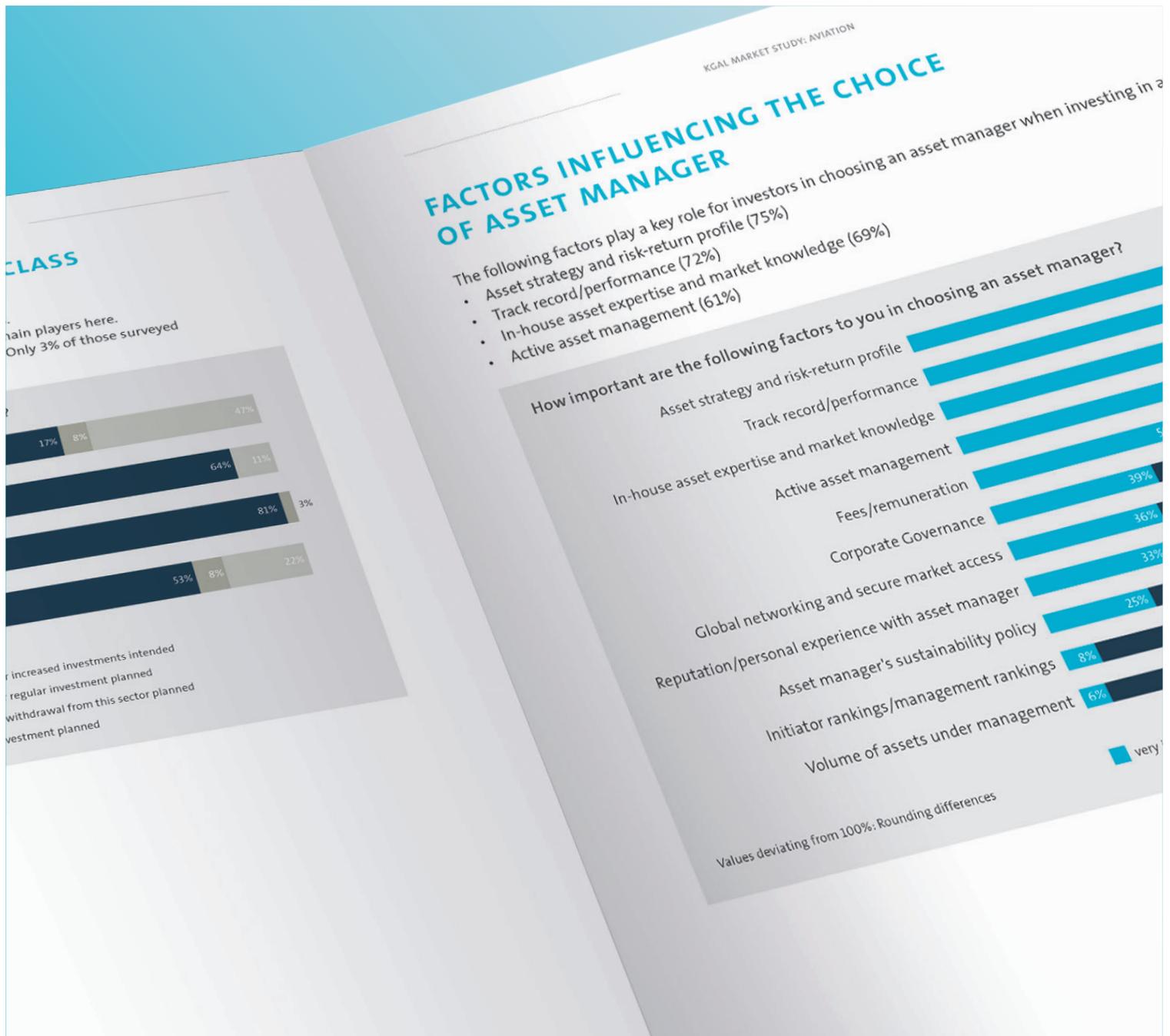


MARKET STUDY

INVESTMENT IN THE AVIATION ASSET CLASS, 2016 SURVEY OF INTERNATIONAL INSTITUTIONAL INVESTORS



FOREWORD



GERT WALTENBAUER
CHAIRMAN OF THE BOARD
OF MANAGING DIRECTORS (CEO)
OF KGAL GMBH & CO KG

Humankind is increasingly mobile, and global air travel is expanding like never before. The International Air Transport Association (IATA) expects annual growth in passenger numbers of 4% up to 2034, which corresponds to a doubling of numbers in just 20 years. The need to invest in new aircraft with state-of-the-art sustainable technology will also grow exponentially, exceeding the \$5 trillion mark.

Our many years of expertise in this industry mean that we can turn this into a huge opportunity for KGAL and our investors. Since 1979, we have financed more than 700 aircraft and, working hand-in-hand with numerous private and institutional investors, we have created aircraft funds of more than €6.7 billion in volume.

In addition, we have long been committed to ensuring sustainability, because responsible use of scarce resources pays dividends both ecologically and economically. Lower fuel consumption reduces CO₂ emissions and fuel costs. Modern jet engines mean less noise pollution during operation and lead to lower airport fees.

If aircraft financing takes on board these sustainability aspects, the result is a win-win situation with added value for everyone involved. We continue to pursue this course, and develop new sustainable investment opportunities which are in tune with the investment needs of our institutional capital investors.

This aviation market study summarises the key findings of a survey of KGAL institutional investors, conducted at the end of 2016. I would like to thank everyone who participated in the survey for their honesty in expressing their needs and wishes with regard to investment strategies under the current capital market conditions. The survey has given us an excellent platform from which to develop attractive needs-based and forward-looking investment models.

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SURVEY METHODOLOGY PROFILE

Audience:
Institutional investors

Survey methods:
Online (personalised – single link)

Survey instrument:
Standardised survey with partially open questions

Survey period:
15 September to end of 2016

Conducting institute:
GESS Phone & Field Marktforschung GmbH

COMMENTERS



DOUGLAS EDWARDS
MANAGING DIRECTOR
KGAL CAPITAL GMBH & CO. KG

HEAD OF INSTITUTIONAL BUSINESS
INTERNATIONAL

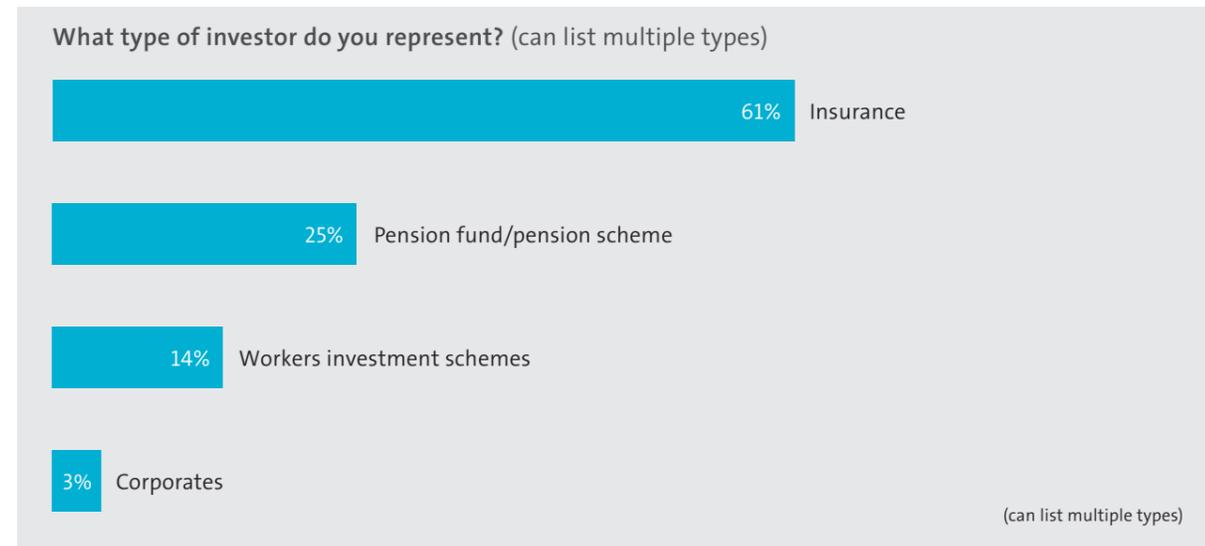


JOCHEN HÖRGER
MANAGING DIRECTOR OF
KGAL INVESTMENT MANAGEMENT
GMBH & CO. KG, WITH RESPONSIBILITY
FOR THE AVIATION DIVISION

ANALYSIS REPRESENTATIVE PROFILE

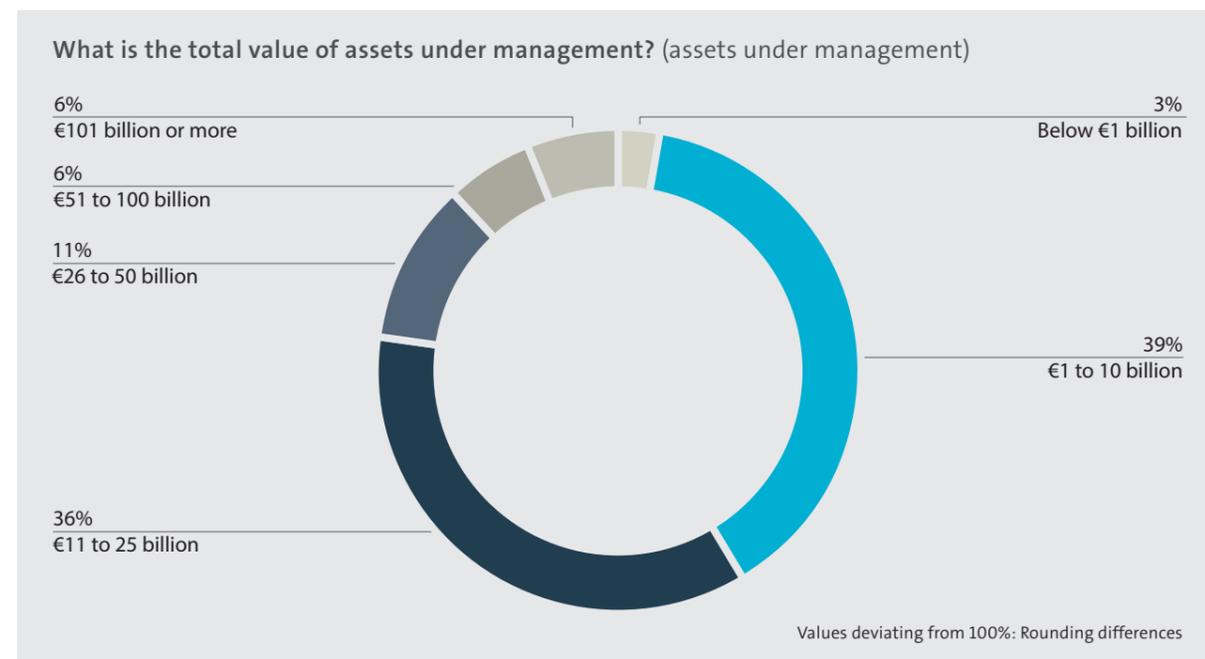
The greatest interest came from:

- Insurance companies (61%)
- Pension funds/pension schemes (25%)
- Workers investment schemes (14%).



ASSETS UNDER MANAGEMENT

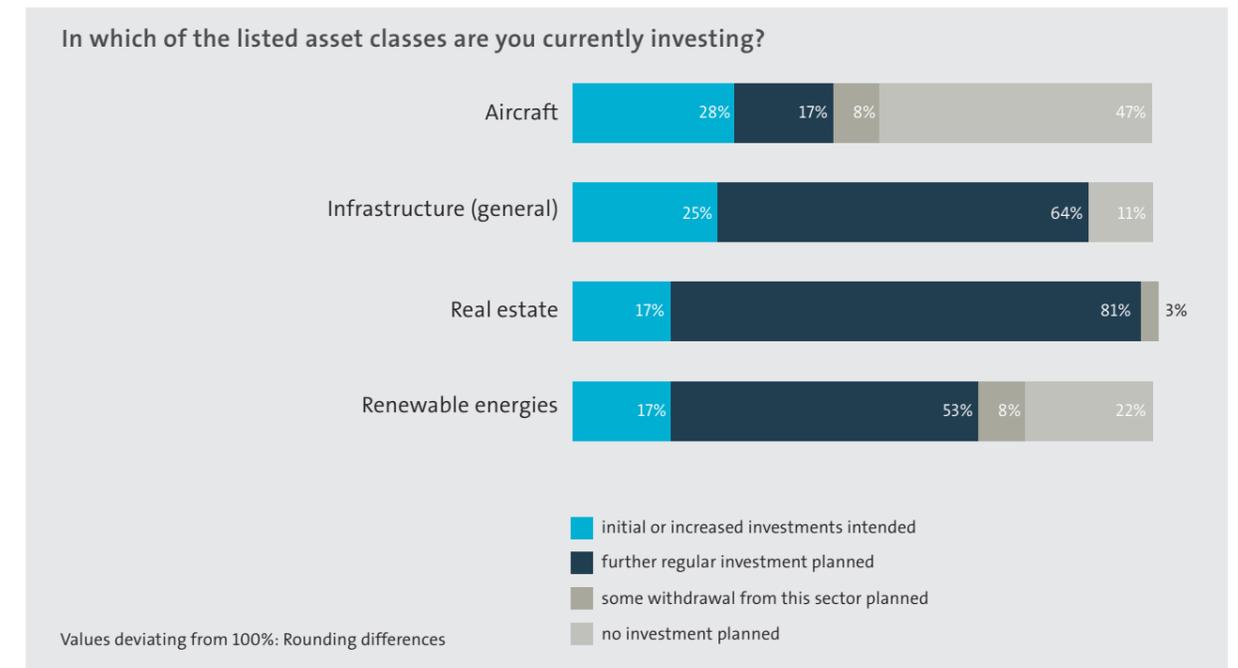
The study provides a valuable overview of the assets under management of the participating institutional investors, totalling around €1.1 trillion.



INTEREST IN THE AVIATION ASSET CLASS

At present, investors are interested in selective aircraft investment:

- 28% of participants intend to make initial or increased investments.
- 17% plan continued regular investments. Insurance firms are the main players here.
- 47% of participants do not plan to commit to aircraft investment.



COMMENTS BY DOUGLAS EDWARDS:

Aircraft investment is not a defined classic asset class, such as property or infrastructure. To this extent, it is difficult to make a direct comparison with these broad asset classes. Many investors allocate aviation to a “general alternative allocation”, to assets under management, or to the infrastructure/transportation sector. Although the funding of aircraft outside airlines has a long tradition and is founded on a highly professional basis, this sector has only been explored by institutional investors in Europe since 2010, though this group of investors is rapidly expanding.

FACTORS INFLUENCING THE CHOICE OF ASSET MANAGER

The following factors play a key role for investors in choosing an asset manager when investing in aviation:

- Asset strategy and risk-return profile (75%)
- Track record/performance (72%)
- In-house asset expertise and market knowledge (69%)
- Active asset management (61%)



COMMENTS BY DOUGLAS EDWARDS:

Discussions with our clients repeatedly show that a convincing investment strategy, combined with a solid track record, is an essential basic requirement. In-depth in-house asset expertise and market knowledge, which also enable the right investment projects to be closed within the context of a proven robust deal pipeline, are likewise highly valued.

AVIATION ASSET CLASS INVESTMENT VOLUME/PORTFOLIO DIVERSIFICATION

- 61% of participants have not yet invested in the aviation asset class.
- 17% state that they have invested amounts up to €20 million.
- 14% have already invested sums between €51 million and €100 million into the aviation asset class.

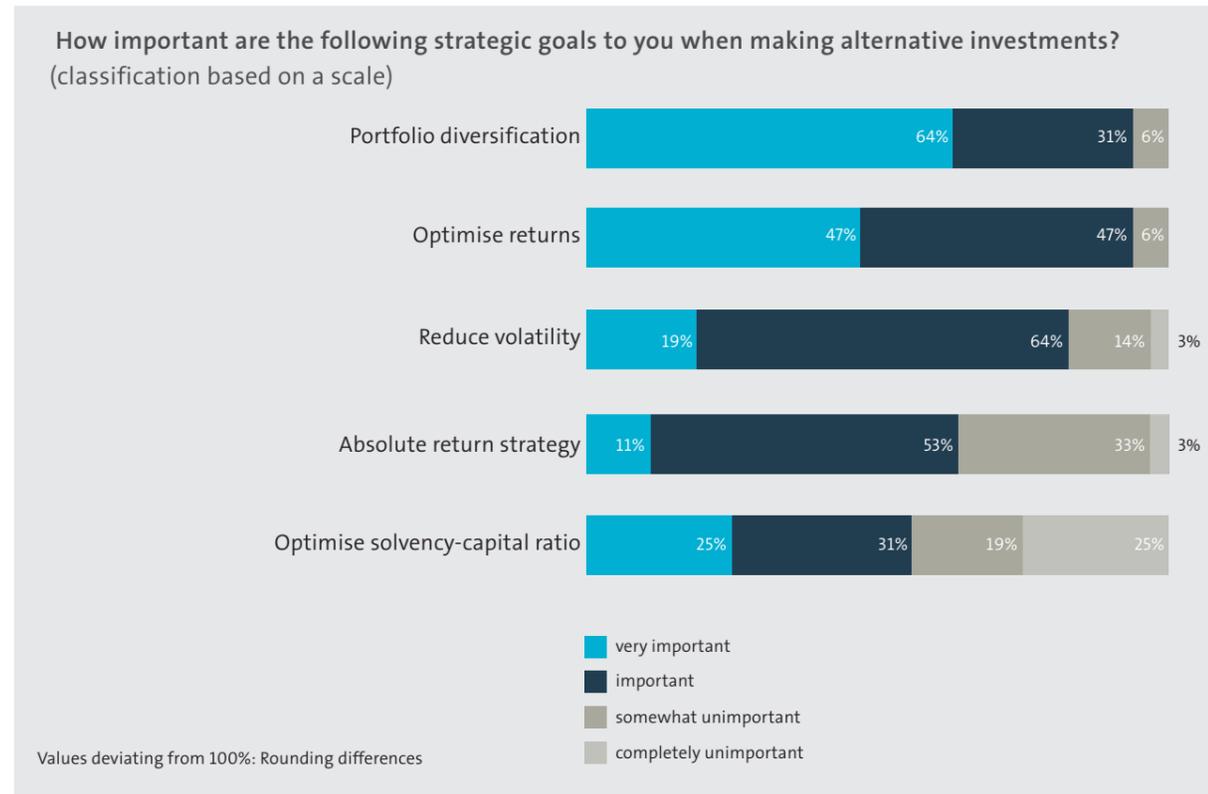


COMMENTS BY DOUGLAS EDWARDS:

In view of the financial strength of investors, we see huge potential for future aircraft investments. To date however, the asset volume of participating investors in the aviation segment is still low relative to their alternative asset allocation.

IMPORTANCE OF STRATEGIC INVESTMENT CRITERIA

The primary strategic goals of alternative investments are portfolio diversification and maximising returns at 95% or 94%. Reducing the volatility of their investments is also a central goal for an alternative investment strategy. Optimisation of the solvency-capital ratio through alternative investments is a motive for 56% of investors. It is clear however that this argument is of increasing importance to large investors (>€26 billion of assets under management).



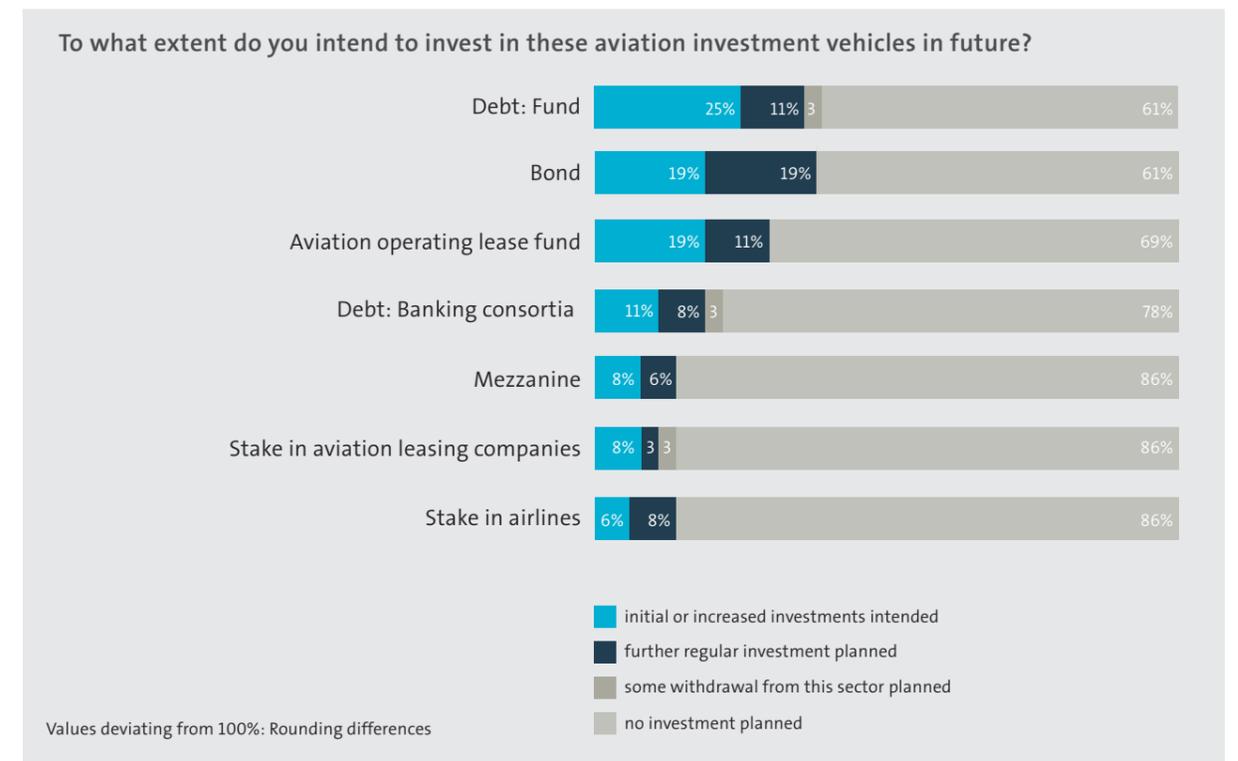
COMMENTS BY JOCHEN HÖRGER:

When it comes to strategic goals which are pursued by alternative investments, portfolio diversification is of paramount importance. Aircraft investments offer an attractive investment vehicle in this case. The Ascend Aircraft Investment Index (AAII), which simulates all processes relating to an aircraft leasing portfolio, has been developed by Ascend, a globally-renowned appraiser and adviser in the aviation industry. The AAII shows that aircraft investments are stable performers with low volatility. They also show little correlation to other asset classes. In concrete terms, the AAII showed an annual return of 6.2% and a volatility of only 5.3% for the period 1991 to 2016 (Ascend Aircraft Investment Index: Benchmarking Historical Performance of Aircraft Leasing, 2017). Aircraft investments are therefore ideal as an addition to a portfolio.

FUTURE INVESTMENT PREFERENCES BASED ON THE INVESTMENT VEHICLE

The various investment vehicles for aviation investment elicit a mixed response from investors.

- At 25%, the largest response was in favour of debt funds.
- 19% are interested in bonds and aviation operating lease funds respectively.
- There is less interest in debt models through bank consortia (11%), mezzanine structures (8%), investments in aviation leasing firms (8%), or direct investment in airlines (6%).



Investors who have already invested in aviation are keen, especially with regard to aviation operating lease funds, to increase (29%) or continue (29%) investment in this sector.

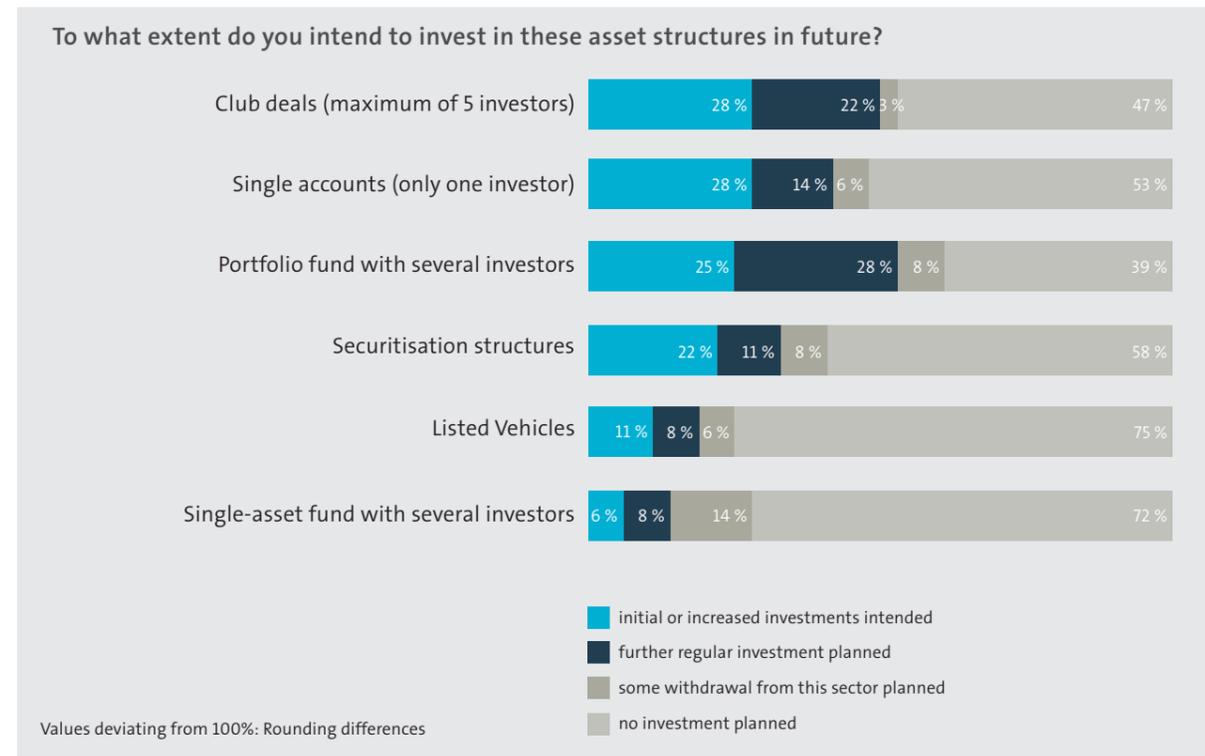
COMMENTS BY DOUGLAS EDWARDS:

The replies to this question show that KGAL is ideally positioned in the aviation asset class with its current product portfolio. KGAL also offers a debt fund alongside aviation operating lease funds. Overall, this question has showed that fund initiators must work to enhance awareness, and overcome the widespread reluctance with regard to aviation investment vehicles: the percentage of investors who are not currently planning investments of this type still varies between 61% and 86%.

INVESTMENT PREFERENCES BASED ON THE ASSET STRUCTURE

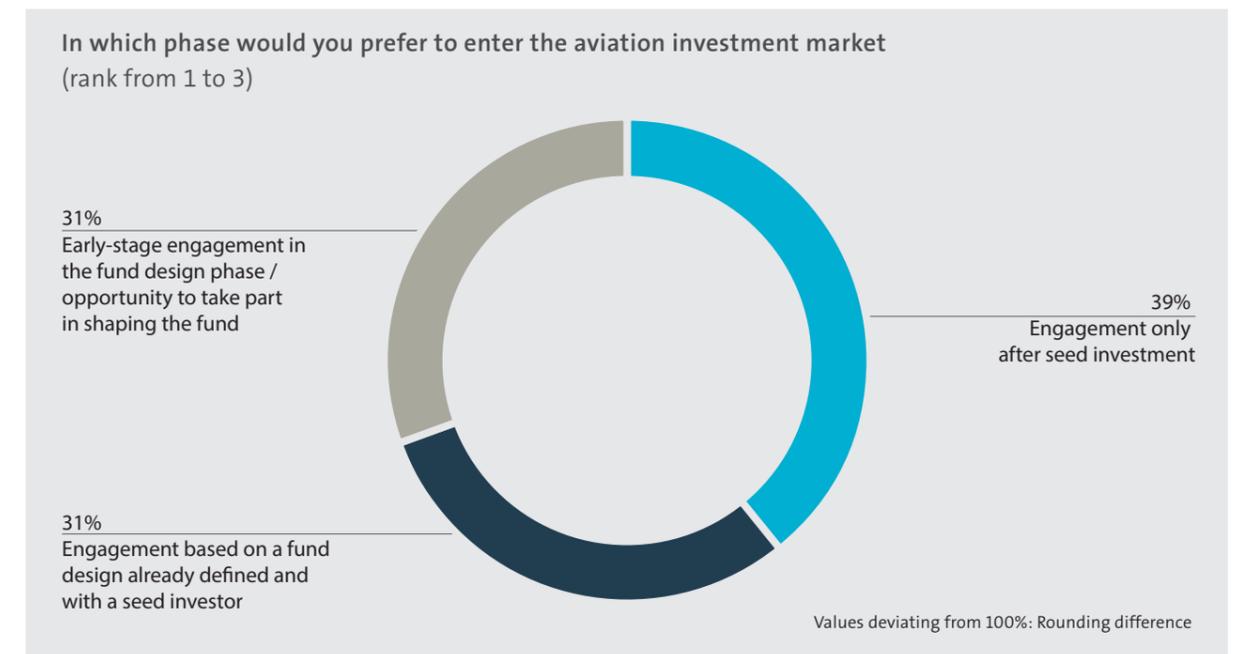
The investors surveyed differed in terms of their intention to invest in the selected asset structures. In general, there is little inclination to make initial or increased investments in listed vehicles (11%) and single asset funds (6%). At 28%, the preference clearly lies with club deals (maximum of 5 investors) and single accounts (only one investor). Not far behind come portfolio funds with several investors at 25%, and securitisation structures at 22%.

If the scores for other planned regular investments are added, portfolio funds with several investors would assume the top spot with 53%, followed by club deals (50%) and single accounts (42%).



TIME OF INVESTMENT

When asked in which phase investors would prefer to enter the aviation investment market, the result slightly favoured a commitment only after seed funding (39%). The investors' preference to choose a time of investment that only falls after initial investment has already been made indicates a certain need for security. 31% of investors would secure their commitment based on a previously established fund concept, and with an existing seed investor. At the same time however, some investors indicated strong interest in early stage commitments in the fund design stage, along with the opportunity to help design their own fund.



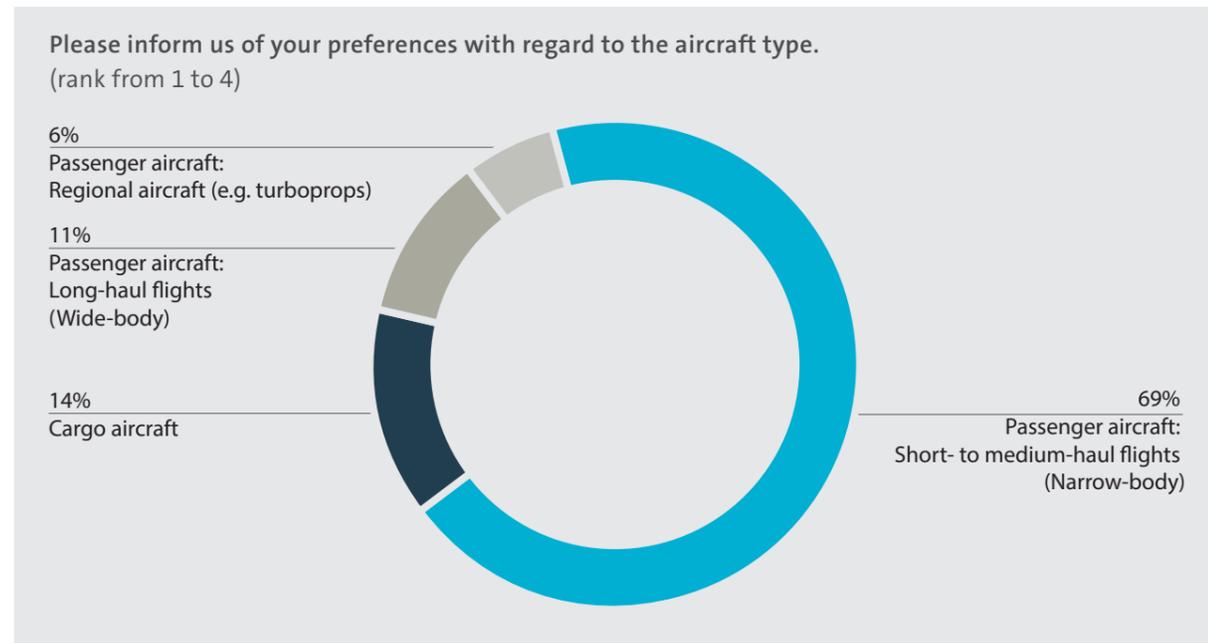
COMMENTS BY DOUGLAS EDWARDS:

The option of getting involved in the concept phase is becoming increasingly important in business development. This is especially evident with investors whom we have a longstanding business relationship. The same also applies to commitments based on an already-defined fund concept for which we have already been able to attract seed funding. In our opinion, the majority of investors will also only want to subscribe in future at the second or third closing, in order to get a better impression of the asset manager's performance prior to closing.

PREFERENCE BASED ON AIRCRAFT TYPE

Responses to the question of a preference for different aircraft types turned out to be very one-dimensional: Passenger aircraft with two rows of seats (narrow-bodies), which are used on short to medium-haul flights, turned out by some distance to be the aircraft type in greatest demand. This segment is the largest and has the best liquidity in the aircraft market.

- 69% of participants prefer narrow-bodies for short- to medium-haul flights.
- This is followed by cargo aircraft (14%), long-haul passenger flights (11%), and regional passenger aircraft such as turboprops (6%).



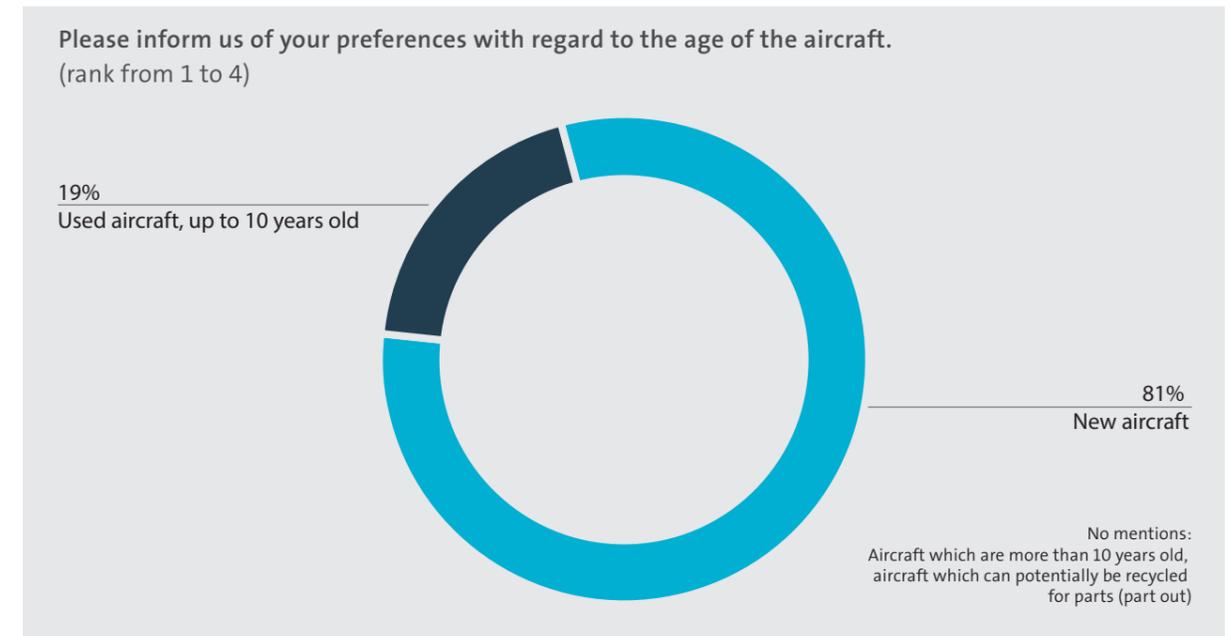
COMMENTS BY JOCHEN HÖRGER:

This clear preference is unsurprising. Narrow-bodies, i.e. essentially A320 Airbus and Boeing 737 aircraft, make up more than 65% of today's aircraft fleets worldwide. A further rise in their share is anticipated in the next few years. Narrow-bodies are characterised by their widespread use. Due to their standardised cabin configuration, they are far more versatile than wide-bodies for example, which normally incur high conversion costs when transferred to a new airline. Narrow-bodies also represent a major investment focus for our institutional portfolio aircraft funds, for example our current KGAL Aviation Portfolio Fund 3 (APF 3).

AIRCRAFT AGE

The overwhelming factor governing investors' interest is the age of the aircraft in which they want to invest.

- 81% cite a preference for new aircraft.
- 19% of participants cite used aircraft up to 10 years old as their first preference, with a clear majority of 78% placing this category in second place.
- Older aircraft or aircraft with potential use as parts (part out) came out as no one's first choice.



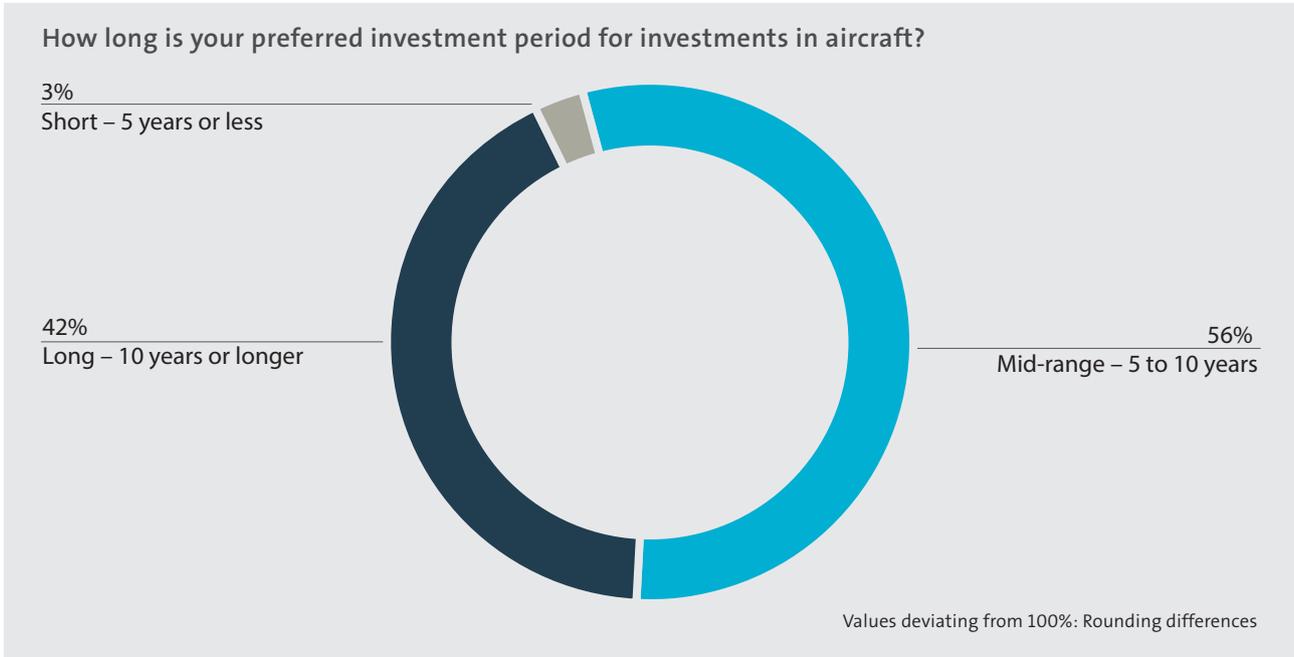
COMMENTS BY JOCHEN HÖRGER:

Operating leases relating to new or relatively new used aircraft are normally characterised by long terms. Lease agreements with a term of 8-12 years are standard.

INVESTMENT PERIOD

On the question of a preferred investment period for aircraft commitments, the investors' view is quite clear:

- 97% of respondents prefer a medium- to long-term investment period. Of these, 56% prefer medium-term periods of 5 to 10 years, with 42% preferring long periods of 10 years or longer.
- Only 3% of the survey participants would advocate a short investment period of 5 years or less.



COMMENTS BY JOCHEN HÖRGER:

As with the APF 1, our successor fund APF 3 also pursues a core strategy. With regard to medium- to long-term lease contracts, this fund is designed for a term of around 12 years.

COMMENTS BY DOUGLAS EDWARDS:

The clear preference for a medium- to long-term investment period is of little surprise, since institutional investors with long-term balance sheet liabilities are interested in a steady, long-term cash flow. Confidence in this asset class indicates that investors who have already had experience with aircraft investments prefer longer investment periods.

EXPECTED RETURNS

In the case of equity core category aircraft funds (50% leverage, long leasing terms), 31% of respondents believe that a return of 4-6% is the market norm, 53% expect between 6-8%, and 17% have expectations of more than 8%.

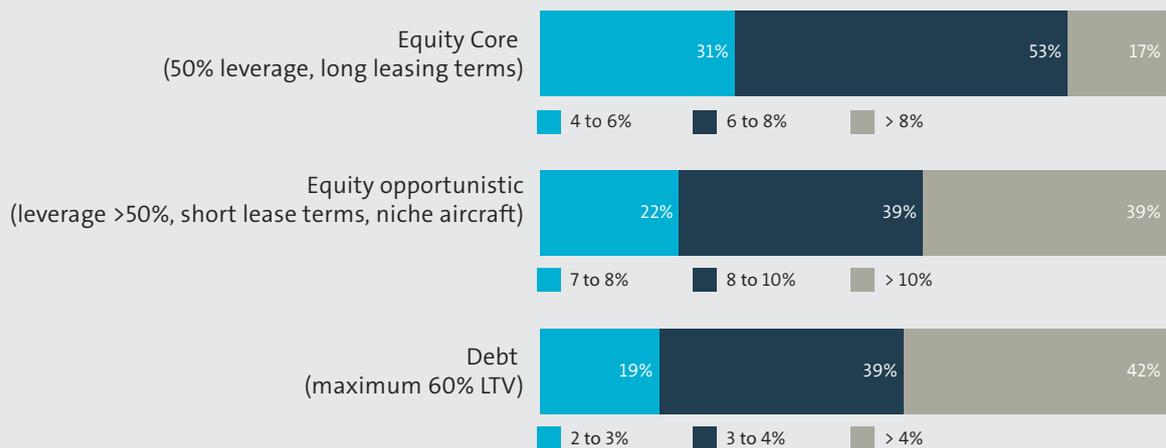
Due to the strongly risk-oriented scenario, for funds with an opportunistic equity investment focus (leverage >50%, short lease and terms and, possible, niche aircraft):

- 22% of participants consider 7-8% to be realistic.
- 39% expect 8-10%.
- 39% anticipate returns of more than 10%.

The expectations for investments in debt funds are decidedly more modest at a maximum loan to value ratio of 60%:

- 19% of investors demand returns of 2-3%.
- 39% expect 3-4%.
- Most investors (42%) expect figures of more than 4%.

Returns from aircraft investments vary according to the investment focus (core/opportunistic/debt). What returns do you expect on your investment in an aircraft fund (before tax, after costs)?



Values deviating from 100%: Rounding differences

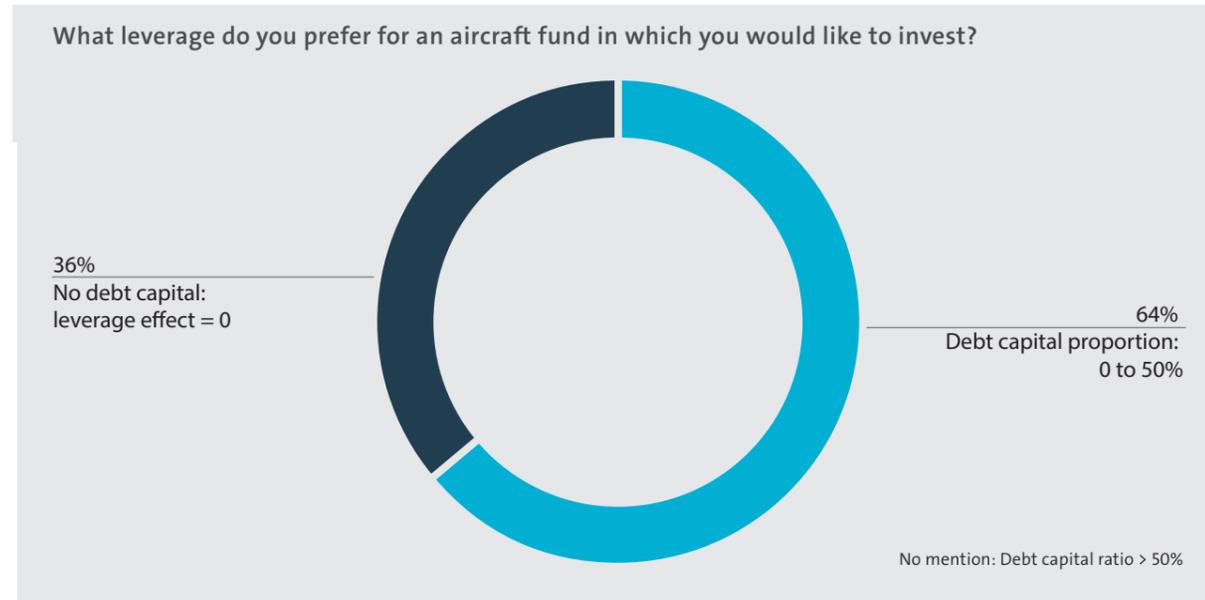
COMMENTS BY JOCHEN HÖRGER:

The expected returns have been relatively realistically estimated by the investors surveyed. The conclusion must be that the participants in the study already have extensive experience and relevant expertise in the alternative investment field.

DEBT CAPITAL VS EQUITY

A clear trend can be identified for the desired leverage:

- Around two thirds of respondents (64%) prefer a debt capital commitment of up to 50%. The percentage is even greater (79%) amongst investors who already have aviation investments.
- 36% generally prefer not to commit debt capital, and therefore not to increase leverage effects. 63% of major investors with assets under management of more than €26 billion prefer not to commit debt capital. In contrast, not a single respondent mentioned a debt capital commitment of >50%.



COMMENTS BY JOCHEN HÖRGER:

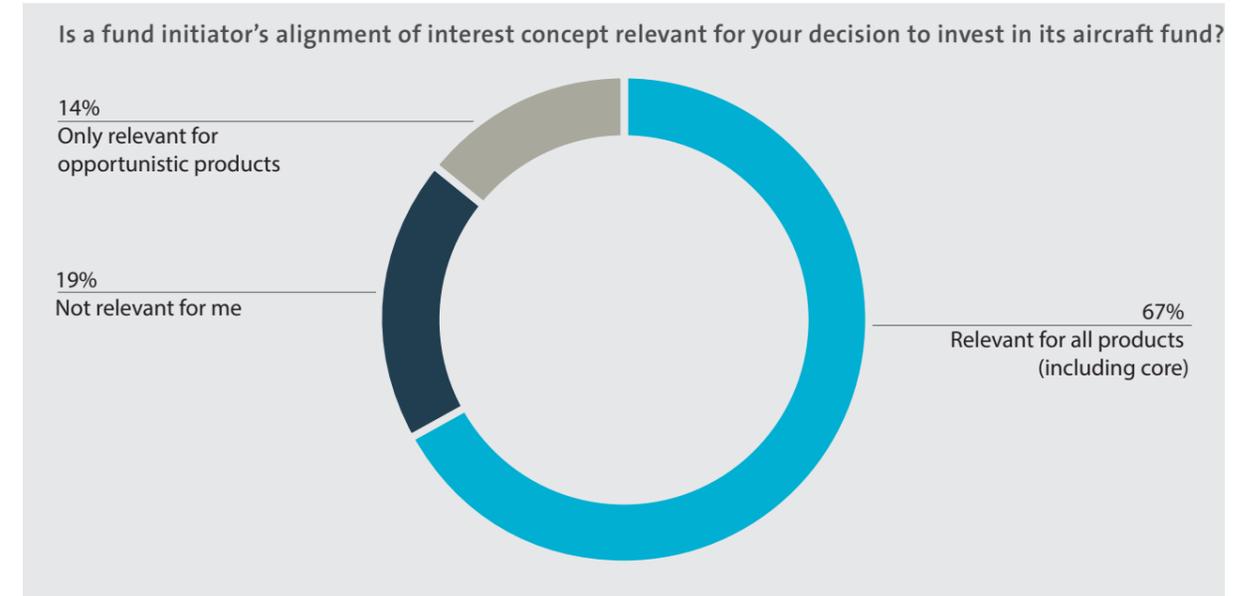
We have limited the leverage ratio on a portfolio level to a maximum of 50% in the institutional aircraft funds that we have established to date. Compared with the 75% which is normal throughout the operating lease market, we pursue a conservative approach.

COMMENTS BY DOUGLAS EDWARDS:

In an era of strong capitalisation and persistent investment pressure from numerous institutional buyers such as insurances, pension funds and other investment schemes, this basic approach should come as no surprise. Our core strategies in the aviation sector are an exact reflection of this preference.

RELEVANCE OF ALIGNMENTS OF INTEREST

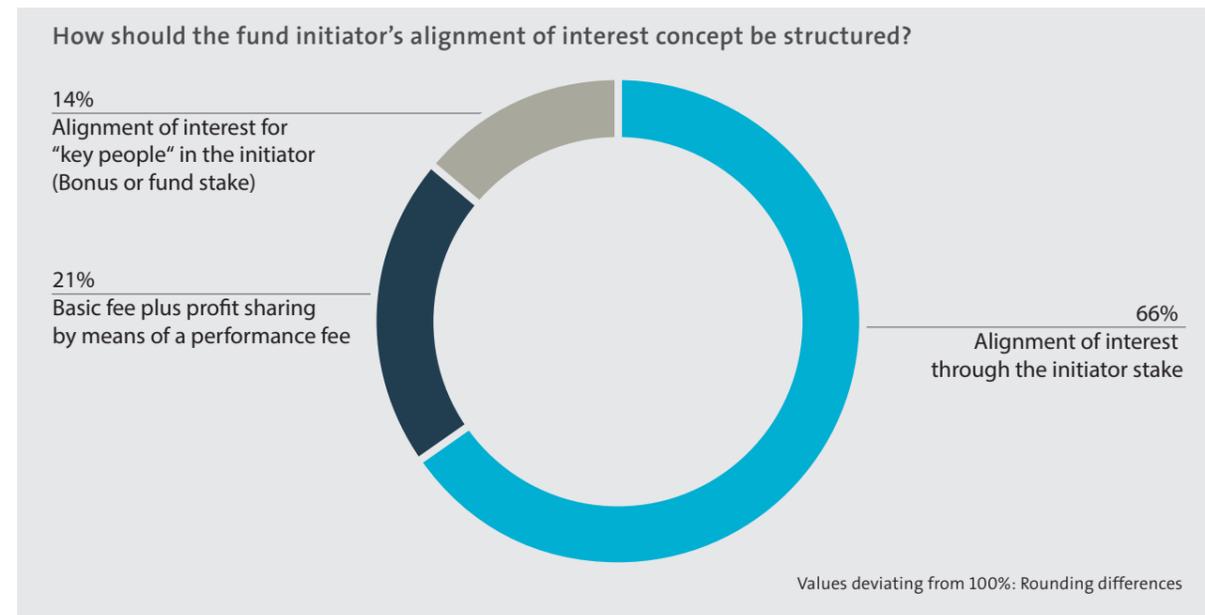
- 67% of investors consider an alignment of interest concept to be helpful and useful for all fund products (even for core strategies).
- 14% consider this only relevant for opportunistic products, and 19% see such concepts as unnecessary.



ALIGNMENT OF INTEREST CONCEPT

A clear preference is indicated with regard to the design of an alignment of interest concept.

- 66% argue for an alignment with the involvement of the fund initiator.
- 21% of respondents see a provision involving a basic fee and additional profit share through payment of a performance fee as beneficial.
- Only 14% prefer an alignment of interest of key people at the fund initiator in the form of bonus payments or fund participation.



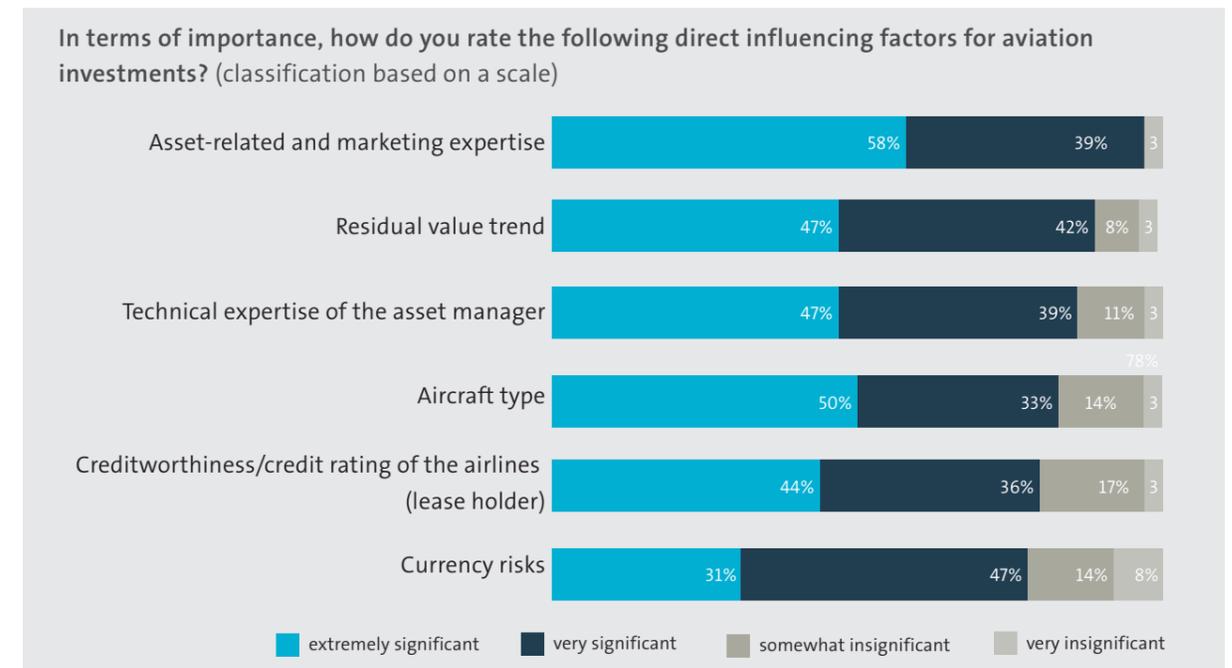
COMMENTS BY JOCHEN HÖRGER:

GOAL German Operating Leasing, our joint venture with Deutsche Lufthansa AG has also invested equity into our current portfolio fund KGAL APF 3. This creates an alignment with investors and shows once more that we stand behind our transactions.

IMPORTANCE OF INFLUENCING FACTORS

Many influencing factors play a role in – often extremely diverse – investor decision-making processes. Investors consider it very important for a fund provider to have the combination of considerable asset knowledge and established marketing expertise in a fund provider.

- 97% of investors surveyed feel that this combination of skills is “extremely important” or “very important”.
- The residual value trend of the fund aircraft was cited by 89%, and an asset manager’s technical expertise at 86%.
- The aircraft type is extremely or very important for 83% of respondents.
- Since aircraft normally represent highly fungible investment projects due to their global use, 80% of investors rate the creditworthiness or credit rating of the airlines (lease holder) as very significant or significant, meaning that this factor is only ranked 5th in importance.
- At 78%, currency risks are rated the least important of the direct influencing factors.



COMMENTS BY JOCHEN HÖRGER:

GOAL German Operating Aircraft Leasing is our technical asset manager, and is closely integrated into and involved in all our aircraft transactions throughout the investment period, from helping to acquire new transactions, initial aircraft inspections prior to purchase or tracking the delivery process at the manufacturer, right through to marketing the aircraft at the end of the commitment. An indispensable and valued partner, we can draw upon their wealth of technical asset expertise, good access to the market and large network, on an in-house basis.

COMMENTS BY DOUGLAS EDWARDS:

Our joint venture with Deutsche Lufthansa AG has proven to be a crucial part of our investment strategy in discussions with clients. As the results of the survey also show, the aircraft type and residual value estimates based on hard facts are of key importance to respondents. We know that successful investment in the Aviation asset class demands investment in marketable aircraft types used by numerous airlines.

KGAL GMBH & CO. KG

Tölzer Straße 15 · 82031 Grünwald · Germany

Phone +49 89 64143-0

Fax +49 89 64143-150

kgal@kgal.de · www.kgal-group.com