ANREV / INREV Fund of Funds Study **2015**

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.

INREV
Strawinskylaan 631
1077 XX Amsterdam, The Netherlands
+31 (0)20 799 39 76 | research@inrev.org | www.inrev.org

Contents

Executive summary 4

Sections

1 Introduction 5

2 Performance of funds of funds 7

3 Characteristics of funds of funds 17

Appendix

1 Sample statistics 35

Executive summary

- Strong bounce back from funds of funds with performance of 8.0% in 2014
- Over the next 10 years 39 funds of funds plan to terminate
- Global funds of funds led market performance in 2014 with 11.9% return

The non-listed real estate fund of funds industry is evolving, triggered by the adverse effects of the recent global financial crisis, with some business models developing into an investment partnership structure where fund of funds managers are co-investing with their investors.

Funds of funds delivered strong negative performance during the crisis, with annual total returns of -18.7% and -20.1% in 2008 and 2009 respectively. However, performance of funds of funds has improved in recent years, and in 2014 annual returns jumped to 8.0%, up from 0.2% in 2013. This signals that the fund of funds industry is well on its way to recovery, and affirms its role in the non-listed real estate space.

> ‘Business models of some funds of funds are developing into an investment partnership structure’

Out of the total 64 funds of funds in the ANREV and INREV Fund of Funds Vehicles Universes (‘Universe’), 22 funds of funds pursue a core strategy, while the remaining 42 have a non-core mandate. Both core and non-core funds of funds delivered strong performance in 2014, 8.8% and 5.4% respectively. This followed performance dips in 2012 of -1.5% for core funds and -10.9% for non-core funds, and in 2013, -0.5% for core funds and 2.3% for non-core funds.

Meanwhile closed end funds of funds continued to outperform open end funds of funds. Closed end funds of funds achieved a total return of 8.9% in 2014, compared with 7.8% for open end funds of funds. The last time open end funds of funds outperformed was in 2008 when closed end funds of funds took a large hit to performance with -34.3%, while open end funds of funds delivered -14.3% in that year.

By target region, 24 funds of funds are focused on the European markets. Funds of funds with either an Asia Pacific (14) or a North American strategy (2) represent around 10.0% and 3.5% of total net asset value (NAV) respectively. The remaining 23 funds of funds have a global mandate, accounting for €4.2 billion or 44.0% of the total NAV.

With Asia Pacific as an exception, uplift in performance was seen in funds of funds across different target regions, with global funds of funds leading the performance with 11.9% in 2014, an increase of 6.8% from the 5.1% seen in 2013. Following two years of negative performance, European-focused funds of funds achieved a positive total return of 5.2% in 2014 outperforming those with an Asia Pacific strategy by 8.5%.

> ‘Uplift in performance was seen in European and global funds of funds’

Core funds of funds are generally larger in size and are more diversified. On average, these funds are invested in 17 vehicles and 13 fund managers. They also have the lowest target blended gearing level on average with just 43.2% and have a target net internal rate of return (IRR) ranging from 8.0% to 10.0%.

Furthermore, core funds of funds are suitable for investors looking for a higher income return component as a large portion of these funds (40.9%) set 4.0% as a minimum target distribution yield compared with 33.3% of value added funds.

The majority of non-core funds of funds (15) invest globally compared with 12 core funds of funds that solely target the European markets. The average target blended gearing levels tend to be higher for non-core funds of funds, at 58.5% for value added funds and 73.1% for opportunity funds. Target net IRR is also higher for non-core funds of funds with 12.6% for value added and 14.9% for opportunity, on average.

Within the next 10 years, 39 funds of funds are due to terminate, with a peak of 11 fund terminations expected in 2019.

Section 1

Introduction

Introduction

This is the fourth edition of the Fund of Funds Study. The study provides an overview of the fund of funds industry globally, including insights by target region, by style and structure as well as other characteristics of funds of funds. The study also provides a detailed analysis into the performance of funds of funds.

For the first time, the Fund of Funds Study is conducted in conjunction with ANREV in Asia Pacific.

As at end Q2 2015, there are 64 funds of funds that are managed by 25 fund of funds managers in the ANREV and INREV Funds of Funds Universes ('Universe')[1], collectively representing net asset value (NAV) of €9.5 billion.

Performance data has been provided for 26 funds of funds managed by 13 fund of funds managers. This sample represents 56.5% of the total NAV of the funds of funds in the Universe.

The performance analysis in Section 2 is based on the 26 funds of funds that provided performance information, while the analysis presented in Section 3 is based on the total number of funds of funds in the Universe.

The sample under analysis varies from year to year depending on the composition of funds of funds. Therefore, year on year comparisons should be treated with an element of caution.

Aggregate annual performance results are only presented when there are at least three funds of funds managed by a minimum of three different fund of funds managers. All returns are calculated in-house by INREV. Performance figures are stated in local currency.

The performance data presented in this report is not intended to serve as a benchmark and should be used for research and information purposes only.

Performance figures in Section 2 are quoted as at 31 December 2014, while figures in Section 3 on the Universe are quoted as at the end of Q2 2015 unless stated otherwise.

'For the first time the study is conducted in conjunction with ANREV in Asia Pacific'

[1] Some fund of funds managers have asked for their vehicle details not to be disclosed in the ANREV and INREV Fund of Funds Universes

Section 2

Performance of funds of funds

Performance of funds of funds

Market overview

Funds of funds remain an important product line in the non-listed real estate industry. According to the ANREV / INREV / NCREIF Fund Manager Survey 2015, funds of funds represent around 1.6% or €28.8 billion of total real estate assets under management (AUM) by fund managers globally.

Their significance is further heightened as funds of funds invest in a relatively high number of non-listed real estate products. Of the total €122.7 billion capital raised in 2014, 6.7% is raised from fund of funds managers, an increase of 4.0% from 2.7% in 2012.

The benefits of investing into real estate are also reflected in funds of funds. Funds of funds offer diversification in terms of regions and sectors, access to real estate markets, to management expertise, and different vehicle structures as well as the expertise to outsource asset management, fund selection, due diligence and administration.

Nonetheless, the drawbacks of funds of funds came under scrutiny following the recent global financial crisis that adversely affected the majority of asset classes including non-listed real estate. The perceived disadvantages include double layers of fees and manager risk that appear to be present at both the fund of funds and underlying fund levels. The illiquidity of funds of funds was also criticised in the current market condition.

Since the financial crisis, many fund of funds managers have been seen to restructure their business models by evolving from a traditional ‘fund of funds’ structure to an ‘investment partnership’ structure, leading some fund of funds managers to co-invest with their investors.

‘A fund of funds remain an important business line, representing around €28.8 of total real estate AUM by fund managers globally’

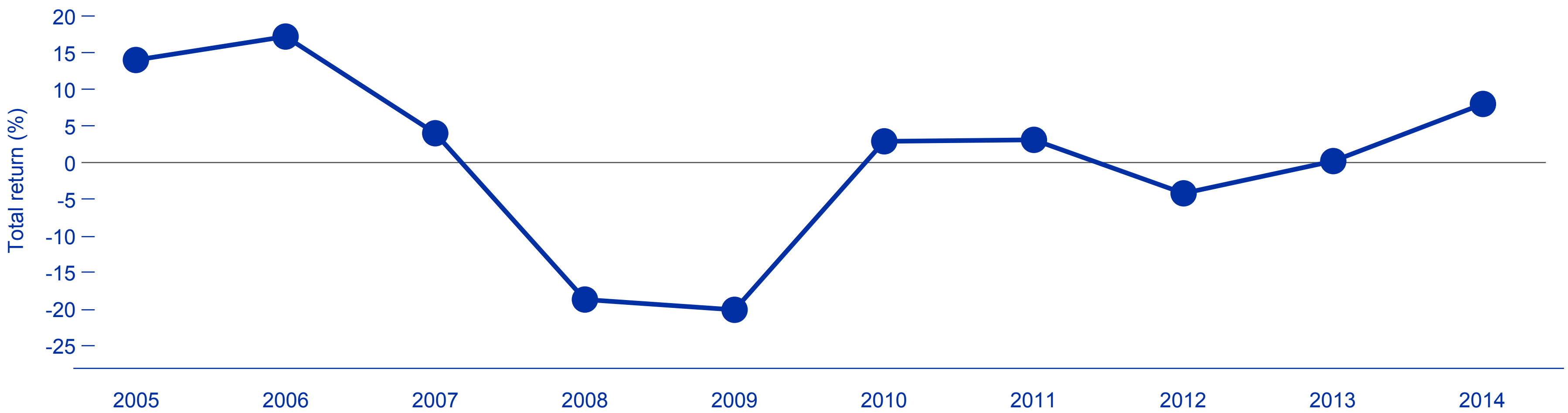
Aggregate annual performance of funds of funds

The funds of funds performance analysis presented in this section is based on the number of funds of funds presented in the appendix.

Funds of funds saw a strong bounce back in performance in 2014 following a slow recovery from the 2012 drop in returns. At 8.0%, 2014 delivered the strongest performance seen in funds of funds since 2007. This is a huge jump from the 0.2% total return in 2013.

The healthy performance signals a recovery in funds of funds since the global financial crisis that severely harmed performance in 2008 and 2009. Funds of funds delivered negative total returns of -18.7% and -20.1% in 2008 and 2009 respectively. As the non-listed real estate market started to grow again, the performance of funds of funds improved until a dip in the market in 2012 saw performance drop once again to -4.0%.

Figure 1: Aggregate annual performance of funds of funds



Performance of funds of funds by quartile

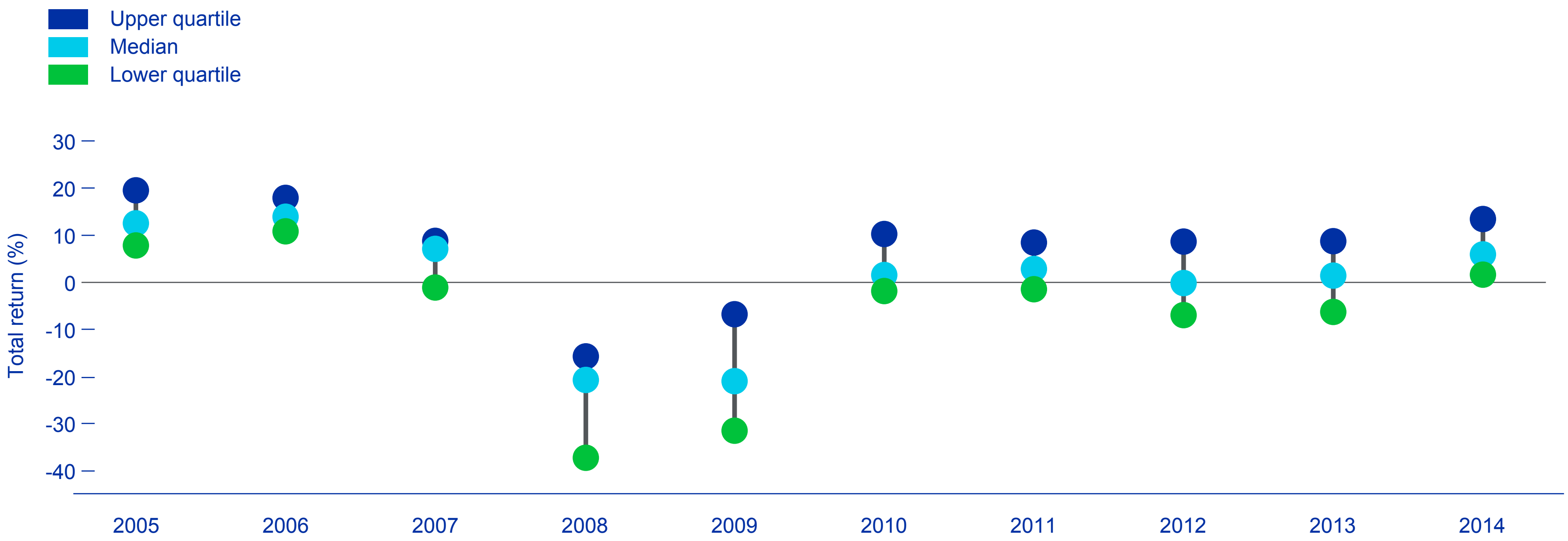
The recovery of this industry is further supported by the narrowing of spreads between quartiles performance. During 2008 and 2009 increased volatility saw the widening of performance between lower quartile and upper quartile returns. This range was 21.5% in 2008 and 24.7% in 2009.

Between 2011 and 2014, the spread narrowed, but was still wide, at around 15.0%, with the widest gap seen in 2012 at 15.6%.

In 2014, a marked improvement in performance saw lower and upper quartile returns surpass their respective 2010 levels. The upper quartile funds of funds achieved a total annual return of 13.3% in 2014 compared with 10.8% in 2010. Meanwhile, lower quartile funds of funds delivered 1.5% in 2014 compared with -1.3% in 2010.

'The gap between lower and upper quartile funds of funds performance widened during the downturn'

Figure 2: Performance of funds of funds by quartile



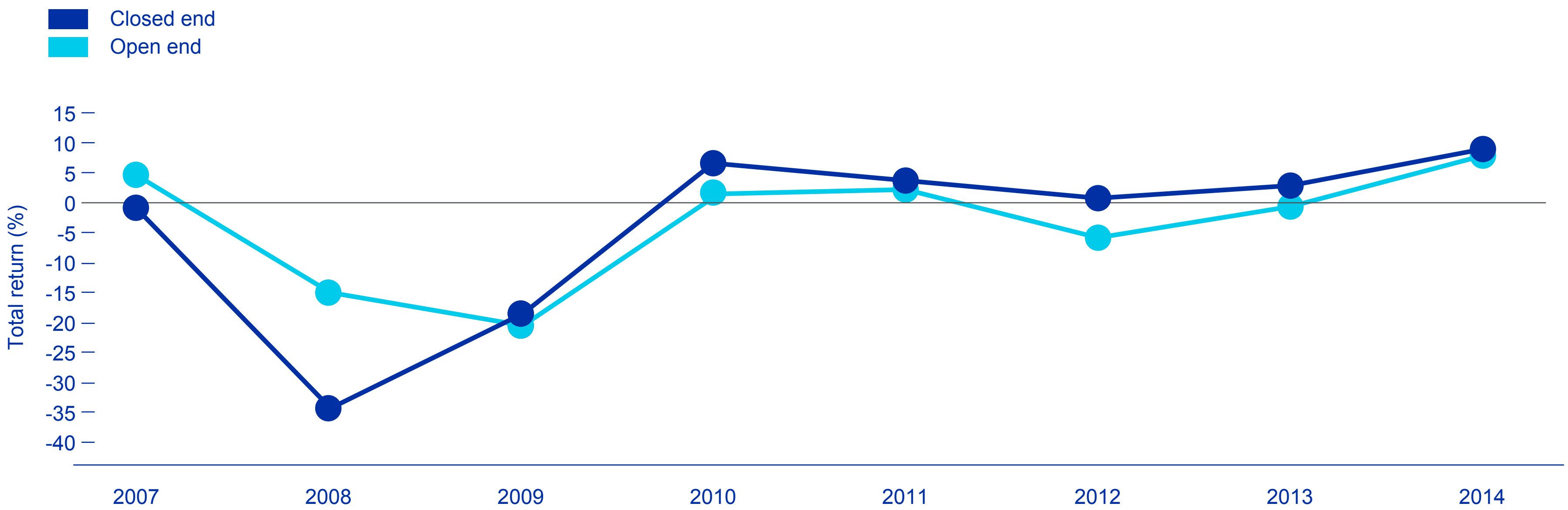
Performance of funds of funds by structure

Closed end funds of funds continued to outperform open end funds of funds in 2014, this time by 110 bps, delivering 8.9% while open end funds returned 7.8%. The last time open end funds of funds outperformed was in 2007 and 2008. In 2008 closed end funds of funds suffered a huge fall in performance of -34.3% while open end funds delivered a relatively less negative return of -14.3%.

However, closed end funds of funds recovered faster from the financial crisis than open end funds did and bounced back to deliver consistent positive performance since 2010. The same cannot be said for open end funds of funds which delivered negative returns of -5.8% and -0.7% in 2012 and 2013 respectively. For the 6 year period since 2009 closed end funds of funds have consistently outperformed open end funds of funds.

> ‘In 2014 closed end funds of funds outperformed open end funds of funds for the sixth year in a row’

Figure 3: Performance of funds of funds by structure



Performance of funds of funds by style

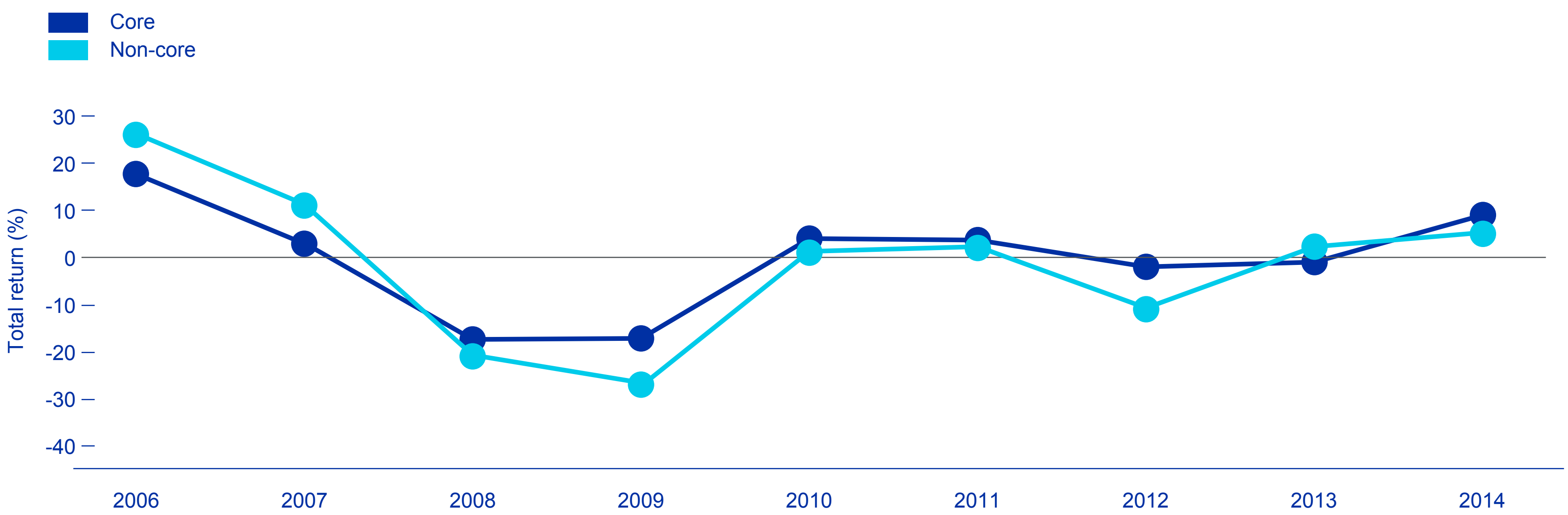
Value added and opportunity funds have been grouped as 'non-core' for this performance analysis based on style.

Performance of core and non-core funds of funds has been moving broadly in the same direction over the past seven years, although the downside volatility observed in non-core funds of funds has been far greater than that of core, suggesting that core funds of funds are more cushioned against market downturns than non-core.

During the five year period from 2008 to 2012 core funds of funds consistently outperformed non-core funds of funds. Performance in non-core funds of funds bottomed out in 2009 with returns of -27.4% while core funds of funds delivered -17.8% in the same year. Again, in 2012 the markets contracted and non-core funds of funds returned a negative performance of double digits, -10.9%, while core funds achieved a single digit negative return of -1.5%. In 2013 non-core funds of funds saw a slight recovery against core, outperforming by 2.9%. By 2014, recovery in funds of funds' performance gained speed, both core and non-core reached returns of 8.8% and 5.4% respectively.

'Downside volatility in non-core funds of funds has been far greater than that of core'

Figure 4: Performance of funds of funds by style

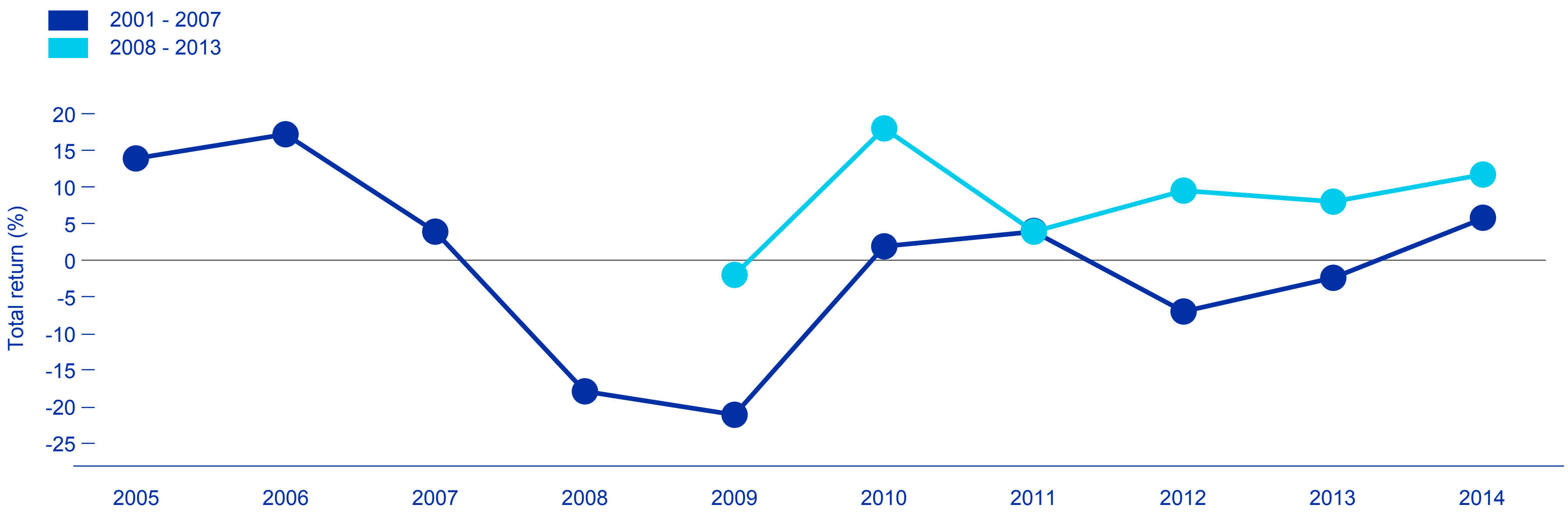


Performance of funds of funds by vintage year

Analysis of funds of funds' performance by vintage year shows that funds of funds which entered the market after 2008 did not experience a negative impact caused by the market contraction in 2012. Conversely, funds of funds launched prior to 2008 delivered negative performance of -6.6% in 2012 and -2.4% in 2013. The sample of funds of funds with a vintage year from 2008 to 2013 did not experience the market downturn that was experienced by those launched prior to 2008, and delivered positive double digit returns of 11.4% in 2014.

> 'Newly launched funds of funds delivered superior performance to funds of funds launched pre-crisis'

Figure 5: Performance of funds of funds by vintage year



Performance of funds of funds by target region

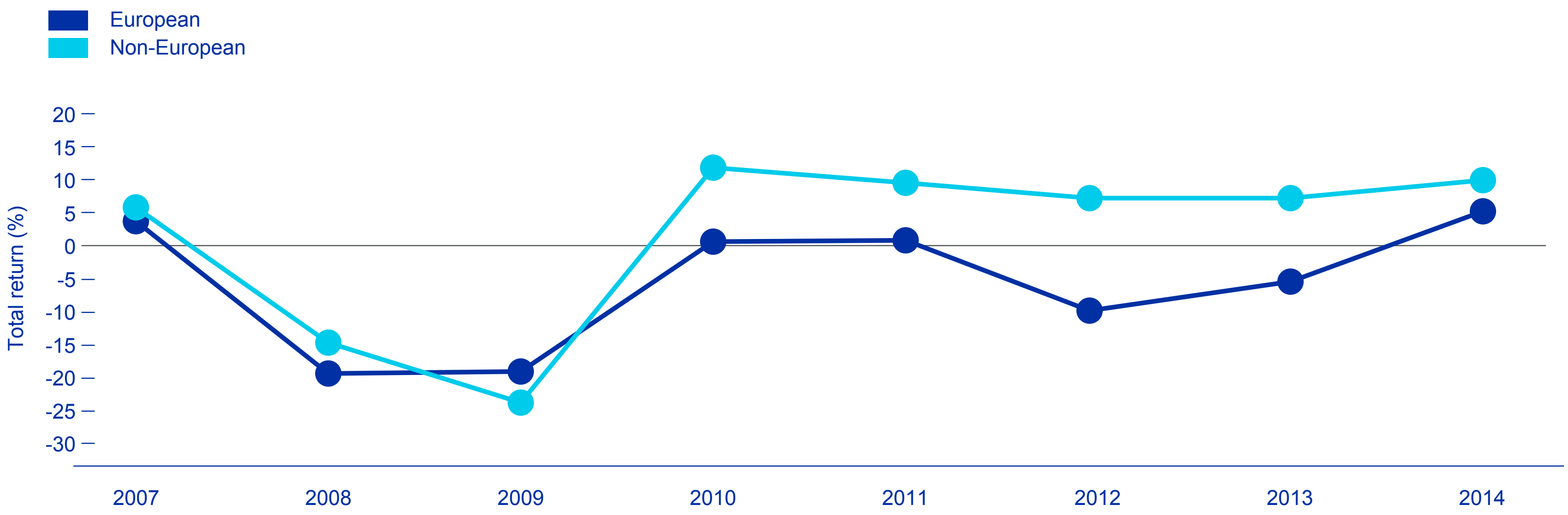
In terms of target region two classifications have been selected to maintain confidentiality in smaller samples. Target regions are split into Europe and non-Europe, which includes Asia Pacific, North America and Global. Only in 2009 did funds of funds targeting Europe have superior performance compared with funds of funds with a non-European strategy. Although in 2009 both groups delivered negative performance of below -19.0%.

Following this low point non-European funds of funds bounced back sharply with a return of 11.7% in 2010, outpacing funds of funds targeting Europe and maintaining a performance that has not dipped below 7.3% since. Performance of funds of funds with a non-European strategy reached 9.8% in 2014.

Funds of funds targeting Europe returned 5.2% in 2014, recovering from the previous lows of -19.1% in 2009 and -9.7% in 2012. Although they still underperformed those with a non-European strategy.

> 'Funds of funds with a non-European strategy have consistently outperformed since 2010'

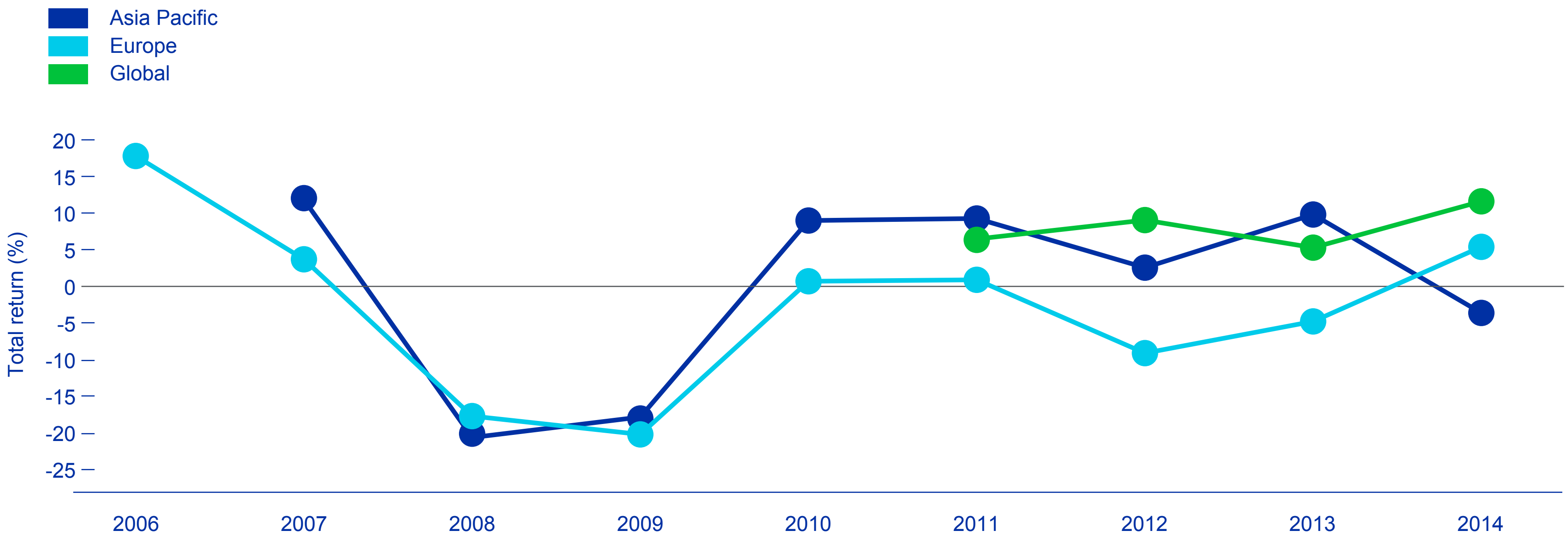
Figure 6: European vs Non-European funds of funds' performance



A further break down of the analysis by specific target region[2] shows that funds of funds with a global strategy led the performance in 2014 with a total return of 11.9%. This is followed by European focused funds of funds at 5.2% and Asia Pacific focused funds of funds at -3.3%.

‘Funds of funds with a global strategy led the performance recovery in 2014’

Figure 7: Performance of funds of funds by target region



[2] North American-focused funds of funds are excluded due to small sample size

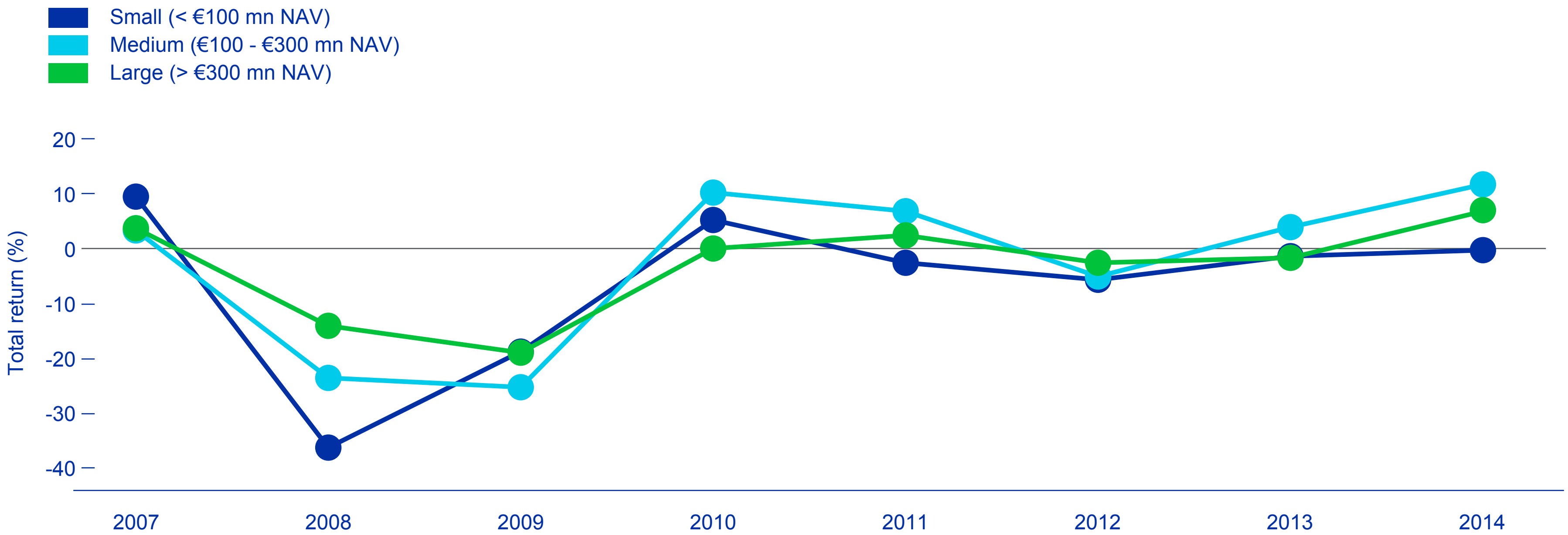
Performance of funds of funds by size

As seen in the previous sections, all market participants suffered the consequences of the recent global financial crisis. Smaller-sized funds of funds, those with NAV less than €100 million, delivered the lowest performance in 2008 (-36.5%) followed by medium-sized funds of funds (-23.4%), and then large-sized funds (-14.1%)[3].

Both large and medium-sized funds of funds have their lowest performance in 2009 at -18.8% and -25.4% respectively, while recovery is underway for small-sized funds of funds which gained positive performance of 5.8% in 2010. However, the largest recovery was for medium-sized funds of funds where they outperformed all other fund of funds sizes with a total return of 10.3% in 2010. Larger funds of funds also achieved positive performance in 2010, but only at 0.2%.

The market took a slight dip in 2012, and performance in all-sized funds fell. However, the market quickly recovered and delivered a positive outcome in 2014. The slowest to recover was the smaller-sized funds of funds which still delivered a negative return in 2014 of -0.2%. Meanwhile large funds of funds delivered returns of 7.4% in 2014. Performance is already higher than that observed in 2007. Medium-sized funds of funds is the real winner though, once again outperforming, but this time delivering a new record of 12.2% total return placing medium-sized funds of funds as the best performer in the last two years.

Figure 8: Performance of funds of funds by size



[3] A fund of funds is categorised as a 'medium-sized' fund if its NAV ranges between €100 and €300, while a fund of funds with NAV larger than €300 million is classified as 'large'

Section 3

Characteristics of funds of funds

Characteristics of funds of funds

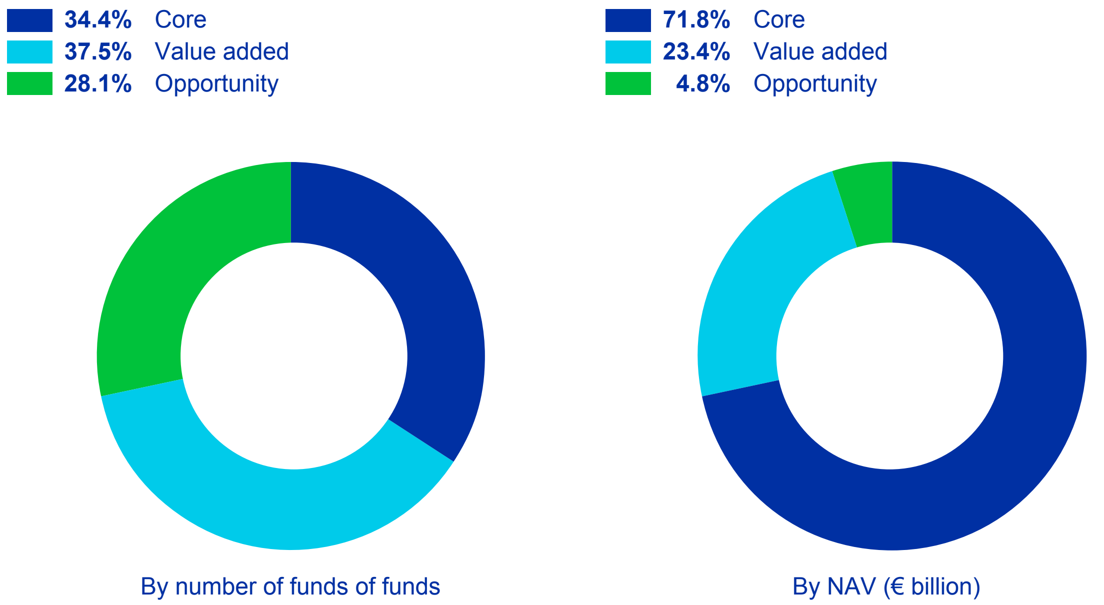
The analysis in this section is based on the 64 funds of funds in the Fund of Funds Vehicles Universe; collectively they represent NAV of €9.5 billion.

Style composition

By number, the majority of funds of funds (37.5%) pursue a value added strategy, while core and opportunity funds of funds make up 34.4% and 28.1% of the Universe respectively.

However, the NAV figures tell a different story, 71.8% of the investments are captured by core funds of funds, while opportunity funds of funds account for the lowest share, at just 4.8%. Value added funds of funds comprise the remaining 23.4% of NAV. This indicates that core funds of funds are much larger in size on average than value added or opportunity funds of funds.

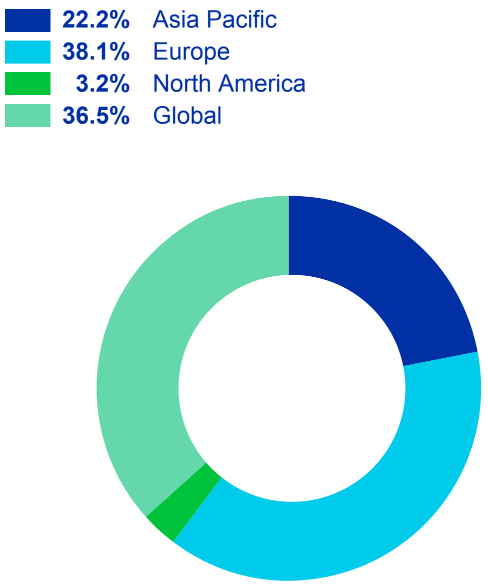
Figure 9: Funds of funds by style composition



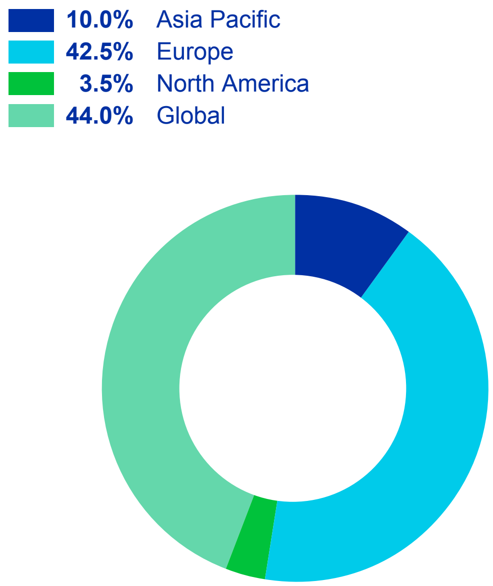
Target region

The majority, 38.1% by number, of funds of funds are targeting the European markets, accounting for 42.5% of total NAV. Funds of funds with either an Asia Pacific or a North American mandate make up 22.2% and 3.2% respectively of the market by number, and represent €0.9 billion and €0.3 billion of NAV respectively. Furthermore, global funds of funds are generally larger in size, thus it is not surprising to see that they capture 44.0% of the total NAV while representing 36.5% of the number of funds of funds in the Universe.

Figure 10: Funds of funds by target region



By number of funds of funds



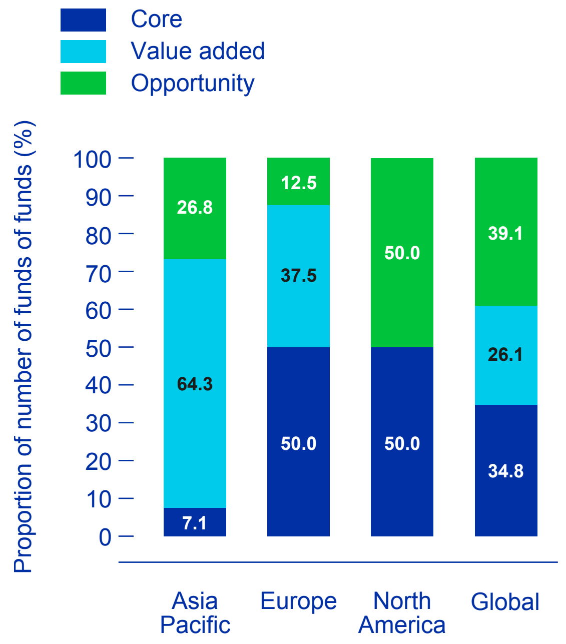
By NAV (€ billion)

Of the total number of funds of funds focusing on European markets, 50.0% have a core strategy while 37.5% are value added and 12.5% are opportunity. The opposite is true for Asia Pacific where 92.9% by number have a non-core mandate. This is not surprising given the relatively higher risk levels in some emerging Asia Pacific markets.

The investment style of North American-focused funds of funds is equally split between core and opportunity, while 65.2% of the total number of global funds of funds target non-core products.

> ‘Funds of funds targeting Asia Pacific tend to be value added while elsewhere they are more evenly split between core and non-core’

Figure 11: Funds of funds by style and target region



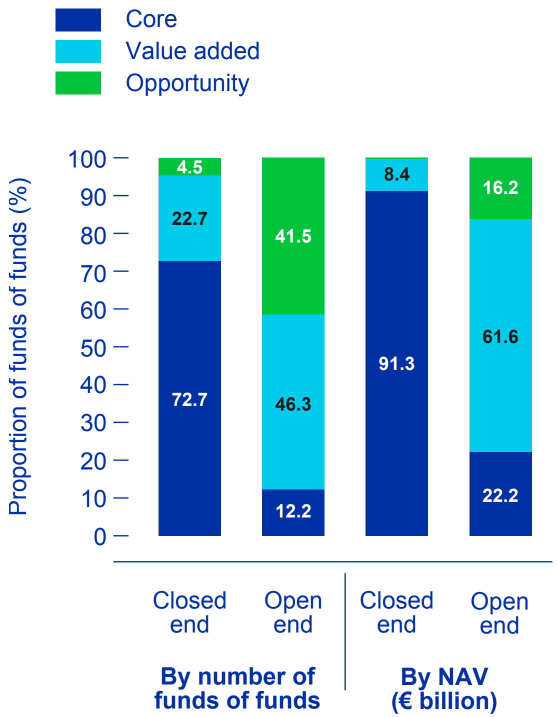
Style and structure

By number, open end funds account for 34.9% of the fund of funds market, with an aggregate NAV of €6.8 billion. Their market size is nearly triple that of closed end funds which have a total NAV of €2.7 billion.

The style preference for funds of funds in each structure mimics what was observed in the ANREV / INREV / NCREIF Capital Raising Survey 2015. In NAV terms, open end funds of funds are 91.3% core in style, 8.4% value added and 0.3% opportunity.

The reverse holds true for closed end funds of funds, where the majority, 61.6% of NAV, follows a value added strategy with the remaining 22.2% following core and 16.2% opportunity.

Figure 12: Funds of funds by style and structure



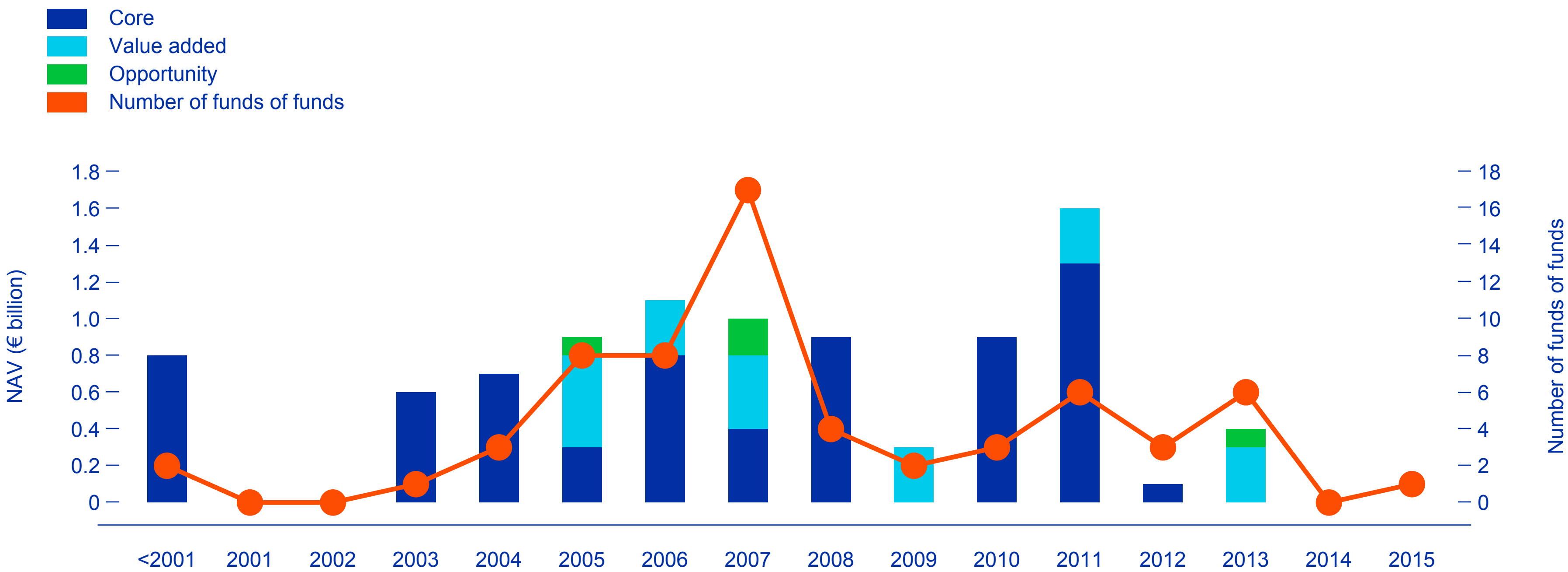
Vehicle launches

The market expanded from the late 1990s to 2005 with the majority of funds of funds entering the market being core in strategy. In 2005 opportunity and value added funds of funds entered the market, and by 2007 the number of new funds of funds launched reached a peak of 17, of which 82.4% were non-core in strategy and only 17.6% core.

The impact of the financial crisis is still evident in the market with far fewer funds of funds being launched since then. Although core was the preferred strategy in the aftermath of the crisis, value added and opportunity funds of funds maintained a presence in the market. Of the two funds of funds launched in 2009 both have a value added mandate.

In 2011 six funds of funds were launched, representing NAV of €1.7 billion, the highest in value in the history of the Universe and surpassing pre-crisis levels. Of the €1.7 billion, 79.0% was in core funds of funds, while the remaining 21.0% was captured by value added. The reverse is true for 2013, where new funds of funds were mostly of non-core strategy and core funds only represented 9.5% of the total NAV in that year.

Figure 13: Vehicles launches



Minimum fund life

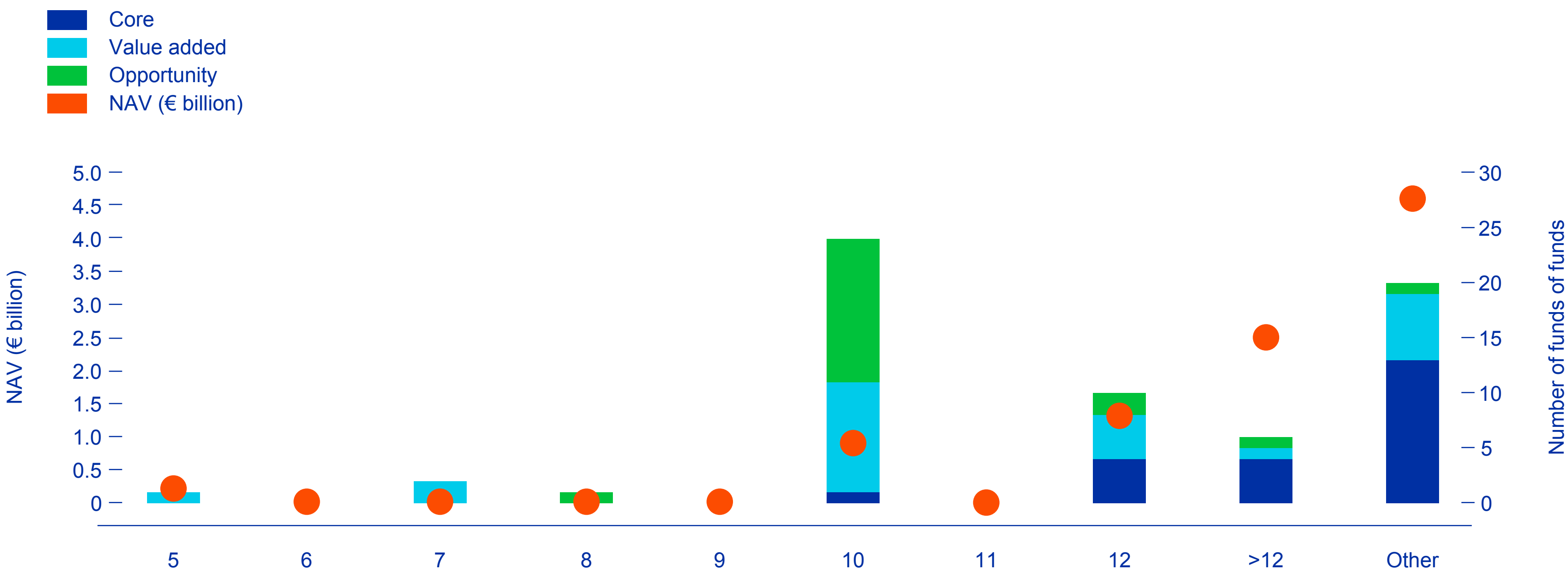
The majority of funds of funds (65.1%) in the Universe have a closed end structure and therefore have a predetermined fund life. By number, 43.8% of funds of funds have a minimum fund life between 5 and 10 years. A minority, 25.0%, have a fund life of at least 12 years.

There are differences in the minimum fund life across investment styles. The majority of core funds of funds (40.9%) by number have a minimum fund life of greater than 10 years, of which 88.9% have a minimum fund life of 12 years, representing NAV of €3.0 billion. The reverse holds true for non-core funds where 10 years are by far the preferred life span for opportunity and value added funds of funds. By number, 72.2% of opportunity funds and 41.7% of value added funds have a life of 10 years. Collectively these account for €0.3 billion and €0.6 billion of NAV respectively. Some non-core funds of funds have a longer life span, 19.0% of them by number have a minimum life of greater than 10 years.

Furthermore, 31.3% of funds of funds did not specify their fund life and they represent €4.6 billion of NAV.

> ‘Funds of funds have a typical life span of 10 years, especially those that are non-core’

Figure 14: Minimum fund life



Planned termination year

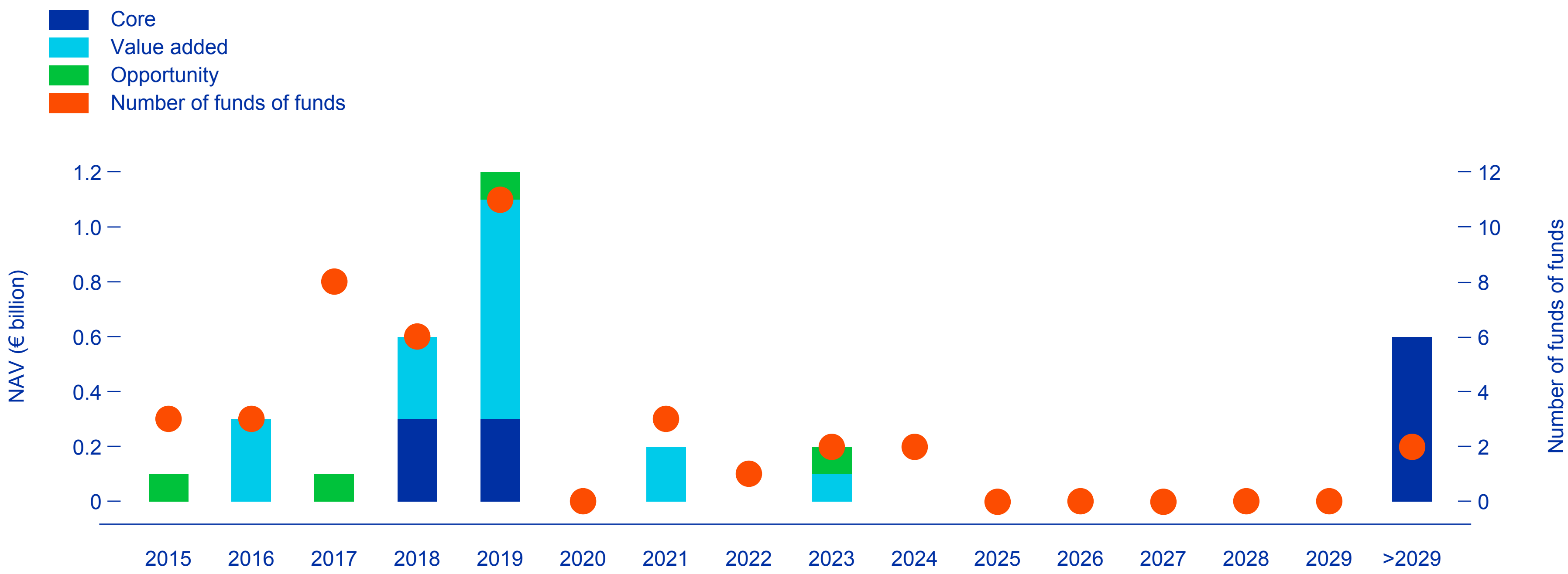
Over the next 10 years 39 funds of funds are due to terminate. The distribution of planned terminations sees a peak coming in 2019 when 11 funds of funds are expected to terminate accounting for €1.1 billion or 11.6% of total NAV. Thereafter the next peak is expected after 2029 when 2 funds of funds are scheduled to terminate which represent 6.2% of the total NAV and €0.6 billion in value.

However, 35.9% of the 64 funds of funds in the Universe have not specified a termination year, mainly because they have an open end structure with an infinite life span. These funds of funds make up 65.7% of the total NAV. Of the 23 funds of funds 65.2% are core and represent NAV of €5.6 billion.

Of all funds with a specified termination year value added funds of funds hold 50.8% of the NAV while core and opportunity funds of funds hold 36.4% and 12.8% of the NAV respectively. All value added funds with a termination date will be terminated by 2024.

> ‘A peak of terminations is expected in 2019 when 11 funds of funds are due to terminate’

Figure 15: Planned termination year



Vehicle domicile

When looking at fund of funds domiciles Luxembourg is by far the preferred location which corroborates with the findings of the Funds of Funds Study in 2014. Netherlands and Denmark follow each with 13% of funds of funds domiciled there. Ireland and the UK are next, but interestingly, Spain is on par with Ireland and the UK, jointly taking third place. Germany and Switzerland take fourth place, each with 4.3% share.

Figure 16: Vehicle Domicile*

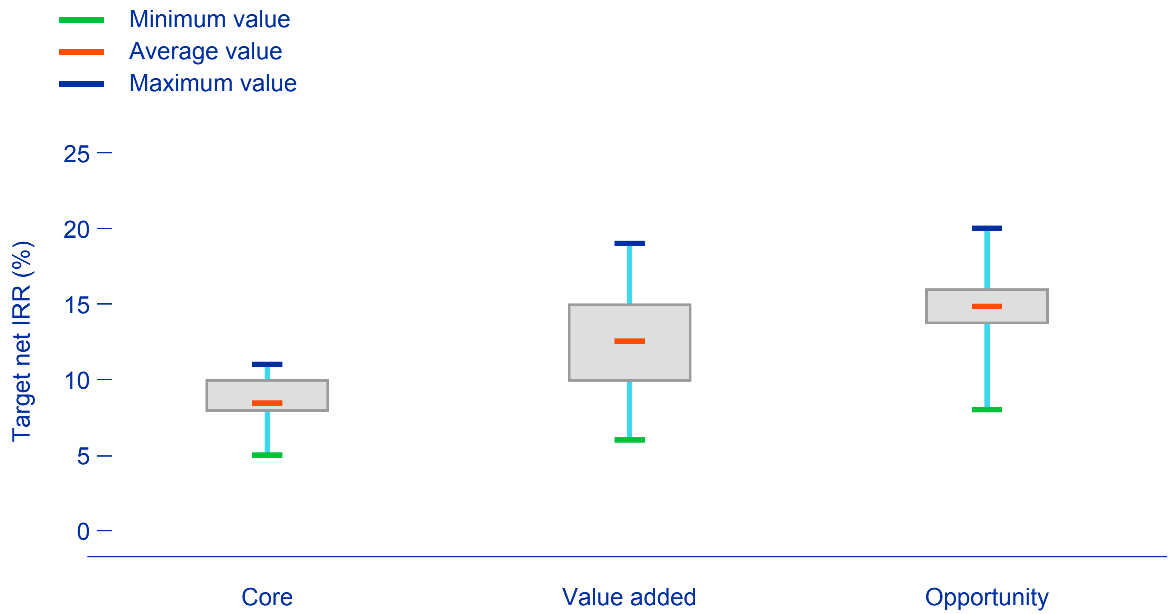
39.1%	Luxembourg
13.0%	Netherlands
13.0%	Denmark
8.7%	Ireland
8.7%	United Kingdom
8.7%	Spain
4.3%	Germany
4.3%	Switzerland

*Proportion by number of funds of funds that have submitted data on vehicle domicile

Target net IRRs

With higher risk and higher return strategies, it comes as no surprise that opportunity funds of funds have the highest average target net internal rate of return (IRR) of 14.9% compared with 12.6% for value added and 8.5% for core funds. The target net IRR for value added funds of funds range from 10.0% to 15.0%, while the range for core is between 8.0% and 10.0%.

Figure 17: Target net IRR



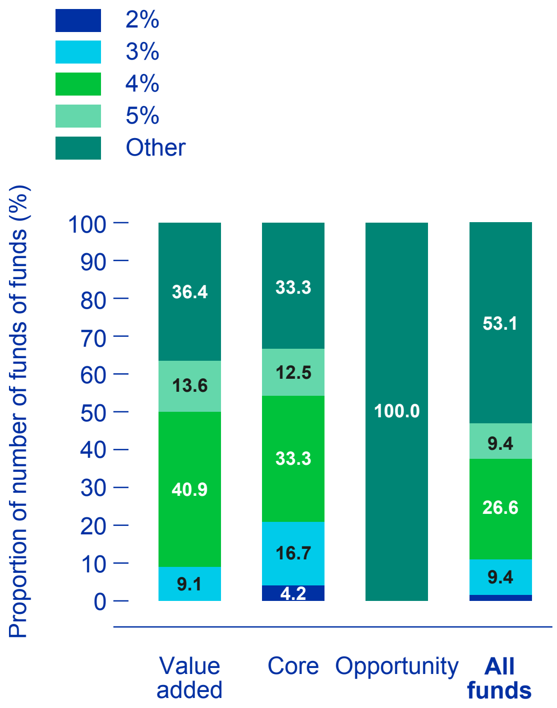
*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

Minimum target distribution yield

Over half (53.1%) of the funds of funds in the Universe have not disclosed a target distribution yield. More than half of these are opportunity funds of funds. However, 26.6% have indicated a minimum target distribution yield of 4.0%, while 9.4% are targeting a 5.0% yield and the same proportion are targeting a distribution yield of 3.0%.

Generally, core funds of funds have a higher target distribution yield due to a much higher income return component than value added funds. The majority of core funds of funds (54.5%) have a 4.0% minimum target distribution yield compared with 45.8% of value added funds. By contrast, value added is the only style where some funds of funds (4.2%) have indicated a 2.0% minimum distribution yield. Meanwhile 16.7% of value added funds of funds have a minimum target distribution yield of 3.0%, whereas only 9.1% of core funds have set this target.

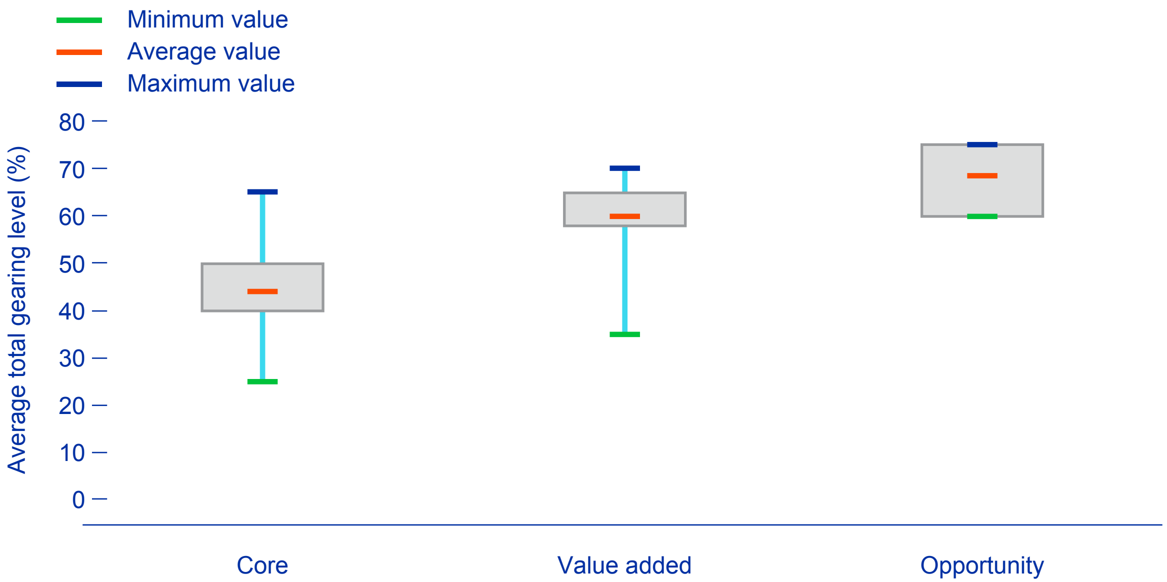
Figure 18: Minimum target distribution yield



Target average total gearing

Generally gearing levels for core are lower than value added, which are lower than opportunity. This pattern is echoed in funds of funds. The majority of core funds of funds have gearing levels ranging between 40% and 50%, with the average being at 44.1% and a few outliers with an average gearing level below 30%. Opportunity funds of funds have average gearing of 68.6% and the maximum is 75% with no upper boundary outliers. Meanwhile value added funds of funds have an average total gearing level of 59.0%, with the range between the lower (58.0%) and upper quartile (65%) quite narrow compared with core and opportunity funds of funds.

Figure 19: Target average total gearing

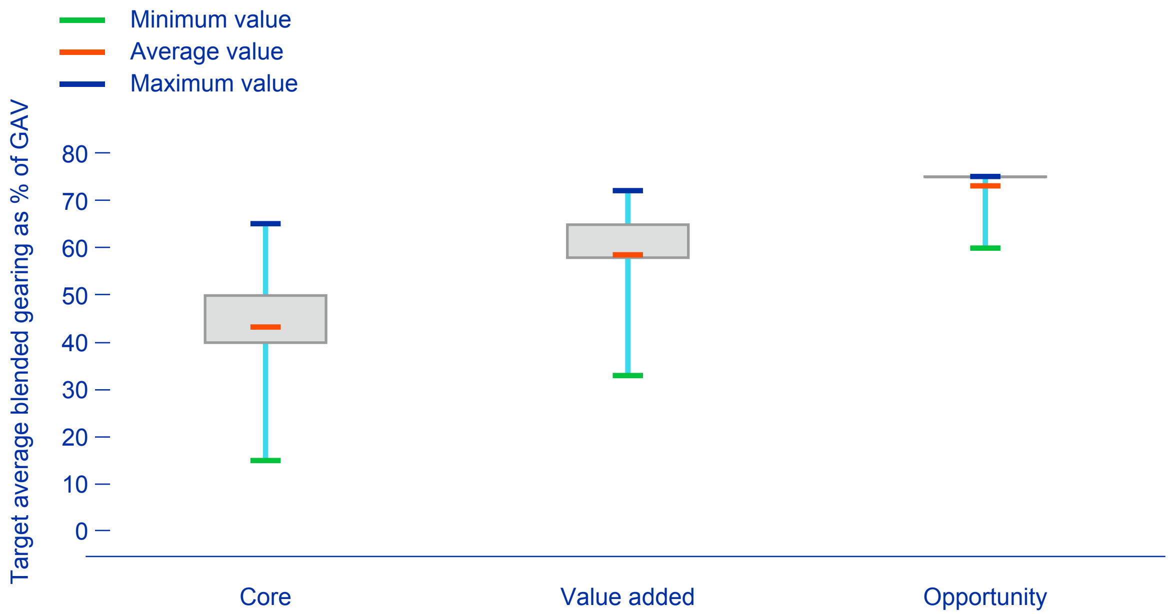


*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

Target average blended gearing of vehicles as a percentage of GAV

The majority of core funds of funds have an average target blended gearing level ranging from 40% to 50% of GAV, with an average of 43.2%. Value added funds of funds have higher levels of blended gearing, averaging 58.5% with the lower quartile group being 58.0%, while the upper quartile is 65.0%. As expected funds of funds with an opportunistic strategy have the highest target average blended gearing level of 73.1%. The spread between lower quartile and upper quartile is the narrowest for these funds of funds.

Figure 20: Target average blended gearing of vehicles



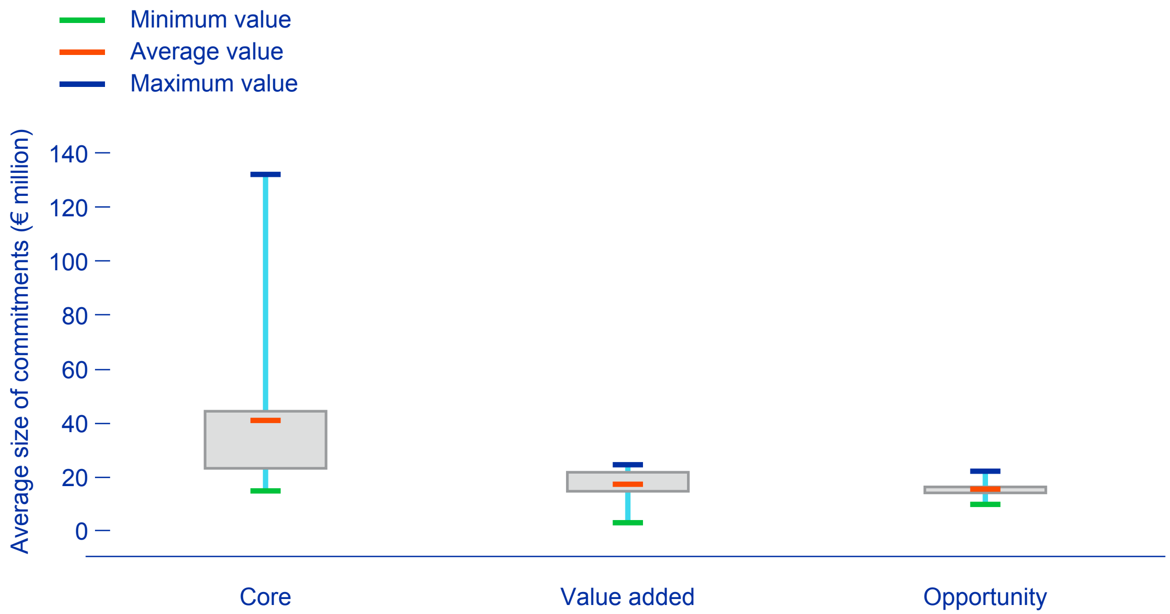
*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

Average size of commitments by style

The average size of capital commitments for core funds of funds is larger than that of non-core. This is not surprising due to the size, low leverage levels and choices of investment that these funds make. On average, core funds of funds calls in €40.8 million of equity, while the average size of commitments for value added and opportunity funds is €17.4 million and €15.6 million respectively.

Commitments for core funds of funds have the largest range from €23.2 to €44.2 million, while the range for value added funds of funds is much smaller between €14.8 million to €21.9 million. As expected opportunity funds of funds have the lowest range of commitments overall, from €14.2 million to €16.4 million.

Figure 21: Average size of commitments and style

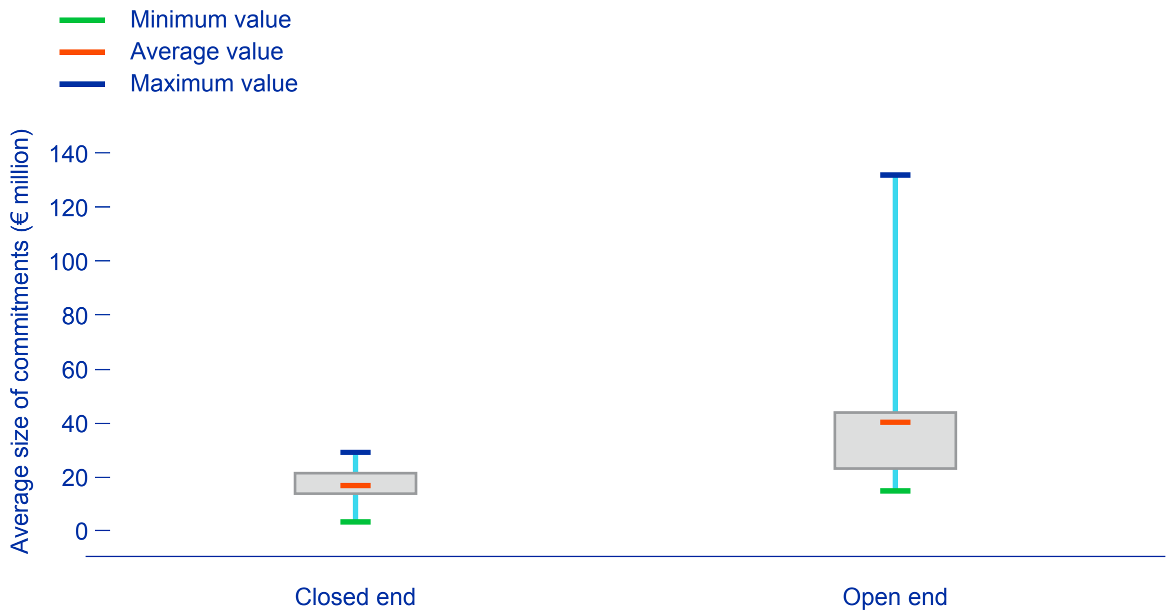


*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

Average size of commitments by structure

Given the flexibility offered by open end funds of funds, they also have larger commitments on average and a much larger range than closed end funds of funds. The average size of commitments for open end funds of funds range from €23.2 million to €44.2 million with an average of €40.3 million. The average accounts for outliers that reach as high as €132.0 million. Closed end funds of funds have an average commitment requirement of €16.9 million, with a lower quartile of €13.9 million and an upper quartile of €21.4 million.

Figure 22: Average size of commitments and structure



*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

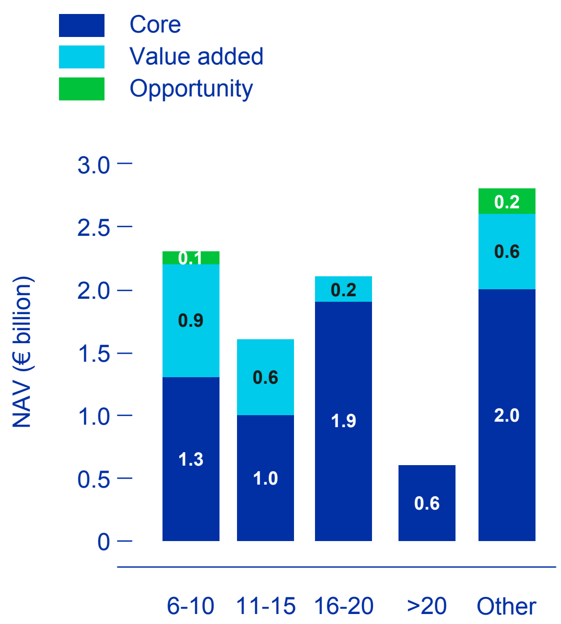
Minimum target number of vehicles

Core funds of funds are generally more diversified and hence target a higher number of vehicles to invest in compared with non-core. Core makes up the largest proportion of funds of funds (60.0%) targeting over 15 vehicles, representing 26.6% of total current NAV. All of the funds of funds targeting investment into more than 20 vehicles have a core strategy.

Conversely, non-core funds of funds are likely to pursue a more niche strategy and this is somewhat reflected in the number of vehicles they are targeting. By number, half of value added funds of funds target between 6 to 10 vehicles. These vehicles collectively manage €0.9 billion. Furthermore, 20.0% of value added funds target between 11 and 15 vehicles and only a small proportion (5.0%) target more than 15 vehicles to invest in.

A similar story can be seen for opportunity funds of funds where 53.3% of these by number target less than 15 vehicles, capturing 22.8% of the total NAV for opportunity funds of funds.

Figure 23: Minimum target number of vehicles



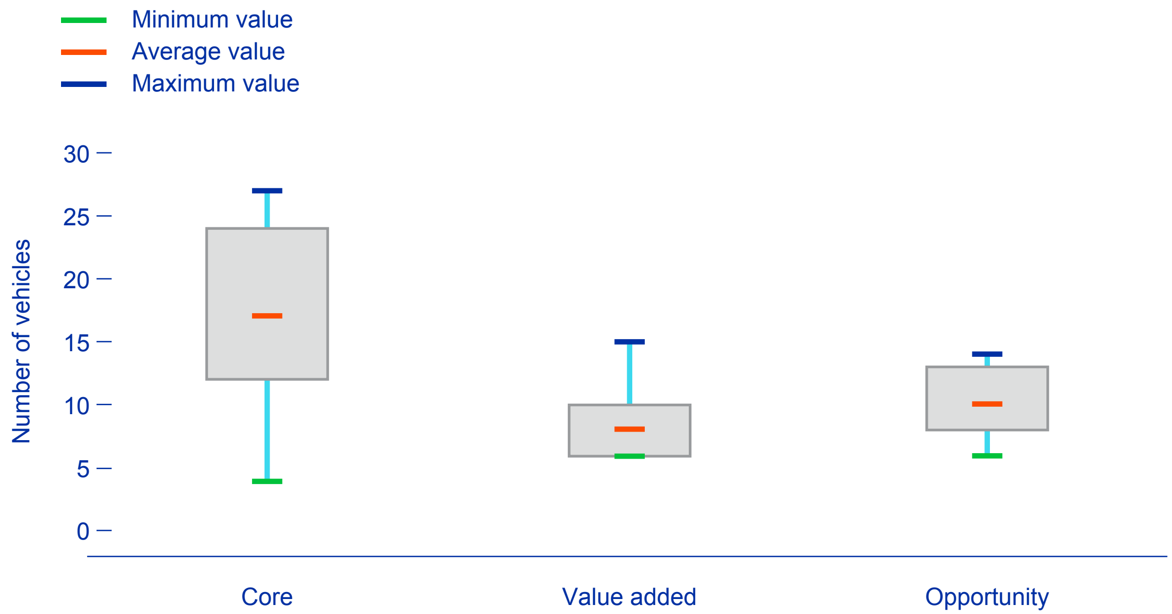
Number of vehicles invested in

As of Q2 2015, funds of funds have invested into 13 different vehicles on average. However, this ranges from 7 vehicles in the lower quartile to 17 in the upper quartile.

The average number of vehicles invested in for core funds of funds is much higher than for non-core funds of funds. On average, core funds of funds have invested into 17 vehicles, compared with 8 for value added and 10 for opportunity.

The range between the lower and upper quartiles for core funds of funds is much wider than that for value added and opportunity funds of funds. For core funds of funds the interquartile range is between 12 and 24 vehicles while the majority of value added funds of funds is invested into 6 to 10 vehicles. Meanwhile the majority of opportunity funds of funds have invested into 8 to 13 vehicles.

Figure 24: Number of vehicles invested in

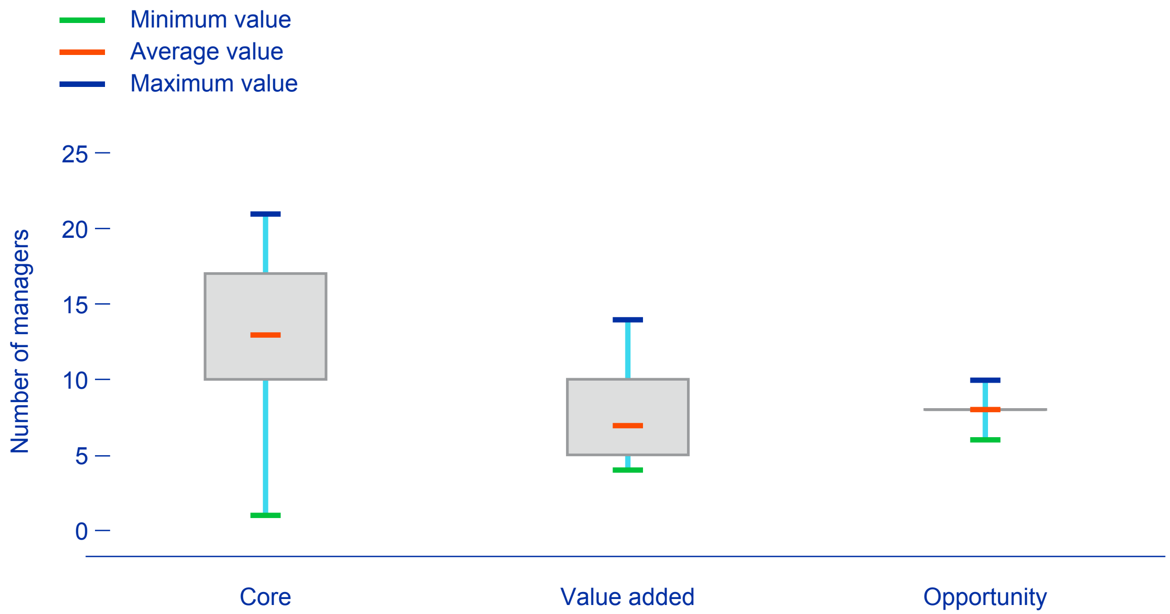


*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

Number of managers invested in

As is the case with the number of vehicles invested in, core funds of funds prefer to invest in more managers than any of the other two investment styles. The majority of core funds of funds invest in a minimum of 10 managers and a maximum of 17. Due to outliers the average number of managers invested in by core funds of funds is 13.

Figure 25: Number of managers invested in



*The box represents the interquartile range, the difference between the upper quartile and lower quartile values.

Appendix

Sample statistics

Table 1: Sample statistics

Number of funds of funds		2007	2008	2009	2010	2011	2012	2013	2014
All funds		**13**	**19**	**22**	**24**	**26**	**30**	**31**	**26**
By style	Core	7.0	9.0	10.0	11.0	12.0	14.0	14.0	11.0
	Non-core	6.0	10.0	12.0	13.0	14.0	16.0	17.0	15.0
By target region	Asia Pacific	3.0	4.0	6.0	7.0	7.0	8.0	8.0	5.0
	Europe	8.0	13.0	13.0	14.0	14.0	14.0	14.0	11.0
	Global	1.0	1.0	2.0	2.0	4.0	7.0	8.0	9.0
	North America	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
By structure	Closed end	5.0	9.0	10.0	11.0	12.0	14.0	14.0	11.0
	Open end	8.0	10.0	12.0	13.0	14.0	16.0	17.0	15.0
By size	Small (< €100 million NAV)	4.0	9.0	12.0	12.0	11.0	10.0	12.0	12.0
	Medium (€100 - €300 million NAV)	4.0	5.0	4.0	6.0	8.0	13.0	11.0	9.0
	Large (> €300 million NAV)	5.0	5.0	6.0	6.0	7.0	7.0	8.0	5.0

NAV (€ billion)		2007	2008	2009	2010	2011	2012	2013	2014
All funds		**3.6**	**4.3**	**4.0**	**4.7**	**5.5**	**5.8**	**6.3**	**5.4**
By style	Core	2.8	3.3	3.2	3.6	4.1	4.3	4.7	4.2
	Non-core	0.7	1.0	0.9	1.1	1.4	1.4	1.6	1.2
By target region	Asia Pacific	0.1	0.2	0.3	0.4	0.6	0.8	0.8	0.3
	Europe	3.1	3.6	3.2	3.6	3.9	3.5	3.2	1.9
	Global	0.2	0.2	0.4	0.5	0.7	1.2	2.0	2.8
	North America	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
By structure	Closed end	0.4	0.9	0.8	1.1	1.4	1.6	1.6	0.9
	Open end	3.2	3.4	3.2	3.6	4.1	4.2	4.7	4.4
By size	Small (< €100 million NAV)	0.1	0.5	0.6	0.7	0.7	0.5	0.7	0.6
	Medium (€100 - €300 million NAV)	0.7	1.0	0.7	1.0	1.4	2.0	2.0	1.8
	Large (> €300 million NAV)	2.8	2.8	2.8	3.0	3.5	3.2	3.6	3.0

CORPORATE

RESEARCH

INDUSTRY DATA

PUBLIC AFFAIRS

PROFESSIONAL STANDARDS

www.inrev.org