



Management Fees and Terms Study 2018

Research

INREV is the European Association for Investors in Non- Listed Real Estate Vehicles. Our aim is to improve the accessibility of non- listed real estate vehicles for institutional investors by promoting greater transparency, accessibility, professionalism and standards of best practice.

As a pan European body, INREV represents an excellent platform for the sharing and dissemination of knowledge on the non- listed real estate industry.

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Executive summary

- > The average TER for all vehicles was 0.86% based on GAV and 1.27% based on NAV
- > Larger vehicles tend to have lower TERs as indicated by the lower value in the weighted TER
- > Younger vintage funds have higher expense ratios than older vintage funds

The total expense ratio (TER) and the real estate expense ratio (REER) form part of the standard measures included in the regular reporting of overall performance to investors in a vehicle. When analysed in the context of vehicle style, investment strategy and underlying risks, these fee and expense metrics will help those involved in the nonlisted real estate market to compare fee and cost structures between different non-listed vehicles and with other investment structures.

While the TER represents vehicle level fees and costs as a percentage of the vehicle's GAV or NAV, the REER represents property fees and costs as a percentage of GAV. The TER can be measured before fees (excluding performance fees) or after fees (including performance fees).

This year's sample of 155 vehicles recorded an average TER of 0.86% based on GAV, with management fees comprising the majority of the TER. When taking into account vehicle sizes the weighted average TER were slightly lower, at 0.67% based on GAV. This indicates that larger vehicles have lower TERs than smaller vehicles. This was also reflected in the REER where this year's sample of 111 vehicles recorded an average REER of 1.16% on an equally weighted basis and 0.75% on a weighted basis. Lower expense ratios for core funds Whether on a GAV or NAV basis, or before or after performance fees, core funds recorded a lower average TER than their value added peers. The difference between GAV and NAVbased TERs was smaller for core funds than it was for value added. This largely reflects that some value added funds are not due to charge out performance fees until closer to the end of their fund life. What's more, core funds have a much narrower spread between their lower and upper quartiles, but observed more extreme values.

Open end mirrors core

The relativities between open end and closed end funds were similar to those observed between core and value added funds. This is because all but one open end funds follow a core investment approach while closed end funds adopt multiple investment styles.

The average TER for open end funds was lower compared to their closed end peers. The former group also saw a smaller difference between their GAV and NAV-based TERs than the latter group. Dispersion, whether the difference between the lower and upper quartiles or the minimum and maximum values, was much lower for open end funds than for closed end. Observations by vintage, that is by the year of first closing, showed that younger vintage funds, those launched post 2007 have a higher average TER than older vintage funds. Those launched prior to 2001 had much a much lower average TER and also observed the smallest spreads.

Categorisation by target gearing levels showed that funds aiming to keep their gearing levels low, at below 40%, had the lowest average expense ratios. At the other end of the spectrum, those with higher target gearing, at more than 60%, had the highest expense ratios.

Fund sizes also show patterns worth noting. The larger the fund size the lower the TERs and the smaller the difference between GAVbased and NAV-based ratios. The larger funds also have smaller spreads between their expense ratios, whether measured by the interquartile range or by the range.

> 'The TER and REER help institutional investors and managers to compare fee and cost structures of different non-listed real estate vehicles'

Section 1

Introduction

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Introduction

The INREV Management Fees and Terms Study explores the fee and costs structures of European non-listed real estate funds, with a focus on total expense ratios (TERs) and real estate expense ratios (REERs).

The study was launched in 2007 and is now published every two years in September.

This year's study includes 418 vehicles (191 open end and 227 closed end), that provided information on their general fees and terms. These vehicles are managed by 94 managers. Collectively these vehicles represent a total net asset value (NAV) of €131.3 billion and gross asset value (GAV) of €155.7 billion as at end 2017.

Of these 418 vehicles, 155 provided information on their 2017 total expense ratios (82 open end funds, 62 closed end funds and 11 separate accounts). Collectively these vehicles represent a total net asset value (NAV) of €80.6 billion and gross asset value (GAV) of €103.5 billion as at end 2017. There were 11 separate accounts that provided with their TER ratios.

Likewise, 111 vehicles provided information on their 2017 real estate expense ratios (53 open end funds, 52 closed end funds and 5 separate accounts). Collectively these vehicles represent a total net asset value (NAV) of \in 55.0 billion and gross asset value (GAV) of \in 71.7 billion as at end 2017. The results of this study are based on data provided directly to INREV from managers.

INREV does not use publicly available information, and both members and non-members can provide data for the study.

INREV would like to thank all participants of the Management Fees and Terms Study 2018.

For more information about fees and expenses, see the INREV Fee and Expense Metrics guidelines module.

Use

The results of the Management Fees and Terms Study may be used for research and information purposes only.

They may not be used for the following:

- To determine the value of a fund
- To determine the value of a financial instrument
- To determine the amount payable under a financial instrument
- To determine the amount payable under a financial contract
- To calculate performance fees
- To define the allocation of a portfolio

It is important to note that the sample size and its composition varies year by year. As such, historical comparisons should be treated with caution.

Section 2

Total expense ratios

TER by style

This section of the report is based on a sample of 155 vehicles that provided data on their 2017 TERs. Of these, 113 are core funds, 28 value added and 3 opportunity. Additionally, there are 11 separate accounts that also provided information on their TERs.

TER represents vehicle fees and costs (including or excluding performance fees) as a percentage of average NAV or average GAV. The differences in the NAV and GAV-based TERs reflect variations in capital structures. On an equally weighted basis, the average TER of all vehicles was 0.86% based on GAV and 1.27% based on NAV, before performance fees. These averages were slightly lower when taking into account vehicle size. On a weighted basis the all vehicles TER average was 0.67% on a GAV basis and 1.23% on a NAV basis. This indicates that larger-sized vehicles tend to have a lower TER than smaller-sized vehicles. After performance fees, both GAV and NAV-based TERs increased slightly. Core funds recorded a lower than average TER of 0.79% based on GAV and 1.12% based on NAV, before performance fees. For this group, the TERs were slightly higher after performance fees, 0.80% and 1.14% on GAV and NAV bases respectively.

The difference between GAV-based and NAV-based TERs was much larger for value added funds compared with core funds. Unsurprisingly, value added funds recorded a higher than average TER, 1.19% based on GAV and 1.93% based on NAV. The majority of value added funds, 27 of the 28, have a closed end structure. Some of these funds are not due to charge out performance fees until closer to the end of their fund life. Therefore, TERs before and after performance fees are homogenous for this cohort of funds.

The samples for opportunity funds and separate accounts do not meet the minimum confidentiality threshold criteria. Therefore, an average TER for these groups cannot be shown.

'Core funds have lower TERs than value added funds'

Figure 1: TER by style

Based on NAV Based on GAV 2.00 -1.93 1.93 1.80 -1.60 -1.40 -Average TER (%) 1.30 1.27 1.25 1.23 1.19 1.19 1.20 -1.14 1.12 1.00 -0.88 0.86 0.80 0.79 0.80 -0.69 0.67 0.60 -0.40 -0.20 0.00 Core Value All All Core Value All All vehicles vehicles vehicles vehicles added funds added funds (113)funds (28) (155)(weighted) (113)funds (28) (155)(weighted) (155)(155)TER before performance fees TER after performance fees

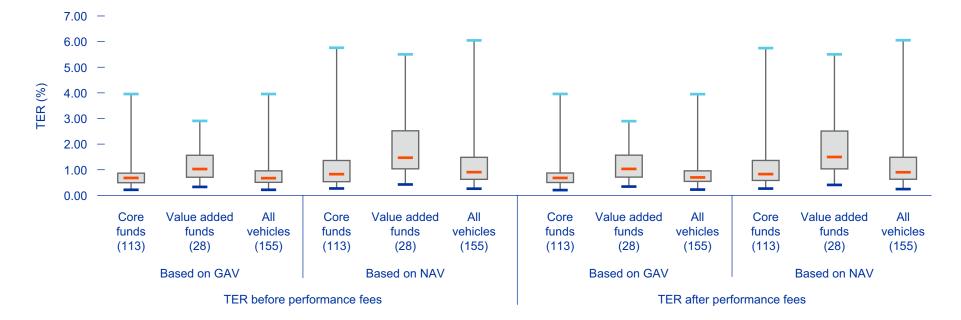
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TER by style and quartiles

For each category the quartiles were analysed in order to better understand the variability among the individual TERs. Dispersion was measured in two ways. Firstly by the range which is the difference between the maximum and minimum TERs. Secondly by the interquartile range (IQR) which is the difference between the upper quartile and the lower quartile and is less sensitive to outliers than the range or the standard deviation measures. Assessment by quartiles show that value added funds have a much larger IQR than core funds, reflecting the diversity within this group of funds. The middle 50% of these funds recorded a TER between 0.70% and 1.57%, an 87 bps difference between the lower and upper quartiles, on a GAV basis before fees. The same spread for core funds was just 38 bps, with the lower quartile being 0.50% and the upper quartile 0.88%. However, the reverse was observed when looking at dispersion measured by the range. Core funds showed a greater range than value added funds, and this was largely driven by some core funds which have a closed end structure.

Figure 2: TER by style and quartiles

- Minimum value
- Median value
- Maximum value



TER by structure

The structure split of the 155 vehicles is as follows: 82 are open end funds, 62 closed end funds and the remaining 11 are separate accounts.

The average TER for open end funds are considerably lower than those for closed end funds, on both GAV and NAV bases, and before and after performance fees. Open end funds recorded an average TER before performance fees of 0.66% based on GAV and 0.86% based on NAV. The equivalent figures for closed end funds were 1.18% and 1.89% respectively.

Closed end vehicles recorded slightly higher average TERs after performance fees of 1.23% and 1.97% on GAV and NAV bases, respectively. While open end funds saw little difference in their TERs before and after performance fees. The differences in TERs for open end and closed end funds can, in part, be explained by the strategies that these structures tend to follow. All but one of the open end funds follows a core strategy. While the closed end funds adopt a mix of core, value added and opportunity strategies (32, 27 and 3 respectively).

Non-core strategies are more inclined to have higher TERs than core strategies, and this is observed in the results.



Based on NAV Based on GAV

1.97 2.00 -1.89 1.80 -1.60 -1.40 -Average TER (%) 1.30 1.27 1.23 1.18 1.20 -1.00 -0.88 0.86 0.86 0.86 0.80 -0.66 0.66 0.60 -0.40 -0.20 -0.00 -Open end Closed All Open end Closed All vehicles vehicles funds end funds funds end funds (82) (62) (155) (82) (62) (155) TER before performance fees TER after performance fees

'Closed end vehicles have higher TERs than open end vehicles'

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TER by structure and quartiles

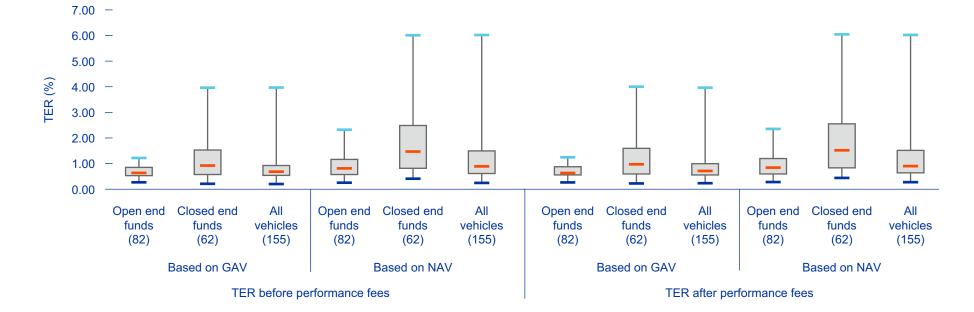
Quartiles assessment by structure follows a similar pattern to the analysis by style, largely due to open ends funds following a core investment style, though there are nuances worth noting.

Greater variety was seen in the expense ratios for closed end funds when compared to their open end peers. This largely reflects the diversity in the investment styles of the closed end funds in this sample.

Figure 4: TER by structure and quartiles

- Minimum value
- Median value
- Maximum value

Closed end funds showed a notably larger middle spread than their open end peers. The IQR for this group was almost 100 bps (97 bps), compared with just 33 bps for open end funds. This was even wider for TERs based on NAVs. Assessment by the range supplements this observation. The range for closed end funds was 375 bps between the largest and smallest TER for this group. The equivalent measure was under 100 bps for open end funds at 96 bps.



TER by year of first closing

The year of first closing is used as a proxy for vehicle vintage. For this analysis the 144 funds in the sample are grouped into three categories: those with a year of first close prior to 2001 (17), those launched between 2001 – 2007 (43) and those with a first close post global financial crisis, after 2007 (84). The largest of the three groups are funds which were launched more recently and have a year of first close post 2008. These younger vintage funds are a mix of open end and closed end structures. As a group, they recorded the highest average TERs, 0.96% on a GAV basis and 1.43% on a NAV basis. Post performance fee ratios were slightly higher at 0.98% and 1.47% for GAV-based and NAV-based TERs respectively. At the other end of the spectrum, older vintage funds recorded the lowest average TERs, 0.49% on a GAV basis and 0.54% on a NAV basis. These funds are mostly open end structures (14 of the 17), which tend to have a lower TER than closed end structures.

Funds launched between 2001 and 2007 observed ratios closer to the younger vintage funds, with the average for this group being 0.88% based on GAV and 1.36% based on NAV.

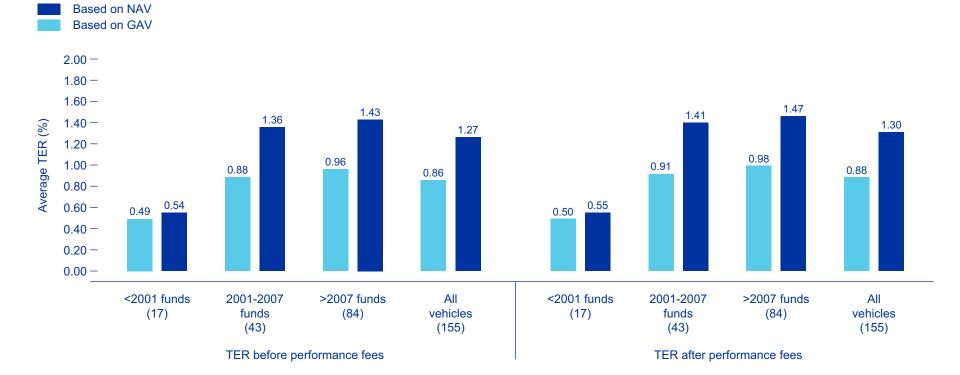


Figure 5: TER by year of first closing

TER by year of first closing and quartiles

There were some interesting observations in the assessment of quartiles by year of first closing.

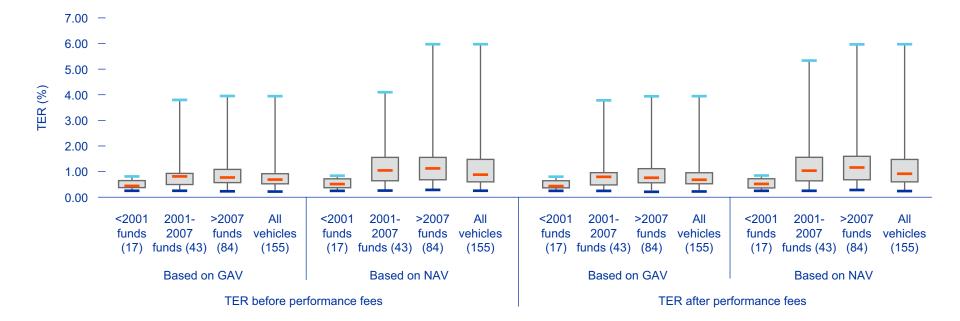
Funds launched between 2001 and 2007, and those launched from 2007 onwards observed similar middle spreads. The IQR for the first group was 42 bps while the second group observed a IQR of 54 bps, only slightly higher. In comparison, older vintage funds, those launched pre 2001, displayed a much narrower spread in their middle 50% observations than the previous two groups. The IQR for this group of funds was just 26 bps, and the range was also relatively narrow at just 57 bps. Despite fairly narrow IQRs for younger vintage funds and those launched between 2001 and 2007, the ranges that were observed was much larger. This indicates some extreme values in the samples which can largely be explained by some funds being in acquisition or disposal phases.

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Figure 6: TER by year of first closing and quartiles



- Median value
- Maximum value



TER by target gearing

There were 95 funds that indicated a target gearing level. These were split into three categories according to their borrowing strategies. The first group were funds with a target gearing level of less than 40% (36). The largest group were funds which indicated a target gearing level of between 40% and 60% (52). Only 7 funds specified target gearing of more than 60%.

The majority of funds with lower gearing targets of less than 40% are younger vintage funds (22 of the 36). They are also mostly core, and also open end. This group of funds observed the lowest average TERs among the three target gearing groups of 0.66% based on GAV and 0.83% based on NAV, before performance fees.

At the other end of the spectrum, funds with more than 60% target gearing, showed the highest average TER and the largest difference between GAV-based and NAVbased TERs. The average TERs for this group was 1.04% based on GAV and 1.92% based on GAV.

Funds that target 40% to 60% gearing were the largest group with 52 funds. This group was a mix of all strategies and all structures. On average their before fees GAV-based TER was 1.04% and 1.63% based on NAV.

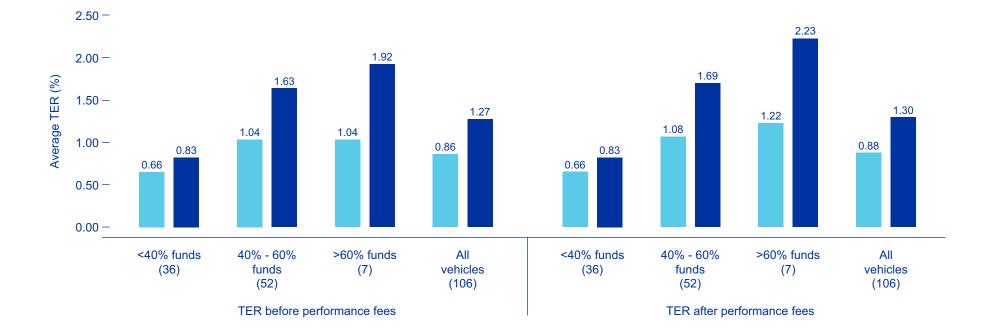


Figure 7: TER by target gearing

Based on NAV Based on GAV

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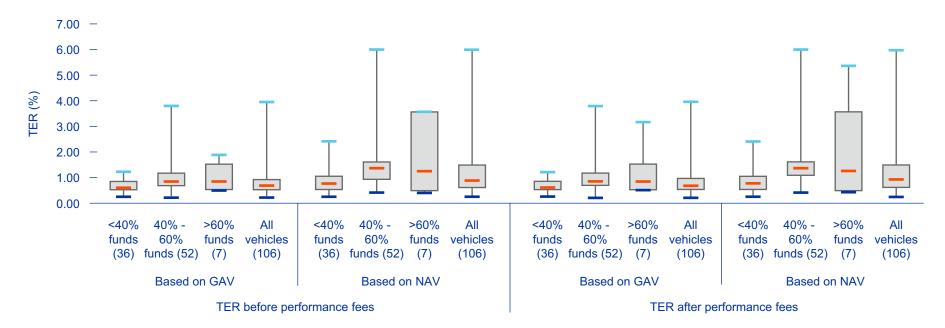
TER by target gearing and quartiles

The spread analysis by target gearing shows that funds with higher target gearing levels of greater than 60% have a much larger IQR than funds with less than 40% or between 40% to 60% target gearing. The IQR for this group of funds was almost 100 bps, at 99 bps. This compares with just 32 bps for funds that target low gearing levels, of less than 40%, and 49 bps for funds that target between 40% and 60% gearing.

However, this was not the case when measured by the range. The range shows that the middle group of funds, those targeting gearing levels between 40% and 60% have the widest spread, of 359 bps. This compares to just 140 bps for funds with high gearing targets and 95 bps for those with low gearing targets. What's interesting is the difference between the GAV and NAV based TERs for this group of funds that target high gearing levels. On a NAV basis the IQR is 307 bps, which is much larger than the GAV based IQR of 99 bps. This is reflective of some funds being highly geared in this small sample of 7.

Figure 8: TER by target gearing and quartiles

- --- Minimum value
- Median value
- Maximum value



TER by fund size

Funds were grouped into three discreet size categories based on their latest reported GAVs: those that are less than \in 500 million (78) those that are between \in 500 million to \in 1 billion (40) and those that are larger than \in 1 billion (26).

Smaller funds tend to have higher expense ratios than larger funds, and this observed in the results.

Funds less than €500 million in size had an average TER of 1.07% based on GAV. The NAV-based TER for this group was 54 basis points (bps) higher at 1.61%.

At the other end of the scale, large funds, those greater than €1 billion in size, recorded the lowest average TER and the smallest difference between the GAV-based and NAVbased ratios. Medium-sized funds, those between €500 million and €1 billion sat in-between with an average GAV-based TER of 0.71% and a NAV-based TER of 1.08%.

There were larger differences in the before and after performance fees ratios for smaller funds than for medium-sized or larger funds.

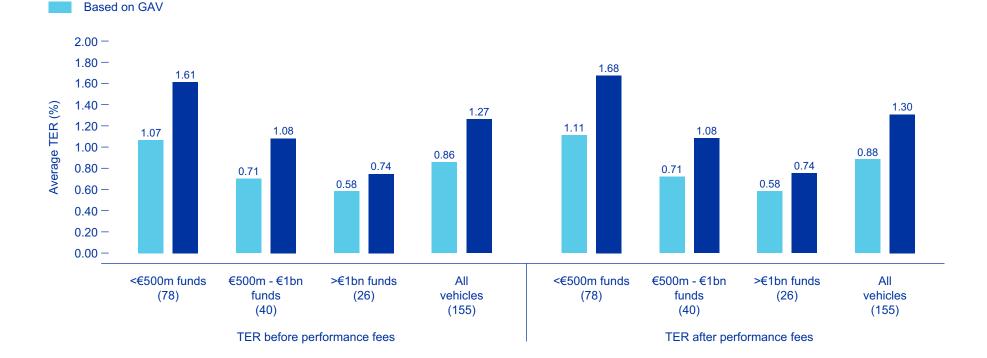


Figure 9: TER by fund size

Based on NAV

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TER by fund size and quartiles

The following observations were made when exploring quartiles by fund size. Both the IQRs and the ranges show consistent patterns.

Larger funds, those > \in 1 billion in GAV, have a much narrower IQR and range than smaller and medium-sized funds, 24 bps and 95 bps respectively. The corresponding statistics for mediumsized funds were 41 bps and 214 bps for this group's IQR and range respectively.

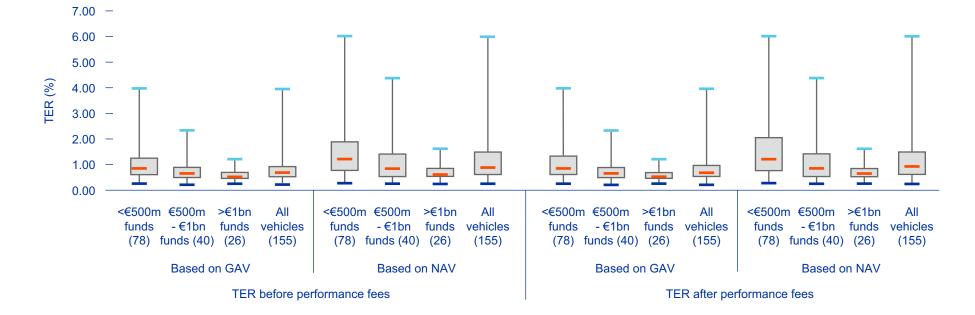
Small funds, those less than €500 million in GAV, displayed the widest spread in both the IQR and the range measures. The IQR for this group was 67 bps, 26 bps higher than the medium-sized funds and 43 bps higher than the large funds. The range for this group was widest at 371 bps.

Both measures were even wider when based on NAV across all fund sizes, and more so for smaller funds than for larger funds.





- Median value
- ---- Maximum value



TER by country strategy

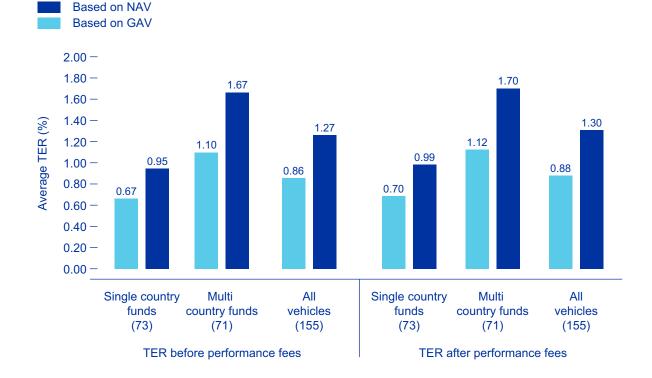
The country strategy split of the sample is as follows: 73 funds follow a single country strategy and 71 follow a multi country strategy.

The average TERs was lower for single country strategy funds than for multi country strategy funds, both on a before and after performance fees basis. The difference between the GAV-based or NAV-based ratios was also smaller for single country funds compared with multi country funds.

Multi country funds recorded an average TER of 1.10% based on GAV and 1.67% based on NAV. Equivalent figures after performance

fees were only slightly higher at 1.12% and 1.70% on a GAV and NAV basis respectively.

Figure 11: TER by country strategy



'Funds with multi country strategies have higher TERs than those with single country strategies'

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TER by country strategy and quartiles

Assessment across country strategies show that single country funds have a narrower spread in their dispersion measures than multi country funds.

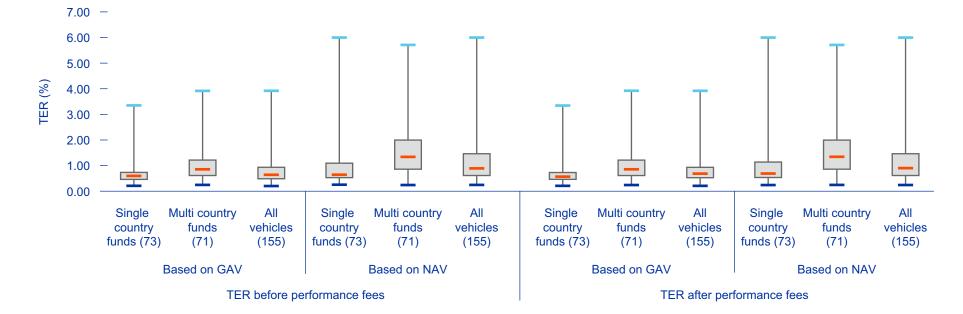
The IQR for multi country funds was 63 bps, 37 bps higher than the 26 bps for single country funds.

The ranges also showed similar patterns. The range for multi country funds was 371 bps, 55bps higher than the 316 bps for single country funds.

On a NAV basis the spread in TERs was much wider, especially for multi country funds. The IQR increased to 115 bps and the range also widened to 546 bps. Interestingly, the range in expense ratios for single country funds was wider than the range for multi country funds, when based on NAV.

Figure 12: TER by country strategy and quartiles

- ---- Minimum value
- Median value
- Maximum value



TER by single country strategy

The country strategies of the 73 single country funds are as follows: 15 have a strategy to invest in Germany, 17 in the Netherlands and 21 are focused on the United Kingdom (UK). Other single country strategies are grouped into an 'other' category which contains 20 funds.

Funds targeting the Netherlands showed the lowest average TERs as well as the smallest difference between the GAV-based and NAV- based ratios. On average the TERs for this group was 0.52% based on GAV and only 5 bps higher based on NAV.

Funds targeting Germany displayed the biggest divergence between GAV-based and NAV-based TERs, of 44 bps. At 1.17% their average NAV-based TER was the highest among the single country funds. But this was not the case for their GAV based TER which was 0.73%, slightly lower than that for the UK funds.

UK strategy funds recorded an average TER of 0.76% based on GAV and 1.00% based on NAV.

Other single country funds had a larger difference in GAV and NAV-based ratios than the UK funds but not as large as those targeting Germany as a country strategy.

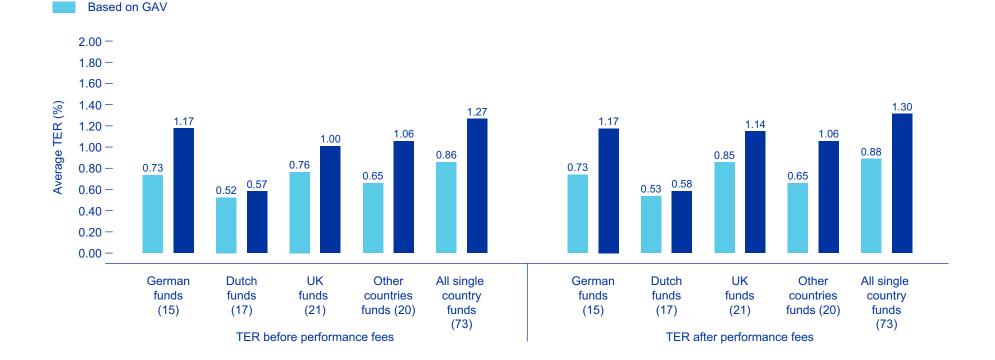


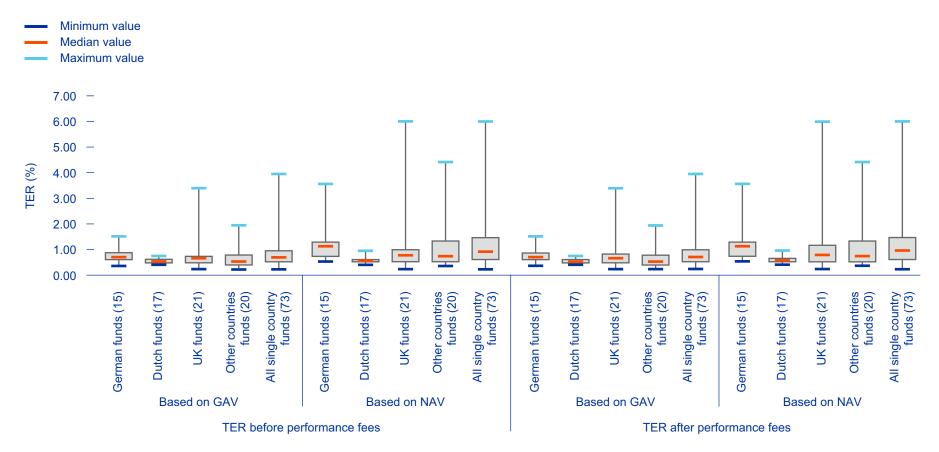
Figure 13: TER by single country strategy

Based on NAV

TER by single country strategy and quartiles

A deeper analysis of the single country strategies shows that funds planning their investments in the Netherlands are fairly homogenous in their expense ratios. This group of funds recorded an IQR of just 13 bps, the narrowest of all categories. Likewise, the range for this group was also narrow at just 37 bps difference between the lowest TER and highest TER. Funds targeting Germany or the UK also observed a relatively narrow spread in the middle 50% of their samples. The spread measured by the IQR was fairly similar for these two groups, 27 bps for funds intending to invest in Germany and 26 bps for those targeting the UK. However, these similarities do not carry over to the ranges for these two groups of funds. The difference here is much larger. Those with their sights on the UK displayed a wide range of 313 bps between their smallest and largest TERs, while the same measure for those targeting Germany was just 116 bps.

Figure 14: TER by single country strategy and quartiles



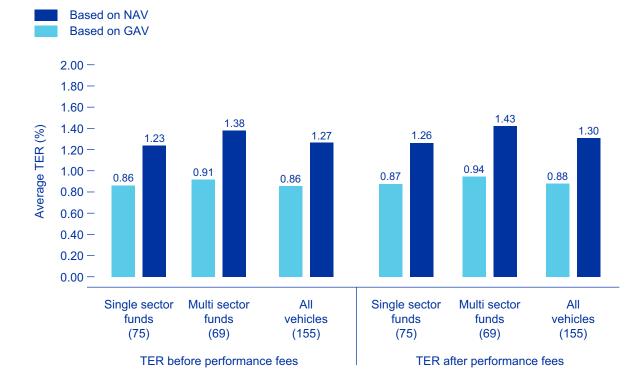
TER by sector strategy

The sector strategy split of the sample is as follows: 75 funds follow a single country strategy and 69 follow a multi country strategy.

The average ratios are similar for both these strategies, with multi sector strategies showing slightly higher expense ratios than single sector strategy funds. The differences between the GAV-based and NAV-based TERs were only slightly larger for multi sector strategy funds.

Furthermore, the after performance fees TER was slightly higher than the before performance fees TER across all sector strategies. Multi sector funds recorded an average TER of 0.91% based on GAV and 1.38% based on NAV. Equivalent figures after performance fees were only slightly higher at 0.94% and 1.43% on a GAV and NAV basis respectively.

Figure 15: TER by sector strategy



'Marginal differences in expense ratios of single sector and multi sector strategy funds'

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TER by sector strategy and quartiles

Assessment of dispersion by sector shows similar spreads across the different sector strategies.

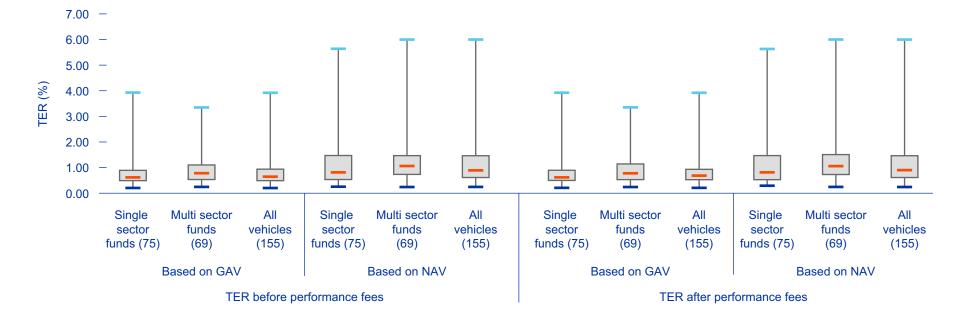
The IQR for single sector funds was only slightly smaller than that of multi sector strategy funds, 42 bps compared with 57 bps. The ranges were also fairly similar. Though this time around, multi sector strategies showed a smaller range compared with the single sector strategy funds, 313 bps versus 375 bps.

On a NAV basis the patterns reversed. Single sector funds displayed a larger IQR than multi sector funds. When measured by the ranges

of these two groups of funds, single sector funds revealed a smaller range than multi sector strategy funds, 536 bps versus 577 bps.

Figure 16: TER by sector strategy and quartiles

- Minimum value
- Median value
- Maximum value



TER by single sector strategy

The single sector strategies are comprised as follows: 10 have a strategy to focus their investments on the office sector, 34 on the retail sector, 8 on industrial / logistics and 11 on the residential sector. The remaining 12 include single sector funds that target other sectors.

Residential funds recorded the lowest average TERs as well as the smallest difference between the GAV-based and NAV- based ratios. On average the TERs for this group were 0.54% based on GAV and 0.60% based on NAV.

At the other end of the spectrum funds that target the office or the retail sectors have higher expense ratios. The average TER for the office sector was only slightly higher than that of the retail sector, 1.02% and 0.95% respectively, on a GAV basis before performance fees. These sectors also showed larger differences between their GAV-based TERs and their NAV-based TERs when compared to the residential or industrial / logistics sectors.

The average TER for funds with a strategy to invest in industrial / logistics was 0.84% on a GAV basis, lower than the TERs for the office and retail sectors, but higher than the average TER for the residential sector.

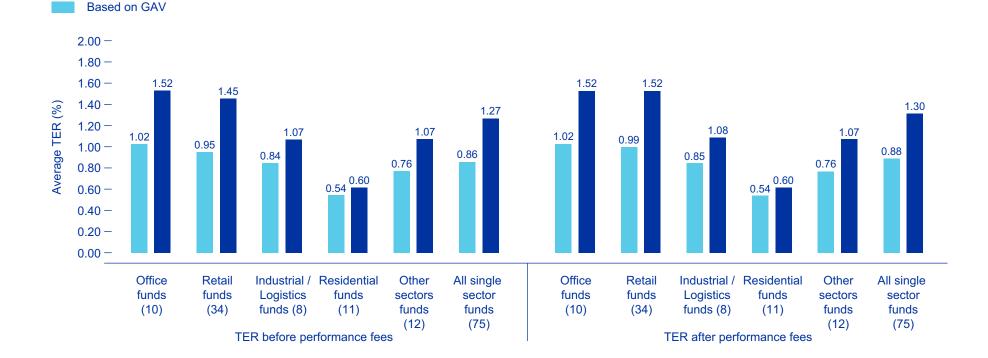


Figure 17: TER by single sector strategy

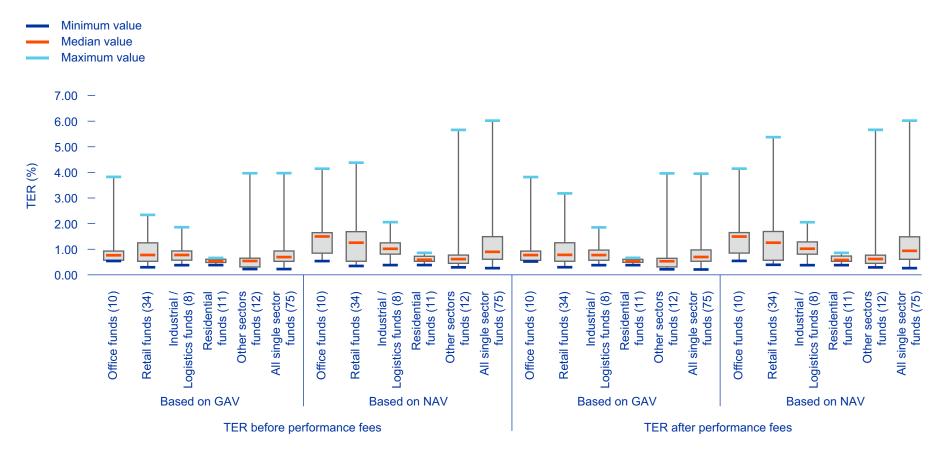
Based on NAV

TER by single sector strategy and quartiles

Diving deeper into the expense ratios of single sector strategies reveal some interesting results.

Of the mainstream sectors, funds targeting the retail sector have the largest IQR in their total expense ratios (75 bps). Meanwhile the office sector strategy funds have the largest range (328 bps). Funds with a strategy to invest into the residential sector have the narrowest spread between the middle 50% of their sample of funds. At just 14 bps this is just 1 bps wider than the narrowest IQR of all categories (13 bps for funds targeting the Netherlands). Similarly the spread between the lowest and higher TER within this group was also narrow, at just 28 bps. The industrial / logistics sector sits somewhere in between. The IQR for this group is on par with that of the office strategy funds, 37 bps. While the range for this group is much smaller than that of office or retail but larger than residential strategy funds, 146 bps.

Figure 18: TER by single sector strategy and quartiles



TER before and after performance fees split by fee type

The TERs were split by fee type in order to better understand the different components that they were comprised of.

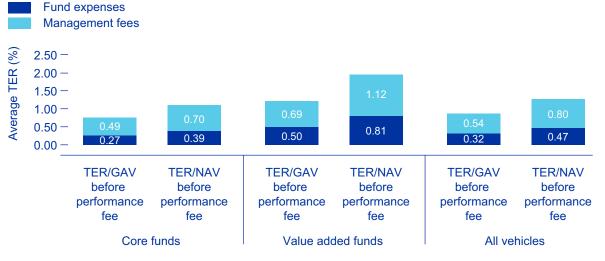
Across the board, the dominant component of the TERs were management fees, whether based on GAV or based on NAV and before or after performance fees

At the all vehicles level the management fees comprised 63% of the TER on a GAV basis before fees. Fund expenses made up the remaining 37%.

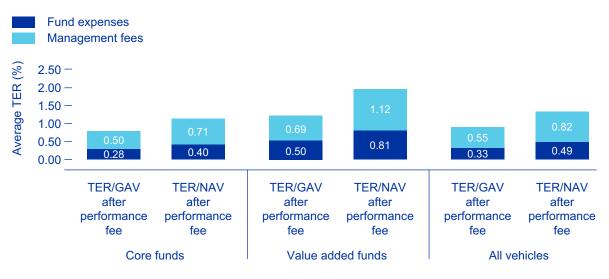
There were some differences across the fund styles. For core funds the split was 64% and 36% for management fees and fund costs respectively. While the split for value added funds was 58% and 42% also based on GAV and before performance fees.

'Management fees make up the largest component of TERs'

Figure 19: TER before performance fees split by fee type







Section 3

Real estate expense ratios

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REER by style and quartiles

This section of the report is based on a sample of 111 vehicles that provided data on their 2017 REERs.

The REER is based on inputs to propertyspecific costs including external leasing commissions, property acquisitions, insurance, management, repairs and maintenance, utilities costs as well as taxes on property related activities and other miscellaneous / sundry property costs. Property level costs are presented as a percentage of GAV.

Of the 111 vehicles, 81 are core, 22 are value added and 3 are opportunity funds. Additionally, there are 5 separate accounts that also provided information on their end 2017 REERs.

The average REER of all vehicles was 1.16%. For core funds, the ratio stood at 1.02%. Value added funds commanded 1.50%.

Considering REER weighted by GAV, the all vehicles ratio tapered notably to 0.75% suggesting that larger vehicles incur lower real estate expenses compared to their smaller peers.

Figure 21: REER by style

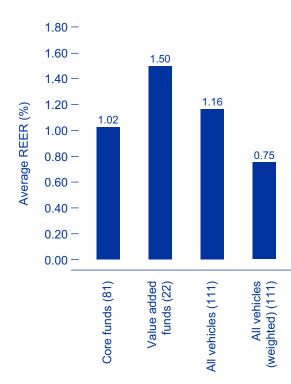
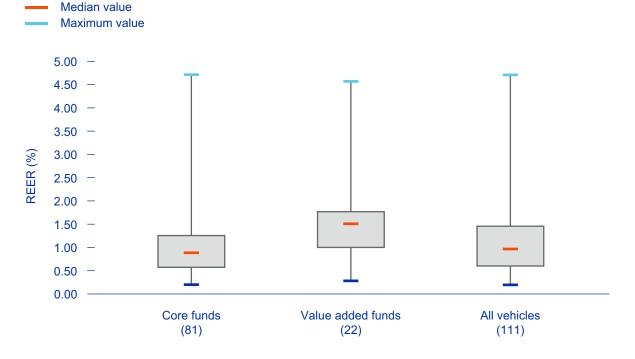


Figure 22: REER by style and quartiles

Minimum value



REER by structure and quartiles

The structure split of the sample is as follows: 53 are open end and 52 are closed end funds. The remaining 5 are separate accounts.

Considering REER by structure, some notable differences emerged. The average open end funds' ratio was 0.97%. It was almost 40bps larger for closed end funds.

Looking at the REER dispersion among both structures, again noteworthy differences appeared.

Firstly, the median values differ between the two structures. The median REER value for open end funds was 0.91%, compared with 1.17% for closed end funds.

Secondly, the gap between lower and upper quartiles, as one would expect, is greater for closed end vehicles. The interquartile range among open end funds was 67 bps. The same figure was 1.05% for closed end funds.

Figure 23: REER by structure

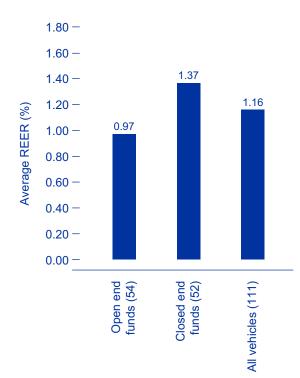
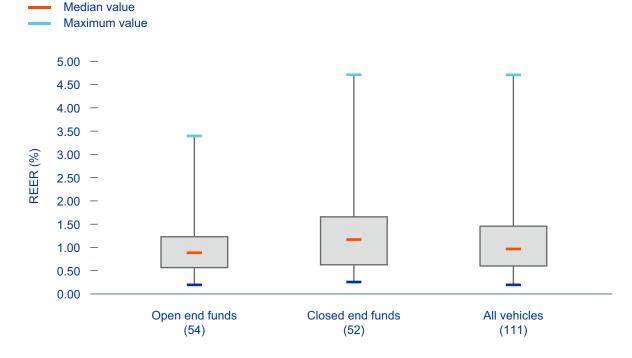


Figure 24: REER by structure and quartiles

Minimum value



REER by year of first closing and quartiles

Minimum value

Median value

For the vintage analysis funds we grouped them into three categories based on their year of first closing: those with a year of first close prior to 2001 (13), those launched between 2001 – 2007 (33) and those with a first close post global financial crisis, after 2007 (60).

Looking at REER rates by vintage, older funds, those launched before 2001, have the lowest ratio of 1.00%. Their pre-crisis

peers, or those launched between 2001 and 2007, have an average REER of 1.10%. The youngest group of funds, those that were launched after 2007, command the highest ratio of 1.23%.

Considering distribution levels among the three fund groupings, an interesting picture develops. Pre-2001 funds have the narrowest bandwidth with a gap of 53 bps between

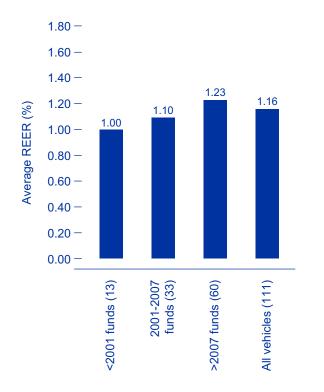
the upper and lower quartiles. For pre-crisis funds, this dispersion stands at 66 bps. Funds launched after 2007 have the greatest gap of 106 bps.

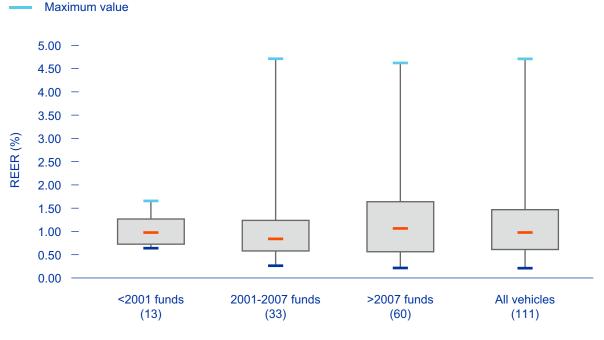
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It is interesting to note, however, that although dispersion between the three fund vintage categories varies, the lower quartile values are somewhat homogenous.

Figure 25: REER by year of first closing

Figure 26: REER by year of first closing and quartiles





REER by target gearing and quartiles

For the analysis by gearing, the sample has been split into three broad categories: funds with gearing level below 40% (27), funds with target gearing between 40% and 60% (41) and those with target borrowing levels above 60% (4). The remaining 5 are separate accounts.

Here the sample contains only 77 vehicles in total as not all vehicles provided their gearing levels.

Funds with lowest gearing levels have an average REER of 1.05%. The next category of funds with gearing between 40% and 60% have a similar expense ratio of 1.07%. However, their higher gearing peers exhibit an average REER of 1.39%, more than 30bps above the two former groups of funds.

Scrutiny across quartiles confirms REER heterogeneity. While the first and second groups of funds show similar REER dispersion as well as mean values, funds with 60% and above gearing level have a wider gap between upper and lower quartiles as well as a higher mean REER value.

Figure 27: REER by target gearing

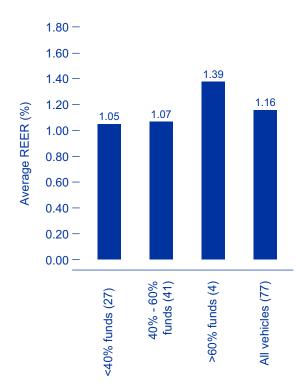
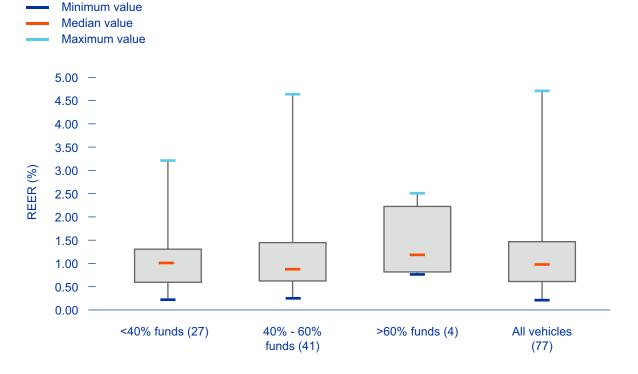


Figure 28: REER by target gearing and quartiles



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REER by size and quartiles

This section looks at REER of funds by size. Funds are divided into three categories based on their GAV: small with GAV less than \in 500 million (54), medium with GAV in the range of \in 500 million - \in 1 billion (34) and large vehicles with GAV greater than \in 1 billion (18). Considering REER averages, small funds have an average REER of 1.27%. Mediumsized funds command 1.10% while REER for large funds stood at 0.95%.

However, further quartiles analysis provides some interesting insights. Aside of having the greatest REER, small vehicles also exhibit the widest dispersion compared to their peers. Medium-sized funds exhibit similar distribution levels to their small peers. Large funds on the other hand are much more bunched together.

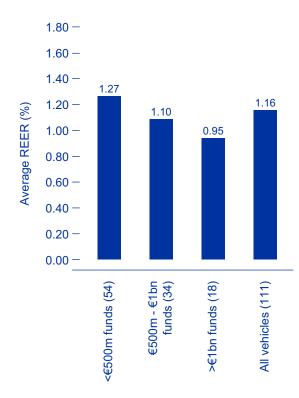
The difference between upper and lower quartile REER values for large funds is 30 bps, it was 83 bps for medium-sized and 108 bps for small funds respectively.

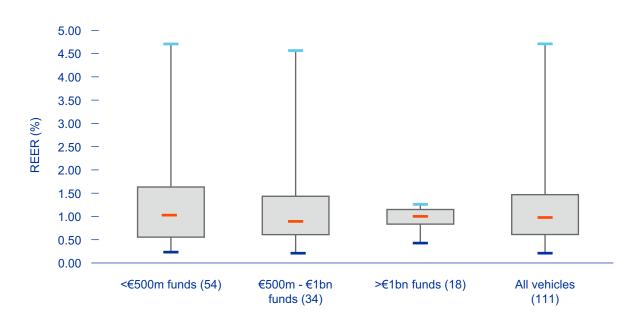
Figure 29: REER by size

Figure 30: REER by size and quartiles

Minimum value Median value

Maximum value





REER by country strategy and quartiles

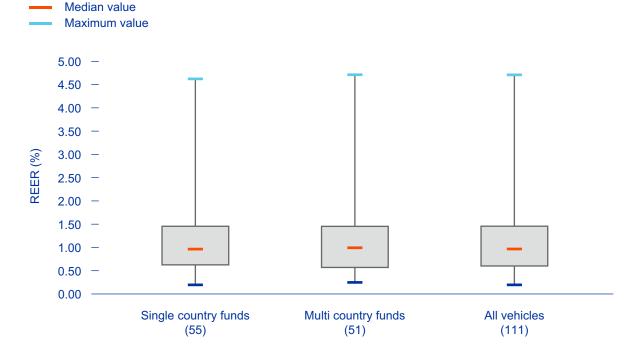
The country strategy split of the sample is as follows: 55 funds follow a single country strategy and 51 follow a multi country strategy. Looking at REERs of funds by target regional strategies, the average levels are comparable. Whether it is single country or multi country funds, their average REER levels are alike. For the former group of funds their average REER stands at 1.19%. The same ratio is 1.13% for the latter group. A similar picture emerges when numbers are broken down into quartiles. Both single and multi country funds have comparable REER dispersion levels as well as median values that reconcile with the overall sample.

Figure 31: REER by country strategy

1.80 -1.60 -1.40 -1.19 1.16 1.20 -Average REER (%) 1.13 1.00 -0.80 -0.60 -0.40 -0.20 -0.00 -Single country funds (55) Multi country funds (51) All vehicles (111)

Figure 32: REER by country strategy and quartiles

Minimum value



INREV REER by single country strategy and quartiles

An interesting picture emerges when REER is broken down by single country strategy. Funds targeting Germany have the lowest ratio of 0.73%. Next come UK targeting funds with an average REER of 1.09%. For Dutch funds the average REER is 1.27%. Funds that target other European countries have the largest ratio that stands at 1.55% on average. Considering quartiles dispersion, Dutch funds, have the lowest gap between upper and lower quartiles. German funds follow next with UK targeting funds showing the widest gap among these three major countries.

Funds that target other countries in the continent not only have the largest average REER but also exhibit the widest interquartile range.

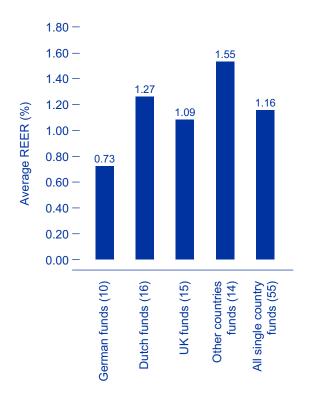
Minimum value

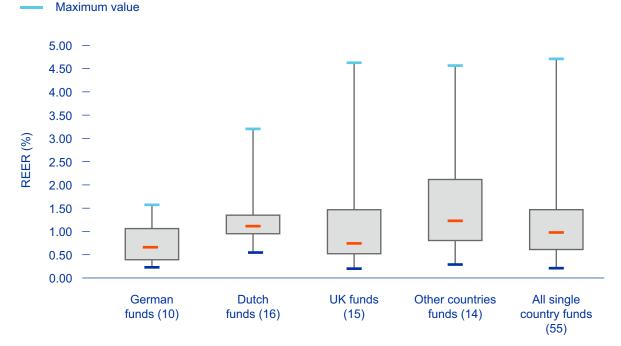
Median value

This notable range however is not surprising as 'other' single country funds operate across various jurisdictions including Nordics (primarily Finland and Sweden), France, Ireland, Italy, Poland, Portugal, Spain and Switzerland where costs might be greater compared to those that are incurred in major countries.

Figure 33: REER by single country strategy

Figure 34: REER by single country strategy and quartiles





REER by sector strategy and quartiles

The sector strategy split of the sample is as follows: 59 funds follow a single sector strategy and 47 follow a multi sector strategy.

When REER is broken down by sector strategy, the overall picture is similar to that of the countries strategies. As a group, whether it is single sector or multi sector funds, their REER ratios do not deviate much from each other. The average REER for single sector funds was 1.14%, slightly lower than the 1.19% for their multi sector peers.

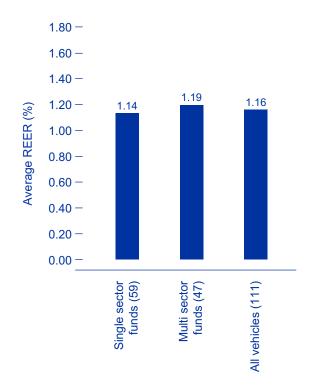
Figure 35: REER by sector strategy

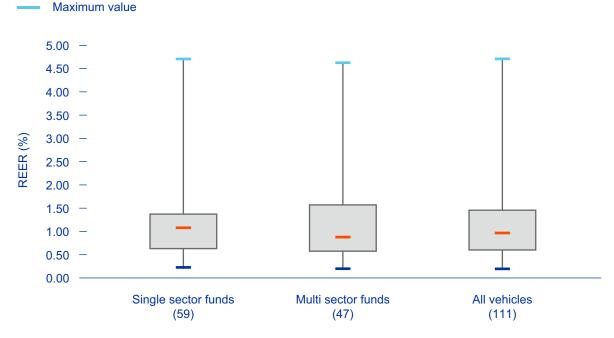
The difference with target country strategies however is that REER is greater for multi sector funds. For sector strategies, single sector funds had a greater average REER than multi sector funds. When TERs are broken down into quartiles, again REERs are homogenous between the two groups of funds. However, multi sector funds, have slightly greater dispersion. The gap between upper and lower quartiles for single sector funds was 84 bps, while it was 89 bps for multi sector funds.

Figure 36: REER by sector strategy and quartiles

Minimum value

Median value





NREV REER by single sector strategy and quartiles

This section analyses the REER averages for single sector funds only. The lowest average REER of 0.56% was recorded for 'other' sectors (that included age and health care, hotel, leisure, parking and student accommodation) funds. Residential funds (1.02%) follows next, then retail funds (1.23%), office funds (1.26%) and industrial / logistics funds (1.45%). The spread between the lower and upper REER quartiles differs significantly depending on sector strategy. Residential funds have the narrowest dispersion of 33 bps. Next follow the 'other' sector funds (44 bps), retail funds (76 bps), office funds (85 bps) and industrial / logistics funds (215 bps). The heterogeneity of industrial / logistics funds is somewhat unsurprising as the sector encompasses a wide range of assets ranging from large multi-channel logistics centers to smaller last mile boxes close to city centers.

Figure 37: REER by single sector strategy

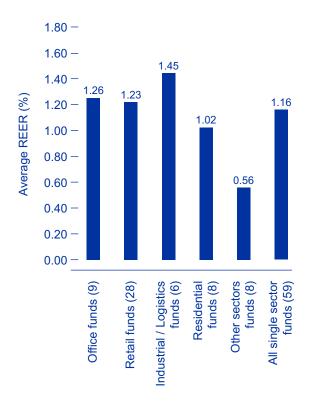
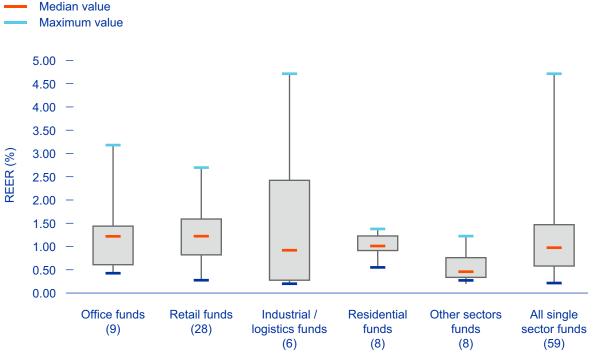


Figure 38: REER by single sector strategy and quartiles

Minimum value



Section 4

General fees and terms

General fees and terms

Table 1: Initial charges

				Style				Structure	е		
Fund	All vehic	les		Core		Value ad	ded	Open en	d	Closed e	end
	Yes	No	Not applicable	Yes	No	Yes	No	Yes	No	Yes	No
Placement fee	25	368	18	7	224	15	100	2	159	23	193
Subscription fee	42	355	14	32	204	9	105	24	139	18	200

Table 2: Fees paid to the manager during commitment period

				Style				Structur	е		
Fund	All vehi	cles		Core		Value a	dded	Open er	nd	Closed	end
	Yes	No	Not applicable	Yes	No	Yes	No	Yes	No	Yes	No
Fund management fee	50	12	349	14	5	25	6	4	2	46	10
Asset management fee	12	36	363	8	7	3	20	2	2	10	34
Property acquisition fee (amortisation for the period)	19	35	357	11	7	6	19	3	2	16	33
Commitment fee	13	37	361	6	11	5	17	0	4	13	33
Property disposition fees	7	40	364	6	8	0	22	2	2	5	38
Distribution fee	0	16	395	0	6	0	9	0	1	0	15
Financing fee/debt arrangement fee	0	16	395	0	6	0	9	0	1	0	15
Project management fee	5	42	364	3	11	0	22	1	3	4	39
Property management fee	4	44	363	3	12	0	22	1	4	3	40
Internal leasing commission	0	11	400	0	3	0	7	0	1	0	10
Other related fees	2	11	398	2	3	0	7	0	1	2	10
Wind up fees	0	11	400	0	3	0	7	0	1	0	10

Table 3: Fees paid to the manager during holding period

				Style				Structu	re		
Fund	All vehi	cles		Core		Value a	dded	Open er	nd	Closed	end
	Yes	No	Not applicable	Yes	No	Yes	No	Yes	No	Yes	No
Fund management fee	363	39	9	220	21	103	11	156	11	191	28
Asset management fee	168	210	33	97	130	48	58	69	85	85	123
Property acquisition fee (amortisation for the period)	204	182	25	137	98	48	57	103	58	86	123
Commitment fee	12	351	48	6	210	5	96	1	147	11	188
Property disposition fees	145	227	39	102	122	26	76	80	76	52	148
Distribution fee	6	127	278	3	89	2	21	4	63	1	49
Financing fee/debt arrangement fee	5	128	278	3	89	1	22	2	65	2	48
Project management fee	66	301	44	42	176	16	86	35	115	30	171
Property management fee	56	310	45	33	184	18	85	23	125	32	170
Internal leasing commission	13	82	316	8	52	4	14	5	42	7	25
Other related fees	14	81	316	11	49	2	16	9	38	4	28
Wind up fees	2	87	322	1	55	0	16	0	44	1	28

	Style				Structure				
	Core		Value added	Value added		Open end		i	
	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	
Commitment	3	1.25	4	1.63	-	-	8	1.54	
Drawn Commitment	-	-	15	1.61	-	-	24	1.52	
GAV	100	0.53	43	0.65	71	0.51	73	0.62	
NAV	55	0.71	21	0.78	47	0.68	29	0.81	
Rent	4	5.57	-	-	-	-	4	4.28	
Fixed fee	-	-	-	-	-	-	-	-	
Property Value	34	0.50	9	0.52	20	0.49	24	0.50	
Transaction Price	-	-	-	-	-	-	-	-	
Actual Cost	-	-	-	-	-	-	-	-	

Table 4: Fund management fee paid to the manager during holding period

	Style				Structure	Structure			
	Core		Value added	Value added		Open end		d	
	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	
Commitment	-	-	-	-	-	-	3	1.83	
Drawn Commitment	-	-	3	1.50	-	-	3	1.50	
GAV	15	0.49	14	0.46	11	0.53	18	0.45	
NAV	8	0.74	-	-	6	0.78	4	1.15	
Rent	17	2.37	7	3.71	15	2.26	9	3.59	
Fixed fee	-	-	-	-	-	-	-	-	
Property Value	19	0.50	8	0.41	16	0.45	11	0.47	
Transaction Price	-	-	-	-	-	-	-	-	
Actual Cost	-	-	-	-	-	-	-	-	

Table 5: Asset management fee paid to the manager during holding period

	Style				Structure			
	Core		Value added	Value added		Open end		
	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)
Commitment	-	-	-	-	-	-	-	-
Drawn Commitment	-	-	-	-	-	-	-	-
GAV	8	1.00	7	1.16	7	0.86	8	1.25
NAV	-	-	-	-	-	-	-	-
Rent	-	-	-	-	-	-	-	-
Fixed fee	-	-	-	-	-	-	-	-
Property Value	23	1.04	5	0.84	19	1.05	9	0.91
Transaction Price	86	0.99	33	0.90	69	1.04	51	0.86
Actual Cost	-	-	-	-	-	-	-	-

Table 6: Property acquisition fee (amortisation for the period) paid to the manager during holding period

	Style				Structure			
	Core		Value added	Value added		Open end		
	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)
Commitment	-	-	-	-	-	-	-	-
Drawn Commitment	-	-	-	-	-	-	-	-
GAV	7	0.93	4	0.90	5	0.70	8	1.07
NAV	-	-	-	-	-	-	-	-
Rent	-	-	-	-	-	-	-	-
Fixed fee	-	-	-	-	-	-	-	-
Property Value	7	1.04	-	-	5	1.15	4	0.65
Transaction Price	69	0.93	17	0.84	61	0.96	26	0.79
Actual Cost	-	-	-	-	-	-	-	-

Table 7: Property disposition fees paid to the manager during holding period

	Style				Structure			
	Core		Value added	Value added		Open end		
	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)
Commitment	-	-	-	-	-	-	-	-
Drawn Commitment	-	-	-	-	-	-	-	-
GAV	-	-	3	2.25	-	-	-	-
NAV	-	-	-	-	-	-	-	-
Rent	-	-	-	-	-	-	-	-
Fixed fee	3	2.00	-	-	-	-	-	-
Property Value	3	1.75	-	-	3	1.75	-	-
Transaction Price	-	-	-	-	-	-	-	-
Actual Cost	4	6.00	-	-	5	4.00	-	-

Table 8: Project management fee paid to the manager during holding period

	Style				Structure			
	Core		Value added	Value added			Closed end	
	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)	# funds	AVG (%)
Commitment	-	-	-	-	-	-	-	-
Drawn Commitment	-	-	-	-	-	-	-	-
GAV	-	-	4	0.15	-	-	4	0.22
NAV	-	-	-	-	-	-	-	-
Rent	9	3.55	5	1.20	3	2.90	12	2.26
Fixed fee	-	-	-	-	-	-	-	-
Property Value	-	-	3	0.32	3	0.37	-	-
Transaction Price	-	-	-	-	-	-	-	-
Actual Cost	-	-	-	-	-	-	-	-

Table 9: Property management fee paid to the manager during holding period

Appendix 1

Participants

Participants

The following is a list of managers that	Generali Immobiliare Italia
participated in the Management Fees & Terms Study 2018 and provided data for	Hahn Group
their 2017 TERs and REERs and gave permission fortheir names to be published.	Hines
Aberdeen Standard Investments	Internos
AEW Europe	IPUT
Altera Vastgoed	LGIM Real Assets
Amvest	M&G Real Estate
AREIM	Mayfair Capital
BNP Paribas REIM	Meyer Bergman
Bouwinvest	Northern Horizon Capital
Catella Property Group	Pradera
CBRE Global Investors	Prologis
Clearbell Capital LLP	Rockspring Property Investment Managers
Columbia Threadneedle Investments	Sonae Sierra
Cromwell Property Group	Syntrus Achmea Vastgoed
DNB Real Estate Investment Management	TH Real Estate
ECE Real Estate Partners	
FIL Investments International	
Frogmore Real Estate Partners	

Appendix 2

Glossary

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Glossary

Asset management fee

Fee typically charged by investment advisors, or managers, for their services regarding the management of the vehicle's assets. Asset management fees generally cover services such as:

- strategic input and production of asset level business plans;
- management of assets including refurbishment;
- appointment of third party service providers at asset level;
- reporting activities at asset level.

Occasionally, asset management fee and fund management fee are combined.

Performance fee

Also known as incentive fees, promote or carried interest, are fees charged by investment advisors, or managers, after a predetermined investment performance has been attained. Carried interest represents a re-allocation of equity and should be treated accordingly for accounting, tax or regulatory purposes.

Wind-up fee

Also known as liquidation fee, it is typically found in liquidating trusts, upon termination and dissolution of the vehicle. The sponsor is responsible for liquidating the partnership in an orderly manner.

Fund management fee

Also known as Investment Management or Investment Advisory fees, Fund Management fees are typically charged by investment advisors, or managers, for their services regarding the management of the vehicle. They generally cover services such as:

- appointment of third party service
 providers
- reporting activities to investors
- cash management and dividend payment
- managing the vehicle level structure
- arrangement of financing
- fund administration
- investor relations

Occasionally, fund management fee and asset management fee are combined.

Audit costs

Costs associated with annual external audit engagements and other audit services provided (both paid to independent third party firms or manager/advisor).

Bank Charges

Costs charged by a financial institution to manage and maintain the cash accounts of the vehicle, or in relation to debt issuance and overdrawing an account. Amounts can be charged on a periodic or transactional basis.

Custodian costs

Also known as depository costs, these are charged by a fiduciary entity entrusted with holding and safeguarding securities or assets, deposit transactions and keeping records for institutional clients.

Dead deal costs

Costs usually charged by third parties concerning work undertaken for acquisition/ disposition projects which do not ultimately close. Such costs cannot be capitalised, and thus must be expensed. Services undertaken by the advisor/manager are passed through as an expense.

Transfer agent costs

Costs charged by trustees who are responsible for managing the assets owned by a trust for the trust's beneficiaries. This is most relevant in a REIT structure where trustees act on behalf of all unit holders.

Valuation costs

Costs in connection with the external (third party) appraisal of the real estate assets and liabilities owned by the vehicle. Appraisals may be performed routinely or ad-hoc which can be triggered by certain provisions in the vehicle agreement.

Vehicle administration costs

Costs related to bookkeeping activities either paid to a 3rd party service provider or the manager/advisor.

Vehicle formation costs

Also known as set-up costs, these charges are incurred at the launch of a vehicle, and do not relate to the portfolio acquisition and financing structure. These include organisational costs (typically legal & notary services) as well as syndication costs, various marketing costs, including printing / publication, and initial subscription fees.

Internal leasing commissions

Commissions charged by investment advisors, or managers, after a new lease or a renewal lease is signed. These include marketing of vacant space. Commission ranges vary and may depend on the market and/or the value of the transaction.

Property acquisition fee

Fee charged by investment advisors, or managers, associated with the closing of a new investment. The fee compensates the real estate investment advisor, or manager, for services rendered in an investment acquisition, including sourcing, negotiating and closing the deal.

Property management fee

Fee charged by investment advisors, or managers, for the administration, technical and commercial management of real estate. A property management engagement typically involves the managing of property that is owned by another party or entity. This includes property advisory services.

Property disposition costs

Also known as disposal costs, they represent the costs of selling an investment property. Disposition costs are tipically charged to the seller, and consist of legal fees, title fees and insurance, disposition fees, and broker commissions. Disposition costs include only direct costs related to a property-specific disposal and do not include costs of running an disposition program such as general and administrative costs, costs incurred in analysing proposals that are rejected, jointventure organization costs or fees paid to the manager for execution of the deal.

Project management fee

A fee charged to the vehicle by the advisor, or manager, for guiding the design, approval, and execution of a renovation project, as well as construction process of a development project. These costs may be expensed or capitalised at the property level. For more information visit the <u>Global</u> <u>Definitions Database</u>

Appendix 3

Fee and expense metrics calculation

Fee and expense metrics calculation

Fee and expense metrics Fees describe charges borne by the vehicle for services provided by the manager and costs describe charges to a vehicle by	The formulae for TER are: NAV TER before performance fees =	Vehicle fees and costs (excluding performance fees) Average NAV
external service providers. Fees charged by the manager directly to their investors are not taken into account, with the exception of fees charged for services rendered to the vehicle. Where a single fee is charged to cover a	GAV TER before performance fees =	Vehicle fees and costs (excluding performance fees) Average GAV
variety of activities, the constituent elements will need to be identified, allocated to the appropriate cost category and disclosed appropriately.	NAV TER after performance fees =	Vehicle fees and costs (including performance fees) Average NAV
Historic Total Expense Ratio The TER is an historic or 'actual' figure, based on data published annually. Consequently, newly launched vehicles cannot have an historic TER.	GAV TER after performance fees =	Vehicle fees and costs (including performance fees) Average GAV
	The formula for REER is:	Property fees and costs

REER =

Property fees and costs

Average GAV

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