Report on the second IOSCO hedge fund survey

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Chapter 1 - Introduction

The Task Force on Unregulated Financial Entities ("Task Force") [1] was established by the IOSCO Technical Committee on 24 November 2008 to support the initiatives undertaken by the G-20 for the development of recommendations on the regulatory approaches to mitigate risks associated with unregulated entities' trading and their traditional opacity. [2]

IOSCO published a report on Hedge Funds Oversight in June 2009, which recommended six high level principles ("the Principles") for the regulation of hedge funds and/or hedge fund managers:[3]

1. Hedge funds and/or hedge fund managers/advisers should be subject to mandatory registration.
2. Hedge fund managers/advisers which are required to register should also be subject to appropriate ongoing regulatory requirements relating to:
    - Organisational and operational standards;
    - Conflicts of interest and other conduct of business rules;
    - Disclosure to investors;
    - Prudential regulation.
3. Prime Brokers and banks which provide funding to hedge funds should be subject to mandatory registration/regulation and supervision. They should have in place appropriate risk management systems and controls to monitor their counterparty credit risk exposures to hedge funds.
4. Hedge fund managers/advisers and prime brokers should provide to the relevant regulator information for systemic risk purposes (including the identification, analysis and mitigation of systemic risks).
5. Regulators should encourage and take account of the development, implementation and convergence of industry good practices, where appropriate.
6. Regulators should have the authority to co-operate and share information, where appropriate, with each other, in order to facilitate efficient and effective oversight of globally active managers/advisers and/or funds and to help identify systemic risks, market integrity and other risks arising from the activities or exposures of hedge funds with a view to mitigating such risks across borders.

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1 The Task Force is co-chaired by CONSOB (Italy) and FCA (United Kingdom), and has the following members: ASIC (Australia), AMF (France), BaFin (Germany), CNMV (Spain), FSA (Japan), OSC (Ontario), SEC and CFTC (United States), SFC (Hong Kong), FINMA (Switzerland), CVM (Brazil), AFM (Netherlands), MAS (Singapore). The CNBV (Mexico) is an observer.

2 MR/19/2008 *IOSCO Technical Committee launches Task Forces to support G-20 aims* http://www.iosco.org/news/pdf/IOSCONEWS134.pdf

3 Hedge Funds Oversight, Final Report, June 2009, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD293.pdf

These Principles are intended to ensure a globally consistent approach to the regulation of hedge funds and/or hedge fund managers.[4]

As a result of this work and in particular of Principle 4, which states that hedge fund managers/advisers should provide to the relevant regulator information for systemic risk purposes, IOSCO developed a survey for the global collection of systemic risk information on hedge funds.

The first IOSCO hedge fund survey collected data as of September 2010. However, certain IOSCO members, including members representing the majority of hedge fund assets, were unable to run comprehensive surveys and submit data to IOSCO due to, among other things, legal constraints relating to sharing data. Despite some interesting snap-shots of the risks posed by hedge funds, ultimately this first initiative could not draw robust conclusions relating to the systemic importance of the global hedge fund industry as a whole.

Based on the lessons learned with this first IOSCO hedge fund survey, IOSCO decided to conduct a second IOSCO hedge fund survey ("survey") to collect data as of 30 September 2012 (exactly two years after the first exercise).[5] The following members participated in this second survey: Australia ASIC, Brazil CVM, Canada OSC and AMF (Quebec), France AMF, Germany Bafin, Hong Kong SFC, Italy CONSOB, Japan FSA, Luxemburg CSSF, Netherlands AFM, Singapore MAS, Spain CNMV, UK FSA, US SEC and US CFTC. Singapore and Luxembourg participated for the first time.

This report presents the results of this second exercise and outlines the next steps for this work.

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4 In 2011 the principles were formally incorporated into the IOSCO's Objectives and Principles of Securities Regulation (Principle 28) and a new IOSCO methodology was developed to provide guidance to assessors (including IMF assessors) in assessing its implementation in relevant jurisdictions. The IOSCO Principles and methodology area available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD359.pdf

5 The US SEC looked at information filed between 1 October – 31 December 2012 in order to provide data as of 30 September 2012.

Chapter 2 - Overview of the Second IOSCO Hedge Fund Survey

2.1. Objectives of the IOSCO Hedge Fund Survey

The aim of the IOSCO survey is to enable the collection of data from hedge funds managers and advisers about, amongst other things, their trading activities, the markets they operate in, leverage, funding and counterparty information, and to facilitate exchange of consistent and comparable data amongst relevant regulators for the purpose of:

- facilitating international cooperation regarding possible systemic risks in this sector;
- providing a forum for the discussion of potential regulatory options if these are required; and
- gaining a better insight into the global hedge fund industry.

This is a unique international initiative that intends to provide a global view of the hedge fund sector. Despite some limitations, it has thus far been a useful tool in examining this segment of the market, particularly considering the limited amount of publicly available hedge fund data. Further, as hedge funds tend to operate across multiple jurisdictions, with funds often domiciled in offshore locations and with trading occurring across global markets this initiative offers a unique perspective on the global nature of these funds.

IOSCO believes that regular monitoring by regulators of certain risk indicators/measures will be important in building a time series of data that will help to monitor trends in hedge funds and, therefore, provide valuable insight into any potential systemic risks that hedge funds may pose globally to the financial system. Regular monitoring will also improve regulators' understanding of global systemic risks that might arise through the activities of hedge funds, including any emerging risks. IOSCO also believes that data collected through this exercise will inform the development of a set of key indicators and thresholds that regulators could use to assess whether these entities are systemically important.

2.2. Main improvements to the second IOSCO Hedge Fund Survey

Several improvements have been made to the second IOSCO survey. The main one has been the sample size: 15 members participated in this exercise, which was an increase of four members from the last survey. This included the US where a majority of the hedge fund industry is located.[6]

[6] Only certain large hedge fund advisers in the US were required to file data as of September 30, 2012. In particular, hedge fund advisers (combined with their related persons, collectively) with over $5 billion in hedge fund assets under management were required to file during this time period. Therefore, the data in this report is only partial US data and does not include all qualifying hedge funds. The Form PF filings submitted during this period were the initial or second filings ever submitted on Form PF. It is probable that filing errors exist due to, but not limited to, certain data anomalies. The aggregate results provided in this document reflect Form PF as it was filed. SEC and CFTC staff believe that the accuracy, quality, and consistency of Form PF data will improve over time. Future results for similar questions may vary given the expected improvement in the data quality.

Other main improvements include better explanation/guidance in relation to definitions used, clarification of some of the questions and the inclusion of new questions, such as counterparty risk and concentration.

As discussed in the 2009 Hedge Fund Oversight Report, there is no globally agreed definition of a “hedge fund.” However, for this second data collection exercise IOSCO has developed the following guidelines of what participants should consider as a hedge fund, which members agreed to keep flexible for use by multiple jurisdictions:

- A fund that meets the criteria defined in its local jurisdiction for 'hedge funds'; or
- A fund that declares itself as a 'hedge fund' to its regulator (for authorisation or reporting purposes); or
- If a fund does not meet one of the two points above then it is a hedge fund if it presents a combination of some of the following characteristics:
    - Use of leverage;
    - Performance fees based on unrealised gains;
    - Complex strategies, which may include use of derivatives, short selling, high frequency trading and/or the search for absolute returns;
    - Tend to invest in financial rather than physical assets.

Although these guidelines were helpful for participants, IOSCO recognises that the universe of hedge funds captured by the survey may vary according to, for example, the jurisdiction’s local criteria.

In this second exercise, IOSCO agreed to have a threshold for determining qualified funds, instead of delegating this to national discretion as in the first survey. The main purpose of introducing a threshold was to focus the gathering of more detailed data on those hedge funds that could be relevant for the purposes of monitoring risks and to facilitate a consistent comparison between similar entities within the hedge fund universe. Therefore, for this second survey, any fund where the total net asset value was greater than US $500 million was considered a qualified fund. Consequently, all participants completed the first section of the survey on general information regarding asset managers (including assets under management), but only participants with qualified funds provided more detailed information for each hedge fund that the respective manager runs.

2.3. Challenges

Many lessons were learned with this second IOSCO survey. One of the most significant challenges encountered with the data collection by some participants was the need to conduct extensive assessments in relation to the quality and accuracy of the data provided by asset managers. For those jurisdictions that engaged in a data cleansing exercise,[7] this was both time consuming and resource intensive because it included identifying and correcting data errors, addressing data inconsistencies, assessing the consistency of data, checking for

[7] Not all jurisdictions were able to cleanse the data given the quality and accuracy of data provided (e.g. while the Asian data was cleansed, the US data was not).

soundness of the hypotheses used by firms, etc. In some instances, this also required participants to have discussions with firms to check accuracy of the data provided.[8] Many questions and definitions were misinterpreted by respondents, which led to many incorrect responses. This was particularly noted with regards to counterparty credit data, collateral, certain derivatives data, trading and clearing data for derivatives and borrowing. IOSCO believes that data quality will improve as hedge fund managers become familiar with the survey questions, definitions and calculation methods.

As part of this work, IOSCO intends to continue to try to agree upon common interpretations of questions and common definitions of terms, though in some cases this may not be possible as certain participants may be constrained by local regulation. For these reasons, it is important to note that a number of iterations will be needed before IOSCO is in a position to report more broadly on the entire data captured in the survey. Indeed, only time will ensure the analysis and the resulting reports become gradually more stable and insightful.

In relation to hedge funds located in multiple jurisdictions, a small number of participating members have made efforts to avoid double counting by liaising bilaterally in relation to the data from those hedge funds managers.[9]

Throughout the IOSCO hedge fund survey, each regulator has been able to perform its local analysis of its own market and to retain the prerogative to use their data in a way that makes sense according to local business practices, developments, etc. The survey template represents the current state of what participants are able to collect and share.[10] Each national regulator is able to collect any other additional data at a domestic level that it considers relevant to its hedge fund industry and regulatory approach. In this respect, the survey may also be a reference for national regulators that do not have a legal/regulatory requirement to collect specific data from hedge fund managers or advisers, by providing them with a common set of data questions from which to work. This improves reliability of decision making, consistency, cross-border application, comparability and consultation. Local circumstances therefore remain important in guiding local regulators when assessing the risks posed by local investment firms and in particular, in tailoring the hedge fund survey to the specifics and characteristics of their own industry and market.

Although the results and conclusions of the second survey are improved when compared with the first IOSCO survey, the limitations described above prevent definitive conclusions being reached in terms of risk to the financial system. The assessment in this report will nonetheless attempt to offer a broad overview of the surveyed hedge fund industry of the participating members based on the available data. Going forward, IOSCO's aim is to seek to improve the quality of the data over time.

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8 It should be noted that no verification has been done on the underlying data by IOSCO.

9 Despite these efforts data in this report may reflect some double counting.

10 In the US, participants agreed to collect only that data required to be collected by regulation (e.g., on Form PF). However, additional issues remain regarding the statutory and regulatory authority of regulators to be able to share certain collected data.

Chapter 3 - Legislative developments in the EU (AIFMD) and US (Dodd Frank Act) and their impact on the IOSCO hedge fund survey

In determining the categories of information to be requested through the second survey, IOSCO considered the lessons learned from its first exercise as well as ongoing legislative developments in various jurisdictions, in particular in the EU and in the US. As a result, the approach taken in the IOSCO survey is consistent with the approach taken in the US and in Europe with respect to data collection from hedge fund managers/advisers.

Under the European Union's Directive on Alternative Investment Fund Managers (AIFMD),[11] which was transposed on 22 July 2013, ESMA has developed its own template for private fund reporting which will be mandatory within Europe. In the US a new rule was issued requiring SEC-registered investment advisers with at least US$150 million in private fund assets under management to periodically file certain data, including certain hedge fund data, primarily intended to assist the Financial Stability Oversight Council in its assessment of systemic risk in the US. Additionally, this data collection will also capture commodity pools that are able to, and elect to make a regulatory filing on this form in lieu of their required regulatory filing on CFTC form CPO-PQR. To ensure that the IOSCO survey is effective and useful, any improvements to the survey template need to be consistent with US and European statutory and regulatory requirements as much as possible.

The IOSCO work in relation to the data collection exercise has undoubtedly helped to inform the process at the US and EU level and has played an important role in ensuring consistency in the timing and content of systemic risk data collection for hedge funds in those regions. Despite these changes in the regulation of hedge funds, the IOSCO hedge fund survey template remains a key tool to members outside the US and the EU for collecting data on their hedge fund managers that could be consistent with US and EU data. This global consistency in data collections will facilitate international supervisory cooperation in assessing any potential risks posed by hedge funds and it will also provide a forum for co-ordination and discussion of potential regulatory options and strategies, if these are required.

A consistent and proportionate global approach will continue to be one of IOSCO's aims with respect to its hedge fund survey, which means that any future revisions to the survey template will need to ensure compatibility with US and EU surveys. This will ultimately help facilitate better coordination between regulators and, through improved data sharing, clearer identification of global risks.

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11 The AIFMD can be found at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:01:EN:PDF. The Directive regulates:

- EU fund managers that manage alternative investment funds (essentially hedge funds and private equity funds) ("AIFs") (wherever they are based);
- fund managers (wherever they are based) that manage AIFs established in the EU; and
- fund managers (wherever they are based) that market the units or shares of an AIF in the EU.

In line with the G-20 recommendations, after the financial crisis the main international financial centres have reviewed the perimeter of application of their legislation regarding the oversight of the hedge fund industry in order to address systemic risks.

In the US, the *Dodd-Frank Wall Street Reform and Consumer Protection Act*[12] ("Dodd-Frank Act", or "DFA"), was passed which, among other things, has changed the scope of exemptions applicable to hedge fund managers. The SEC has adopted new rules and rule amendments under the Investment Advisers Act of 1940 ("Advisers Act") to implement Title IV of the Dodd-Frank Act that make numerous changes to registration requirements and reporting requirements of investment advisers to private funds, including hedge funds. In October 2011, the SEC and the CFTC approved provisions requiring mandatory reporting of systemic risk related information by private fund advisers that are registered under the Advisers Act.

In the EU, the AIFMD has established a harmonised regime applicable to alternative investment fund managers, including in matters of mandatory reporting to competent authorities.

These legislative developments are explained in more detail below.

3.1. Legislative developments in the US – Implementation of Dodd-Frank Act

Historically, in the US, most advisers to private funds (e.g., hedge funds and private equity funds) were exempt from registration under the so-called "small adviser" exemption. The Dodd-Frank Act removed this exemption but adopted others, including exemptions for advisers that exclusively advise venture capital funds and advisers solely to private funds with less than $150 million in assets under management in the US. Certain foreign private advisers and advisers to licensed small business investment companies are also exempted.[13]

The Dodd-Frank Act has also directed the SEC and CFTC to require private fund advisers to maintain records and file reports containing such information as the SEC and CFTC deem necessary and appropriate in the public interest and for investor protection or for the assessment of systemic risk by the Financial Stability Oversight Council (hereinafter the "FSOC").[14]

In this respect, on 31 October 2011 the SEC and the CFTC approved the adoption of a new joint form on which certain advisers to private funds, including those that are dually

12 Available at http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf

13 See final rule implementing these provisions: Exemptions for Advisers to Venture Capital Funds, Private Fund Advisers With Less Than $150 Million in Assets Under Management, and Foreign Private Advisers (June 22, 2011), available at: http://www.sec.gov/rules/final/2011/ia-3222.pdf.

14 The Dodd-Frank Act established the FSOC for the purpose of monitoring risks to the stability of the US financial system. Working with other regulators, FSOC will gather information from many sectors of the financial system for this purpose. In order to assist FSOC in this process, the Dodd-Frank Act directs the Commission to collect information from advisers to hedge funds and other private funds as necessary for FSOC's assessment of systemic risk.

registered with the SEC and the CFTC as commodity pool operators or commodity trading advisors, would be required to report information for use by FSOC in monitoring risks to the US financial system.[15]

The rule, which implements Sections 404 and 406 of the Dodd-Frank Act, requires SEC-registered investment advisers and dually-registered CFTC registrants with at least $150 million in private fund assets under management to periodically file a new reporting form (Form PF). Information reported on Form PF is confidential.

Private fund advisers are divided by size into two broad groups – large advisers and smaller advisers. The amount of information reported and the frequency of reporting depends on the group to which the adviser belongs. The SEC stated that most private fund advisers will be regarded as smaller private fund advisers, but that the relatively limited number of large advisers providing more detailed information will represent a substantial portion of industry assets under management. As relevant, "Large private fund advisers" are advisers with at least $1.5 billion in assets under management attributable to hedge funds. All other respondents are considered smaller private fund advisers.

Smaller private fund advisers must file Form PF once a year within 120 days of the end of their fiscal year, and report only basic information regarding the private funds they advise. This includes limited information regarding size, leverage, investor types and concentration, liquidity, and fund performance. Smaller advisers managing hedge funds must also report information about fund strategy, counterparty credit risk, and use of trading and clearing mechanisms.

Large private fund advisers must provide more detailed information than smaller advisers (although neither large or small private fund advisers are required to report position level information). The focus and frequency of the reporting depends on the type of private fund the adviser manages. Large hedge fund advisers must file Form PF to update information regarding the hedge funds they manage within 60 days of the end of each of their fiscal quarters. These advisers must report on an aggregate basis information regarding exposures by asset class, geographical concentration, and turnover by asset class. In addition, for each managed hedge fund having a net asset value of at least $500 million, these advisers are required to report certain information relating to that fund's exposures, leverage, risk profile, and liquidity.

There was a two-stage phase-in period for compliance with Form PF filing requirements. Most private fund advisers were required to begin filing Form PF following the end of their first fiscal year or fiscal quarter, as applicable, to end on or after 15 December 2012. Those with $5 billion or more in certain private fund assets began filing Form PF following the end of their first fiscal year or fiscal quarter, as applicable, to end on or after 15 June 2012.

Before Form PF was adopted, the SEC adopted amendments to Form ADV in June 2011 that, among other things, expand the information collected regarding private funds. These

15 See final rules implementing these provisions: Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF (Oct. 2011) available at: http://www.sec.gov/rules/final/2011/ia-3308.pdf

amendments, among other things, require certain private fund advisers to report basic organisational and operational information about each private fund they manage. Unlike information reported on Form PF, the private fund information reported on Form ADV is available to the public.

3.2 Legislative developments in Europe - Directive on Alternative Investment Fund Managers

The AIFMD aims to create a harmonised comprehensive and effective regulatory and supervisory framework for alternative investment fund managers ("AIFM") within the EU. The AIFMD also provides a common framework on the macro-prudential oversight of the sector, allowing coordinated actions as necessary to ensure the proper functioning of financial markets. This will ultimately provide a secure basis for the development of the EU internal market.

The scope of the AIFMD is broad since it covers, apart from some exceptions, the management and marketing of all 'collective investment undertakings' which are not subject to the UCITS regime, including inter alia hedge funds, private equity funds and real estate funds.

The AIFMD is focused on the regulation of the alternative investment fund manager rather than the fund vehicle itself, without preventing Members States to provide national requirements in respect to the structure or composition of the funds established in their territory. It does however introduce the possibility to impose limits on leverage and liquidity and requires notification of alternative investment funds to be made to regulators, prior to the marketing of these funds on a domestic or cross-border basis by an AIFM.

The AIFMD introduces mandatory authorisation/registration and ongoing regulatory requirements for AIFM, including regular reporting obligations to its regulator for each AIF.

The reporting covers, among other things:

- aggregate information on the main instruments in which the AIF trades,
- the markets of which the AIF is a member or actively trades,
- the principal exposures and most important concentrations of each AIF (including information on leverage), and
- the risk profile of the AIF and risk management tools the AIFM employs to manage the market, liquidity, counterparty, operational and other risks.

This information will be made available to other competent authorities, ESMA[16] and ESRB[17].

In this respect, Regulation 231/2013 (the Regulation) adopted by the European Commission on 19 December 2012 establishes a comprehensive reporting template that AIFMs will have

[16] European Securities and Markets Authority.

[17] European Systemic Risk Board.

to use to comply with their reporting obligations. Further guidelines providing clarifications on reporting obligations were recently subject to public consultation by ESMA.

The consultation closed on 1 July 2013 and the feedback statement is expected to be published soon.[18]

[18] http://www.esma.europa.eu/system/files/2013-592_consultation_paper_on_esma_guidelines_on_aifmd_reporting_for_publication.pdf

Chapter 4 – Global Hedge Fund Industry Analysis

4.1 Methodology

This second edition of the IOSCO hedge fund survey endeavoured to take advantage of the preceding experience and ongoing industry discussions to adapt the questionnaire as well as the resulting analytical framework. It also benefited from the legislative developments in the US and in Europe, which require hedge fund managers/advisers to report more information to regulators and have therefore enabled the collection of a wider sample of data. As mentioned in Chapter 1 above, long term stable data quality and further progress with data analysis will require multiple iterations of this exercise.

For the purposes of collecting data from relevant hedge fund managers/advisers, IOSCO developed a survey template with a common set of questions and definitions, which incorporate both data for supervisory and potential systemic risk purposes and builds on the data collection recommendations set out in its final report on *Hedge Fund Oversight.*[19] All participants ran the survey with the same cut-off date of 30 September 2012. For some participants this was the first time that these types of statistics were being collected.

As in the previous exercise the survey was not intended to be a comprehensive list of what each member should collect and therefore participants were not restricted from requesting additional information at a domestic level, based on their legislative and/or regulatory requirements.

For most jurisdictions,[20] the firms and funds captured by the survey meet the following criteria:

- Only directly managed funds are considered (i.e., funds of funds are excluded from this exercise);
- The funds must meet one or several of the criteria used to define hedge funds.[21] This remains subject to judgment as regulator ask firms to honestly report the funds they believe are part of this industry. More objectively, some criteria are being defined around the use of leverage, complexity of strategies and the application of performance fees;

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19 The categories of data covered by the IOSCO survey included information in relation to size, leverage, liquidity, maturity mismatch characteristics, data on investment strategies, counterparty exposures and product exposures. IOSCO's press release on the Updated Systemic Risk Data Requirements for Hedge Funds can be found at: http://www.iosco.org/news/pdf/IOSCONEWS229.pdf

20 In the US, those entities that are required to file on Form PF are bound by the scope of and definitions included in that form. For example, Form PF requires the inclusion of dependent parallel managed accounts, which generally includes those accounts with gross assets less than the gross assets of the hedge fund.

21 See page 5 above.

- To qualify, any individual fund has to demonstrate total global net assets under management (net AUM[22] or net asset value, NAV) of at least USD500 million.[23] In calculating net assets, IOSCO intends to capture assets managed in *pari passu* for managed accounts based on the same product. The idea is to capture a product in its entirety.

The data collected at national level has been shared, in accordance with national law, at aggregate level due to legal confidentiality obligations. The data was collected in a global manner at the level of the firm (Section 1 of the survey) and the qualifying funds (Section 2 of the survey) – as explained further below. The focus on global data is a reflection of IOSCO's belief that the hedge fund industry is global in nature and should be analysed from this perspective.

4.2 Structure of the survey

The latest iteration of the IOSCO hedge fund survey was built around two main sections and 43 questions overall. The vast majority of questions were essentially of a quantitative nature. A short description of each section is provided below.

Section 1	**Firm level** General questions about the regulated entity and the group/parent it relates to. This section is used to understand the bigger picture and to put fund data in perspective.
Section 2	**Qualifying fund level** Detailed questions about a particular fund, limiting all data provided to the vehicle in question, but considering a fund in its entirety, embedding all structures (master and feeders) and share classes. The sub-sections are: fund information; individual fund exposures (per category) and turnover; important concentrations; risk profile of the fund (including counterparty risk, leverage details, collateral details and liquidity risk); historical performance of the fund.

The next sections provide an overview of the results from the September 2012 iteration of the IOSCO survey. Due to issues relating to confidentiality, consistency and quality of data, the current report does not present an exhaustive review of all data points contained in the IOSCO survey, but rather, a smaller set which reflects the data sections for which the

22 Throughout the document, the reference to assets under management (AUM) should be construed as a measure of net AUM or net asset value (NAV). When the report refers to different measures of exposure or turnover, it shall endeavour to be clear as to what metrics or definitions are being used.

23 In order to ensure international comparability, the data provided is usually denominated in US dollars (USD).

participants were confident that quality and consistency had reached a satisfactory level across the jurisdictions.[24]

As IOSCO progresses in its analytical approach and as the survey becomes stable over time, the ability to present more granular and refined data on a broader set of data fields will also improve.

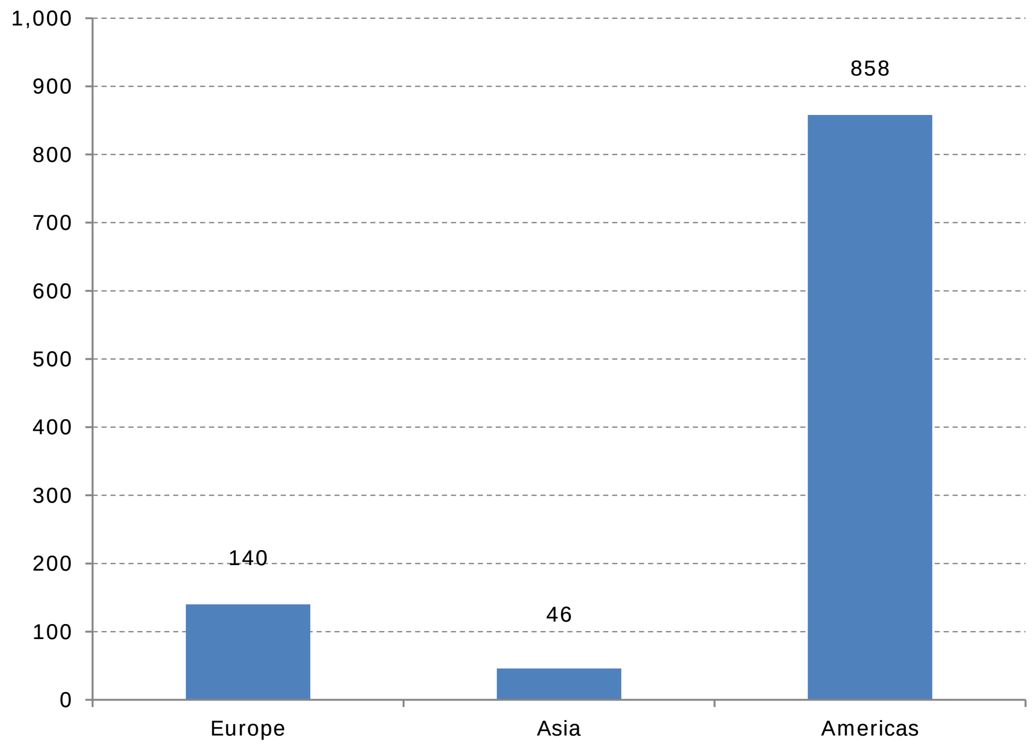
4.2 Global overview of the hedge fund industry as of September 2012

Qualifying Funds

The IOSCO hedge fund survey captured in total 1,044 qualifying funds.

The following chart (Figure 1) illustrates the regional distribution of these funds across different geographical regions.

Figure 1 - Number of qualifying hedge funds per region



In terms of management centres, the US (823) and the UK (97) are the two predominant regions where hedge funds managers/advisers are located.

The table below (Figure 2) presents a breakdown of qualifying funds per each jurisdiction involved in the survey:

24 See footnote 6 for details about the scope of hedge fund data provided by the US.

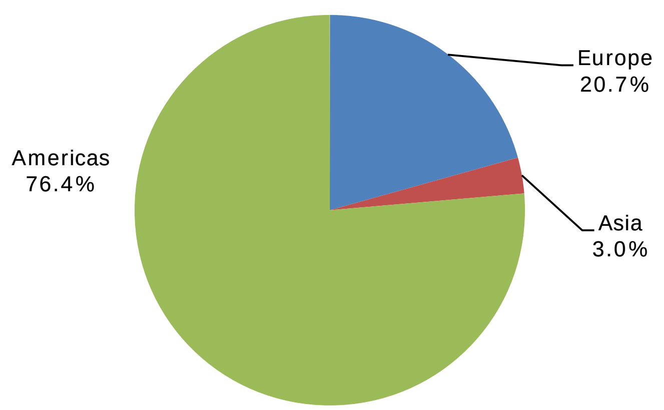
Figure 2 – Qualifying funds per jurisdiction

Jurisdiction	Number of qualifying funds
USA	823
UK	97
Luxembourg	31
Canada	30
Hong Kong	20
Australia	12
Singapore	11
Italy	8
Brazil	5
France	3
Japan	3
Germany	1
Netherlands	0
Spain	0
	1,044

Assets under management (AUM)

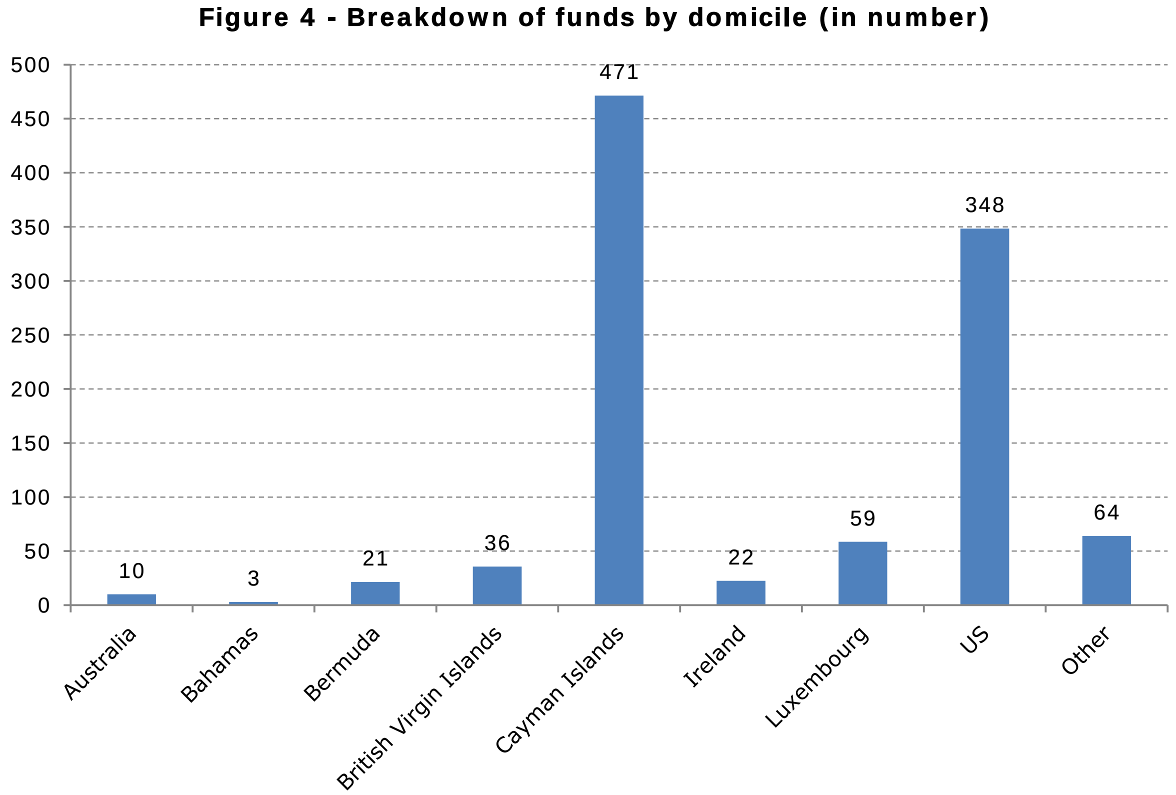
Overall, the captured funds represented USD1.94 trillion in total net assets under management (AUM). The following chart (Figure 3) reflects the regional distribution of these results and, once again, this demonstrates that the US and the UK are the two predominant individual management centres, with USD1.47 trillion and USD326 billion, respectively.

Figure 3 - Regional breakdown of total net AUM (in USD billion)



Fund domiciliation

One specific characteristic of the hedge fund industry is its largely "offshore" nature. The investment vehicles (the funds) are usually domiciled in offshore jurisdictions to benefit from more favourable tax and regulatory regimes, of which the predominant one has been the Cayman Islands for a number of years now.[25] The following chart (Figure 4) presents the global breakdown by number of funds.[26]



For hedge funds reporting to the US, Cayman Islands-registered funds represent 45% of all US qualifying funds, and the total of offshore non-US based funds is 59%.

Investment strategies

Clustering hedge fund investment strategies is generally a difficult task because of the heterogeneity of the universe. Therefore, this report presents the split between those funds that can be clearly identified as using a single-strategy approach and those that report by using an array or a mix of different strategies. The following chart (Figure 5) presents this distribution per jurisdiction, in number of funds.

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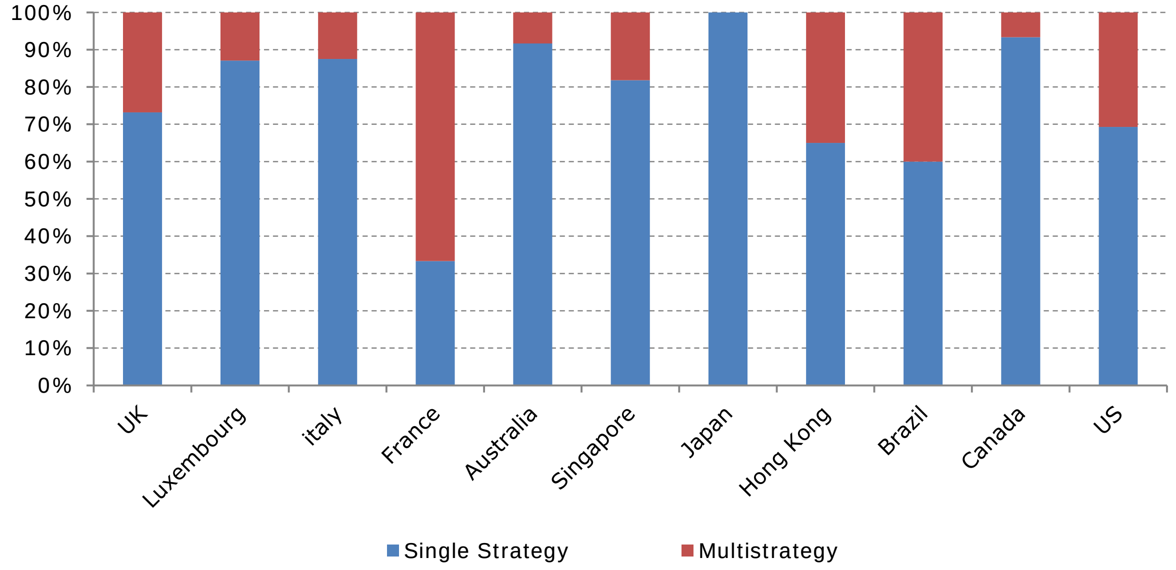
25 Based on information gathered over the years through the UK hedge fund survey (public reports available at http://www.fca.org.uk/news) and based on publically available data, e.g., Hedge Fund Intelligence (HFI) and Hedge Fund Research (HFR).

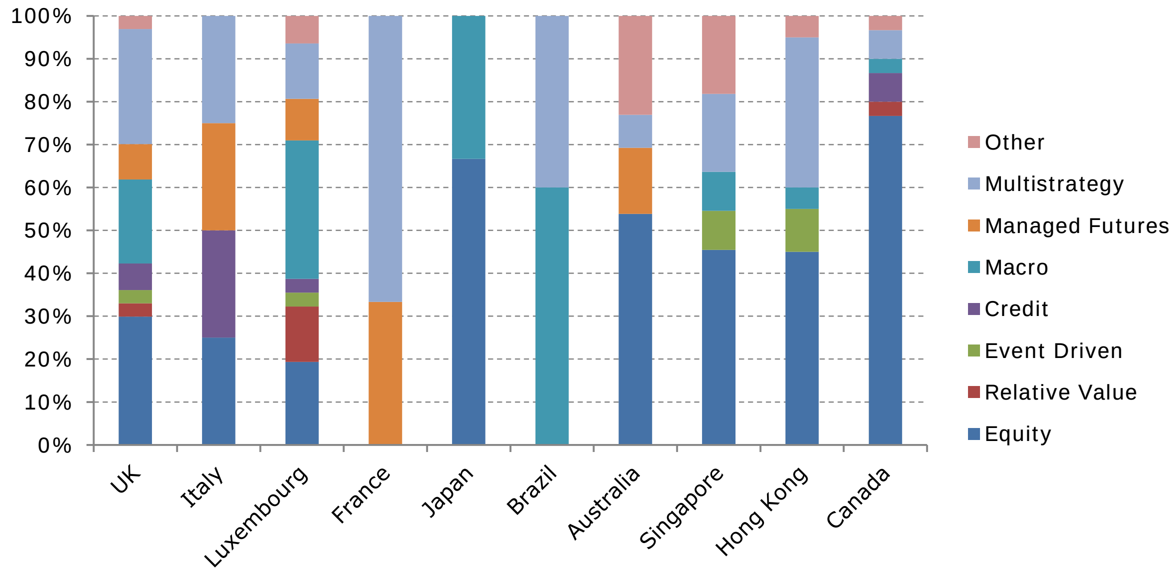
26 10 funds are excluded from this breakdown as this particular data was unavailable.

Figure 5- Distribution of funds by single vs. multi-strategy (in number)



The following chart provides a more granular analysis of the types of strategies most used in certain jurisdictions. Figure 6 illustrates the distribution, in number of funds, for each predominant strategy, as identified by hedge fund managers/advisors.[27]

Figure 6 - Distribution of funds by individual strategies (in number)



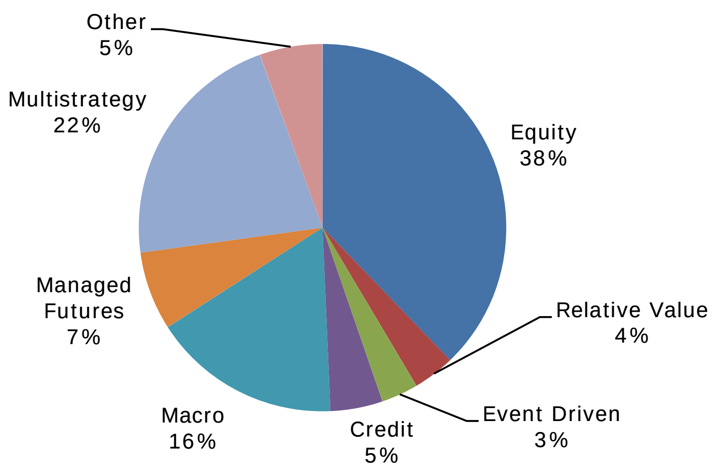
27 US data has not been provided in relation to individual strategies.

The Equity space appears to be the single most represented strategy when considering number of funds (the main sub-group being Long/Short Equity). Historically,[28] based on what publicly-available information existed, equity-oriented funds usually dominated the hedge fund universe in terms of the number of active funds and new launches. The reasons for this include the original focus of hedge funds, investor interest and market liquidity. However, the ever growing sophistication of markets and investor appetite for wider investment choices have encouraged the development of an array of strategies which today spans the entire capital markets structure, such that the hedge fund sector looks now more diversified.

In recent times, the 2007-2008 financial crisis and the macroeconomic and political environment that followed has encouraged the creation of a growing number of funds active in the Macro space (Managed Futures or CTAs, Global Macro Discretionary), with some regional variations. Funds exploiting inefficiencies in the Credit and Distressed spaces are also generally growing in numbers, although the intrinsic lower liquidity of such markets means there will tend to be a natural cap to growth in this sub-group.[29]

Finally, the following diagram (Figure 7) presents an aggregated distribution of funds strategy for the jurisdictions listed in the above chart.

Figure 7 - Aggregate breakdown of funds by individual strategies (in number)



Use of leverage and market exposure

The analysis of leverage, trading turnover and the resulting market footprint of funds is at the core of the systemic risk analysis that regulators aim to better understand and capture through the hedge fund survey. In particular, the G-20 focused on collecting leverage information as a

28 Please refer to footnote 25.

29 Based on public available data (e.g. Hedge Fund Intelligence (HFI) and Hedge Fund Research (HFR) and on some participants' supervisory knowledge.
Please refer to footnote 26.

necessary component to measure whether hedge funds pose systemic risk individually or collectively.[30]

In simple terms, leverage is the process whereby a fund reaches a bigger market exposure than the capital it has at its disposal to invest.

The hedge fund survey has explored leverage through two sources:

- Financial leverage (prime broker financing, repo transactions, direct secured or unsecured lending);
- Synthetic exposure obtained through the use of derivatives.

Although individual regulators collected data in relation to these categories, IOSCO is not yet in a position to present the full results from this analysis, for reasons of data quality and consistency. As explained previously, ongoing iterations of the survey will be needed in order for regulators to achieve a better quality and more accurate set of data and to further progress with data analysis.

The chart below (Figure 8) presents how financial leverage is used by firms to increase their market exposure. Financial borrowings are compared to the level of net AUM in each jurisdiction.[31] For clarity, it needs to be noted that financial leverage by definition does not include the effect of embedded synthetic leverage obtained through derivatives positions, which is a concept that is explored in the next part of this section. Delineating leverage in its two components is another objective of this analysis. Indeed, regulators are interested in understanding how firms and specific strategies get market exposure, as the source of leverage is an important consideration in determining systemic risk.

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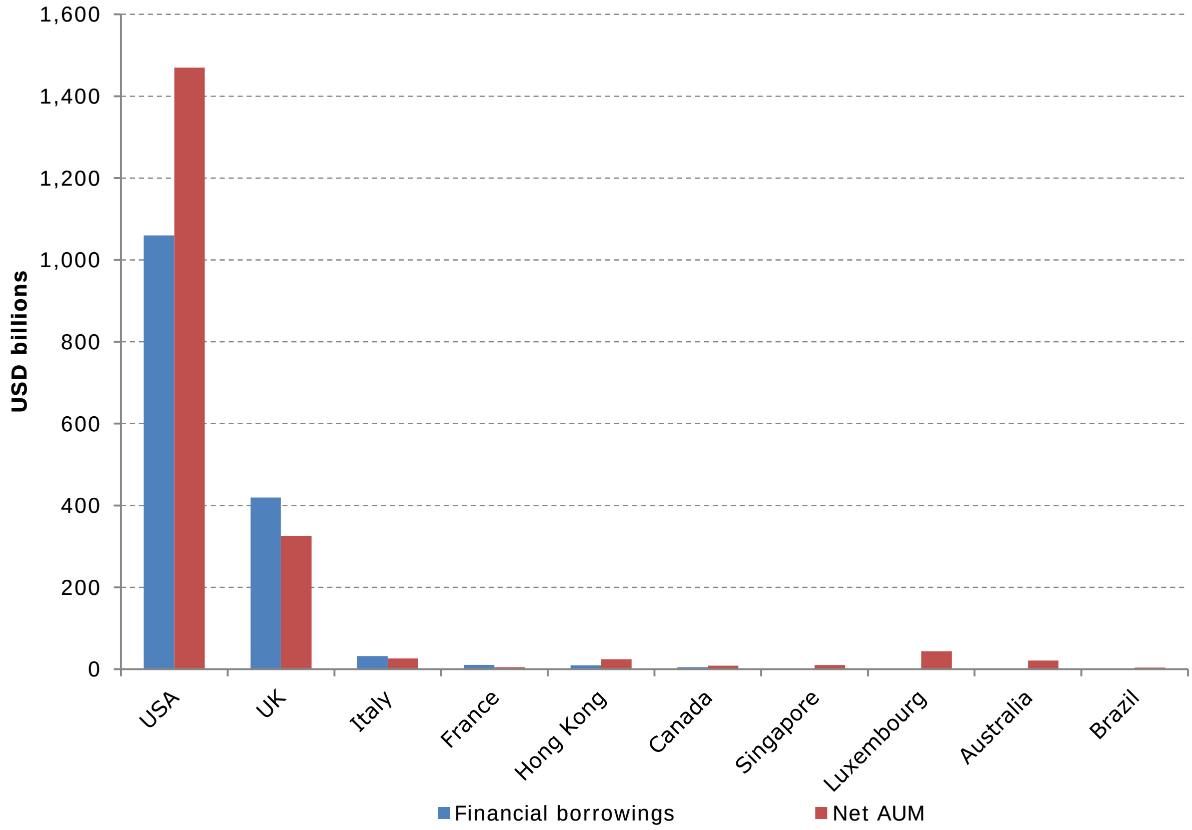
30 Declaration on Strengthening the Financial System, available at: http://www.treasury.gov/resource-center/international/g7-g20/Documents/London%20April%202009%20Fin_Deps_Fin_Reg_Annex_020409_-_1615_final.pdf

31 Although information would still be comparable, borrowings may be measured/defined in different ways across jurisdictions. For example, Form PF in the US generally defines borrowings as obligations for borrowed money in respect of which the borrower has posted collateral or other credit support and obligations for borrowed money in respect of which the borrower has not posted collateral or other credit support. Reverse repos are borrowings. SEC staff has provided clarification that borrowings reported on Form PF should include secured borrowings, unsecured borrowings, as well as synthetic borrowings, The types of borrowing that would be reported include, but are not limited to: (i) selling securities short, (ii) securities lending transactions, (iii) reverse repurchase agreements, (iv) transactions in which variation margin is owed, but as a result of not reaching a certain set threshold, has not been paid by a fund, or (v) transactions involving synthetic borrowings.

Figure 8 - Financial borrowings as compared to net AUM

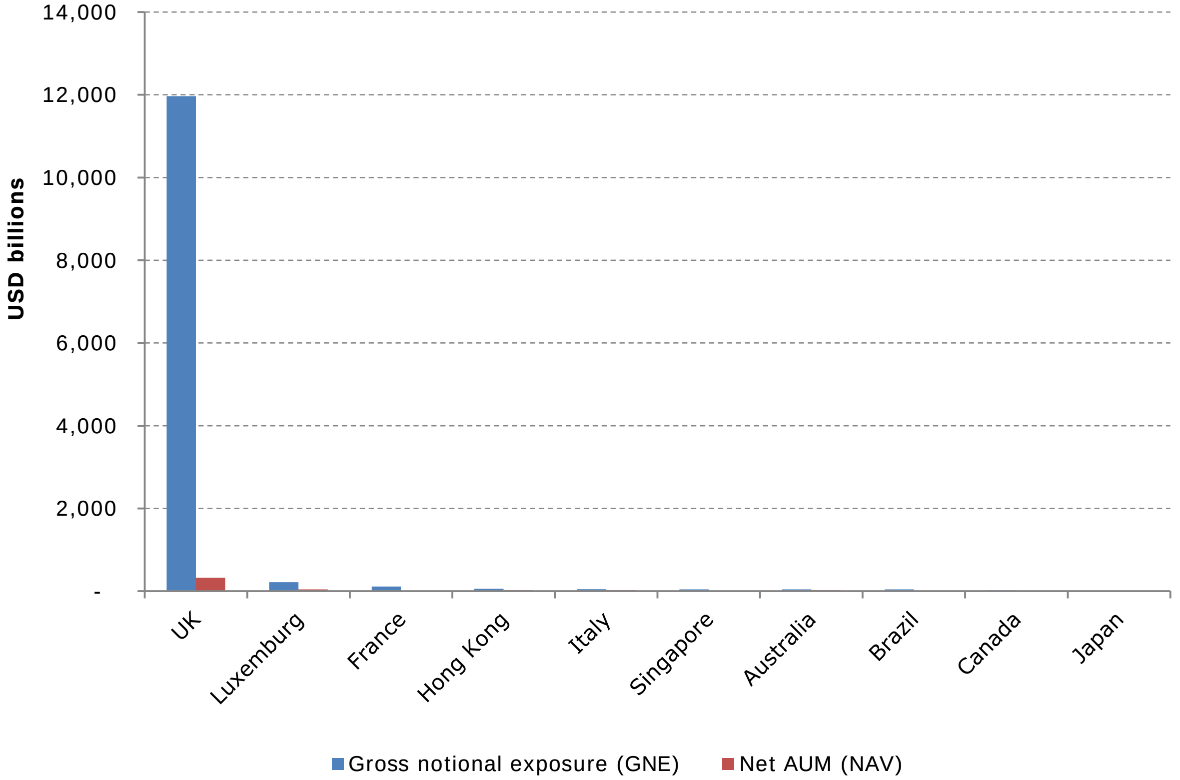


In its last exercise, the hedge fund survey introduced the concept of gross notional exposure (GNE). This measure of size attempts to represent more fairly the overall exposure of a fund when considering also the economic exposure of its derivatives positions.

GNE is calculated as the absolute sum of all long and short positions, considering gross notional exposure (delta-adjusted when applicable) for derivatives. This measure provides a better estimation of the complete market/economic exposure attained by a fund, i.e., through financial leverage (repos, prime broker financing, secured and unsecured lending) and synthetic leverage (exposure through derivatives, considering the resulting exposure to the underlying asset or reference). Gross leverage is then simply the division of GNE by net AUM (NAV).

Due to constraints related to the quality and consistency of data, this report can only present some limited information on GNE. The chart below (Figure 9) illustrates the regional differences in the use of gross leverage. Of the jurisdictions included, the UK is by far the largest jurisdiction for the extent to which funds managed there use derivatives to generate market exposure. Again, future iterations of the hedge fund survey will help to further progress the analysis of this size measure.

Figure 9 - Gross notional exposure (GNE) as compared to net AUM (NAV) per jurisdiction

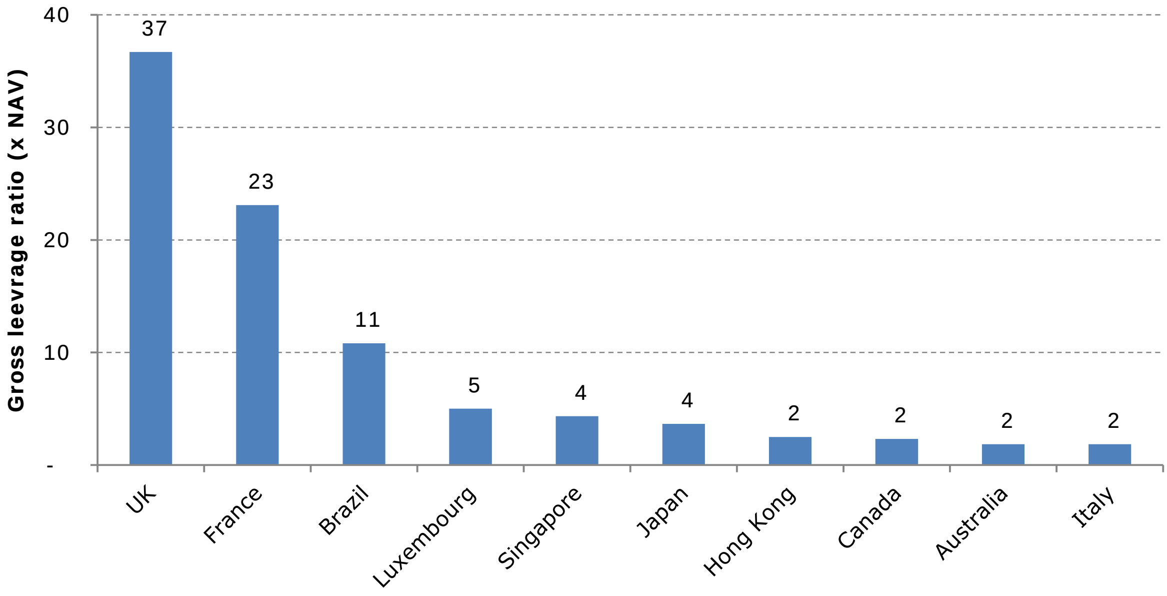


Despite some limitations in comparing results between jurisdictions, as explained previously, the current analysis of market exposure already shows how significant the notion of leverage is when attempting to measure the true economic and market impact of hedge funds. The regulators will continue to progress in this area and participant members hope that future exercises will draw stronger conclusions, using more granular and broader data.

The next chart (Figure 10) shows the resulting gross leverage ratio per jurisdiction (excluding the US).[32] It illustrates how leverage can be significantly altered when considering the gross exposure obtained through the use of derivatives.

[32] The US uses a different measure for leverage.

Figure 10 - Gross leverage ratio per jurisdiction (in x NAV)



As the survey results were shared among members at an aggregate level, due to legal confidentiality obligations, IOSCO did not have access to firm and fund-level information. Currently, sharing certain granular data at entity level is only possible through legal mechanisms such as bilateral memorandums of understanding between regulators. Going forward, and as this exercise progresses, participants will continue to discuss possible ways of addressing these issues as part of IOSCO's future work. Furthermore, analysing the dispersion intra-jurisdiction would be very useful as well when attempting to identify the actual outliers of the distributions.

From the above analysis, another important observation is that, for those jurisdictions analysed, synthetic exposures explain by far the largest share (96%) of the overall gross leverage of hedge funds in aggregate (excluding US data and removing collateral/margin posted). This demonstrates how important it is to understand the types of funds that make most use of derivatives-based strategies as the use of derivatives may lead to potential systemic risk in the industry. In this respect, IOSCO may consider in future exercises the risk transmission mechanisms between the combined use of financial and synthetic leverage.

In relation to the UK, the large aggregate leverage ratio is explained by the fact that several large funds active in the Macro and Fixed Income Relative Value spaces are concentrated in that jurisdiction. These strategies make ample use of interest rate derivatives instruments, which are understood to be the most important source of synthetic leverage.[33]

[33] These conclusions are drawn largely from the analysis of the specific UK data submission, with details of firm-level and strategy-level data.

Liquidity risk

In general, liquidity risk is analysed from the following perspectives:

- The liquidity of instruments invested (liquidity of assets)
- The liquidity offered by a portfolio to its investors (redemption terms)
- The legal capacity of a fund to alter the investors' redemption rights temporarily
- The liquidity in current market conditions
- The current portion of a portfolio that is free to invest (unencumbered cash)

The IOSCO survey currently allows for some of the above concepts to be investigated. However, for the same data quality reasons mentioned before, IOSCO is not yet in a position to report on each liquidity risk listed above, but future iterations may gradually make this possible as data stabilises.

Hedge funds are highly sensitive to liquidity risk, especially those that employ leverage, which acts as a catalyst for risk. Indeed, the larger the leverage used, the smaller the loss would have to be before forcing a fund into default, i.e., the more exposed a fund is to risk. As a result, liquidity risk is a key measure by which regulators will try to measure a fund's propensity to experience financial distress.

Assets and liabilities liquidity mismatch

As for any investment fund, hedge fund vehicles have to monitor the risk caused by an imbalance between the liquidity of their portfolios (assets) and that which is offered to the investors in the fund (liabilities).

A common understanding of hedge funds is that these vehicles are comparably less liquid than mainstream traditional investment funds. Investors in hedge funds typically have to accept less favourable redemption terms (quarterly redemption frequency is common), for example, or even in some cases extended lock-in periods after the initial investment during which investors are not permitted to redeem their shares – with variations according to strategies and underlying assets, such is the cost of theoretically higher rates of return, alpha and risk/return trade-off.

In support of the above general observations, the results from the survey show that hedge fund vehicles tend to report a strong ability to manage the liquidity mismatch between their assets and liabilities.[34] The hedge fund survey asks firms to estimate the liquidity of both assets and liabilities for various time frames – see chart below (Figure 11) for the aggregate results.[35] The difference between both curves represents the liquidity buffer or days of spare liquidity. When negative, it means a fund would be exposed to the risk of redemptions

[35] By definition, firms only can estimate liquidity and therefore IOSCO relies on firm's honesty when judging of assets' and liabilities' respective liquidity. These measures could be sensibly different under stressed market conditions, for example.

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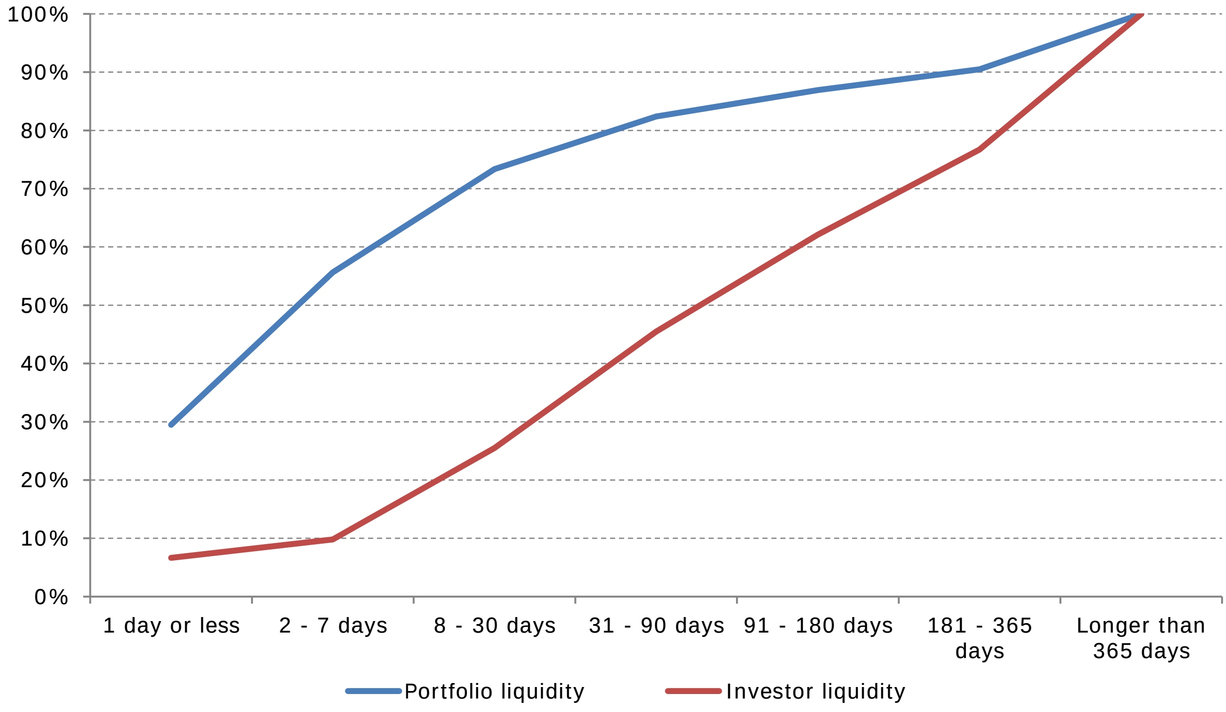
outpacing its capacity to free up enough cash to meet its obligations (risk of a run on the fund).

From this perspective, the global survey appears reasonably homogeneous across jurisdictions.

Figure 11 - Average liquidity profile per fund



One notable difference is the fact that Asia-based funds seem to exhibit a higher liquidity than their American and European peers. This could be explained by the fact that the Asian hedge fund industry is relatively younger and the capital markets of many jurisdictions in Asia are still at an earlier stage of development. Therefore Asian hedge funds continue to concentrate on liquid markets such as Equities. It also could be indicative of the maturity of markets in general and the penetration of illiquid assets (for example, distressed and credit-related instruments), which are also in development in Asia.

Restrictions to investor liquidity

One impact of the financial crisis and its liquidity squeeze effect has been that many funds were forced to impose restrictions on investor redemptions rights.[36] These restrictions took the form of suspension in share dealing, gates or the establishment of side pockets.

Data in this field is still fragmented and IOSCO is working towards refining its understanding of how funds are able to restrict investor liquidity.

[36] See Hedge Fund Intelligence (HFI) and Hedge Fund Research (HFR).

The latest iteration of the IOSCO hedge fund survey showed that under current market conditions few funds actually need to restrict investor liquidity. As of September 2012, only four jurisdictions reported that some of their funds had imposed gates (max reached in Italy at 7.5% of aggregate NAV), and two reported that funds had suspended redemption rights temporarily (in the US, 1.0% of funds' aggregate NAV was subject to a suspension of investor withdrawals/redemptions).

Chapter 5 - Conclusions and next steps

The IOSCO hedge fund survey is a comprehensive and global effort by relevant regulators to better understand the hedge fund industry and its key measures. It represents a unique international initiative to obtain global data on issues that were previously opaque and where data is still scarce.

Results from the IOSCO hedge fund survey, carried out with a cut-off date of September 2012, show some interesting and important snap-shots of the hedge fund industry, in relation to size, strategies, leverage and market exposure, liquidity etc., in particular:

- The hedge fund industry is still largely dominated by two jurisdictions, when considering the location of the management/advisory firm: the US and the UK;
- The hedge fund industry remains largely off-shore when considering the domiciliation of the investment vehicles relative to the domicile of the manager, with the Cayman Islands dominant;
- Equity-oriented funds are still the single most represented strategy among active funds. Macro-oriented and multi-strategy funds are also significant.[37]
- For those jurisdictions reporting information (i.e., not including U.S. data), when considering the effect of leverage (both financial and synthetic /derivatives-based leverage), the market footprint of hedge funds proves much more significant than what traditional size measures (e.g., NAV) would suggest.

The IOSCO hedge fund survey is also a key tool in helping regulators in establishing a globally coherent approach to the way they measure and identify systemic risk in this sector. Although it has not been possible at this stage to draw definitive conclusions relating to the systemic importance of the global hedge fund industry as a whole, this exercise has helped regulators to develop an understanding of the data that will be most useful in determining whether hedge funds pose global systemic risk to the financial system.

This exercise remains an important international initiative that aims to bring together, as much as possible, the various regional approaches at a global level in a consistent and coherent way. Going forward, IOSCO will continue to promote the collection of comparable hedge fund data among regulators with the aim to foster an internationally consistent approach to measuring risks and to help improve data quality and reliability. In the medium term, this will help regulators to more clearly identify and consider potential global risks to the stability of the financial system. Therefore, IOSCO expects the next iteration of this exercise to take place with a data collection as of September 2014.

Regular monitoring will also improve regulators' understanding of global systemic risks that might arise through the activities of hedge funds, including any emerging risks. IOSCO also believes that data collected through this exercise will inform the development of a set of key metrics and thresholds that regulators could use to assess whether these entities are systemically important and will inform any policy measures that may be required.

[37] This does not include US data.