



Alternative Investment Management Association

Secretariat of the Financial Stability Board
c/o Bank for International Settlements
CH-4002
Basel
Switzerland

Submitted via email to: fsb@bis.org

7 April 2014

Dear Sir / Madam

AIMA's response to the FSB and IOSCO's Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions

AIMA welcomes the opportunity to respond to the Financial Stability Board (FSB) and the International Organization of Securities Commissions (IOSCO) consultation paper (the 'Consultation Paper') regarding assessment methodologies for identifying Non-bank Non-insurer Global Systemically Important Financial Institutions ('NBNI G-SIFIs').

AIMA supports the G20's objectives of identifying systemically important financial institutions ('SIFIs') whose distress or disorderly failure, because of their size, complexity and systemic interconnectedness, would cause significant disruption to the wider financial system and economic activity. Due to the nature of our membership, this response focuses on the parts of the Consultation Paper which relate to hedge funds and their managers.

As an initial comment, we would like to state that it may be difficult to divide the asset management industry into hedge fund and non-hedge fund management sectors in a way the Consultation Paper attempts. In some instances, it may equally not be useful for the purposes of assessment of financial stability. Traditional asset management firms are increasingly using techniques which used to be more prevalent in the hedge fund sector (use of leverage, derivatives, and short positions), while hedge fund managers are diversifying their product range by offering simpler, long-only strategies.

This convergence in the historically distinct categories is the result of both investor demand and changes in legislation governing retail asset management products allowing for greater use of sophisticated risk management techniques and instruments. Where possible, and, in particular, as regards the initial screening threshold assessments, we would therefore welcome if the FSB-IOSCO were to apply identical criteria to all funds. There are no ex-ante reasons to treat funds differently given the ability of even the most regulated products to use derivatives, leverage and short positions.

Second, we do not consider that hedge fund management entities, or asset management entities in general, should be assessed for systemic risk purposes as separate entities from their funds nor should they be considered market intermediaries to be assessed under the methodology set out in Chapter 5 of the Consultation Paper. We agree with the initial analysis provided in the Consultation Paper that when looking at the asset management sector, the correct focus for the assessment of systemic risk is at the fund level. However, we have a number of concerns about how the Consultation Paper suggests hedge funds should be assessed for systemic risk purposes. We set out our concerns in detail in the annex to this response, which relate to the following points:

- **The agency model of asset managers needs to be taken into account in systemic risk analysis:** The fact that asset managers do not employ their own balance sheets but rather

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manage third party capital is a crucial qualitative difference to the banking, insurance or broker-dealer models that needs to be taken into account in systemic risk analysis;

- **The financial crisis provided a credible stress test of the hedge fund industry:** Prior to and during the recent financial crisis, thousands of funds have been liquidated or failed without causing systemic disturbances and we therefore do not consider that it is necessary to impose additional regulation to that which has already been imposed on the industry with the aim of mitigating systemic risk;
- **Regulatory reforms introduced so far should be taken into account:** The financial system has undergone substantial reforms since the recent financial crisis which make it even more unlikely that a single hedge fund failure could be of systemic relevance. Hedge funds, their managers, their counter parties and the structures of the markets in which they are active have been significantly overhauled as a result of the crisis, making the entire financial system more resilient and less prone to systemic shocks;
- **Based on available data, it is unlikely that, today, an individual hedge fund or family of funds managed by a hedge fund manager could pose systemic risk:** Although the hedge fund sector has grown in recent years, collectively, it remains a small part of the financial sector as a whole, employing lower levels of leverage than the banking sector, managing more liquid portfolios and capable of managing and stemming investor redemptions in stressed market conditions;
- **It is imperative that when looking at measures of size and leverage as potential indicators of systemic risk, consistency is achieved across sectors:** There has been no convincing argument put forward in the Consultation Paper for the use of different metrics when attempting to measure size and leverage both within the asset management sector as well as across sectors such as banking or brokerage. The Basel Committee's approach to measuring exposure by and large excludes gross notional derivatives exposure from its analysis of size (and therefore leverage). We do not understand why such a measure should be relevant only for the analysis of the hedge fund sector, and believe it is a very seriously flawed measure;
- **GNE is a poor measure of systemic importance:** Gross notional value of derivatives is not a useful metric as it does not measure actual risk exposure, does not reflect differences by asset or tenor, and does not reflect netting, collateralisation, or the impact of clearing. As a result, among other misleading outcomes, it exaggerates activity in the largest and single most liquid derivatives market (interest rate swaps);
- **There are other viable methodologies for identifying any systemically important hedge funds:** We believe that there are alternative measures of systemic importance that could be evaluated on the basis of existing data sets and which provide a better measure of systemic relevance than GNE:-
 - **Initial margin data may be a better indicator of systemic importance and alternative initial threshold measure to replace GNE:** Using the data collected already regarding a fund's initial margin requirements is likely to give a better representation of the risk posed by the fund to the financial system. Because initial margin rates vary across different types of instruments and can be higher or lower depending on the market's assessment of the riskiness of a type of transaction, we consider initial margin could be a more appropriate measure for assessing systemic risk than using GNE; or
 - **Use the major swap participant definition as a threshold:** Another alternative would be to use the methodology for identifying major swap participants (as defined in the Dodd-Frank Wall Street Reform and Consumer Protection Act and the rules adopted thereunder) as an initial threshold. An entity which is a major swap participant could be examined for systemic importance on the basis of the additional indicators. Entities which are not



major swap participants in their own right, and which do not meet the US\$100 billion NAV threshold should not be considered systemically relevant. This methodology also has the benefit of being more akin to the Basel III approach to assessing derivatives holdings in as much as certain netting and discount factors are applied before reaching a relevant figure, and

If despite our suggestions, FSB and IOSCO decide to pursue the GNE measure as the relevant screening threshold, we would strongly urge a significant upward revision of the absolute number to reflect the overall size of the derivatives market. Using a threshold that currently represents approximately 0.05% of the overall derivatives market is unlikely to be useful for the purposes of systemic risk analysis; and

- **Consideration should be given to risk mitigants as well as to the various risk indicators:** The Consultation Paper identifies a variety of risk indicators by which the systemic importance will be assessed. We would urge FSB and IOSCO to keep to a multi-faceted approach in this regard looking at a wide variety of risk indicators as well as important risk mitigants, such as existing regulation, amounts of margin held, etc.

We hope you find our comments useful and would be more than happy to answer any questions you may have in relation to this submission.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "J. Król", is written over a light blue grid background.

Jiří Król
Deputy Chief Executive Officer
Head of Government & Regulatory Affairs



ANNEX

AIMA's response to the questions posed in the Consultation Paper

AIMA is a global hedge fund trade association. Accordingly, the responses of our membership in relation to the Consultation Paper focus on the issues from the point of view of hedge funds and their managers. We note that the Consultation Paper only concerns itself with the assessment methodology for determining whether an entity is systemically important or not and does not give any indication of measures that may be taken once an entity is deemed to be an NBNI G-SIFI. We consider that without knowing what the significance of being deemed to be an NBNI G-SIFI would be, it is difficult to comment on whether or not it is appropriate to deem investment funds to be NBNI G-SIFIs. We would therefore welcome in due course a further thorough consultation on the types of measures that are proposed to apply to entities which are assessed to be NBNI G-SIFIs, but we limit our comments in this response to whether the proposed assessment methodology may capture entities which pose significant systemic risk.

Our responses to the specific questions posed in the Consultation Paper are as follows:

Q1-1. In your view, are the three transmission channels identified above most likely to be the ones transmitting financial distress of an NBNI financial entity to other financial firms and markets? Are there additional channels that need to be considered?

The Consultation Paper identifies three principal risk transmission channels:

- (i) The *counterparty channel*, in which the exposures of creditors, counterparties, investors and other market participants could be adversely affected by having a particular entity as a counterparty;
- (ii) The *market channel*, in which the liquidation of assets by the particular entity could trigger a decrease in asset prices and thereby significantly disrupt trading or funding in key financial markets, potentially provoking losses for other firms with similar holdings; and
- (iii) The *critical function or service channel*, in which the unwillingness or inability of a particular entity to provide a critical function or service relied on by market participants or clients and for which there are no ready substitutes.

We accept that the counterparty channel may have relevance with respect hedge funds. With regard to the market channel, however, we believe that post-crisis this is a less relevant channel for transmission of potential systemic risk for hedge funds as hedge funds tend to have one or more of the following type of features which act as “shock absorbers” in a crisis:

- *Infrequent redemption dealing days* - Monthly, quarterly, semi-annual or annual dealing are typical, with the majority of hedge funds having quarterly redemption periods;
- *Redemption gates* - Fund-level, class-level and investor level redemption gates which limit the percentage of the fund's NAV which can be redeemed as at a particular redemption dealing day are commonly available redemption management options;
- *Redemption fee and anti-dilution levies* - Mechanisms to charge the cost of redemptions to redeeming investors can help to dis-incentivise investors from making reactionary redemption requests;
- *Professional/sophisticated investors* - Hedge funds are more and more frequently invested in by professional investors such as pension funds, endowments, foundations and insurance companies who are investors with longer investment time horizons and who are less likely to



redeem to chase trends in the market. We estimate that the share of institutional investors represents more than two-thirds and is increasing; and

- *Low levels of financial leverage* - Hedge funds use extremely low levels of financial leverage (defined as leverage obtained using borrowing or repo transactions). Most available data shows that the industry, on average, incurs financial leverage to the tune of between 2 and 3 times the net asset value of the fund (NAV). The most illiquid strategies such as illiquid or distressed debt employ little if any financial leverage at all.

These factors make the market channel a less likely transmission channel for hedge funds to transmit distress to other entities.

In addition, we would like to state that the market transmission channel deserves further consideration in relation to the asset management sector. This is because, in some basic manner, the asset management industry at large forms what one could call the market. The market is an expression of the decisions made by asset managers and their investors. It is therefore difficult to understand the analysis which attempts to contemplate macro-prudential measures to control the collective behavior of individuals and entities in a way that, implicitly or explicitly, assumes some optimal level of asset prices or their volatility.

We believe that the most effective way to address potential systemic issues related to the market channel should be primarily addressed to the market as a whole (e.g. introduction of central clearing, margin for non-cleared derivatives, minimal haircuts for repo transactions, market transparency) rather than attempting the near impossible task of trying to isolate an impact of an individual fund entity on the way markets may function. This is all the more important as hedge fund managers tend to be more flexible, and opportunistic in the way they approach their risk appetite and exposure.

Furthermore, asset managers, funds and their investors are likely to react differently to the potential economic impact of SIFI designations. Unlike banking or other large financial conglomerates, large investment funds have not heretofore enjoyed explicit or implicit government subsidies that affect their ability to raise finance in the market. It is questionable, whether, for example, the impact of higher capital requirements even matches the overall positive impact of the funding subsidy G-SIBs are able to realize in the market. In the fund sector, however, investors and asset management firm employees would be very likely to react very quickly to any policy measures affecting the returns of their funds' strategies to the extent that a designation process would very likely lose its original purpose.

We do agree, however, with the apparent assessment made by the drafters of the Consultation Paper that in respect of the critical service or function channel, this is not a relevant factor for the assessment of the systemic relevance of any investment fund given the high level of substitutability that applies to investment funds generally.

Q2-1. Does the high-level framework for identifying NBNI G-SIFIs (including the five basic impact factors) adequately capture how failure of NBNI financial entities could cause significant disruption to the wider financial system and economic activity? Are there any other impact factors that should be considered in addition to those proposed or should any of them be removed? If so, why?

The Consultation Paper identifies five basic impact factors which may be applicable for all NBNI financial sectors and entity types: (i) size, (ii) interconnectedness, (iii) substitutability, (iv) complexity, and (v) cross-jurisdictional activities. These are the same factors identified previously for assessing the systemic relevance of banks and insurance companies.

However, the criteria set out in the Consultation Paper for assessing the systemic risk of hedge funds would lead to hedge funds being assessed in a very different way to other financial entities,



such as banks. The measures proposed for investment funds, especially the GNE which is calculated differently for hedge funds than similar measures are calculated under the Basel III method for banks and market intermediaries, would mean that hedge funds which are far less significant to the overall financial system would be assessed to be systemically important whereas a financial institution of the same or similar size in another financial sector would not be considered to be systemically important.

Separately, in the asset management area specifically, the Consultation Paper focuses its question of the appropriate assessment methodology at the individual fund level. We believe that this focus is appropriate given that the asset management business is based on the agency relationship between the asset manager and the client, and the asset manager as agent is acting on behalf of the its client rather than on its own behalf when engaging in market transactions.

We believe that the agency model of asset management is a key factor to be taken into account when analysing the systemic risk posed by non-bank, non-insurance financial entities. The fact that asset managers do not employ their own balance sheets but rather manage third party capital is a crucial qualitative difference between asset managers and bank, insurers, and other types of financial intermediaries.

Specifically, in the asset management model, investors (rather than the investment manager for its own account) are seeking risk exposure and the investors (rather than the shareholders of the asset manager) have the benefit of the gains and they bear any losses. Portfolios managed for investors are subject to valuation principles requiring mark to market pricing so that there is full transparency of the portfolio valuations, as opposed to, for example, a bank balance sheet which is composed of illiquid and non-tradable assets the vast majority of which does not need to be marked to market.

This feature of investors understanding and assuming risk exposures and accepting, ex-ante the possibility of severe losses to the extent of complete loss of initial capital cannot be highlighted enough because it is what makes the asset management sector different from other sectors such as banking and insurance - there is no promise at the core of the sector to deliver a particular outcome other than that which is consistent with a strategy and the risks inherent in it. Funds and their investors are risk takers in the literal sense of the word, not simply risk makers who do not have the ultimate capacity to bear the risks to which their activity creates or exposes them.

Q2-2. Is the initial focus on (i) finance companies, (ii) market intermediaries, and (iii) investment funds in developing sector-specific methodologies appropriate? Are there other NBNI financial entity types that the FSB should focus on? If so, why?

No comment beyond that implicit in the foregoing.

Q3-1. Is the proposed scope of assessment outlined above appropriate for operationalising the high-level framework for identifying NBNI G-SIFIs? Are there any practical difficulties associated with the proposed scope of assessment?

Because GNE is a blunt measure that neither measures the actual risk exposure of a derivatives portfolio nor accounts for material differences between the risk profile of different types of derivatives (e.g. by asset class, duration, etc.), it is likely that the use of such a measure as an initial screen will result in a relatively high number of "false positive" results among certain types of funds which regulators will have to sort through. For example, the proposed GNE threshold will overcount derivatives positions with large notional amounts but relatively low risk exposures (e.g. interest rate and currency derivatives) while at the same time undercounting perhaps riskier derivatives positions that happen to have a lower notional amount. We would suggest that any measure which is introduced should take into account asset class, duration etc. when valuing a derivative.



For the following reasons, among others, we believe GNE does not reflect market or economic exposure and is therefore a poor measure of risk:

- GNE does not account for the relative riskiness of different types of derivatives positions held by a fund (as discussed further below);
- GNE does not allow offsets for positions that offset the risks arising from the fund's investment portfolio thereby decreasing the fund's risk exposure. Where two positions perfectly offset each other, GNE counts the notional value twice even though the fund's net economic exposure is zero; and
- GNE does not differentiate between derivatives with different durations.

Q3-2. In your view, are the above proposed materiality thresholds (including the level) for the NBNI financial entity types appropriate for providing an initial filter of the NBNI financial universe and limiting the pool of firms for which more details data will be collected and to which the sector-specific methodology will be applied? If not, please provide alternative proposals for a more appropriate initial filter (with quantitative data to back up such proposals).

We would note at the outset here that, although the hedge fund industry has grown over that last 20 years, it is still only a small part of the financial sector as a whole, employing, as discussed below, lower levels of leverage than the banking sector, managing more liquid portfolios and capable of stemming investor redemptions in stressed market conditions. On the basis of these factors, size alone is not the most relevant factor, although it is perhaps one of the easier ones to measure.

The Consultation Paper proposes size as the initial threshold for identifying potentially systemically important NBNI financial entities. Size is meant to serve as an easy to identify proxy for materiality and as size in the form of the level of NAV is an easy to observe statistic based on current data collection methodologies.

Although size is easy to measure, we are not convinced that size should be the sole initial factor for identification of a fund as a potential NBNI G-SIFI. In addition, we believe that the size thresholds as drawn appear to have been reverse engineered to assure that some number of investment funds and hedge funds are identified for further assessment rather than setting the measures a size threshold that compares with the thresholds applicable to other types of financial sector entities.

Even if GNE is to be used by the FSB and IOSCO as the measure for systemic importance in hedge funds, we consider that setting the threshold for the assessment at US\$400bn-US\$600bn would mean that hedge funds that represented a very insignificant proportion of the overall derivatives market could be deemed systemically important. The derivatives market (both OTC and listed) currently totals US\$760 trillion. A hedge fund that had a GNE of US\$400bn would therefore only represent 0.05% of the total derivatives market and a GNE of US\$600bn would represent 0.08% of the total derivatives market. When questions of systemic risk are raised in connection with hedge funds the example of the collapse of Long-Term Capital Management (LTCM) in 1998 needs to be addressed. The market, however, responded to that event and that may be a factor in why there were no systemically important hedge fund failures in the recent financial crisis. Specifically, in 1998 LTCM represented 1.6% of the interest rates derivative market and 4.2% of the listed derivatives market - a far greater percentage than is implied in the US\$400-US\$600 billion range suggested in the Consultation Paper.

GNE is not a good measure of systemic importance

We are of the opinion that the GNE measure selected to screen for systemic risk in hedge funds is one of the least useful measures one could adopt. In addition to the analysis provided below, we would like to draw your attention to the submission in response to this Consultation Paper made by



Dr. Aron Landy of Brevan Howard which provides further justification against the use of GNE. We strongly support that submission.

In late 2013, the Financial Conduct Authority (FCA) surveyed 49 managers with global hedge fund asset under management in the UK of US\$485 billion. The sample used consisted of 106 hedge funds with US\$375 billion in terms of NAV and included funds managed by some of the largest globally active asset managers, making the sample relevant for comparative purposes. Although the sample size is small relative to the hedge fund universe, there were some interesting highlights from the report, including:

- The top ten firms by AUM accounted for nearly 60% of the NAV reported in the sample and 85% when looking at GNE.
- The 106 hedge funds covered by the survey had total GNE of roughly US\$22 trillion and the top ten funds accounted for the vast majority of that (US\$19 trillion).

Taken wholly at face value, one could conclude that the figures would warrant a deeper look at the ten firms with the highest levels of GNE attributable to them. However, as the Financial Conduct Authority (FCA) notes in its survey results: "GNE does not directly represent an amount of money (or value) that is at risk of being lost. It is a reference figure used to calculate profits and losses." As a result, the fact that one or two or ten managers accounted for a significant percentage of the overall GNE attributable to the funds in the survey is neither here nor there as the large number has little systemic relevance.

The FCA survey results show the incremental impact of different instruments on gross leverage, highlighting the predominant role of interest rate derivatives in generating exposure and liquidity. Specifically, Figure 19 of the Survey results shows that interest rate derivatives are by far the biggest contributor to total gross exposure for funds. Average gross leverage of the 106 hedge funds in the survey, calculated on the basis of GNE which is a poor measure of leverage for the reasons discussed above, was 64x NAV. If one takes out the influence of interest rate derivatives - derivatives which for all intents and purposes are not counted for Basel III exposure to calculate leverage - the average leverage ratio for hedge funds falls to 8.5x NAV. If one adjusts the derivatives exposures in a way which would be done under Basel III calculations (and which measure leverage in a more appropriate way), the average leverage falls further, to somewhere between 4.6 and 5.9x NAV.



Figure 1: FCA Hedge Fund Survey Results March 2014

Figure 19 - Effect of select instruments on exposure and leverage

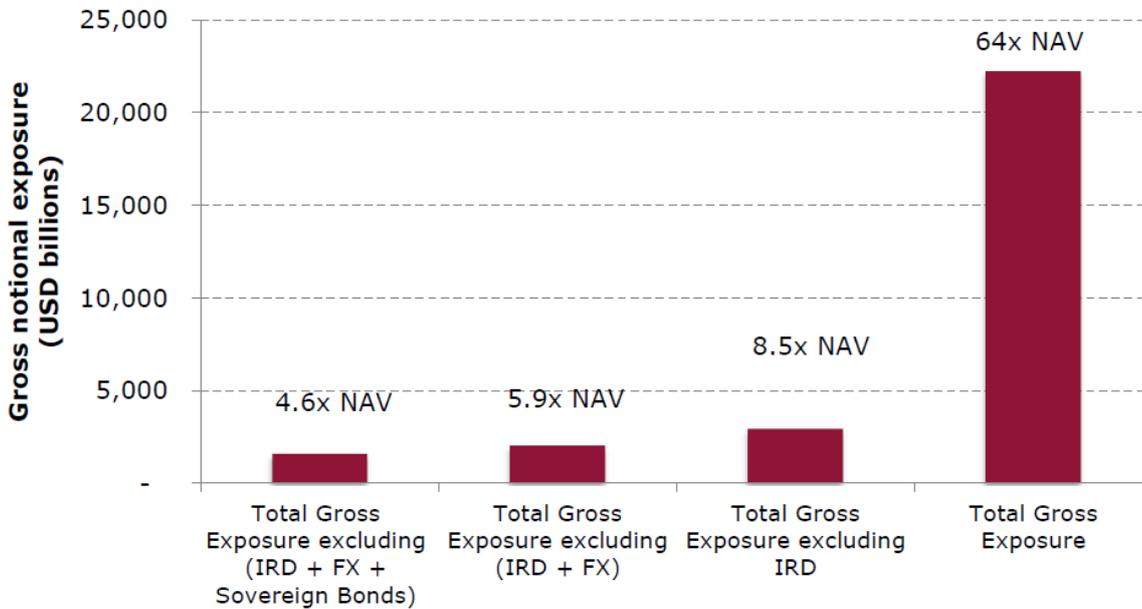
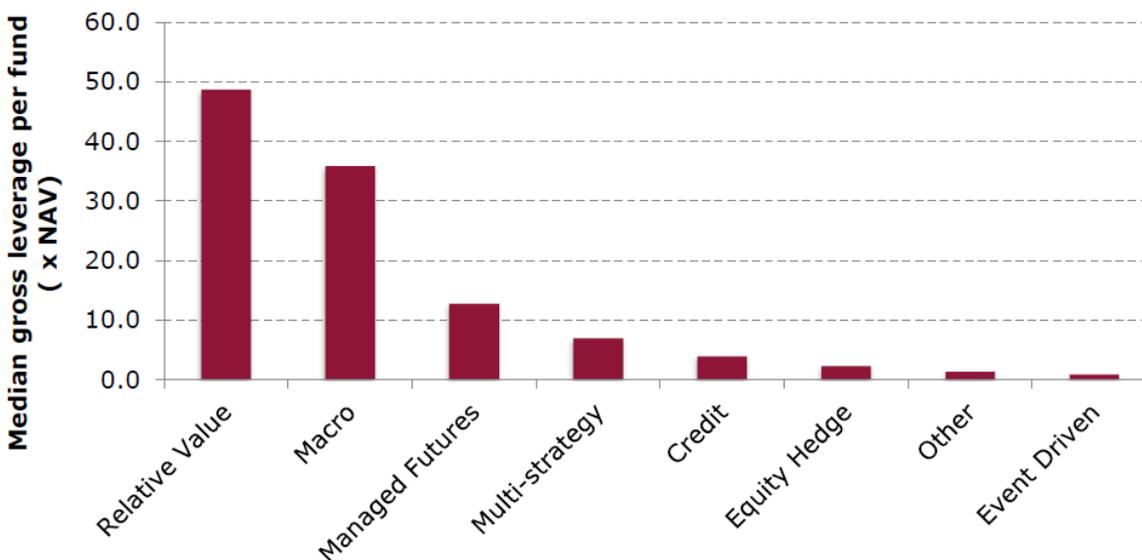


Figure 20 follows that up by noting that these instruments are predominantly used in three types of funds: relative value, macro and managed futures. What this means then is that those three types of funds are more likely than others to be identified under the size tests alone.

Figure 20 - Gross leverage by strategy (median)



The question then becomes whether total gross exposure of 8.5x (excluding interest rate derivatives) or 64x NAV (when including interest rate derivatives) is systemically significant. In this regard it is worth drawing a comparison to the banking industry. Some additional data about banks provides a reasonable basis for broad comparisons.

The table below contains a list of the banks that have been designated as G-SIBs and includes data regarding each such bank's GNE and GNE market share.



Figure 2: Bank size and leverage

Global rank by assets	Name	G-SIB bucket	GNE \$bn	GNE% market	Assets \$bn	Equity \$bn	GNE/Eq	Assets/Eq
1	ICBC China	1	296	0.00%	2,924	188	2	15.55
2	Mitsubishi UFJ Financial Group	2	11,034	1.30%	2,299	133	83	17.29
3	HSBC Holdings UK	4	45,448	5.30%	2,693	183	248	14.72
4	Deutsche Bank Germany	3	79,913	9.30%	2,717	73	1,088	37.22
5	Credit Agricole France	2	20,990	2.40%	2,487	61	344	40.77
6	BNP Paribas France	3	64,107	7.50%	2,575	127	503	20.28
7	JPMorgan Chase & Co US	4	69,550	8.10%	2,416	211	329	11.45
8	Barclays UK	3	66,817	7.80%	2,456	99	675	24.81
10	Bank of America US	2	62,162	7.20%	2,102	233	267	9.02
12	RBS UK	2	64,094	7.50%	2,165	116	551	18.66
13	Mizuho Financial Group Japan	1	9,766	1.10%	1,739	76	129	22.88
14	Bank of China China	1	481	0.10%	2,113	144	3	14.67
15	Citigroup US	3	52,818	6.10%	1,881	206	256	9.13
16	Sumitomo Mitsui Financial Group	1	6,005	0.70%	1,458	83	73	17.57
17	Banco Santander Spain	1	4,856	0.60%	1,714	114	43	15.04
18	Societe Generale France	1	26,024	3.00%	1,688	73	356	23.12
19	Groupe BPCE France	1	10,087	1.20%	1,047	42	240	24.93
21	Wells Fargo & Co US	1	3,616	0.40%	1,527	171	21	8.93
22	UBS Switzerland	2	42,143	4.90%	1,399	56	755	24.98
23	UniCredit Italy	1	4,632	0.50%	1,251	90	52	13.90
24	ING Bank Netherlands	1			1,578	78		20.23
25	Credit Suisse Group Switzerland	2	56,136	6.50%	1,027	47	1,195	21.85
28	Goldman Sachs US	2	44,454	5.20%	939	76	583	12.36
29	Nordea Group Sweden	1	323	0.00%	851	39	8	21.82
32	BBVA Spain	1			861	59		14.59
38	Morgan Stanley US	2	45,298	5.30%	781	70	650	11.16
43	Standard Chartered UK	1	4,210	0.50%	637	46	91	13.85
71	Bank of New York Mellon US	1	1,204	0.10%	374	39	31	9.59
97	State Street Corp US	1	957	0.10%	243	20	47	12.15

Source: G-SIB buckets from <https://www.financialsta> | "Rank" means bank size rank according to http://biltyboard.org/publications/r_131111.pdf www.cba.ca/contents/files/statistics/stat_bankranking_en.pdf GNE, Assets & Equity from published accounts | GNE% is the % of total

As a straight average, each of the top 10 hedge funds in the FCA sample had on average about US\$1.9 trillion of GNE or roughly 0.02% (calculated on the basis of interest rate swaps notional amounts counting fully for GNE) of the entire derivatives market which has a gross notional outstanding of approximately US\$760 trillion), i.e. the top hedge funds have 0.2% of the market while, for example Deutsche Bank, Barclays and BNP Paribas have together nearly 25% of the market (calculated on the basis of the discounted treatment of interest rate derivatives in effect under Basel III for GNE purposes). Calculations on top ten EU bank data (in descending GNE size DB, Barclays, BNP Paribas, RBS, Credit Suisse, HSBC, UBS, Societe General, Credit Agricole, Groupe BPCE) show that their collective GNE is somewhere around US\$475 trillion - 22x that of the 106 hedge funds surveyed by the FCA and 25x that of the top ten hedge funds. Moreover, those top ten EU banks have an average gross leverage ratio of close to 600x their equity - roughly 10x that of the 106 hedge funds surveyed by the FCA.

It is important to note when comparing banks and hedge funds on the basis of GNE that measuring notional derivatives exposure for leverage purposes under Basel III is different to how GNE is calculated for funds. Under Basel III, banks must calculate their derivatives exposures by reference to the Current Exposure Method (CEM) which is used under the Basel II Framework to capture counterparty credit risk associated with derivative exposures. This is calculated using the



replacement cost (RC) for the current exposure plus an add-on for potential future exposure applying the relevant regulatory bilateral netting rules and adjusting the exposure amount for the related collateral. CEM therefore takes into account legally enforceable netting arrangements and potential future market volatility. For a single derivative exposure not covered by an eligible bilateral netting contract, the amount to be included in Total Exposures is determined as follows:

$$\text{Total Exposure} = \text{replacement cost (RC)} + \text{add-on}$$

Where:

RC = the replacement cost of the contract (obtained by marking-to-market), where the contract has a positive value.

add-on = an amount for potential future credit exposure over the remaining life of the contract calculated by applying an add-on factor to the notional principal amount of the derivative.

The add-on factors are shown in Figure 3 below.

Figure 3: Add-on factors for measuring notional derivatives exposure for leverage purposes under Basel III

	Interest rates	FX and gold	Equities	Precious metals except gold	Other commodities
One year or less	0.0%	1.0%	6.0%	7.0%	10.0%
Over one year to five years	0.5%	5.0%	8.0%	7.0%	12.0%
Over five years	1.5%	7.5%	10.0%	8.0%	15.0%

In March 2014 the Standardised Approach (SA-CCR) was adopted to replace CEM as the methodology for calculating derivatives exposures under Basel III. SA-CCR is designed to be more risk sensitive than CEM and is intended to be “a risk sensitive methodology that appropriately differentiates between margined and unmargined trades, and provides more meaningful recognition of netting benefits than either of the existing non-modelled approaches.”¹

Since these calculation methodologies do not apply to the calculation of GNE for funds, figures calculated by banks will not be directly comparable with figures calculated for hedge funds. Furthermore, the SA-CCR methodology which has been recently adopted recognises the importance of taking into account risk sensitivities and is a move away from the blunt GNE approach suggested by the Consultation Paper. Whilst we do not consider that applying the actual Basel III measures to hedge funds is appropriate, we consider that a measure which is duration adjusted should also be used in the hedge fund sector when measuring notional derivatives exposure for leverage purposes.

Figures 4 and 5 (below) further demonstrate the inconsistencies between the proposed size metrics for measuring systemic importance of hedge funds and those used to measure banks and other

¹ See <http://www.bis.org/publ/bcbs279.htm>.



financial institutions. Figure 4 shows that in comparison to the largest banks, and despite the differences in GNE calculation methodologies, the largest hedge funds would have significantly lower leverage and notional derivative exposure than the largest banks. Figure 5 shows that the largest hedge funds have significantly lower leverage and notional derivative exposure than even smaller financial institutions which will not be deemed to be systemically important.

Figure 4: Gross leverage multiple and notional derivative exposure of systemically important banks and LTCM

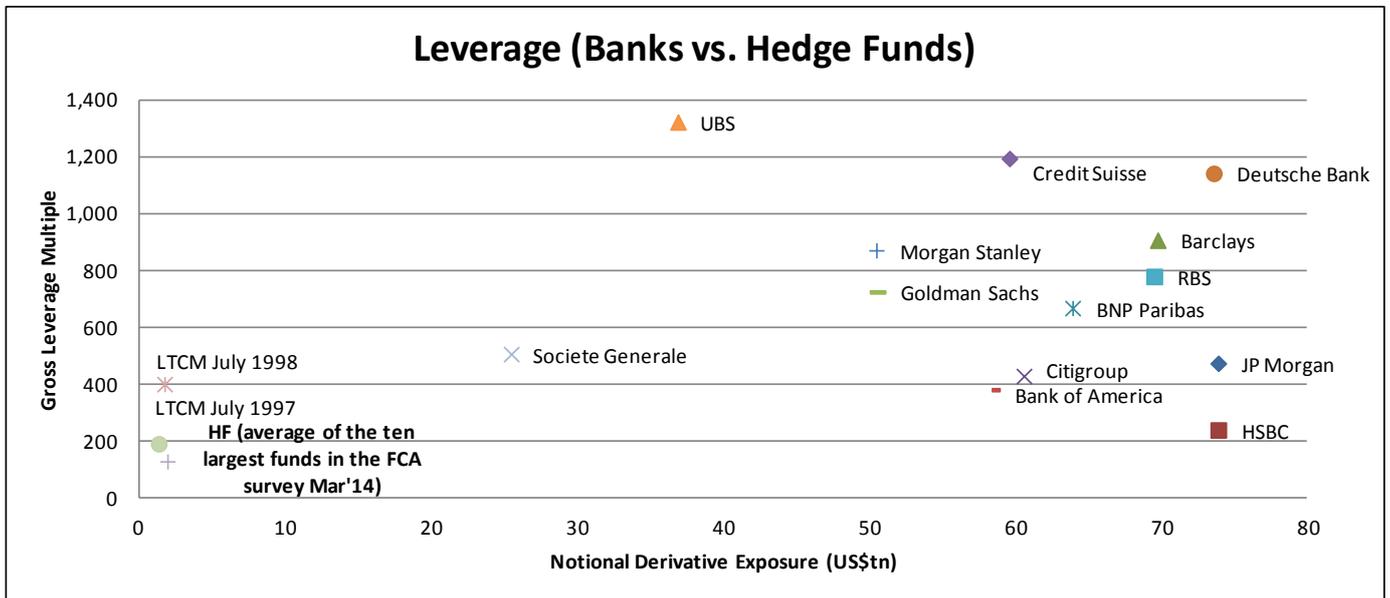
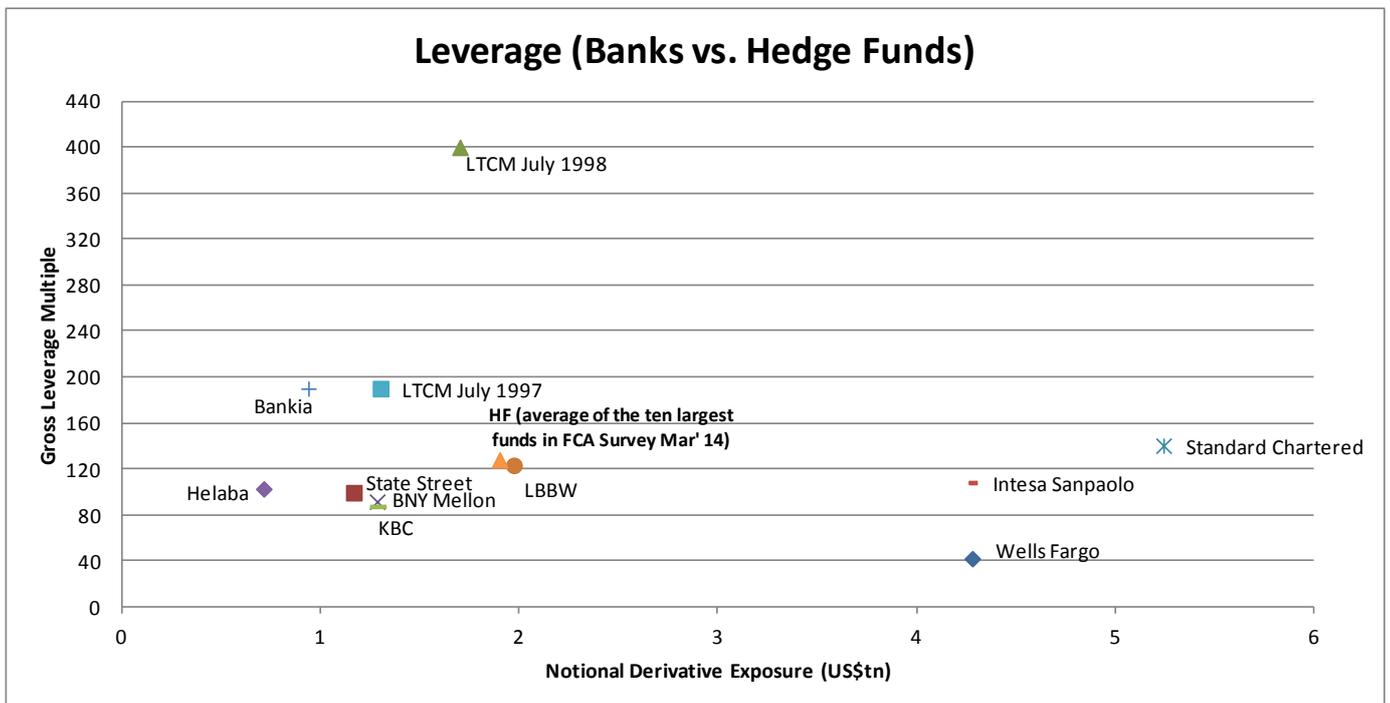


Figure 5: Gross leverage multiple and notional derivative exposure of LTCM, hedge funds and smaller financial institutions





Currently, many banks do not meet the Basel III leverage ratio cap of 33x equity. This means that, under conservative assumptions, and based on comparable measures of leverage, the largest hedge funds as surveyed by the FCA are at least 5-6 times less leveraged than the banks. For non-macro and non-relative value strategies this gap becomes even wider. Moreover, the FCA survey data further shows that hedge fund portfolios are very liquid when compared to bank portfolios, with 59% of hedge fund assets deemed Level 1 assets under IFRS and US GAAP - i.e. traded assets with observable prices -- and a further 15% of hedge fund assets deemed Level 2 assets.

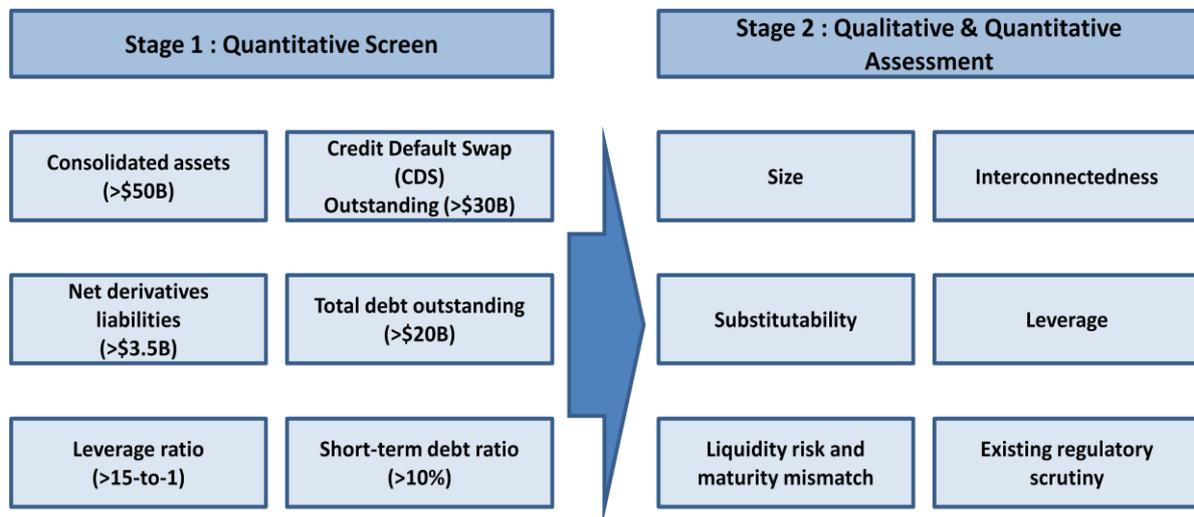
What the FCA survey data also shows is that, even taken together, the sample of funds should not pose systemic risk as they collectively represent (at US\$22 trillion) just a small portion of the single largest bank portfolio measured by GNE - Deutsche Bank has US\$80 trillion. As a result, and even on this relatively small sample size, it is difficult to say that a single fund or a manager should pose systemic risk.

Measures considered relevant by others

Historically, when people have looked at systemic importance or relative importance of certain entities within the derivatives market place, they have not settled on blunt figure such as GNE for making such determinations. That can be seen in the table at Figure 3 above looking at measuring notional derivatives exposure for leverage purposes under Basel III. It can also be seen in the general screening methodology to be used by the US Financial Stability Oversight Council (FSOC) to identify nonbank SIFIs and in the calculation methodologies in place for determining whether an entity qualifies as a major swap participant in one or more derivatives markets.

More specifically, FSOC has issued [rules](#) to determine where a systemically significant nonbank financial institution (nonbank SIFI) may pose a threat to the financial stability of the US. The FSOC framework also differs significantly from the framework proposed in the Consultation Paper. The FSOC proposes an initial quantitative screen before applying similar qualitative and quantitative to those proposed in the Consultation Paper, but the FSOC criteria also take into account the existing regulatory scrutiny that the nonbank SIFI is subject to. The criteria applied by FSOC are summarised in Figure 6 below.

Figure 6: FSOC framework for regulation and supervision of nonbank SIFIs



As you can see, more than one initial quantitative screen is to be assessed. Although not all the criteria are directly relevant in the fund space, the multiple quantitative screen approach is instructive in the way it attempts to deal with the issue of using a one-dimensional measure of risk.



On the other side, with respect to major swap participants, the approach taken is more akin to the Basel III approach to assessing derivatives holdings in as much as certain netting and discount factors are applied before reaching a relevant figure.

The Dodd-Frank Act introduced a requirement that all MSPs must register with the Commodity Futures Trading Commission (CFTC). On 18 April 2012, the CFTC and the Securities and Exchange Commission (SEC) adopted a [final rule](#) defining, inter alia, “major swap participant”, under which a MSP is a person, other than a swap dealer, that meets any of the following three tests:

- it maintains a “substantial position” in any of the major swap categories, excluding positions held for hedging or mitigating commercial risk and positions maintained by certain employee benefit plans for hedging or mitigating risks in the operation of the plan;
- it has “substantial counterparty exposure that could have serious adverse effects on the financial stability of the U.S. Banking system or financial markets”; or
- A “financial entity” that is “highly leveraged [12 to 1] relative to the amount of capital such entity holds and that is not subject to capital requirements established by an appropriate Federal banking agency” and that maintains a “substantial position” in any of the major swap categories.

A position is a “substantial position” if it satisfies either the uncollateralized exposure test or the potential future exposure test and each of these tests apply to a person’s swap positions in each of four major swap categories:

- rate swaps (any swap based on reference rates such as interest rates or currency exchange rates);
- credit swaps (any swap based on instruments of indebtedness or related indices);
- equity swaps (any swap based on equities or equity indices); and
- other commodity swaps (any swap not included in the first three categories, including any swap based on physical commodities).

The uncollateralized exposure test measures a person’s current uncollateralized exposure by marking the swap positions to market using industry standard practices. This test also allows the deduction of the value of collateral that is posted with respect to the swap positions, and calculates exposure on a net basis, according to the terms of any master netting agreement that applies. The thresholds adopted for this test are the daily average current uncollateralized exposure of US\$1 billion in the applicable major category of swaps, except that the threshold for the rate swap category would be US\$3 billion.

The second substantial position test determines potential future exposure by: (i) multiplying the total notional principal amount of the person’s swap positions by specified risk factor percentages (ranging from ½% to 15%) based on the type of swap and the duration of the position; (ii) discounting the amount of positions subject to master netting agreements by a factor ranging between zero and 60%, depending on the effects of the agreement; and (iii) if the swaps are cleared, further discounting the amount of the positions by 90% or, if the swaps are not cleared but nonetheless subject to daily mark-to-market margining, further discounting the amount of the positions by 80%. The thresholds adopted for the second test are US\$2 billion in daily average current uncollateralized exposure plus potential future exposure in the applicable major swap category, except that the threshold for the rate swap category would be US\$6 billion.



Substantial counterparty exposure is calculated using the same method used to calculate substantial position but it is not limited to the major categories of swaps and does not exclude hedging or employee benefit plan positions. The thresholds as adopted for substantial counterparty exposure are a current uncollateralized exposure of US\$5 billion, or a sum of current uncollateralized exposure and potential future exposure of US\$8 billion, across the entirety of a person's swap positions.

Because the GNE figure proposed in the Consultation Paper does not take into account any sort of netting, margining, collateralization or differences between types of derivatives, it is possible that a fund that would not qualify as a major swap participant could nevertheless be identified as a potential NBNI G-SIFI on the basis of the US\$400-US\$600 billion GNE test. To us this seems a strange result.

An alternative to GNE would be to use the methodology for identifying major swap participants as an initial threshold. An entity which is a major swap participant could be examined for systemic importance on the basis of the additional indicators. Entities which are not major swap participants in their own right, and which do not meet the US\$100 billion NAV threshold should not be considered systemically relevant. This methodology also has the benefit of being more akin to the Basel III approach to assessing derivatives holdings in as much as certain netting and discount factors are applied before reaching a relevant figure.

If GNE is the figure of choice, we urge FSB/IOSCO to consider approaches to the calculation and assessment of the figure which are more in line with the way that figure is treated under Basel III for banks, taking into account differences in types of swaps, their varying durations, etc.

If despite our suggestions, FSB and IOSCO decide to pursue the GNE measure as formulated as the relevant screening threshold, we would strongly urge a significant upward revision of the absolute number to reflect the overall size of the derivatives market. Using a threshold that currently represents approximately 0.05% of the overall derivatives market is unlikely to be useful for the purposes of systemic risk analysis.

Initial margin posted is another potentially viable method of assessing the build up of risk

Because initial margin rates vary across different types of instruments and can be higher or lower depending on the market's assessment of the riskiness of a type of transaction, we consider initial margin could be an appropriate measure for assessing systemic risk than using GNE.

Due to recent regulatory reforms, competent authorities are or will soon be obtaining large amounts of data from hedge fund managers about fund derivatives transactions which will allow competent authorities to monitor systemic risk in specific markets. In particular, competent authorities will be collecting much greater information regarding initial margin requirements for different types of transactions. For example, in the US, [Form PF](#) and [Form CPO-PQR](#)² already collect data on initial margin that is posted by hedge fund managers. In Europe, the [AIFMD reporting requirements](#) will oblige hedge fund managers to report similar data³.

Looking at Form PF, hedge fund managers will be required to identify the five counterparties to which the reporting fund has the greatest mark-to-market net counterparty credit exposure, measured as a percentage of the reporting fund's net asset value as well as the five counterparties that have the greatest mark-to-market net counterparty credit exposure to the reporting fund⁴. They will also be required to show the collateral and other credit support that the counterparty has

² See question Schedule C 3)b)(i) and Schedule B q3.

³ Tab "AIF file 24(2)" rows 187-206.

⁴ See questions 22 & 23 show the main counterparty exposures and Q36 & 37 show the collateral posted - netting these figures shows initial margin.



posted to the reporting fund or that the reporting fund has posted to the counterparty. Netting these figures will show the initial margin posted.

A fund with a high level of initial margin relative to its unencumbered cash is more likely to pose a systemic risk simply because it is engaging in transactions that are understood by the market to pose greater risk. Generally, funds will seek to keep initial margin amounts at a level that is below the level of unencumbered cash as sudden market changes can quickly increase variation margin requirements and reduce the amount of available unencumbered cash. With a smaller cushion of unencumbered cash, a fund runs a correspondingly greater risk of failure and is at greater risk of having to quickly unwind positions, potentially increasing the effect on the counterparty channel.

Returning to the LTCM example, in 1998, unlike current hedge funds, LTCM was not required to post initial margin and was therefore able to potentially lever themselves to infinity using derivatives. Current margin requirements, imposed by the market following LTCM, would not have allowed LTCM to get into the position it was in just prior to its collapse.

Due to change in central clearing rules, it will be impossible for banks to make the types of special cases that existed in the late 1990s or to make exceptions for particular hedge funds in order to attract business. The increased use of central clearing means that the rules will be enforced equally across the industry. Moreover, banks are now unwilling to negotiate margin rates. As part of their normal oversight activities, regulators can and should be checking that banks are calculating initial margin correctly and applying margin requirements equally.

Q3-3. Are there any practical difficulties in applying the materiality thresholds?

There could be practical difficulties applying the thresholds depending on the structures of certain funds. For example, where a fund is set up as an umbrella structure for multiple underlying investment portfolios, the appropriate level at which to apply the threshold test is at the level of the sub-fund/investment portfolio rather than at the level of the umbrella fund itself.

Q3-4. In your view, what is the appropriate threshold level, taking into account the range given above (US\$400-600 billion in GNE), for hedge funds? Please also provide reasons with data to back it up.

As stated above, we do not consider that GNE is the correct measure for systemic importance of hedge funds. Furthermore, the proposed threshold of US\$400-600 billion in GNE is not appropriate as it is not in line with the metrics used to measure the systemic importance of banks and also captures hedge funds which will only represent a very insignificant percentage of the overall derivatives market. We believe that if the GNE test were to be used, the thresholds would need to be set very substantially higher.

Q3-5. Do you think that it would be beneficial to set additional materiality thresholds based on “global activity”? If so, please explain the possible indicator and the level on which materiality thresholds should be set (with reasons for selecting such indicator, the level and any practical challenges).

We do not consider that it would be beneficial to have an additional materiality threshold based on “global activity”, as global activity should be capable of being seen as both a risk factor and a risk mitigant depending on the circumstances. Specifically, greater geographic diversification of either investments or investors would in either case act as risk mitigants in our view.

Q6-1. In your view, does the proposed definition of investment funds provide a practical basis for applying the specific methodology (i.e. indicators) to assess the systemic importance of NBNI financial entities that fall under the definition?

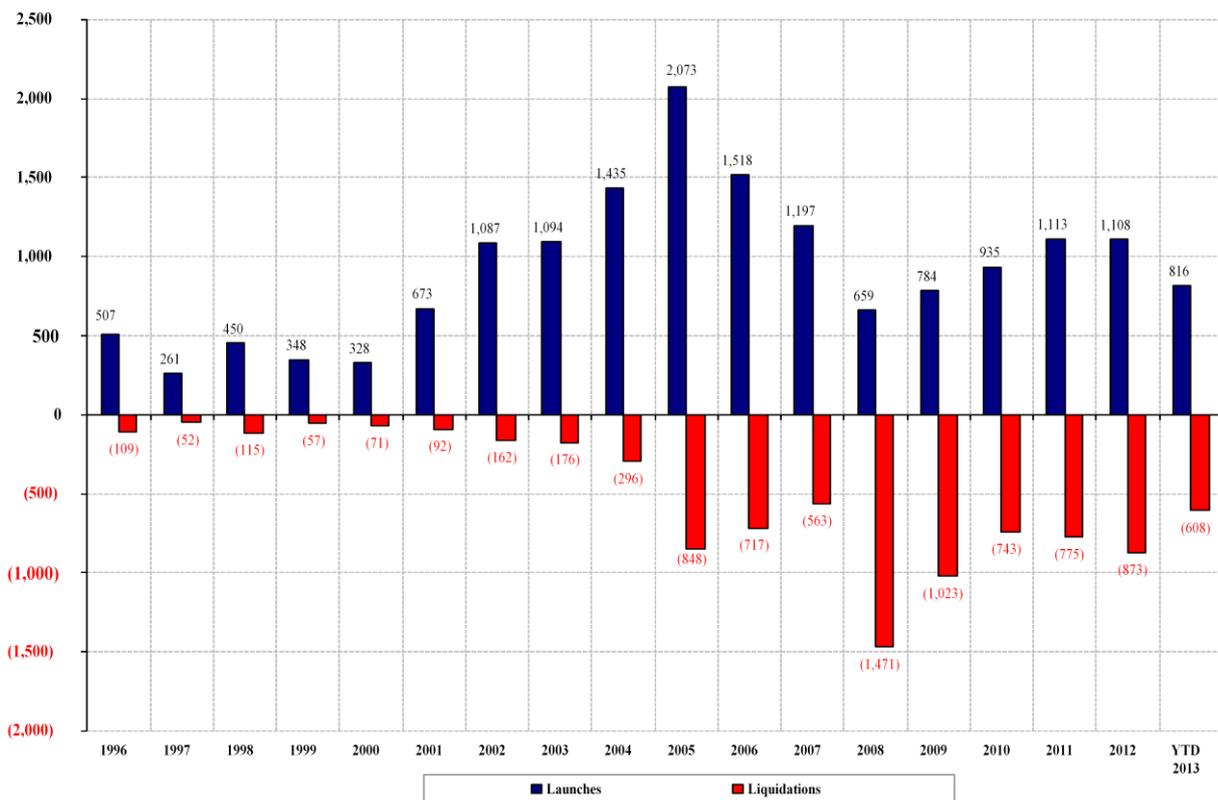


We agree that when looking at investment funds the correct focus for the assessment of systemic risk is at the fund level, as this is where exposures can be incurred. However, as noted above in our response to question 3-3, in an umbrella fund structure it will be necessary to measure systemic risk at the sub-fund level.

Q6-2. Does the above description of systemic importance of asset management entities adequately capture potential systemic risks associated with their financial distress or disorderly failure at the global level?

The Consultation Paper generally fails to take into account the fact that the hedge fund sector has experienced a robust real-life stress test in recent years. During the financial crisis hedge funds frequently failed, as evident from Figure 7 below, but there was little or no impact on the system and there was no burden placed on taxpayers. We therefore do not consider that the failure of any given fund should pose a systemic risk.

Figure 7: Estimated number of funds launched/liquidated from 1996 - Q3 2013



Source: HFR Global Hedge Fund Industry Report - Year End 2013

Q6-3. Which of the following four levels of focus is appropriate for assessing the systemic importance of asset management entities: (i) individual investment funds; (ii) family of funds; (iii) asset managers on a stand-alone entity basis; and (iv) asset managers and their funds collectively? Please also explain the reasons why you think the chosen level of focus is more appropriate than others.

As mentioned above, we agree with the FSB and IOSCO that the correct entity to focus on for the purposes of systemic risk is the fund. We believe that this focus is appropriate given that the asset management business is based on the agency relationship between the asset manager and the



client, and the asset manager as agent is acting on behalf of the its client rather than on its own behalf when engaging in market transactions. We also consider that asset managers, either on a stand-alone basis or with their funds collectively, are not the correct focus for monitoring systemic risk because asset managers:

- are most often relatively small financial entities;
- do not act as lender or counterparties;
- have limited interconnections;
- may be substituted with relative ease; and
- do not benefit from central bank bail outs.

Q6-4. Should the methodology be designed to focus on whether particular activities or groups of activities pose systemic risks? If so, please explain the reason why and how such a methodology should be designed.

We do not consider that the methodology should be designed to focus on whether particular activities or groups of activities pose systemic risks. As mentioned above, we consider that the various factors for assessing systemic risk should be considered in the round and the methodology should not focus on a particular activity more than others. If a particular activity is deemed to be more risky than other activities, this may be something that is factored into the overall assessment but it should not be isolated as the most significant factor in the overall assessment.

It may, however, be reasonable for a variety of policy reasons to exclude some activities from the analysis. Specifically, highly rated (AA-AAA) sovereign debt of G-5 developed nations is generally recognised as having significantly less credit risk than other instruments, and sovereign debt trading activities are important to those markets. Consequently, it would be reasonable to exclude such a category from the threshold analyses.

Q6-5. Are the proposed indicators appropriate for assessing the relevant impact factors? If not, please provide alternative indicators and the reasons why such measures are more appropriate.

See our response to questions 2-1 and 3-2 above, which explain that we consider that the indicators should be as consistent as possible across the various financial sectors and do not consider that GNE is a good indicator for measuring the size of hedge funds.

We consider that each of the factors should be given equal weight when assessing the systemic importance of a fund but that if a discrepancy is noted once the criteria are applied, national authorities should be able consider a more appropriate weighting for a particular criteria if appropriate.

With respect to specific indicators, we consider that:

- with respect to indicators 2-3 on intra-financial system liabilities, at the relatively low thresholds of NAV and GNE, spreading out transactions with multiple counterparties makes the risk of the fund failing trivial to all of the counterparties rather than creating systemic risk;
- with respect to indicator 3-1 regarding turnover of the fund vs. daily volume of trading in the same asset, liquidity in a particular market or asset should not be a measure of whether a fund is systemically important;



- similarly, with respect to indicator 4-4, the liquidity a fund is able to provide to its investors is not an indication of the complexity of the fund nor or its systemic risk; and
- with respect to indicators 5-1, 5-2 and 5-3, it is often the case that making investments in multiple countries and dealing with counterparties in different countries will reduce the riskiness of the fund through diversification and having investors in different countries may also reduce pressure on a fund in times of stress as investors in different countries will be subject to different internal pressures to redeem.

Q6-6. For “cross-jurisdictional activities”, should “the fund’s use of service providers in other jurisdictions (e.g. custody assets with service providers in jurisdictions other than where its primary regulator is based)” be used?

We do not consider that the fund’s use of service providers in other jurisdictions is likely to have any bearing on systemic risk posed by the fund. Furthermore, hedge funds are already subject to regulation regarding the custody of the fund’s assets which should address systemic risk.

Q6-7. Is the definition of “net AUM” and “GNE” appropriate for assessing the “size” (indicators 1-1 and 1-2)?

As explained in our response to question 3-2, we do not consider that GNE is an appropriate measure in this context. We consider that net AUM would be a more appropriate measure for size than GNE, as it will not create false positive and false negatives dependent upon the market in which a fund is active.

Q6-8. Is the definition of “investment strategies” sufficiently clear for assessing the “substitutability” (indicator 3-3)?

We agree that a fund’s footprint in a particular market should be judged on a case by case basis by the national authorities based on an assessment of the fund’s specific features.

Q6-9. Would collecting or providing any of the information included in the indicators present any practical problems? If so, please clarify which items, the practical problems, and possible proxies that could be collected or provided instead.

Collecting and providing the information included in the indicators will present fund managers and fund investors with additional costs, to the extent the information is not already being collected. We do not consider that any additional burden is justifiable in light of the extensive information that hedge fund managers will already be compiling in order to comply with their existing regulatory obligations.

Q6-10. Are there additional indicators that should be considered for assessing the relevant impact factors? For example, should “the fund’s dominance in a particular strategy (as measured by its percentage of net AUM as compared to the total AUM)” also be considered for “substitutability”? Similarly, should “leverage” or “structure” of a fund also be considered for assessing “complexity”? Please explain the possible indicators and the reasons why they should be considered.

One large factor affecting the systemic risk of funds is the level of current regulation. The Consultation Paper seems to take up systemic risk in a somewhat of a vacuum, ignoring the impact of existing and pending regulation on the activities and systemic riskiness (or not) of funds.

Since the financial crisis of 2007-2008 the financial system has undergone substantial reforms which make it even more unlikely that a single hedge fund failure could be of systemic relevance than was the case previously (even though there were no systemically relevant hedge fund failures during the crisis). Hedge funds are operated by sophisticated asset managers using a broad range of strategies,



techniques and instruments to deliver superior risk adjusted returns to their investors (increasingly very sophisticated institutions).

i. Asset management regulation

Hedge fund asset managers are now subject to strict regulation in all major jurisdictions around the world. Hedge fund managers located in the US or having more than a de minimis number of US clients or US investors in their funds have become subject to US investment adviser registration and reporting requirements and perhaps requirements applicable to commodity pool operators as well. Similarly, EU hedge fund managers are now subject to increased regulatory scrutiny following the entry into force of the Alternative Investment Fund Managers Directive (AIFMD). These regimes impose requirements on hedge fund managers in relation to registration/authorisation, systemic risk reporting, leverage monitoring, custody of assets, organisational and operation requirements, investor disclosure requirements, etc. From these regulatory reforms that have been introduced, regulators will have much greater powers to monitor and respond to systemic risk posed by hedge fund managers. We therefore consider that imposing additional regulation on asset managers is neither necessary nor warranted.

ii. Markets regulation

In addition to the regulation which has been introduced to monitor hedge fund managers, there has also been a large amount of new regulation in the way in which the financial markets operate. These changes relate to:

- **Increased capital requirements for banks and investment managers:** The G20 Declaration in 2009 on Strengthening of the Financial System called for internationally consistent efforts designed, among other things, to improve the quantity and quality of capital in the banking system. In December 2010, the Basel Committee on Banking Supervision (BCBS) published final measures on strengthening the regulation of the banking sector, known as the Basel III framework. Basel III requirements include provisions to improve the quality and volume of equity capital, including a countercyclical capital buffer and additional capital buffers for SIFIs. Risk weightings for certain assets, such as securitized collateral or assets with exposure to major financial institutions, as well as liquidity risk management are also dealt with. Basel III was implemented in the EU by the fourth Capital Requirements Directive (CRD IV) and the Capital Requirements Regulation (CRR). Most of the CRD IV and CRR entered into effect on 1 January 2014, and the requirements apply to EU credit institutions and large investment firms that hold their own client assets. Prudential capital requirements for investment managers not caught under CRD IV are contained within the AIFMD and Undertakings for Collective Investments in Transferable Securities (UCITS) Directive;
- **Basel III changes to the counterparty credit risk capital framework:** Basel III, in particular, introduced strengthened rules for counterparty credit risk management by banking entities, having a contractionary effect on the credit hedge funds have been able to get from banking entities;
- **OTC derivatives:** Relevant OTC derivative transactions will become subject to mandatory clearing upon the issuance of a relevant determination by the regulators. Currently, in the US, clearing mandates are in place for interest rate swaps (including fixed-to-floating, basis and forward rates) and index credit default swaps (including specified CDX North America and iTraxx Europe indices). Although there are no mandatory clearing obligations in place in Europe, given a central counterparty has now been authorised, clearing obligations are expected to arise from October 2014 at the earliest. Regardless of mandatory clearing, most hedge funds already post margin for their uncleared derivatives and exchange variation margin on a daily basis;



- **Margin requirements for non-centrally cleared derivatives:** Under the final framework set out by the Basel Committee on Banking Supervision and the International Organisation of Securities Commissions (BCBS-IOSCO), all non-centrally cleared derivatives, excluding physically settled foreign exchange forwards and swaps, between financial firms or systemically important non-financial entities, will be required to exchange initial margin, subject to a threshold amount of €50 million, and variation margin, subject to a *de-minimis* amount of €500,000. Assets exchanged for such purposes should be highly liquid, reasonably diversified and able to hold their value and remain liquid in a time of financial stress. Requirements in respect of variation margin arise as of 1 December 2015 and those for initial margin also arise as of 1 December 2015, at the earliest (requirements are phased in according to aggregated notional amount over a three month period of the non-centrally cleared derivatives). Although national implementation has yet to occur in the EU and the US, it is highly likely that such jurisdictions will follow the BCBS-IOSCO final framework very closely. As noted above, it is already the case that most hedge funds already post margin for their uncleared derivatives and exchange variation margin on a daily basis; and
- **Mark to market, trade confirmation, relationship documentation, valuation procedures, portfolio reconciliation and compression in respect of all non-centrally cleared derivatives transactions:** Under current US and EU rules, entities must satisfy requirements relating to the timely confirmation of trades and the periodic reconciliation and compression of portfolios. In the US, entities are required have in place agreed processes for daily valuation of swaps for the purposes of regulatory margin and risk management and trading relationship documentation, such as relevant master agreements, with all counterparties, prior to transacting. In Europe, entities will be required to mark-to-market outstanding non-cleared derivatives contracts on a daily basis.

iii. Improved market practice

As well as an increase in regulation since the financial crisis, there have also been improvements in market practice in the hedge fund sector. For example, fund documentation regarding redemption policies, including suspension, gates and side pockets has been clarified and significantly changed to take account of crisis experiences. There is also more discipline around the type and source of financing, improved monitoring/management of rehypothecation, an increased focus on safer segregation of assets where it is not already mandated by regulation, increased focus on investor type and diversification and greater institutionalisation of investor base driving operational excellence.

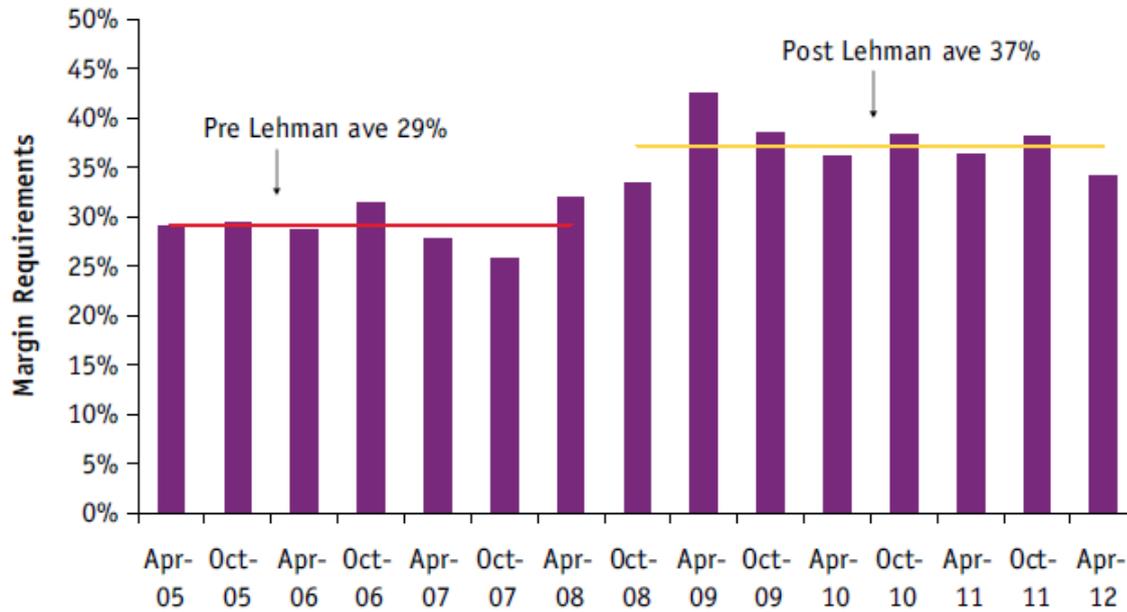
iv. Consequences of regulatory and market changes

As a result of the above mentioned changes to regulation and market practice, regulators will now have much more visibility of increased risk as well as more tools to intervene where they see this. Furthermore, the banking sector should now be more resilient in the face of potential counterparty failures and the markets and infrastructure have equally been made more robust by regulation relating to central clearing, mandatory posting of margin for non-cleared derivatives and improved operational framework of the derivatives markets. All of these reforms have introduced natural limits to hedge fund leverage.

Figure 8 below shows how the margin requirements imposed on prime brokers have increased since the financial crisis.



Figure 8: Average prime brokerage margin requirements - margin requirement/LMV



Q6-11. Should certain indicators (or impact factors) be prioritised in assessing the systemic importance of investment funds? If so, please explain which indicator(s) and the reasons for prioritisation.

As stated above, we do not consider that certain indicators (or impact factors) be prioritised in assessing the systemic importance of investment funds.