified portfolio during the transaction term as a proxy. For the covered portion of the pool, we assume recoveries will be received one year following loan default.

Some projects are under construction

About 16% of the portfolio of loans relates to four projects that are still under construction. These projects are either nearing completion or benefit from credit mitigants such as construction completion guarantees provided by the sponsor or the loan is structured as post-delivery financing. All four loans are uncovered loans.

Common off-takers or guarantors' risks

Certain underlying projects involve common off-takers or guarantors, thus increasing the asset correlation of the portfolio. We take into account this additional asset correlation in our quantitative analysis.

Withholding tax on some assets

Withholding tax applies to around 14% of the identified portfolio of the loans, either because of the incorporation of the issuer or the lender of record of loans under a participation agreement. We model the net interest earnings on the identified portfolio in our quantitative analysis.

No long-dated asset and restriction of asset maturity amendment

There is no long-dated asset in the identified portfolio. The collateral manager may not consent to amendments that extend the maturity of any asset beyond the legal maturity date of the notes. In addition, the collateral manager may not consent to an asset maturity amendment for a total principal par amount of assets exceeding 10% of the initial portfolio par amount during the transaction life. These reduce the risk that the collateral manager would need to liquidate assets remaining at the transaction's maturity date (long-dated assets).

Collateral manager and sponsor assessment

We believe that BIMAM is capable of managing this transaction because of its experience in managing project finance and infrastructure loans in Asia-Pacific, South America and the Middle East. This is the second CLO that is being managed by BIMAM.

Bayfront is part of the broader CCH group, which enables it to leverage on group resources, expertise and domain knowledge to supplement its own staff. Bayfront has a service level agreement with CCH Management Services Pte. Ltd., a wholly owned subsidiary of CCH, to enable this support arrangement.

Bayfront has a euro commercial paper program (rated P-1 by us), guaranteed by the Singapore government. Despite the government guarantee, Bayfront operates its business on a commercial basis.

We had an operation review meeting with BIMAM and Bayfront in April 2021. We view its staffing, experience in the infrastructure loan market, operational systems and controls as adequate to support its CLO platform.

Securitization structure description

The issuer has issued several classes of notes that receive semiannual interest payments and certain principal payments following asset scheduled payments, prepayments and sale of certain assets, in order of seniority. The transaction structure allows for the collateral manager to consider a change in payment frequency of the notes from semiannual to quarterly upon satisfaction of certain conditions.

In addition, the issuer has issued one unrated class of preference shares that receives only residual interest and principal payments.

We measure the credit risk of the notes using our CDOROM™ and CDOEdge™ models; the latter model incorporates both the transaction's structural features and asset characteristics.

This transaction is structured using a bankruptcy-remote special-purpose entity incorporated in Singapore that issues liabilities as listed in Exhibit 1.

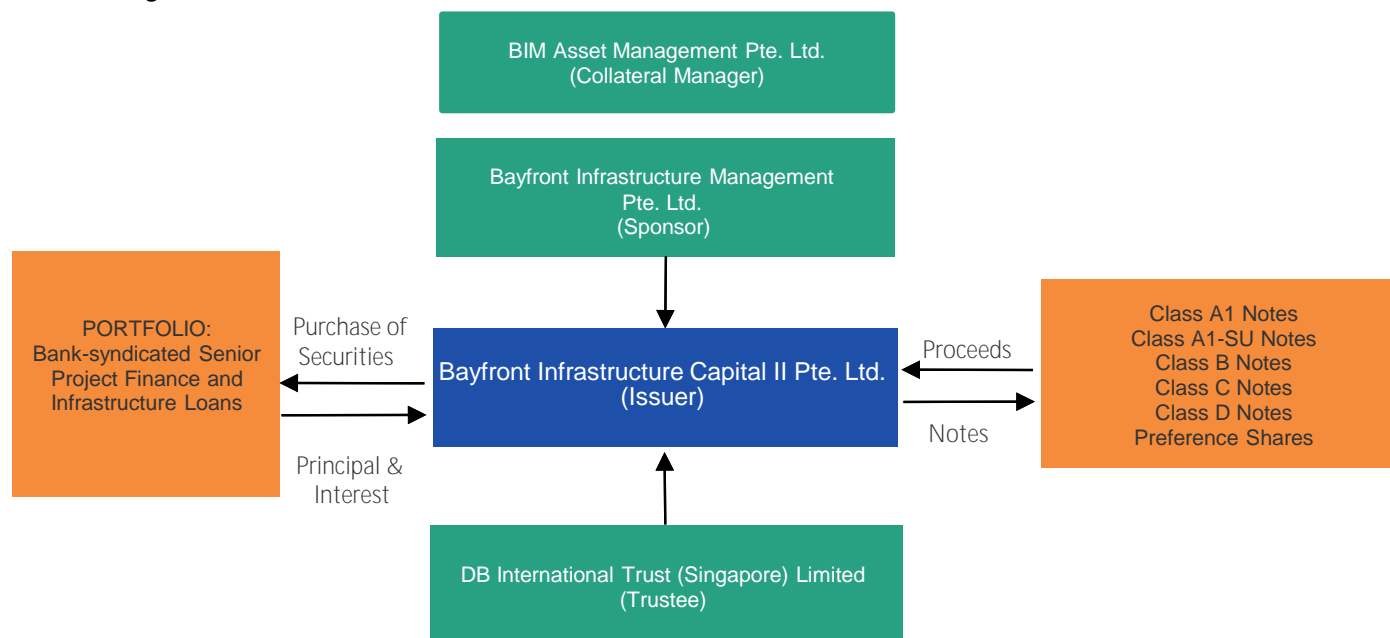
The proceeds from the issuance are invested in loans that generate cash flow from interest and principal, as we describe in the "Asset description" section above. The cash flow is distributed in accordance with the transaction's priority of payments, subject to the coverage tests.

Structural diagram

The exhibit below shows the transaction's key parties and cash flow.

Exhibit 10

Structural diagram



Source: Moody's Investors Service

Detailed description of the structure

Priority of payments

This transaction's payment waterfall is consistent with that of a typical CLO. This transaction pays the notes sequentially in both the interest and principal waterfalls, although pro rata among Class A1 and A1-SU notes. Both waterfalls include coverage tests (see the "Appendices - Priority of payment" for interest and principal waterfall details).

Coverage tests

Exhibit 11

OC and IC tests

Coverage Tests	Trigger Level	Initial level
Class A/B OC Test	116.5%	121.5%
Class C OC Test	109.4%	113.9%
Class D OC Test	107.1%	111.1%
Class A/B IC Test	110.0%	n/a
Class C IC Test	107.5%	n/a
Class D IC Test	105.0%	n/a

IC tests are applicable starting from the second notes payment date.

Source: Transaction documents

OC test: OC tests, present in all CLOs, provide protection for the CLO's notes. If the OC level for a particular class or several classes of notes falls below the OC trigger for that class, the deal diverts cash flow to repay the senior-most outstanding class of notes until the breached OC ratio meets the trigger level.

Common to most CLOs, excess Caa assets are carried at the lower of their market values and our mean recovery rate assumption in the calculation of the OC ratios. Excess Caa assets are those Caa securities whose aggregate principal balance exceeds 10% of the portfolio's principal balance.

IC test: IC tests, which measure a CLO's excess interest cash flow, also provide protection for the CLO's notes. If the IC level for a particular class or several classes of notes falls below the IC trigger for that class, the deal diverts cash flow to repay the senior-most outstanding class of notes until the breached IC ratio meets the trigger level.

Security interest, bankruptcy remoteness and safeguards against involuntary bankruptcy

Security interest: With minor exceptions, the assets of the transaction are pledged to the trustee for the benefit of the noteholders. The security interest granted can provide noteholders with additional protection and a greater degree of control in cases where difficulties have developed with the transaction's structure.

Bankruptcy remoteness: The issuer is a special-purpose entity, has no prior operating history and is established for the limited purposes of acquiring the assets, issuing the notes and performing certain related activities. The issuer is wholly owned by the sponsor, which retains all of the transaction's preference shares. However, the risk of substantive consolidation with the assets of the sponsor is low. We have also considered the appointment of at least one independent director, who is from a nationally recognized corporate services provider and owes no duty to the transaction's shareholders. Furthermore, we have taken into account the arrangement in the legal and transaction structure. Based on this, we are able to analyze this transaction as bankruptcy remote.

Safeguards against the transaction's involuntary bankruptcy: The transaction incorporates certain safeguards against the issuer's involuntary bankruptcy.

Note redemption

The issuer can effect an optional redemption of all rated notes in whole if the collateral manager confirms with the trustee in writing before selling the portfolio that there will be sufficient proceeds to fully redeem all of the notes, and if sufficient sales proceeds to redeem the notes are received by the issuer at least one business day before the optional redemption date. If any of these conditions are not met, the issuer will cancel the optional redemption and such a cancellation is not an event of default of the notes.

Securitization structure analysis

Primary structural analysis

Expected loss and modeling analysis

We expect the losses on the rated notes to be consistent with our benchmark rating targets. This expectation is based on our analysis using our CDOROM™ and CDOEdge™ models.

We apply the Monte Carlo simulation framework in CDOROM™ to model the portfolio loss distribution for this transaction. The simulated defaults and recoveries for each of the Monte Carlo scenarios define the pool's loss distribution.

CDOEdge™ is a cash flow model. We input pool default and recoveries assumptions, which maintain the pool loss distribution generated from CDOROM™, and also other modeling assumptions such as recovery delay, portfolio amortization schedule and yield vector to the model, to estimate the expected losses on a transaction's tranche.

The CDOEdge™ model incorporates various scenarios for default timing and interest rate paths, and allocates the cash flow arising from the portfolio in accordance with the transaction's documentation.

We fully describe our approach to modeling and rating this transaction in [Moody's Global Approach to Rating Collateralized Loan Obligations](#) and [Project Finance and Infrastructure Asset CDOs Methodology](#).

Additional structural analysis

OC analysis

Remote likelihood of an OC-based event of default: We view the occurrence of an OC-based event of default and the associated liquidation of the portfolio as unlikely. The event of default par ratio trigger is set at 102.5%, below the initial level of 135.1%. The calculation, which is based on the ratio of the portfolio's par amount to the outstanding principal amount of the Class A1 and A1-SU notes, incorporates haircuts for defaulted assets, but not for Caa or deep-discount assets. Portfolio liquidation following an event of default based on breach of the trigger requires consent from either a supermajority of the controlling class or a supermajority of each class of notes, voting separately.

No currency mismatch risk

No currency mismatch: Since the target closing portfolio and the notes are denominated in US dollars, there is no currency mismatch risk in this transaction at closing.

Interest rate risk

Limited interest rate mismatch: Because the issuer has issued only six-month USD-Libor-linked interest rate notes and the target closing portfolio only contains either three-month or six-month USD-Libor-linked loans, there are basis mismatches between the interest cash flow on the assets and liabilities at closing.

Benchmark rate fallback language

The floating-rate note coupons reference Libor. Intending to facilitate transition to an alternative reference rate, the transaction documentation incorporates fallback language giving the collateral manager the right to amend the reference rate of the note coupons in the event where Libor ceases to exist.

Note redemption and cancellation analysis

Note redemption: The issuer can effect an optional redemption of the notes, which relies on the collateral manager's certification that there will be sufficient proceeds to fully redeem all of the notes.

Although many other CLOs apply haircuts to the assets' market values when determining the sufficiency of such proceeds, thereby providing a buffer against market value declines, this transaction does not incorporate such haircuts. Therefore, the transaction could face a situation in which there are insufficient liquidation proceeds to redeem the notes in full if a large decline in asset prices occurs during the redemption process.

The mitigant to the risks is that the issuer can cancel the optional redemption, and such a cancellation does not constitute an event of default under the terms of the transaction.

Note cancellation: No notes may be surrendered in this transaction.

ESG - Governance considerations

This transaction's governance risk is low and is typical of other CLOs in the market. As described in our publication [Governance considerations are a key determinant of credit quality for all issuers](#), we examine five governance considerations in our analysis: financial strategy and risk management; management credibility and track record; organizational structure; board structure, policies and procedures; and compliance and reporting. The transaction's structure, documentation and characteristics of the transaction parties, as described below, mitigate governance risks.

1. Financial strategy and risk management – The transaction limits the issuer's permitted activities as described in the "Securitization structure description - Detailed description of the structure - Bankruptcy remoteness" section above.
2. Collateral manager's credibility and track record – Collateral manager characteristics are described in the "Asset analysis - Additional asset analysis - Collateral manager and sponsor assessment" section above.
3. Organizational/transaction structure – The issuer is structured as a bankruptcy-remote special-purpose entity and includes an alignment of interests among the transaction parties, as detailed in the "Securitization structure description - Detailed description of the structure - Security interest, bankruptcy remoteness and safeguards against involuntary bankruptcy" section above.
4. Board structure, policies and procedures – The issuer has an independent director. In addition, the transaction has an independent trustee and collateral administrator, as outlined in the first paragraph of the "Securitization structure description" section above.
5. Compliance and reporting – The transaction's consistency and quality of financial reporting in the form of quarterly investor reports is described in the "Asset description - Asset acquisition guidelines - Collateral manager and sponsor" section above.

Legal structure analysis

Safeguards against the issuer's bankruptcy: The transaction includes provisions that we view as helpful to protect it against bankruptcy.

Methodology and monitoring

Rating methodologies

[Project Finance and Infrastructure Asset CDOs Methodology](#)

To access this report, click on the link above. Note that this reference is current as of the date of publication of this report and that a more recent report may be available. All research may not be available to all clients.

Monitoring

We will monitor the ratings on an ongoing basis. We will announce and disseminate any subsequent changes in the ratings on Moody's.com.

Appendices

Modeling scenarios

Apart from considering the characteristics of the identified portfolio in determining our base-case modeling assumptions, we considered the following additional sensitivity analysis:

1. Change the credit estimate of the largest aggregate loan exposures that relate to the same project to Caa2 (and separately, apply the same change to the second-largest aggregate loan exposures that relate to another project).
2. Multiply the base-case asset correlation of the portfolio by 1.5x.
3. Increase the base-case asset correlation by 10%.
4. Increase country risk correlations among countries in different regions to 25% from 1% in the base case.
5. Increase (and similarly reduce) recovery rate assumptions by 10% or more from the base-case assumptions (and correspondingly adjust the default probability assumptions on those loans).
6. Shorten the recovery lag period of the uncovered portion of the portfolio and apply a lower accretion rate.
7. Adjust the credit estimates of the loans in which we expect the projects to be hurt by a severe fall in commodity prices down by two notches.

Priority of payments

Application of interest proceeds

1. Taxes and fees
2. Trustee fees and expenses, subject to a cap
3. Administrative expenses, subject to a cap
4. Top-up fee reserve account, subject to a cap
5. Collateral manager base fees
6. Pari passu and ratably:
 - a. Class A1 note interest
 - b. Class A1-SU note interest
 - c. Amount payable to hedge counterparties
7. Interest on Class B
8. Class A/B coverage tests
9. Interest on Class C
10. Class C coverage tests
11. Deferred interest on Class C
12. Interest on Class D
13. Class D coverage tests
14. Deferred interest on Class D
15. Collateral manager subordinated fees
16. Remaining trustee fees and expenses
17. Remaining administrative expenses
18. Deferred collateral manager fees
19. Remaining amount due to hedge counterparties
20. Residual to the preference share holders

Application of principal proceeds

1. Steps 1 through 7 of interest waterfall if not fully paid
2. Class A/B coverage tests
3. Interest on Class C
4. Class C coverage tests
5. Deferred interest on Class C
6. Interest on Class D

7. Class D coverage tests
8. Deferred interest on Class D
9. On a redemption date or a special redemption date, make payments on the notes in accordance with the notes principal payment sequence
10. During the reinvestment period, to reinvest in additional assets, subject to the satisfaction of replenishment criteria or to principal account of the issuer pending for reinvestment at the discretion of the collateral manager
11. Make payments on the notes in accordance with the principal payment sequence
12. Steps 15 through 19 of the interest waterfall if not fully paid
13. Residual to the preference share holders

*See [Moody's Clarifies Policy for the issuance of RACs](#) (January 2012), which makes clear that the provision of a RAC remains entirely within our discretion, and it may be that we will not provide a RAC even if the transaction documents, to which we are not a party, require it.

Sources used in this report

The sources we used in preparation of this report include:

- » Moody's Investors Service
- » Information from the Joint Global Coordinators
- » Information from the collateral manager
- » CLO's legal documents

Moody's related publications

- » [Moody's ESG Impact page](#)
- » [General Principles for Assessing Environmental, Social and Governance Risks Methodology](#), 26 April 2021
- » [Project Finance and Infrastructure Asset CDOs Methodology](#) , 24 April 2020
- » [Bayfront Infrastructure Capital Pte. Ltd.](#), 31 July 2018

To access this report, click on the link above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

- 1 See [ESG – Global: Heat map: Sectors with \\$3.4 trillion in debt face heightened environmental credit risk](#), 14 December 2020, which describes our overall sector environmental risk scoring of "very high risk", "high risk", "moderate risk" and "low risk".
- 2 See [ESG – Global: Heat map: Social considerations pose high credit risk for 14 sectors, \\$8 trillion debt](#), 31 October 2019, which describes our overall sector social risk scoring of "very high risk", "high risk", "moderate risk" and "low risk".

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