

# SUSTAINABLE INVESTING – MIND THE GAP

7 DECEMBER 2016

Contact:

Guy Turner  
[guy.turner@trove-research.com](mailto:guy.turner@trove-research.com)  
T: +44 (0)7801 140696

Main author:

Guy Turner

Key contributors:

Gilles Heyberger  
Jash Rugani  
Zue Leong

# Contents

Executive Summary	3
1. About this research	10
2. Results - Listed equity funds	17
3. Results – Listed fixed income funds	42
4. Results – Private equity and venture capital funds	47
5. Results - Direct investing in infrastructure	58
Copyright and disclaimer	67

## EXECUTIVE SUMMARY

## Executive Summary – historical performance

This work presents one of the most comprehensive and detailed analyses of sustainable investing undertaken to date, covering multiple asset classes including listed equities, private equity, fixed income and direct investing in infrastructure. It has been compiled by a group of alumni researchers from London Business School, led by Guy Turner founder of Trove Research.

Worldwide, institutional investors now have access to just under 430 professionally managed sustainable investment funds covering public equities, green bonds and private equity <sup>(1)</sup>. Around 170 of these funds invest in the general stock and bond markets basing their allocations on Environmental, Social and Governance considerations (screened funds). Another 260 funds invest in technologies and services that help protect the environment, such as clean energy, waste management and water treatment. 150 of these funds are private equity / venture capital vehicles investing in early stage corporate equity and infrastructure projects. Total capital under management in sustainable funds is around \$138bn. \$61bn of this is managed by private equity vehicles. Screened ESG funds account for \$32bn, with thematic funds £106bn.

### 1. Performance – Listed equity funds

**a) Returns.** We split screened funds into general “ESG funds” and “Low carbon funds”. ESG funds invest in many of the same underlying stocks but with weightings slightly altered for ESG criteria. Low carbon funds screen out or down-weight high carbon emitting firms. Screened ESG funds tend to track the main benchmarks, although over the past 5 years have under-performed the FTSE by a couple of percent. Low polluting firms, such as in finance, IT, software, telecoms, retail now make up a large part of stock markets, so green strategies are often not dissimilar from the main indices. Specifically, screened low carbon funds have provided above market returns over 3 and 5 years (mainly driven by the good performing BNP Paribas Easy Low Carbon 100 Europe ETF). This is largely due to the low weighting of the oil and gas sector in these funds, which has significantly under-performed the main stock markets over the last 5 years (S&P500 has grown by 80% over this period, while Exxon and Chevron have only grown by 30%; BP and Shell have fallen by 10-20% respectively).

Median annualised returns of listed sustainable funds over 1, 3, and 5 yrs to end Q3 2016 (%)

	1 year		3 year		5 year
Thematic water funds	28.8	Thematic water funds	12.4	Thematic water funds	14.1
<b>FTSE all share index</b>	<b>16.8</b>	Screened low-carbon funds	9.6	Screened low-carbon funds	13.2
All thematic funds	14.2	<b>MSCI world equity index</b>	<b>7.7</b>	<b>MSCI world equity index</b>	<b>12.6</b>
<b>MSCI world equity index</b>	<b>10.8</b>	Screened funds	6.6	<b>FTSE all share index</b>	<b>11.0</b>
Thematic clean energy funds	10.2	Screened ESG funds	6.6	All screened funds	9.4
Screened low-carbon funds	9.3	<b>FTSE all share index</b>	<b>6.6</b>	Screened ESG funds	9.3
All screened funds	8.6	All thematic funds	6.3	All thematic funds	7.5
Screened ESG funds	8.6	Thematic clean energy funds	4.8	Thematic clean energy funds	3.2

1. In this work, funds are defined as ownership or management of core underlying assets. Our figures exclude multiple variations of the same underlying asset, such as share classes with different cost structures and denominated in different currencies.

## Executive Summary – historical performance

Thematic funds have more variable returns than screened ESG funds. Funds tracking the water and waste sectors have provided significantly higher returns over 1, 3 and 5 years (12 – 28%/yr). However, on average funds focussed on clean energy have under-performed. This is mainly due to exposure to solar industry, which on aggregate, has lost 40% of its stock value between 2011 and 2016. This is caused by the rapid price reductions in solar PV prices which, whilst good for consumers, have squeezed profits across the supply chain with several manufacturers posting losses. PV project development has also suffered from strong price competition on engineering contracting with the introduction of competitive tendering, while the highly-g geared structures of operating companies (yieldcos) have worried shareholders with a number of share price down grades in the last few years. The wind power sector has proved more resilient, with the wind sector stock index increasing by 60% over the last 5 years. But for many clean energy funds the strong performance of the wind sector has not been sufficient to offset the solar under-performance.

**b) Volatility.** In the sustainable investment sector, returns tend to be correlated with volatility. The lower performing clean energy funds have had higher volatility, and higher performing water funds lower volatility. An exception is screened ESG funds which have slightly lower returns over 5 years than the FTSE All Share Index, but also lower volatility. The “ESG” aspect here tends to buy less risk, rather than out-sized returns.

**c) Sharpe ratio.** Sharpe ratio measures the excess return a fund delivers relative to the risk free rate, per unit of volatility. Our analysis shows that sustainable screened funds have, on average, outperformed the FTSE over 3 year (median Sharpe ratio of 0.3 vs FTSE of 0.23) and 5 years (0.67 vs FTSE of 0.51), while the but thematic funds have broadly matched the FTSE over these periods. Both fund types however have under-performed relative to a very strong MSCI World index (Sharpe of 0.34 and 0.7 respectively).

**d) Market Correlation.** Sustainable funds (thematic and screened) tend to be procyclical, moving in the same direction as the rest of the stock market. The funds we studied generally had higher correlations with the FTSE All Share index at 0.7 to 0.76, than other thematic sectors, such as healthcare (0.44), aerospace & defence (0.58), construction (0.58) and technology (0.6). The exceptions are renewable energy yieldcos, solar funds and carbon allowances which all have low correlations of < 0.5. These markets could provide opportunities for portfolio diversification. However the reason for the low correlation is their relatively poor performance at a time of bull equity market. They’ve not yet proven to rise when the rest of the market is in a flat or downward cycle.

**e) Benefits of active management.** 75% of thematic funds and 66% of screened funds are actively managed, with the rest investing on an index-tracking or algorithmic basis. Thematic funds that are actively managed have significantly lower volatility and slightly lower returns than passive funds. Volatility is reduced by 6.8% (680bp) but IRR is reduced by 1.8% (180bp) over 5 yrs. Screened funds that are actively managed also have lower volatility than passive index-tracking funds, and marginally improved IRR. Active management improves IRR by 0.6% (60bp) and reduces volatility by 1.7% (170bp).

## Executive Summary – historical performance

### 2. Performance – Fixed Income

There are now 21 funds with \$3.1bn under management invested in sustainable fixed income securities, often referred to as green bonds. These bonds include corporate debt ring-fenced for sustainable activities, debt in pure-play environmental businesses, or project bonds for sustainable infrastructure. Our analysis shows that whilst these vehicles invest in specific types of assets, there is no difference in performance between green and non-green assets. This is because the performance of a bond is uniquely defined by its risk category, which is agnostic to the sector.

### 3. Performance – Private equity / venture capital

We identify over 150 PE and VC funds where the majority of their investments are in the sustainability sector (clean energy, water, waste, clean transport), both in technologies or infrastructure projects. Whilst some funds have performed well, the average sustainable fund across these sectors has underperformed relative to the PE average of over 600 firms. The median clean technology fund return is an annualised -4.5%, and clean infrastructure around 5.6%. This compares to the PE sector average of 10.8% (2008 vintage). The 5.6% median returns for clean infrastructure is less than returns to equity of direct investment of around 9%. The difference is accounted for by (i) fund management fees and (ii) funds will absorb unsuccessful projects as well as successful ones. The direct investment figures below assume the project is not aborted prior to commissioning.

### 3. Performance – Direct investment in clean infrastructure

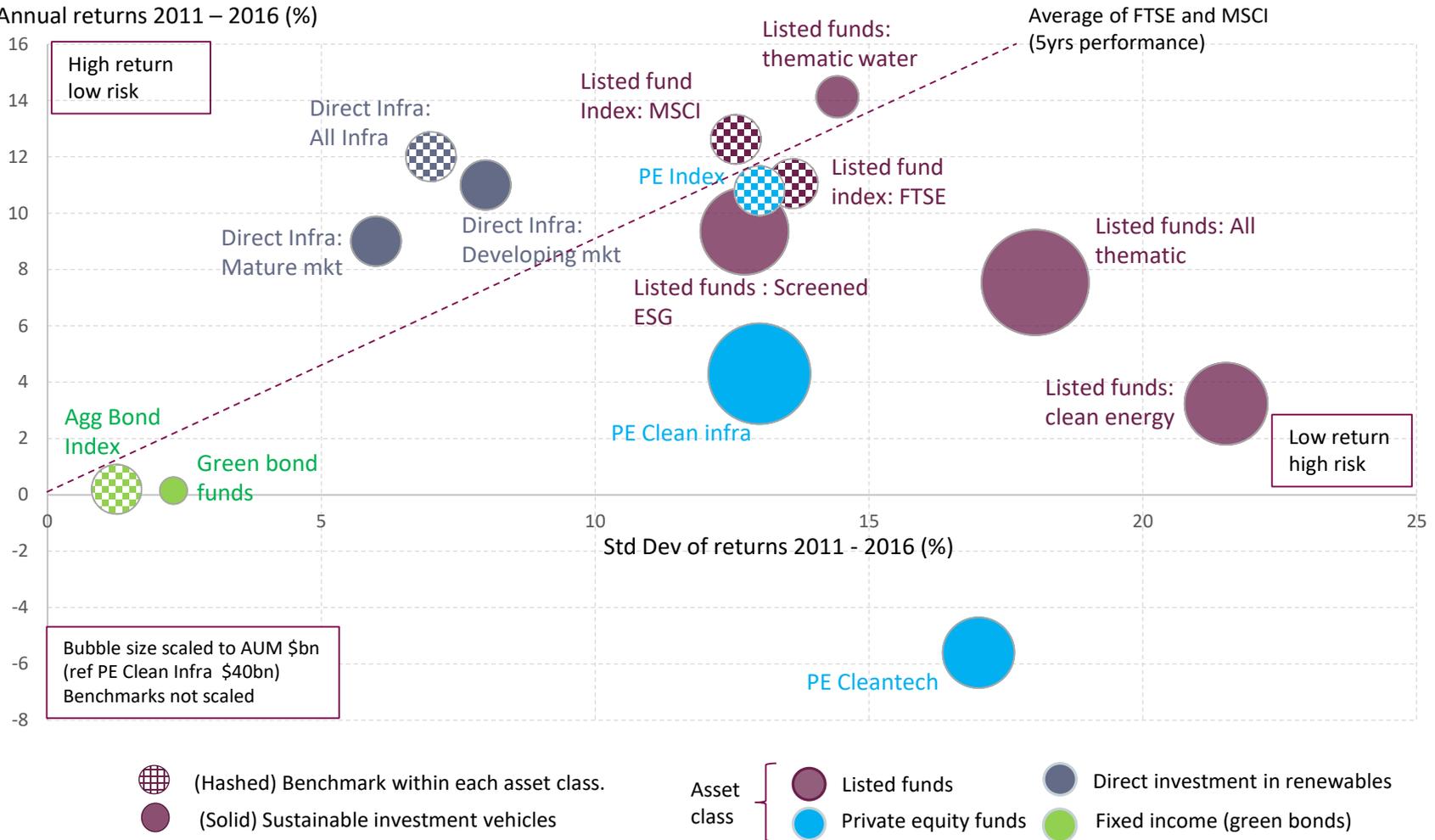
Institutions are increasingly investing directly in infrastructure assets, and in particular clean infrastructure. Local authority pension funds in the UK have invested as little as \$4m in local clean energy projects while the Public Investment Corporation of South Africa has invested \$1.5bn in a South African solar farm. Typically these projects are stable and provide good returns. Returns vary greatly by project but on average mature markets provide 6% project level IRR (9% equity), while developing countries typically offer yields of 18-19%. These figures exclude projects which might be aborted before commissioning, which would lower the averages.

Once constructed renewable energy projects carry relatively little risk. Variations in output are relatively small. Across the US wind farms have a standard deviation in annual output of 8%, and solar farms even less at 3%.

IRRs however are being compressed as many governments are bringing in competitive tendering processes. In theory, projects that are successful in the auction should be profitable or else they would not be bid in, but recent experience in Brazil and offshore wind contracts in Denmark suggest profitability will be challenging on the basis of current technology and economics.

# Risk-Return summary all asset classes. Thematic water funds, direct investment and screened ESG funds have the best risk return profiles over the last 5 years (Q32011 – Q32016).

Annual returns 2011 – 2016 (%)



**Listed funds:** Returns are for all funds where data is available for 5 yrs to 30 June 2016 (185 funds). Std Dev is average of daily volatility over 5 yrs. World MSCI benchmark strongly influenced by US and strength of dollar, FTSE more representative of UK/EU benchmark.

**Private Equity:** Benchmark PE index is average performance of 600 PE funds from PreQin from all vintages since 2000. Clean PE universe comprises 88 funds with IRR data. Risk measured as std dev of annualised IRR returns of sample over lifetime of funds.

**Fixed income:** BoAML Green Bonds Index compared to Barclays World Aggregate Bond Index (5 Yr average).

**Direct Investment:** Trove sample IRR data from over 100 individual renewable energy projects. All Infra benchmark taken from "JP Morgan Q4 2015, Infrastructure Investing". Risk measure estimated as average of calculated from sample for mature and developing countries. IRR and Std Dev does not take account of internal management costs, or survivor bias, ie IRRs relate to completed projects, not those that are aborted. These costs would reduce net IRRs, although difficult to quantify.

## Executive Summary – Implications for investment strategies

Institutional investment portfolios are able to invest in sustainable assets across all asset classes. The effectiveness of the investments in terms of environmental or social impact, and financial performance differs significantly. We can however draw consistent insights for future sustainable investment decisions:

- 1. *Screened ESG funds are likely to track close to market benchmarks - thematic funds are more risky but have the opportunity for out-performance.*** ESG screened funds and thematic funds have very different green and financial performance profiles. Investors should consider them as separate asset classes. It is often difficult to identify and differentiate the methodologies used by screened ESG funds (screened low carbon funds are clearer, while thematic funds are defined by the sector). On average screened ESG funds provide low risk exposure to sustainable themes. However, the effectiveness of the approach for some generic funds in terms of differentiated investment strategies is questionable.
- 2. *Larger funds perform better than smaller funds.*** On average an extra \$100m under management delivers 0.4% higher annualised return.
- 3. *Actively managed funds perform better than passive funds.*** Managed screened funds perform better than passive funds in terms of both IRR and volatility. In the thematic sector, managed funds have slightly lower IRR but significantly lower volatility.
- 4. *On average, diversified funds perform better than niche funds.*** There is a large variability in performance across the key thematic sectors of water, waste, and clean energy, and within clean energy there is a large difference between solar and wind. Although they all provide an environmental service of some form, these sectors are driven by very different fundamentals. Funds which invest intelligently across all sectors have the ability to avoid pitfalls (eg solar supply chain) and time investments based on value in other sectors (eg wind and water).
- 5. *Green fixed income products perform like regular fixed income products.*** Green bonds are unlikely to change the financial performance of the portfolio compared to other fixed income products. Many are relabelled infrastructure bonds.
- 6. *Private equity funds based on clean infrastructure assets can valid addition to the portfolio, but care is needed.*** Outperformance is possible from these funds. It is achieved by avoiding the pitfalls, such as sudden changes in policy, rather than identifying star projects. We believe sudden changes in policy will be rarer in the future, as governments have more predictable expenditure limits for renewable energy. For this, detailed sector knowledge is critical. “Clean tech” funds remain risky. They have significantly under-performed other VC sectors. There will continue to be success stories, but identifying these in advance remains challenging.
- 7. *Direct investing in clean infrastructure could be a useful portfolio addition.*** Direct investing is not just for large institutions. Successful investments by pension funds have been made under \$5m. On average these projects have provided good returns with relatively low risk. Co-investing alongside experienced partners (eg development banks or infrastructure funds) is key to overcoming the costs of advisory fees for institutions less experienced in this area.

## Executive Summary – Trove Research Services

This report has taken a detailed look at the performance of sustainable investments across all asset classes. We have compiled the most comprehensive database of sustainable investment options and funds, classified them into subgroups, and analysed their risk and returns. This work has given us a unique insight into how the sustainable investment sector operates, which asset classes perform best and the characteristics of successful funds managers.

Building on this work Trove Research can help asset owners in a number of ways:

1. Discuss sustainable investment strategies in the context of your long term fund objectives and priorities for sustainable investing. Key issues include:
  - Are your investments intended to have environmental, social or governance impacts, or is the interest driven by financial considerations, either to protect value or for growth?
  - What risk appetite do you have for investments in this sector? How important is volatility?
  - Is direct investment a realistic opportunity given your funds structure?
  - How important is geographical diversification?
2. Review your portfolio against our internal database of investment vehicles across all asset classes.
3. Advise on the optimal structure of the portfolio given your sustainability preferences and financial objectives.
4. Provide an ongoing service to provide an external perspective on your portfolio as well as investment and divestment opportunities. This includes:
  - Quarterly updates on key out-performance and under-performance examples, to identify where and how value is being created in the sustainable investment field.
  - Identification of new fund launches and investment vehicles, backed with Trove assessment in terms of likely ESG and financial performance.
  - General news, information and analysis on sustainable investment field covering all asset classes.
5. Assist with execution to make direct investments in sustainable infrastructure. We retain a wide network of contacts in the sector and are aware of forthcoming investment opportunities.

## ABOUT THIS RESEARCH

## Why we have undertaken this research

### The world of sustainable and ethical investing is becoming mainstream but increasingly complex...

- According to EuroSIF and EFAMA around 50% of all professionally managed funds in Europe are guided by some form of ethical and sustainability principles.<sup>(1)</sup> How these figures are compiled is not clear, but many mainstream funds are now integrating basic sustainability principles into conventional strategies which will significantly elevate these figures. Other funds however offer specific sustainable investment strategies that differentiate them from the mainstream. Our research identifies over 260 such funds listed on exchanges, and over 150 private equity vehicles focussed on sustainable technology and infrastructure.
- The sustainable investment sector is growing at around 30-40% a year<sup>(2)</sup>, and interest in the sector will continue to increase:
  - Currently some 619 institutions, representing around \$3.4 trillion of capital, have committed to divesting their portfolios from fossil fuels, although few have yet to implement the necessary changes.<sup>(3)</sup>
  - To meet the world's climate objectives, annual investment in low carbon energy will need to increase to \$1trillion/yr by 2030 from around \$400bn today.<sup>(4)</sup>

### These developments have created several challenges for investors...

- There is no single source to accurately identify sustainable investment vehicles across all asset classes.
- It is difficult to choose between these vehicles as they offer widely varying strategies with very different risk and return profiles. Information from some sources can be inaccurate or out of date, with many funds wrongly labelled as “sustainable”.
- Little analysis has been published to show whether these investments are good investments financially in the contexts of a broad portfolio.
- Anticipating future performance of these vehicles requires a deep understanding of the sector.

### Our research sheds light on this sector by...

- Identifying and categorising all investment funds globally provide differentiated sustainable strategies, across all asset classes of equities, fixed income and private equity, as well as direct investments in sustainable infrastructure.
- Analysing and explaining the performance of these investment vehicles, with a view to helping investors make more informed decisions in the future as part of a balanced portfolio.

1. EuroSIF- European Sustainable Investment Association put the total assets managed with sustainable approaches at €9trillion in 2014. EFAMA – European Fund and Asset Management Association – estimates total AUM for managed funds at €19trillion in 2015.
2. EuroSIF, 2014, European SRI Study
3. <http://gofossilfree.org/commitments/>
4. The New Climate Economy, <http://2015.newclimateeconomy.report/>

## Sustainable investment universe. Categorisation across all asset classes and funds types.

We categorise the sustainable investment world into conventional asset classes (equities listed and private, fixed income, infrastructure and commodities) and three types of investment (screened funds, thematic funds and direct investment).

Screened funds invest in the broad economy but adjust the allocation based on ESG criteria (companies can be excluded or included, or allocations weighted according to certain ESG scoring systems). We separate out low carbon screened funds as a particular type of fund that provide hedges against climate change risks.

Thematic funds invest in solutions to global environmental problems, such as renewable energy, water provision and waste recycling services. Nuclear is included as some funds focus on the sector and it can be seen as a hedge against climate policy risks in the energy industry.

Asset class		Funds							Direct investment
		Screened		Thematic					
		ESG	Low Carbon	Clean energy	Water	Waste / Recyc.	Nuclear	Agri, Fish, Forestry	
Equities	Listed equities	✓	✓	✓	✓	✓	✓	✓	-
	Private equity	-	-	✓	✓	✓	-	✓	-
Fixed income - listed funds		✓	-	✓	✓	-	-	-	-
Infrastructure		-	-	-	-	-	-	-	✓
Commodities		-	-	✓	-	-	-	-	-

## Sustainable investment universe. Globally investors can choose from 420 sustainable investment funds covering listed equities, fixed income, private equity and commodities.

We have identified 428 sustainable investment funds globally. 275 funds are listed on exchanges as investment trusts, mutual funds, ETFs or ETNs. Most of these invest in listed equities, although 21 funds invest exclusively in fixed income securities (green bonds). Of the funds that invest in listed equities, 153 apply screening techniques to economy-wide equities, while 99 are thematically driven. Of the thematic funds, 38 cover several technologies, with clean energy and water the dominant areas of investment. Of the 51 clean energy funds, 23 invest only in renewable energy technologies. The 153 private equity funds all invest thematically, but clean energy dominates this sector accounting for over 90% of capital across corporate equity and infrastructure projects.

### Number of sustainable funds at Q3 2016

Asset class		Funds							Direct investment
		Screened		Thematic					
		ESG	Low Carbon	Clean energy	Water	Waste / Recyc.	Nuclear	Agri, Fish, Forestry	
Equities (405)	Listed equities (252)	146	7	32					
	Private equity (153)			51	12	1	2	1	
	Fixed income – listed funds (21)	15		6					
	Infrastructure								many
	Commodities (2)			2 <sup>(2)</sup>					
<b>Total managed funds = 428</b>		<b>168</b>		<b>260</b>					

- 64 of the 153 private equity funds invest in infrastructure assets, mostly in renewable energy. In this table Infrastructure means direct investment from the institution rather than through a fund manager.
- Carbon commodity funds are those that track the price of carbon allowances. The two available are Barclays iPath Global Carbon ETN and ETFS Carbon ETC (CARB)

## Sustainable investment universe. Across listed and private equity funds we identify \$138bn of sustainable funds under management.

Across listed and private equity funds in our sustainability universe we identify some \$138bn of funds under management. These exclude a large swathe of direct investment in sustainable infrastructure from private financial institutions which we estimate could be in the region of \$50 – 100bn. Managers of listed funds account for \$74bn AUM with thematic strategies dominating at \$44bn AUM, compared to Screened ESG funds at \$28bn. The green bond fund management market is currently less than 5% that of the sustainable equity market at only \$2.3bn. These figures for AUM are much smaller than those published by the likes of EuroSIF and USSIF. A key difference in these figures, is that we focus on *differentiated sustainability funds*, and exclude main-stream funds with integrated ESG practices.

**Assets under management in sustainable funds at Q3 2016 (\$bn)**

Asset class		Funds							Direct investment
		Screened		Thematic					
		ESG	Low Carbon	Clean energy	Water	Waste / Recyc.	Nuclear	Agri, Fish, Forestry	
Equities (\$135bn)	Listed equities (\$74bn)	27.1	2.2	10.0					
	Private equity (\$61bn)			26.8	7.2	0.02	0.05	0.07	
				61.0 <sup>(1)</sup>					
	Fixed income – listed funds (\$3.1 bn)	2.8		0.28					
	Infrastructure								50 – 100 <sup>(2)</sup>
	Commodities (£0.002bn)			0.002					
<b>Total managed funds = \$138 bn</b>		<b>\$32 bn</b>		<b>\$106 bn</b>					<b>50 - 100</b>

1. Private equity AUM taken as capital raised rather than assets under mgt. This is for 88 funds where we have financial data.
2. Estimate of direct investment in sustainable infrastructure since 2000 from financial institutions built up from Trove database of project references throughout EU and North America. See Section 5.

## Sustainable investment universe. Methodology and data sources

### Methodology :

The scope of analysis is to include all investment vehicles that asset-owning institutions would consider accessible. This includes funds, managed or index-based, and specific types of companies, notably Yieldcos that own and manage large portfolios of renewable assets. Institutions will invest directly in these companies as well as funds. We exclude other corporate equities and debt instruments on the basis that institutions predominantly outsource the management of these assets to fund managers. Listed funds are defined as “sustainable”, and included in our database, where the fund is differentiated from mainstream funds on sustainability grounds. This means the fund manager uses some form of sustainability screening or thematic focus that materially affects the selection of underlying assets. We do not include funds that integrate aspects of ESG within mainstream funds. Private equity funds are included where more than half of the funds activities are considered to be “green”, including clean energy, water, waste and pollution control, and sustainable transport (excluding rail), forestry and agriculture.

Financial analysis is undertaken for each investment vehicle for 1, 3 and 5 years for which data are available, up to the end of Q3 2016. The analysis includes:

- *Net IRR* (returns to equity holders including changes in capital value and dividends). Returns to equity holders are after any management charges and measured in local currency. FTSE is measured in GBP and MSCI in USD.
- *Volatility and variability*. For listed funds volatility is the weekly variation in returns averaged over the relevant number of years. For private equity and operational variability of renewable energy projects, “volatility” is taken as the standard deviation of returns from all funds over the relevant period.
- *Sharpe ratio*. Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. These figures are published by some databases, such as FE. These use standard 3.5% risk free rate.
- *Market correlation*. Correlation analysis is measured with reference to the relevant market benchmarks, FTSE and MSCI World Equity Index.
- *Benchmarks*. We have used two relevant benchmarks as the opportunity cost of investing in sustainable assets: FTSE all share and MSCI World Equity Index. The latter has performed extremely well in the last 3 years, largely due to the heavy weighting and exceptional performance of US equities. FTSE gives a better benchmark for EU based equity strategies.

## Sustainable investment universe. Methodology and data sources

### Data sources:

We have used numerous sources to identify investment vehicles and their financial performance. Key ones include:

- *Listed funds* - Financial Express, Bloomberg, Morning Star, fund managers own fact sheets.
- *Private Equity* - Bloomberg, PreQin, general internet.
- *Green bond* – Performance data on green bond indices and benchmarks taken from Bloomberg
- *Direct investments* – numerous reports and news articles referring to project and equity returns from renewable energy projects, covering over 100 individual projects.

### Data cleansing:

A substantial part of the work has involved identifying relevant investment vehicles. The starting point is often third party databases, but frequently these are incomplete or funds are poorly categorised in terms of sustainability. Many investment vehicles have been removed from or added to our database from those found in commercial databases. They are removed for four key reasons:

1. Where funds represent different share classes or currency denominations, and are effectively duplicates of the underlying assets. Our analysis only looks at the performance of the assets under management. Other studies may double-count different share classes and currencies.
2. Where the fund does not use ESG criteria to materially influence investment decisions, if at all. Sometimes funds are mislabelled as ESG funds because they have the letters “ESG” or “Green” in the fund title but have no link to sustainability.
3. Where the fund is no longer operational or has no assets under management.
4. Where an index is mislabelled as fund.

In summary we have excluded:

- Several hundred duplicate share classes and currency denominations that appear in mainstream databases.
- 50 – 100 funds that appear in other databases that do not have sustainable investment characteristics. Specifically some 60 green bond funds from Bloomberg have been removed that on closer inspection have no green bond investment characteristics.
- 40 - 50 funds that appear in other databases with sustainable characteristics but are not longer operational.

The resulting universe of investment vehicles represents the most comprehensive database of active funds where investments are materially driven and differentiated from mainstream investments by sustainable criteria.

### Limitations to the analysis:

- The analysis uses data from investments that have continued for 1, 3, and 5 years. We do not assess the effect of investments that have ceased to trade or projects that have been aborted early in their development. Direct investments in projects excludes the costs of internal management in making a transaction.

## RESULTS - LISTED FUNDS

## RESULTS - FIXED INCOME

## RESULTS - PRIVATE EQUITY & VENTURE CAPITAL

## DIRECT INVESTMENT

## Copyright and disclaimer

This publication is the copyright of Trove Research. No portion of this document may be photocopied, reproduced, scanned into an electronic system or transmitted, forwarded or distributed in any way without prior consent of Trove Research.

The information contained in this publication is derived from carefully selected public sources we believe are reasonable. We do not guarantee its accuracy or completeness and nothing in this document shall be construed to be a representation of such a guarantee. Any opinions expressed reflect the current judgment of the author of the relevant article or features, and does not necessarily reflect the opinion of Trove Research.

The opinions presented are subject to change without notice. Trove Research accepts no responsibility for any liability arising from use of this document or its contents. Trove Research does not undertake Regulated Activities as defined in Section 22 of the Financial Services and Markets Act 2000 and is not registered with the Financial Services Authority of the UK.