Fitch Ratings

Astrea 8 Pte. Ltd.

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Capital Structure

Class	Expected Rating	Outlook	Amount (Mil.)	Currency	Legal Final Maturity	Approximate % of NAV	Approximate Cumulative LTV (%)
A-1	A+(EXP)sf	Stable	500[a]	SGD	July 2039	25.2	25.2
A-2	A(EXP)sf	Stable	215	USD	July 2039	14.6	39.8
Equity	N.A.	N.A.	886[b]	USD	N.A.	60.2	N.A.

LTV – Loan to value. N.A. – Not applicable at launch. Note: Expected ratings do not reflect final ratings and are based on information provided by the issuer as of June 27, 2024.
[a] Class A-1 principal is expected to equal USD370 million at launch, assuming a USD:SGD exchange rate of 1.359. The amount of Singaporean dollars issued may change at final closing.
[b] Equity value reflects the remaining portfolio NAV and does not include the issuer's net working capital and capitalized transaction costs. The equity value, including net working capital and capitalized transaction costs, is about USD944 million. At closing, the issuer will enter into a series of forward contracts to hedge all of the SGD500 million principal amount of the class A-1 bonds at their redemption on the class A-1 scheduled call date to US dollars.

Fitch Ratings expects to rate the class A-1 and A-2 bonds to be issued by Astrea 8 Pte. Ltd. Astrea 8 is a private equity collateralized fund obligation (CFO) backed by interests in a diversified pool of alternative investment funds, with about USD1.5 billion in net asset value (NAV) and USD132.7 million of unfunded capital commitments as of Dec. 31, 2023. Astrea 8 holds all the limited partnership interests of AsterEight Assets I Pte. Ltd. (AsterEight Assets I, or the AssetCo), a Singapore-based company, which holds the fund interests.

The investment manager of the transaction is Azalea Investment Management Pte. Ltd. Azalea was set up in 2015, and is indirectly wholly owned by Temasek Holdings (Private) Limited. The sponsor is Astrea Capital 8 Pte. Ltd., which is owned by an Azalea affiliate and, ultimately, Temasek.

The underlying funds will distribute cash as they generate income or exit investments, and will make capital calls when they require additional cash to invest. Cash flows generated by the funds will be used to pay off the bonds, as well as pay interest and expenses.

Key Rating Drivers

Loan to Value: The cumulative loan to value (LTV) to the NAV at issuance of the class A-1 and A-2 bonds, as noted in the table above, provides a sufficient level of credit enhancement at the indicated rating levels. An LTV test will redirect cash flows to de-lever the transaction at a constant 40% threshold during the transaction's life.

Stressed Cash Flow Analysis: Fitch measured the ability of the structure to withstand weak performance in the underlying funds in combination with adverse market cycles. The class A-1 and A-2 bonds were able to withstand fourth-quartile-level performance in the underlying funds under all of Fitch's ratings scenarios, indicating 'Asf' category stress.

Liquidity: The transaction's liquidity position is adequate and Fitch expects it to improve further as the portfolio continues to season. In recent quarters, the portfolio started generating positive net cash flows, and the transaction's liquidity position is also supported by a contingent liquidity facility (senior standby multi-currency credit facility of USD250 million at launch). Fitch's estimated one-year pro-forma liquidity coverage ratio for the transaction is 3.0x.

This presale report reflects information in Fitch's possession at the time that Fitch's expected ratings are issued; the transaction has yet to be finalized and changes could occur. As a result, the expected ratings disclosed in this report do not reflect final ratings, but are solely based on information provided by the issuer as of the report date. These expected ratings are contingent on final documents conforming to information already received. Ratings are not a recommendation to buy, sell or hold any security. The prospectus and other material should be reviewed prior to any purchase.

Fitch's related Rating Action Commentary issued at transaction closing will include final ratings, which will include an assessment of any material information that may have changed subsequent to the publication of the presale.

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Portfolio Composition: The portfolio of alternative investment fund interests is diversified by vintages, geographies, managers, funds, underlying holdings and sectors. As of Dec. 31, 2023, the portfolio consisted of 38 funds with strong past performance, managed by 27 primarily large and well-established fund managers. The fund investments were invested in 1,028 investee companies. About 20% of the portfolio NAV relate to euro-denominated funds, of which about 60% is hedged.

Transaction Manager and Sponsor: Fitch believes Azalea has the capabilities and resources required to manage this transaction. Azalea's management team has extensive experience in and institutional knowledge of private equity, in addition to experience structuring private equity CFO transactions. The sponsor and bondholders' interests are strongly aligned, as the sponsor is expected to hold the equity stake (about 60% of NAV) in Astrea 8.

Previously, the sponsor took voluntary actions beyond what was required by transaction documentation of some other Astrea deals to support senior bonds during market volatility. Fitch does not rely on any such support in its analytical assumptions, but does view this as a positive.

Counterparties: Certain structural features of the transaction involve reliance on counterparties, such as the credit facility provider, account banks, banker's guarantee providers and hedge counterparties, and the rating on the bonds could be negatively affected if a key counterparty is downgraded. Fitch believes this risk is mitigated by counterparty replacement provisions in the transaction documents that align with Fitch's criteria.

Ratings Linked to Eligible Investments and Eligible Banker's Guarantee Providers: Funds in reserves accounts for the benefit of class A-1 and A-2 bonds will be invested in securities or bank deposits, or cash balances will be replaced by eligible banker's guarantees, as specified in transaction documentation.

As these investments can have long-dated maturities and could have a material impact on the performance of the rated bonds, ratings of the Astrea 8 class A-1 and A-2 bonds will be capped at and linked to the ratings of investments in the reserves accounts.

If the ratings of eligible investments in the reserves accounts or the ratings of the eligible banker's guarantee providers are downgraded below the rating levels of class A-1 and A-2 bonds at a future date, a corresponding downgrade to the ratings of the class A-1 and A-2 bonds could occur, absent mitigating actions. At launch, these investments and eligible banker's guarantee providers are expected to be rated at the same level or higher than the ratings of the class A-1 and A-2 bonds, so will not constrain the ratings of the bonds.

Asset Isolation and Legal Structure: The issuer is structured as a special-purpose, bankruptcy-remote entity. The issuer will have 100% of the member interests in the AssetCo, and the assets held by the AssetCo will have been transferred to it as a true sale.

Rating Cap at 'A+sf': Fitch has a rating cap at 'A+sf' for private equity CFO transactions, driven by the less proven nature of the private equity CFO asset class relative to other structured finance asset classes, the uncertainty related to investment performance and the timing of cash flows, the variability of asset valuations and lags in performance reporting.

Rating Notching and Outlook

The class A-1 bond rating of 'A+sf' is one notch above the model-implied 'Asf' rating. The rating uplift from the model-implied ratings reflects a high-quality portfolio comprising primarily funds managed by large and well-established general partners (GPs), funds that have exhibited good performance to date, portfolio diversification across multiple metrics, a focus on relatively strong sectors, improving cash flow generation, sufficient liquidity, consistently strong modeling results through Fitch stress scenarios, and a high-quality sponsor that exhibited its willingness to provide voluntary support to the bonds of previous deals. The LTV is low compared to that of other private equity CFO obligations rated in the same category.

No uplift has been applied to the model-implied rating of 'Asf' for the class A-2 bonds given time subordination of principal reserving relative to the class A-1 bonds and their resiliency under Fitch's rating sensitivities.

Applicable Criteria

Private Equity Collateralized Fund Obligations (PE CFO) Rating Criteria (October 2022)

Global Structured Finance Rating Criteria (January 2024)

Structured Finance and Covered Bonds Counterparty Rating Criteria (November 2023)

Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum (November 2023)

Structured Finance and Covered Bonds Interest Rate Stresses Rating Criteria (April 2024)

Covered Bonds Rating Criteria (October 2023)

Related Research

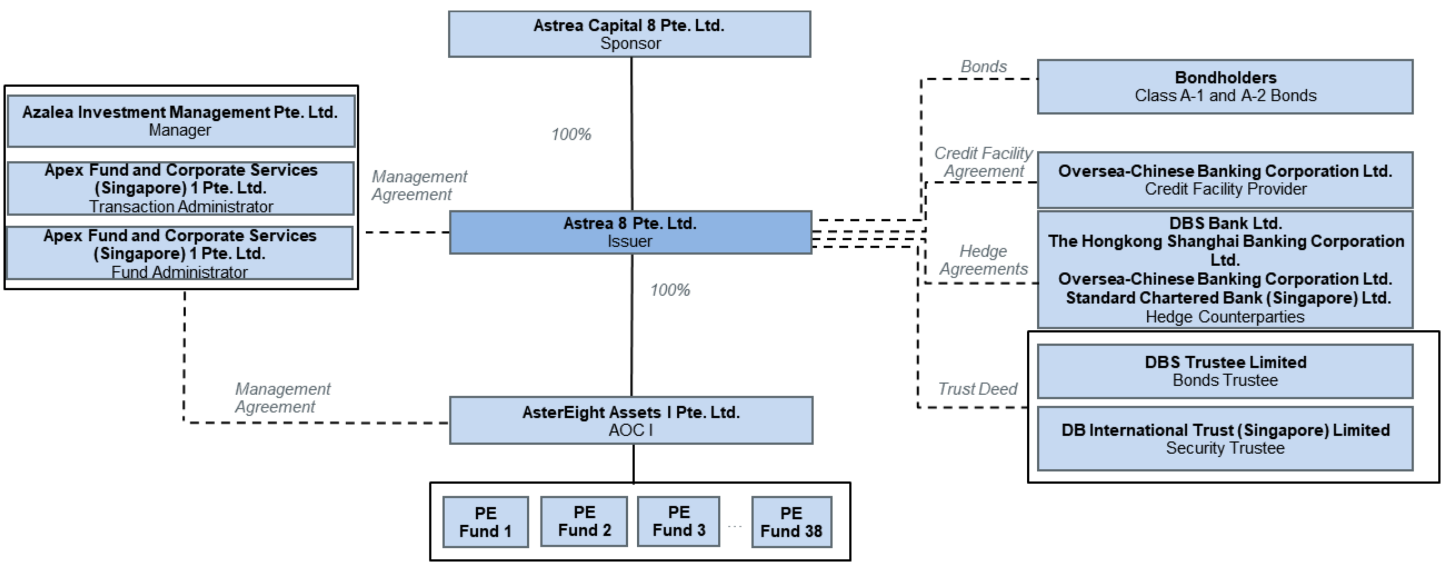
PE CFO Update: April 2024

Structure Overview

The issuer is structured as a special-purpose entity that will be the sole equity holder of the AssetCo. The issuer's capitalization will include class A-1 and A-2 bonds, as well as an equity tranche. The net cash received by the issuer via the issuance of the bonds will be used by the issuer to repay a certain portion of existing loans from the sponsor, which were incurred in connection with the AssetCo's acquisition of the fund investments.

The AssetCo will hold the fund investments as a limited partner (LP) for each of the underlying interests. It will transfer cash distributions from the fund investments to the issuer, which will apply the distributions semiannually in accordance with the priority of payments (see *Appendix 2*).

Structure Diagram



Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Transaction Parties

Role	Name	Rating
Issuer	Astrea 8 Pte. Ltd.	Not rated
Sponsor	Astrea Capital 8 Pte. Ltd.	Not rated
Transaction manager	Azalea Investment Management Pte. Ltd.	Not rated
Fund and transaction administrator	Apex Fund and Corporate Services (Singapore) 1 Pte. Ltd.	Not rated
Accounts bank	DBS Bank Ltd.	AA-/Stable/F1+
Credit facility provider	Oversea-Chinese Banking Corporation Limited	AA-/Stable/F1+
Foreign-exchange hedge providers	DBS Bank Ltd.	AA-/Stable/F1+
	The Hongkong and Shanghai Corporation Limited	AA-/Stable/F1+
	Oversea-Chinese Banking Corporation Limited	AA-/Stable/F1+
	Standard Chartered Bank (Singapore) Limited	A+/Stable/F1+

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Portfolio Overview

The funds were acquired by the sponsor from its affiliates for the private equity CFO transaction. Of funds in the Astrea 8 portfolio, around half consist of the same funds as in previous Astrea iterations, as weighted by NAV. The portfolio is expected to be static.

Reinvestments in new funds are not permitted after the transaction closes, while selling fund interests is allowed, as described below, but is not expected under normal circumstances.

The portfolio consists of buyout and growth funds, and is diversified across vintages, regions, managers, funds, underlying holdings and sectors, as seen on the tables below and at the right.

Portfolio Stratification

(% of Total Exposure, As of Dec. 31, 2023)

Fund Strategy and Age	1-Year Old (2023 Vintage)	2 Years Old (2022 Vintage)	4 Years Old (2020 Vintage)	5 Years Old (2019 Vintage)	6 Years Old (2018 Vintage)	7 Years Old (2017 Vintage)	8 Years Old (2016 Vintage)	9 Years Old (2015 Vintage)	Total
Buyout			6	17	28	19	7	1	**78**
Growth				9	3	5	5		**22**
Total			**6**	**26**	**31**	**24**	**12**	**1**	**100**

Note: The strategy classifications above are based on Fitch's assessment, and may differ from the classifications in the transaction's offering documents. Fitch-classified strategies based on funds' stated objectives, holdings, cash flow profiles, and third party and the transaction sponsor's classifications.
Source: Fitch Ratings, Astrea 8 Pte. Ltd.

The funds on average are more seasoned than in Astrea 7 and in line with previous Astrea transactions, as shown in the *Transaction Comparison – at Launch* table below, based on weighted average (WA) age and remaining unfunded capital commitments. The portfolio has been net cash flow positive, and the age of the portfolio's funds and historical data suggest future distributions will generally continue to outstrip contributions.

The portfolio consists of U.S., European and Asian funds, managed primarily by large GPs with established track records. Fitch reviewed each fund and GP in the portfolio using quantitative and qualitative metrics, including reviewing the GP's history, resources, capital-raising success, and previous fund performance based on information available publicly, from third-party data providers and from the sponsor.

Overall, the funds in the portfolio have exhibited good performance. As shown in the charts below, the GPs in the Astrea 8 portfolio tend to be very large, with extensive experience and success raising capital in recent years, which indicates investors' confidence. The funds also tend to be large, and most are subsequent iterations of established strategies. Based on this review of the funds and GPs, Fitch determined that no performance-based haircuts were required beyond the base-case scenario analysis in accordance with Fitch's rating criteria.

The full portfolio is included in the *Appendix*.

Underlying Investment Sector Breakdown

(As of Dec. 31, 2023)	(% of NAV)
Information Technology	30
Industrials	18
Health Care	14
Consumer Discretionary	12
Financials	8
Communication Services	7
Consumer Staples	5
Materials	4
Real Estate	1
Utilities	1
Energy	0

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Underlying Portfolio Company Breakdown

(As of Dec. 31, 2023)	(% of NAV)
Top holding	1.3
Second holding	0.9
Third holding	0.9
Top Five holdings	4.7
Top 10 holdings	8.6
Top 20 holdings	13.9

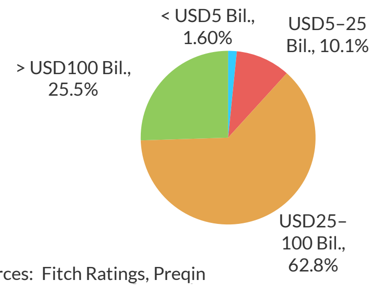
Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Top 10 General Partners

(As of Dec. 31, 2023)	(% of total exposure)
Insight Partners	7.6
Permira	7.5
Silver Lake	6.7
TPG	6.1
KKR	5.1
Thoma Bravo	4.9
Warburg Pincus	4.8
CVC	4.0
The Carlyle Group	3.7
L Catterton	3.6
Total	**54.0**

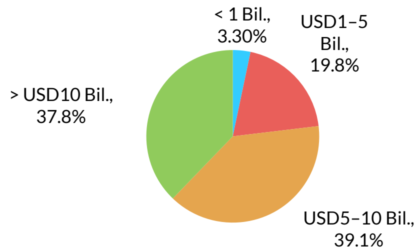
Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Portfolio Funds' Exposure by GP AUM
(as of Dec. 31, 2023)



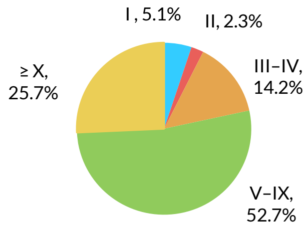
Sources: Fitch Ratings, Preqin

Portfolio Funds' Exposure by Fund Size
(as of Dec. 31, 2023)



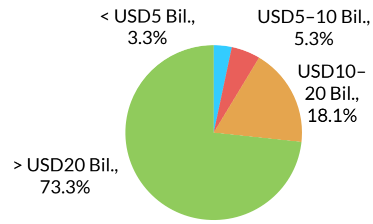
Sources: Fitch Ratings, Preqin

Portfolio Funds' Exposure by Number in Fund Series
(as of Dec. 31, 2023)



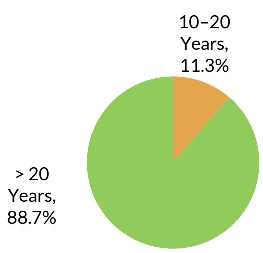
Sources: Fitch Ratings, Preqin

Portfolio Funds' Exposure by GP's Funds Raised in Past 10 Years
(as of Dec. 31, 2023)



Sources: Fitch Ratings, Preqin

Portfolio Funds' Exposure by GP Record
(as of Dec. 31, 2023)



Sources: Fitch Ratings, Preqin

Transaction Comparison – at Launch

Name	Astrea 8 Pte. Ltd	White Rose CFO 2023	Astrea 7 Pte. Ltd.	Astrea VI Pte. Ltd.	MCA Fund III Holding LLC	Nassau 2019 CFO LLC	Astrea V Pte. Ltd.	SWC Funding LLC	Astrea IV Pte. Ltd.	Astrea III Pte. Ltd.
Sponsor type	Gov.-Linked	Insurance	Gov.-Linked	Gov.-Linked	Insurance	Insurance	Gov.-Linked	Asset Manager	Gov.-Linked	Gov.-Linked
Closing date	[.] 2024	December 2023	May 2022	March 2021	October 2020	September 2019	June 2019	August 2018	June 2018	June 2016
Total debt issuance (USD Mil.)	585	500	755	643	402	263	600	216	501	510
Debt legal final maturities (years)	15	15	10	10	15	15	10	15	10	10
Capital structure (%) – class LTV and (cumulative LTV)										
A+sf	25.2 (25.2)	—	19.9 (19.9)	19.6 (19.6)	—	—	—	—	—	—
Asf	14.6 (39.8)	50.0 (50.0)	9.2 (29.1)	15.7 (35.3)	40.0 (40.0)	50.0 (50.0)	34.8 (34.8)	50.0 (50.0)	35.6 (35.6)	29.8 (29.8)
BBB+sf		—	10.5 (39.6)	—	—	—	—	—	—	—
BBBsf		—	—	8.9 (44.2)	17.5 (57.5)	—	10.5 (45.3)	—	10.0 (45.6)	8.8 (38.5)
BBsf		—	—	—	12.5 (70.0)	20.0 (70.0)	—	—	—	—
Unrated debt		—	—	—	—	—	—	—	—	6.1 (44.7)
Equity	60.2	50.0	60.4	55.8	30.0	30.0	54.7	50.0	54.4	55.3
Portfolio										
Collateral NAV (USD Mil.)	1,471	995	1,905	1,456	575	376	1,324	432	1,098	1,142
Unfunded commitment (USD Mil.)	133	136	250	156	190	79	215	84	168	201
Total exposure (USD Mil.)	1,604	1,146	2,155	1,612	764	455	1,539	516	1,267	1,343
Total commitments	1,252	918	1,480	1,358	791	741	1,376	465	1,753	1,557
Unfunded (as % of total commitments)	11	15	17	11	24	11	16	18	10	13
Unfunded (as % of total exposure)	8	12	12	10	25	17	14	16	13	15
Unfunded (as % of NAV)	9	14	13	11	33	21	16	19	15	18
Weighted average fund age (by total exposure)	6	6	5	7	4	6	5	5	7	7
Number of funds	38	71	38	35	66	109	38	32	36	34
Number of co-investments	N.A.	2	N.A.	N.A.	5	N.A.	N.A.	7	N.A.	N.A.
Number of managers	27	59	29	28	57	69	32	19	27	26
Number of portfolio holdings	1,028	578	982	802	1,336	1,273	862	244	596	592
Allowed to reinvest	No	Yes (less than 20% of commit-ments)	No	No	No	No	No	Yes (2-year period)	No	No
Allowed to sell investments (up to % of NAV)	Yes (100%)	Yes (100%), but only in case of default or to fully repay the notes	Yes (15%)	Yes (15%)	Yes (35%)	Yes (35%)	Yes (15%)	Yes (35%)	Yes (10%)	No
Largest fund strategy (% of total exposure)	Buyout (78%)	Buyout (82%)	Buyout (79%)	Buyout (83%)	Buyout (27%)	Buyout (43%)	Buyout (82%)	Natural Resources — Excluding Oil & Gas (51%)	Buyout (87%)	Buyout (77%)
Second-largest fund strategy (% of total exposure)	Growth (22%)	Growth (10%)	Growth (21%)	Growth (17%)	Mezzanine (20%)	Mezzanine (41%)	Growth (18%)	Natural Resources — Oil & Gas (22%)	Growth (11%)	Growth (23%)
	—		—	—			—			—

Transaction Comparison – at Launch

Name	Astrea 8 Pte. Ltd	White Rose CFO 2023	Astrea 7 Pte. Ltd.	Astrea VI Pte. Ltd.	MCA Fund III Holding LLC	Nassau 2019 CFO LLC	Astrea V Pte. Ltd.	SWC Funding LLC	Astrea IV Pte. Ltd.	Astrea III Pte. Ltd.
Third-largest fund strategy (% of total exposure)		Infra-structure (3%)			Secondaries (12%)	Venture capital (14%)		Venture capital (11%)	Private debt (2%)	
US dollar exposure (as % of NAV)	80	99	73	80	100	100	82	100	81	88
Fund domicile: N.A. (%)	63	98	55	61	93	100	56	42	63	67
Fund domicile: Europe (%)	20	2	27	23	5	0	22	10	19	12
Fund domicile: APAC (%)	17	0	18	16	2	0	22	13	18	21

Source: Fitch Ratings, transaction documents

Structural Features

The class A-1 and class A-2 bonds have scheduled call dates of five and six years, respectively. However, both classes have longer legal maturities of 15 years, which could be supportive in weathering a potential market downturn. Fitch's ratings address the timely repayment of the bonds at their legal final maturities, not the potential repayment at the earlier scheduled call dates. Capital calls will be funded primarily by distributions from the underlying portfolio.

The reserves accounts will sequentially retain cash distributions for the repayment of the class A-1 and A-2 bonds until the scheduled call date or the distribution date at which the class A-1 or A-2 reserves accounts cap is met. The class A-2 bonds do not begin reserving until the class A-1 bonds are paid in full, or are fully reserved. The structure also has a credit facility sized to 50% of the amount of unfunded commitments to the underlying funds plus an amount that steps down to cover operating expenses and interest on the bonds. These features help mitigate the cyclicality of private equity funds that Fitch considered in its analysis.

Class A-1 Reserves

The principal amount of the class A-1 bonds is to be reserved until the bonds' expected call date and funded as provided in the priority of payments. Payments to the reserves accounts will be made on semi-annual distribution dates to provide sufficient funds to fully repay the bonds at year five as per the table on the right.

If available cash on any distribution date is insufficient to satisfy the reserve amount, the unpaid balance carries forward to subsequent distribution dates until paid through the priority of payments. Amounts transferred to the reserves accounts are capped (the total reserves accounts cap) at the aggregate US dollar principal amount of the class A-1 and A-2 bonds.

If at end of year five on the scheduled call date of class A-1 bonds the total balance of the reserves accounts and reserves custody account is at least equal to the principal of class A-1 bonds and there is no balance drawn on the credit facility, then the class A-1 bonds will be fully redeemed.

Class A-2 Reserves

Subsequent to the full repayment of the class A-1 bonds' principal, or the meeting of the class A-1 reserves account cap, 90% of available cash will be used to reserve the principal amount of the class A-2 bonds. Payments to reserves accounts will be made on semiannual distribution dates until funds are sufficient to fully repay the class A-2 bonds, with an expected call date at year six.

In a transaction default scenario, class A-1 and A-2 bonds have equal claim on moneys in the reserves accounts (*pari passu*).

Base Coupon and Coupon Step-Up

The class A-1 and A-2 bonds' coupons are each expected to be fixed-rate liabilities due and payable on a *pari passu*, semi-annual basis in the ordinary priority of payments. Fitch's modeling considered the adequacy of expected distributions and contingent liquidity to service the rated debts' interest.

If either class of bonds is not redeemed in full on its respective scheduled call dates, the applicable interest rate is subject to a one-time 100bp per annum step-up, starting from the respective scheduled call dates.

Maximum LTV Ratio

The priority of payments provides for the deleveraging of the bonds on any distribution date at which the LTV exceeds 40% (maximum LTV ratio), subject to available funds in the structure. The purpose of this feature is to de-lever the structure to reduce bondholders' exposure to the risk of portfolio valuation declines or the risk of cash flow exiting the structure and rendering the remaining NAV insufficient to provide future distributions to support the bonds. There is no requirement to sell fund interests upon an uncured breach of the LTV ratio.

LTV is calculated as the total outstanding principal amount of all classes of bonds and of all credit facilities loans (net of reserves balance) divided by the portfolio NAV. If LTV exceeds the 40% threshold, 100% of the remaining cash flow after payment of amounts due under clauses 1

Reserves Accounts

Distribution Date	Total Class A-1 Reserve Amount (USD Mil.)
First	37
Second	37
Third	37
Fourth	37
Fifth	37
Sixth	37
Seventh	37
Eighth	37
Ninth	37
Tenth	37
Total	370

Note: Final amounts will be based on FX forwards set at close.
Source: Fitch Ratings, Astrea 8 Pte. Ltd.

through 7 of the priority of payments in the *Appendix* will be paid in accordance with clause 8. If the class A-1 bonds are still outstanding, the cash flow will be used to fund the reserves accounts until the class A-1 reserves accounts cap is reached. If the class A-1 bonds have been redeemed or fully reserved, the cash flows will be applied to the class A-2 reserves accounts cap, until the maximum LTV ratio is no longer in breach.

Credit Facility

The credit facility will be a senior standby multicurrency liquidity facility to be established with Oversea-Chinese Banking Corporation Limited (OCBC: AA-/Stable/F1+) to fund (i) taxes, administrative expenses, management fees, hedging-related payments and interest on the class A-1 and A-2 bonds (payments due under clauses 1 through 4, except for clause 4 (iii), and clause 5 of the priority of payments), and (ii) capital calls in the event of a shortfall in distributions in certain payment periods. The credit facility fully matures upon the earlier of the end of year 15 or the date on which all classes of bonds are fully redeemed (termination date).

The maximum amount available under the facility is USD250 million at issuance. The total amount available to draw under the credit facility is sized in two parts, "A" plus "B". Facility "A" will step down in accordance with the table at right, while facility "B" will be sized to 50% of the unfunded capital commitments.

Interest on the amount drawn is paid at a rate of the relevant Secured Overnight Financing Rate (SOFR) plus 1.50%. There is an annual 40bp commitment fee on the undrawn portion.

Per clause 4 of the priority of payments in the Appendix, any cash in the operating account on any distribution date will be used to pay the credit facility up to the lesser of the outstanding loan balance or the full amount of cash in the operating account. Any loan amount outstanding after this payment is repayable on the next distribution date if there is sufficient cash in the operating account. In any event, the full amount of the loan balance must be repaid by the termination date.

OCBC can cancel the commitment or declare the outstanding amount due and payable if there is an event of default (EoD) under the credit facility agreement. Such events include non-payment of loan principal or interest when due, insolvency or non-payment of any debt of the issuer and any EoD under the bonds.

The credit facility provider will be required to be replaced if the provider's rating falls below the lower of 'A-' and 'F1' or the then prevailing rating of the most senior class of outstanding Astrea 8 bonds (credit facility minimum rating requirement), provided the replacement would not cause a downgrade to the then-prevailing rating of the most senior class of outstanding Astrea 8 bonds. The documents provide that the issuer and lender make "commercially reasonable" efforts to affect the replacement within 30 days. These eligibility thresholds and replacement language are in line with Fitch's *Structured Finance and Covered Bonds Counterparty Rating Criteria*.

The amount available under the credit facility for the transaction is slightly smaller than for prior Astrea transactions at launch. The amount of liquidity available is sufficient for the projected use of the facility under Fitch's stress scenarios and is in line with other Fitch-rated private equity CFOs.

Credit Facility Availability

Component A - Stepdown Provision	Amount (USD Mil.)
Years 0–3 of the transaction	130
Years 4–6 of the transaction	100
Year 7 of the transaction through the termination date	40
Component B - % of Unfunded	
% of total undrawn capital commitment	50%

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Hedging Counterparties

Full principal and semiannual interest on the class A-1 bonds is payable in Singapore dollars while the class A-2 bonds are payable in US dollars. Furthermore, the fund investments are denominated in US dollars and euros, creating a currency mismatch between Astrea 8's assets and liabilities. These currency mismatches introduce currency risk, for which the issuer will employ hedge agreements to help mitigate exchange-rate volatility that may negatively affect the cash flows needed to fund the required payments under the bonds. These agreements are expected to be with DBS Bank Ltd. (AA-/Stable/F1+), the Hong Kong and Shanghai Banking Corporation Limited (HSBC; AA-/Stable/F1+), OCBC and Standard Chartered Bank (Singapore) Limited (SCB; A+/Stable/F1+).

Fitch notes that clause 10 of the priority of payments is a "flip clause," which places any termination payments due to a hedge counterparty that is in default in a junior position in the transaction's priority of payments. The purpose of this provision is to mitigate the potential impact caused by the default or non-performance of the counterparty. In case the issuer does not pay a hedge counterparty, the transaction documents include a "non-petition" clause that prevents the counterparty from causing the issuer to file for bankruptcy.

A hedge counterparty will be replaced if its rating falls below the lower of 'A-' and 'F1' or the then prevailing rating of the most senior outstanding class of Astrea 8 bonds (hedge counterparty minimum rating requirement), provided the replacement would not cause a downgrade to the then-prevailing rating of the most senior outstanding class of Astrea 8 bonds. The documents provide that the issuer and hedge counterparty make "commercially reasonable" efforts to affect the replacement within 30 days. These eligibility thresholds and replacement language are in line with Fitch's *Structured Finance and Covered Bonds Counterparty Rating Criteria*.

Class A-1 Bonds – Principal Amounts Hedge

To mitigate class A-1 bonds' FX mismatch risk, the issuer will enter into forward contracts to buy Singaporean dollars and sell US dollars to hedge 100% of the principal amount of class A-1 bonds.

The issuer will take delivery of the expected SGD500 million to fully repay the class A-1 bonds across a series of fixed forwards that will be settled before the scheduled call date. If, for any forward contract, the reserves accounts are funded with less than the amount required to settle the forward contract, the issuer will settle the forward for the amount of US dollars that has been accumulated. For the underfunded US dollar amount, the issuer has the discretion to roll over the hedge by entering into a six-month or longer FX forward transaction with the counterparty. The forward transaction will result in cash flows to the issuer based on the difference between the initial forward transaction versus the new rate of the subsequent forward. There would be a net cash inflow if the US dollar has depreciated and a net cash outflow if it has appreciated since closing.

At the discretion of the issuer, if at year 5.5, the reserves accounts are still not fully funded, the rollover process would be repeated with another six-month FX forward for the underfunded US dollar amount. The FX forward would expire at the next distribution date, and at the issuer's discretion, the process would repeat until the class A-1 bonds are fully repaid.

If the class A-1 reserves account is funded with less than the US dollar amounts required to settle the hedge, the issuer will be required to make a payment to the counterparty to settle the hedge if the US dollar appreciated against the Singaporean dollar compared to the forward rate. While the ability to roll the hedge if the reserves are not fully funded at the expected maturity introduces additional currency risk, Fitch considers the presence of the liquidity facility to cover shortfalls in the class A-1 reserve amount on the hedge contract settlement date, per clause 2 of the priority of payment, as a key mitigant. Fitch's modeling accounts for potential draws on the facility in the event of a shortfall on the class A-1 bonds hedge contract settlement date and indicates that the maximum utilization rate of the facility across all launch years is 13% of the drawable amount.

Class A-1 Bonds – Interest Amounts

At closing, the issuer will enter into 10 separate forward contracts with the hedge counterparties in amounts to fully match the 10 semiannual interest payments on class A-1 bonds.

If the class A-1 reserves account is underfunded and the class A-1 bonds are not redeemed at the scheduled call date, the issuer may enter into a six-month forward contract for the interest payment due at year 5.5. If at year 5.5, the reserves accounts are still not fully funded, it will be at the discretion of the issuer to enter into a new six-month forward contract for the interest payment due at the next distribution date and, at the issuer's discretion, continue the process until the class A-1 bonds are fully repaid.

Euro NAV Hedge

FX risk arising from the portfolio holdings is viewed as manageable, as the bulk of fund investments provides distributions in US dollars. Of the 38 funds in the portfolio, seven funds, totaling about USD293 million of NAV (20% of total NAV), call capital and make distributions in euros. To mitigate FX risk posed by the euro-denominated funds (compared to bonds in US and Singaporean dollars), the issuer expects to enter into a series of fixed forward contracts (with fixed forward rates and fixed forward dates), ranging in tenor from six months to six years, to hedge about 60% of the initial euro NAV. The tenors and notional amounts of euro hedges were set by Azalea to match the manager's projections of euro NAV distributions and are subject to change until closing. This results in about 40% of the initial euro NAV unhedged, approximately USD117 million of NAV (about 8% of total NAV).

As the timing and amounts of distributions from private equity funds are uncertain, fully hedging the FX exposure is impossible. Not hedging at all would leave Astrea 8 vulnerable to significant FX exposure, but attempting to hedge 100% of NAV could still leave the structure over-hedged and exposed to FX risk if distributions come in lower than projected and the FX rate moves against the structure when it needs to settle the forwards. Hedging a sufficient portion of the NAV, and providing the manager flexibility to hedge further over time if deemed necessary, is a prudent approach, in Fitch's opinion.

Any underperformance in the euro-denominated funds would create an additional FX risk, as the structure is required to deliver euros for each foreign exchange hedge as they become due. As discussed in the *Euro Hedge Stresses* section, Fitch conducted stress scenarios to model the sensitivity of the structure to underperformance in European funds and to adverse moves in USD/EUR exchange rates, and the rated bonds passed at their assigned rating levels.

Euro NAV Hedge

No.	Forward Tenor	Euro Hedge Amount (EUR Mil.)
1	0.5 Year	12
2	1.0 Year	12
3	1.5 Year	15
4	2.0 Year	16
5	2.5 Year	16
6	3.0 Year	16
7	3.5 Year	15
8	4.0 Year	15
9	4.5 Year	12
10	5.0 Year	12
11	5.5 Year	10
12	6.0 Year	8

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Fund Dispositions

Astrea 8 at its discretion is allowed to sell stakes in the underlying private equity fund interests ("Disposal Option"). Proceeds from the sale or disposal of any underlying fund interests will be received in the collection accounts and then swept into the operating accounts.

At each distribution date, net cash proceeds received from a fund disposition will be distributed in accordance with the priority of payments. The portion of fund disposition proceeds remaining after payment of clauses 1 through 6 will be distributed in accordance with clause 7. Clause 7 dictates that any proceeds from fund dispositions will be applied to the reserves accounts of the class A-1 and A-2 bonds. Specifically, once the class A-1 bonds are fully reserved, the proceeds will be applied to reserves accounts of the class A-2 bonds. Fitch views positively that fund disposition proceeds will be used to reserve principal, as it may allow the manager to realize some of the outstanding NAV if organic distributions come in lower and/or slower than needed to pay Astrea 8's liabilities.

Selling fund interests on the secondary market in a stressed environment will likely require a steep discount and, in its modeling, Fitch assumed that the fund disposition option was not used.

Reserves Eligible Investments and Deposits

Similar to prior Astrea transactions, eligible investments and deposits held in various accounts within the structure will be subject to certain requirements. Funds in the reserves accounts may be placed in security instruments, bank deposits or money market funds in accordance with eligibility requirements defined in transaction documentation. The transaction documentation permits these investments held in reserve to mature as late as the scheduled call date for the respective classes of bonds (i.e. five and six years from transaction launch for eligible investments for the class A-1 and class A-2 bonds, respectively), which significantly exceeded the maturity levels contemplated in Fitch's counterparty criteria for eligible (qualified) investments.

Owing to the significant long-dated exposure bondholders may have to investment counterparties, the ratings of Astrea 8's class A-1 and A-2 bonds will be capped at the ratings of investments in the reserves accounts or the ratings allowed for investments in the reserves accounts by the transaction documentation, whichever is lower. Therefore, if a security in the reserves accounts is downgraded below the ratings of the class A bonds, the ratings of the bonds may also be downgraded, depending on the materiality of the exposure.

The transaction documents specify that eligible investments for both the class A-1 and A-2 bonds require a rating of at least 'AA-' by Fitch. Bank deposits are required to be invested with banks rated at least 'AA-' by Fitch. The minimum rating requirements are enforced for as long as either tranche of the class A bonds is outstanding. As noted, the transaction documents permit these investments to mature at the scheduled call dates or, if the bonds are not called on the call date, by the next distribution date.

Eligible investments for the reserves accounts include debt obligations or securities, commercial paper, certificates of deposits or similar types of investments that are consistent with the minimum rating and maturity requirements of the reserved class of bonds. The reserves can also include money market funds rated 'AAAmmf' by Fitch.

Since the ratings of the expected eligible investments and bank deposits are at the same level or higher than the ratings of the bonds, capping and linking the ratings of the Astrea 8 bonds to the investments will not affect the bond ratings assigned at launch. However, absent mitigant, in the event of a downgrade to an investment or deposit institution, Fitch's criteria would require the rating on the Astrea 8 bonds to be capped at the downgraded ratings of the investment or institution if the exposure is deemed material.

Eligible Banker's Guarantees

The sponsor (or an entity within the Azalea Group) can request the issuer to substitute uninvested cash balances from the reserves accounts to the requesting entity, subject to approval by the manager, in exchange for eligible banker's guarantees.

Eligible banker's guarantees consist of an unconditional and irrevocable guarantee by the banker's guarantee provider to pay the guaranteed sum upon receipt of a written demand in accordance with the terms of the banker's guarantees.

The maximum term of any eligible banker's guarantees is no later than the business day prior to the scheduled call date of the senior outstanding bonds or, in the event the senior most class is not redeemed on their respective scheduled call date, the next redemption date.

Unless the substituted cash is transferred to the reserves accounts by the substitution party three business days before the Banker's Guarantees expiry date the manager will initiate the enforcement process. This timeline is aligned with the three business days' notice period the banker's guarantee provider requires to enforce the guarantee.

The eligible banker's guarantee provider(s) are expected to be rated at the lower of: (i) the rating of 'AA-' and 'F1' in the case of Fitch (so long as any class A-1 Bond or class A-2 Bond is outstanding and rated by Fitch); or (ii) the then prevailing ratings by the rating agency of the highest rated class of outstanding bonds.

Eligible banker's guarantee providers that are downgraded below the transaction's rating eligibility criteria must be replaced by the issuer within 60 days, or the cash must be transferred back into the applicable reserves account.

Similar to the eligible investments, the ratings of the expected eligible banker's guarantee providers are higher than the ratings of the bonds, and do not initially affect the bond ratings assigned at launch. However, absent mitigant, in the event of a future downgrade to a Banker's guarantee provider, Fitch's criteria would require the rating on the Astrea 8 bonds to be capped at the downgraded ratings of the institution if the exposure is deemed material, or not remediated.

Fitch sees the alignment of interest of the transaction's sponsor as the equity holder in the transaction as a further mitigant.

Account Bank Providers

Providers of the various account banks must maintain a rating of at least 'A-' or 'F1' from Fitch so long as any class of bonds is outstanding. Account banks that fall below these rating requirements must be replaced within 60 calendar days. These eligibility thresholds and replacement language are in line with Fitch's *Structured Finance and Covered Bonds Counterparty Rating Criteria*.

Transaction Accounts Overview

Account Name	Owner	Bonds Have Security Interest in the Account(s)?	Account Description
Collection accounts	AssetCo	Yes, via the daily cash sweep to the operating accounts in an enforcement event/following the daily cash sweep.	These accounts will receive any cash distributions from the funds in the structure or from the operating accounts to fund capital calls. Cash from these accounts will be used to fund capital calls and will be swept to the operating accounts on a daily basis.
Operating accounts	Issuer	Yes	Moneys will be swept here on a daily basis from the collection accounts. Any proceeds from credit facility drawdowns will also be deposited to these accounts. Proceeds (in excess of the retained amount) in these accounts will be applied to the priority of payments at each distribution date. Cash in these accounts may be used to satisfy a capital call on the structure.
Operating custody accounts	Issuer	Yes	Custody accounts held in the name of the issuer at the transaction's custodian to hold the eligible investments made from funds in the operating accounts. The eligible investments have minimum rating requirements consistent with class A bond reserves' eligible investments, and can mature no later than the next distribution date.
Reserves accounts	Issuer	Yes	These accounts will receive funds from the priority of payments to hold for ultimate repayment of principal on the class A-1 and A-2 bonds. In the interim, moneys will be used to fund investments in eligible assets.
Reserves custody accounts	Issuer	Yes	Custody accounts used to hold the eligible investments made from funds in the class A-1 and A-2 reserves accounts.
Distributions-in-kind (DIK) custody account	AssetCo	Yes, via liquidation of the DIK on behalf of bondholders, subsequently swept into the operating account in an enforcement event/following the daily cash sweep.	This account will receive any in-kind distributions from the funds in the structure. Funds from this account will be swept to the collection account on a daily basis. This account will only be set up in the future if needed to take in-kind distributions.
DIK Custody Accounts	Issuer	Yes	Custody account held in the name of the issuer for the safe custody of in-kind distributions received from the portfolio. In-kind distributions may be held here until disposing of the in-kind distributions at a later date, in lieu of disposing the in-kind distributions and depositing the proceeds in the operating account.

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Cash Flow Scenario Analysis

As described in Fitch's criteria, when rating private equity CFOs, the structure's projected performance and distributions over different market cycles are reviewed to assess whether cash flows are sufficient to pay off the rated obligations based on the transaction's structural features.

The performance scenarios for Astrea 8 were constructed based on historical data that matched the characteristics of Astrea 8's portfolio, primarily the strategies of the funds (buyout and growth) and the ages of the funds. Fitch classified each fund's strategy based on the fund's stated strategy, investments, and historical cash flow curve and Fitch's classifications aligned with the sponsor and third party's classifications in all instances.

Fitch then stressed the resilience of the structure to potential underperformance in Astrea 8's underlying funds. In measuring the results of the scenarios, Fitch focused on key metrics, such as the ability to make timely interest and principal payments with respect to the legal final maturity of the rated bonds, total cash flow as a percentage of the transaction NAV, the repayment periods, the use of distributions in the structure and how various structural protections drove performance of the transaction (LTV triggers, credit facility usage and so on).

The key launch year scenarios Fitch ran are displayed in the tables below.

Results

The class A-1 and A-2 bonds were able to withstand fourth-quartile-level performance in the underlying funds under all of Fitch's ratings scenarios, indicating 'Asf' category stress. Passing a scenario means that all interest payments were timely, and principal payments were made with respect to the bonds' legal final maturity of 15 years. In all cases, the class A-1 bonds were called on the scheduled call date (fifth year) in the fourth-quartile launch year scenarios. The class A-2 bonds were repaid by their scheduled call date in one launch year and a maximum payback period of 11 years in the fourth quartile.

Launch Year Scenarios — Fourth-Quartile Performance

	Class A-1 Bonds				Class A-2 Bonds			Uses of Distributions					
Launch Year Scenario	Payback Period (Years)	Full Reserve Period (years)	Max LTV (%)	Remaining Collateral at Maturity (USD Mil.)	Payback Period (Years)	Max LTV (%)	Remaining Collateral (USD Mil.)	Distributions (% of Initial NAV)	Capital Calls (% of Initial NAV)	Expenses (% of Initial NAV)	Interest (% of Initial NAV)	Bonds Paid (% of Initial NAV)	Equity Distributions (% of Initial NAV)
2000	5.0	5.0	24	697	6.0	48	418	96	8	3	12	40	34
2001	5.0	5.0	29	512	7.5	52	253	92	7	3	13	40	29
2002	5.0	5.0	29	588	7.0	46	238	103	7	3	13	40	40
2003	5.0	5.0	26	521	7.5	43	197	117	7	4	12	40	53
2004	5.0	4.0	26	289	7.5	44	141	103	4	3	14	40	42
2005	5.0	4.0	27	421	9.5	47	126	99	6	3	16	40	34
2006	5.0	5.0	24	632	8.5	47	233	107	6	3	15	40	44
2007	5.0	5.0	22	755	7.5	43	323	106	7	3	14	40	43
2008	5.0	5.0	27	716	6.5	45	405	93	6	3	12	40	33
2009	5.0	5.0	25	814	6.5	40	497	104	4	3	12	40	44
2010	5.0	5.0	26	691	7.5	41	305	100	6	3	14	40	38
2011	5.0	5.0	24	572	7.5	40	261	93	6	3	14	40	30
2012	5.0	5.0	25	492	7.0	43	215	96	7	4	12	40	33
2013	5.0	5.0	24	489	8.0	42	144	95	6	3	14	40	33
2014	5.0	4.5	23	415	11.0	44	50	88	6	3	17	40	22
2015	5.0	4.5	25	450	10.0	43	96	92	7	3	16	40	25

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Launch Year Scenarios —Third-Quartile Performance

	Class A-1 Bonds				Class A-2 Bonds			Uses of Distributions					
Launch Year Scenario	Payback Period (Years)	Full Reserve Period (years)	Max LTV (%)	Remaining Collateral (USD Mil.)	Payback Period (Years)	Max LTV (%)	Remaining Collateral (USD Mil.)	Distributions (% of Initial NAV)	Capital Calls (% of Initial NAV)	Expenses (% of Initial NAV)	Interest (% of Initial NAV)	Bonds Paid (% of Initial NAV)	Equity Distributions (% of Initial NAV)
2000	5.0	5.0	23	729	6.0	38	320	116	5	3	12	40	56
2001	5.0	5.0	26	455	6.0	42	352	120	6	3	12	40	60
2002	5.0	5.0	24	507	6.0	41	362	130	4	3	12	40	72
2003	5.0	5.0	23	548	8.0	40	261	139	5	3	14	40	77
2004	5.0	5.0	24	456	9.0	47	176	136	6	3	15	40	72
2005	5.5	5.0	24	513	8.0	49	235	139	7	4	15	38	74
2006	5.0	5.0	23	612	6.5	49	434	135	7	3	12	40	73
2007	5.0	5.0	26	637	6.5	49	424	126	4	3	12	40	67
2008	5.0	5.0	29	700	6.0	49	550	118	3	3	12	40	60
2009	5.0	5.0	25	918	6.0	39	630	157	6	4	11	40	96
2010	5.0	5.0	24	768	6.0	38	560	152	6	3	12	40	91
2011	5.0	5.0	22	594	6.0	37	401	132	6	3	12	40	72
2012	5.0	5.0	23	644	6.0	38	472	140	6	3	12	40	80
2013	5.0	5.0	23	594	6.0	37	368	137	7	3	12	40	75
2014	5.0	5.0	23	523	8.0	41	259	131	7	3	14	40	67
2015	5.5	5.0	24	499	8.0	41	276	138	6	3	15	40	74

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

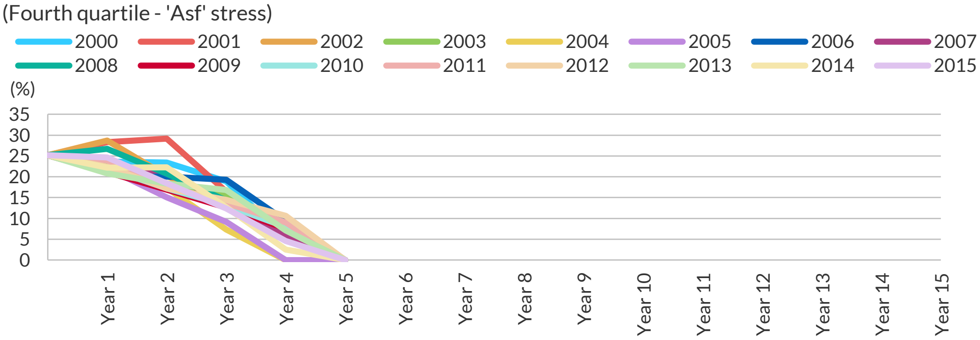
In addition, the disposal option discussed above is a positive qualitative factor to consider, which was not specifically modeled in the scenarios Fitch ran since it is at the discretion of the manager. By exercising the disposal option, the manager may accelerate realization of the NAV on the secondary market but likely at a steep discount in a stressed market.

The charts below show the progression of the LTV ratio over the life of the transaction in different start year scenarios. The 2014 fourth-quartile launch year scenario experienced the highest distributions stress while paying down all classes of bonds. This is driven by weak distributions and a steep decline in distributions occurring from 2020.

An additional chart below shows the projected annual progression of the transaction under the 2014 launch year scenario.

Class A-1 LTV Progression in Stress Scenarios: by Start Year Scenario

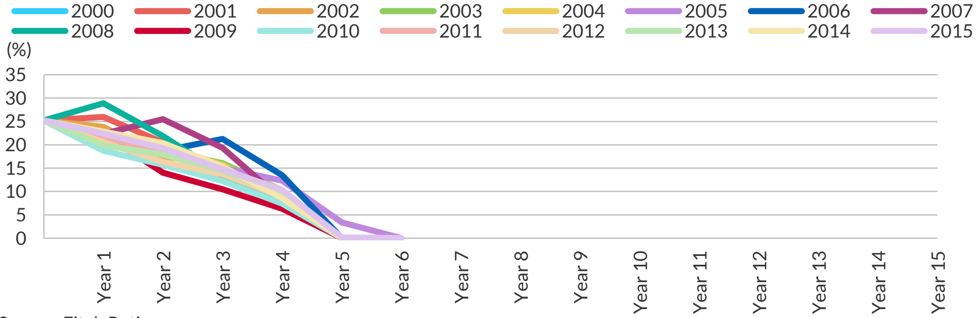
(Fourth quartile - 'Asf' stress)



Source: Fitch Ratings

Class A-1 LTV Progression in Stress Scenarios: by Start Year Scenario

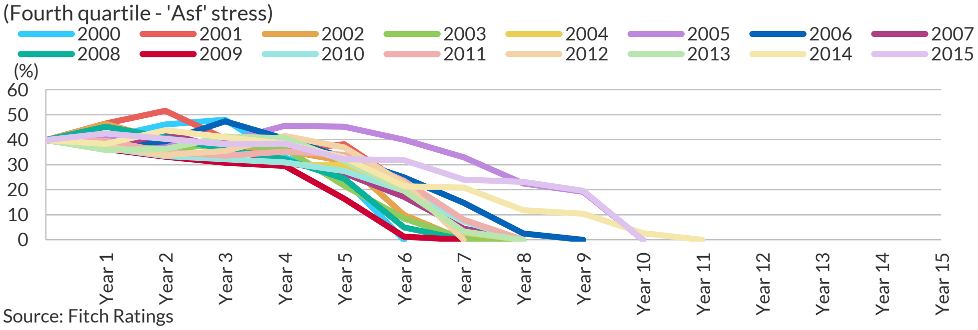
(Third quartile - 'BBBsf' stress)



Source: Fitch Ratings

Class A-2 LTV Progression in Stress Scenarios: by Start Year Scenario

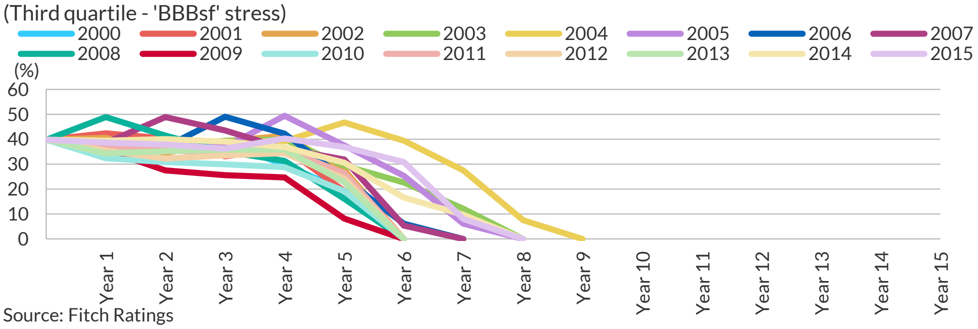
(Fourth quartile - 'Asf' stress)



Source: Fitch Ratings

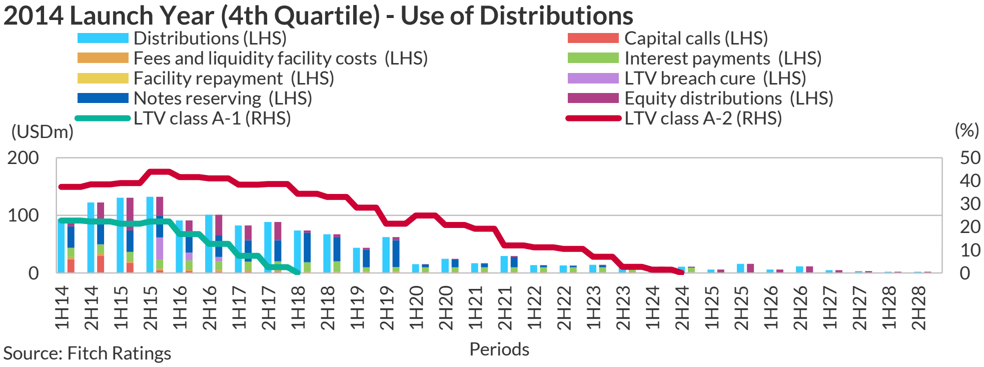
Class A-2 LTV Progression in Stress Scenarios: by Start Year Scenario

(Third quartile - 'BBBsf' stress)



Source: Fitch Ratings

2014 Launch Year (4th Quartile) - Use of Distributions



Source: Fitch Ratings

Euro Hedge Stress

Given the portfolio's exposure to European funds that distribute NAV in euros, Fitch considered the impact of potential FX fluctuation on the structure. As outlined in Fitch's criteria, Fitch's private equity CFO cash flow modeling incorporates FX stress scenarios for any unhedged exposure within a portfolio. The scenarios are incorporated into Fitch's base case scenarios and sensitivity analyses, and are based on stress assumptions for currency movements, as outlined in Fitch's *Foreign-Currency Stress Assumptions for Residual Foreign-Exchange Exposures in Covered Bonds and Structured Finance Criteria*. The FX movements are applied to periodic cash flows, factoring in the private equity CFO's hedges. For this rating analysis, the unhedged euro exposure represents about USD117 million, or 8% of total NAV, and is below the 10% unhedged FX exposure limit in the aforementioned criteria.

Valuations

Private equity fund valuations are generally made available quarterly on an unaudited basis and annually on an audited basis. Fund managers apply various valuation methods (discounted cash flow analysis, multiple analysis and so on) to the underlying holdings of the funds. Valuations are made as of a certain date and are reported to the LPs a few months following the valuation reference date. Valuation methods can vary from fund to fund, as managers have discretion on the applied techniques. However, these valuations are prepared in accordance with IFRS or generally accepted accounting principles in the US or elsewhere.

The initial valuation of Astrea 8 was based on the reported NAVs of the funds as of the latest reported NAV valuation date, Dec. 31, 2023. Between the NAV valuation date of Dec. 31, 2023 and June 2024, public markets have exhibited positive returns which may indicate that underlying fund valuations would have also grown over the same period.

Going forward, the valuation of the structure's NAV will be made at each determination date based on the most recent audited or unaudited NAVs provided by the underlying GPs. The valuations provided by each GP will be adjusted for any distributions (subtracted from NAV) and capital calls (added to NAV) made between the reference date of the GP's valuation and the distribution date of the structure. Recording the NAVs of the underlying funds, and then building those into the overall PE CFO NAV is the responsibility of the transaction manager. The structure's NAV will be reconciled to the underlying funds' capital accounts during the annual audit of the structure.

Liquidity Analysis

Fitch-reviewed liquidity coverage levels remained adequate and in line with those of some previous transactions at launch. The liquidity analysis was created using actual cash flows provided by the sponsor for the underlying portfolio from 1Q23 to 4Q23. The scenario assumes a full interest expense liability for the prospective note ratings.

Astrea 8's liquidity position is adequate. Fitch expects the transaction's liquidity position to improve as distributions increase and capital calls decrease due to the seasoning of the portfolio following the transaction's launch.

Astrea 8's Estimated One-Year Liquidity Profile

Item/Calculation	Item Description	Amount (USD Mil.)
A	Distributions in 2023	117
B	Liquidity facility part "A"	130
C	Liquidity facility part "B"	120
D = A+B+C	Total liquidity sources	367
E	Capital calls in 2023	78
F	Transaction pro-forma fees and expenses for first year	12
G	Transaction pro-forma bond interest for first year	32
H = E+F+G	Total liquidity needs	122

Astrea 8's Estimated One-Year Liquidity Profile

Item/Calculation	Item Description	Amount (USD Mil.)
I = A-E	Portfolio net cash flow	39
J = A/E	Portfolio liquidity coverage (x)	1.5
K = D-H	Transaction net liquidity	245
L = D/H	Transaction liquidity coverage (x)	3.0

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Fitch analyzed the sensitivity of Astrea 8’s transaction liquidity coverage (item L in the preceding table) by increasing and decreasing the transaction’s capital calls and distributions over the latest 12-month period. The results show that the transaction liquidity coverage remained sufficiently resilient under stress scenarios.

Liquidity Sensitivity Analysis

(As of Dec. 31, 2023)		Distributions										
		-75%	-50%	-25%	-10%	-5%	0%	5%	10%	25%	50%	75%
Capital Calls	75%	1.6	1.7	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.4	2.5
	50%	1.7	1.9	2.1	2.2	2.3	2.3	2.3	2.4	2.5	2.7	2.8
	25%	2.0	2.2	2.4	2.5	2.6	2.6	2.6	2.7	2.8	3.0	3.2
	10%	2.2	2.4	2.6	2.8	2.8	2.8	2.9	2.9	3.1	3.3	3.5
	5%	2.2	2.5	2.7	2.8	2.9	2.9	3.0	3.0	3.2	3.4	3.6
	0%	2.3	2.5	2.8	2.9	3.0	3.0	3.1	3.1	3.3	3.5	3.8
	-5%	2.4	2.6	2.9	3.0	3.1	3.1	3.2	3.2	3.4	3.6	3.9
	-10%	2.5	2.7	3.0	3.1	3.2	3.2	3.3	3.3	3.5	3.8	4.0
	-25%	2.7	3.0	3.3	3.5	3.5	3.6	3.7	3.7	3.9	4.2	4.5
	-50%	3.4	3.7	4.1	4.3	4.4	4.5	4.5	4.6	4.8	5.2	5.5
	-75%	4.4	4.9	5.4	5.6	5.7	5.8	5.9	6.0	6.3	6.8	7.2

Source: Fitch Ratings, Astrea 8 Pte. Ltd.

The Manager

Fitch considers Azalea suitably qualified, competent and capable of executing its transaction functions as the investment manager of Astrea 8.

Azalea's management team has extensive experience and institutional knowledge in the private equity sector, and it draws on and benefits from its connection with Temasek. Temasek and its affiliates have been investing in private equity funds for over two decades and remain active in this space. Additionally, Temasek and its affiliates have successfully launched a number of prior Astrea vehicles. However, Temasek and its affiliates are not providing financial support to the bonds or the transaction. As of Dec. 31, 2023, Azalea had total assets under management of USD9 billion.

The investment manager will manage the fund investments, administer key fund matters, supervise the administration of assets and bonds, make drawdowns from the credit facility as needed, manage cash flows in accordance with the priority of payments, manage investor relations and reporting to stakeholders, hedge non-US dollar assets and obligations, and perform various other administration and management services with respect to the AssetCo and the issuer.

The manager will enter into a management agreement with the issuer and will receive a 18.75bp management fee for performing such services, distributed semiannually per clause (3) of the priority of payments.

Either the issuer or the AssetCo can terminate the services of Azalea as manager for a termination event as specified in the management agreement, such as breach of duty or bankruptcy. Absent the occurrence of a specific termination event, either the issuer or the AssetCo can terminate the manager with 90 days' written notice. Upon any termination of Azalea from the role of manager, the issuer and AssetCo will use commercially reasonable efforts to appoint a substitute manager that agrees to perform the requisite duties and whose appointment would not result in a downgrade to the then-prevailing rating of the most senior class of bonds. Upon receipt of termination notice, the manager will use commercially reasonable efforts to assist the issuer and AssetCo in the appointment of a substitute.

Alternatively, Azalea may choose to resign from the role of manager by providing 90 days' written notice; however, the resignation will not be effective until a replacement that will not result in a downgrade to the then-prevailing rating of the most senior class of bonds is found. In the event the AssetCo does not appoint a substitute within 90 days of the resignation date, Azalea may select as substitute an entity willing to perform the requisite duties and whose selection will not result in a downgrade of the then-prevailing rating of the most senior class of bonds. Fitch believes these terms provide a sufficient procedural framework to find a suitable manager in the unlikely event it should become necessary.

Alignment of Interests

Astrea Capital 8 is expected to hold all the equity interests in Astrea 8 as of the settlement date, and intends to maintain its equity position. As the owner of the equity, the sponsor will bear any losses of the structure prior to bondholders, providing for the alignment of interests. The sponsor is allowed to sell the equity position, but this is not currently expected.

Security and Bankruptcy Remoteness

Bondholders, credit facility and hedge counterparties are secured by:

- A first fixed charge by the issuer over its shares in the AssetCo and the dividends in respect of those shares;
- A first fixed charge by the issuer over its bank accounts and custody accounts;
- An assignment (as security) of the issuer's rights under the shareholder loan agreement between the issuer and the AssetCo, respectively and each eligible banker's guarantee; and
- A first floating charge by the issuer of its undertaking and all its assets.

Fitch has not yet received and reviewed a legal opinion on enforceability related to the transaction; this is expected to be issued at closing.

If the legal opinion Fitch receives is not in line with its criteria, this could lead to final ratings different from the expected ratings noted in this report.

The Model

Fitch performed the cash flow analysis of the structure using a model to forecast hypothetical portfolio cash flows using historical private equity data. Private equity data were sourced from a third-party data provider and covered all quartiles of funds with vintages ranging from 1990 to 2024. The dataset encompassed buyout and growth to parallel the underlying breakdown of the Astrea 8 portfolio. The major data points driving the analysis include historical capital calls, historical distributions, and historical NAV appreciation and depreciation. The historical data within each dataset were extrapolated to simulate the average historical cash flow of a representative private equity fund. The historical cash flows were built up, as described in the *Cash Flow Scenario Analysis* section, to forecast the cash flows of Astrea 8's portfolio of private equity holdings.

The model applied the cash flows, as described above, to the priority of payments (see Appendix sections) to simulate the performance of the transaction.

Additionally, the model allowed hypothetical launch dates for the transaction to forecast performance if Astrea 8 was launched during various market cycles. This analysis used observed historical cash flows where available and applied these to the underlying portfolio based on the PE fund age and strategy profile of Astrea 8's holdings. This model provided the ability to run the analyses described in the *Cash Flow Scenario Analysis* section.

Fitch reviewed each underlying fund to determine the most appropriate asset class mapping relative to the sponsor-provided classification and the third-party cash flow dataset. Fitch mapped each fund to the most relevant strategy to align with the performance cohorts that drive Fitch's modeling using historical cash flows and information provided by the sponsor and other third parties. In all cases, Fitch's strategy classifications aligned with those of the sponsor or third parties. Furthermore, Fitch did not find instances where there was insufficient data to appropriately map them to relevant historical proxy data, and therefore, Fitch did not apply haircuts to the NAV and unfunded commitments of underlying funds in its base-case cash flow analysis.

Surveillance of Transaction

Fitch relied on information on the underlying funds for its analysis and will continue to do so for the ongoing surveillance of Astrea 8. Fitch will also receive monthly and semiannual reporting from the issuer through the life of the transaction, which will include cash flows (distributions, capital calls and so on) and valuations for the underlying portfolio, LTV calculations and other information on the transaction's financial profile.

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Negative Rating Actions/Downgrades

- Fitch expects to convert the expected ratings to final ratings, subject to receipt of final transaction portfolio composition, documentation and opinions consistent with initial issuer representations. Legal opinions, or material changes to the draft documentation, inconsistent with initial issuer representations, may result in the ratings on the bonds to be downgraded.
- Ratings of the bonds may be downgraded if cash flows materialize at levels lower than modeled in Fitch's stress scenarios. A material decline in NAV that, in Fitch's view, would indicate insufficient forthcoming cash distributions to support the bonds could also lead to rating downgrades.
- Ratings of the class A-1 and A-2 bonds may be downgraded if they fail Fitch's 'Asf' modeling scenario on a sustained basis.
- Ratings of the class A-1 and A-2 bonds may be downgraded if the ratings of any of the eligible investments or banker's guarantees in the reserves accounts are downgraded below 'AA-'.

Factors that Could, Individually or Collectively, Lead to Negative Rating Actions/Downgrades

- Fitch has an 'A' category rating cap for PE CFOs. Positive rating sensitivities are therefore not applicable for class A-1 bonds.
- The rating of the class A-2 bonds may be upgraded if they continue to pass Fitch's 'Asf' modeling scenario, with larger cushion, and the LTVs decrease materially.

Rating Assumptions Sensitivities

Fitch runs a range of sensitivity analyses on key input parameters to examine the rating stability of each rated bond. The objective of this stress testing is not to eliminate rating migration through unrealistically conservative assumptions but, rather, to test the rating impact of changes in input parameters.

Fitch reviewed the impact on the rating for the following sensitivities.

- Rating sensitivity to NAV: Portfolio NAV immediately reduced by 10%, 20% and 30%.
- Rating sensitivity to fund distributions: Portfolio-level fund distributions reduced by 5%, 10% and 15% in each period. For purposes of calculating the ending-period NAV for each period, the full modeled distributions will be considered before reducing the cash flow generated by the percentages listed above.
- Rating sensitivity to fund capital calls: Portfolio-level fund capital calls increased by 10%, 20% and 30%.

The table below shows the modeling results under the base-case scenarios (the initial rating scenarios) and under the various sensitivities. The modeling results are generated at the rating category level (i.e. 'Asf', not 'A+sf'), and the final rating may be adjusted up or down from the model-implied rating based on other qualitative factors as described in the rating criteria.

Rating Assumption Sensitivity – Model Implied Results

	Class A-1	Class A-2
Base case	Asf	Asf
NAV – 10% haircut	Asf	Asf
NAV – 20% haircut	Asf	Asf
NAV – 30% haircut	Asf	BBBsf
Distribution – 5% haircut	Asf	BBBsf
Distribution – 10% haircut	Asf	BBBsf
Distribution – 15% haircut	Asf	BBBsf
Capital call – 10% increase	Asf	Asf
Capital call – 20% increase	Asf	Asf
Capital call – 30% increase	Asf	Asf

Source: Fitch Ratings

Fitch's analysis showed the 15% distribution haircut to be the most punitive sensitivity assumption for the transaction, with the class A-2 bonds failing five of 16 fourth-quartile scenarios

Criteria Application and Data Adequacy

Criteria Application

Fitch applies the *Private Equity Collateralized Fund Obligations (PE CFO) Rating Criteria* as its sector-specific criteria under the overarching framework provided by the *Global Structured Finance Rating Criteria*, which is the master criteria for the sector. The *Structured Finance and Covered Bonds Counterparty Rating Criteria* and the *Structured Finance and Covered Bonds Counterparty Rating Criteria: Derivative Addendum* outline Fitch's approach to counterparty risk that is relevant for the ratings. The *Covered Bonds Rating Criteria* and *Fitch's Foreign-Currency Stress Assumptions for Residual Foreign-Exchange Exposures in Covered Bonds and Structured Finance – Supplementary Data File* provide the framework for Fitch's analysis of the foreign-currency exposure for the ratings. See *Applicable Criteria* on page 2.

Data Adequacy

As the timing and size of the cash flows is uncertain, Fitch used historical PE fund performance data from a well-known third-party data provider, which cover all performance quartiles of buyout, mezzanine, energy, secondaries, growth, venture, special situations, real estate, natural resources and debt with vintages ranging from 1990 to 2024 to model expected distributions, capital calls and NAVs of the private equity funds.

Appendix 1: Portfolio Composition

Astrea 8 Pte. Ltd

(As of Dec. 31, 2023)

No.	Funds	Vintage	Geography	Strategy	Commitment (USD Mil.)	NAV (USD Mil.)	% of NAV	Undrawn Capital Commitments (USD Mil.)	Total Exposure (USD Mil.)	% of Total Exposure
1	Advent International GPE IX-G Limited Partnership	2019	U.S.	Buyout	40.0	52.2	3.5	2.7	54.9	3.4
2	AEA Investors Fund VII LP	2019	U.S.	Buyout	35.0	36.6	2.5	1.0	37.6	2.3
3	Bain Capital Fund XII, L.P.	2017	U.S.	Buyout	35.0	50.4	3.4	6.9	57.3	3.6
4	Carlyle Partners VII, L.P.	2018	U.S.	Buyout	25.0	29.6	2.0	1.4	31.0	1.9
5	Clayton, Dubilier & Rice Fund X, L.P.	2017	U.S.	Buyout	35.0	44.5	3.0	4.6	49.1	3.1
6	Harvest Partners VIII (Parallel), L.P.	2019	U.S.	Buyout	35.0	39.0	2.6	4.0	43.0	2.7
7	KKR Americas Fund XII L.P.	2017	U.S.	Buyout	35.0	43.8	3.0	4.2	48.0	3.0
8	L Catterton IX Offshore, L.P.	2020	U.S.	Buyout	35.0	33.5	2.3	5.6	39.1	2.4
9	L Catterton VIII Offshore, L.P.	2017	U.S.	Buyout	20.0	15.0	1.0	3.7	18.7	1.2
10	Onex Partners V LP	2018	U.S.	Buyout	40.0	45.0	3.0	5.6	50.6	3.2
11	Providence Equity Partners VIII-A L.P.	2018	U.S.	Buyout	25.0	30.3	2.1	4.1	34.4	2.1
12	Silver Lake Partners V, L.P.	2018	U.S.	Buyout	40.0	42.2	2.9	5.2	47.4	3.0
13	Silver Lake Partners VI, L.P.	2020	U.S.	Buyout	50.0	55.9	3.8	3.3	59.2	3.7
14	The Veritas Capital Fund VI, L.P.	2017	U.S.	Buyout	15.0	17.1	1.2	2.2	19.3	1.2
15	Thoma Bravo Fund XIII-A, L.P.	2018	U.S.	Buyout	50.0	73.9	5.0	4.3	78.2	4.9
16	TPG Partners VII, L.P.	2015	U.S.	Buyout	25.0	9.9	0.7	2.7	12.6	0.8
17	TPG Partners VIII, L.P.	2019	U.S.	Buyout	35.0	42.9	2.9	5.1	48.0	3.0
18	A9 EUR Feeder L.P.	2016	Europe	Buyout	44.2	38.1	2.6	4.2	42.3	2.6
19	Carlyle Europe Partners V, S.C.SP.	2018	Europe	Buyout	27.6	22.3	1.5	7.3	29.6	1.8
20	CVC Capital Partners VII A L.P.	2017	Europe	Buyout	44.2	61.5	4.2	2.5	64.0	4.0
21	EQT VIII (No.1) SCSP	2018	Europe	Buyout	33.1	35.1	2.4	3.5	38.6	2.4
22	KKR European Fund V (EUR) SCSP	2019	Europe	Buyout	27.6	30.3	2.1	3.2	33.5	2.1
23	Permira VI L.P.1	2016	Europe	Buyout	44.1	58.5	4.0	9.1	67.6	4.2
24	Permira VII L.P.1	2019	Europe	Buyout	44.1	47.5	3.2	5.1	52.6	3.3
25	Hahn & Company III L.P.	2018	Asia	Buyout	35.0	46.5	3.2	7.7	54.2	3.4
26	MBK Partners Fund IV, L.P.	2017	Asia	Buyout	40.0	50.8	3.4	0.5	51.3	3.2
27	PAG Asia III LP	2018	Asia	Buyout	42.5	40.4	2.7	6.2	46.6	2.9
28	TPG Asia VII B, L.P.	2018	Asia	Buyout	30.0	32.0	2.2	5.0	37.0	2.3
29	GGV Capital VI L.P.	2016	U.S.	Growth	18.7	22.8	1.6	0.2	23.0	1.4
30	GGV Capital VI Plus L.P.	2018	U.S.	Growth	6.3	5.1	0.3	0.3	5.4	0.3
31	Insight Partners (Cayman) XI, L.P.	2019	U.S.	Growth	30.0	43.4	3.0	0.9	44.3	2.8

Astrea 8 Pte. Ltd

(As of Dec. 31, 2023)

No.	Funds	Vintage	Geography	Strategy	Commitment (USD Mil.)	NAV (USD Mil.)	% of NAV	Undrawn Capital Commitments (USD Mil.)	Total Exposure (USD Mil.)	% of Total Exposure
32	Insight Venture Partners (Cayman) X, L.P.	2017	U.S.	Growth	35.0	74.9	5.1	2.0	76.9	4.8
33	Raine Partners III LP	2018	U.S.	Growth	25.0	24.9	1.7	0.3	25.2	1.6
34	TA XIII-B, L.P.	2019	U.S.	Growth	40.0	52.2	3.5	3.4	55.6	3.5
35	Warburg Pincus Global Growth, L.P.	2019	U.S.	Growth	35.0	42.6	2.9	3.1	45.7	2.8
36	Hillhouse Fund III Feeder LP	2016	Asia	Growth	20.0	22.9	1.6	1.6	24.5	1.5
37	Hillhouse Fund IV Feeder, L.P.	2018	Asia	Growth	20.0	25.5	1.7	0.0	25.5	1.6
38	Warburg Pincus China, L.P.	2016	Asia	Growth	35.0	32.3	2.2	-	32.3	2.0
Total					**1,252.4**	**1,471.4**	**1.0**	**132.7**	**1,604.1**	**1.0**

Notes: Bain Capital Fund XII, L.P includes interests in Bain Capital Empire Holdings, L.P., which represent the asset-owning company's *pro-rata* interest in one of Bain Capital's portfolio companies, which was rolled over to this special purpose vehicle set up and managed by Bain Capital. Insight Venture Partners (Cayman) X, LP includes interests in Insight Partners Continuation Fund II, L.P., which represent the asset-owning company's *pro-rata* interest in several of Insight Partners' portfolio companies, which was rolled over to this special purpose vehicle set up and managed by Insight Partners.
Source: Fitch Ratings, Astrea 8 Pte. Ltd.

Appendix 2: Terms of Bonds

Priority of Payments

Unless and until an enforcement event occurs, the payments to be made on each distribution date from the available cash flow (defined below) of the issuer as of the distribution reference date relating to such distribution date shall be made in the following order of priority:

1. Payment of taxes (if any) of the issuer and the asset-owning companies and expenses (other than those provided for in clauses 2 through 11 of the priority of payments) up to an aggregate cap of USD0.9 million per distribution period (which will be proportionately adjusted for a distribution period that is longer or shorter than six months, the "clause 1 cap").
2. Payment of amounts due and payable to the hedge counterparty under any hedge agreement in respect of swap transactions entered into by the issuer (save for the amounts payable under clause 10).
3. Manager fees.
4. Payment for the following uses relating to the credit facility agreement in the following order:
    a. credit facility commitment fees;
    b. credit facility interest expense and any other payables; and
    c. credit facility principal repayment.
5. Class A-1 and A-2 bond interest expense on a *pari passu* and *pro-rata* basis.
6. If net cash proceeds are received from sale or disposal of fund investments pursuant to the exercise of the disposal option, payment of 100% of cash flow remaining after clauses 1 through 5:
    a. So long as any class A-1 bond is outstanding, to the reserves accounts until the total reserves accounts cap (including eligible banker's guarantees) has been met; or
    b. upon and after full redemption of all class A-1 bonds, to the reserves accounts until the class A-2 reserves accounts cap (including eligible banker's guarantees) has been met.

In either case, until the amount so paid under this clause 6 is equal to (but not exceeding) the total amount of net cash proceeds so received.

7. Payment for the following uses in the following order:

So long as any class A-1 bond is outstanding:

Payment to reserves accounts for the following uses in the following order:

a. Payment for the amount of any losses realized on investments held in reserves custody account until such losses have been recouped;
b. Payment for the unpaid reserve amount applicable to such distribution date; and
c. Payment for the reserve amount applicable to such distribution date.

Upon and after full redemption of all class A-1 bonds, or after the class A-1 bonds have been fully reserved, whichever is earlier:

d. Payment of 90% of cash flow remaining after clauses 1 through 7 c) to the reserves accounts up to the total reserves accounts cap (including banker's guarantees, so long as any class A-1 bond is outstanding) or the class A-2 reserves accounts cap (including banker's guarantees, upon and after the full redemption of all class A-1 bonds) has been met.

8. If the maximum LTV ratio of 40% has been exceeded, payment of 100% of cash flow remaining after clauses 1 through 7:

a. So long as any class A-1 bond is outstanding, to the reserves accounts until the total reserves accounts cap (including banker's guarantees) has been met

b. Upon and after full redemption of all class A-1 bonds, to the reserves accounts until the class A-2 bonds reserves accounts cap (including banker's guarantees) has been met.

In either case, until the maximum LTV ratio is no longer exceeded.

9. Administrative expenses in excess of the clause 1 cap and any other expenses.

10. Payment of amounts due and payable to any hedge counterparty under any hedge agreement in respect of the early termination of swap transactions entered into by the issuer where such early termination is due to an event of default with respect to which such hedge counterparty is the defaulting party (as defined in such hedge agreement) or a termination event (as defined in such hedge agreement) with respect to which such hedge counterparty is the affected party (as defined in such hedge agreement).

11. Payment of 100% of the cash flow remaining after clauses 1 through 10 of the priority of payments to the equity investor(s).

Provided always that:

a. All capital calls will be paid first from the total cash balance in the operating accounts when due (even if such due date falls on a distribution date);

b. for any taxes or administrative expenses of any of the issuer and the asset-owning companies due on any date that is not a distribution date, such taxes or expenses will be paid from the total cash balance in the operating accounts when due. The amount of such payments will, on the next distribution date, be included in the calculation for determining whether the clause 1 cap has been met;

c. for any interest or principal repayment due on any loan made under the credit facility agreement (each a CF loan) on a date that is not a distribution date, such interest or principal repayment will be paid from the total cash balance in the operating accounts when due; and

d. for any payment due on any swap transaction under clause 2 above on any date that is not a distribution date, such payment will be paid from the total cash balance in the operating accounts.

In relation to each distribution reference date, available cash flow is defined as the total cash balance in the operating accounts as of such distribution reference date less the retained amount. For the avoidance of doubt, the total cash balance in the operating accounts includes, without limitation:

a. Any amounts transferred from the collection accounts;

b. Interest income and realized gains received from the reserves accounts and the reserves custody accounts;

c. Cash balance (if any), and the net proceeds realized from disposing all assets then held, in the operating custody accounts;

d. Proceeds of any CF loans;

e. Any retained amount and additional retained amount from the preceding distribution period;

f. Proceeds of any equity investments; and

g. The transfer of the residual balance from the settlement accounts (after the bond proceeds have been used for (a) repaying a certain portion of equity investor(s) shareholder loan(s) incurred in connection with the asset-owning companies' acquisition of the fund investments and (b) payment of fees and expenses incurred in connection with the issue and offering of the bonds.

Post-Enforcement Priority of Payments

If an event of default has occurred and the bonds have been accelerated (together, an enforcement event), all cash in the collection accounts will be swept to the operating accounts (via a daily cash flow sweep) and all available funds in the operating accounts, reserves accounts, and settlement accounts (except for amounts set aside for repaying a certain portion of the existing shareholder loans from the equity investor(s) incurred in connection with the acquisition of fund investments and payment of fees and expenses incurred in connection with the issue and offering of the bonds) will be applied according to the following post-enforcement priority of payments:

1. Payment of amounts due under clause 1 of the priority of payments. With regard to amounts due for payments of administrative expenses under clause 1 of the priority of payments, only those amounts required for enforcement of the security or the bonds will be paid under this clause 1. The amounts paid under this clause 1 will be paid without regard to any caps.
2. Payment of any amounts due and outstanding to the hedge counterparty under any hedge agreement in respect of swap transactions entered into by the issuer (save for the amounts payable under clause 8 below).
3. Payment for the following uses relating to the credit facility agreement in the following order:
   a. credit facility commitment fees;
   b. credit facility interest expense and any other payables; and
   c. credit facility principal repayment.
4. Payment of accrued and unpaid interest on class A-1 and A-2 bonds on a *pari passu* and *pro-rata* basis.
5. Repayment of outstanding principal amount (and, if applicable, premium) of class A-1 and
   A-2 bonds on a *pari passu* and *pro-rata* basis.
6. Payment of any unpaid administrative expenses or any other expenses not included in clause 1 above.
7. Payment of any capital calls.
8. Payment of amounts due and payable to any hedge counterparty under any hedge agreement in respect of the early termination of swap transactions entered into by the issuer where such early termination is due to an event of default with respect to which such hedge counterparty is the defaulting party (as defined in such hedge agreement) or a termination event (as defined in such hedge agreement) with respect to which such hedge counterparty is the affected party (as defined in such hedge agreement).
9. Payment to equity investor(s).

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