

INVESTING IN AIRCRAFT – A COMPARISON OF INVESTMENT OPTIONS

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**Managing Director,
Business Development
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- Nearly 20 years of structured finance experience
- Joined Castlelake in 2017
- Focused on originating new investment opportunities and investment financing
- Based in Castlelake's Minneapolis office
- Previously oversaw syndication for ABS, CLOs and private lending at Deutsche Bank

CASTLELAKE OVERVIEW

- Founded in 2005
- \$13.1 billion AUM¹
 - Nine private equity funds
 - Four aircraft ABS debt structures
- Approximately 135 employees
 - ~35 aviation professionals²
- Focus on asset-based, cash-flowing opportunities
- Diversified granular investment portfolio



1. As of December 31, 2017
2. Includes shared Castlelake resources

CASTLELAKE'S INVESTMENT STRATEGIES



Aviation

Younger mid-life to end-of-life commercial aircraft and engines



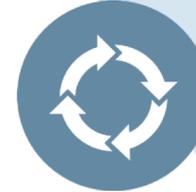
European Assets

Discrete assets and secured NPL portfolios across Europe



U.S. Assets

Secured NPL portfolios and niche direct investments



Dislocated Industries

Dislocated and cyclical industries in need of liquidity; middle market corporate special situations



Global Special Situations

Special situations across global markets

THE COMMERCIAL BACKDROP

- The global demand for air travel is high
 - Passenger demand outpacing supply
 - Passenger traffic driven by growth in Africa, Latin America, Middle East & Asia-Pacific¹
- Forecasts indicate demand will continue to rise
- A benign macro environment has been supportive of the industry
 - Despite increasing fuel costs applying pressure on airline earnings, industry profits are forecasted to increase to \$38.4 billion in 2018 compared to profits of \$34.5 billion in 2017¹
- New orders are expected to continue driving demand for aircraft finance
 - In 2020, the global aircraft finance industry is expected to require ~\$172 billion in funding to meet the new aircraft demand²

1. Source: IATA as of December 2017

2. Amount of funding necessary in the global aircraft finance industry from 2016 to 2022 (in billion U.S. dollars); Statista 2018

ASSET CLASS ADVANTAGES

- Real asset
 - Provides a measure of inflation protection
- Global diversification
 - Exposure to multiple economies through fleet operations
- Asset transferability
 - Ability to quickly move asset into favorable economic environments
- May offer investors yield in a low interest rate environment
- Generally cash-flowing, higher yielding compared to other hard asset classes
- Residual value can offer some downside protection
- Multiple ways to access the asset class via financial instruments

ASSET CLASS CHALLENGES

- The aviation space is cyclical in nature
 - A fixed term equity investment strategy may not generate the best returns
 - Important to understand and time investments within the cycle
- Both assets and financial instruments are illiquid
- Complexity is a barrier
- Depreciating assets
 - Diverging opinions around economic life after 25
- Credit risk is inherent

INVESTMENT OPTIONS

- Investors can access the aviation asset class in many ways:
 - Publicly-listed lessor equity
 - Publicly listed airline equity
 - Aircraft ABS
 - Rated, unsecured lessor debt
 - ABS e-certificates
 - Structured mezzanine debt
 - Asset acquisition
 - Direct lending
 - Airline loans

INVESTMENT APPROACHES

- Clearly defined strategy is key to success
- Active approach is important to managing an illiquid asset
 - High touch relationship management
 - Ensuring alignment of interest between counterparties
 - Servicers are differentiated when cash flows are disrupted
 - It is critical to have asset management infrastructure in place
- Conflict management
 - Ownership in ABS vs. balance sheet
- Asset considerations
 - New vs. used
 - Narrowbody vs. widebody

AIRCRAFT AGE

- Investor participation depends on aircraft vintage and risk tolerance
- Mid-life aircraft are generally higher yielding
 - Older mid-life: 20.0% - 25.0%
 - Younger mid-life: 15.0% - 20.0%
 - New: 8.0% - 10.0%
- Maintenance and asset management become increasingly important as you move up the age spectrum
- The depreciation curve flattens as aircraft age



BUILDING AVIATION INFRASTRUCTURE

- Castlelake developed an in-house servicing platform to actively manage normal volatility within the illiquid asset class
- Fully-integrated team combines critical functions:
 - Origination, remarketing & trading
 - Underwriting
 - Asset management & technical
 - Operations
 - Capital Markets
- Built alongside fleet growth
- Experienced team includes former airline, OEM, MRO, part-out and leasing company personnel

CAPITAL MARKETS FINANCINGS

- Portfolio Management
 - The key is managing the structure not just the asset
- Passive investment
 - Originator and aircraft management expertise is important
- Bonds
 - Typically fixed rate returns; E-Notes
 - Credit enhancement and tranching of Notes
- Portfolio Review
 - Aircraft types; counterparties and jurisdictions
- Cash flow interruptions
 - Airline defaults, transitions, etc.
 - Prepayments and make-whole protection

LESSOR FINANCINGS

- Lender into an SPC Company
 - Typically a group company of the aircraft lessor
- Recourse/non-recourse deals
- Individual and multiple aircraft financings
- Allows lenders to take a less active role
 - Leasing company is expected to manage airline relationships
- Financing of multiple aircraft will typically need to include:
 - LTV covenants
 - Debt service coverage covenants
 - Airline counterparty concentration limits
 - Provisions related to off-lease/remarketing time periods

RECENT TRENDS

- M&A or large portfolio acquisitions
 - Considerations include:
 - Platform valuation
 - Personnel
 - Competition
 - Tax
- Misaligned interests
 - Capital competition loosens underwriting standards
 - Important to ensure those with the most information and control do not wear the least risk

SUMMARY

- Aviation financing may offer strong risk-adjusted returns for investors
- The requirement for aircraft financing is set to continue
 - Those entering the business should understand the risks, and ally with experienced professionals