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Impact of the proposed AIFM Directive across Europe

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EXECUTIVE SUMMARY

Charles River Associates (CRA) was asked by the Financial Services Authority (FSA) to conduct an assessment of the impact of the proposed Alternative Investment Fund Manager Directive (AIFMD) on investors, financial markets and enterprise across the European Union (EU).[1] The Directive affects a wide variety of fund types and we have investigated the impact of the Directive on: hedge funds; private equity and venture capital funds; real estate funds and investment trusts.

Our research has involved: gathering information on the alternative investment fund (AIF) industry in Europe; around 30 interviews with market participants including professional investors, trade associations at a European level and in the UK (since much of the management of the AIF industry is located in the UK) as well as companies involved in the provision of different fund types; and a cost survey focused on the parts of the Directive where interviewees indicated that the costs are likely to be most significant.

Impact of the Directive on investor choice and returns

Based on interviews, it has not been possible to identify the proportion of funds currently domiciled outside the EU that will re-domicile into the EU in order to continue to be marketed to EU investors. If funds do not re-domicile, the AIFMD will greatly reduce the availability of AIF for EU investors. Investors expressed concern that they will no longer have access to "best in class" funds from across the globe, thereby reducing both the variety and quality of funds. Using evidence regarding where investors can use substitutes, data on current domicile of various fund types, and whether funds are captured by threshold conditions in the Directive, Table 1 sets out the proportion of funds that would effectively be no longer available to European investors as a result of AIFMD.

Table 1: Proportion of funds effectively no longer available

	Hedge funds	Private equity	Venture capital	Real estate	Investment trusts
Proportion of funds potentially no longer available	40%	35%	19%	2%	N/A

Source: CRA analysis.

AIF are used in the construction of optimal portfolios and bring benefits to investors from a better risk-return trade off. If no AIF were available in Europe in any form, portfolio returns for European investors that use AIF would be reduced by around 25 basis

1 Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/…/EC, COM(2009) 207 final, European Commission 30th April 2009. Hereafter "AIFMD" or "the Directive". At the time of writing it is understood that the Directive is the focus of detailed discussions and hence may be subject to change. We have reviewed the impact of the Directive as in the published proposals of 30th April 2009.

points.[2] Combining this with the information in Table 1 for those currently using AIF, gives an estimate of the loss to EU investors of 5 basis points. EU pension funds have assets under management (AUM) of around €5 trillion and over half of them used AIF, leading to a reduction in annual returns of approximately €1.4 billion. This is a conservative estimate of total loss of return since pension funds are only a portion of the relevant investor universe.

Benefits accrue to investors from the "passport" which brings access to funds not previously marketed in certain member states. This would enable efficiencies to be exploited, thus lowering costs. Further, smaller professional investors are likely to benefit from additional transparency, although large investors believe they already have sufficient information and did not value the additional transparency from the Directive.

Impact of the Directive on AIF

In order to estimate compliance costs, we assume that a proportion of AIF re-domicile in the EU so as to continue serving EU investors. As such, the calculations for the cost of reduced investor choice and those for compliance costs are not additive.

The AIFMD will impose substantial one-off compliance costs of up to €3.2 billion on alternative investment fund managers (AIFM). Significant one-off costs arise due to rules on delegation and changes to legal structures which may require reorganisation of the business model of global fund managers that have been designed to exploit efficiencies in the value chain. The cost of re-domiciling funds from outside the EU (typically there for tax reasons) into the EU is also significant.

Ongoing compliance costs of around €311 million arise from the Directive and all market participants interviewed believe these costs will be passed on to investors, leading to reduced returns. Significant ongoing costs arise from the need for independent valuators and depositaries, and, to a lesser extent, new capital requirements, delegation problems and additional disclosure regarding portfolio companies.

Table 2 below illustrates the additional compliance costs for AIFM that arise from various provisions of the AIFMD. They are expressed as one-off costs and ongoing costs.

2 This estimate has been provided by Mercer. A basis point is one-hundredth of a percent i.e. 1% is equal to 100 basis points.

Table 2: Summary of costs (basis points unless otherwise noted)

	Hedge funds	Private equity	Venture capital	Real estate	Investment trusts
One-off costs					
Disclosure to investors	0.3	0.0	0.0		
Delegation restructuring	8.25	8.25		8.25	
Relocating / re-domiciling	39.9	19.7	19.7	0.9	
Legal structures	14.1	14.1	14.1	14.1	63.5
Total one-off costs (bp)	***62.5***	***42.1***	***33.8***	***23.2***	***63.5***
Total one-off costs (€ million)	***1404***	***756***	***45***	***451***	***543***
Ongoing costs					
Disclosure to investors	0.1	0.0	0.0		
Disclosure re portfolio companies	0.0	2.9	3.7	0.0	0.0
Delegation	0.2	0.2		0.2	
Valuator	0.9	4.3	9.2		
Capital		1.5	1.9		
Depositary		5	10		
Total ongoing costs (bp)	***1.2***	***13.8***	***24.8***	***0.2***	
Total ongoing costs (€ million)	***27***	***248***	***33***	***3***	

Source: CRA analysis. Figures do not sum to total due to rounding.

In addition to the quantified costs, we note that depositary liability, which we were not able to quantify, is considered to be highly significant in terms of increased costs. Most depositaries have not previously faced strict liability and indicated that this additional contingent risk would force them to hold (costly) additional capital to mitigate potential losses. Depositaries indicated that this requirement could cause them to reduce the size of their sub-custodian networks in foreign locations (which could also have a negative impact on investor choice by creating an inability to invest in certain foreign markets) and increase the cost of the remaining part of the network. Many depositaries have indicated that they will reconsider their business model and it is not clear that they will actually be willing to offer depositary services for AIFM. The requirement that the depositary be an EU credit institution led to concerns that this would limit the choice available to AIFM as well as potentially leading to increased concentration risk.

As seen in the calculations provided in Table 2, the impact of the Directive on different types of funds varies considerably. Indeed a key concern of the Directive is that regulation

appropriate for one type of fund may impose costs on other types of funds without bringing benefits. Our report considers the impact of AIFMD on each type of AIF.

Hedge funds

The hedge fund sector represents the area where there was the most concern from investors regarding loss of access to a wide variety of funds reflecting the fact that 94% of global AUM in hedge funds are domiciled outside the EU. Some large professional investors would be able to use substitutes through direct mandates, managed accounts or structured products although these are lower quality outcomes due to reduced diversification in direct mandates and increased counterparty risk for structured products. Leverage limits would cause certain strategies to no longer be viable, resulting in reduced investor choice and returns beyond those estimated above.

If enough hedge funds re-domicile in the EU to fulfil the current needs of EU investors, there would be a significant cost associated to this (up to 40bp or €0.9 billion). Large AIFM operating hedge funds also face one-off costs associated to restructuring value chains spread across the globe and altering legal structures to bring them in line with the Directive. Total one-off costs were estimated as 63bp or €1.4 billion.

With the exception of costs associated with depositary liability, hedge funds face modest ongoing costs from the Directive. The requirement to disclose information to investors, including on leverage, incurs costs of only 0.1bp or €3 million and needs to be offset against gains from transparency since hedge funds were the main type of AIF where investors believed this brought benefits. Hedge funds also face slight increases in ongoing costs related to the valuator and depositary, primarily reflecting their use of difficult to value instruments that are traded over the counter. Total ongoing costs were estimated as 1bp or €27 million.

Systemic risk and hedge funds

Due to concerns that leverage causes systemic risk, the Directive imposes additional requirements on leveraged funds (of particular relevance for hedge funds). Evidence is consistent with hedge funds not being the underlying cause of the recent financial crisis. However, they do appear to have contributed to the transmission of systemic risk as declines in asset values caused leveraged hedge funds to sell assets as a result of margin calls and investor redemptions which caused asset values to fall further still. The total market position of hedge funds declined by around $2.9 trillion between the end of 2007 and the end of 2008, of which up to $2.4 trillion was due to unwinding of leverage. These amounts are non-trivial in terms of their impact on financial markets.

Provision of information on leverage to competent authorities is expected to bring benefits from improved monitoring and macro-prudential oversight and can also be used to identify whether or not trends in hedge fund activity increase systemic risk in the future.

The impact of leverage limits would be expected to reduce the extent to which the transmission of risk arises by limiting the build up of leverage. However, such limits could add to pro-cyclicality at a time of crisis by forcing hedge funds to sell to stay within the prescribed regulatory limit. In addition, investors would no longer have access to particular strategies with high leverage, further reducing choice and returns.

Furthermore, permanent leverage limits may be ineffective because institutions could design financial instruments to get around leverage restrictions. This may result in reduced regulatory oversight due to increased product complexity. In addition, non-EU domiciled hedge funds, proprietary trading desks of banks, and other financial institutions which are not regulated by the AIFMD would be able to continue to use leverage and trade on regulated markets in the EU without leverage limits. It is therefore very unclear that the AIFMD will be effective in preventing the transmission of systemic risk associated with leverage.

Private equity and venture capital funds

Investor representatives are very concerned about losing access to private equity and venture capital funds, both of which they considered to have no close substitutes.

It is also notable that these funds face the largest ongoing compliance costs of all of the different types of fund (€248 million and €33 million respectively). This reflects their investment in primarily non-listed companies where the benefit of the valuator is unclear since investment returns depend purely on the actual cash value of investments at the time of sale. Similarly, depositary activities including safe-keeping of paper based documentation was not seen as valuable to investors, AIFM or depositaries (who indicated little interest in this business).

Private equity and venture capital funds within the scope of the Directive face specific costs (€52 million or 2.9bp and €5 million or 3.7bp) related to disclosing information about underlying portfolio companies. Investors and AIFM believe this will reveal confidential information about the strategy of the portfolio company to the benefit of that company's competitors. In addition, the requirements place European private equity funds at a competitive disadvantage compared to other providers of capital (including non-European private equity funds, family-run funds or sovereign wealth funds) who do not need to reveal this information.

If "grandfathering" of existing funds where capital has already been raised (or agreed) does not occur, around 30% of the AUM managed in the EU would need to re-domicile at a cost of €380 million or 20bp. Given that these funds have already raised their capital and investors are locked in, if grandfathering is allowed, much of these costs would be saved and new funds could be set up in the EU.

Private equity and employment and growth

Private equity and venture capital funds have direct impacts on the real economy through their role as providers of capital to small businesses. Around 9-10 million people in the EU are currently employed by private equity and venture capital funded companies and up to 30 million are employed by a business that has received such funding in the past. As well as providing capital, AIFM provide the management and operational expertise needed to increase value in the underlying portfolio company (which neither bank lending nor mass shareholder equity could provide).

Companies supported by private equity are more likely to be growing and increasing employment opportunities although there is some evidence of declines in employment in

the immediate aftermath of investments. Furthermore, private equity funded companies were found to create 6% more "greenfield" jobs than other firms.

There is little evidence to suggest that funding provided by private equity through buyouts would be drastically reduced as a result of the AIFMD. This is because non-EU funds can continue to invest in EU businesses while raising funds elsewhere supported by local offices to oversee investment opportunities. (EU managed funds already raise 46% of capital from outside the EU, suggesting switching to non-EU funds by these investors would be straightforward.) However, EU regulators would have less oversight regarding the funds purchasing European assets.

Venture capital funded firms have high employment growth rates. In addition, a large proportion of employees funded by venture capital focus on jobs such as research and development, biotechnology and health care, and university spin-offs, which seek to innovate and are key drivers in economic growth.

The impact of AIFMD is more significant for venture capital funding relative to private equity funding as local knowledge and expertise is comparatively more important in funding start-ups than for buyouts. Therefore it is more difficult for non-EU based funds to increase investment in the EU in the short term. Any reduction in venture capital is a concern since start-ups and early stage companies are extremely important to economic growth and employment across the EU.

Real estate funds

The impact on investor choice due to the impact of the AIFMD on real-estate funds is relatively small, since around one-third of European investors currently have direct investments in real estate which represents a viable substitute. In addition, most real estate funds managed in Europe (with the exception of many UK managed funds) are understood to already be domiciled in Europe. The passport was seen as especially beneficial for real estate funds as the current market is highly fragmented and the passport could bring economies of scale.

One-off costs are €451 million or 23bp, reflecting the need to rearrange value chains within large asset managers, legal restructuring and the need for UK funds domiciled in the Channel Islands to relocate to the EU.

Investment trusts

Investment trusts are public limited companies governed by UK company law with a Board of Directors as the decision-making body with regulatory responsibility and have AUM of €112 billion. Interviewees believe that this structure cannot be maintained within the Directive and that investment trusts would be forced to liquidate and transfer investors to compliant structures. This would impose significant costs to dissolve their existing structures (64bp or €543 million).

Investors face a reduction in choice as they lose access to this legal structure and because they may prefer closed ended funds. Since investment trusts have historically competed on the basis of offering lower charges than UCITS funds, competition may also be negatively affected. However, as the investment strategies of investment trusts are

very similar to those available through UCITS funds, there is no reduction of investor choice due to reduced portfolio diversification, although we have not quantified the impact of the loss of competition. There is no apparent benefit associated to the forced liquidation of investment trusts.

Conclusion

The AIFMD will have significant impacts in terms of reduced investor choice and substantial compliance costs for the AIF industry (which themselves will be passed on to investors, ultimately resulting in lower returns).

AIF contain a wide variety of financial instruments, bringing different benefits to investors, using different business models and representing different regulatory challenges. Although the Directive attempts to address particular concerns arising from some types of funds, the universal application of one set of rules on such different types of fund results in compliance costs which are significant. The Directive will cause a fundamental re-organisation in the business model of global fund mangers (with significant one-off costs) and may lead to costly changes of legal structures and domicile. It also brings costs associated to valuators and depositaries which do not seem to be matched with benefits for at least some of the fund types considered.

1. INTRODUCTION

Charles River Associates (CRA) was asked by the Financial Services Authority (FSA) to conduct an assessment of the impact of the proposed Alternative Investment Fund Manager Directive (AIFMD) on investors, financial markets and enterprise across the European Union (EU).[3] The AIFMD describes an alternative investment fund (AIF) as any collective investment undertaking, including investment compartments thereof, whose object is the collective investment in assets and which does not require authorisation under the UCITS Directive.

The AIFMD applies to all alternative investment fund managers (AIFM) above a certain size that are established in the EU and provide management services to one or more AIF. The Directive affects a wide variety of fund types and we have investigated the impact of the Directive on: hedge funds; private equity and venture capital funds; real estate funds and investment trusts. Funds which are regulated under the UCITS Directive are excluded from the scope of the regulation, as are insurance companies and credit institutions.

The AIFMD proposes new regulatory standards for AIFM across Europe, bringing both consistency of standards and also higher requirements compared to existing regulatory rules.[4] The great majority of the Directive applies across all AIFM although, because of the nature of the investments made by certain types of AIF, requirements related to leverage and ownership of underlying portfolio companies have a more significant impact on particular AIFM where these issues would be relevant.

Our research has involved: gathering information on the alternative investment fund (AIF) industry in Europe; around 30 interviews with market participants including professional investors, trade associations at a European level and in the UK (since much of the management of the AIF industry is located in the UK) as well as companies involved in the provision of different fund types; and a cost survey focused on the parts of the Directive where interviewees indicated that the costs are likely to be most significant. A list of interviewees can be found in Appendix A.

The report is structured as follows:

- Chapter 2 provides background information on the size of the AIF market alongside a description of the main components of the AIFMD and how this might impact the market from a theoretical perspective;

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3 Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/…/EC, COM(2009) 207 final, European Commission 30th April 2009. Hereafter “AIFMD” or “the Directive”. At the time of writing it is understood that the Directive is the focus of detailed discussions and hence may be subject to change. We have reviewed the impact of the Directive as in the published proposals of 30th April 2009.

4 At the same time as the publication of the proposal, the EC published their impact assessment. Commission Staff Working Document, Accompanying the Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/…/EC, Impact assessment SEC (2009) 576, 30 April 2009, page 24. Hereafter “Impact assessment”.

- Chapter 3 examines the expected impact of the AIFMD on investor choice;
- Chapter 4 considers the likely effect on employment and growth in particular from the impact of the AIFMD on investment provided by private equity and venture capital funds to European enterprises;
- Chapter 5 examines the impact of the directive in terms of mitigating systemic risk which may arise from AIF; and
- Chapter 6 provides estimates of the likely costs associated with complying with various aspects of the AIFMD.

2. BACKGROUND

The AIFMD describes an AIF as

> *"any collective investment undertaking, including investment compartments thereof whose object is the collective investment in assets and which does not require authorisation under the UCITS Directive."*[5]

The definition covers a range of different types of funds which provide investors with different investment opportunities and which differ in terms of their size and geographical distribution.[6]

Before examining details about the AIF market and the Directive, it is useful to consider the role that investment funds play and why it is that investors might seek to use investment funds rather than other forms of investment. There are a variety of advantages of using investment funds including:

- Diversification – investment funds allow investors the opportunity to pool their money with that of other investors. In turn this enables the investment fund to purchase a wider range of underlying securities than the individual investor would be able to on their own. As such, this brings advantages from diversification across this range of securities. Benefits associated to diversification are examined in more detail in section 3.4;
- Cost advantages – because investments are pooled from a range of investors the total amount of money being invested is greater. Any fixed costs associated with investments can therefore be spread across a larger value of assets than would be possible for an investor on their own; and
- Professional management – investment funds are managed by professional managers to whom investors delegate decision making about their investments.

The advantages from using investment funds in general are clear and many of these are particularly strong for smaller investors. It should be noted that the AIF which are affected by the AIFMD are primarily aimed at professional investors.

This rest of this Chapter sets out background information related to:

- The size of the market and relevant trends in section 2.1;
- An overview of the theoretical impacts of the Directive that might arise in section 2.2; and

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5 AIFMD article 3(a).

6 Due to the broad definition used (and depending on the legal interpretation) the term AIF may include certain vehicles or structures such as corporate enterprises which are not typically considered to be "investment funds". The analysis in this report assumes that the Directive only covers genuine "investment funds" although we have included funds such as investment trusts which are currently structured as companies.

- Details of the methodological approach used in the analysis in section 2.3.

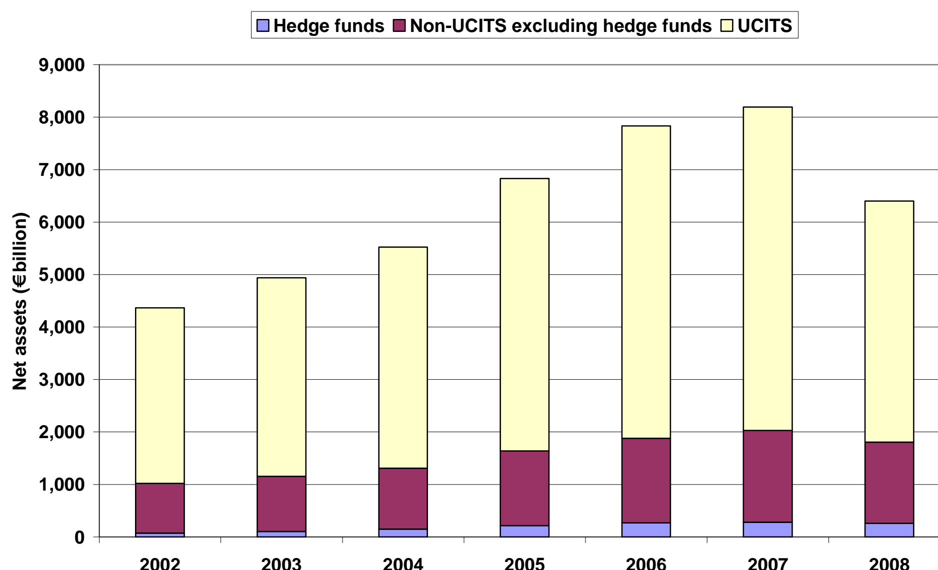
2.1. Size of the market and relevant trends

In this section we examine information about the overall alternative investment market (section 2.1.1), investor allocations to alternative investments (section 2.1.2) and include separate sections on the different types of alternative investments which are covered by the Directive (sections 2.1.3 to 2.1.6).

2.1.1. Overall alternative investment market

It is useful to place alternative investment funds in context compared with other funds which are also available and marketed to investors in Europe. In particular, given the (broad) definition of an AIF as a non-UCITS fund (with certain exceptions), it is helpful to understand the relative size of UCITS compared to non-UCITS funds.[7] Figure 1 below shows the evolution of the UCITS and non-UCITS industry in Europe for the past several years in terms of assets under management (AUM). It also includes separate information on the value of hedge funds managed in Europe.

Figure 1: Value of assets under management for UCITS and non-UCITS funds managed in Europe



Source: European Fund and Asset Management Association (EFAMA), Hedge Fund Research (HFR) and CRA analysis.

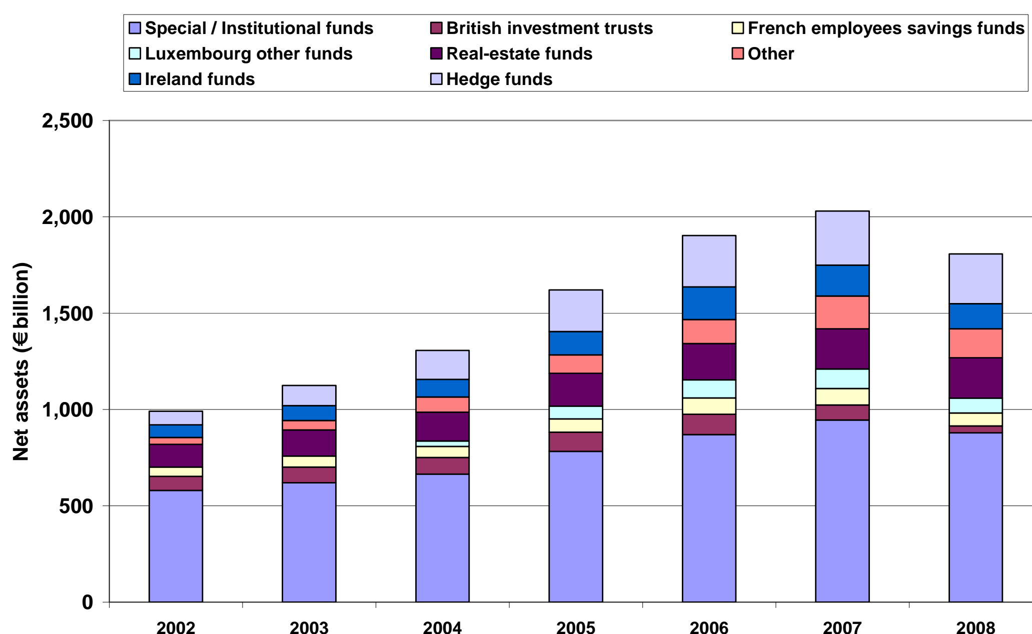
AUM for all types of fund grew steadily until 2007 (reflecting the growth in global stock markets), but declined sharply in 2008 during the credit crisis. Hedge funds and other

7 It is important to note that some non-UCITS funds are excluded from the scope of the Directive including some insurance funds. In addition, certain institutions such as EU credit institutions, institutions covered by IORPS and insurance companies are excluded from the scope of the Directive.

non-UCITS funds also increased their share of all funds slightly over the same period from 23% in 2002 to 28% in 2008.

Non-UCITS funds themselves consist of a wide variety of investment funds of very different types. Figure 2 below shows the non-UCITS fund universe broken down into its constituent parts using the categorisation used by the European fund management industry.

Figure 2: Breakdown of alternative investments



Source: EFAMA, HFR and CRA analysis.

All different categories of fund types appear to be growing up to 2007, with sharp declines in 2008 associated with the crisis. AUM in hedge funds increased faster than other types of alternative investments with special/institutional funds having a declining share of the non-UCITS sector over time.

There are many different ways to break down the alternative investment market into different fund types. We have followed the EC's convention and looked at four different markets:[8]

- Hedge funds – these funds offer investors a wider range of investment and trading activities than other investment funds (such as commodities or real estate) and apply non-traditional portfolio management techniques such as through using leverage or pursuing absolute returns on their investments i.e. profits both in rising and falling markets;

8 We draw on the descriptions used in the Impact Assessment

- Private equity and venture capital funds – these funds provide investors with the opportunity to invest in non-listed companies;
- Real estate funds (otherwise referred to as property funds) – these funds provide investors with exposure to investments in property, land and other property related assets. They can be open-ended or closed-ended funds;[9]
- Investment trusts - these funds are closed-ended investment vehicles investing in a diversified portfolio of assets that are structured as listed companies.

It is useful to note that funds can be domiciled in a different location to that in which they are managed and therefore the value of funds managed in the EU may be different to the value of funds domiciled in the EU. Similarly the value of funds owned by EU investors may differ from both those funds domiciled in the EU and from those funds that are managed in the EU. Table 3 below sets out the AUM in each of these categories.

Table 3: Value of AUM by fund type

Fund type	AUM managed in the EU	AUM domiciled in the EU	AUM for EU investors
Hedge funds	€258 billion	€57 billion	€217 billion
Private equity funds	€195 billion	€138 billion	€221 billion
Venture capital funds	€27 billion	€19 billion	€30 billion
Real estate funds	€254 billion	€247 billion	€247 billion
Investment trusts	€112 billion	€65 billion	€112 billion

Source: CRA analysis and other sources detailed in remainder of report.

In addition to these funds there are a number of other funds which are included in the definition of alternative investments, such as French employee savings funds, which the European Commission (EC) estimates has €76 billion invested in EU domiciled funds, and special or institutional funds such as the German "Spezialfonds".[10] We have not included these funds in our assessment, although where possible we note where market participants have indicated that significant impacts would be expected in relation to these funds.

2.1.2. Investor allocations

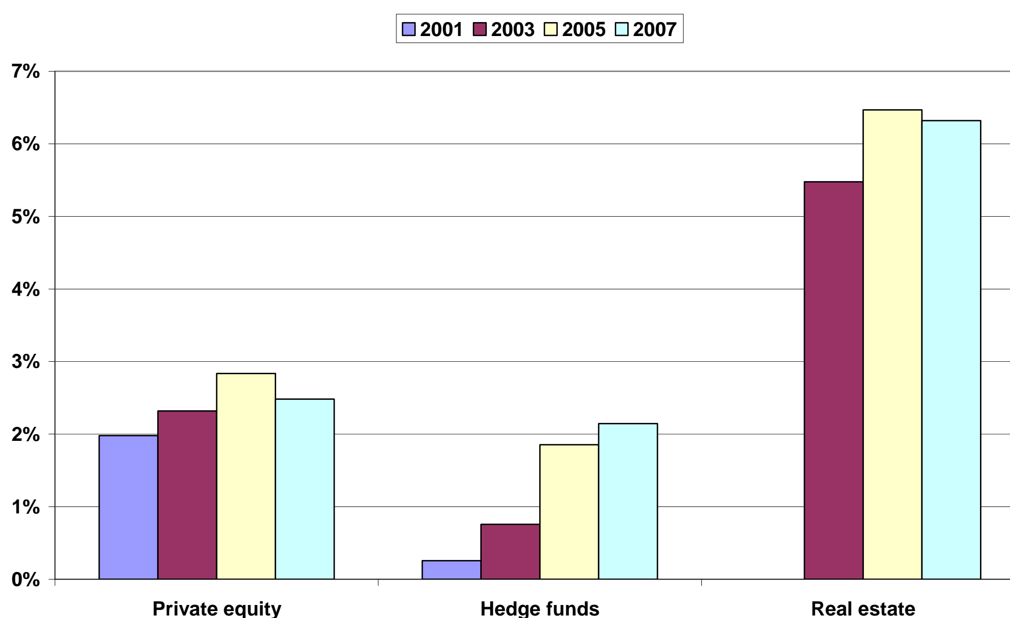
The use of alternative investments by investors has been increasing over time. It was estimated that in 2007 the average allocation to AIF by professional investors (who used these investments) was as follows:

9 Property and land are not eligible assets under the UCITS Directive. Closed-ended funds have a limited number of shares available whereas open-ended funds can increase or reduce the number of shares in the light of investor behaviour.

- Private equity 4.6%;
- Hedge funds 7.4%; and
- Real estate 8.9%.[11]

However, in practice, not all professional investors invest in these different types of assets and therefore the figures need to be adjusted to reflect the proportion of investors using each asset type. Figure 3 below show the proportion of assets which are allocated to AIF after taking into account the proportion of investors who use each asset category and the asset allocation among those investors who use AIF.

Figure 3: Allocation to AIF



Source: CRA analysis based on The 2007-8 Russell Investments Survey on Alternative Investing. Information is based on allocations by pension funds, endowments and foundations

As can be seen from Figure 3, the asset allocation to private equity was 2.5%, to hedge funds 2.1% and to real estate funds 6.3% in 2007. Forecasts for the future were for the allocation to increase across all asset categories. These figures are also consistent with those reported by the NAPF.[12]

10 Impact assessment page 4.

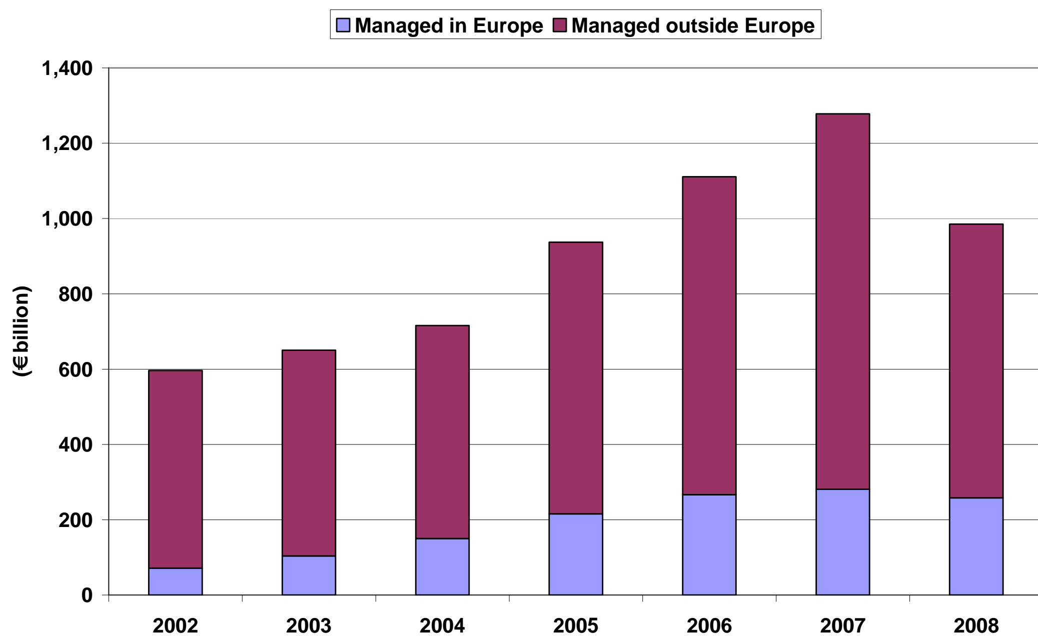
11 The 2007-8 Russell Investments Survey on Alternative Investing.

12 NAPF press release, Pension funds continue to diversity asset investments, 11 November 2008. This reported equivalent figures of 2.5% in private equity, 1.9% to hedge funds and 7.0% to real estate funds in 2008.

2.1.3. Hedge fund industry

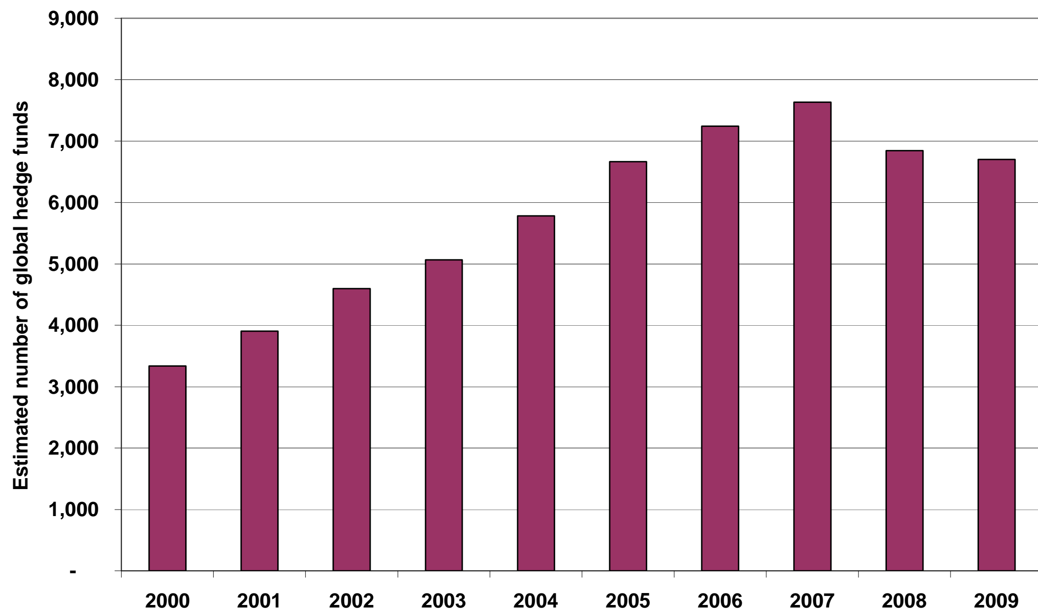
AUM in the global hedge fund industry grew to approximately €1.3 trillion ($1.9 trillion) in 2007 but dropped to just under €1.0 trillion ($1.4 trillion) by the end of 2008. This is based on the net value of funds i.e. it does not cover the assets controlled through the use of leverage. Figure 4 below sets out the value of assets under management in hedge funds over time.

Figure 4: Estimated net assets of the global hedge fund industry



Source: HFR, HFR global hedge fund industry report, Q2 2009, p12. Split between Europe and non-Europe based on IFSL Research. Estimate for funds managed in Europe in 2008 based on data provided by AIMA from Eurohedge and this proportion is then used for 2009.

Figure 5: Estimated number of global hedge funds (2000-2009)



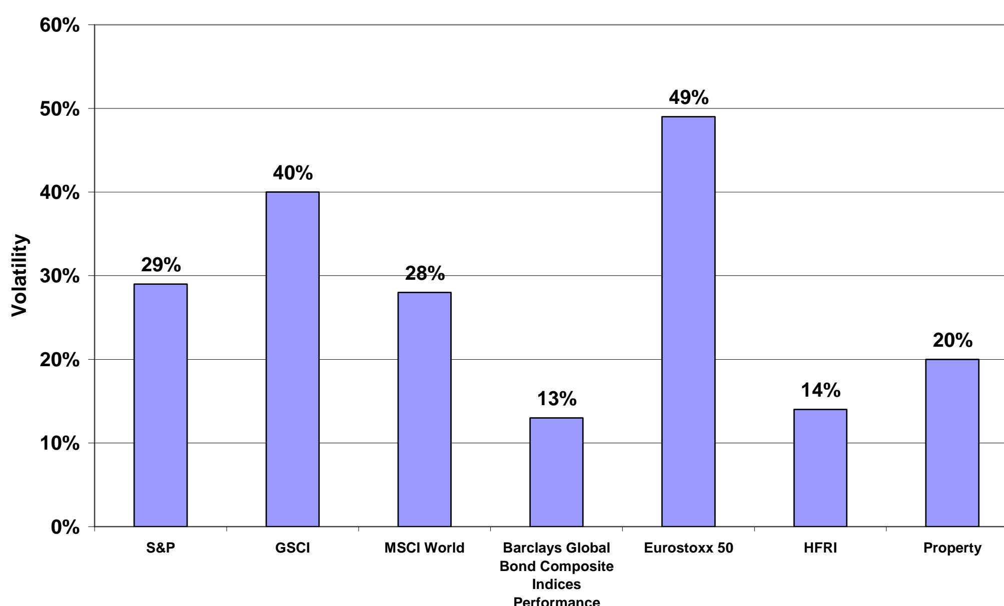
Source: HFR global hedge fund industry report, Q2 2009, p31.

Figure 5 above shows the number of hedge funds on a global basis over time. The chart shows that there was strong growth in the number of global hedge funds between 2000 and 2007, although the last two years have seen the number of funds decline from a peak of 7,634 in 2007 to 6,700 in 2009.

Risk and return characteristics

One of the key reasons for investing in a range of different asset types is that diversification brings a reduction in risk for a given level of expected return (see section 3.4). Figure 6 below provides details on the volatility of different indices including hedge funds.

Figure 6: Volatility of asset classes (1997-2009)

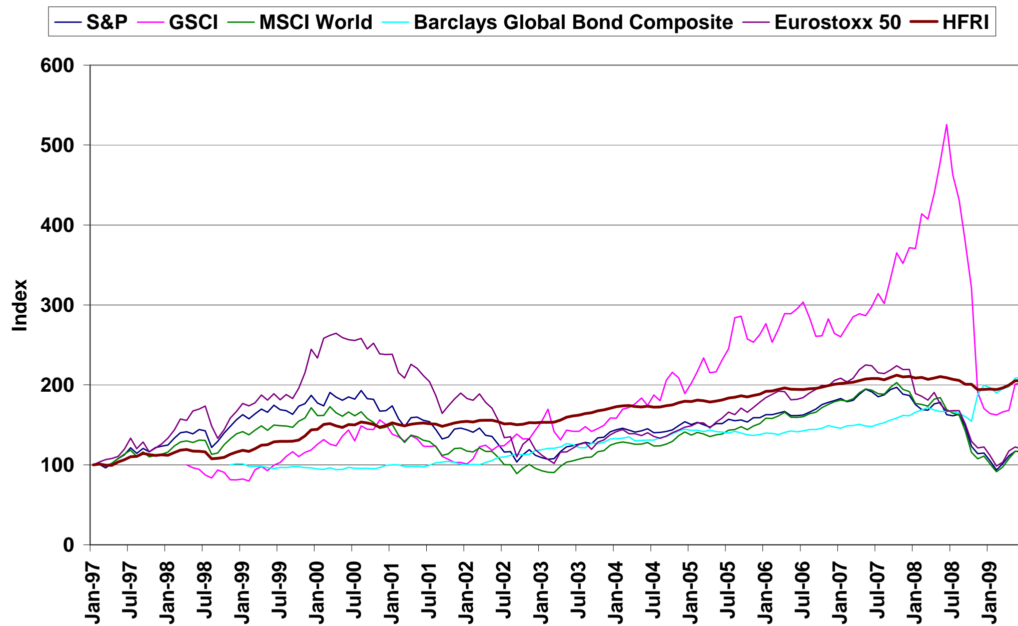


Source: HFR, Credit Suisse, Barclays, S&P, AIMA

It is clear from Figure 6 above that hedge funds (measured by HFRI) have experienced less volatility (as measured by standard deviation in returns) than most other asset classes and have volatility levels similar to a bond index. Assets with lower volatility are generally considered to represent lower risk investments. The above comparison is undertaken on the basis of indices for different asset classes and it is important to note that the underlying securities could display considerably greater volatility than the index. In the case of hedge funds, underlying strategies are likely to be more heterogeneous compared to other asset classes. (A lack of correlation between investments is important as this allows investors to diversify their portfolio and benefit from an improved return for a given level of risk.)

Figure 7 below shows hedge fund returns over nearly 20 years compared to other asset classes. This also demonstrates that the index experienced relatively low volatility over the period. In addition, the performance of hedge funds does not appear to demonstrate especially strong correlation with other indices.

Figure 7: Relative performance of asset classes



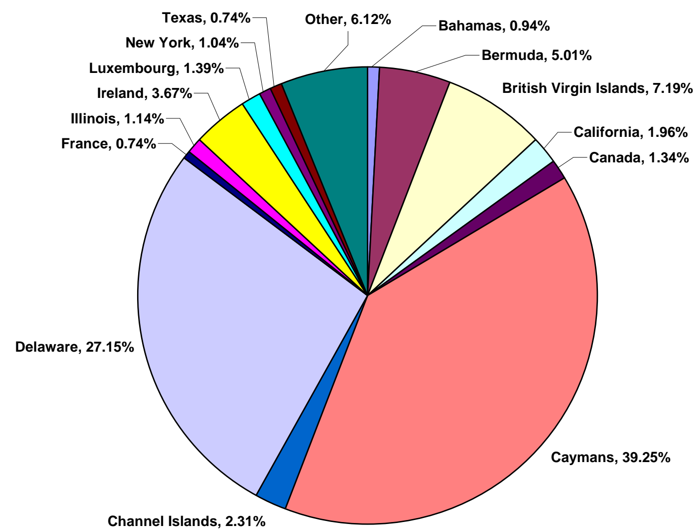
Source: Bloomberg, HFR

Despite the relatively low volatility, it is also clear from the chart that, along with other types of investments, the HFRI also declined in value towards the end of 2008. This contradicts the notion that all hedged funds are "absolute return" funds which have positive returns even in down markets. Given the variation in types of hedge fund strategy, while it may be the case that some funds continued to see positive returns throughout the recent crisis, this was not the case for hedge funds on average.

Domicile of hedge funds

Around 5% of global hedge funds are domiciled within the EU with these mainly in Ireland, Luxembourg and France. The chart below shows the domiciles of the global hedge fund industry.

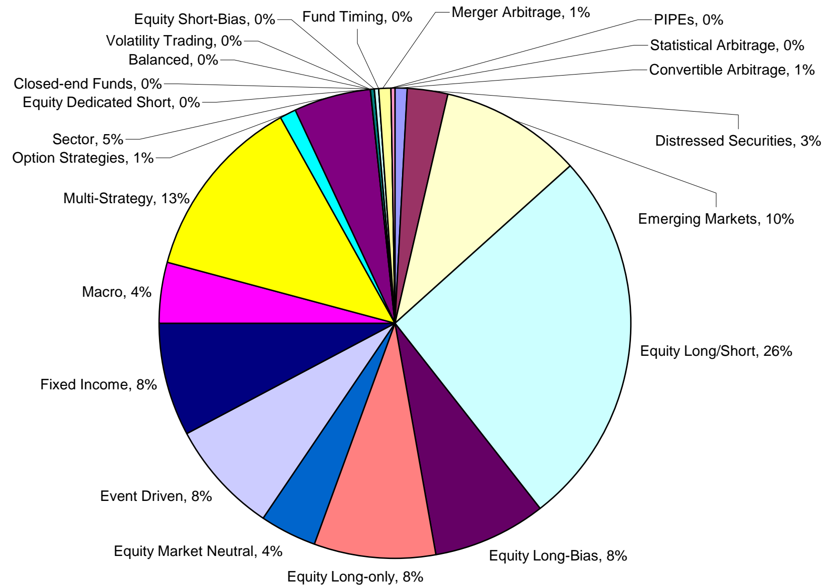
Figure 8: Estimated fund domicile registration



Source: HFR, HFR global hedge fund industry report, Q2 2009, p31.

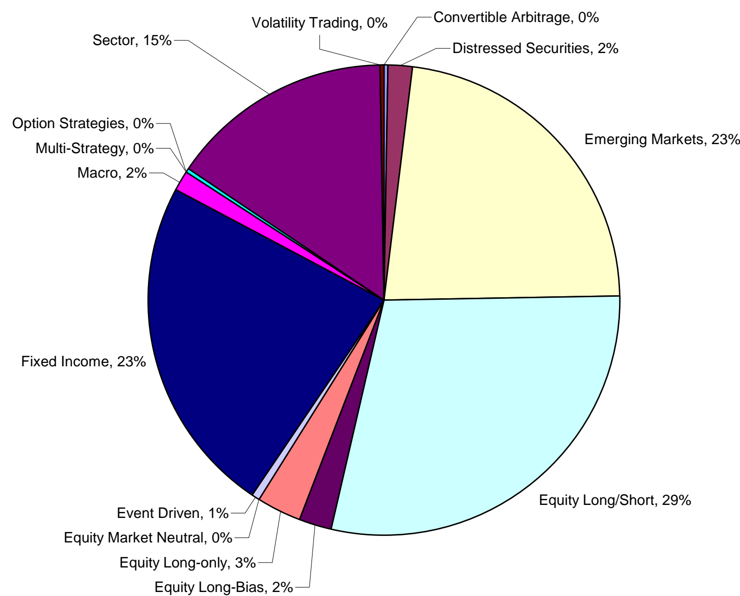
This information is relevant since the AIFMD has a number of provisions regarding AIF in “third countries” i.e. non-EU countries. Figure 9 and Figure 10 below provide information on the type of hedge funds which are domiciled within the EU and those outside the EU. This typology is based on hedge fund strategies, of which, as is clear from Figure 9, there are many.

Figure 9: Hedge funds domiciled in non-EU locations by AUM



Source: Information provided to CRA by the Centre for Hedge Fund Research at Imperial College London. Analysis based on data available as of early September 2009.

Figure 10: Hedge funds domiciled in EU locations by AUM



Source: Information provided to CRA by the Centre for Hedge Fund Research at Imperial College London. Analysis based on data available as of early September 2009.

It is clear from Figure 9 and Figure 10 above that there are substantial differences in the types of funds that are domiciled in the EU compared to those domiciled outside of the EU. In particular, emerging markets and fixed income funds both represent 23% of hedge

funds domiciled in the EU, but of funds domiciled outside the EU they represent only 10% and 8% respectively. By contrast, multi-strategy funds represent 13% of funds domiciled outside of the EU but only 0.1% of those domiciled within the EU. In addition, there are a small number of strategies where no funds are domiciled within the EU.[13]

Leverage

Some aspects of the AIFMD relate to leverage held in hedge funds and for this reason it is useful to set out how this has varied between types of fund and over time. The Directive defines leverage as,

> *"any method by which the AIFM increases the exposure of an AIF it manages to a particular investment whether through borrowing of cash or securities, or leverage embedded in derivative positions or by any other means"*[14]

The Directive also describes AIF as employing high levels of leverage on a systematic basis if the combined leverage from all sources exceeds the value of the equity capital of the AIF in two out of the past four quarters.[15]

One of the difficulties associated with leverage is that it can be defined in a number of different ways. Not only does there appear to be no commonly agreed method of measuring leverage, it is also not clear whether a single measurement of leverage is appropriate given the range of different ways in which leverage can be employed.

Leverage is sometimes considered to be the ratio between gross and net assets of a fund, although the role of derivatives which are themselves purchased on margin also affects the leverage of the fund. In addition, even when using the same calculation for leverage, this may lead to different measures of leverage being applied. In particular, where borrowing equals the assets of the fund, some fund managers will describe this as having leverage of 1 (borrowing is 100% of assets) while others describe it as having leverage of 2 (gross value of investments under control of the fund are 200% of the value of assets).

The data that we have used in Figure 11 to Figure 13 is likely to be subject to different measures because information on leverage has typically been provided by the fund managers who may be operating on different definitions. Hence some caution must be applied to the actual levels of leverage estimated, although the relativities of leverage in different strategies are likely to be unaffected by this. Where the data provider undertakes the calculation themselves, they define leverage as the ratio of the sum total of the amount of the various exposures versus the amount of the account equity i.e. if no leverage was used, the leverage ratio would be calculated as 1. For the purpose of this

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13 This included Balanced; Closed-end Funds; Equity Dedicated Short; Equity Short-Bias; Fund Timing; Merger Arbitrage; Private Investment in Public Equity (PIPEs); and Statistical Arbitrage. However, it should be noted that these strategies represent only 1.6% of the value of non-EU domiciled assets under management.

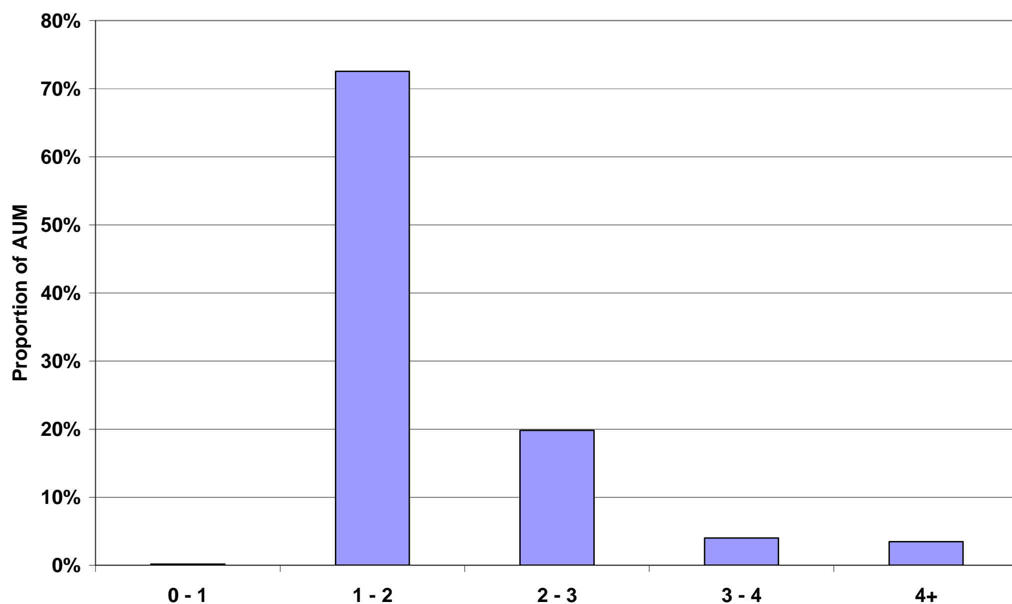
14 AIFMD article 3(l).

15 AIFMD article 22.

report, we have therefore used 2 as the cut off point above which the fund would be considered to be systematically leveraged under the Directive.

Figure 11 below sets out hedge fund assets under management by different amounts of leverage. It is clear from this that the most common amount of leverage to hold in a fund is between 1-2 with over 70% of assets under management in funds with leverage of this level. A further 20% of assets are in funds with leverage levels of 2–3 and only around 7% of assets are in funds with a leverage level greater than or equal to 3. No funds in this dataset had leverage above 12.[16]

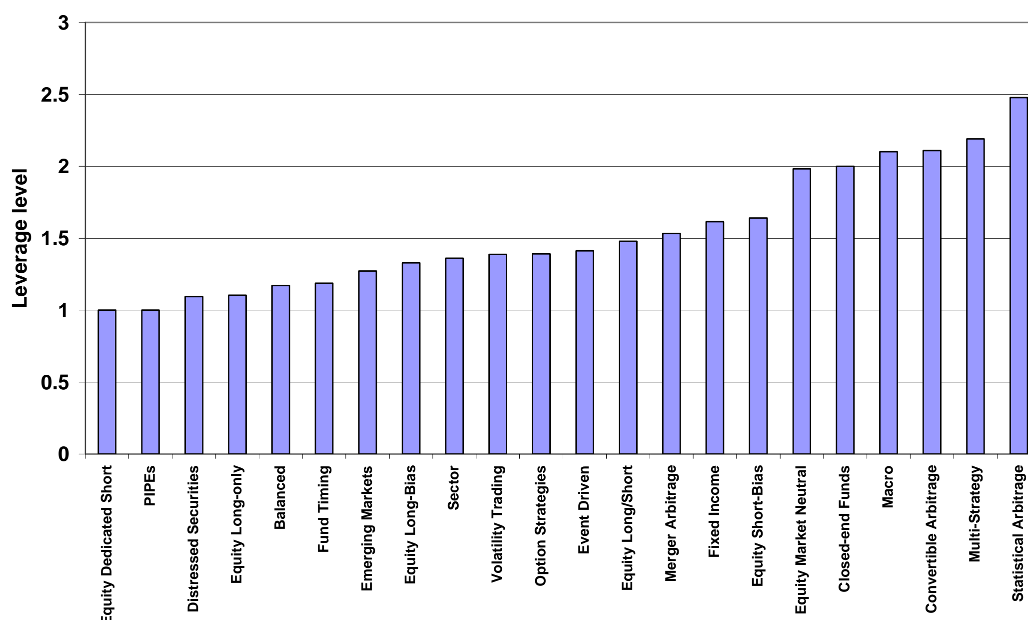
Figure 11: Global assets under management by leverage



Source: Information provided to CRA by the Centre for Hedge Fund Research at Imperial College London. Analysis based on data available as of early September 2009.

16 It should be noted that leverage ratios have declined during the financial crisis and therefore we would have expected to have observed higher leverage measures in the past.

Figure 12: Average leverage level by hedge fund strategy

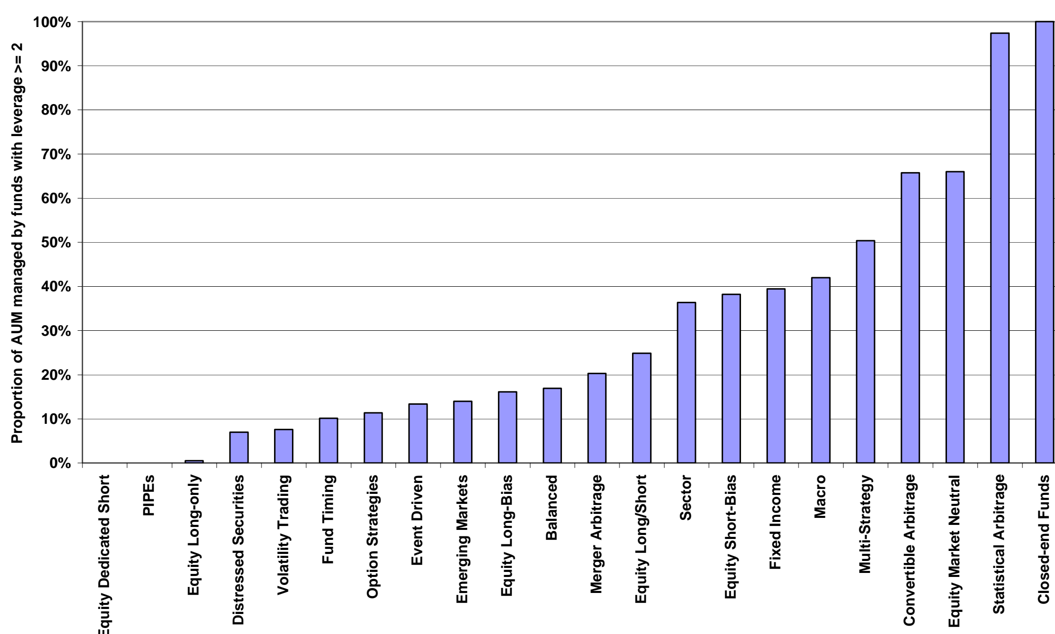


Source: Information provided to CRA by the Centre for Hedge Fund Research at Imperial College London. Analysis based on data available as of early September 2009.

In Figure 12 above it is clear that the extent of leverage varies by investment strategy. Funds which are “Equity Dedicated Short” have the lowest average leverage level at around 1, while “Statistical Arbitrage” funds are the highest with a level close to 2.5. Most types of funds have an average level less than 2. Only 4 out of 22 types have a level more than 2.

It should be noted that the definition of leverage which is used in this dataset (where calculated by the data provider) does not match that given in the Directive since it does not include leverage embedded in financial derivatives. As such, this data may underestimate the proportion of funds that would fall under the Directive’s definition of being systematically leveraged.

Figure 13: Proportion of assets under management in funds with leverage above 2



Source: Information provided to CRA by the Centre for Hedge Fund Research at Imperial College London. Analysis based on data available as of early September 2009.

In Figure 13 above it is clear that the proportion of assets under management in funds with a leverage level greater than or equal to 2 varies between types of fund, although the ranking of this chart is broadly in line with that in Figure 12 above. Funds with a lower average level of leverage generally have a lower proportion of AUM in funds with leverage greater than or equal to 2. Some caution does need to be applied to this result since the sample size for some of the types of funds is small.

2.1.4. Private equity and venture capital

Private equity and venture capital funds are vehicles that provide investors with the means to make long-term investments in private companies through a collective scheme. Private equity investments include large leveraged buyouts of public companies (in a public to private transaction) and acquisitions of mid-cap companies. Venture capital funds make early-stage investments in start-ups and smaller companies.[17]

Private equity funds typically take a large, if not complete, ownership interest in the underlying companies and play an active shareholder role. This may include increased oversight and provision of management or operational expertise. The high returns that private equity funds seek come from the use of leverage at the underlying companies, enhancing the efficiency of business units and investing in value-adding functions such as research and development.

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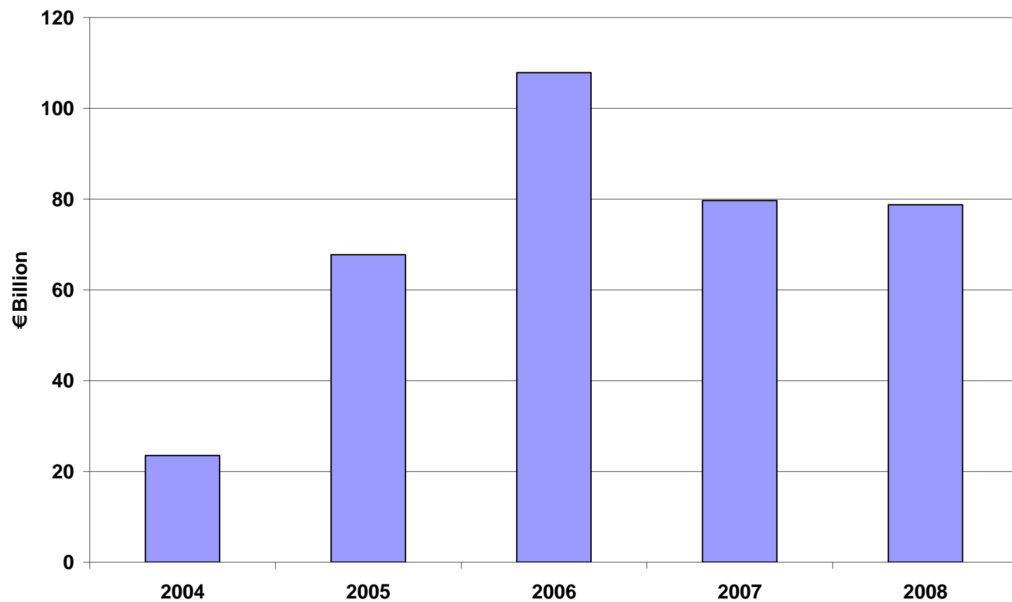
17 Venture capital funds are usually considered to be a sub-set of private equity investments although throughout the report we seek to separate the impact on venture capital funds from that on other (larger) private equity funds.

Funds raised by private equity

Fundraising by EU-managed private equity funds has increased substantially over the past five years. As shown in Figure 14 below, fundraising by private equity funds peaked in 2006 but has remained at a high level over the past two years. Fundraising from 2004 to 2008 totalled €357.5 billion.

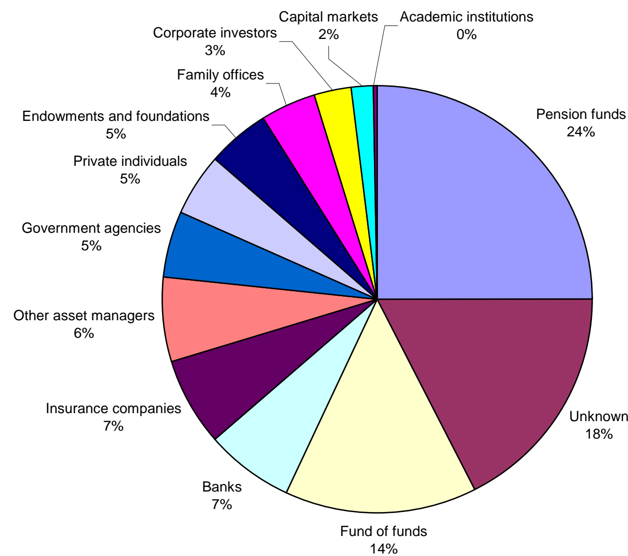
Figure 14: EU private equity and venture capital fund raising (€ billion)



Source: Provided to CRA by the EVCA

Private equity and venture capital funds raise money from a number of sources, including investors both within the EU and outside the EU. Figure 15 below shows a breakdown of funds raised by EU managed private equity and venture capital funds.

Figure 15: EU private equity and venture capital funds raised by investor type



Source: Provided to CRA by the EVCA

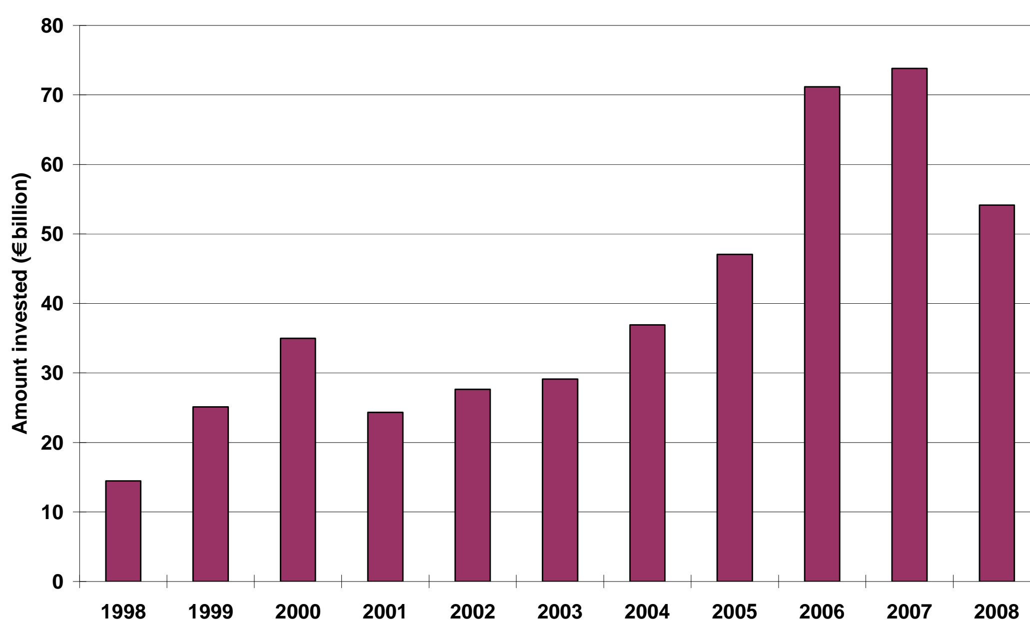
In addition it is estimated by the EVCA that there are around 4,200 private equity and venture capital funds managed in the EU.[18]

Investments made by private equity and venture capital

Investments in portfolio companies made by private equity and venture capital funds have also been growing in Europe. Figure 16 below sets out details on EU managed private equity and venture capital funds over time

18 Provided to CRA by EVCA

Figure 16: EU managed private equity and venture capital investment



Source: EVCA

Figure 16 shows that there has been a strong growth in the value of investments made by private equity and venture capital funds over the last ten years. This value peaked at €72 billion in 2007 and fell somewhat in 2008 to €52 billion, reflecting changing economic conditions.

Assets under management

As expected, since fundraising and investing by private equity has grown over the last few years so too have assets under management. Global private equity assets have grown to an estimated US$1.5 trillion (approximately €1 trillion) as of June 2009, of which 12% is estimated to be venture capital (approximately $180 million or €122 million).[19]

Private equity assets under management in Europe were estimated as reaching €180 billion in 2006 and €222 billion in 2007.[20]

Interview evidence has suggested that approximately half of UK private equity and venture capital funds are domiciled offshore (most commonly in the Channel Islands). Similar information across all European funds is not available; hence we have assumed that other European funds are domiciled within the EU. Since approximately 59% of

19 VentureXpert

20 The retailisation of non-harmonised investment funds in the European Union, PWC, October 2008.

European private equity funds are managed in the UK, we can estimate what proportion of the European private equity industry is domiciled within the EU.[21]

Table 4: EU fund domicile (€billion)

	Private equity	Venture capital
Funds managed in EU	195	27
Proportion of EU managed funds which are domiciled in EU	70%	70%
Funds domiciled in EU	***138***	***19***

Source: CRA calculations. Funds managed based on €222 billion noted above. Venture capital assets under management represent approximately 12% of total private equity.

2.1.5. Real estate funds

There are a number of investment vehicles that exist to provide investors with exposure to real estate assets including:

- Open-ended retail investment funds;
- Closed-ended real estate funds;
- Real estate investment trusts (REITS), which are property funds with special tax treatment;
- Insurance related products with unit values based on underlying property portfolio; and
- Direct investment in property.

The latter two options are not AIF and therefore excluded from the Directive (which has implications for substitutability in section 3.3.2).

Direct holding of real estate assets by companies and individuals dominates investment through real-estate investment funds, but using investment vehicles has become increasingly important over the last 20 years.[22] Assets managed by institutional and retail fund managers grew threefold over the ten years between 1998 and 2008. Estimates of the total size of the market are based on:

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21 Approximately 59% of European private equity funds are managed in the UK based on assets under management (based on BVCA Report on Investment Activity 2008). Of this, around half are domiciled offshore (based on evidence from interviewees). We conclude that 50%*59% = 30% are domiciled offshore. We assume that all of the 41% of European funds that are managed outside the UK are domiciled within the EU. As such, estimating that 70% of European funds are domiciled within the EU may be an overestimate.

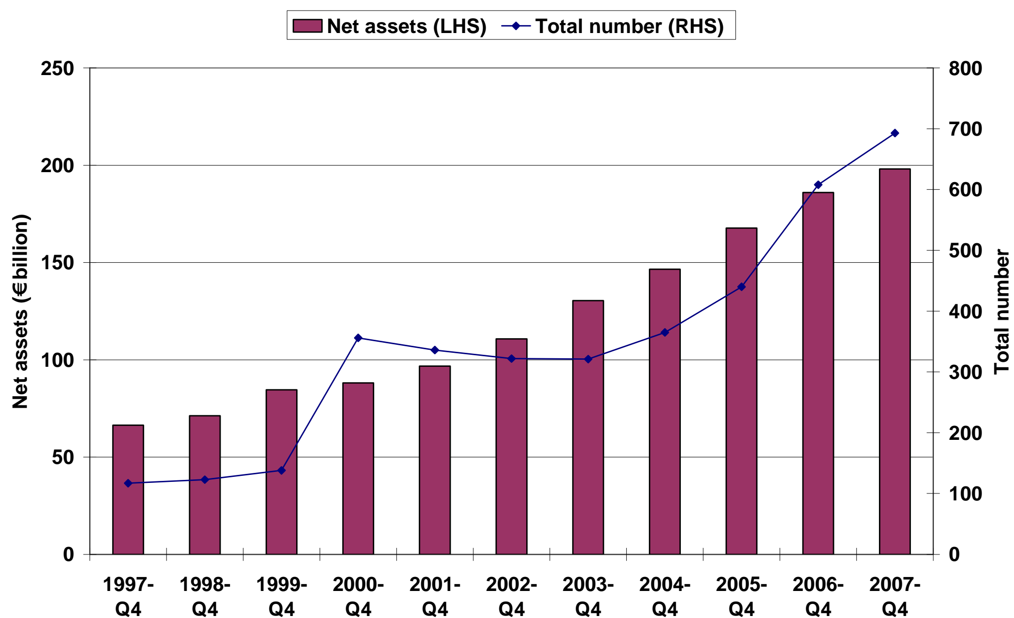
22 EC, Expert report on open-ended real estate funds, March 2008

- The EC's expert group which estimated that European fund managers managed €224 billion in 2008; and
- EFAMA which estimated at the same time that a further €30 billion was invested in nationally regulated closed-end real estate funds.

We therefore use an estimate of €254 billion in our calculations. In comparison the market value of listed property companies accounted for €327 billion at the end of 2006.

Figure 17 shows how the value of assets managed by European fund managers has changed since 1997.

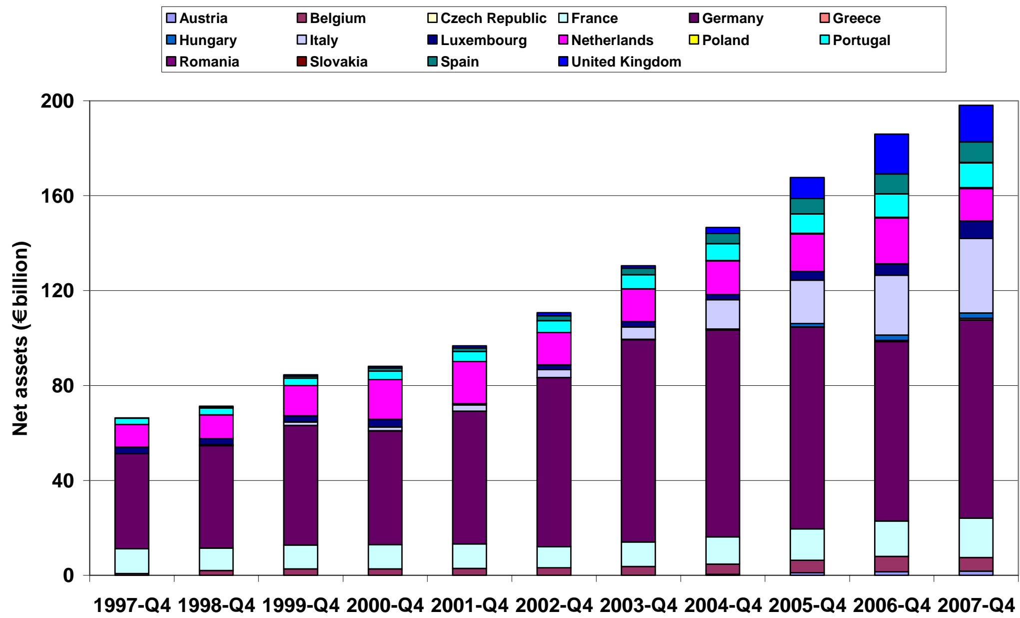
Figure 17: Total number and net assets of real estate funds domiciled in the EU



Source: EFAMA fact book 2008, p284 and p297.

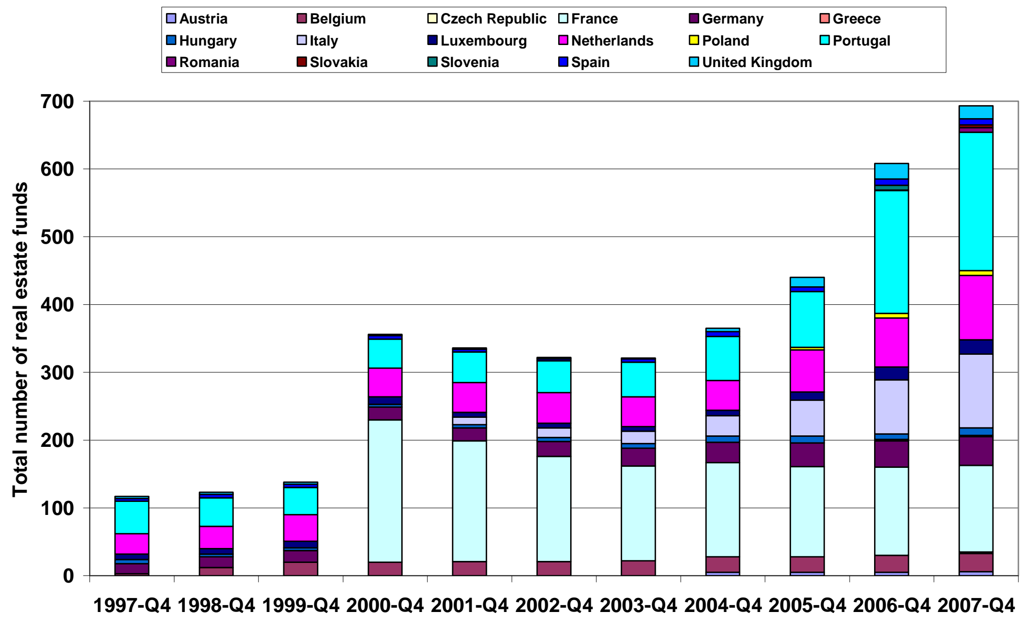
Figure 18 and Figure 19 below provide the information on the development of the industry from 1997 to 2007 by the domicile of the fund.

Figure 18: Net assets of real estate funds domiciled in the EU



Source: EFAMA fact book 2008, p284.

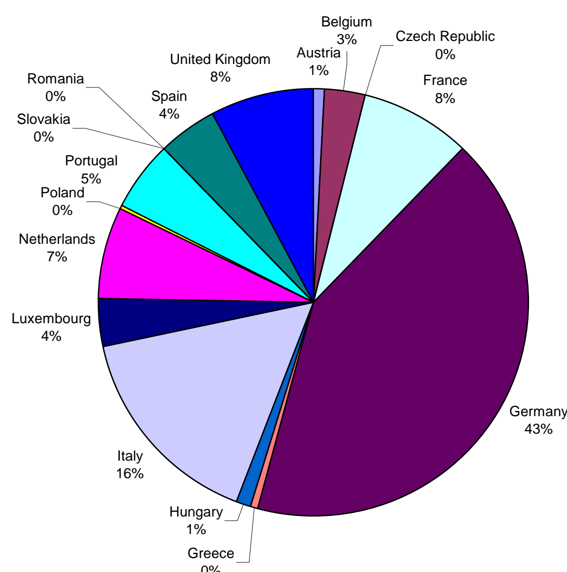
Figure 19: Number of real estate funds domiciled in the EU



Source: EFAMA fact book 2008, p297.

Figure 20 below shows the distribution of real estate funds in terms of net assets.

Figure 20: Distribution of real estate funds assets domiciled in the EU as of Q4 2007



Source: EFAMA fact book 2008, p284

It is clear from Figure 20 above that Germany is by far the largest market by domicile, with more than 40% of assets under management in regulated real estate funds. Together with Italy, France and the UK, these four largest markets account for 75% of net assets.[23] The popularity of these funds in Germany in part reflects their long history there compared to other countries, as well as the fact that these funds have been designed so that they can be sold to retail investors as well as professional investors.[24]

In terms of the location of investors in real-estate investment funds, the European market is seen as highly fragmented, with investors largely investing in funds managed and domiciled in their own country. The Expert report concluded that within Europe it is usually impossible to promote open-ended real estate funds across borders (at least to retail investors). However, it is not possible to determine the degree to which this is true for professional investors. The German fund management association, the BVI, has also stressed the need for a passport in order that real estate funds can be sold across borders.[25]

The UK market is of particular interest because of the importance of funds domiciled in a third country. Based on industry statistics, there are approximately 105 collective real

23 EFAMA

24 EC, Expert report on open-ended real estate funds, March 2008

25 Draft EU Directive on Alternative Investment Fund Managers (AIFM), Comments by BVI Bundesverband Investment und Asset Management e.V.

estate funds operating in the UK. These have net assets of approximately €30 billion and gross assets of approximately €60 billion.[26]

Evidence from interviews indicates that most retail investment funds are domiciled where the assets are managed. However, the UK is unusual as a significant proportion of the funds are domiciled in Jersey. Of the €30 billion of assets, 25% are believed to be domiciled in Jersey. In practice, the investment adviser will be based in London, advising on the asset management.

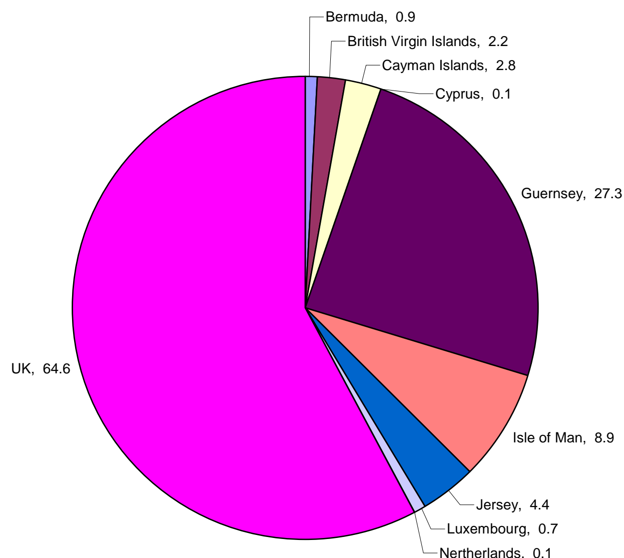
In terms of exemptions, many real-estate funds will be affected by the AIFMD as they tend to be quite large. In the UK, the average fund has assets (allowing for gearing) of over €500 million.

2.1.6. Investment trusts

The investment trust sector is a relatively small industry with 392 investment companies managing €112 billion (£96 billion) of assets. In terms of the number of companies, 218 or 56% are domiciled in the EU with the remaining 174 (44%) domiciled outside the EU.

Figure 21 below shows the breakdown of assets under management in investment trusts by domicile.

Figure 21: Investment trust AUM by domicile (€ billion)



Source: Provided to CRA by AIC based on data as at 31 August 2009, CRA calculations.[27]

26 Property Data Report 2009.

Figure 21 above demonstrates that the majority of investment trust assets are domiciled in the UK. In total around 42% of assets are domiciled outside the EU, with the UK offshore centres (Guernsey, Jersey and the Isle of Man) the main non-EU locations.

Interviews with the industry have indicated that a substantial majority of investment trust investors are within the UK. However, they have noted that it is very difficult to analyse share registers with any degree of accuracy since many investors hold shares through nominee arrangements, and the geographical location of the nominee may not be the same as the end investor. For simplification we have assumed that all investment trust investors are in the UK.

2.2. Theoretical impact of AIFMD

In this section we set out an overview of the main issues contained within the AIFMD. We also set out the market impacts we might expect from each of the various different articles from a theoretical perspective. Many of the impacts might be expected to be beneficial in theory but examination of whether these benefits arise in practice is considered in the remaining chapters. In addition, some of the impacts might be neither intended nor considered to be desirable, but would be expected from a theoretical perspective nonetheless.

For convenience we do not include compliance costs in this part of the discussion, although these would be expected to arise in respect of most components of the Directive. In this context it is notable that some aspects of the Directive overlap with requirements from other European Directives, such as MiFID, and compliance costs might be expected to be increased if AIFM have to comply with requirements under both Directives. Compliance costs are considered in Chapter 6 and any additional costs because of this overlap should be captured in the calculations provided there.

Finally, the extent of any impact is likely to vary according to the different fund types that are covered by the AIFMD. This section does not seek to differentiate between fund types, although Chapters 3-6 assess differential impacts by fund type wherever appropriate.

2.2.1. Scope

Articles 2 and 3 indicate that the Directive applies to all AIFM established in the EU which provide management services to one or more AIF unless:

- AIFM assets are less than €100million or €500 million when the portfolio is not leveraged and has no redemption rights during 5 years following the start of each AIF; or

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27 Figures relate to conventional investment companies and split capital investment companies. They exclude venture capital trusts in order to avoid double counting with data on the venture capital sector, although only around £2.1 billion of assets are categorised as venture capital trusts (all of which are domiciled in the UK).

- The AIFM do not provide management services to AIF domiciled in the EU and do not market AIF in the EU.

In addition, UCITS, credit institutions, institutions for occupational retirement provision, insurance companies, and supranational bodies are excluded from the scope of the directive.[28]

Marketing is defined such that it includes any general offering or placement of units/shares to investors domiciled in the EU regardless of whose initiative the offer or placement is at.

The scope of the directive is important as we might expect these requirements to lead some AIF or AIFM to seek to ensure that they are excluded from the Directive by keeping assets under management below the prescribed threshold, by removing leverage or imposing limits on redemption rights. In addition, we would expect to see institutions which are excluded from the scope of the directive developing similar substitute products for sale.

2.2.2. Authorisation

Articles 4-8 require that AIFM be authorised in the member state in which its registered office is located. This involves providing information to competent authorities (i.e. the relevant regulator or supervisor in each member state) about each AIF which is managed, plans for delegation of different services and changes in scope of activities (including new AIF). Competent authorities must inform applicants whether authorisation has been granted within two months of the application, or within one month after any changes are notified.

We might expect authorisation requirements to lead to increased investor confidence in the AIF because of the knowledge that the fund manager has met regulatory standards. In addition there might be a reduction in the number of AIFM in the EU because some AIFM chose not to be authorised.[29]

2.2.3. Management of conflicts, risk and liquidity

Table 5 below sets out the main impacts theoretically expected from requirements related to managing conflicts, risk and liquidity.[30]

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28 It should be noted that some interviewees have suggested that the exclusion for institutions for occupational retirement provision could imply that pension funds are excluded when acting as investors. Such an interpretation has not been followed in the assessment.

29 In addition, we might expect to see some degree of regulatory arbitrage as certain member states seek to attract AIFM to domicile in their country or because competent authorities in those locations are faster in authorising fund managers or funds. We have not examined this issue further in the report.

30 In addition, Article 9 requires that AIFM act honestly, fairly and in the best interests of the AIF, investors and the integrity of the market.

Table 5: Management of conflicts, risk and liquidity

Issue	Details	Impact
Conflicts of interest (10)	Identify and prevent conflicts	Benefits for investors from a reduction in asymmetric information; change in business model from conflicts within value chain
Risk management (11)	Separate functions and reviews for risk management and portfolio management, risk management systems with stress testing, ensuring risk profile corresponds to objectives of AIF, procedures to ensure short sellers can deliver the securities	Improvements in risk management implying an increase in investor confidence from risk being in line with fund and investor objectives
Liquidity management (12)	Appropriate liquidity system that is stress tested and liquidity in line with redemption policy. Minimum requirements will be set if units are redeemed more often than half-yearly	Benefits for investors from ensuring that they can obtain access to their assets as expected, reduction in default risk due to liquidity constraints

Source: CRA analysis.[31] Numbers in parentheses refer to the Article in the Directive.

2.2.4. Capital requirements

Article 14 requires AIFM to hold capital of the greater of €125,000 plus 0.02% of any amount by which the value of assets under management exceed €250 million or requirements under the Capital Requirements Directive (CRD) setting out the need to hold capital equivalent to 25% of the preceding year's fixed overheads.[32]

These requirements would be expected to reduce the risk that the AIFM itself is placed into liquidation due to mis-management or other reasons. It would also reduce the risk of a disorderly run down or disorderly transition of funds under management to a new asset manager, instead enabling these activities to be conducted in a smooth manner funded by the capital held.

2.2.5. Valuation, depositary and delegation

Table 6 below sets out the main impacts theoretically expected from requirements related to the valuator, depositary and any delegation that occurs.

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31 In order to prevent distortions between sectors, Article 13 states that implementing measures are expected to be applied relating to restrictions on the originator of securitisations must be fulfilled for AIF to invest in them. Article 15 requires AIFM to use adequate and appropriate resources and have documented internal procedures and regular controls of their conduct of business. These aspects of the Directive have not been examined.

32 Article 21 of Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (recast).

Table 6: Valuator, depositary and delegation

Issue	Details	Impact
Valuation (16)	Independent valuator to be appointed	This would be expected to reduce asymmetric information between the AIFM and the investor and therefore increase investor confidence
Depositary (17)	Depositary to be appointed to receive payments, safe-keep financial instruments and verify ownership	Reduces default risk, increases investor protection and confidence from presence of depositary. Potential change in business models where some depositary functions are being conducted by institutions that may face a conflict of interest with investors
	Depositary must be an EU registered credit institution and not an AIFM Depositaries are liable for losses due to failure to perform its obligations	Restriction of competition between depositaries and potential concentration risk. Possible withdrawal of depositaries from markets where liability is of high concern
Delegation (18)	Portfolio management or risk management can only be delegated to AIFM authorised to manage an AIF of the same type. No delegation to depositary or valuator	Increased investor protection, restriction of choice and efficiencies in the value chain, reduction in default risk

Source: CRA analysis. Numbers in parentheses refer to the Article in the Directive.

In addition to these requirements in Articles 16-18, Articles 35-38 (see section 2.2.9) related to activities conducted in third countries also place restrictions on these functions. For example, an independent valuator established in a third country can only be appointed if standards in that country are considered to be equivalent to the standards in the EU.

Similarly, the depositary of an AIF domiciled in a third country can only delegate functions to a sub-depositary domiciled in the same country if standards are considered equivalent to the EU.

2.2.6. Transparency

Articles 19-21 impose requirements concerning transparency of information related to the AIF. This includes the need to provide an audited annual report, and disclosure of information to investors in advance about issues including the investment strategy, identity of depositary, valuator, auditor, valuation procedure, liquidity risk management and charges. In addition, information is required to be disclosed to competent authorities on trading, risk profile and risk management, liquidity, asset profile, and historic short selling.

Disclosure to investors is expected to reduce asymmetric information and increase investor confidence about investing in the fund. In addition, it should enable a greater ability for investor to match the AIF to their investment objectives and facilitate increased monitoring and competition between AIF.

Disclosure to competent authorities is expected to bring about improved regulatory oversight of AIF including with respect to systemic risk.

2.2.7. Requirements specific to certain funds

Table 7 below sets out the main impacts theoretically expected from requirements related to leveraged AIF and to funds which have a controlling interest of a company in the EU. As such, unlike other requirements in the Directive as currently drafted, these requirements will only apply to specific funds.

Table 7: Leverage and controlling interest

Issue	Details	Impact
Leveraged AIF (22-25)	The leverage requirements apply to AIF when combined leverage from all sources exceeds the value of equity capital of the AIF in two out of the past four quarters Disclose to investors maximum level of leverage, quarterly leverage used Disclose to regulators breakdown of leverage from cash, securities, derivatives, five largest sources of borrowed cash or securities for each AIF and regulators to make available to other competent authorities Limits to leverage to be applied by EC taking into account the type of AIF, strategy and source of leverage. Competent authorities able to apply additional limits when required for stability of financial system	Reduction in asymmetric information and improved investor confidence, improved ability to match fund with investor risk appetite Benefits from improvement in monitoring of leverage and in market stability Reduction in use of leverage or in particular types of leverage in turn potentially affecting systemic risk Leverage caps themselves may impact systemic risk
Controlling interest (26-30)	The controlling interest requirements apply to AIFM which acquire more than 30% of a company domiciled in the EU unless an SME (employ fewer than 250, turnover not exceeding €50 million and/or balance sheet not exceeding €43 million) AIFM must notify a non-listed company and all other shareholders that it has 30% voting rights Must disclose information to shareholders, company and employees of non-listed companies on conflicts of interest, communications, development plan Annual report (which must be provided to employees) must disclose revenue and earnings by business segment, progress on activities, financial risks, employment turnover, terminations and recruitment, statements on significant divestments, overview of management arrangements Where shares are no longer admitted to trading on a regulated market, disclosures under the Transparency Directive must continue for two years	Reduction in asymmetric information for investors and improved investor confidence Reduction in asymmetric information between AIF and employees, other shareholders and the public, associated loss of intellectual property for AIFM and investors

Source: CRA analysis. Numbers in parentheses refer to the Article in the Directive. One concern raised in the impact assessment is that employees do not enjoy the same protection and rights when a company is acquired by private equity as is the case when a transfer of undertaking occurs. Underlying this concern is the desire to ensure that labour is treated equally in both situations and is in a position to influence and give direction to major strategic changes affecting the company. We do not consider this aspect of employment issues.

2.2.8. Marketing and passporting

Articles 31 and 32 require that AIFM submit notification of marketing an AIF to competent authorities, who have 10 days to approve this. Member states can impose stricter requirements on AIF which will be marketed to retail investors in their country.

This is expected to lead to increased investor confidence in funds, since they have met regulatory standards. In addition, access to retail investors may bring benefits to these investors. It should be noted that we have not considered the impact of the Directive on retail investors since, in the current proposals, the passport is only available to AIFM for the purpose of marketing to professional investors.

Article 33 requires an AIFM to notify its home regulator when it intends to market an AIF in another member state (with the competent authority required to transmit this information to the host member state at which point the AIFM can commence marketing). Article 34 enables an AIFM to provide management services of an AIF domiciled in another member state.

These "passporting" requirements might be expected to enable AIFM to market their funds to a wider set of investors in different member states and reduce the costs associated to marketing in other member states. This should expand the investment options for investors and lead to increased competition and greater efficiencies in the market.

2.2.9. Third countries

Articles 35-39 impose various restrictions on the ability to market or structure funds in third countries (i.e. outside the EU). For example:

- AIF domiciled in third countries can only be marketed to investors in a member state if the third country has signed an agreement with the member state which complies with the standards in the OECD Model Tax Convention;
- Administrative functions can only be delegated to countries with a co-operation agreement between competent authorities;
- Valuator and depositary functions can only be delegated to countries where rules are equivalent to those in the Directive; and
- AIFM established in third countries can only be marketed in the EU if legislation is equivalent to the provisions of the Directive, there is reciprocal market access, co-operation agreements in place, and the country complies with standards under the OECD Model Tax Convention.

In the case of the valuator, depositary and AIFM domiciled elsewhere, the EU will adopt further implementing measures regarding equivalence.

These requirements are expected to lead to increased investor confidence through ensuring that all aspects of the value chain meet regulatory standards in the EU. At the same time they could be expected to lead to a reduction in the range of AIF available since third countries may not meet these standards. Finally they would be expected to lead to reductions in the efficiency of the structure of the whole value chain, as various functions may need to be undertaken within the EU rather than in third countries (where they are undertaken today).

2.2.10. Other components of the Directive

Articles 40-44 place requirements on the abilities and powers of competent authorities. Articles 45-48 require co-operation between competent authorities in different countries. We have not considered the impact of these elements of the Directive.

Articles 49-54 include requirements related to transitional requirements and transposition. We have not considered the impact of the transition but have instead focused on the resulting impacts after the transitional period.

However, it should be noted that, under Article 54, the ability for AIFM established in third countries to be marketed in the EU is only possible three years after transposition of the Directive indicating EU investors would not have access to such funds during this three year period.

Finally, it is unclear from the Directive whether the Directive is intended to be forward-looking only and therefore include “grand-fathering” of existing funds or whether all funds and existing investments will be captured under the Directive. If grand-fathering does not apply it is also unclear how existing investments will be dealt with where they have been made with AIFM that are not authorised under the Directive e.g. whether fund managers would be obliged to return money to investors.

2.3. Methodology

2.3.1. Approach to impact assessment

In undertaking this research we have applied the standard approach to impact assessments or cost benefit analyses (CBAs) by seeking to quantify the costs where possible as well as setting out qualitative evidence on the benefits. We have been mindful of the FSA’s standard approach to CBAs in respect of assessing the impacts on quality, quantity, variety and efficiency as well as compliance costs associated to meeting the requirements of the AIFMD.

In Chapters 3 to 5 we have also sought to set out the “causality tree” indicating the different components which need to be in place in order for effects to be seen from the

Directive.[33] This is an important part of the methodology since it allows us to investigate whether all of the necessary steps are in place for impacts to arise, or whether some anticipated effects of the Directive do not occur because of issues such as the availability of substitute products, or methods of getting around the Directive requirements, as well as considering whether the Directive would have unintended consequences.

It should also be noted that, given the timescale for our research and the stage of developments of the AIFMD, we have not sought to provide cost estimates of complying with all parts of the Directive. Instead we have focused on those areas where interviewees have indicated that the costs are likely to be most significant. In addition, given considerable uncertainty regarding some of the interpretations of various aspects of the Directive, firms were not always able to provide sufficient information on their likely responses to all parts of the Directive. In these cases, we set out from a qualitative perspective whether costs are likely to be significant.

Our aim has been to provide a European impact assessment, hence the interviews have included European trade associations, European AIFM and UK trade associations (since a substantial proportion of the management of the AIF industry is located in the UK). However, we have not undertaken specific interviews on AIF important in other European member states (for example, French employee savings funds, and special or institutional funds such as the German "Spezialfonds").

As such, this research cannot be considered to represent a full CBA. In addition, there are a number of aspects of the AIFMD where the EC has indicated that detailed implementing measures will be developed over time. Once detailed proposals are available regarding these issues, their impacts would also need to be assessed.

2.3.2. Additional assumptions required to assess the impact of the Directive

In a number of areas the way that the Directive is implemented will only be determined at a later date. In these cases, assumptions need to be made as to how this would work in practice.

For example, the current draft of the Directive indicates that the EC will determine whether or not third countries are considered to have equivalent regulation to that in the Directive. This decision will occur after the adoption of the Directive and therefore at present no non-EU country can be assumed to have met the equivalence test. If regulation in other countries were considered to be equivalent, this would limit some of the impacts from the Directive identified in the report. Similarly, rules on leverage will be determined at a later date, and therefore in order to assess the likely impact of the Directive we have made assumptions based on current information in the proposed Directive.

In addition to the requirements included within the Directive, when assessing the impact it is necessary to be clear about whether other changes are expected alongside the

33 For further examples of the causality tree approach, see for example, Evaluation of the economic impacts of the Financial Services Action Plan, Charles River Associates, March 2009.

Directive. A number of interviewees have stressed concerns about possible retaliatory action by the US or other countries. For the purpose of this research we have assumed that the regulatory conditions elsewhere remain unchanged.

Finally, the Directive also allows for a transition period and it may be the case that impacts are seen within this period. The way the transition period is used will depend on decisions made by different member states. For the purpose of simplification we have not examined any issues to do with the transition but have instead focused on the outcome after any transition period has occurred.

3. INVESTOR CHOICE

One concern that has been expressed regarding the impact of the AIFMD is that the investment opportunities for investors will be reduced. A large number of AIF and AIFM are domiciled in third countries and are currently used by EU investors. Market participants have indicated that one potential impact from the AIFMD is that AIFM and AIF may be withdrawn from the EU and no longer be available to European investors. This chapter considers the factors that need to be in place for this to be the case and also the impact on investors in terms of both the choices that they have available to them and the potential impacts of changes in investment opportunities on the returns that they would expect to make.

Setting out our causality tree analysis, there are a number of different issues that need to be addressed to assess the extent to which investor choice will be affected and we structure the rest of this chapter around these issues.

In section 3.1 we consider benefits associated to transparency of information about funds which would be expected to reduce asymmetric information, enable investors to better match their investment objectives with the strategies of funds, as well as enhancing competition between funds.

In section 3.2 we examine whether the AIFMD would be expected to lead to a change in the number of AIF available to European investors. This includes examining:

- Whether AIF available to some European investors might be available to a wider range of investors in other member states because of the passporting abilities under the Directive;
- Whether some funds would be expected to withdraw from Europe because of the costs of complying with the Directive and, if so, whether the funds that are withdrawn are of a particular type such that there are systematic differences in the AIF that remain available to European investors compared to those that are no longer available; and
- Whether, if some funds are withdrawn from Europe, other funds that remain would be able to expand in size such that investors would be able to switch money from funds which exit the EU market to those that remain.

Even if some funds are withdrawn from marketing to European investors, it is possible that investors can still gain access to these investment strategies. Hence in section 3.3, we examine whether it is possible for EU investors to “get around” the legislation either directly or through the use of substitute products.

If funds are withdrawn from the EU and investors can no longer gain access to investment strategies, there may be little cost associated with this if the use of these funds do not, in themselves bring benefits to investors. Section 3.4 therefore examines the theory and practice surrounding diversification and efficient portfolios to establish whether using alternative investments would be expected to bring benefits to investors (and therefore whether losing access to these investments would impose costs on them).

Section 3.5 then draws together the information on these different elements of the causality tree in order to assess whether there is likely to be an impact on the investment returns made from these AIF. In addition to any changes in investment returns which result from changes in investment opportunities, investors will also face impact on returns which result from the costs of complying with the AIFMD. These costs are not considered in this chapter but are instead examined in chapter 6.

3.1. Improved choices due to enhanced transparency

The AIFMD requires various pieces of information to be provided to investors related to the strategy and performance of different funds. In theory we would expect this to lead to a reduction in asymmetric information about the fund and to increase investor confidence about investing in the fund. In addition, it should enable a greater ability for investors to match the AIF to their investment objectives and facilitate increased monitoring and competition between AIF.

While all investors and their representatives welcomed the transparency requirements, they thought that benefits would be relatively limited. Since AIF investors are professional investors it is recognised that these investors already have the ability to obtain and process information related to AIF. A number of large investors that we interviewed stated that they did not believe that they currently suffered any harm because they believed that they already had sufficient information. Furthermore, they indicated that if they wanted additional information they found fund managers co-operative in providing it. As such, they did not value the additional transparency from the Directive.

However, it should be noted that this was the case for very large investors and it was recognised that smaller professional investors may have struggled to obtain the information which they desired. This issue also varied across different types of funds, with few interviewees believing that there was any current lack of information regarding investment trusts, real estate or private equity funds, but more concern being expressed regarding hedge funds (although interviewees did not indicate that specific information on leverage was of particular value). In turn this indicates that greater benefits from improved transparency would be anticipated in the hedge fund sector compared to other alternative investments.

3.2. Expected change in AIF marketed to EU investors

In this section we examine whether the AIFMD would be expected to lead to a change in the number and type of AIF available to European investors.

3.2.1. Passporting

Articles 33 and 34 allow AIFM to market AIF in other member states and AIFM to provide management services to AIF domiciled in another member state. During the course of interviews with market participants we investigated the potential benefits that this would bring in terms of efficiency, market access and ultimately benefits for investors. It is important to note that the interviews focused predominantly on the potential benefits from the marketing passport.

Passporting requirements are expected to bring benefits to investors through:

- Increasing the investment opportunities for some investors who previously have not had access to particular types of funds; and
- Allowing funds to be provided more efficiently by allowing them to exploit economies of scale and arrange the activities in the value chain in an efficient manner and hence at low cost. Since AIFM would be able to market a fund domiciled in one jurisdiction to investors across all member states they can potentially have fewer and larger funds than when funds are only marketed to the member state in which they are domiciled.

The potential success of passporting for AIFM is clear from the analogy of the success of the UCITS passport which has provided benefits to the European economy through widening choices, reducing the costs of distributing in other member states and leading to economies of scale in different parts of the value chain (although it is also the case that further efficiencies could still be exploited).[34]

By contrast, the EC has identified fragmentation of the AIF market as a potential problem,

> *"the fragmented approach to the regulation of AIFM may also have significant implications for the efficiency of European financial markets and the development of the single market."* [35]

As reported by the EC, the divergent and distinct national standards and approaches to conditions under which AIFM can distribute AIF on a cross-border basis result in legal and regulatory obstacles to the cross-border distribution of AIF. They manifest themselves in a number of areas including requirements related to disclosure documents, restrictions on marketing and promotion and on who can approach prospective investors, differences in the definitions of eligible investors, and differences regarding prior approval or registration of instruments.

The EC concludes that:

- AIFM incur much of the cost and legal risk associated with these transactions, facing burdens associated with compliance with multiple regimes. This constrains cross-border business and impacts the efficiency of AIF markets as AIFM are unable to exploit economies of scale;
- Investors' choice of investment propositions and their potential for portfolio diversification are significantly restricted in smaller markets due to the barriers and obstacles described. This is also compounded by differences in national provisions

34 Potential cost savings in a fully integrated European investment fund market, Charles River Associates, September 2006.

35 Commission Staff Working Document, Accompanying the Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/…/EC, Impact assessment SEC (2009) 576, 30 April 2009, page 24. Hereafter, "Impact assessment".

regarding investor protection and disclosure documents. They also note that increased competition among AIFM could also benefit professional investors through lowered costs and/or improved performance; and

- Fragmentation along national lines deprives companies across Europe from access to funding. Since neither companies nor AIFM can exploit fully the benefits of the single market, this leads to a sub-optimal capital allocation in European economies. Existing restrictions of fund-raising prospects for venture capital funds in particular can have an adverse impact on the financing of small and medium-sized companies and of innovation.

There is therefore significant evidence regarding the regulatory differences between markets and the types of issues which impose additional cost burdens on AIFM that seek to market AIF in multiple member states. However, there are also a number of factors that might limit the extent of potential benefits:

- AIFM are largely purchased by professional investors that are confident to purchase directly across member states (and globally). As the EC sets out, the investor base of many AIFM business models is highly international, as investors seek to optimise and diversify their portfolios by seeking investment opportunities in other countries;[36]

- The extent to which economies of scale exist would be expected to depend on the type of AIF under consideration and its strategy. For example, because private equity and venture capital funds are often involved in the management of, or provision of advice to, the underlying portfolio company, economies of scale will be limited. By contrast, those investment trusts that invest in broad equity categories are likely to see more opportunities for economies of scale;

- As with UCITS, scale economies do not have to arise only at the level of the whole fund, but instead can be derived from the aggregation of fund management and administration in specialist centres. This can happen even if the underlying funds are aimed at national markets. Benefits of the passport at the overall fund level therefore depend on the extent to which economies of scale have already been exploited throughout the value chain. Different parts of the Directive have opposing impacts on this since some aspects enable funds to exploit these efficiencies across Europe if they are not already doing so, while other parts of the Directive risk removing efficient value chain structures by requiring components to be undertaken within the EU that are currently organised efficiently across the globe;

- Passporting benefits are limited if member states, through history or culture or tax rules, favour different types of AIF or specific structures of AIF; and

- AIFs cover a wide range of different instruments, some of which (such as listed instruments), can already be passported through the Prospectus Directive. Similarly, some funds of hedge funds can already qualify for the UCITS regime, suggesting that some of the benefits will already have been exploited.

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36 Impact assessment page 14.

Interviews with market participants have indicated that the potential benefits from a passport depend on the type of fund under consideration:

- Hedge fund providers believe that the cost-saving from passporting allowed by AIFMD could be significant. It is clear that passports could allow both greater choice and allow funds to exploit some cost advantages;

- Private equity and venture capital funds were supportive that this could bring greater regulatory certainty and reduce costs. This would be a benefit in overcoming fragmented regulations that require them to go through a distributor or country specific entity during fundraising efforts;

- Real estate funds indicated that the passport was potentially very valuable. Currently the markets for real estate funds in countries such as the UK and Germany are highly fragmented and the passport could allow greater choice for investors and economies of scale to be exploited. Indeed, the BVI has stressed the advantages of the passport in this regard;[37] and

- For investment trusts, although a passport was welcome in principle, in practice these were seen as UK vehicles for UK investors. The benefits from the passport were not seen as significant, as passporting was already available through the Prospectus Directive and barriers in different markets were due to cultural and tax issues.

The position of small funds that are outside of the scope of the Directive is unclear in respect of the potential use of the passport. For the purpose of calculations in section 3.5 we have assumed that these funds remain accessible to EU investors.

The experience of the UCITS Directive also provides a useful guide as to the likely benefits from passporting. One of the impacts of this Directive has been to concentrate administration in Ireland and Luxembourg (partly linked to favourable tax regimes), indicating that some member states are likely to gain and others lose. In addition, it should be noted that the experience of UCITS has been that it has taken a considerable length of time to obtain efficiencies in the market since the first UCITS directive was in 1986 (although technological advances are likely to mean gains would be faster under AIFMD than under UCITS).

3.2.2. Systematic differences between AIF which are withdrawn from EU and those that remain

It is clear from section 2.1.3 that AIF do not represent a homogeneous set of funds but rather represent a very wide set of different types of funds (hedge funds, real estate funds, private equity etc), and a variety of investment strategies within this.

In the case of real estate funds and investment trusts, there was no indication that interviewees believed that a particular type of investment strategy may no longer be available. Within private equity and venture capital, interviewees were unable to identify a

37 Draft EU Directive on Alternative Investment Fund Managers (AIFM), Comments by BVI Bundesverband Investment und Asset Management e.V.

specific type of fund that they might lose access to, but instead were concerned about losing access to specific individual funds that they wanted to invest in. Given the substantial variation in the strategies of private equity and venture capital funds this was considered to be a significant concern in this sector. Access to funds which are currently domiciled outside the EU was particularly concerning for investors in hedge funds because 95% of hedge funds are domiciled outside the EU.

In the hedge fund sector there is also more heterogeneity of strategies. There were two particular areas where specific types of fund might be withdrawn from the EU:

- Funds which employ high leverage – given that the AIFMD may impose restrictions on the extent of leverage that can be used in funds, this would be expected to lead to EU investors no longer having access to funds with high leverage. As noted in section 2.1.3, approximately 27% of hedge fund assets under management are held in funds with leverage greater than 2;[38] and

- Funds types which are only domiciled outside the EU – there are a number of strategies including Balanced, Closed-end Funds, Equity Dedicated Short, Equity Short-Bias, Fund Timing, Merger Arbitrage, PIPEs and Statistical Arbitrage which do not have any funds domiciled within the EU. As noted in section 2.1.3 these strategies represent around 1.6% of the value of assets under management.

In addition to these issues, one of the concerns related to restrictions in delegation is that portfolio management can only be delegated to other authorised AIFM. However, at present it may be the case that some aspects of the management of funds are delegated to entities which are local to the underlying securities being traded. For example, if funds include investments across Asia, these components of the fund may be managed from Singapore rather than from the EU. It is possible that this leads to restrictions in terms of the geographical diversification of funds that might be available under the AIFMD. In practice interviewees have indicated that such restrictions could be circumvented either by relocating activities (costs for which are estimated in Chapter 6) or by changing the function from undertaking the management of certain activities to providing advice on the management of those activities.

Finally, investors have expressed considerable concern about no longer being able to access specific funds or fund managers that they believe represent the “best in class”. Hence in addition to the reduction in the quantity of funds available, there is likely to be a reduction in both the variety of funds and also the quality of funds which EU investors can access.

3.2.3. Expansion in size of AIF

Even if a number of AIFM chose to withdraw from serving the EU market, EU investors could respond by simply switching their investments away from the AIF which are no

38 This could occur either because funds with high leverage no longer market to EU investors or because funds with high leverage reduce their use of leverage. In either case high leverage funds are not available to EU investors.

longer accessible to them and towards other AIF which remain available. Those funds which remain active in the EU market may therefore gain substantially from the additional investments which they receive. However, this is only beneficial if these other funds are able to expand to take the additional investments and are of similar quality (in particular through producing as good returns as the other funds).

Some funds that are likely to remain in the EU may do so because the AIFM is small enough to remain outside of the scope of the AIFMD – these funds would clearly be constrained in their ability to expand, since doing so would potentially bring them within the scope of the AIFMD which they are seeking to avoid (see section 3.3.2 below for further details on how small AIFM could represent effective substitutes outside of the scope of the AIFMD).

In addition to small funds being restricted in their ability to expand, some other funds may be constrained because their underlying investment strategy requires that they remain below a certain size so as not to move the market when they trade.

No evidence was available either on the extent to which funds could expand in size or on the types of funds that may be constrained. For this reason we have not included any quantitative assumptions on this in our calculations in section 3.5.

3.3. Access to AIF strategies which are not marketed in the EU

Notwithstanding the conclusions drawn in section 3.2 above, there are two potential issues which may lead investors to be able to continue to access AIF even if they are no longer actively marketed in the EU:

- EU investors may seek to circumvent legislation such that, although the AIF are not marketed in the EU, they nonetheless invest in AIF which are domiciled elsewhere; or
- AIFM design substitute products that mimic the returns of AIF but are not formally structured as AIF.

3.3.1. EU investors circumventing legislation

We first consider the extent to which EU investors will be able to circumvent legislation. Article 3(d) of the AIFMD defines marketing as:

> *"any general offering or placement of units or shares in an AIF to or with investors domiciled in the Community, regardless of at whose initiative the offer or placement takes place"*[39]

This definition seems to prevent the situation where an EU investor actively seeks an investment opportunity with an AIF that is not authorised to market within the EU. This approach is contrary to current practice in the market where professional investors

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39 Proposal for a Directive of the European Parliament and of the Council on Alternative Investment Fund Managers and amending Directives 2004/39/EC and 2009/…/EC, COM(2009) 207 final, European Commission 30th April 2009.

actively seek out the best opportunities across the globe and are currently willing to invest in AIF domiciled or managed in a wide range of locations (without appearing to require additional investor protection in doing so). The approach is also contrary to that taken in other European Directives such as MiFID and UCITS, both of which permit investors to act under their own initiative to make investments in securities which cannot be marketed in the EU. In addition, there are a number of difficulties with the definition of marketing.

Firstly, this would require an AIF or AIFM domiciled outside the EU to be aware of the domicile of all of its investors and to comply with EU legislation even when the AIF or AIFM is not itself regulated by any competent authority in the EU.

Secondly, an AIF is defined as any collective investment undertaking which does not require authorisation under the UCITS Directive. Since the legislation governing AIF in other countries may vary, it is unclear whether similar definitions related to collective investment undertakings would be applied and therefore whether an entity which is considered not to be an AIF in another country would be obliged to meet the requirements of the AIFMD.

Thirdly, in a world in which information can be transmitted easily by electronic means, restrictions on general offerings of units or shares in AIF are difficult to regulate which may in practice limit the marketing restriction to the placement of units or shares rather than the general offering of units or shares.

Fourthly, it would be possible for EU investors to structure their investments by having a holding company which is domiciled outside of the EU. The EU investor could place money into the holding company (not itself an AIF or AIFM) which in turn invests in an AIF domiciled outside of the EU. While this would be more expensive than their current methods of investment (due to the costs associated with constructing the holding company), this may enable the investors to get around the AIFMD.

Fifthly, it is unclear how this issue will be enforced. The various competent authorities in different member states would need to examine all investments made by all investors in their country in order to establish whether any of these investors had made investments into AIF domiciled elsewhere. However, competent authorities may not have the ability to check these investments since they may not be able to force investors (who are not regulated under the AIFMD) to reveal this information even if the competent authority can obtain information that an investment has been made. In addition, if an investment has been made outside of the EU in compliance with any appropriate rules in that location, it is uncertain that the competent authority would have the regulatory reach to impose any form of sanction on the AIFM concerned.

Pension funds have indicated that they would be unlikely to seek to “get around” the Directive by designing legal structures specifically to enable the continuation of purchasing products unless they had legal advice and were confident in the legality of this approach. It is unclear whether individual high net worth individuals (who are themselves often geographically mobile) would be willing to do this. Notwithstanding concerns about the enforceability of this aspect of the Directive, we have therefore assumed that investors would not be able to do this, although some AIFM did not agree with this interpretation.

3.3.2. Substitute products

In addition to investors seeking to circumvent the legislation, it is also possible that AIFM use alternative substitute products to design investments to replicate the returns that investors would have expected to have received had they invested in an AIF.

One of the ways to avoid the Directive is to invest in funds operated by small AIFM. Small AIFM which manage portfolios whose assets under management do not exceed €100 million, or €500 million where the portfolio of AIF consists of AIF that are not leveraged and have no redemption rights exercisable during a period of 5 years, are excluded from the scope of the AIFMD.[40] It is possible that one of the effects of the AIFMD may be to cause AIFM to split into smaller organisations which do not have to meet the requirements of the Directive.[41] AIFM did not indicate a strong appetite for actively splitting companies in order to gain exclusion from the scope of the AIFMD. However, in the future where new firms are being set up, it is possible that there might be a deliberate aim to set up small funds in order to avoid the Directive.

Table 8 below sets out the proportion of AUM in firms that are covered by the Directive.

Table 8: Proportion of AUM within scope of the Directive

	Proportion of AUM included within scope
Hedge funds	87%
Investment trusts	N/A
Real estate funds	76%
Private equity funds	92%
Venture capital funds	50%

Source: Hedge funds taken from Impact Assessment, Private equity and venture capital numbers provided by EVCA. The proportion for real estate funds is based on the simple average of the figures for other categories.

If investment managers wish to avoid being regulated by the Directive or if investors wish to use alternative products to avoid products which are regulated by the Directive (for example due to increased costs associated with AIF under the Directive), there are a number of options that could be considered. These include:

- UCITS – Some funds may seek to re-arrange their activities and set up funds which comply with the requirements under the UCITS Directive rather than be regulated under the AIFMD. It is notable in this regard that a number of hedge fund managers are in the process of launching such funds. For example, Man Group (which has $43.3 billion of assets under management and is Europe's largest hedge fund

40 AIFMD article 2(a).

41 These smaller organisations would have to be legally separate and without common management or control in order to meet the requirements under article 2(2)(a).

operation), Cheyne Capital, GLG Partners, Brevan Howard and Odey Asset Management have all launched UCITS funds.[42] However, it should be noted that UCITS funds have certain restrictions on the underlying investments which mean that not all of the strategies currently used within hedge funds, in particular, could be replicated through UCITS funds.

- Fund of hedge funds – Some funds of hedge funds meet the requirements under the UCITS Directive, hence the AIFMD may lead investors to seek out funds of hedge funds for their investments rather than hedge funds themselves. For this to be possible there need to be underlying hedge funds available for the construction of the fund of hedge funds. As noted above, restrictions remain in place for fund of hedge funds regulated under the UCITS Directive which mean that not all hedge fund strategies could be replicated through UCITS regulated fund of hedge funds.

- Direct mandates rather than collective investments – One of the benefits of investing through collective investment funds is that the investments from a number of different investors are aggregated together, providing investors with advantages of scale economies and typically diversification of underlying investments within the fund. However, rather than using collective investment schemes, some investors could seek to use a managed account or a direct mandate with a separated account for the management of their assets. The assets could then be managed in a way that mimics the performance of a particular AIF.

- Direct investments – Larger professional investors are willing to make direct investments into underlying companies rather than necessarily to invest via a collective investment fund. For example, direct investment in real estate may arise. In addition, real estate investments can arise through joint venture vehicles and it is unclear whether these would be caught by the Directive. It is estimated that around one-third of European investors have direct real estate investments currently.[43]

- Listed securities - Investors may seek alternative access to investment categories through investing in companies which themselves operate in a particular sector. For example, in the case of the real estate sector, investors may seek to gain exposure through listed real estate. In the case of investment trusts these are currently structured as companies and listed on regulated markets (see section 6.7 for other issues related to legal structures).

- Structured products – in a similar manner to the use of direct mandates, companies could design structured products which mimic the returns made on AIF. In this way the investor could make an investment into a structured product with the provider of the structured product making an equivalent investment into the underlying AIF. Since proprietary trading is outside of the scope of the AIFMD, the latter investment would not be caught by the Directive requirements.

42 Financial Times, UK hedge funds to launch onshore vehicles, 10 September 2009.

43 The 2007-8 Russell Investments Survey on Alternative Investing.

It seems likely that some of these substitutes will only be possible for the largest of professional investors since offering direct mandates or designing structured products would incur fixed costs. Interview evidence suggests that such substitutes would only be designed for hedge funds.

Investors have suggested that they would expect to have to invest around £100-150 million in a direct mandate or structured product for it to be worthwhile. Some investors would be willing to use such an approach to ensure that they still had access to the managers or strategies that they wanted. It was also noted by investors that some of these arrangements are already in place and therefore this adds credibility to the likelihood of this approach being followed compared to a situation where these products were being designed for the first time.

However, the significant disadvantage of this approach compared to the continued use of AIF is that the investor faces additional risks. In particular, they face increased risks from a lack of diversification within a type of hedge fund strategy where direct mandates are used since they are unlikely to be able to spread their investment across a wide range of different hedge funds given the minimum size of investment required. In addition, investors face increased risk where structured products are used as they not only face the risk of the underlying investment but they also face counterparty risk related to the provider of the structured product. Indeed, it is the reduction in these risks that mean investors use AIF in the first place.

Investors indicated that they would be unwilling to invest this amount of money unless it represented a reasonably small proportion of their total assets. Pension funds have suggested that they would be unwilling to invest this amount of money if it represented more than about 2-3% of their total assets indicating that the assets under management in the pension fund itself would need to be at least around £5 billion.

We have calculated the total assets under management of pension funds in the UK which are larger than £5 billion. In 2006, the top 23 pension funds held assets of more than £5 billion. In total these funds held assets of £270 billion, which represented 37% of the total pension fund assets in the UK at that time (£725 billion). These funds would therefore be expected to continue to have access to hedge fund strategies through alternative means.

For investment trusts which typically have a similar investment approach to UCITS funds, substitution towards a UCITS fund provides a clear alternative for investors.

Interviewees of all types agreed that there were no close substitutes for private equity or venture capital funds that were likely to be used in order to continue to access these types of assets. In particular, interviewees indicated that they would be unlikely to wish to have direct investments in non-listed companies, since they did not have the requisite corporate management skills to undertake the management of (or advice to) the underlying portfolio company. This is especially important since a lack of substitutes indicates that returns from private equity and venture capital funds have low correlation with other investments. As explained further in section 3.4 below, gains from diversification rely on returns from different investments not being perfectly correlated.

3.4. Diversification and efficient portfolios

In addition to changes in the quality and variety of AIF available to EU investors resulting from the AIFMD, it is also possible that expected returns are impacted due to the withdrawal of available investment opportunities. In this sub-section we briefly consider issues to do with portfolio theory and benefits which result from diversification before examining the extent to which any of these benefits might be expected to be lost due to the AIFMD in section 3.5.

3.4.1. Portfolio theory and diversification

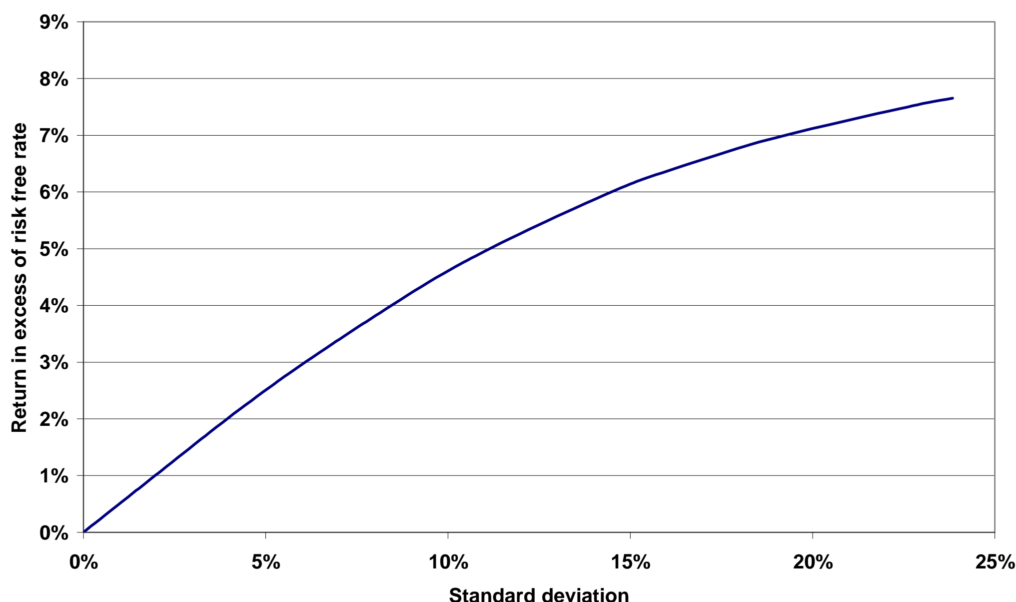
Markowitz is credited with developing the foundation of modern portfolio theory.[44] His work demonstrated how, for a given level of risk, a portfolio could be constructed that generated the highest feasible return. His work showed that portfolios of multiple assets could be combined to outperform single assets in generating the best possible risk/reward combination. At its most simple, modern portfolio theory reflects the concept of not putting all of your eggs in one basket i.e. there are benefits from diversification. Hence investing in a portfolio of assets rather than one asset can lead to efficiency gains from:

- Reducing risk for a given level of return; or
- Increasing returns for a given level of risk.

Underlying this theory was the fact that different asset classes (stocks and bonds) and different individual securities have different performance characteristics in terms of risk and return. These characteristics complement one another in a way such that, when combined in a portfolio, they together generate a better performance than any of the individual asset classes or securities would by themselves. The optimal combination of risk and return in the portfolio is called the "efficient frontier". This is illustrated in Figure 22 below.

44 Markowitz, HM (1952) Portfolio Selection, The Journal of Finance, 7, 77-91

Figure 22: Efficient frontier



Source: Calculations provided to CRA by Mercer

The insights of modern portfolio theory underlie much of the activity of today's investment industry. In particular, investment advisers expend considerable effort devising appropriate "asset allocation" strategies for their clients in order to design a portfolio in such a way as to optimise the risk reward relationship, as per Markowitz's theory. Put another way, asset allocation experts attempt to find the efficient frontier for their clients.

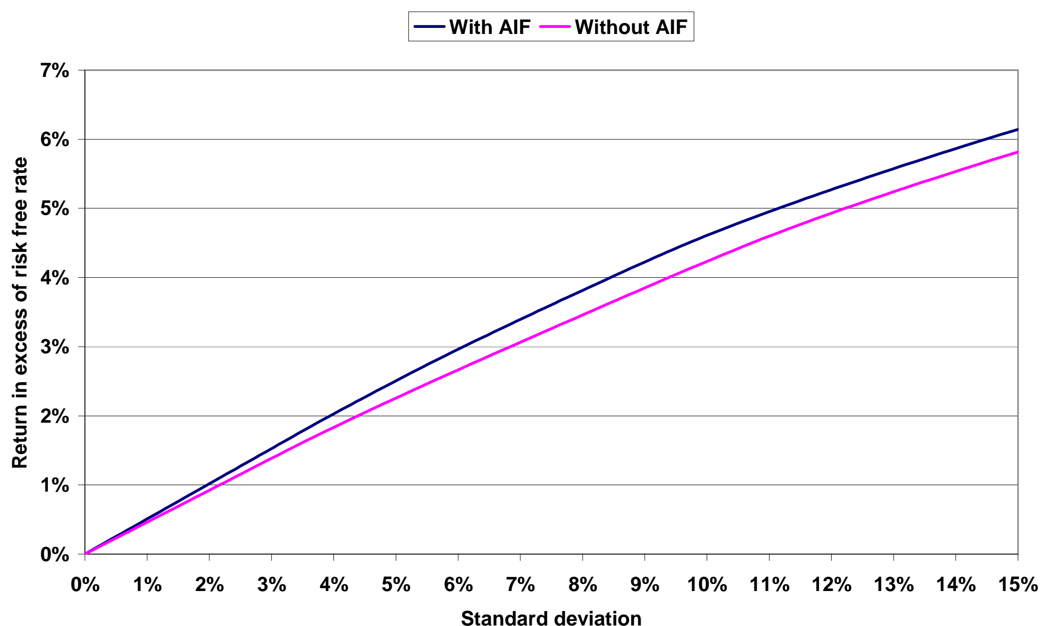
For many years, asset allocation decisions in the investment industry were based on combining several well established asset classes such as equities, bonds, property, and cash. However, over time new asset classes emerged in the form of alternative investments, with hedge funds and private equity of particular relevance for this report.

For efficiency gains to arise (i.e. for an additional asset class to be able to move the efficient frontier), the assets themselves must not be perfectly correlated, since investing in two assets which always move in step with each other does not actually bring any diversification to the portfolio. Hence, diversifying across different asset types requires investing in a range of assets which are not perfectly correlated with each other.[45] Hedge funds and private equity funds are such asset types which have risk return characteristics which are not perfectly correlated with other asset types. Hence, when combined with the traditional asset classes, they permit a better risk/reward combination than was previously possible, and the efficient frontier moves to a better optimum.

Figure 23 below shows the difference in the efficient frontier with and without AIF.

45 It should be noted that during the course of 2008 correlations between many asset classes increased as market sentiment generated a decline in multiple different financial instruments. However, even within the performance of different asset classes (especially within AIF) the range of different strategies led to a range of different outcomes.

Figure 23: Efficient frontier with and without AIF



Source: Calculations provided to CRA by Mercer. For the purpose of this analysis, alternative investment funds were defined as hedge funds, private equity, infrastructure, property and commodities.

This chart demonstrates that the efficient frontier in portfolio construction is higher when alternative investments can be included in the portfolio compared to when alternative investments are excluded. Including alternative investments means that risk is reduced for the same level of return, or for the same level of risk, the return increases. This indicates that the use of hedge funds, private equity and other forms of alternative investments can be beneficial in terms of improving risk adjusted returns. As seen in section 2.1.2, recent years have already seen increased use of these alternative investments for this reason and discussions with advisers to pension funds, such as Mercer, have indicated the desirability of further increased use of these alternative investments in order to move closer to the efficient frontier.

The difference in the efficient frontier with and without alternative investments varies slightly, although for a given level of risk (as measured by standard deviation), the return would be expected to be around 25 basis points higher with alternative investments included in the portfolio. It is important to note that this 25 basis points applies across the whole of the portfolio, not simply to the proportion of the portfolio invested in AIF. In practice, however, pension funds do not always allocate their assets precisely along the efficient frontier and discussions with pension fund advisers have indicated that such funds may currently be under-allocating assets to alternative investments. This suggests that using 25 basis points as the difference in the return if alternative investments were removed may be an overestimate on the impact on the portfolio.

3.4.2. Extent of diversification

Academic evidence provides some guide to the extent of the number of different asset strategies that are required in order to gain from diversification. For example:

- Clare and Motson find that gains from diversification across alternative asset strategies arise quickly with 40% of time series risk eliminated by combining 8 strategies and only a further 4% from combining 12 strategies.[46] Similarly, and of particular relevance to long term investors such as pension funds, 60% of the dispersion in terminal wealth could be reduced by combining 6 strategies with only a further 20% by combining 15;

- LHabitant and Learned (2002) examining hedge funds found that most diversification benefits could be achieved by forming fund of funds of 5-10 individual hedge funds;[47] and

- When considering equities, Evans and Archer (1968) find that most diversifiable risk can be eliminated by portfolios of around 8-10 stocks; although Statman (1987) found that 30-40 stocks were required to eliminate most diversifiable risk.[48]

In general these results suggest that access to relatively few AIF is required to gain the majority of diversification benefits. In turn, this indicates that we would expect there to be a relatively small impact on the efficient frontier if there is a moderate loss of diversification opportunities within a particular type of hedge fund strategy. However, it has not been possible to provide a quantitative estimate of the impact on the efficient frontier from a partial loss of investment strategies.

If an entire asset type were no longer to be available to investors, the impact of the lack of diversification is estimated as 25 basis points (as noted in section 3.4.1 above) and we used this estimate in the calculations in section 3.5 below.

3.5. Summary of impacts by fund type

The evidence above indicates that AIF have been used in optimal portfolio design and have become increasingly mainstream in their acceptance by the professional investor community because of this. Benefits have occurred because of the improved portfolio construction which has brought gains to investors from a better risk-return trade-off.

There is considerable concern that the AIFMD will greatly reduce the availability of AIF for European investors. If this is the case, investors would lose the ability to design optimal portfolios representing a backwards step in terms of risk adjusted returns. This would be to the detriment of European investors.

Investors expressed concern that they will no longer have access to “best in class” funds from across the globe. Given the variety of different strategies that are employed in

46 Clare, A and N Motson, How many alternative eggs should you put in your investment basket?

47 LHabitant, FS and M Learned (2002) Hedge fund diversification: How much is enough? FAME Research paper no 52.

48 Evans J and S Archer (1968) Diversification and the reduction of dispersion: An empirical analysis, Journal of Finance, 23; and Statman M (1987) How many stocks make a diversified portfolio? Journal of Financial and Quantitative Analysis, 22.

different types of AIF, this is of more significance than in other parts of the market such as equities or bonds where strategies are more similar and can be easily replicated. Investors indicated that they currently chose from funds that are domiciled and managed across the globe and therefore have the ability to chose from the full range of investment approaches on offer. No longer having access to all of these funds would represent a reduction in both the variety of funds and also the quality of funds which EU investors can access.

Benefits do accrue to investors from the "passport" which brings access to funds not previously marketed in certain member states. This would enable efficiencies to be exploited, thus lowering costs. Further, smaller professional investors are likely to benefit from additional transparency, although large investors believe they already have sufficient information and did not value the additional transparency from the Directive. We have not attempted to estimate the magnitude of these impacts.

No information was available from interviews on the extent to which funds currently domiciled outside the EU would re-domicile within the EU. In sections 3.5.1 to 3.5.4 we identify the reduced investor choice for each fund type on the basis that no funds re-domicile.[49] It should be noted that some funds which are currently domiciled outside of the EU may in fact re-domicile to the EU. In this case we would expect the impact on investor choice to be lower than that calculated below. If *all* funds re-domiciled within the EU there would be no impact on investor choice as all funds would remain available to be marketed to EU investors.

We consider the extent of reduced investor choice for each fund type below. In each case we seek to identify the reduction in investor choice by considering:

- The proportion of funds that are not currently domiciled and managed in the EU;
- The proportion of funds that are not within the scope of the Directive due to threshold conditions; and
- The proportion of investors with no substitutes for the particular fund type.

We combine this information to obtain an estimate of the proportion of funds where investors will no longer have access to the investment style of the fund type. We describe this as the "proportion of funds effectively no longer available". In section 3.5.5 we then calculate the impact of this across investors' portfolios to establish the overall cost of reduced investor choice.

3.5.1. Hedge funds

The hedge fund sector represents the area where there was the most concern from investors regarding loss of access to a wide variety of funds, reflecting the fact that 94%

49 It should be noted that this means that the costs calculated in section Table 13 are therefore not additive with those calculated on compliance costs in Table 23 in Chapter 6 which includes costs associated to re-domiciling and assumes sufficient funds remain domiciled in the EU to meet the current investment requirements of EU investors.

of global AUM in hedge funds are domiciled outside the EU. In addition to a reduction in the quantity of funds, investors were concerned about a reduction in both the variety and quality of funds, as well as being unable to access specific individual fund managers.

Some large professional investors would be able to use substitutes through direct mandates, managed accounts or structured products. In the calculations below we have assumed that 37% of investors would be able to gain access to substitute products in the form of large professional investors obtaining direct mandates or structured products. This figure is based on the calculations shown in 3.3.2 regarding the proportion of pension fund assets which switch to using a direct mandate or structured product instead of a hedge fund.

However, this approach leads to lower quality outcomes due to reduced diversification in direct mandates and increased counterparty risk for structured products. Leverage limits would cause certain strategies to no longer be viable, resulting in reduced investor choice and returns beyond those estimated above.

Table 9 below sets out the calculations to identify the proportion of hedge funds effectively no longer available to EU investors.

Table 9: Proportion of hedge funds effectively no longer available to EU investors

	Hedge funds
Investments by EU investors [a]	€216 billion
Investments managed in EU[b]	€258 billion
Global funds under management [c]	€985 billion
Proportion of global funds domiciled in EU [d]	5.8%
Domiciled and managed in EU[e]=[c]*[d]	€57 billion
Funds potentially at risk from not being EU domiciled and managed [f] = [a]-[e]	€160 billion
Proportion of funds in scope [g]	87%
Proportion of investors with no substitute [h]	63%
Investments no longer available [j]=[f]*[g]*[h]	€87 billion
Proportion of investments no longer available [k]=[j]/[a]	40%

Source: [a] based on interview evidence regarding the proportion of total investments made in EU (22%) and outside the EU scaled for global funds under management. [b] based on Eurohedge provided by AIMA. [c] and [d]] HFR figures converted into euros. [e] assumes that all funds domiciled in the EU are managed in the EU which is possible since [e] is less than [b]. [g] based on evidence from Impact Assessment. [h] based on pension funds with potential substitutes to direct mandates.

More positively, hedge funds were the main type of AIF where professional investors believed that transparency requirements would bring clear benefits, especially to those investors at the smaller end of the professional spectrum.

3.5.2. Private equity and venture capital funds

Investor representatives are very concerned about losing access to private equity and venture capital funds, both of which they considered to have no close substitutes. In particular, professional investors have indicated that they would not be in a position to make direct investments in the portfolio companies, since this requires the skills of the private equity or venture capital fund managers in providing the underlying management or advice to those companies.

Linked to the lack of substitutes available, investors interviewed for this project were particularly concerned about losing access to specific individual funds that they wanted to invest in. Given the substantial variation in the strategies of private equity and venture capital funds, this was considered to be a significant concern.

Table 10: Proportion of private equity and venture capital funds effectively no longer available to EU investors

	Private equity	Venture capital
Investments by EU investors [a]	€221 billion	€30 billion
Investments managed in EU[b]	€195 billion	€26 billion
Proportion of funds managed in EU that are domiciled in EU [c]	71%	71%
Domiciled and managed in EU[d]=[b]*[c]	€138 billion	€19 billion
Funds potentially at risk from not being EU domiciled and managed [e] = [a]-[d]	€83 billion	€11 billion
Proportion of funds in scope [f]	92%	50%
Proportion of investors with no substitute [g]	100%	100%
Investments no longer available [h]=[e]*[f]*[g]	€77 billion	€6 billion
Proportion of investments no longer available [j]=[h]/[a]	35%	19%

Source: [a] calculated from investments by EU investors in hedge funds scaled according to the relative proportions of investments made from The 2007-8 Russell Investments Survey on Alternative Investing, split between private equity and venture capital according to ratio of private equity funds and venture capital funds from VentureXpert. [b] based on €222 billion for private equity and venture capital based on PWC report split according to ratio of private equity funds and venture capital funds from VentureXpert. [c] calculated as 50% of UK private equity domiciled in Channel Islands (sourced from survey of private equity fund managers) with value of UK private equity funs based on BVCA data [f] based on information from Table 8. [g] based on interview evidence that there are no substitutes for private equity and venture capital funds.

In addition to this, there is a significant issue for private equity funds and venture capital funds with regard to the scope of the Directive and whether or not it applies to existing funds where capital has already been raised (or agreed) and which are no longer being marketed. If “grandfathering” does not occur, it is very unclear how these funds will react since they already have European investors and would not be able to repay investments which are themselves invested in underlying portfolio companies.

3.5.3. Real estate funds

The impact on investor choice due to the impact of the AIFMD on real-estate funds is relatively small, since around one-third of European investors currently have direct investments in real estate which represents a viable substitute. In addition, most real estate funds managed in Europe (with the exception of many UK managed funds) are understood to already be domiciled in Europe.

Table 11: Proportion of real estate funds effectively no longer available to EU investors

	Real estate
Investments by EU investors [a]	€254 billion
Investments managed in EU[b]	€254 billion
Proportion of funds managed in EU that are domiciled in EU [c]	97%
Domiciled and managed in EU[d]=[b]*[c]	€247 billion
Funds potentially at risk from not being EU domiciled and managed [e] = [a]-[d]	€ 7.5 billion
Proportion of funds in scope [f]	76%
Proportion of investors with no substitute [g]	66%
Investments no longer available [h]=[e]*[f]*[g]	€3.8 billion
Proportion of investments no longer available [j]=[h]/[a]	2%

Source: [a] and [b] based on data from EC Expert group and EFAMA. Evidence from a small number of investors suggests that only a small amount of real estate funds used by EU investors are managed outside the EU. [c] based on 25% of UK managed funds (€30 billion) being domiciled in the Channel Islands and all EU managed funds being domiciled in the EU. [f]] based on simple average of proportion of funds in scope from other fund types. [g] based on proportion of investors who have direct property investments from The 2007-8 Russell Investments Survey on Alternative Investing [k] based on efficient frontier calculations.

A reasonably small figure for real estate funds is consistent with the evidence from interviewees that there would be relatively little impact on the number of funds available to EU investors.

The passport was seen as especially beneficial for real estate funds as the current market is highly fragmented and the passport could bring economies of scale.

3.5.4. Investment trusts

It is very unclear whether investment trusts can maintain their current structures. If investment trusts convert into compliant structures there would be significant re-structuring costs (discussed in section 6.7). However, the impact on investor choice is difficult to quantify.

Investors face a reduction in choice as they lose access to this legal structure and because they may prefer closed ended funds. Since investment trusts have historically

competed on the basis of offering lower charges than UCITS funds, competition may also be negatively affected. However, as the investment strategies of investment trusts are very similar to those available through UCITS funds, there is no reduction of investor choice due to reduced portfolio diversification, although we have not quantified the impact of the loss of competition. There is no apparent benefit associated to the forced liquidation of investment trusts.

3.5.5. Summary

Based on interviews, it has not been possible to identify the proportion of funds currently domiciled outside the EU that will re-domicile into the EU in order to continue to be marketed to EU investors. If *all* funds re-domiciled within the EU, there would be no impact on investor choice as all funds would remain available to be marketed to EU investors.

However, if funds do not re-domicile, the AIFMD will greatly reduce the availability of AIF for EU investors. We have estimated the extent of this in the sections above. Using evidence regarding where investors can use substitutes, data on current domicile of various fund types, and whether funds are captured by threshold conditions in the Directive, Table 12 sets out the proportion of funds that would effectively be no longer available to European investors as a result of AIFMD.

Table 12: Proportion of funds effectively no longer available

	Hedge funds	Private equity	Venture capital	Real estate	Investment trusts
Proportion of funds potentially no longer available	40%	35%	19%	2%	N/A

Source: CRA calculations.

We calculate the weighted average of the proportion of funds effectively no longer available across all AIF. This is based on the information in Table 12 and the value of EU investors AUM. This results in 21% of all AIF being effectively no longer available.

As noted in section 3.4.1, if no AIF were available in Europe in any form, portfolio returns for European investors that use AIF would be reduced by around 25 basis points. Combining this 25 basis points with the proportion of AIF effectively no longer available (21%) gives an estimate of the loss to EU investors of 5 basis points.

Evidence on the proportion of investors using any form of AIF is not easily available, as information tends to be captured on the use of individual AIF rather than the use of any form of AIF. Evidence from the Russell Investment Survey finds that in 2007 around 29% of investors used hedge funds, 54% used private equity and 71% invested in real estate. Real estate will typically include information on both real estate funds (in scope of the Directive) as well as direct investment in property (out of scope of the Directive). Hence 71% will overstate the proportion of investors who use real estate funds that are in scope of the Directive. For this reason, we use the proportion of investors who invest in private equity (54%), since this is the next most popular category, as the appropriate proportion of investors using AIF.

Finally, EU pension funds have assets under management (AUM) of around €5 trillion.[50]

We then calculate the reduction in investor choice as set out in Table 13.

Table 13: Cost of reduced investor choice

	Investor choice
Proportion of funds potentially no longer available [a]	21%
Loss in portfolio returns [b]	25 bp
Proportion of investors using AIF [c]	54%
Value of EU pension funds [d]	€5 trillion
Impact on investor choice [e]=[a]*[b]*[c]*[d]	€1.4 billion

Source: CRA calculations.

We therefore calculate a reduction in the annual returns to EU investors of around €1.4 billion. This is a conservative estimate of the total possible loss of return since pension funds are only a portion of the relevant investor universe.

50 Based on information from the OECD and UBS as quoted in IFSL Research Pension Markets 2009.

4. IMPACT ON EMPLOYMENT AND GROWTH

In this chapter we specifically focus on the impact of AIFMD on EU enterprise's access to finance. Private equity firms and venture capital firms provide capital to small and medium sized enterprises (SMEs) and help bring them to market via initial public offerings (IPOs). Impacts on these types of funds could affect innovation, renewal, and growth in the European economy. In this chapter we consider the impact of the AIFMD on:

- The ability of EU enterprise to gain access to capital; and
- The impact on employment.

The importance of this has been noted by the EC,

> *"It is also essential to remain cognisant of the benefits of the AIFM industry and not to destroy the benefits AIFM can bring to the 'real economy'. Such concerns are most prominent with regard to private equity. In a number of Member States private equity represents an (increasingly) important source of finance for SME. The financial resources and the know-how of private equity managers are considered as important factors for a turn-around of the EU economy in the current crisis."* [51]

This chapter considers whether AIFMD could have a direct impact on the real economy and the factors that need to be in place for this to be the case. Using our causality tree analysis, it is clear that there are a number of different issues that need to be addressed to assess the extent to which access to capital and employment would be affected including understanding:

- The proportion of private equity and venture capital operations affected by the Directive;
- The degree to which the Directive would reduce the amount of capital provided by private equity and venture capital funds – in particular by examining the extent to which capital raising and investment are related;
- Whether EU enterprises would be able to raise capital from other sources; and
- The degree to which the resulting outcome would affect employment in the enterprises supported by private equity and venture capital funds, and the consequent impacts on economic growth.

This chapter only considers market impacts; the compliance costs imposed on private equity and venture capital funds are examined in Chapter 6. The impacts on investor choice were considered in Chapter 3. As far as possible in this section we attempt to distinguish between private equity and venture capital funds, which typically invest at different stages of the development of the underlying portfolio company.

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51 Impact assessment page 53.

4.1. Private equity and venture capital caught under the Directive

Article 2 of the Directive provides an exemption from the AIFMD for small funds. In particular, AIFM managing AIF portfolios with total assets of less than €500 million (when the portfolio consists of AIF that are not leveraged and that have no redemption rights exercisable within 5 years of the start of the fund) will be exempt from the provisions of the Directive. Private equity and venture capital funds are likely not to have redemption rights exercisable during the first 5 years of the fund. Furthermore, such funds traditionally do not hold leverage in the funds themselves (although they often increase leverage at the portfolio company level). Table 14 shows the proportion of fund managers and capital that fall inside the scope of the Directive using the limit of €500 million.

Table 14: Fund managers and capital under scope of AIFMD

		Within AIFMD Scope	Exempt
Venture Capital	Fund Managers	3%	97%
	Capital Raised	50%	50%
Buyout and Growth	Fund Managers	30%	70%
	Capital Raised	92%	8%

Source: Provided to CRA by EVCA.

We see from the data above that almost all venture capital fund managers are exempt, due to the higher threshold of €500 million applying for these funds compared to funds which use leverage and have more frequent redemption rights (where the threshold is €100 million). In addition, this reflects the fact that venture capital funds tend to be smaller and make smaller investments in underlying companies compared to buyout funds (reflecting the different stages of development in which venture capital funds invest compared to buyout funds). However, the 3% of venture capital fund managers that do fall within the scope of the AIFMD manage 50% of the investable capital.

Buyout and growth funds (traditional private equity) see a similar but less extreme effect. Around 70% of European private equity fund managers in this area would be exempt from the AIFMD. However, only 8% of the capital from private equity will be exempt.

4.1.1. Impact of the Directive on provision of European private equity and venture capital

Based on interviews with private equity and venture capital industry associations and individual funds, the AIFMD will have a number of significant impacts including:

- Raising costs through holding capital, impact on delegation and valuation (we provide detail on these in Chapter 6);

- Reduction in investor choice where, as noted in section 3.5.2, there is a risk that up to 35% of private equity funds and 19% of venture capital funds would no longer be available for EU investors; and

- Competitive disadvantage for European private equity funds that have to comply with AIFMD disclosure rules where funds outside the scope (e.g. sovereign wealth funds, family run funds and non-European funds) will not have to comply.

4.2. Use of private equity and venture capital

The private equity and venture capital industry provides a source of capital for many types of companies in Europe. Private equity provides capital to unlisted companies, including those that are de-listed as part of a public to private transaction. These investments range from buy-out deals (acquisition of the majority of shares in a company) to early stage investments (such as seed capital to help in start-up phase of a company), also known as venture capital. Private equity and venture capital funds provide capital and often the management and operational expertise needed to increase value in the underlying company. In this sense, these funds provide a service and source of capital that neither bank lending nor mass shareholder equity (such as public shareholders) could provide.[52]

Table 15 shows the proportion of buyout and growth investments compared to venture capital investments in 2007 and 2008.

Table 15: European private equity by investment stage (€billion)

	2007		2008	
Venture Investments	7.9	11%	6.8	13%
Buyout and Growth Investments	64.3	89%	45.4	87%

Source: EVCA.

The EVCA has estimated that the number of companies in receipt of private equity or venture capital funding has increased dramatically from around 7,000 in 2004 to 25,000 currently.[53] In the UK it is estimated that 2,000-4,000 companies have some sort of private equity or venture capital funding.[54] Around 91% of respondents to the BVCA survey stated that without private equity the business would not have existed at all or would have developed less rapidly.[55]

52 For example, see European Central Bank Working Paper Series No 1078, On the Real Effects of Private Equity Investment. Also see the Impact Assessment, page 53.

53 Source: EVCA .

54 Estimated by the BVCA.

55 The Economic Impact of Private Equity in the UK, report commissioned by the British Venture Capital Association.

4.2.1. Start-ups and SMEs

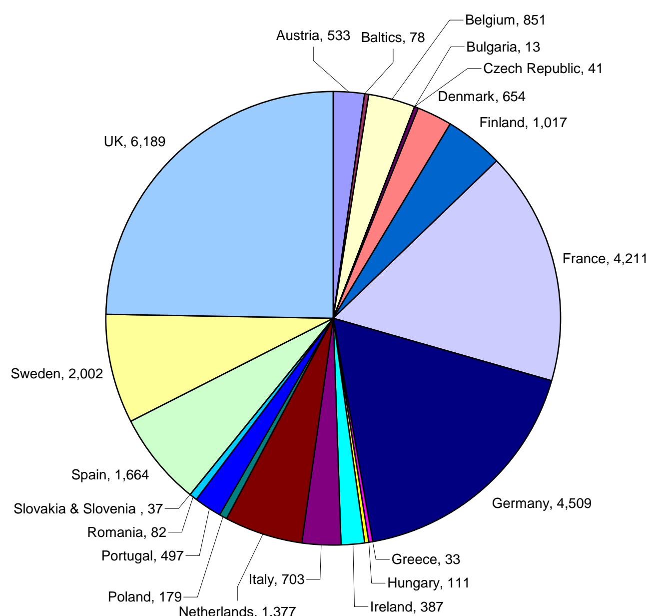
According to the EC, 99% of all businesses in the EU are SMEs and these companies provide two-thirds of all European private sector jobs.[56] It is primarily to these types of firms that venture capital and mid-market private equity provide capital.

The European Central Bank (ECB) has studied the effects of private equity investment in Europe on business creation and the importance of private equity financing to small business.[57] They concluded that countries with relatively large private equity sectors had disproportionately higher market entry (or firm start-up) than countries with lower levels of private equity funding. This is especially the case in industries where entry rates are naturally higher and/or where they are more research and development intensive.

The study also showed that private equity in Europe has tangible and positive effects on new business creation. This was even more apparent when looking at markets with mature private equity industries. It was shown that countries with more stable and long-term private equity funding provide more incentive for entrepreneurs to create business.

Figure 24 shows the number of companies in Europe that have private equity or venture capital funding.

Figure 24: Private equity and venture capital funded companies in the EU



Source: Provided to CRA by EVCA.

In total, some 25,000 companies in the EU are currently financed by private equity or venture capital.

56 Facts and figures – SMEs in Europe, see http://ec.europa.eu/enterprise/entrepreneurship/facts_figures.htm.

57 European Central Bank Working Paper Series No 1078, On the Real Effects of Private Equity Investment.

Private equity funds are also very international in their use of capital raised. Hence funds that are managed in one location do not only invest in that location but invest in companies in a range of different countries. In this way countries that are neither the location of the domicile of the fund nor the location of the management of the fund receive benefits from investment in the underlying portfolio companies.

As an example of this, UK managed private equity funds invested more than 40% of their investments in companies which were located in continental Europe – a similar proportion to that invested in the UK.

Table 16: Investment by location of UK managed private equity funds (£ billions) in 2008

	Value of funds	Proportion of funds
Continental Europe	8.2	41%
UK	8.6	43%
United States	1.7	9%
Other Overseas	1.5	8%
Total	**20.0**	**100%**

Source: BVCA Investment Activity 2008 report.

4.3. Replacement by other sources of funding

It is clear that private equity provides a source of funding that traditional bank lending or public shareholder equity cannot fill.[58] There are a number of explanations for this:

- The benefits include expertise in particular industries and markets as well as access to funds;
- Alternative sources of funds such as banks are often unwilling to lend to SMEs due to higher uncertainty, information asymmetry and agency costs; and
- Public listing is often not a viable choice because of the early stages of development of businesses at issue.

However, one obvious substitute for EU private equity and venture capital funds from the perspective of EU enterprise is to obtain such funding from outside Europe. It is already the case that a substantial portion of the money that is raised by European private equity funds comes from outside the EU. For example, Table 17 below shows that in 2008, 59% of money raised by UK managed private equity funds came from outside Europe.

58 For example, see European Central Bank Working Paper Series No 1078, On the Real Effects of Private Equity Investment. Also see the Impact Assessment, page 53.

Table 17: UK managed private equity and venture capital fundraising by country (£ billion)

	2006	2007	2008
UK	9.7	7.3	5.6
Netherlands	1.4	0.9	0.6
France	0.9	0.5	0.8
Germany	0.9	1.0	0.1
Rest of Europe	4.4	3.6	2.4
Europe Total	***17.3***	***13.4***	***9.5***
North America	12.6	12.2	10.4
Asia	1.4	1.1	1.3
Other	3.0	2.6	1.9
Non-Europe Total	***17.0***	***15.9***	***13.6***
Proportion Non-Europe	50%	54%	59%

Source: BVCA Report on Investment Activity 2008, Table 19.

The substantial, and increasing, proportion of non-European money invested in European private equity funds shows that investors from outside the EU are keen to invest in European projects. This conclusion is not specific to UK private equity funds, as in 2008 the EVCA found that non-European sources of money accounted for 46% of European private equity fundraising.

The AIFMD only affects funds that are marketed to EU investors. It does not affect funds domiciled outside the EU and marketed to non-EU investors. In terms of the impact on employment in the EU, the most severe scenario to consider is one where all European-based funds stopped marketing to European investors in order to avoid the jurisdiction of the AIFMD. If this happened, those funds would have to rely on only non-European investors as a source of capital. Even if all European private equity funds stopped marketing to EU investors due to the AIFMD, the funds would still be able to raise 46% of the current value of capital, as they could continue to raise capital from non-EU investors. This assumes that the current EU private equity funds would close to European investors to avoid the affects of the AIFMD and would therefore have a smaller amount of money to invest.

However, this is an extreme outcome. Evidence from interviews has indicated that it is more likely that many of the affected private equity funds would remain in operation in Europe and bear the costs imposed by the AIFMD. Rather than observing a substantial reduction in private equity capital available, capital would become more expensive to the target companies, or conversely returns would be lower for investors.

We must consider the effect, not only of non-European money being invested through EU private equity funds, but also non-European money invested through non-European private equity funds. For example, American funds (raising money from non-EU investors) will still be able to invest in European target companies without being affected by the AIFMD. Indeed it is already the case that 27% of private equity money raised in the US was designated to be spent on international investments, of which Western Europe was to be the major recipient.[59] These non-European funds would not be hindered from investing in European companies and could still deploy capital in Europe, although this would imply an increased proportion of funding for European companies was coming from non-EU sources.

Indeed, the AIFMD may actually benefit non-European private equity funds, since it could create an unlevel playing field to the detriment of European-based funds. This is because EU regulated AIFM will face additional costs through disclosure requirements related to the underlying portfolio companies (as well as increased compliance costs which are examined in Chapter 6).

A number of investors and private equity fund managers have expressed considerable concern about the strategic implications of this. In particular, fund managers are concerned that additional disclosure requirements will be placed on them because they are private equity firms, which are not imposed on other shareholders. They further note that some aspects of the Directive require them to take on responsibilities in providing information to other shareholders or employees which would typically be required of the Board of Directors of the underlying portfolio companies.

Other than costs, there are two major concerns:

- Disclosure of information includes a development plan for the underlying portfolio company which many investors and fund managers believe will lead to the need to reveal strategic confidential information about the portfolio company which may be to the benefit of competitors of that company. They also note that one of the reasons companies seek private equity is because they do not want to face additional disclosure requirements related to being a publicly listed company; and

- Disclosure requirements are believed to place European private equity funds at a competitive disadvantage compared to other providers of capital (including non-European private equity funds, family-run funds or sovereign wealth funds). In particular, this will require EU AIFM to disclose information about the strategy of the portfolio company that would not need to be disclosed if the fund manager was not regulated in Europe. Not only does this imply that the EU regulated AIFM may be required to disclose their intellectual property about their strategy, but fund managers are also concerned that European private equity funds will either lose out on investment opportunities or will have to pay a premium for these investments, thereby reducing returns to investors.

59 Russell Investments Survey on Alternative Investing, 2007 – 2008.

While traditional sources of funding, such as bank lending, may not provide suitable alternatives to private equity funding, investors and funds from outside the EU could provide the necessary funds to underlying companies. In this respect, as long as these investors are not hindered from investing in Europe, the companies receiving the funding should not be harmed. However, it is clear that European fund managers themselves may face an unlevel playing field when competing to be the providers of capital to the underlying companies.

4.3.1. Venture capital versus Buyout

The extent to which non-EU funds can act as a substitute varies between private equity and venture capital. Many of the large US-based buyout funds have a global network including European offices and most already have European investments through their current private equity funds. There would be little to prevent similar firms from increasing their European investments if increased opportunities became available from EU funds exiting the market, since the infrastructure is already in place to take advantage of this.

Venture capital funding is slightly different, in that local knowledge and expertise is comparatively more important in funding start-ups than for buyouts. For small-scale investments, local investment funds may find it easier than investment funds managed elsewhere to identify investment opportunities and provide expertise and guidance to start-ups. As a matter of practice, US firms have set up European operations and European funds when seeking to operate venture capital funds that invest in the EU. For these reasons, it may be more difficult for a non-EU venture capital fund to increase investment in the EU in the short term. Over a longer period, such funds could deploy on-the-ground teams within Europe, but this would take time.

The differences faced by venture capital funds are important. While the venture funding stage represents a small proportion of private equity investments in Europe, start-ups and early stage companies (where venture capital funds invest) are extremely important to economic growth and employment. Since it would be more difficult for non-EU based venture capital funds to act as substitutes for EU based funds, the AIFMD has the most potential to do harm in this sector. A decrease in the availability of funding or an increase in the cost of these funds to European start-ups and early-stage companies would have negative impacts on the growth and employment potential that these companies provide to all of Europe.

4.4. The relationship between employment, private equity and venture capital

This section focuses on the employment effects of private equity investments at portfolio companies. In addition to this, there may be a more direct impact on the alternative investment industry itself. This is estimated to directly employ around 10,000 people in Europe but to also account for a further 30,000 jobs in support services. We do not quantify the direct impact on this sector, but the potential for job losses should be noted if alternative funds move outside of Europe.

The effect of private equity and venture capital on employment has been studied by numerous academics and research bodies.[60] There have been claims that private equity involvement both increases and decreases employment at the companies that the funds purchase.

Companies that have received private equity and venture capital funding represent an important group of employers:

- The British Venture Capital Association (BVCA) estimates that around 1.1 million people are currently employees of private equity and venture capital backed companies.[61] Furthermore, approximately 3.3 million people are employed by a business that has received private equity or venture capital funding in the past, which accounts for 21% of private sector employment in the UK.
- The EVCA estimates that 9 - 10 million people in the EU are currently employed by private equity and venture capital funded companies. Based on BVCA figures above, this could suggest up to 30 million people employed by a company that previously received private equity or venture capital funding.

Although private equity and venture capital funded companies employ significant numbers of people, it is important to consider whether this employment would have occurred without private equity and venture capital investments. There have been many studies both by academics and by industry insiders that have tried to quantify the effects of private equity on the employment of target or portfolio companies.

4.4.1. Employment effect of private equity

In Europe, evidence has shown increases in employment at private equity funded companies above those of benchmark firms. Between 2000 and 2004, a study by the Center for Entreprenurial and Financial Studies found that the average employment growth rate of private equity target companies was 5.4%. This was almost eight times the average annual employment growth rate of the EU over the same period of 0.7%.[62]

This is similar to a study focusing on the UK which found that over the five years to 2007 UK private equity-backed companies increased their employment by 8% on average.[63] In

60 For example, see the World Economic Forum, Globalization of Alternative Investments Working Papers Volume 1 and 2; Davis, Steven J., Haltiwanger, John C., Jarmin, Ron S., Lerner, Josh and Miranda, Javier,Private Equity and Employment(March 2008). US Census Bureau Center for Economic Studies Paper No. CES-WP-08-07.

61 This figure was as of the end of the 2007 fiscal year. The Economic Impact of Private Equity in the UK, report commissioned by the British Venture Capital Association.

62 Achleitner, Ann-Kristin and Kloeckner, Oliver,Employment Contribution of Private Equity and Venture Capital in Europe(November 2005), research paper commissioned by the EVCA.

63 The Economic Impact of Private Equity in the UK, report commissioned by the British Venture Capital Association.

comparison, FTSE 100 employment growth was 0.4% and FTSE Mid-250 employment growth was 3%. In addition, 84% of private equity funded companies surveyed stated that their employment growth was organic rather than by acquisition and 91% stated that without private equity the business would not have existed at all or would have developed less rapidly.

The World Economic Forum analysed US private equity transactions from 1980 to 2005. They found that employment tends to decline more rapidly at private equity backed companies than at non- private equity backed companies after the purchase. However, employment also grows more slowly at private equity backed companies in the two years before the transaction. This suggests that private equity funds invest in companies where employment is decreasing more quickly than average (and therefore may not be the reason for this decline). In addition, the study found that private equity funded companies create 6% more greenfield jobs over the two year post-transaction period than their non private equity funded counterparts.

A study for the Center for Economic Studies had similar conclusions about private equity's job creation.[64] It concluded that private equity owned firms in the US experienced net employment contraction but that these companies also exhibited a substantially higher greenfield job creation.

The two findings, that private equity both creates and destroys jobs in its portfolio companies, are not contradictory. The private equity model seeks to improve efficiencies by shrinking inefficient or loss-making parts of the portfolio companies while investing in innovative and value-creating business segments.

4.4.2. The effect of venture capital investment on employment

A clear picture emerges when looking specifically at venture-backed companies. A 2005 report commissioned by the EVCA found that venture-backed companies increased employee headcount by over 30% annually from 1997 to 2004. [65]

As well as an increase in the overall number of employees, the types of jobs that venture capital-backed companies create are also important: [66]

- Nearly one third of all employees of venture capital-backed companies work in research and development;
- Highest employment growth observed was in university spin-offs and in biotechnology and health care device companies; and

[64] Davis, Steven J., Haltiwanger, John C., Jarmin, Ron S., Lerner, Josh and Miranda, Javier, Private Equity and Employment (March 2008). US Census Bureau Center for Economic Studies Paper No. CES-WP-08-07.

[65] Achleitner, Ann-Kristin and Kloeckner, Oliver, Employment Contribution of Private Equity and Venture Capital in Europe(November 2005), research paper commissioned by the EVCA.

[66] Achleitner, Ann-Kristin and Kloeckner, Oliver, Employment Contribution of Private Equity and Venture Capital in Europe(November 2005), research paper commissioned by the EVCA.

- Around 13% of the venture-backed company employees held a PhD or equivalent.

This means that one third of the employees are working directly in companies that seek to create growth and innovation. These jobs are key drivers in economic growth as well as employment growth.

While the venture-backed firms show significantly increased employment during the venture funding stages, we would expect a positive effect to continue after the venture funding stage as well. Venture capital funds tend to invest in companies where they see substantial growth potential, suggesting that continued growth in the underlying companies accompanied by increasing employment would be expected.

4.5. Summary regarding employment and growth

Private equity and venture capital funds have direct impacts on the real economy through their role as providers of capital to small businesses. Around 9-10 million people in the EU are currently employed by private equity and venture capital funded companies and up to 30 million are employed by a business that has received such funding in the past. As well as providing capital, AIFM provide the management and operational expertise needed to increase value in the underlying portfolio company (which neither bank lending nor mass shareholder equity could provide).

Companies supported by private equity are more likely to be growing and increasing employment opportunities, although there is some evidence of declines in employment in the immediate aftermath of investments. Furthermore, private equity funded companies were found to create 6% more “greenfield” jobs than other firms.

There is little evidence to suggest that funding provided by private equity through buyouts would be drastically reduced as a result of the AIFMD. This is because non-EU funds can continue to invest in EU businesses while raising funds elsewhere supported by local offices to oversee investment opportunities. (EU managed funds already raise 46% of capital from outside the EU, suggesting switching to non-EU funds by these investors would be straightforward.) However, EU regulators would have less oversight regarding the funds purchasing European assets.

Venture capital funded firms have high employment growth rates. In addition, a large proportion of employees funded by venture capital focus on jobs such as research and development, biotechnology and health care, and university spin-offs, which seek to innovate and are key drivers in economic growth.

The impact of AIFMD is more significant for venture capital funding relative to private equity funding as local knowledge and expertise is comparatively more important in funding start-ups than for buyouts. Therefore it is more difficult for non-EU based funds to increase investment in the EU in the short term. Any reduction in venture capital is a concern since start-ups and early stage companies are extremely important to economic growth and employment across the EU.

Investors and AIFM believe disclosing information about underlying portfolio companies will reveal confidential information about the strategy of the portfolio company to the benefit of that company’s competitors. In addition, the requirements place European

private equity funds at a competitive disadvantage compared to other providers of capital (including non-European private equity funds, family-run funds or sovereign wealth funds) who do not need to reveal this information.

5. SYSTEMIC RISK

In this chapter we consider the impact of the AIFMD on systemic risk. As set out in the EC's impact assessment, AIF are seen as potentially bringing systemic risk through the:

- Direct exposure of systemically important banks (as the providers of leverage) to AIFs; and
- Pro-cyclical impact on asset prices and market liquidity of forced deleveraging, herding behaviour, and risk concentrations in particular market segments.

The EC indicates that these risks are particularly associated with hedge funds,

> *Faced with such pressures, funds (particularly hedge funds) were often forced to sell assets into declining markets – thereby realising losses and adding further momentum to declining asset prices. This pro-cyclical behaviour may have undermined financial stability and contributed to a deepening of the crisis.*[67]

The EC concludes that the absence of a consistent approach to the collection of macro-prudential data (on leverage, risk concentrations etc) and of effective mechanisms for the sharing of this information was a significant risk to macro-prudential oversight. In response to this, the AIFMD seeks to enable competent authorities to better identify, assess and mitigate systemic risks which may be associated with the risks and exposures of AIF.

Articles 22-25 of the Directive apply various requirements to AIF that employ high levels of leverage on a systematic basis (defined in the Directive as when combined leverage from all sources exceeds the value of equity capital of the AIF in two out of the past four quarters). If AIF are captured by this definition, the Directive applies the following additional requirements:[68]

- Hedge funds must disclose to investors the maximum level of leverage which the AIFM can employ, and provide quarterly disclosure on the amount of leverage used in the preceding quarter;
- Hedge funds must disclose to competent authorities a breakdown of leverage arising from different sources, including the identity of the five largest sources, with competent authorities making this available to competent authorities in other member states; and
- Limits to leverage are to be applied by the EC through implementing measures. These will take into account the type of AIF, strategy and source of leverage. In exceptional circumstances, competent authorities will be able to apply additional limits when required for the stability of financial system.

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67 Impact Assessment, page 8. Since the Directive focuses on issues to do with leverage, in this chapter we focus on the link between hedge funds and systemic risk, rather than on commodity funds.

68 The EC also notes that some of these risks may apply to commodity funds.

In this chapter, we consider the impact that these provisions would have on systemic risk. As in previous chapters, it is useful to set out the conditions under which there will be a market impact. In this case, this would require that:

- Hedge funds create systemic risk – this is considered in section 5.1;
- The components of the AIFMD would mitigate against this risk – this is considered in section 5.2; and
- The impact of the proposals does not have unintended consequences which themselves cause systemic risk – this is also considered in section 5.2.

5.1. Hedge funds and systemic risk

There are two main channels through which the ECB has suggested hedge funds could transmit systemic risks:[69]

- The direct impact of hedge funds on other financial companies. For example, the failure of a large hedge fund could create a systemic impact if the lenders to that hedge fund were:
  - unable to recover their loans to the hedge fund;
  - exposed to large losses which seriously impaired their capital; and
  - themselves systemically important institutions.

  This is referred to as the "credit channel" and considered in section 5.1.2 below.
- The impact of hedge funds' activities on the stability of financial markets. For example, systemic risk could arise from the impact of forced deleveraging and herding behaviour on asset prices and market liquidity. This is referred to as the "market channel" and is considered in section 5.1.3 below.

We begin this discussion by reviewing the experience of Long Term Capital Management (LTCM) which highlighted the potential for hedge funds to bring systemic risk.

5.1.1. The experience of LTCM

Concerns about systemic risk in hedge funds emerged in 1998 with the near failure of a hedge fund called Long Term Capital Portfolio LP, which was managed by Long Term Capital Management (LTCM).[70] The LTCM fund took positions based on a strategy of narrowing liquidity, credit and volatility spreads. However, when Russia devalued the

[69] ECB, "Hedge funds and their implications for financial stability", Occasional paper series No. 34, August 2005, p28.

[70] Much of this section draws on information from Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management, Report of The President's Working Group on Financial Markets, April 1999.

rouble and declared a moratorium on its debt in August 1998, these spreads widened sharply and the LTCM fund's highly leveraged positions proved significantly loss-making such that the net assets of the fund began to shrink rapidly. As a result, the fund faced margin calls from its prime brokers. In turn this meant that LTCM needed to quickly liquidate very large positions in markets that were already in turmoil and rapidly falling.

Although lending to the fund was on a collateralised basis, creditors and the US authorities realised that, in the event of bankruptcy, lenders could sustain serious losses because the value of collateral had been pushed down to very depressed levels (the credit channel). It was also recognised that the negative spiral of selling large positions into falling markets could cause asset prices in various markets to further plummet (the market channel).

The US Federal Reserve therefore made the decision to work with the fund's creditors to avoid this and an agreement was subsequently reached which essentially saw the lenders take the fund over, gaining 90% ownership. While the new owners were eventually able to liquidate the fund's positions at a considerable profit (once markets had recovered), at the time, the situation was sufficiently serious for intervention to have been deemed necessary to prevent further systemic issues developing.

The subsequent analysis of this episode revealed a number of characteristics of the LTCM fund which contributed to the problems experienced during its near demise including:

- A leverage ratio of 25;
- The large size of the fund (particularly for the time), with $125 billion of balance sheet assets and much larger positions than this once gross notional amounts of futures and other derivatives contracts were considered;
- Large positions in certain markets with the fund taking a position of more than 10% of open interest in certain cases;[71] and
- Poor transparency, as LTCM provided insufficient fund information to its bank counterparties meaning that they were unaware of its extremely high aggregate level of leverage.

The fact that the US Federal Reserve intervened implies that they believed that a collapse of the LTCM fund posed a systemic risk and indicates that hedge funds with a similar risk profile may have the same potential today. However, interviews and analysis undertaken for this project suggest that the risks presented by the LTCM fund are not present among hedge funds today because:

- leverage levels are significantly lower in general (typically leverage is less than 2 at present) than those employed by the LTCM fund. In addition, as noted in section 2.1.3, at present no fund has been identified as having leverage above 12;[72]

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71 Open interest positions reflect the number of derivative contracts that have not yet been settled such as futures contracts.

- lenders to hedge funds report that they have comparatively more information regarding the leverage levels of their hedge fund counterparties than did the lenders to LTCM, and their risk practices are sounder; and
- Market participants have indicated that regulators have more data and more influence than they did in 1998 (although the AIFMD is clearly seeking to increase still further the data and regulatory oversight which competent authorities have).

During the course of this work it has only been possible to systematically test the first of these bullet points; the other two points were derived from interview evidence.

5.1.2. Hedge funds and the credit channel

In this section we consider the question of whether, during the current crisis, hedge funds led to systemic risk concerns through the credit channel.

It is widely understood that an important part of many hedge funds' business model is the use of leverage. They achieve this by borrowing from credit institutions and in particular from prime brokers. If a systemically important fund fails and is highly leveraged this could have a significant adverse impact on the providers of its leverage. In order to mitigate this risk, most lending from credit institutions to hedge funds is conducted on a collateralised basis (i.e. the broker is given assets of the hedge fund as security against the loan advanced). Nonetheless, it can be difficult for credit institutions to recoup their money when a collapse is so complete that the value of the collateral is impaired.

There is therefore a risk that the collapse of a large hedge fund would cause the failure of other financial institutions which in turn would cause market wide problems. In order to investigate this we have reviewed whether any hedge fund affected the system in such a manner during the course of the development of the recent financial crisis. That is, whether any fund damaged the capital position of its counterparties/lenders in a decisive fashion. There were a number of notable hedge fund failures during the recent financial crisis:

- Amaranth;
- Peloton ABS Master Fund (Peloton);
- two hedge funds advised by Bear Stearns Asset Management (BSAM); and
- Carlyle Capital Corporation (CCC).

It is generally believed that the failure of Amaranth and Peloton, although detrimental for their investors, had little impact on the financial system. The lenders to these funds held sufficient collateral such that any losses they suffered did not have a destabilising effect

[72] It should be noted that the definition of leverage which is used in this dataset (where calculated by the data provider) does not include leverage embedded in financial derivatives. As such this measure of leverage may not match that used to describe the LTCM fund.

on banks. In these instances, the collapse of hedge funds did not seem to have any impact on overall financial stability.

The BSAM hedge fund collapses appear to have had more significant implications. BSAM advised two hedge funds which focused on US sub prime mortgage debt, mainly in the form of collateralised debt obligations (CDOs), which was the asset class at the heart of the financial crisis. As the crisis began to unfold, these funds sustained massive losses in a short period of time during June and July 2007. The fall in the value of these assets affected the value of the collateral held by lenders to the BSAM funds who requested additional margin. In this instance the hedge funds managed by Bear Stearns caused serious reputational damage to Bear Stearns itself amongst its bank counterparties. In this way the collapse of the BSAM funds can be seen as having contributed to the destabilisation of a systemically important bank (although Bear Stearns was further destabilised by its involvement with CCC, a $22 billion Amsterdam listed fund, which collapsed in March 2008). Bear Stearns was subsequently rescued in March 2008 through a US government arranged takeover.

There are two important points to be made in regard to BSAM:

- The BSAM funds were distinctive because they were associated with a systemically important bank whereas the majority of hedge fund managers or advisers are stand alone firms which are not owned by a systemically important bank; and

- The problem might then be thought of as poor investment management and decision making by Bear Stearns, which contributed to a loss of confidence in the bank that later forced its sale (to JP Morgan in March 2008). This is rather different from a credit channel problem.

For the hedge fund industry as a whole, data (see below) demonstrates that while hedge funds had to deleverage quickly in the autumn of 2008 (and indeed many funds had been deleveraging since summer 2007), the industry overall managed to do so without damaging its bank counterparties (in the sense that debt was paid back on demand without significant loss to lenders).

We therefore conclude that, as hedge funds were mainly able to repay their prime broker and bank counterparties, there is no strong evidence that the hedge fund industry brought systemic risk to markets via the credit channel. This conclusion is also supported by the de Larosiere Group who found that hedge funds,

> *"did not play a major role in the emergence of the crisis."* [73]

5.1.3. Hedge funds and the market channel

Systemic risk may also be transmitted through the market channel, which is again linked to leverage. Hedge funds are granted borrowing facilities by their prime brokers (and bilateral bank counterparties) with the extent of borrowing typically linked to the value of

73 "The high-level group on financial supervision in the EU report" published in February 2009.

their assets. For example, a broker might permit a hedge fund to borrow up to 3 times its assets on the basis it provides assets as collateral.

However, where a market suddenly falls and a hedge fund's collateral deteriorates in line with this, the borrowing ratio might be breached.[74] The hedge fund would then be required to sell securities to restore the ratio required by its lender. In a falling market this may create a "vicious circle" of declining prices which continuously require more sales into a deteriorating market. Furthermore, in the light of falling markets, the brokers themselves may be unwilling to lend as much to hedge funds as they were previously and act promptly to reduce their lending limits causing hedge funds to sell yet more assets in order to reduce their leverage below the new (lower) limit.

It is clear that in Autumn 2008, this cycle of selling was evident in the hedge fund sector. However, it is important to assess whether this cycle was substantial enough to have a major impact on financial markets. In the rest of this section, we therefore examine the extent of selling and deleveraging and compare this with the size of certain markets and fund types.

Section 2.1.3 provided details on the size of the global hedge fund industry and noted that AUM in the global hedge fund industry grew to approximately $1.9 trillion (€1.3 trillion) in 2007, but dropped to about $1.4 trillion (€1.0 trillion) by the end of 2008. This is based on the net asset value of the funds and does not include any leverage, meaning that the figure represents the value of assets belonging to the funds' investors. Gross assets of hedge funds, including leverage, would result in a much higher set of figures, as demonstrated show in the subsequent section on deleveraging.

Net inflows and outflows from hedge funds

Figure 25 shows the amount of inflows and outflows from hedge funds over the last few years. Inflows and outflows are the net amounts of money that investors are putting into hedge funds (by subscriptions) or taking out of hedge funds (through redemptions).

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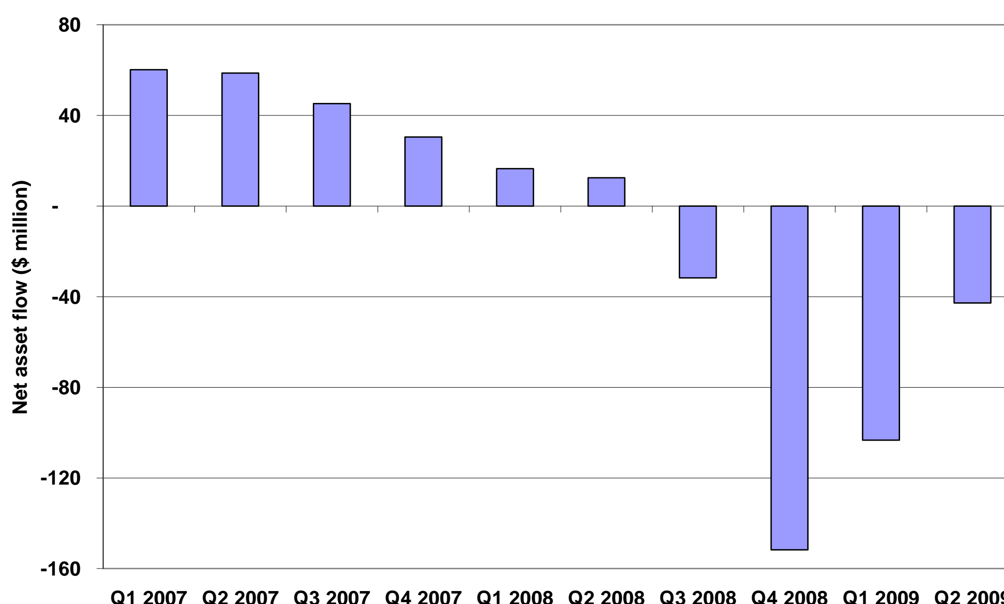
74 This assumes that the value of the assets in the hedge fund declines with a general downturn in the market. In practice some hedge funds will take positions such that the value of their assets would actually increase in the case of a general market decline.

Figure 25: Net asset flow of global hedge fund industry Q1 2007 – Q2 2009



Source: HFR, HFR global hedge fund industry report, Q2 2009, p13.

As Figure 25 shows, the global hedge fund industry continued to experience positive net asset inflows until the end of the second quarter of 2008. Only in the second half of 2008 did the hedge fund industry start to see negative net asset outflows as the financial crisis deepened and the global markets slumped.[75] The chart above demonstrates that these outflows peaked in Q4 2008, during which period over $150 billion of outflows occurred. The concentration of outflows at the time of key stress in financial markets is to be noted. It is also important to realise that these outflows represent investor redemptions and are not equivalent to total sales of securities by hedge funds in the process of deleveraging.

Deleveraging

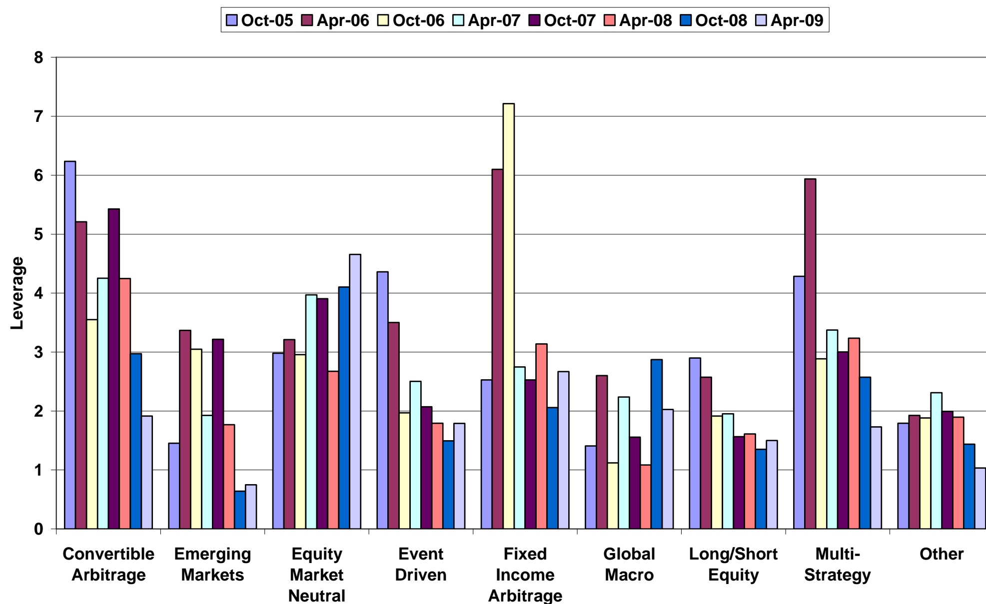
In order to understand the effect of deleveraging, we have examined different sources of evidence regarding changes in leverage over time. It is noteworthy that the level of leverage estimated by different data providers varies considerably. This is partly an indication of the differing metrics and definitions of leverage that are used, as well as a reflection of differences in the sample of funds examined. Nevertheless, a similar trend can be observed across all of the evidence.

As noted in section 2.1.3, one of the difficulties associated with leverage is that it can be defined and measured in a number of different ways, and even when measured in the same manner the results can be expressed in different ways. Where possible we have therefore explained the leverage measure being used in the figures below.

75 There may have been some delays introduced through the effect of notice periods before investors could withdraw their money or through the use of "gates" which prevented redemptions during a particular period of time.

Figure 26 below is based on information from the FSA's semi-annual prime brokerage survey. It demonstrates that there is considerable variation in the use of leverage both between different strategies and also over time (even before the financial crisis). The definition of leverage used in this data is the long market value (the sum of the value of all long market positions held by the fund) divided by net equity. This definition is narrower than that used in the Directive.

Figure 26: Long leverage by strategy over time



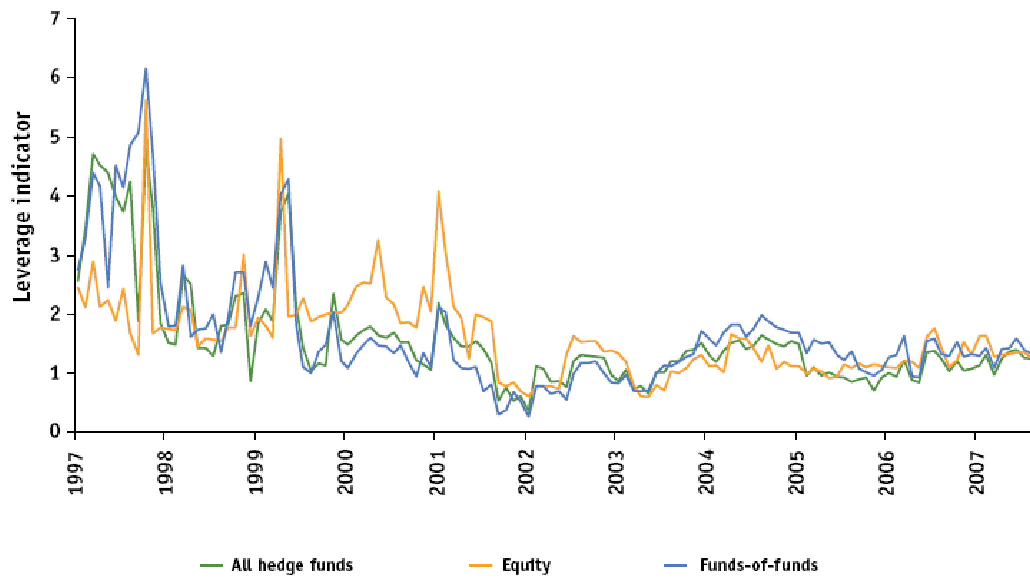
Source: FSA, Semi- Annual Prime Brokerage Survey, April 2009. Data provided to CRA by the FSA. Leverage is defined as the long market value divided by net equity. The sample is based on the top 20 clients identified by the surveyed prime brokers.

Figure 26 shows that in general leverage declined over the 18-24 months to April 2009.

The FSA has provided additional information regarding the average level of leverage over this period across all of the firms responding to their survey. The FSA's calculations show that average balance sheet leverage peaked at 1.9 in April 2007 but has since fallen to stand at 1.2 as at April 2009.[76]

76 Figures provided to CRA by the FSA.

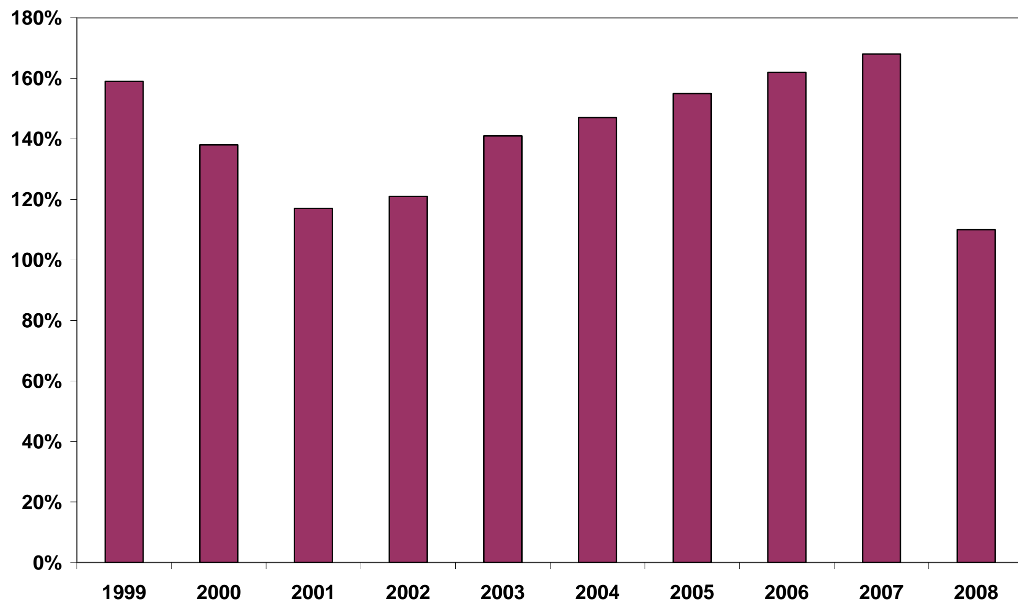
Figure 27: Estimated hedge fund leverage measures



Source: HFR, BIS calculations. Cited from FSA, "The Turner Review – A regulatory response to the global banking crisis", March 2009, p73. Note: The leverage indicator is estimated using a rolling (24-month window fixed effects) regression of hedge fund returns on a variety of market-based risk factors. It is the sum of the coefficients on these risk factors and is thus a measure of the aggregate sensitivity of hedge fund returns to movements in underlying prices. 'All hedge funds' includes market neutral (excluding equity hedged), directional, equity (including equity hedged), fixed income and fund-of-funds style families of active funds reporting to HFR database; weighted by assets under management in each style family.

Figure 27 above shows that the general level of leverage in the hedge fund industry has been decreasing from 1997 to 2007, although a different measure of leverage is used here compared with Figure 26 (as well as a different sample population).

Figure 28: Estimated leverage ratio (1999-2008)



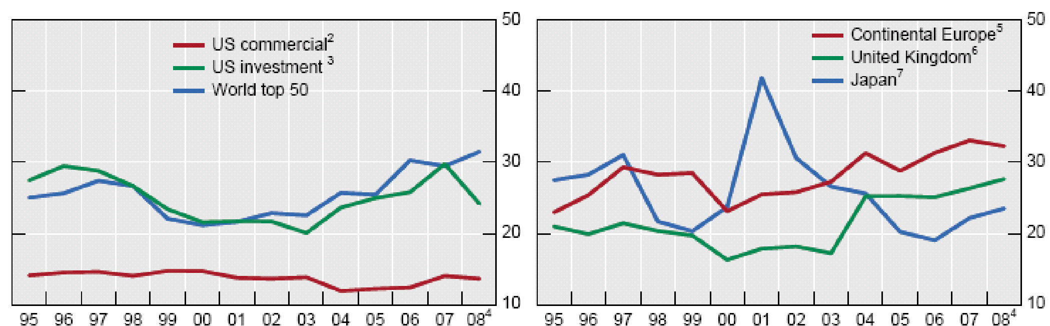
Source: Hennessee Group LLC, Financial Services Authority, IFSL estimates. Cited from IFSL Research, "Hedge Funds 2009", April 2009, p6.

Figure 28 above provides evidence from IFSL regarding the change in leverage over time. This suggests that there was an increase in the use of leverage from 2001 to 2007 followed by a sharp reduction in 2008.

Although the magnitudes of leverage used in each of the three charts above vary, what they have in common is that they demonstrate deleveraging occurring from 2007 to 2008. In addition, most of the charts suggest that the level of leverage has been around 2 or less throughout the last few years and declined to less than this during 2008.

It is useful to consider the leverage used by hedge funds in the context of levels employed by other financial institutions. Figure 29 below shows that leverage ratios in banks are substantially higher than those seen in hedge funds with ratios between 20 and 30 in contrast to average levels seen in hedge funds of around 1-2.

Figure 29: Bank balance sheet leverage ratio



Source: Bankscope, cited from Financial Stability Board, Joint FSF-CGFS Working Group, "The role of valuation and leverage in procyclicality", March 2009, p7. The leverage definition is the total assets divided by total equities of individual banks weighted by asset size.

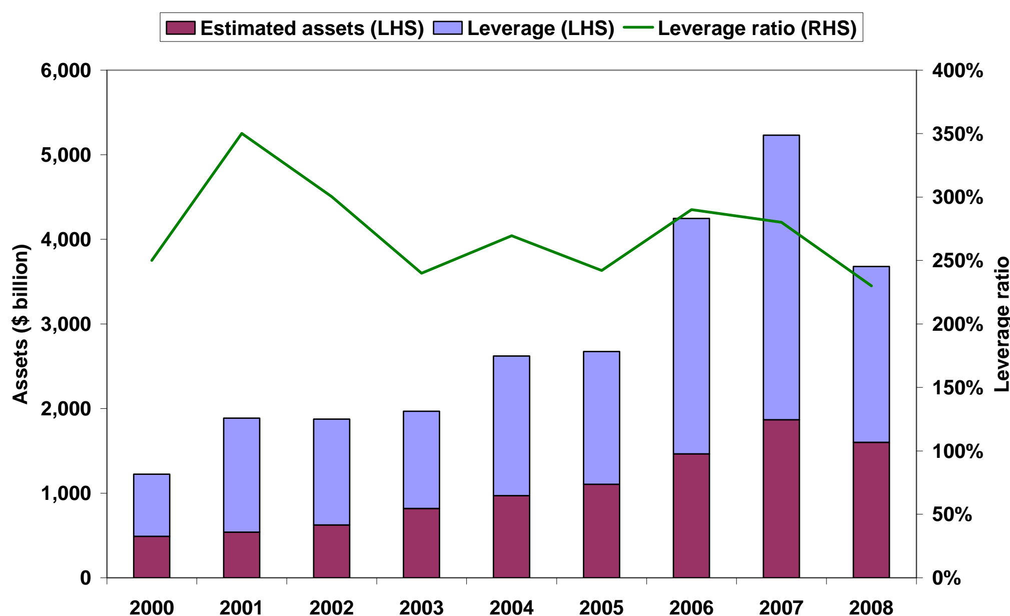
While risk adjusted measures of leverage for banks (such as the reciprocal of the Tier 1 capital ratio for banks) result in lower values for leverage being reported, they still remain well above the levels for hedge funds shown in Figure 26-Figure 28 above.[77]

Gross assets in hedge funds

As noted earlier, the gross assets of hedge funds are much greater in value than net assets because gross assets include securities purchased with leverage. Figure 30 and Figure 31 below demonstrate the impact of leverage on the total position of the hedge fund industry. Simply, hedge fund assets are dramatically larger when the impact of leverage is accounted for.

Figure 30 shows the leverage ratio declining in the early years of the decade from a peak in 2001 before increasing again towards 2006. Total market positions of hedge funds fell from $5.2 trillion in 2007 to $3.7 trillion in 2008. While some of this decline represented a decline in net assets (around $0.3 trillion), around $1.3 trillion was due to leverage.

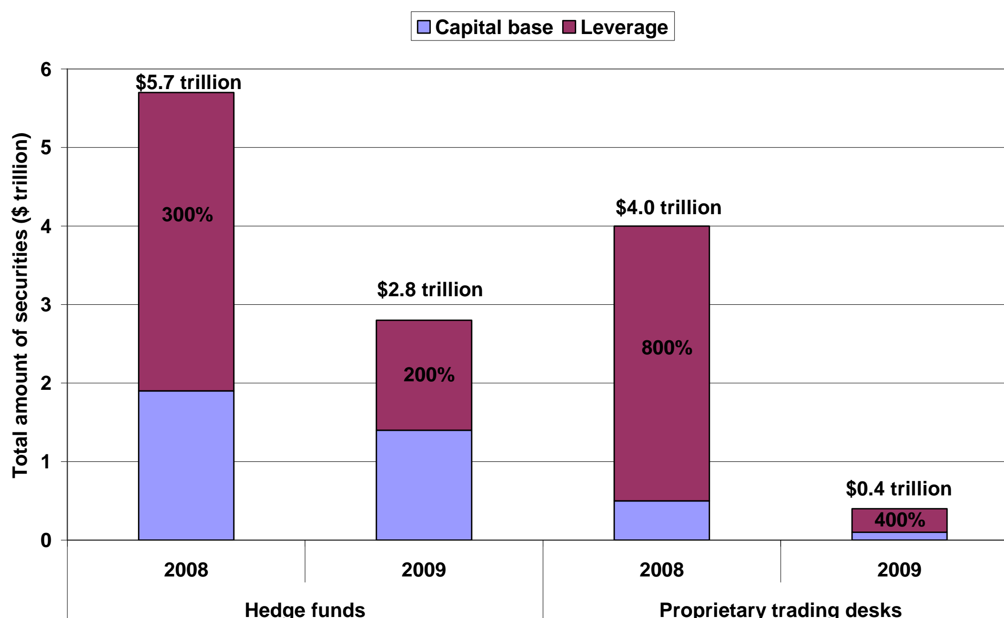
Figure 30: Leverage position in the hedge fund industry from 2000 to 2008



Source: Data provided to CRA by AIMA and based on evidence from HFR and Credit Suisse.

77 Financial Stability Board, Joint FSF-CGFS Working Group, "The role of valuation and leverage in procyclicality", March 2009, p7.

Figure 31: Deleveraging of hedge funds and proprietary trading desks



Source: Data provided to CRA by interviewee.

A similar picture is evident when considering additional information provided by one of our interviewees which also shows a comparison between hedge funds and proprietary trading desks. It is clear from the data presented in Figure 31 that proprietary trading desks (which do not fall under the scope of the Directive) are more highly leveraged than hedge funds, with a leverage ratio of 8 in 2008. According to these calculations, between 2008 and 2009, the total market position of hedge funds declined by $2.9 trillion, of which $2.4 trillion represented the unwinding of leverage. At the same time, proprietary trading desks saw a decline in their total market position of $3.6 trillion, of which $3.2 trillion represented the unwinding of leverage.

Differences in the values in Figure 30 and Figure 31 above are likely to reflect slight differences in timing of the calculations (Figure 31 represents estimates on 1st January each year). Nonetheless, it is clear that the declines due to leverage have been substantial (around $1.3-2.4 trillion) in comparison to the reduction in net assets of hedge funds (around $0.3-0.5 trillion).

It is useful to set this figure in context of the overall funds industry. Evidence from EFAMA suggests that the AUM of the worldwide funds industry was approximately $26.2 trillion in 2007, shrinking to $18.9 trillion by the end of 2008 - a reduction of $7.3 trillion. This $7.3 trillion decline in the value of global funds would have occurred through a decline in the value of underlying securities held by these funds as well as through redemptions by investors which would force selling of securities. The analysis above related to hedge funds indicates that, relative to changes in the AUM of the global funds industry, the overall impact of the reduction in values of hedge funds due to leverage (up

to $2.4 trillion) was quite large.[78] In addition, several commentators have suggested that hedge fund holdings may have been concentrated in certain sectors or financial instruments and that the deleveraging effect would therefore have had an even more pro-cyclical effect in those specific markets. We have not, however, been able to find concrete evidence on this point.

Conclusions on systemic risk through the market channel

In this section we sought to examine whether it was possible that, through the use of leverage, the hedge fund industry could have transmitted systemic risk through the market channel. The evidence provided above indicates that during 2007-2009 the hedge fund industry experienced a substantial decline in net assets. However, its market (or gross assets) position declined to an even greater degree reflecting both the impact of leverage itself and also a reduction in leverage that has been observed. The extent of this selling does appear to have been sufficiently non-trivial to have contributed to a vicious circle of declining prices (which continuously require more sales to be made into a declining market), and for this selling to have had an impact on overall financial markets.

This conclusion is also consistent with other reports that have examined this issue. For example, the Turner Review notes that,

> *"hedge fund activity in aggregate can have an important procyclical systemic impact. The simultaneous attempt by many hedge funds to deleverage and meet investor redemptions may well have played an important role over the last six months in depressing securities prices in a self-fulfilling cycle."*[79]

In addition, the de Larosiere Group concluded that,

> *"they (hedge funds) did not play a major role in the emergence of the crisis. Their role has largely been limited to a transmission function, notably through massive selling of shares and short-selling transactions… hedge funds can add to the leverage of the system and, given the scale at which they can operate, should a problem arise, the concentrated unwinding of their positions could cause major dislocation."*[80]

Given the evidence that the hedge fund industry can lead to the transmission of systemic risk through the unwinding of leveraged positions within short periods thereby impacting financial markets as a whole, section 5.2 below considers the impact of the AIFMD in addressing these issues.

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78 We note that these figures may not be directly comparable. We also note that other active investors in global financial markets hold securities directly, so using the comparator of the global funds industry may overstate the relative impact of hedge funds on markets.

79 "The Turner Review – A regulatory response to the global banking crisis", March 2009.

80 "The high-level group on financial supervision in the EU report" published in February 2009.

5.2. AIFMD measures addressing systemic risk

As noted at the start of this chapter, there are three areas in which the AIFMD imposes requirements on funds that are considered to be systematically leveraged:

- Disclosure to investors about potential and actual leverage - there is no evidence to suggest that disclosure to investors would help to reduce systemic risk being transmitted through the market channel hence we do not consider this further. The benefits of disclosure to investors have been considered in section 3.1;
- Disclosure of information to competent authorities – we consider this in section 5.2.1; and
- Limits on leverage applied either by EC or additionally by competent authorities in exceptional circumstances – we consider these in section 5.2.2.

5.2.1. Disclosure to competent authorities

As noted in section 2.2.7, disclosure of information regarding leverage would be expected to lead to benefits from improved monitoring of the aggregate level of leverage in the market. Increased transparency towards regulators was advocated by the de Larosiere Group as necessary in order to improve macro-prudential oversight.

As discussed above, there is no evidence that hedge funds were the cause of the most recent financial crisis via the credit channel, although there is evidence that they transmitted systemic risk through the market channel. However, one concern that has been raised by the Turner Review is that the situation could change in the future,

> *"it is possible that hedge funds could evolve in future years, in their scale, their leverage, and their customer promises, in a way which made them more bank-like and more systemically important."*

As such, the provision of additional information to competent authorities across Europe can be used to assist authorities to monitor the activities of hedge funds and identify whether or not trends in their development are likely to lead to increases in systemic risk.

However, it is unclear that disclosure of information alone will act to mitigate systemic risk since while competent authorities may be able to observe increases in systemic risk, unless they have additional tools at their disposal to act upon this information they may be constrained from taking any action. Hence the Directive has also sought to introduce additional powers relating to leverage limits, which are examined below.

5.2.2. Leverage limits

Article 25 allows for limits on leverage to be applied by the EC and additionally by competent authorities in exceptional circumstances.

At present, the detail on leverage limits has not been specified, although the Directive indicates that these limits should take into account the type of AIF, their strategy and the sources of their leverage. As such, it is not possible to assess in detail the anticipated

impact of these limits. Hence much of the discussion below focuses on theoretical and practical issues related to such limits.

Potential benefits of leverage limits

As noted above, there is evidence that hedge funds contributed to the financial crisis through their market activities, which had the affect of transmitting systemic risk through the market channel (but not creating systemic risk through the credit channel). The evidence shown in Figure 30 and Figure 31 above indicated that there was a substantial decline in the market positions of hedge funds during the financial crisis and that the great majority of this decline resulted from deleveraging.

As such, introducing a permanent leverage limit would be expected to reduce the extent to which the transmission of risk arises through the market channel. With lower leverage limits in place, hedge funds would be unable to achieve the overall market position possible in the absence of such limits. This could theoretically reduce the amount of selling likely to occur at a moment of crisis.

The extent to which this would work in practice, however, depends on the extent to which the previous episodes of heavy selling of securities can be attributed to a small number of hedge funds with very high leverage (which we might expect to be caught by a leverage limit) or to large numbers of hedge funds with modest levels of leverage (which might not be caught by a leverage limit).

Further, it is unclear whether a leverage limit that is imposed only in exceptional circumstances would bring benefits in terms of reducing systemic risk because it is not certain whether such a limit would prevent the build up of leverage in advance of a problem. While such a limit could prevent further build up of leverage once brought into effect, this may be of less relevance because experience shows that hedge funds substantially reduced leverage during the course of the crisis even without any temporary limits being imposed on them. In addition, there is limited evidence that particular funds actively sought to increase leverage during the early part of the crisis before reducing leverage (even more) sharply later.

It is also possible that hedge fund managers may anticipate that a particular limit would be imposed in certain circumstances and may therefore act pre-emptively to reduce leverage below this limit. Should this occur then a temporary limit may be similar in its effect to a permanent limit.

Potential costs of leverage limits

There are also a number of costs associated with the imposition of leverage limits:

- Loss of investor choice – as noted in section 3.2.2, imposing leverage limits implies that funds or strategies that use a high degree of leverage will no longer be available

for EU investors.[81] Evidence in section 2.1.3, demonstrated that approximately 27% of hedge fund assets under management are held in funds with leverage greater than 2. This reduces the variety of funds available to investors.

- Decrease in returns – A reduction in investor choice leads to a loss of diversification benefits and, as explained in section 3.4, a consequent reduction in returns.

- Differing impacts on different funds – Although the EC has indicated that leverage limits would vary across different fund types, it also needs to be noted that the impact of a leverage limit may vary for different types of funds. As noted in section 2.1.3, certain types of strategies, such as statistical and convertible arbitrage strategies, typically employ high levels of leverage and may be especially impacted by restrictions. Some interviewees have suggested that leverage caps may in fact worsen a crisis by preventing certain types of funds from pursuing strategies which result in the provision of liquidity to other market participants.

- Pro-cyclicality – One concern about leverage limits is that limits themselves could exacerbate the pro-cyclical impact of hedge funds through the market channel. If leverage limits are binding, then it is likely that those funds for which the limits are binding will operate close to their leverage limit. In the event of a sudden decline in the value of markets, such funds may be in danger of breaching their leverage limits and may therefore be forced to sell assets in order to remain within their limits. This would involve selling assets beyond what might be necessary from the perspective of retaining sufficient collateral with brokers (since absent the regulatory limit, brokers would be willing to offer greater leverage).[82] Such selling of assets would contribute to increased systemic risk through the market channel and would be exacerbated if many funds are in the position of operating close to their limit. At present the leverage offered by prime brokers differs according to the strategies and creditworthiness of individual funds so that there should be a dispersed and less uniform reaction from hedge funds to systemic events under the current system than with a leverage limit. By contrast, leverage limits may have the unintended consequences of driving the reactions of hedge fund managers towards simultaneity and encouraging herding behaviour to the greater detriment of markets.

The first two bullet points above discuss potential costs associated with permanent leverage limits, but these issues would not be expected to arise in the case of leverage limits that are only applied by competent authorities in exceptional circumstances and therefore result only in a temporary loss in investor choice and returns.

The issues raised in the third and fourth bullet points are likely to be relatively worse under a permanent leverage cap than under a temporary one. This is because competent authorities may be more flexible in their application of a temporary cap enabling positive

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81 This could occur either because funds with high leverage no longer market to EU investors or because funds with high leverage reduce their use of leverage in which case high leverage funds are still not available to EU investors.

82 While arrangements between hedge funds and their brokers do have limits on leverage, discussions with prime brokers have indicated that many hedge funds use much less than the full borrowing limit available to them.

aspects of leverage (such as the provision of liquidity) to be maintained during times of market instability as well as reducing the pro-cyclical impact of such limits.

A number of market participants have also noted that, as leverage limits are not widely used at present, there is little information readily available to assess their impact.

Potential ineffectiveness of leverage limits

In addition to considering the theoretical costs and benefits of leverage limits, it is also important to examine whether or not such limits would be effective at reducing systemic risk, since this is the reason for imposing such limits. There are a number of factors which suggest that the effectiveness of such permanent limits in reducing systemic risk could be constrained. These include:

- The ability to “get around” the legislation – Interviewees have indicated that hedge funds would be likely to find creative ways to use futures, options, and other exotic financial instruments to simulate the effect of balance sheet leverage. These might be extremely difficult to understand and observe. It is possible that the ability of competent authorities to manage a crisis situation would thus be diminished rather than enhanced;

- The use of leverage by non-domiciled funds – As indicated in section 2.1.3, only around 5% of hedge funds are domiciled within the EU and only around 26% of hedge fund assets are managed in the EU. Funds that are not authorised under the AIFMD are nonetheless able to trade on EU regulated markets. As such their investments and trading decisions will still affect these markets including through the transmission of systemic risk via the market channel; and

- The use of leverage by other entities – As shown in Figure 31 above, proprietary trading desks used a greater amount of leverage in recent years than was typically employed within hedge funds. Proprietary trading by banks or other financial institutions is not within the scope of the AIFMD and therefore leverage could continue to be employed by these entities (at levels well above those imposed on hedge funds).

The second and third bullet points above indicate that the AIFMD will impose leverage limits only on a subset of the entities that regularly use leverage. These other entities will retain the ability to use leverage without additional constraints being placed on them. As such it is very unclear that the limits in the AIFMD will be effective in preventing the transmission of systemic risk since the majority of assets will be unconstrained by leverage limits.

5.3. Summary regarding systemic risk

Due to concerns that leverage causes systemic risk, the Directive imposes additional requirements on leveraged funds (of particular relevance for hedge funds). Evidence is consistent with hedge funds not being the underlying cause of the recent financial crisis. However, they do appear to have contributed to the transmission of systemic risk as declines in asset values caused leveraged hedge funds to sell assets as a result of margin calls and investor redemptions which caused asset values to fall further still. The

total market position of hedge funds declined by around $2.9 trillion between the end of 2007 and the end of 2008, of which up to $2.4 trillion was due to unwinding of leverage. These amounts are non-trivial in terms of their impact on financial markets.

Provision of information on leverage to competent authorities is expected to bring benefits from improved monitoring and macro-prudential oversight and can also be used to identify whether or not trends in hedge fund activity increase systemic risk in the future.

The impact of leverage limits would be expected to reduce the extent to which the transmission of risk arises by limiting the build up of leverage. However, such limits could add to pro-cyclicality at a time of crisis by forcing hedge funds to sell to stay within the prescribed regulatory limit. In addition, investors would no longer have access to particular strategies with high leverage, further reducing choice and returns.

Furthermore, permanent leverage limits may be ineffective because institutions could design financial instruments to get around leverage restrictions. This may result in reduced regulatory oversight due to increased product complexity. In addition, non-EU domiciled hedge funds, proprietary trading desks of banks, and other financial institutions which are not regulated by the AIFMD would be able to continue to use leverage and trade on regulated markets in the EU without leverage limits. It is therefore very unclear that the AIFMD will be effective in preventing the transmission of systemic risk associated with leverage.

6. COSTS OF COMPLYING WITH THE AIFMD

The AIFMD creates new regulatory requirements for AIFM and therefore inevitably leads to compliance costs. Interviews with industry associations, product providers and professional investors indicated that there were a number of areas where all interviewees agree that that the Directive would engender significant new regulatory costs.

It is especially notable that investors in AIF were also concerned with the additional compliance costs imposed on product providers that they believed would eventually be passed on to them in the form of increased charges or lower returns. Ultimately the reduction in investment returns will affect European savers. In the case of pension funds, which are one of the major investors in AIF, this would ultimately impact the retirement benefits of pensioners.

The provisions of AIFMD which interviewees believe could have the most significant impact on compliance costs include:

- Transparency requirements related to portfolio companies (Article 26-30) which is considered in section 6.1;
- Mandatory use of independent valuators (Article 16) which is considered in section 6.2;
- New capital requirements (Article 14) which is considered in section 6.3;
- Rules regarding depositaries (Article 17) which is considered in 6.4;
- Rules on delegation (Article 18) which is considered in section 6.5;
- Rules regarding domicile of the AIF (Articles 35 and 39) which are considered in section 6.6; and
- Legal restructuring costs (Article 2) which are considered in section 6.7.

In addition, section 6.8 provides a summary of the total expected compliance costs. It provides an estimate of the total costs scaled across the industry and compares this to assets under management in AIF. Where appropriate, we have provided separate estimates on costs for different types of funds where this varies significantly. Where possible, we have also sought to differentiate between one-off incremental costs and ongoing costs.

The information necessary to develop cost estimates for this section of the report has been derived from several sources including:

- Interviews with market participants which highlighted current practices regarding the particular issue as well as examining the operational and cost implications from various aspects of the Directive;
- A review of industry data including the costs associated to similar activities conducted for UCITS funds or that are undertaken for a subset of funds today;

- Assistance from several industry associations with further evidence on likely costs as well as in terms of the provision of data necessary for scaling of the information we received; and

- Responses to a short CRA survey focused on key areas of the Directive which had been highlighted during the interview programme. Due to the brief timeline in which our research was conducted, detailed responses were provided by nine firms, although additional evidence on the costs of some parts of the Directive was also provided by other interviewees. The firms providing detailed responses were large and knowledgeable industry leaders and thus the results of the survey are considered to be a reasonable indication of the expected costs of the Directive. We received responses from hedge funds, private equity firms, and large asset managers (some of whom managed hedge funds, private equity funds and real estate funds). However, it should be noted that with a small sample, the likely sampling error around these estimates could be large. In addition, it should be noted that responses were provided by firms which are large, and compliance costs (that commonly have a fixed component) would be expected to be higher as a percentage of assets under management for smaller firms in most categories of cost.

Each of the cost items is discussed in turn below. It should be noted that, given the timescale for our research and the stage of developments of the AIFMD, the estimates of these costs are indicative and we have not sought to provide cost estimates of complying with all parts of the Directive. Instead we have focused on those areas where interviewees have indicated that the costs would be expected to be most significant. Once the AIFMD has reached its final form, it would be necessary to assess the costs of all parts of the Directive across a wider group of market participants. Some of the elements of the Directive where costs have not been assessed include: authorisation itself; conflicts of interest; risk management; liquidity management; and notification of marketing in other member states.[83] Furthermore, cost information has only been collected for investment trusts and real estate funds on a small number of elements of the Directive where market participants indicated that these were particularly concerning (although qualitative evidence on these funds has been included where possible).

In addition, we have not sought to set out costs which would be incurred by various competent authorities in supervising and enforcing its additional responsibilities. Finally, while the intention is to estimate European compliance costs, we have not attempted to estimate how regulation in different member states affects the incremental cost of complying with the directive.

83 This does not imply that these additional elements of the Directive impose no costs rather that they were not considered to impose the most significant costs compared to other issues. For example, a strict risk management system may impose fixed costs particularly affecting small firms. Similarly, liquidity management systems may impact funds with fixed redemption points or could have impacts on the ability to invest all assets in underlying securities.

6.1. Transparency requirements

The Directive has a number of different implications for transparency. Although some elements of these were identified as likely to have significant compliance costs, other elements were not.

Articles 19-21 of the AIFMD impose various transparency requirements towards investors and regulators. Much of the information required to be provided to investors is traditional in nature, involving issues such as the production of annual reports, a description of the investments strategies undertaken by the AIF, risks of these strategies, details on management charges and fees incurred by the fund. In addition, the identity of the valuator, depositary and any delegated functions will need to be made clear, as well as the auditor. Given that many of these issues are typically already revealed to investors, costs are expected to be limited compared to other aspects of the Directive where costs have been identified as more significant and we did not attempt to collect these specific costs.

As well as the cost of the disclosures themselves, we would expect costs to arise in respect of implementing operational changes in order to be able to transmit information to competent authorities regarding various aspects of the fund's activities. This may be of particular relevance in respect of funds which use leverage since they are required in the Directive to make detailed disclosures regarding their use of leverage to regulators, and to make clear their liquidity management arrangements and level of liquidity available. Costs associated to providing information to competent authorities have not been gathered and would need to be in a more detailed assessment. This may be of particular concern for smaller funds especially since, in the UK (where many hedge funds are managed), large funds already provide information to the FSA and therefore incremental costs for these larger firms would be expected to be lower.

In addition to transparency requirements related to the fund, are transparency requirements which arise in Articles 26-30. These requirements are limited to the situation where AIFM acquire more than 30% of a company.[84] As such, the requirements are only of relevance to private equity and venture capital funds, since these funds are the only funds likely to take stakes of this size in a particular firm. In addition, where an investment in a portfolio company is made that was previously listed on an exchange but is no longer admitted to trading, certain disclosure requirements on listed companies will continue to apply for two years. A number of specific disclosures must be made on issues such as business plans, acquisitions and divestitures of portfolio companies, and a number of other issues. It is noteworthy that other types of investors in such companies would not be required to make such disclosures thus creating an unlevel playing field (see section 4.3 for more information on this).

6.1.1. Cost of providing additional disclosures by AIFM

The cost of disclosure varies widely by type of AIF:

84 The requirements do not apply where the portfolio company is an SME (employs fewer than 250 people, has a turnover not exceeding €50 million and/or a balance sheet not exceeding €43 million).

- Real estate funds and investment trusts: the managers of real estate funds and investment trusts indicated that there would not be significant costs associated to the disclosure information since they already provided information to their investors which was broadly in line with the Directive requirements;[85]

- Private equity and venture capital funds: these funds stated that there would be extra costs arising from the requirement to publish information concerning portfolio companies. The relevant information was generally already available to their investors, and therefore there would be little additional cost of disclosure to investors, but significant cost of disclosure to the public in general; and

- Hedge funds faced additional disclosure requirements to investors such as information on leverage and indicated that there would be additional costs regarding this. That additional costs are faced by hedge funds and not other funds in respect of disclosure of information to investors is consistent with interview evidence from investors that current disclosure information was weakest in the hedge fund sector and that additional disclosure from hedge funds would bring the greatest benefits.

Cost of additional disclosure to investors by hedge funds

Hedge funds reported that additional disclosure from AIFMD would lead to:

- one-off costs typically associated to the cost of staff needed to make system developments; and

- ongoing costs usually linked to compliance staff needed to manage the process of disclosure.

In both cases the costs were relatively modest, although this partly reflects the respondents to the survey operating large hedge funds - hence the estimates in Table 18 below may be under-estimates for smaller AIFM. In order to provide comparability across different cost types, we provide all cost numbers in terms of basis points.

Table 18: Cost of disclosure to investors (basis points)

	Hedge funds
One-off cost	0.3
Ongoing cost	0.1

Source: CRA calculations

Costs of disclosure related to portfolio companies

Costs associated to disclosure regarding the portfolio companies depend on the number of portfolio companies in which private equity and venture capital funds invest where the

85 It should be noted that the Directive indicates that further implementing measures may be specified and therefore costs can not be assumed to be zero if additional disclosure requirements are made.

investment represents more than 30% of the portfolio company. No funds had specific rules in place regarding the proportion of equity they would take in a portfolio company and all fund managers indicated that this would depend on the specific details about the portfolio company and the amount of capital which would be invested in it. Hence the actual number of investments in portfolio companies which would be affected by this could vary considerably between different funds. Interviewees indicated that the majority of information that needs to be disclosed already exists within the portfolio companies and therefore costs reflected the need to organise this information and make it more publicly available. Costs were seen as ongoing costs with no need for one-off set up costs.

Evidence from respondents to the survey indicates that the costs of the additional disclosures were estimated to be around €15-35,000 per individual portfolio company. On average the cost of disclosure per portfolio company was estimated as €26,000 although the absolute amount was higher than this for private equity funds and lower for venture capital funds. This reflects the fact that venture capital funds tend to invest in smaller less complex companies. However, as noted below, when these calculations are converted to basis points, disclosure is more expensive for venture capital funds than for private equity funds reflecting the fact that venture capital funds tend to invest in smaller underlying companies.[86]

Table 19: Cost of disclosure regarding portfolio companies (basis points)

	Private equity	Venture capital
Ongoing cost	2.9	3.7

Source: CRA calculations

6.2. Mandatory use of independent valuators

Article 16 of the proposed Directive requires the appointment of an independent valuator for each AIF. A valuation must occur at least once a year and each time that shares or units of the AIF are issued or redeemed. The extent to which independent valuators are used currently varies between different types of funds. Auditors are frequently involved in performing external checks on the valuation process either through verifying the methodology employed of the valuation, checking the ownership of certain assets and in some rare cases undertaking the actual valuation for certain difficult to value assets:

- Hedge funds trade in listed securities, although they would also purchase various financial instruments such as over the counter (OTC) derivatives and other relatively illiquid assets. It is these latter instruments which create valuation issues.

- Investment trusts are themselves traded securities and therefore the benefits of an independent valuator are unclear when the market itself determines the price at which investors can buy and sell the fund. However, investment trusts typically trade at a

86 It was not possible to accurately assess the proportion of investments in SMEs where venture capital funds would not be required to disclose information.

price which is at a discount (or occasionally a premium) to the underlying net asset value of the securities owned.

- Real estate funds do currently appoint a valuator to assess the value of physical property, although the assets themselves are illiquid. In the UK, the valuator is typically a chartered surveyor who conducts valuations according to standards set out by the professional body. This generally means that real estate funds already conduct independent valuations and it was felt that AIFMD would not generate extra costs in this regard. Holdings of real estate funds in third countries would, however, be handled by surveyors in those third country locations (although they may have similar accreditation). The AIFMD states that third country valuation standards must be approved by the EU for the valuations carried out there to be acceptable. This provision could thus cause difficulty for EU domiciled real estate funds with real property assets in third countries. We were unable to gauge the extent of this problem, although it did not appear to be an overriding concern for our interviewees.

- Private equity and venture capital funds differ significantly compared to investment trusts and hedge funds in that the great majority of investments in private equity and venture capital funds are in non-listed securities. This presents the difficulty of how to undertake the valuation of the portfolio companies, which is a much more complex activity compared to valuing a fund which contains listed securities. At present, these funds have their own valuation teams internally which would provide valuations to investors on a regular basis, usually quarterly**.** While auditors do currently play a role in these valuations, it would typically be limited to confirming that the fund does in fact own the securities which it says that it owns, and in verifying that the methodology of the internal valuation team is robust.

6.2.1. Cost of independent valuators

Interview evidence was consistent in indicating that there would be a significantly different cost associated to the valuation of listed securities compared to the valuation of non-listed securities. Valuing listed securities is simple and straightforward. However, valuing securities which are either traded OTC or are unlisted companies is a much more complex activity and would therefore be expected to involve significantly higher costs.[87]

The cost for hedge funds depends on the extent to which they invest in OTC derivatives as opposed to using other trading strategies that are based on listed securities. Overall, firms provided information in terms of an annual cost of valuation services which was estimated as being up to €1 million.

Private equity and venture capital funds invest in non-listed companies and the valuation of the underlying portfolio companies is more complex than valuing listed securities. It was also unclear whether external valuators are well placed to undertake such a valuation since they would be less familiar with the portfolio companies and therefore may be less

[87] We would expect some one-off costs to arise associated to searching for and appointing a valuator, and some one-off costs to arise from setting up internal systems to enable the information to be provided to the valuator on a regular basis. Interviewees did not indicate that these costs would be especially high.

effective in conducting valuations. In addition, the benefit of an independent valuation is questionable for these funds since they are closed ended funds where investors are locked in. Redemptions can only arise at fixed points and the returns made by investors depend on the actual cash returns made by the fund when underlying portfolio company investments are sold rather than any measure of ongoing value.[88]

By contrast, the AIFM, who in these cases is typically partly involved in managing the actual company and providing ongoing assistance to it, will understand the details of companies' activities in greater detail. Private equity and venture capital firms would not reduce or eliminate their internal valuation capabilities in light of this potential change, since they would continue to seek to inform their investors about their own views of the valuation of the underlying portfolio companies. Hence costs associated to an independent valuator represent purely incremental costs.

Private equity and venture capital firms indicated that valuations would need to be conducted for each portfolio company. Estimates of the cost of this varied from around €8,000-€22,000 per portfolio company and it was notable that some respondents had already sought out cost information from potential suppliers or these services. In general, larger firms were likely to pay less per company because of the benefits of economies of scale, but venture capital firms were likely to pay less than private equity firms in absolute terms because of owning less complex companies (although more in basis point terms because they have smaller funds).

Table 20: Cost of valuator (basis points)

	Hedge funds	Private equity	Venture capital
Ongoing cost	0.9	4.3	9.2

Source: CRA calculations

Rather than requiring a full independent valuation of all securities of the funds, numbers of interviewees indicated that a lower cost alternative for funds investing in non-listed securities would be to use auditors to confirm the ownership of the investments.

6.3. New capital requirements

Article 14 requires AIFM to hold capital of the greater of €125,000 plus 0.02% of any amount by which the value of assets under management exceed €250 million or

88 In addition, transfer of ownership of units in the AIF is rare in private equity or venture capital funds and, when it does occur, professional investors who are buying and selling their units tend to undertake their own assessment of the valuation anyway (such transfers may also not coincide with the timing of the annual independent valuation). Furthermore, the charges made by the AIFM are not linked to ongoing valuations but are determined primarily by the realised value of the investments on sale which is clearly revealed. One of the implications of this is that there are limited concerns regarding misalignment of incentives between the AIFM and investors regarding over-valuing the investment. The only circumstance in which this might be a concern is if the AIFM is seeking to raise additional capital for a separate fund in which case it might have an incentive to overstate the value of its current fund. However, investors did not express concern about this and AIFM themselves indicated that investors tended to look at the realised value of investments rather than the forecasts of value anyway.

requirements under the Capital Requirements Directive (CRD) setting out the need to hold capital equal to 25% of fixed overheads. It is notable that this requirement exceeds those found in the UCITS Directive in which capital requirements are capped.

Most asset management companies are already required to hold capital under the requirements of CRD. However, private equity and venture capital funds have not previously faced capital requirements and therefore would typically hold only that level of capital which is necessary to meet the day to day needs of managing their investments. Private equity and venture capital fund managers might be considered to be at less risk of failure than other types of fund because of the stability of their income stream (which is structured as a fixed percentage of initial capital in a fund) and because they are closed ended funds and redemptions are rare. Hence, most interviewees reported that these firms have not been considered to have needed capital traditionally.

It is also worth noting that the issue of capital requirements for asset management firms is fundamentally different compared to requirements to hold capital in banks. In the case of banks, capital is partly held because of credit risks faced on the loans made. Since depositors and other providers of funding to banks have certain rights regarding receiving back the money that they have provided to the bank, other losses need to be absorbed by the bank's shareholders. Banks are therefore required to hold capital in an amount that ensures the bank will certainly be able to absorb the losses it incurs in order to protect the depositor (and other providers of funding to the bank).

In the case of an asset management company, the provider of funds (the investor) does not have an absolute right to get back exactly the same value of money which they invested. Instead, the money which investors receive back depends on the performance of the investments and the strategies undertaken. If investment strategies fail, or markets move adversely, the investor will incur the loss. It is not the responsibility of the asset manager to make good these losses by absorbing them in a capital reserve, as would be the case in a bank.

Prudential supervision of asset managers therefore tends to focus on two issues:

- segregation of client funds which prevents the asset manager from using client assets to enrich the finances of the asset management company itself; and
- provision of capital to enable an orderly run down of a fund should the manager fail or to facilitate the appointment of a new firm to manage the assets of the investors.

Given that capital has been linked to the desire to have an orderly run down or transfer of assets, the capital requirements have typically related to the operational expenses of the manager. While Article 14 makes AIFM capital requirements proportional to assets under management in most cases it is CRD requirements, based on operational expenses, which will be the requirement that is actually binding.

6.3.1. Cost of additional capital

Private equity and venture capital funds bear the major cost in terms of new capital since other funds typically already hold sufficient capital to meet the requirements. These funds have estimated the amount of capital which they would be required to hold.

As expected, the value of capital required is proportionately greater for smaller funds compared to bigger funds. Venture capital funds therefore face proportionately higher capital requirements compared with private equity funds.

All venture capital and private equity funds indicated that capital of well over €1 million would be required. We use a cost of capital of 10% to estimate the cost of holding additional capital and provide details of the average costs in the table below.

Table 21: Cost of capital requirements (basis points)

	Private equity	Venture capital
Ongoing cost	1.5	1.9

Source: CRA calculations

Interviewees indicated that capital requirements would be especially costly for small funds and for new companies which were seeking to start up. A small number of market participants suggested that this might impact innovation and entry of new private equity and venture capital funds.

6.4. Rules regarding depositaries

Article 17 requires a depositary to be appointed to undertake a number of tasks including receiving payments from investors, safe-keeping of financial instruments and verifying that the AIF has obtained ownership of assets. In itself this brings in a requirement to appoint a depositary where AIF may not have previously used a depositary.

There are three different elements to the depositary requirements which we examine in turn:

- Requirement to appoint a depositary – considered in section 6.4.1;
- Requirements related to liability - considered in section 6.4.3; and
- Requirements that the depositary be an EU credit institution – considered in section 6.4.4.

6.4.1. Requirement to appoint a depositary

The current use of depositaries varies across different types of funds:

- Private equity and venture capital – when investments are made into non-listed portfolio companies these tend to be associated with significant legal documentation. Venture capital funds often simply hold these documents in safes at their offices, although larger private equity funds might have separate offices in which this documentation is held. A number of these funds that we interviewed had previously used a depositary bank for safe keeping services but stated that they had stopped doing so as there had been little value for the services they provided and the quality of service offered had been poor. In one case, the bank itself had requested the arrangement be terminated since it did not fit with the rest of their depositary

business. No private equity or venture capital fund interviewed used depositaries for receiving payments from investors or verifying ownership (although the latter was done through the audit process).

- Real estate – As with private equity and venture capital funds, the assets owned by real estate funds are not frequently traded and are typically represented by documents such as deeds proving ownership of a building. These are usually kept in a safe on the premises of the fund, at a bank, or at a lawyer's office. No real estate fund was thought to use a depositary for receiving payments from investors or verifying ownership.

- Hedge funds typically rely on their prime brokers for depositary and safe-keeping services. This is one part of the suite of services provided to hedge funds by their prime brokers.

- Investment trusts typically already have an independent custodian (although this would not always be an EU credit institution).

For their part, depositaries noted that they had little interest in acting for private equity, venture capital and real estate funds, since the type of service these funds would require did not fit well with the depositaries' current business models. The depositary business model is typically aimed at managing millions or billions of transactions in shares or bonds with significant numbers of inwards and outwards fund flows and corporate actions. Responding to small scale paper-based safe-keeping tasks where there are few actual trades made, which would be the nature of activities for these types of fund, is at odds with this large scale systems based approach. It seemed clear to interviewees that this sort of paper-based firm would be charged a distinct premium for the service provided given that providers did not see this as an attractive commercial opportunity. This point was agreed upon both by depositaries and PE/VC funds and real estate funds.

6.4.2. Cost of the depositary requirement

The cost of depositary services for large firms trading in listed securities is generally thought to be around 1-2 basis points, although it would be higher for smaller firms. However, undertaking this activity for non-listed securities is significantly more costly:

- A small scale paper-based service to a venture capital fund was estimated as costing around 10 basis points. This was consistent with evidence from venture capital funds that had used a depositary in the past. It was also supported by evidence from discussions between interviewees and potential providers of depositary services; and

- Private equity funds reported depositary costs of 4-6 basis points and we therefore use an estimate of 5 basis points.

6.4.3. Liability requirement

In addition to requiring that there is a depositary, Article 17 makes the depositary liable to the AIFM and investors of the AIF for any losses suffered as a result of the depositary failing to perform its obligations, unless, in the case of safe-keeping, the depositary can prove it could not have avoided the loss which occurred.

This requirement brings in a stricter form of liability than is currently found in the UCITS Directive and many industry representatives have interpreted this as amounting to "strict liability". It is notable that interviewees were unable to cite examples of where the current form of liability found in the UCITS Directive had been found to be insufficient from the perspective of the investors.

In order to understand the impact of the liability requirements it is important to understand the way in which depositaries' business models currently operate. Since investments are made across the globe, depositaries typically operate a large network of sub-custodians in different countries. This arises for two main reasons:

- Since there are fixed costs associated with setting up an office in a particular country, it is only worthwhile for a particular firm to do this if it conducts sufficient business there to set up its own subsidiary. Otherwise, appointing a sub-custodian can be a cheaper way to organise the function; and
- In some countries, regulation requires that securities traded in that country have safe-keeping services from a local custodian bank.

If the AIFM invests in a large number of foreign markets its depositary would therefore need access to a large network of sub-custodians. Hence a global depositary bank will have a network of as many as 100 sub-custodians with the various sub-custodians acting as agents of the main depositary appointed by the AIFM. Some of these sub-custodians are subsidiaries of the depositary although most are not, leaving the depositary with liability for the performance of entities which it does not own.

A further aspect of the Directive's impact on depositaries is on the sub-custodian network itself. Interviewees noted that since depositaries would become liable for the performance of sub-custodians, they would reduce the number of sub-custodians that they would be willing to accept into their network. This would therefore reduce the risks brought upon them by strict liability. The practical impact of this reduction in the size of network is that it would become more difficult for fund managers to invest in "more risky" foreign countries as there might be no sub-custodian to hold purchased securities. This could have a negative impact on investor choice. Depositaries have indicated considerable concern about the liability requirements and indicated that making changes to their sub-custodian network would be likely. It is also notable that this concern also extends to sub-custodians in developed countries with the credit crisis having raised the possibility of collapse of major banks who would have acted as depositaries and sub-custodians.

The imposition of the liability requirement on depositaries means that they will need to take steps to ensure that they are in a position to meet the liability of anything going wrong. At present, regulation of depositaries has focused on controls, safeguards, systems, and proper internal functioning. Similarly, when appointing a sub-custodian, the depositary is required to undertake due diligence to ensure that standards remain high.

Capital requirements for depositaries have traditionally been quite low since they do not take on credit or market risk. However, bringing in stricter liability requirements imposes significant new risks for depositary banks. In particular, depositaries will face default risks from sub-custodians and may also have to incur additional costs in their due diligence process in order to prevent any claims that they are negligent. In addition, risks are

imposed due to the potential that the market moves against the depositary during the time between when they face liability, when they have to repurchase any securities which investors have lost and when they themselves might receive assets back from any entity which caused the default.

Each of these elements set out above would be expected to impose costs on the depositary because of the increased risks that they face. This increased liability would lead depositaries to either increase capital levels or to find insurance cover - although the latter was not considered likely by many depositaries. Due to the complexity regarding the different components of the risk potentially faced by depositaries, they were unable to provide any estimates of the cost of this part of the Directive.

However, many depositaries have indicated that they may be forced to reconsider their business model if they have to take on liability. Furthermore, depositaries indicated that they may not actually be willing to offer depositary services for AIFM under the requirements set out in the Directive.

6.4.4. Requirement for depositaries to be an EU credit institution

The final aspect of AIFMD related to depositaries is the requirement that the depositary be an EU credit institution. There are two elements to this:

- The first is that the institution concerned must have its registered office in the EU. This issue is not believed to impose significant costs although it may reduce the choice of the AIFM regarding the depositaries that can be appointed. In addition, it is unclear whether entities which are regulated as branches would be considered as meeting the requirements of the directive; and
- The second is the requirement to be a credit institution. At the moment, hedge funds would have depositary functions provided by their prime broker. There is uncertainty as to whether some these prime brokers can be considered to be credit institutions. Interviewees suggested that for these players this may be managed by applying formally to become a bank. The relevant players may already have banking licenses in certain European jurisdictions.

Interviewees were unable to provide costs associated with limiting the choice of depositaries to an EU credit institution. However, concerns have been expressed that this would reduce the choices available to AIFM as well as potentially leading to increased concentration risk as, for larger funds, there would only be a small number of large EU credit institutions who would be able to offer a sufficient service for them.

6.5. Rules on delegation in AIFMD

The AIFMD has a number of requirements which impose restrictions on the extent to which various functions in the investment value chain can be delegated to other parties:

- Article 18 requires that portfolio management and risk management can only be delegated to AIFM who are authorised to manage an AIF of the same type;

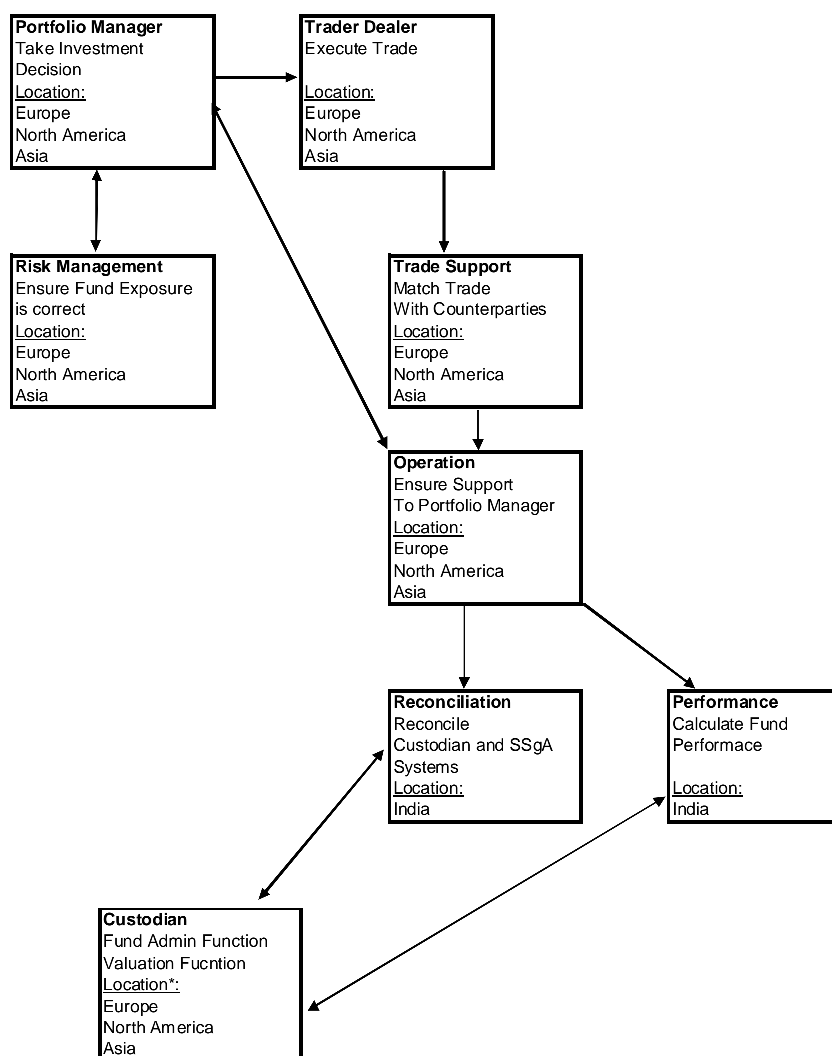
- Article 36 requires that administrative services can only be delegated to entities in a non-EU country if there is a co-operation agreement between the competent authority of the AIFM and the supervisory authority of the entity with adequate prudential supervision; and
- Article 37 requires that a valuator established in a non-EU country can only be used if the standards and rules of that country are equivalent to those in the EU.

The equivalence, or otherwise, of standards in other countries will be assessed by the EC after the Directive has been adopted and therefore at present no non-EU country can be assumed to have met the equivalence test.

These provisions are of great concern to large global asset management firms located in Europe. These firms have almost universally delegated some activities from their European AIFMs to other entities that are a part of their company but located in "third countries". These firms have structured their operations such that the value chain of different activities is spread across a range of different entities in various parts of the globe. Firms have done this in order to benefit from the comparative advantage of different locations in undertaking different activities. In many cases this may simply reflect that labour is cheaper in some (non-EU) countries compared to other locations. In other cases this reflects a desire by the firm to locate functional activities for their entire organisation in the same place. For example, firms might seek to have all of the administration for all funds conducted in one location even though the funds might be located in different domiciled, sold to different investors or managed in separate places. In particular, fund management teams might be spread across the globe in order for these key personnel to be close to the companies and markets in which they invest. These functions delegated across the globe will all support AIFM based in Europe. The delegation provisions of AIFMD, however, tend to render such a structure unworkable.

An illustration of this value chain has been provided by a major asset management company and demonstrates the complexity of where different activities might be located for a global firm. It demonstrates that certain parts of the fund management task may be conducted in North America, risk management may be located partially in Asia and administration might be performed in India. Under the AIFMD, AIF with this approach to their value chain would need to re-organise their activities in order to continue to market these funds to European investors.

Figure 32: Illustrative value chain



Source: Provided by interviewee

AIFM that are currently organised across the globe face a difficult choice amongst several options for dealing with the problem of becoming compliant with the Directive in its current form. They may:

- Relocate staff and systems from non-EU locations and place these functions within Europe;
- Duplicate all the staff and systems currently in other locations with similar staff and systems in Europe, so that the AIF marketed in Europe can continue;
- Wait for the foreign jurisdiction to be recognised by European authorities as having regulatory equivalence to Europe, at which point their value chain would comply with the Directive, but they would not be able to market these funds to European investors in the meanwhile; or

- Simplify the AIF offering in Europe by removing funds dependent on value chains where activities are conducted outside the EU. Interviewees especially affected by the provisions have indicated that they would need to consider which of their funds it was worth “saving” based on the size of their existing holdings and growth potential amongst European investors. Other funds would no longer be marketed to European investors.

6.5.1. Cost associated to delegation provisions

Assessing the cost of restructuring is complex, since relocating staff or duplicating staff both have considerable operational complexity including: assessing the funds which would continue to be marketed in Europe, identifying the functions for these funds that would need to be relocated to Europe, developing or transferring systems to operate in a new location in Europe, and transferring or hiring personnel with the requisite skills to undertake the activities in Europe. Given the operational complexity of this, interviewees were unable to provide robust estimates of the associated costs as they found it difficult to work through what changes might be needed.

In order to obtain a proxy for this we have therefore examined a small number of examples where global asset management companies have undertaken major restructuring operations. This is likely to provide a broad order of magnitude of the potential costs of restructuring, although this is an area where firms would need to consider likely costs in more detail in the future. Examples include:

- Restructuring costs of approximately €43m associated to the creation of Aviva Investors;[89] and
- Restructuring costs associated to BlackRock’s acquisitions of BGI and the integration of its operating units MLIM and Quellos. An examination of Blackrock’s quarterly accounts reveals restructuring line items of €26m and €15m associated with integration of these new businesses for half the 2009 fiscal year (€82m on an annual basis).

In comparison to relevant assets, these costs represent approximately 20-30 basis points. As well as uncertainty regarding the size of these costs, it is also unclear how many AIFM are currently structured as global businesses and would therefore have to incur these costs. These costs would only be faced by the large, global asset managers rather than by smaller asset managers who tend to be organised in a much simpler fashion in one location. There was no suggestion that venture capital firms would be affected by this provision. However, the firms that would be affected tend to offer all types of AIF and therefore we would expect to see costs associated to all types of funds.

In order to provide an indication of the possible value overall, we assume that only AIFM which have over €1 billion assets under management would be expected to face these

89 Based on Aviva’s 2008 financial statements.

costs.[90] Based on evidence from the EC's impact assessment, this would represent 33% of hedge funds assets under management. We therefore apply a factor of 33% to the estimate of 25 basis points (as the mid-point of 20-30) in order to obtain an estimate of 8 basis points which is then applied across all fund types except venture capital (which are not typically operated by global asset managers) and investment trusts (because legal structures have to be significantly changed – see section 6.7 below).

In addition to one-off costs, ongoing costs also arise because of having to operate a less efficient value chain. Evidence from interviewees suggests that the cost of undertaking activities within the EU rather than outside the EU might add 0.46 basis points for those funds that are affected. As with the one-off costs, applying this to those AIFM with over €1 billion assets under management brings this down to 0.15bp overall and is applied to all funds with the exception of venture capital and investment trusts.

6.6. AIF or AIFM which are domiciled outside the EU

Article 35 imposes restrictions on the marketing of AIF which are domiciled outside the EU. In particular, it is necessary for such funds to be located in countries which have made agreements in line with the OECD tax convention with member states and where requirements on depositaries are equivalent with those under the AIFMD. Article 39 allows member states to authorise an AIFM established in a non-EU country provided that the country has rules which are equivalent to those in the EU. As noted above, at present no non-EU country can be assumed to have met the equivalence test.

Faced with these restrictions, AIFM need to decide whether to relocate the domicile of the fund or the AIFM itself, or whether to cease the marketing of funds to European investors. The extent to which these restrictions will have an impact on the costs associated with relocating the AIF or the AIFM depends on the extent to which they are currently located within the EU which varies by different type of fund.

Based on interview evidence, UK real estate funds, private equity and venture capital funds have substantial proportions of funds domiciled in the Channel Islands. These funds have typically been located in the Channel Islands to avoid double taxation of the fund. For UK asset managers, domiciling the AIF in the Channel Islands is also reasonably convenient in terms of language, proximity, and legal/tax systems. The avoidance of double taxation could also be achieved by placing these funds in other onshore locations in the EU such as Dublin. In addition, the UK has recently altered its approach to funds to overcome these taxation concerns. This suggests that there would be minimal additional ongoing costs to the fund associated with lower tax efficiency because of bringing the domicile of the funds back into the EU and therefore no additional ongoing costs have been included. Information is not available regarding potential re-domiciling of other funds.

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90 A value of €1 billion assets under management is the largest value for which Information is readily available regarding the proportion of assets in large AIFM.

It should also be noted that there is a trade off between compliance costs and investor choice. If more funds re-domicile there will be more compliance costs but the reduction in investor choice will also be more limited.

6.6.1. Cost of relocating AIF

In order to estimate the total cost of relocating AIF, it is necessary to both identify the number of funds that may relocate as well as the cost of relocation. Evidence from interviews was unable to establish the proportion of funds that would re-domicile. Hence we have estimated the costs as follows. Table 22 sets out the calculation below assuming that all funds currently domiciled in the Channel Islands re-domicile within the EU.

Table 22: Cost of relocating AIF

	Private equity and venture capital	Real estate
Number of funds managed in UK [a]	1060	105
Proportion of UK managed funds domiciled in Channel Islands [b]	50%	25%
Average legal costs [c]	€875,000	€875,000
Total costs [d]=[a]*[b]*[c]	€437 million	€21.7 million
AUM managed in EU [e]	€222 billion	€254 billion
Proportion managed in UK [f]	59%	12%
Channel Island domiciled AUM[g]=[e]*[f]*[b]	€65 billion	€7.5 billion
Basis points for relevant funds[h]=[d]/[g]	66.7	28.9
Basis points for whole market [j]=[d]/[e]	19.7	0.9

Source: CRA calculations. [a] Private equity figure based on 4200 total funds in Europe, 1785 firms in Europe giving average number of funds of 2.4 per firm and 450 BVCA members.

It is important to note that in the case of private equity and venture capital funds, whether or not these costs are incurred is related to whether or not grandfathering is allowed. Each year a large number of private equity and venture capital funds will close as they reach their fixed end point and a large number of new funds are opened for capital raising. If grandfathering is allowed, existing funds would not need to face the cost of re-domiciling and new funds would be able to set up in the EU in the first place and therefore also not face the cost of re-domiciling.[91]

91 It is possible that these funds would face higher ongoing costs from being located in then EU rather than in the Channel Islands (since more favourable tax arrangements was the reason for locating in the Channel Islands in the first place). However, interviewees did not indicate the magnitude of this increased cost. It is also possible that fund managers would need to relocate – this cost has not been included in the calculations.

Costs are not incurred for investment trusts as they would need to change their legal structures (see next section) and therefore would not need to re-domicile in addition to this.

For hedge funds, we have calculated the cost of re-domiciling on the basis that a sufficient number of funds are re-domiciled to ensure that the current value of investments by EU investors are available are covered by funds which are either currently domiciled in the EU or re-domiciled. That is, we use the €160 billion investments at risk calculated in Table 9 which equates to around 1,085 funds and use the cost of re-domiciling as shown in the table above. This leads to a cost of 40 basis points.

6.7. Legal restructuring costs

The AIFMD applies to AIFM established within the EU and focuses on the AIFM as the legal entity to which the new regulation will apply. However, existing funds may not have a legal structure in which there is a clearly recognisable AIFM. This issue was of concern across all funds, although there are specific issues related to investment trusts in the UK which are structured as UK listed companies. Figure 33 below provides an illustration of some of potential structures in place.

Figure 33: Illustrative private equity or real estate company structure

Source: Provided by interviewee

One of the difficulties with the complex legal structures is that it is unclear from this which entity would be considered to be conducting the day to day management of the fund and therefore to which entity the AIFMD applies. Management services may be provided by a number of the elements in the structures shown above and not by a single entity that can be designated as the AIFM. In addition, the fund management may be provided in these

structures by a legal entity that is subordinated to another legal entity and interviewees have indicated that this may be inconsistent with the notion of the single AIFM.

Investment trusts

A further example of this difficulty arises in the case of the investment trust industry in the UK. Investment trusts themselves are public limited companies governed by UK company law with a Board of Directors as the decision-making body with regulatory responsibility. In an investment trust, the Board hires a fund manager and can replace this manager as necessary. It is unclear whether an investment trust could maintain this structure whilst clearly identifying the AIFM.

Interviewees have suggested that investment trusts may therefore need to dissolve their structure as a public limited company in order to become a compliant structure i.e. they would no longer be an investment trust. There is no obvious legal route to accomplish this switch, and it was therefore suggested that investment trusts would be required to liquidate over time by not issuing new shares and arranging to return investment funds to shareholders.

6.7.1. Cost of adapting legal structures

As with the costs estimated in section 6.5 related to restructuring the company because of constraints on delegation, estimating the cost of altering legal structures is complex. Interviewees have indicated that significant legal work would be expected to be required to bring existing funds into conformity with the notion of an overriding AIFM.

Given the uncertainty about what might be acceptable under the AIFMD, most interviewees struggled to provide estimates on this cost. However, one large fund manager was able to provide an estimate of costs. This fund manager suggested that around two-thirds of its funds might have a legal structure which would be unworkable under the AIFMD and that it might face €330,000 of legal costs to bring such structures into line with the Directive. Using this information, it was possible to estimate a cost of 14 basis points which we have used as the cost for all types of funds other than investment trusts which is considered below.

In terms of investment trusts, the industry has provided estimates of the cost of liquidating current structures and rolling investors into an open-ended structure. There are a number of steps:

- The cost of liquidating the company including drafting legal documents, circulating them to shareholders, advisory fees and liquidators costs. Costs for this were estimated as around £350,000 per firm. With 392 companies this represents a cost of €152 million.

- Many investment companies are geared with fixed rate loans which may have to be terminated early. The industry has estimated that firms have gearing of around 10% and breakage costs could average about 5% of the principal amount. This is estimated as costing €560 million.

In total this represents costs of €712 million or 64 basis points.

Additional costs might also be faced because of:

- the termination of management contracts (although this depends on whether managers are re-appointed to manage the resulting AIF); and
- potential needs to sell and re-purchase the underlying securities (this cost would be expected to be passed on directly to investors).

6.8. Summary of compliance costs of AIFMD by type of fund

As described above, the compliance costs vary considerably by fund type and by the different part of the Directive which is under consideration. In order to estimate compliance costs, we assume that a proportion of AIF re-domicile in the EU so as to continue serving EU investors. As such, the calculations for the cost of reduced investor choice and those for compliance costs are not additive.

The AIFMD will impose substantial one-off compliance costs of up to €3.2 billion on alternative investment fund managers (AIFM). Significant one-off costs arise due to rules on delegation and changes to legal structures which may require reorganisation of the business model of global fund managers that have been designed to exploit efficiencies in the value chain. The cost of re-domiciling funds from outside the EU (typically there for tax reasons) into the EU is also significant.

Ongoing compliance costs of around €311 million arise from the Directive and all market participants interviewed believe these costs will be passed on to investors, leading to reduced returns. Significant ongoing costs arise from the need for independent valuators and depositaries, and, to a lesser extent, new capital requirements, delegation problems and additional disclosure regarding portfolio companies.

Table 23 below illustrates the additional compliance costs for AIFM that arise from various provisions of the AIFMD. They are expressed as one-off costs and ongoing costs.

Table 23: Summary of costs (basis points unless otherwise noted)

	Hedge funds	Private equity	Venture capital	Real estate	Investment trusts
One-off costs					
Disclosure to investors	0.3	0.0	0.0		
Delegation restructuring	8.25	8.25		8.25	
Relocating / re-domiciling	39.9	19.7	19.7	0.9	
Legal structures	14.1	14.1	14.1	14.1	63.5
Total one-off costs (bp)	***62.5***	***42.1***	***33.8***	***23.2***	***63.5***
Total one-off costs (€ million)	***1404***	***756***	***45***	***451***	***543***
Ongoing costs					

Disclosure to investors	0.1	0.0	0.0		
Disclosure re portfolio companies	0.0	2.9	3.7	0.0	0.0
Delegation	0.2	0.2		0.2	
Valuator	0.9	4.3	9.2		
Capital		1.5	1.9		
Depositary		5	10		
Total ongoing costs (bp)	***1.2***	***13.8***	***24.8***	***0.2***	
Total ongoing costs (€ million)	***27***	***248***	***33***	***3***	

Source: CRA calculations. Figures do not sum to total due to rounding.

In order to translate the calculations from basis points to euros we have scaled the figures by the value of AUM managed in the EU for each type of AIF. It should be noted that implicit in this assumption is that sufficient funds re-domicile to the EU such that the current level of AUM that is managed in the EU is maintained.

This has two implications:

- The issue of the cost of re-domiciling impacts not only the row focused on re-domiciling, but also the scaling of all basis points to the cost in euros; and
- These costs are not additive to those calculated for investor choice in section 3.5.5 which was calculated to identify the cost of reduced choice if investors no longer have access to funds not domiciled in the EU.

Given the considerable uncertainty surrounding re-domiciling, it is appropriate to present the information in Table 23 and that calculated for investor choice in Table 13 in section 3.5.5, in order to assess the potential costs that might arise for either issue. However, these tables need to be interpreted carefully since they are not additive.

It is possible to recalculate the compliance costs on the assumption that no funds re-domicile. As noted above, this impacts both the re-domiciling issue itself and also the scaling of the remaining costs. If no funds re-domiciled, one-off compliance costs would fall to €1.1 billion and ongoing costs would fall to €207 million. Hedge funds see the most significant change in costs (since they have the greatest proportion of funds that are not domiciled in the EU). If no funds re-domiciled, one-off compliance costs for hedge funds would fall from €1.4 billion to €113 million.

In addition to the quantified costs, we note that depositary liability, which we were not able to quantify, is considered to be highly significant in terms of increased costs. Most depositaries have not previously faced strict liability and indicated that this additional contingent risk would force them to hold (costly) additional capital to mitigate potential losses. Depositaries indicated that this requirement could cause them to reduce the size of their sub-custodian networks in foreign locations (which could also have a negative

impact on investor choice by creating an inability to invest in certain foreign markets) and increase the cost of the remaining part of the network. Many depositaries have indicated that they will reconsider their business model and it is not clear that they will actually be willing to offer depositary services for AIFM. The requirement that the depositary be an EU credit institution led to concerns that this would limit the choice available to AIFM as well as potentially leading to increased concentration risk.

As seen in the calculations provided in Table 2, the impact of the Directive on different types of funds varies considerably. Indeed a key concern of the Directive is that regulation appropriate for one type of fund may impose costs on other types of funds without bringing benefits.

Hedge funds

If enough hedge funds re-domicile in the EU to fulfil the current needs of EU investors, there would be a significant cost associated to this (up to 40bp or €0.9 billion). Large AIFM operating hedge funds also face one-off costs associated to restructuring value chains spread across the globe and altering legal structures to bring them in line with the Directive. Total one-off costs were estimated as 63bp or €1.4 billion.

With the exception of costs associated with depositary liability, hedge funds face modest ongoing costs from the Directive. The requirement to disclose information to investors, including on leverage, incurs costs of only 0.1bp or €3 million and needs to be offset against gains from transparency since hedge funds were the main type of AIF where investors believed this brought benefits. Hedge funds also face slight increases in ongoing costs related to the valuator and depositary, primarily reflecting their use of difficult to value instruments that are traded over the counter. Total ongoing costs were estimated as 1bp or €27 million.

Private equity and venture capital funds

It is notable that private equity and venture capital funds face the largest ongoing compliance costs of all of the different types of fund (€248 million and €33 million respectively). This reflects their investment in primarily non-listed companies where costs associated with certain functions are substantially higher compared with investing in listed securities. The cost in basis points for (smaller) venture capital funds was above that for private equity funds reflecting the impact of fixed costs.

The benefit of the valuator is unclear since investment returns depend purely on the actual cash value of investments at the time of sale and this is costly since the valuator is unlikely to be familiar with each underlying portfolio company. Similarly, depositary activities including safe-keeping of paper based documentation was not seen as valuable to investors, AIFM or depositaries. Depositaries indicated little interest in this business since dealing with small-scale paper based work was at odds with their systems based approach to listed securities.

Private equity and venture capital funds within the scope of the Directive face specific costs (€52 million or 2.9bp and €5 million or 3.7bp) related to disclosing information about underlying portfolio companies.

If “grandfathering” of existing funds where capital has already been raised (or agreed) does not occur, around 30% of the AUM managed in the EU would need to re-domicile at a cost of €380 million or 20bp. Given that these funds have already raised their capital and investors are locked in, if grandfathering is allowed, much of these costs would be saved and new funds could be set up in the EU.

Real estate funds

It has not been possible to obtain costs on all aspects of the Directive in respect of real estate funds, and the costs collected have been focused on the areas of the Directive which interviewees have indicated would be most significant.

One-off costs are €451 million or 23bp, reflecting the need to rearrange value chains within large asset managers, legal restructuring and the need for UK funds domiciled in the Channel Islands to relocate to the EU (although these represent a reasonably small proportion of total real estate funds managed in the EU).

Investment trusts

As with real estate funds, costs have been collected only for investment trusts in the areas of the Directive which interviewees have indicated would be most significant.

Investment trusts are public limited companies governed by UK company law with a Board of Directors as the decision-making body with regulatory responsibility and have AUM of €112 billion. Interviewees believe that this structure cannot be maintained within the Directive and that investment trusts would be forced to liquidate and transfer investors to compliant structures. This would impose significant costs to dissolve their existing structures (64bp or €543 million).

APPENDIX A LIST OF INTERVIEWEES

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Advent

Allianz

Alternative Investment Management Association

Association of British Insurers

Association of Investment Companies

Association of Private Client Investment Managers and Stockbrokers

Association of Real Estate Funds

Aviva

Axa

Bank of New York Mellon

Barclays Global Investors

Blackrock

Brevan Howard

Brewin Dolphin

British Venture Capital Association

Citibank

Credit Suisse

Depositary and Trust Association

EFAMA

European Venture Capital Association

Goldman Sachs

Insight Investments

International Financial Data Services

Investment Management Association

Isis Equity Partners

JP Morgan Chase

London Investment Banking Association

London Stock Exchange

Mercer Consulting

Mid Europa Partners

Morgan Stanley

National Association of Pension Funds

Private Equity Investors Association

Royal Bank of Scotland

The Takeover Panel

Travers Smith

Universities Superannuation Scheme

Wellcome Trust