

# **Executive Summary**

## **1. Overview of the Valuation Framework**

This aircraft valuation model has been developed using a discounted cash flow (DCF) framework consistent with industry practice in aircraft leasing, structured finance, and investment committee (IC) review. The objective of the model is to assess whether the assumed lease rental profile and residual value assumptions generate a return that meets the required cost of capital. The valuation is performed on a single-aircraft basis and reflects a long-term ownership perspective. The model explicitly forecasts contractual lease rental cash flows over the lease tenor and incorporates a terminal residual value at lease expiry, both of which are discounted using the assumed weighted average cost of capital (WACC).

## **2. Aircraft, Pricing, and Transaction Assumptions**

The aircraft acquisition value used in the model is derived from the manufacturer list price and adjusted to reflect prevailing market conditions. These adjustments include a market discount to account for negotiated transaction pricing and a model factor to reflect the aircraft's technical configuration, market liquidity, and relative demand within its segment. The resulting base value is intended to represent a realistic purchase price rather than a theoretical or headline figure. The valuation assumes acquisition at this base value at time zero.

## **3. Lease Revenue and Maintenance Reserve Assumptions**

Lease revenue is modeled as a fixed annual rental amount over the lease term. The annual rent is expressed and analysed through the lease rate factor (LRF), defined as annual rent as a percentage of aircraft value. Maintenance reserves are excluded from economic value creation in the model and are assumed to be broadly cash-neutral over the life of the asset. This treatment reflects standard lessor practice, whereby maintenance reserves are collected to fund future maintenance events and do not represent incremental return to equity.

## **4. Discount Rate and Financial Assumptions**

All cash flows are discounted using a single WACC, which represents the target return required by investors for the risk profile of the asset. The WACC is applied consistently to lease rental cash flows and the terminal residual value. Discounting is performed on an annual basis using end-of-period conventions. The WACC is treated as an exogenous input and is independently tested through sensitivity analysis to assess exposure to capital market conditions.

Assumptions Table			
Category	Assumption	Value	Notes
Aircraft	List Price (USD)	60000000	OEM list
Aircraft	New Aircraft Discount	0.2	Market discount
Aircraft	Model Factor %	0.95	Spec adj
Valuation	First Year Retention %	0.85	BV(1)/BV0
Valuation	BVO(Base Value)	45600000	Policy Assumption
Valuation	Eular Constant(k)	0.16	LN(BV1)/BV0
Valuation	Depreciation Period	12.00	
Valuation	Depreciation/Residual	19904400	Max of Exponential Depreciation or 45 % of BVO
Valuation	Economic Life (yrs)	25	Horizon
Market Assumption	Risk Free Rate	0.04	Gvt Bonds
Market Assumption	Beta	1.1	
Market Assumption	ERP	0.055	Equity Risk Premium(Market)
Market Assumption	CM	0.025	Credit Margin/Spread(Secured Debt)
Assets Specific Assumptions	ARP(Assets Risk Premium)	0.015	Assets/Business Risk(Aviation Cyclicity)
Assets Specific Assumptions	RVP(Residual Value Premium)	0.0075	Long-dated Exit Risk
Assets Specific Assumptions	LP (Liquidity Premium)	0.005	Downtime Risk
Lease	AF(Annuity Factor)	7.84	Market
Lease	PV of Residual	859132	Present value of residual
Lease	Aircraft Lease/Rent	4722366	
Lease	LRF	0.86%	
Lease	LRF (annual)	10.36%	
Lease	Lease Term (yrs)	12	Base lease
Ops	Flight Hours / year	3000	Utilisation
Maintenance	Reserve per FH	5	USD
Transaction	Selling Costs %	0.03	Broker + transition
Finance	Cost of Equity	0.128	Hybrid
Finance	Cost of Debt	0.065	Pre-tax
Finance	Debt Ratio	0.7	Target Capital Structure
Finance	Equity Ratio	0.3	Target Capital Structure
Finance	Tax Rate	0.25	Corp tax
Finance	WACC	0.07253	

## 5. Depreciation Methodology and Residual Value Logic

The model applies an economic depreciation framework rather than accounting depreciation. Aircraft value decay is driven by age, utilization, technological obsolescence, and market dynamics. Residual value at lease expiry is estimated based on expected market value at the end of the lease term. A selling cost assumption is applied to derive a net realizable residual value, which is then discounted back to present value using the WACC. This approach ensures that exit value assumptions are conservative, transparent, and aligned with observed secondary market behavior.

## 6. Valuation Methodology

The enterprise value of the aircraft is calculated as the sum of the present value of lease rental cash flows and the present value of the net residual value. Lease rentals are discounted using an annuity factor derived from the WACC and lease tenor, while the residual value is discounted as a single terminal cash flow. The initial investment outlay is compared against the discounted cash inflows to derive net present value (NPV) and internal rate of return (IRR). The model is calibrated such that the base-case NPV is approximately zero.

## 7. Base-Case Results and Interpretation

Under base-case assumptions, the model produces an NPV close to zero and an IRR that aligns with the assumed WACC. This outcome indicates that the lease rental level is appropriately calibrated to recover the aircraft acquisition cost and generate the required return. The implied LRF is consistent with current market benchmarks for comparable aircraft, supporting the conclusion that the valuation reflects fair market pricing rather than an arbitrage scenario.

## 8. Sensitivity Analysis and Risk Assessment

Sensitivity analysis has been performed on the key valuation drivers, including WACC, LRF, and residual value. The WACC sensitivity demonstrates the model's exposure to capital market conditions, with higher

discount rates having a disproportionate impact on long-dated residual cash flows. LRF sensitivity highlights commercial placement risk, showing the impact of lease pricing deviations from market levels. Residual value sensitivity confirms exit value risk as one of the primary determinants of long-term aircraft economics.

Cash Flow	0 Year	1 Year	2 Year	3 Year	4 Year	5 Year	6 Year	7 Year	8 Year	9 Year	10 Year	11 Year	12 Year
Rent (In Flow)	0	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366
Cash Out Flow(CapEx)	-45,600,000	-	-	-	-	-	-	-	-	-	-	-	-
Discounted Rent	-	4,403,036	4,105,299	3,827,695	3,568,863	3,327,534	3,102,523	2,892,728	2,697,120	2,514,738	2,344,690	2,186,140	2,038,311
Actual Residual	-	-	-	-	-	-	-	-	-	-	-	-	19,904,400
Discounted Resid	-	-	-	-	-	-	-	-	-	-	-	-	8,591,322
Total Cash Flow	-45,600,000	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	4,722,366	24,626,766
WACC	7.25%												
Residual	8,591,322												
LRF	10.36%												
NPV	0												
IRR	7.25%												
WACC Sensitivity													
WACC	AF	PVR	Annual Rent	LRF	NPV								
6.10%	8.3	9780577	4295888	9.4%	₹ 3,556,000								
6.60%	8.1	9244057	4480199	9.8%	₹ 1,665,139								
7.25%	7.8	8590841	4722552	10.4%	₹ 1,460								
7.60%	7.7	8264219	4852083	10.6%	₹ 998,145								
8.10%	7.5	7817012	5039622	11.1%	₹ 2,378,528								
IRR Sensitivity with LRF and NPV													
LRF		NPV>>											
7.25%		3,556,000	1,965,139	0	-998,146	-2,378,528							
9.4%		6.10%	6.10%	6.10%	6.10%	6.10%							
9.8%		6.60%	6.60%	6.60%	6.60%	6.60%							
10.4%		7.25%	7.25%	7.25%	7.25%	7.25%							
10.6%		7.60%	7.60%	7.60%	7.60%	7.60%							
11.1%		8.10%	8.10%	8.10%	8.10%	8.10%							
Residual Sensitivity with WACC and LRF													
WACC		LRF >>											
8,591,322		9.42%	9.82%	10.36%	10.64%	11.05%							
6.10%		9,780,577	9,780,577	9,780,577	9,780,577	9,780,577							
6.60%		9,244,057	9,244,057	9,244,057	9,244,057	9,244,057							
7.25%		8,590,841	8,590,841	8,590,841	8,590,841	8,590,841							
7.60%		8,264,219	8,264,219	8,264,219	8,264,219	8,264,219							
8.10%		7,817,012	7,817,012	7,817,012	7,817,012	7,817,012							

## 9. Overall Conclusion

The aircraft valuation model is internally consistent, transparent, and aligned with industry best practice. The assumptions, depreciation logic, and sensitivity results provide a clear view of both base-case economics and downside risk exposure. The model is suitable for use in investment committee review, credit assessment, and client-facing valuation support.

Summary Table	
Key Output	Base
BV at Delivery	45,600,000
MV at Delivery	45,600,000
Year-1 Rent	4,722,366
Residual @ Lease End	19,904,400
Project NPV	0
Project IRR	7.3%
WACC	7.25%
<b>Note:-</b>	
Condition	Interpretation
IRR > WACC	Value is created; the investment earns returns above the required cost of capital
IRR = WACC	Break-even / fairly priced; no economic value is created or destroyed
IRR < WACC	Value is destroyed; returns are insufficient to compensate capital providers

## Dashboard >>>

