# Investing in Real Assets: Finding Value in Asset-Based Investments

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# Trends driving change and growth in real assets

**Understanding the interplay between current and long-term trends provides us with distinct investment perspectives**

**Technological innovation**

**Fast growing cities**

**Government focus**

**Sustainability considerations**

**Expansion and blending of the investment universe**

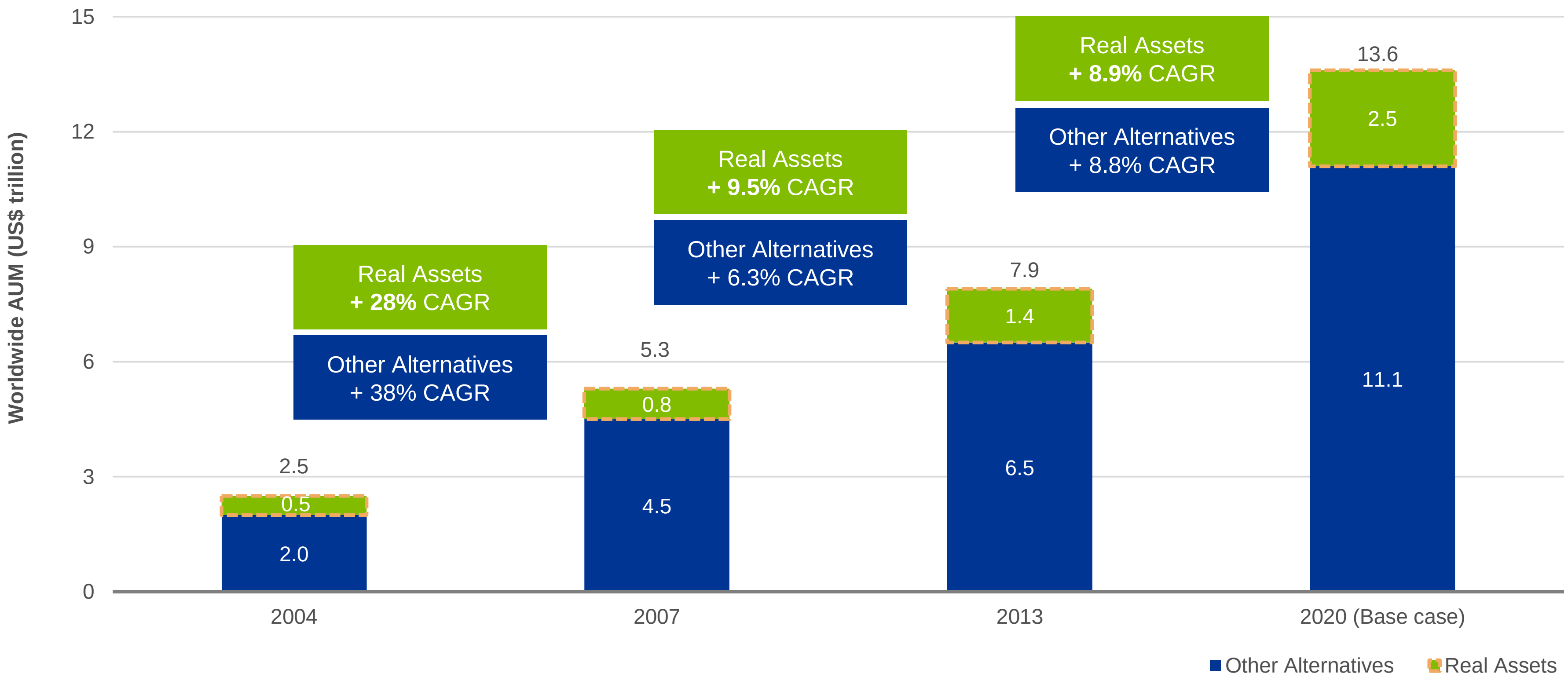
**Competition for prime assets**

Source: BlackRock as of September 2016. For illustrative purposes only

# We are only at the starting point of a boom in real assets investing

**Real assets is projected to remain the fastest growing alternatives sector through 2020**

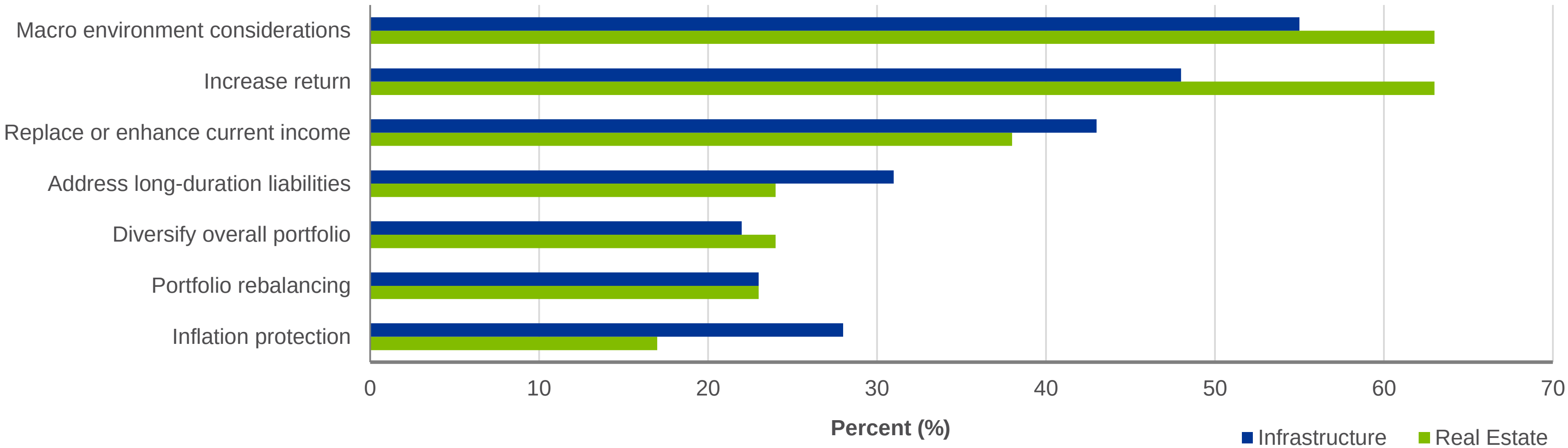
- Annual infrastructure spending is expected to increase from US$4tn in 2012 to US$9tn by 2025[1]
- The global invested real estate universe could grow to US$23.5tn by 2020[2]




Source: 1) PwC as of August 17, 2015. Other Alternatives includes private equity, hedge funds and funds of hedge funds. 2) BlackRock as of August 17, 2015. There is no guarantee that the forecasts made will come to pass.

# Real assets can help address investor needs

## Investors are telling us they turn to real assets for:[1]




## The opportunity set spans the debt and equity of multiple sectors

Power, renewables

Energy

Transport

Other

Retail

Office

Apartments

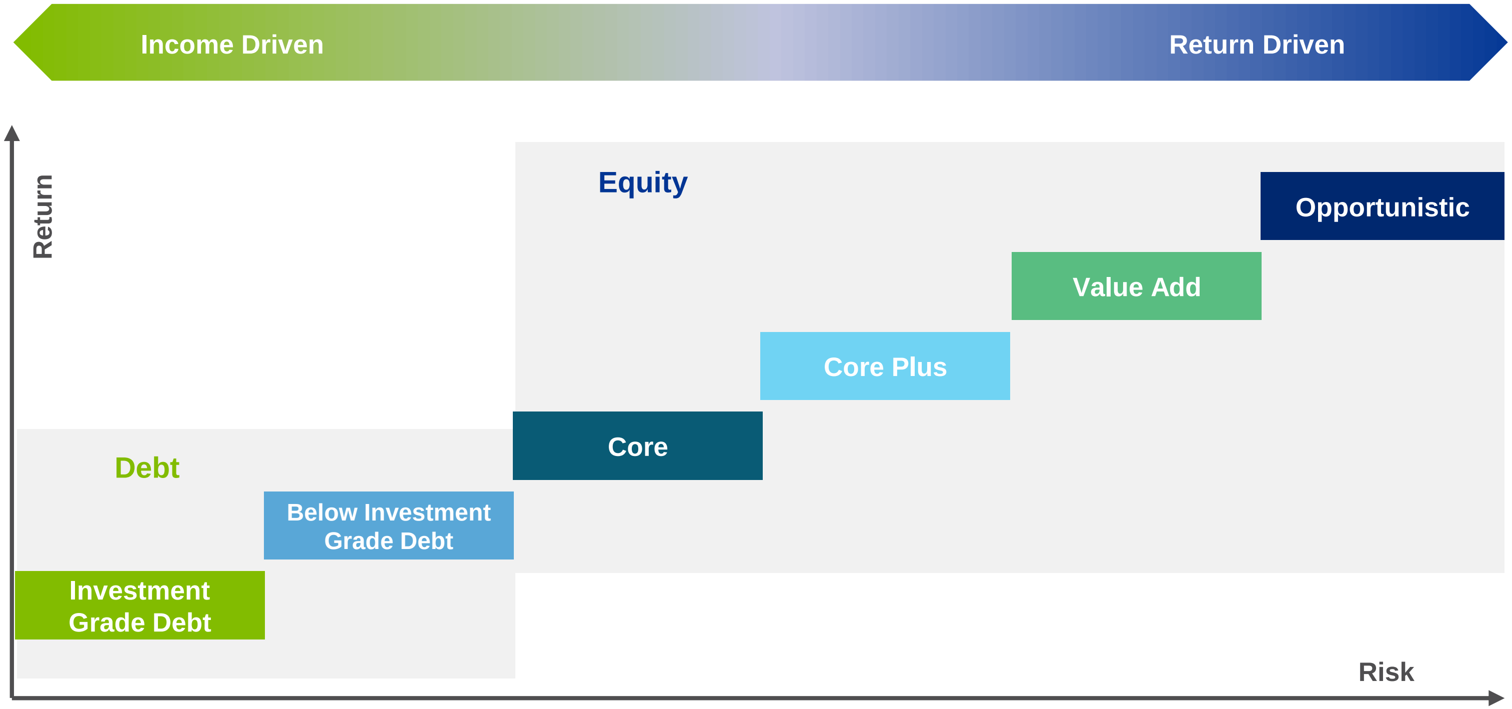
Industrial

Source: 1) BlackRock and The Economist Intelligence Unit as of September 2014; global survey of 201 executives from institutional investment organizations in 30 countries to ascertain their level of interest in and strategies related to real-asset investment. Photos are shown for illustrative purposes only.

# Outcome orientation

**Real asset strategies span the entire risk / return spectrum and address client needs and preferences, including:**

- Income/yield
- Return/appreciation
- Liquidity needs
- Risk tolerance
- Inflation protection
- Levered/unlevered



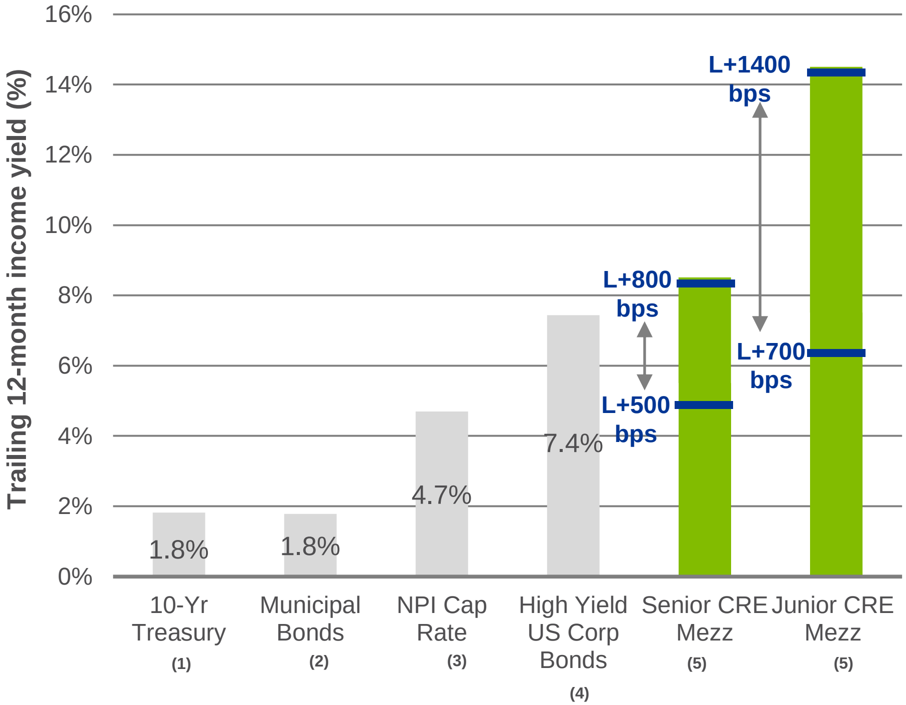

Notes: For illustrative purposes only. There are no guarantees the segment return range will be met in any given investment in future.

# Market Opportunity

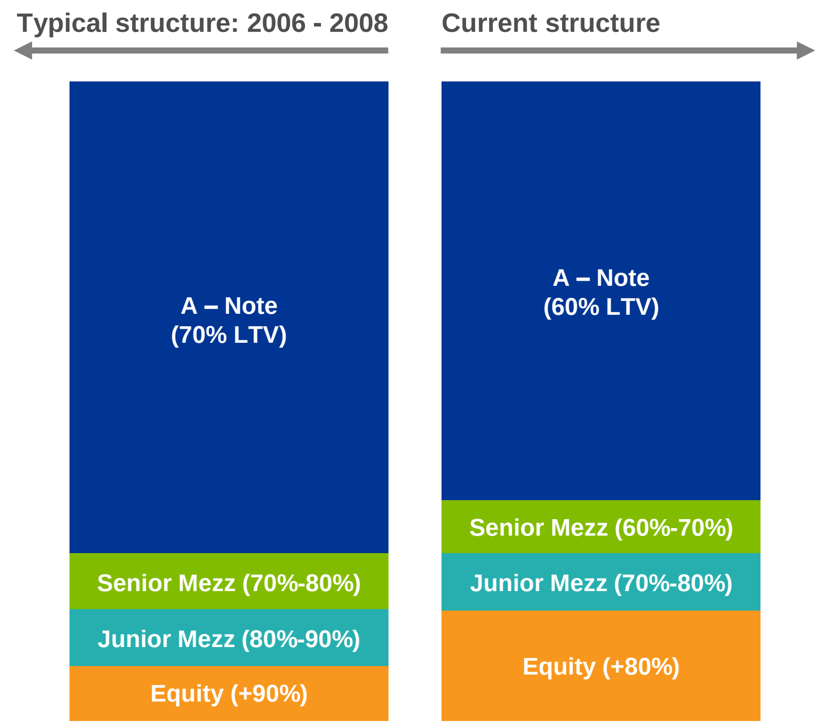
# Compelling current income from high yield real estate debt with improved risk

## Potential opportunity to lend at lower LTV attachment points relative to 2006-2008 levels and earn attractive current income yields secured by stable cash flows

### Current income may drive majority of gross total return




### Risks more manageable with more conservative loan-to-value levels[1]



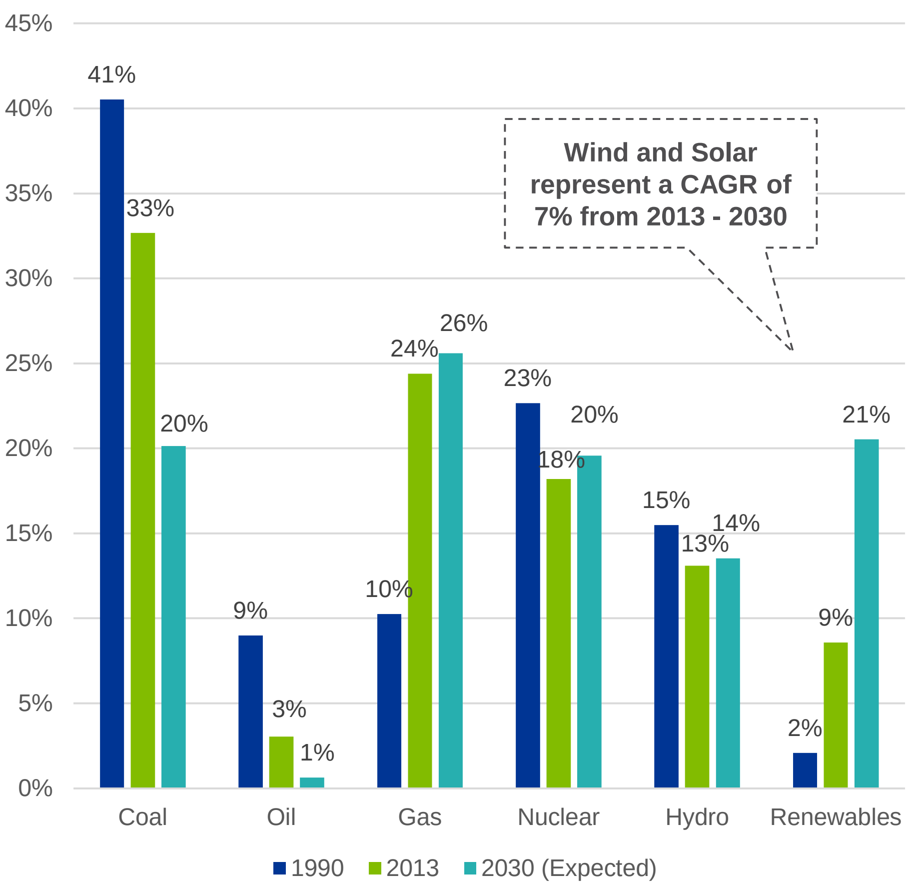

1 For illustration purposes only; structure will vary

Trailing 12-month averages sourced from (1) Bloomberg, (2) S&P National AMT-Free Municipal Bond Index weighted avg. YTM as of 2 November 2016 (3) NCREIF Property as of September 30, 2016 (4) FINRA BLP Active HY US Corp. YTM as of 2 November 2016; Spreads for mezzanine debt as of 30 September 2016 with a LIBOR floor of 0-0.50% and LTV attachment points ranging from 65% to 90% sourced from (5) Cushman & Wakefield. Indexes are unmanaged and used for illustrative purposes only and are not intended to be indicative of any fund's performance. It is not possible to invest directly in an index. There is no guarantee an investor will achieve the returns outlined above.

# The Mainstreaming of Renewable Power

## Wind and solar are becoming a central part of the global generation mix

**OECD Power Generation Mix shifting towards Gas and Renewables and away from Coal and Oil[1]**




**Renewables are a significant component of historical deal flow[2]**

**North America**

| By $ volume | By number of transactions |
|---|---|
| 1. Energy (105bn) | 1. Renewables (426) |
| 2. Renewables (98bn) | 2. Power (176) |
| 3. Power (79bn) | 3. Energy (69) |
| 4. Transport (41bn) | 4. Transport (55) |
| 5. Social (7bn) | 5. Social (50) |

**Europe**

| By $ volume | By number of transactions |
|---|---|
| 1. Transport (143bn) | 1. Renewables (765) |
| 2. Renewables (100bn) | 2. Transport (203) |
| 3. Energy (70bn) | 3. Social (156) |
| 4. Power (53bn) | 4. Power (68) |
| 5. Social (28bn) | 5. Energy (67) |

**LatAm**

| By $ volume | By number of transactions |
|---|---|
| 1. Transport (52bn) | 1. Renewables (523) |
| 2. Renewables (49bn) | 2. Transport (138) |
| 3. Power (28bn) | 3. Power (99) |
| 4. Energy (17bn) | 4. Energy (31) |
| 5. Social (3bn) | 5. Social (18) |

**APAC**

| By $ volume | By number of transactions |
|---|---|
| 1. Transport (199bn) | 1. Renewables (599) |
| 2. Power (159bn) | 2. Transport (468) |
| 3. Energy (115bn) | 3. Power (381) |
| 4. Renewables (64bn) | 4. Energy (107) |
| 5. Social (23n) | 5. Social (99) |

Source: 1) International Energy Agency as of 2015, 2) Dealogic Cumulative deal flow from 2011-2016. Data excludes project financings in sectors outside BlackRock's definition of infrastructure, such as mining, oil and gas exploration, and manufacturing. Asia excludes Australia and New Zealand.

# Refleeting Trend Creates Opportunities for Investing Today

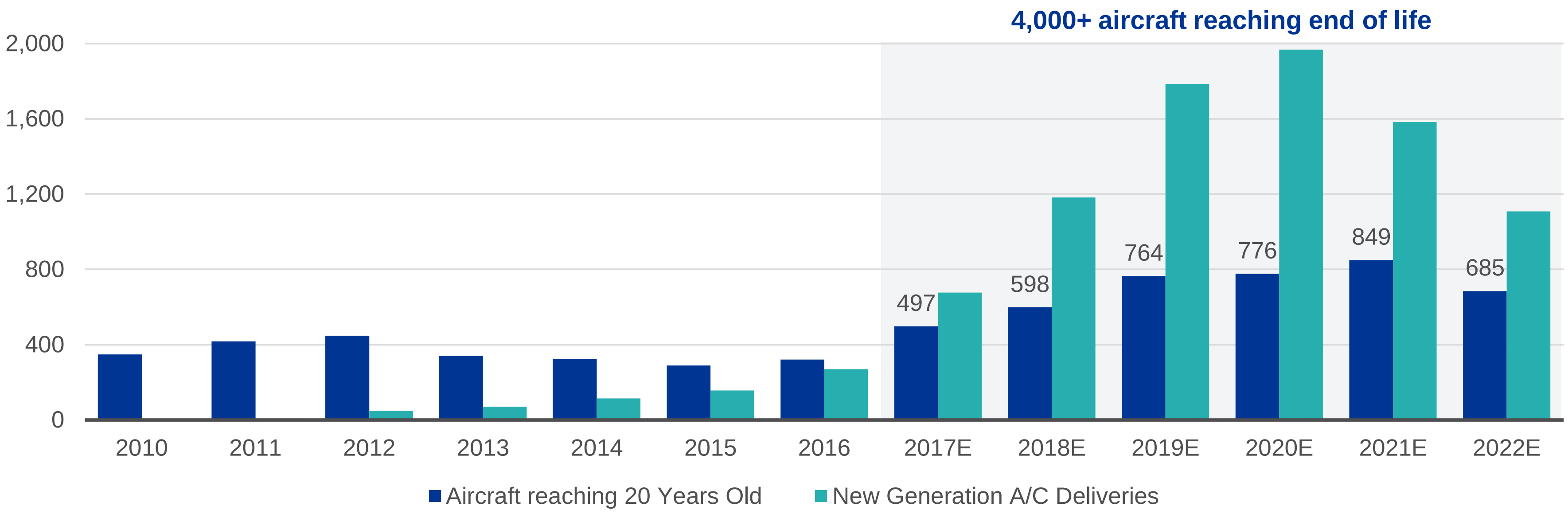
## Airlines are undergoing large scale fleet rationalization as they transition to newer more efficient aircraft

- We expect newer, more fuel efficient aircraft deliveries to continue to ramp up over the next 5-7 years
- As the number of aircrafts approaching retirement age accelerates, fleet managers need to transition out of aging aircraft to make room for new deliveries

## Mid-life and end-of-life equipment provide opportunities for investors

- Older aircrafts, in whole or disassembled into parts, can still provide value elsewhere in the world…

### Revitalization of the Aging Fleet




Source: Ascend. “New Generation A/C Deliveries” are comprised of newer technology fuel-efficient models, including Embraer E2s, Bombardier CSeries, A319 / A320 / A321neos, 737 MAXs, 787s, and A350s delivered or scheduled for delivery.

# Asset-based Investing: Case Studies

As of February 2017. The transaction case studies presented herein represent sample real estate debt, renewable power equity, and aviation transactions and are intended to provide educational context on the market and investment opportunity. The information provided herein is for illustrative purposes only.

There is no guarantee that similar investment opportunities will be available to investors. The investment case studies presented herein are non-representative of all underlying investments made by the underlying Funds, or BlackRock and it should not be assumed that these or any future Investments will be successful. The actual composition of the underlying investments contained in any actual portfolio may vary substantially from those presented herein due to a variety of factors, including prevailing market conditions and investment availability. To the extent that these investments prove to be profitable, it should not be assumed that any strategy's investments will be profitable or will be as profitable.

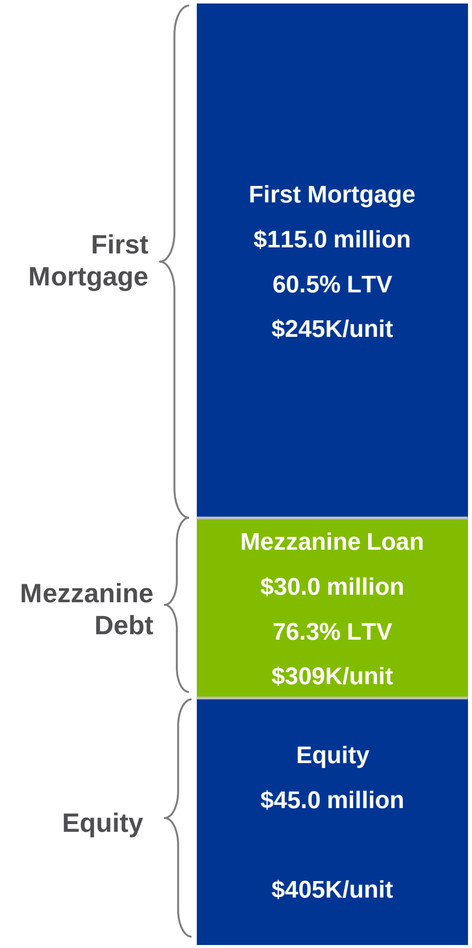
**Past performance is not an indicator of future performance.**

# Case Study: Real Estate Debt

## CBD Chicago Multifamily

| | |
|---|---|
| **Investment** | $30,000,000 |
| **Price** | 100% of par |
| **Coupon** | 1 month LIBOR + 800 basis points |
| **Investment structure** | Mezzanine Loan |
| **Collateral** | 469-unit, newly developed multifamily rental property |
| **Investment date** | September 2016 |
| **Final maturity date** | September 2021 |
| **Transaction description** | Mezzanine loan collateralized by a 469-unit multifamily development, located within the South Loop submarket of Chicago, Illinois<br>• The Mezz Loan is part of a $145.0MM whole loan used to refinance the existing construction debt on the property<br>• High quality, new construction project that offers a strong amenity package relative to competitive set<br>• Strong leasing velocity since the property was delivered in February 2016, evidenced by reaching 70% occupancy in only seven months, with minimal concessions and rents above pro forma |

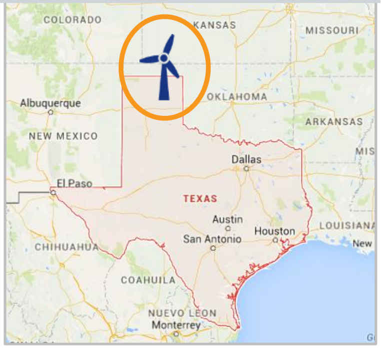
## Capital Structure




Source: BlackRock as of 30 September 2016. Information is not a prediction of future performance or any assurance that similar investment opportunities will be available at the time of investment. To the extent that the investment proves to be successful, there is no guarantee that future investments will be profitable or as profitable.

# Case Study: Renewable Power Equity

## Operating wind farm in Northwest Texas




### Why this asset?

**Operating status**
The wind farm is operating and generating cash yield for the Fund since the investment, in June 2016.

**Stable cash flow**
20-year contract to sell electricity (with price increase provisions) to a BBB+ rated off-taker, providing attractive, stable yield.

**Location**
Area benefits from strong wind resource, enabling long-term, cost-effective power generation.

### BlackRock's advantage

**Proprietary sourcing**
BlackRock executed this investment through exclusive negotiations with a leading global renewable power developer.

**Partnership with developer**
This purchase in North America solidifies our existing relationship with a global player, fostering future investments for the Fund.

| | |
|---|---|
| **Capacity** | 211 MW |
| **GRP II Fund Ownership** | 50% |
| **PPA* Counterparty** | BBB+ rated off-taker |
| **PPA* Term** | 20-year contract |
| **Region** | Texas Panhandle |
| **Start of Operations** | December 2014 |
| **Project Status at Investment/Current** | Operating |
| **Technology** | 118 GE wind turbines – Tier 1 Technology |

*PPA: Power Purchase Agreement

Note: The above represents one of four investments made by Global Renewable Power II as of November 2016. The information above is not a prediction of future performance or any assurance that comparable investment opportunities will be available to the manager at the time of investment. It is non-representative of all underlying investments made by BlackRock and it should not be assumed that the manager will invest in this investment or a comparable investment, or that any future Investments will be successful. The actual composition of the underlying investments contained in any actual portfolio may vary substantially from the above due to upon a variety of factors, including prevailing market conditions and investment availability.

# Case Study: Aviation

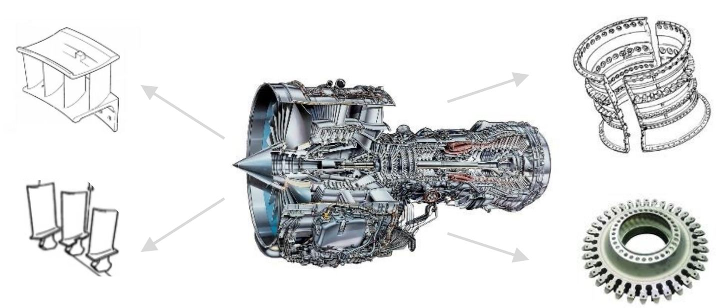
## A320-200 Part-Out

**The Opportunity: Sale of an end of life A320 with V2500 powered engines that had been operating**

Operators are strategically exiting older A320s ahead of upcoming fuel-efficient A320 deliveries while in a robust mid-life aircraft market environment. Increased demand in the used engine parts market.

**BlackRock's approach: The value of the engines and airframe separately were greater than the value of older A320 aircraft**

BlackRock was able to presell engines to a financial investor for their engine leasing portfolio and recover cost, and sell the airframe to an MRO shop who ultimately parted it out (landing gear, APU, nacelle systems, etc.)



## 737-400 Cargo Conversion

**The Opportunity: Sale of High-gross weight (HGW) passenger 737-400**

HGW 737-400s are limited in number as many have already been converted or parted out. The equipment was in need of a heavy check, which can be conveniently performed while conversion is in process.

**BlackRock's approach: Convert aircraft from passenger to fright**

BlackRock secured a conversion slot to induct the 737-400 passenger aircraft into conversion immediately upon purchase. From January to May 2016, the aircraft underwent a conversion in Miami. To ensure a timely and conversion and prevent cost overruns we placed of a full time representative at the conversion site. As the aircraft was completing its conversion, the plane was sold to a Spanish cargo operator

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