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Hedge fund indices for retail investors: UCITS eligible or not eligible?

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Practical applications

Hedge fund indices have recently emerged as an alternative to active fund-of-hedge-funds. As assets linked to hedge fund indices currently exceed \$12 billion, more scrutiny is now being applied to these indices. In particular, the question are (i) whether they can capture the average return and risk characteristics of hedge fund styles and their aggregate universe and (ii) whether regulators should allow retail investors to invest in hedge fund indices.

Abstract

European regulators are now officially focusing on whether hedge fund indices should be eligible assets for UCITS III funds, that is, funds open to retail investors. In this paper, we review hedge fund indices and the various steps of their construction. We show that they suffer from several biases and are not representative of the hedge fund universe. Many of them are, in essence, funds of hedge funds managed according to arbitrary rules and just designed to support high-fee tracking products. We therefore suggest excluding them from the list of UCITS III eligible assets.

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INTRODUCTION

Historically, hedge funds have operated under exemptions from securities distribution laws and limited their investor base to sophisticated or affluent investors. However, the interest for hedge funds has grown tremendously, particularly within European retail investors, and several financial intermediaries have created financial instruments with some hedge fund exposure. The sell-side industry is obviously highly favourable to these new high-fee, high-turnover and high-commission products, and would like to distribute them as widely as possible. But European regulators, whose primary focus remains the protection of vulnerable retail investors, are watching. So far, the marketing of non-approved

funds to the general public is prohibited. A few national initiatives to regulate the distribution of authorised hedge funds to retail investors have emerged over recent years, but with rather disparate approaches: some focus on products, others more on fund managers and others more on the distribution aspects.¹

Surprisingly, the possibility of a pan-European distribution of hedge funds has indirectly surfaced with the implementation of the so-called UCITS III Directive (Directive 85/611/EEC as amended by Directives 2001/107/EC and 2001/108/EC), and more specifically during the consultation phase organised by the Committee of European Securities Regulators (CESR) regarding the eligible assets of UCITS III Funds. According to the Directive, UCITS III Funds may invest in derivatives on financial indices, if these indices fulfil certain minimum criteria. But which underlying assets should be accepted? The asset management industry has expressed a strong interest in allowing derivatives on indices of non-eligible assets, such as derivatives on hedge fund indices. But the case is complex, as including hedge fund indices in eligible assets would imply that *any* non-approved offshore hedge fund belonging to an index could be indirectly distributed to retail investors via a UCITS III vehicle. Prudently, the CESR has started a new consultation round before taking any decision.² In this paper, we argue that the quality of *existing* hedge fund indices is currently not sufficient to allow them as eligible assets. In particular, we show that hedge fund indices suffer from several biases, which prevent them from measuring faithfully the performance of the hedge fund industry.

HEDGE FUND INDICES AND THEIR BIASES: AN OVERVIEW

The initial lack-of-index issue that once deterred many institutions from embracing hedge funds has been swept away by the recent proliferation of new hedge fund indices. At the time of writing, we have counted no less than 24 hedge fund index providers — see Table 1.

Surprisingly, none of them has really managed to become an industry standard. Moreover, due to the important theoretical and practical barriers to creating a hedge fund index, subjective decisions have been taken.³ They result in profound disparities between indices and they create important biases.

Database biases

Access to information is crucial when creating an index. While mutual funds must regularly disclose information to the public, hedge funds are not obliged to do so — they only report to their existing investors. Consequently, there is no exhaustive database for hedge funds and their overall universe is not observable. At best, hedge fund indices will therefore measure what can be measured, that is, the behaviour of a *sample* of hedge funds that have agreed to report to a database. This database can be commercial (TASS, HFR, MAR, etc.), proprietary, or a mix of both. It may count several hundred or several thousand funds. But whatever its origin and size, it will always provide a *partial* and therefore *biased* representation of the overall universe of hedge funds.

Self-reporting bias

Databases can only track hedge fund managers that *voluntarily* submit their return data. Unfortunately, not all managers are willing to provide information. Larger funds that have

Table 1: Major hedge fund index providers

<i>Index provider</i>	<i>Index launch date</i>	<i>Start of historical data</i>	<i>Web site</i>
Altvest	2000	1993	www.investorforce.com
Barclays	2003	1997	www.barclaygrp.com/indices/ghs
Bernheim	1995	1999	www.hedgefundnews.com
Blue X	2002	2002	
CISDM/MAR	1994	1990	www.cisdsm.org
CS/Tremont	1999	1994	www.hedgeindex.com
Dow Jones	2003	2002	www.djindexes.com
EACM	1996	1996	www.eacmalternative.com
Edhec	2003	1997	www.edhec-risk.com
Eurekahedge	2002	2000	www.eurekahedge.com
Feri	2002	2002	www.feri-alta.de
FTSE	2004	1998	www.ftse.com
Hennessee	1987	1987	www.hennesseegroup.com
HF Intelligence	2001–2003	1998	www.hedgefundintelligence.com
HF Net (Tuna)	1998	1976–1995	www.hedgefund.net
HFR	1994	1990	www.hedgefundresearch.com
LJH	1992	1989	www.ljh.com
MondoHedge	2003	2002	www.mondohedgeindex.com
MSCI	2002	2002	www.msci.com
S&P	2002	1998	www.spglobal.com
RBC	2005	2005	www.rbchedge250.com
TalentHedge	2003	2003	www.talenthedge.com
Van Hedge	1994	1988	www.vanhedge.com
Zurich	2001	1998	Discontinued

reached capacity do not need to report to a database, while smaller funds have a strong incentive to spontaneously contribute returns information to databases because it will increase their visibility, put them on the radar screen of consultants and eventually attract new investors if their performance is good. Conversely, small fund managers with sub-par performance will not report to databases because they do not want to compare badly with better performing peers. As a result, databases will generally not constitute

a true random sample of the general hedge fund population.

Database selection bias

Choosing a specific database to build an index is a second source of sampling bias. Each database has its own strict selection criteria (minimum asset base, audited track record, years of existence, etc), and these create blind spots in terms of universe coverage. For instance, a two-year track record criterion will systematically

reject poorly performing young funds, as they will never survive long enough to reach the two-year threshold and enter the database. Some databases also explicitly exclude some strategies from their universe (eg managed futures, funds of hedge funds, etc). As a result, depending on the database selected and its underlying selection criteria, the universe coverage will vary greatly and indices extracted from different databases will therefore not statistically represent the same underlying managers. This problem is exacerbated by the fact that most hedge fund managers may accept to report to one database, eventually two, but rarely to three or more databases — see Figure 1. Of course, it is possible to reduce this bias by aggregating several databases, but very few index providers do it — they only use one source of information.

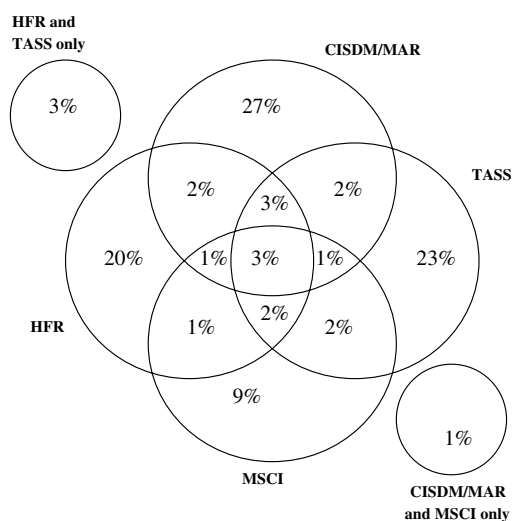


Figure 1: Intersection between four leading databases. The percentage in each overlapping area indicates the number of hedge funds that belong to this area relative to the total size of the sample created by the four databases

Survivorship bias

Survivorship bias results from the tendency of defunct funds to be removed from databases as soon as they stop reporting. Consequently, when analysing the funds present in a database on a given date, one can only observe survivors, that is, usually the best funds. Survivorship bias has been extensively studied in the financial literature and is known to bias returns — see Table 2. Although these numbers are calculated at a database level and not at a hedge fund index level, it is obvious that indices will inherit some of the survivorship bias from the database on which they are built. Indeed, when they are created, hedge fund indices only include funds that are in activity. Any performance prior to the index creation date is back-tracked from surviving funds and is therefore biased.

Backfill/instant history bias

When they enter a database, hedge funds have the option to import their past track record and instantly backfill their performance history. This biases return as managers can incubate a fund for a few months and wait for strong performance before volunteering to report. The bias seems to affect the majority of hedge funds to some extent (Table 3) — see Barry⁸ and Liang.¹⁶

All commercial and proprietary hedge fund databases are affected to some extent by the biases mentioned in this section. Unfortunately, in the absence of an exhaustive hedge fund database, there is no way to avoid them.

Index biases

The debate on how hedge fund indices should be constructed is still active, and index providers' choices are therefore likely to generate additional biases.

Table 2: Estimates of the survivorship bias on return in various academic studies

<i>Authors</i>	<i>Database</i>	<i>Period</i>	<i>Survivorship bias (%, p.a.)</i>
<i>Comparisons of all funds versus surviving funds at the end of a sampling period</i>			
Ackerman <i>et al.</i> ⁴	HFR & MAR	1988–1995	0.16
Anjilvel <i>et al.</i> ⁵	FRM	1990–2000	2.20
Baquero <i>et al.</i> ⁶	TASS	1994–2000	2.11
Bares <i>et al.</i> ⁷	FRM	1996–1999	1.30
Barry ⁸	TASS	1994–2001	3.70
Brown <i>et al.</i> ⁹	US Offshore Hedge Fund Directory	1990–1996	2.75
Caglayan and Edwards ¹⁰	MAR	1990–1998	1.85
Capocci <i>et al.</i> ¹¹	HFR & TASS	1994–2000	1.22
Das ¹²	ZCM	1989–2000	2.16
Edwards and Liew ¹³	MAR	1982–1996	1.91
Fung and Hsieh ¹⁴	TASS	1994–1998	3.00
Kazemi <i>et al.</i> ¹⁵	n.m.	1998–2000	2.17
Liang ¹⁶	HFR	1993–1998	0.39
Liang ¹⁶	TASS	1993–1998	2.24
Liang ¹⁷	ZCM	1994–2001	2.32
<i>Comparisons of all funds versus surviving funds until the end of a sampling period</i>			
Amin and Kat ¹⁸	TASS	1994–2001	1.77
Brown <i>et al.</i> ⁹	US Offshore Hedge Fund Directory	1990–1996	0.75
Das ¹²	ZCM	1989–2000	1.32
Malkiel and Saha ¹⁹	TASS	1996–2003	3.75
<i>Comparisons of surviving funds versus defunct funds</i>			
Darst ²⁰	MAR	1995–1999	1.15
Malkiel and Saha ¹⁹	TASS	1996–2003	6.06

Manager sample bias

The majority of index providers use only a *sample* of hedge funds from their database to create their index. This raises concerns with regards to their ability to adequately represent the whole universe, particularly in the case

of small-size samples. How could one claim that 60 or 100 hedge funds are going to be representative of a universe of 8,000 managers, or even representative of the few thousand funds found in a database? Moreover, since these samples vary significantly across providers, one

Table 3: Estimates of the instant history bias in various academic studies

<i>Authors</i>	<i>Database</i>	<i>Period</i>	<i>Assumed incubation period (in months)</i>	<i>Estimated bias (% p.a.)</i>
Ackerman <i>et al.</i> ⁴	HFR & MAR	1988–1995	24	0.05
Barry ⁸	TASS	1994–2001	12	1.40
Brown <i>et al.</i> ²¹	TASS	1977–1996	27	3.60
Caglayan and Edwards ¹⁰	MAR	1990–1998	12	1.17
Capocci <i>et al.</i> ¹¹	HFR	1984–2000	12/24/36/60	0.96/2.76/3.48/4.20
Fung and Hsieh ¹⁴	TASS	1994–1998	12	1.40
Malkiel and Saha ¹⁹	TASS	1996–2003	Depends on funds	5.55
Posthuma <i>et al.</i> ²²	TASS	1996–2002	Depends on funds	4.35

could also question whether different indices will measure the same information.

Defunct fund bias

When a hedge fund becomes defunct, it normally exits from all indices where it was included going forward. However, a few index providers (eg HF Net, MSCI) also remove defunct funds going backward. That is, they adjust ex-post the official historical performance of their index as if it had never included the defunct fund. Since the majority of defunct funds are poor performers, this re-calculation biases upward the performance of the index. This is great for marketing purposes, but unacceptable from a performance measurement point of view.

Weighting scheme

By convenience, most index providers use equal weights and calculate the performance of the *average manager* in their sample. Is this really what investors want? Should a one billion dollar hedge fund be treated the same way as a one million dollar hedge fund? In addition, using an equally weighted index implicitly corresponds to a contrarian approach, that is, regularly selling

winners to buy losers — a strategy that most investors would disagree with. In our opinion, asset weighted indices are preferable, because (i) they correspond to a buy and hold portfolio; (ii) they attribute more weight to larger funds, which is a standard practice in the universe of stock indices; and (iii) the resulting index tracks the performance of the *average dollar* invested in its components. Unfortunately, asset weighted indices are rare, because their calculation requires more data maintenance.

Classification bias

When they need to classify funds, most index providers tend to accept hedge fund managers’ self-proclaimed strategy with no check for consistency or historical changes. Few use statistical techniques such as cluster analysis or style analysis to validate their classification. This raises suspicion on the representativity of single strategy indices.

The variety of index construction approaches results in an extreme heterogeneity of performances. For instance, Amenc and Martellini²³ analysed 13 different style indices drawn from major index providers and observed

performance divergences of up to 22.04 per cent in a single month for competing long/short equity indices. Even worse, some indices supposedly measuring the same strategy were negatively correlated to each other. This confuses investors and casts serious doubts on the possibility of using hedge fund indices as yardsticks in performance measurement or as inputs for a strategic asset allocation.

INVESTING IN A HEDGE FUND INDEX

The challenges for passive hedge fund investors do not end with the index selection. Gaining exposure is the second problem. Unfortunately, tracking hedge fund indices is not easy.

- Most hedge fund indices are not transparent. They do not disclose the list of their components, their weights, or even their construction methodology. This significantly complicates the work of a third-party indexer, unless he benefits from privileged information from the index provider.
- Most hedge fund indices are partially made up of funds that are already closed to new investment, or will be closed at some point in the future once they reach their maximum capacity. A full replication (ie, buying all the components in the index) is therefore often not feasible.
- Traditional indexing approaches (ie, regularly rebalancing a portfolio of hedge funds to minimise the tracking error with respect to some index) are not applicable in practice because of the lack of liquidity of the underlying funds (lock-ups, redemption notice periods, etc).
- Attempts to replicate the returns of hedge fund indices by dynamically trading traditional assets such as stocks and bonds, or

even futures and options, result usually in significant tracking errors, essentially because the target is an index of *actively managed portfolios*. Thus, although the content of the index does not seem to change in terms of funds, its content in terms of individual securities and their key characteristics changes continuously.

- Most hedge fund indices often produce their net asset value with a considerable delay, for example, three weeks after the end of the month. This means that a third-party indexer is always late to rebalance his tracking portfolio — he can only measure his tracking error with a three-week lag.

In fact, indexing is sometimes so complicated in the hedge fund universe that several providers have decided to start from scratch with a new methodology and create specific *investable indices*. At the time of writing, we have counted nine investable hedge fund index providers, namely CS/Tremont, Dow Jones, EDHEC, FTSE, HFR, MSCI, Royal Bank of Canada (RBC), S&P and Van Hedge. Note that there is currently no product tracking the EDHEC index. Van hedge has been ignored in the following discussion due to its extreme lack of transparency.

A SIMPLER PATH: INVESTABLE INDICES

It is essential to understand that the primary aim of investable indices is not to cover the largest possible number of hedge funds, but rather to license their index to partners who will then create investable products. To achieve this goal and simplify the tracking exercise, index providers have an incentive to select only a *limited number* of liquid hedge funds. Needless to say, their approach is also subject to numerous biases.

Sub-representativity

Investable index providers impose strict selection criteria (eg minimum track record, minimum assets, sufficient liquidity, absence of lock-up period, daily or weekly valuation, minimum transparency, willingness to accept additional investors and commitment to provide sufficient capacity) in order to select the funds that are eligible to enter their index. These requirements might facilitate product management, but very few hedge funds fulfil them. Consequently, the set of eligible funds will only represent a tiny subset of the entire hedge fund universe – much smaller than the subset used for non-investable indices. Investable indices will therefore always be *less representative* than their non-investable cousins. Not surprisingly, the trade-off will often be between including more funds to be more representative and using fewer funds to facilitate index tracking (Tables 4,5).

Due diligence bias

Due to the relative opacity and non-regulated nature of hedge funds, due diligence is a critical requirement when investing. However, it is highly questionable in the context of indexing. For instance, could one imagine S&P refusing to introduce a large listed US company in the S&P 500 on the claim that its operations are not state of the art, or that the quality of its management is insufficient to run the company? Not really. Nevertheless, most investable index providers have mandated third-party consultants to run some due diligence on funds that are eligible to enter their index. This due diligence covers the appropriateness of the strategy and the validation of the track record, but also portfolio management aspects, risk management, the level of leverage, the use of derivatives, etc. This clearly casts doubts on

whether we are in a ‘passive’ versus an ‘active’ selection of managers.

Managed account bias

In order to secure minimum capacity and liquidity on the components of their investable indices, most index providers have signed partnerships with managed account platforms (MSCI/Lyxor, S&P/PlusFunds) or have even developed their own platform (HFR). A managed account is a discretionary account where a client has given specific written authorization to a hedge fund manager to select securities and execute trades on a continuing basis and for a fee. Most of the time, the managed account closely mirrors the main fund of the manager.

Although managed account platforms are aggressively marketed by their creators and promoters as the optimal way to invest in hedge funds, the reality is somehow different.

- The number of fund managers willing to offer managed accounts is extremely limited. Consequently, index providers see their investment universe shrink from several thousand hedge funds to whatever is available on a given platform, that is, usually between 30 and 150 managed accounts. This raises concerns on the representativity of such a small sample, but also on the quality of the corresponding managers — given the high demand for quality hedge funds, why would a manager accept the additional burden of a managed account, unless he is really starving for additional assets?
- Managed account platforms have liquidity and transparency requirements that are incompatible with several hedge fund strategies. These strategies are often excluded from the corresponding investable

Table 4: Characteristics of non-investable indices

	<i>Nb of funds in database</i>	<i>Nb of funds in index</i>	<i>Classification</i>	<i>Number of indices</i>
Altvest	2600	2600	Manager	14
Barclays	2450	2053	Internal	18
Bernheim	+900	18	?	1
Blue X	400	30–40	Internal	1
CISDM/MAR	2300	+1280	Manager	19
CS/Tremont	3300	431	Both	14
Dow Jones	300	35	Internal	6
EACM	100	100	Internal	18
Edhec	n.a.	n.a.	n.a.	13
EurekaHedge	365	110	Internal	3
Feri	+5000	41	Internal	16
FTSE	6000	40	Internal	1
Hennessee	3500	+690	Both	24
HF Intelligence	3202	2652	Both	45
HF Net	+2300	+2300	Manager	37
HFR	+2300	+1400	Manager	37
LJH	+800	+800	Internal	16
MondoHedge	720	48	Both	7
MSCI	+1800	+1500	Both	>190
RBC	+4700	254	Internal	1
S&P	3,500	40	Internal	10
TalentHedge	?	5–20	Internal	2
Van Hedge	+5400	1300	Internal	16
Zurich	+1200	49	Internal	5

index (eg MSCI does not consider distressed securities).

As an illustration, the top 25 hedge funds worldwide managed more than \$300 billion at the end of 2005, but only four of them were represented in investable indices. CS/Tremont had the four, MSCI had two of them, HFR and S&P had only one, and Dow Jones and FTSE had none of them.

Pro-forma bias/active selection of past winners

Since investable hedge fund indices are created with the implicit goal of launching a tracking vehicle, it is essential that their historical pro-forma performance looks good. Index providers have therefore a tendency to select index members among the funds with a good track record, although this does not guarantee a good performance in the future. As

Table 5: Key characteristics of investable indices

<i>Index Provider</i>	<i>Nb of funds in database (approx.)</i>	<i>Nb of eligible funds (approx.)</i>	<i>Nb of funds in index (approx.)</i>	<i>Pricing</i>	<i>Initial diligence performed by</i>	<i>Separately-managed Accounts</i>	<i>Requirements</i>
CS/Tremont	3300	420	60	Monthly	Tremont	No, uses actual hedge funds	Member of the non-investable index/accepts new investments and redemptions/initial investment > \$100 000/not US domiciled/no lock-up period/monthly liquidity with at most one month notice, except for event-driven and convertible arbitrage (quarterly)/one of the six largest funds in the eligible funds in all ten sectors.
Dow Jones	300	100	35	Daily	Lyra Capital	Apollo Capital Management	Separate managed account/AUM > \$50m/track record > 2 years/leverage constraint depending on the strategy.
EDHEC	2300	130	60	Weekly	Lyxor	Lyxor	High correlation with the first principal component calculated from extensive database of hedge funds.
FTSE	6000	75	40	Daily	Harcourt	MSS Capital	AUM before leverage > \$50 m/track record > 2 years/monthly liquidity/independently audit/open and accepting investor subscriptions/sufficient remaining capacity/hedge funds does not belong to specialist interest strategies.
HFRX	2300		Varies	Daily	HFR	HFR	Open for investment/daily transparency/pass extensive qualitative screening and due diligence.
MSCI	105		97	Daily	Lyxor and MSCI	Lyxor	Pass due diligence/agree to offer frequent liquidity and sufficient capacity/agree with MSCI on the classification/funds should have other significant investors outside of those tracking the index.
S&P	4700		40	Daily	Albourne Partners	PlusFunds	Separated account/AUM > \$75m/Track record > 3 years/Additional investment capacity > \$100 m.
RBC	3500	300	254	Monthly	RBC	No, uses actual hedge funds	AUM > \$10m/can be categorised into one of the nine sub-strategies/has a US\$ class/redemptions no less frequently than annually/max. 65-day notice to redeem/domiciled outside of the US/lock-ups up to one-year/monthly subscriptions/track record of at least 6 months/dealing dates scheduled on the first or last business day of a month/no redemption fee after 1 year/no subscription fee/minimum initial investment amount no greater than \$250,000, minimum subsequent investment amount no greater than \$50,000, and minimum redemption amount no greater than \$50,000/no limit to the amount of redemptions over a particular period/offers investments eligible to restricted persons for purposes of 'new issues' as defined in NASD Rule 2790/passes a fund review process.

simple comparison between investable and non-investable indices of the same provider immediately *before* and *after* their creation usually illustrates the *pro-forma out-performance* of the investable index, followed by its *real underperformance*. Note that this bias does not affect the CS/Tremont index, whose components are only selected based on their asset size and liquidity, and the EDHEC index, whose components are selected based on their correlation with the target index.

Classification bias

The construction of most investable indices involves at some point a split of the hedge fund universe by strategies, before looking for the individual candidates in each strategy. However, methods of classification vary among index providers. Some of them rely on clustering and other quantitative analyses (eg Dow Jones, HFR, S&P), others base their decision on the results of due diligence (eg FTSE), while the rest use the managers' self-proclaimed styles and eventually validate them by an index committee (eg CS/Tremont, MSCI).

Weighting bias

As for the non-investable indices, there is no consensus on the adequate weighting scheme, either at the strategy level or at the fund level. Some index providers have opted for equal fund weighted indices, equal strategy weighted indices (eg S&P) while others preferred value weighted with a cap (eg CS/Tremont), 'investability weighted' indices (eg FTSE) or optimised weights (eg HFR, EDHEC).

INVESTABLE INDICES OR FUND OF HEDGE FUNDS (FoHFs)?

Despite the fact that they are supposed to measure *passively* the same universe, investable

hedge fund indices display considerable differences in their strategic exposures. Consider for instance the long/short equity strategy. According to all databases, it is the largest hedge fund strategy, both in terms of number of funds and in terms of assets under management. However, its weight varies from only 11.1 per cent of the S&P Index to the 37.7 percent of the HFRX Index (Figure 2).

The disparity between investable indices is even more visible when one considers their individual components. At the end of March 2006, there were 297 distinct hedge funds/managed accounts in our six investable indices. The large majority of them (246 funds) were only found in only one index, 32 funds were members of two indices, nine funds were in three indices, and 10 funds were in four indices. And no fund was found in more than four indices (Figure 3).

The overlap between two different investable indices seems rather small – on average, only 7.8 per cent of the funds covered by two investable indices are common to both of them.

These differences are comparable to those observed between *actively managed* funds of hedge funds. At this stage, given that the efforts deployed for compiling most investable indices are not focused on better representing the hedge fund universe, but rather focused on creating a product with carefully selected managers, an attractive back-tested performance and sufficient capacity, one might ask if there still exists a difference between an investable hedge fund index and an actively managed FoHF.

Our opinion is that the answer is negative. Investable hedge fund indices are disguised

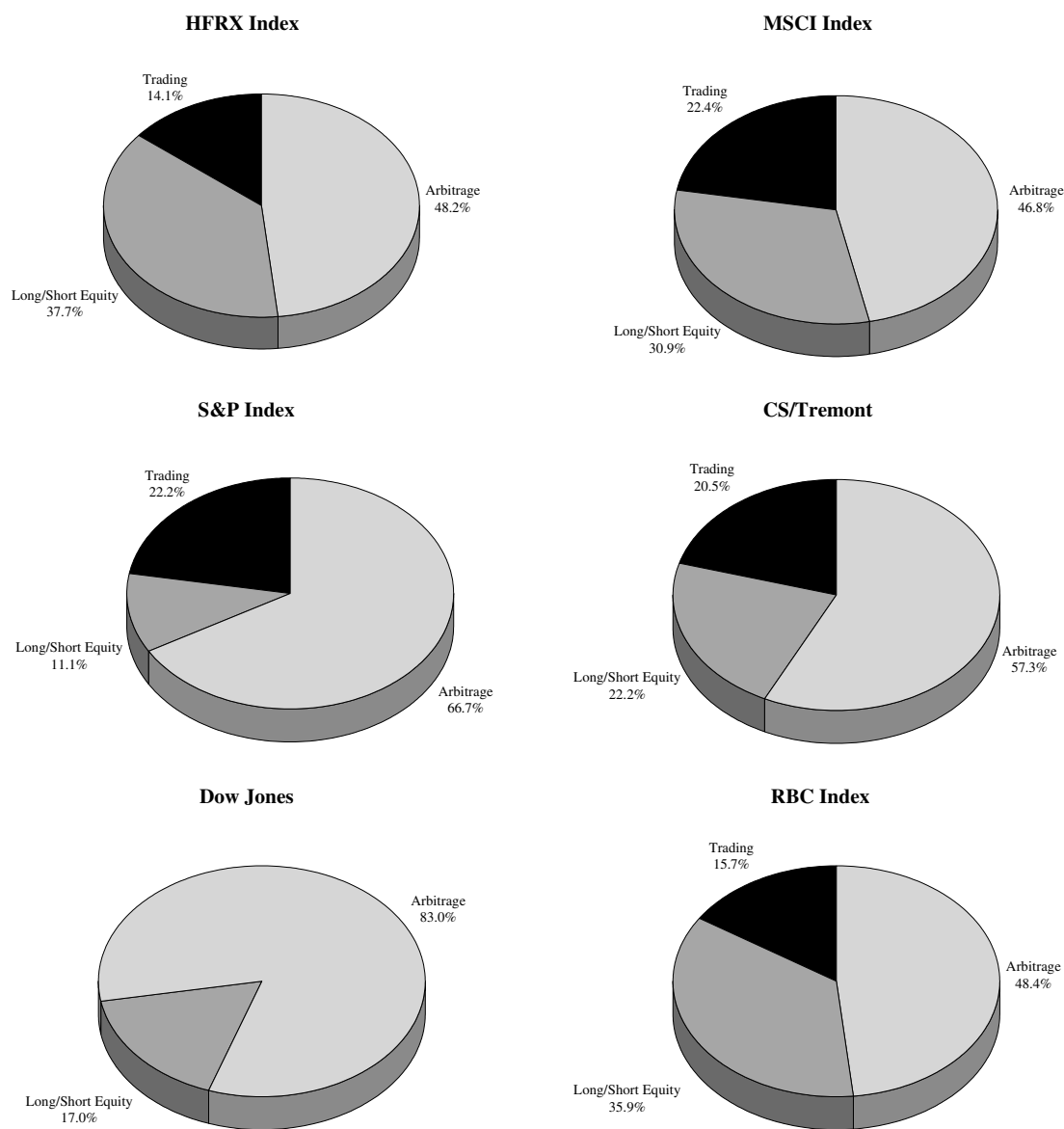


Figure 2: Strategic exposures of various investable hedge fund indices (Q1-2006). Note that FTSE and EDHEC do not disclose their asset allocation in terms of individual funds

FoHFs that use the label ‘index’ for their marketing efforts. They are often more secretive than some funds of hedge funds, and some of them are even more active — they regularly exclude or include funds with very different characteristics without any real justification – see Duc.^{24,25}

HEDGE FUND INDICES IN AN UCITS PERSPECTIVE

To be eligible as UCITS III investment, hedge fund indices need to comply with the three criteria as set by Art. 22a(1) of the Directive, namely (i) to be sufficiently diversified, (ii) to represent an adequate benchmark for the market

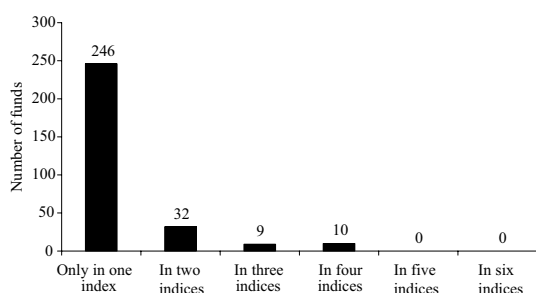


Figure 3: Number of funds in the intersection between various investable hedge fund indices, as of March 2006

to which they refer and (iii) to be published in an appropriate manner. In practice, the majority of currently existing hedge fund indices do not comply with these three requirements.

Sufficient diversification

Most hedge fund indices *appear* to be well diversified, when one considers the number of hedge funds they include. As shown by Lhabitant,²⁶ 10–15 hedge funds are sufficient to diversify the risk — remember these are funds, not securities. But in reality, hedge fund indices are often subject to an *operational* concentration of risks, particularly when they use managed account platforms, which is equivalent to say that they only have *one* counterparty in the market. What if the managed account platform experiences difficulties? This risk is not negligible, as recently illustrated by the bankruptcy of the PlusFunds platform, which made the S&P Hedge Fund Index investable through its managed accounts.

Adequate benchmark

Due to the biases in their methodology, most hedge fund indices and particularly investable indices cannot be considered as representative of the hedge fund universe. They do not cover a

significant portion of the hedge fund universe, they do not include the largest funds, and they are not asset weighted. The industry has in practice not been able to establish an unambiguous way to classify and select hedge fund managers, and thus cannot yet fulfil most or all of the fundamental criteria for appropriate benchmarking.

Appropriate publication

Very few hedge fund indices are published in an ‘appropriate manner’. EDHEC, HFR, MSCI and RBC are not transparent with regard to their components. The FTSE provides only the name of the firms managing their vehicles, but not the names of the funds. Dow Jones displays the same information but, at least, classifies the firms per strategy. Only CS and S&P make available full details (name of the fund and classification) to the public. And none of them disclose the weights of the hedge funds in their index.

We therefore think it is hard to justify the admission of any existing hedge fund index or its derivative as an underlying asset in a UCITS III fund. Most hedge fund indices have a long way to go in order to fulfil the required criteria. So far, they are built like FoHFs, behave like them — some of them even include ‘index calculation fees’. If, nevertheless, regulators want to approve hedge fund indices as admissible assets, they should establish a list of minimum criteria to be fulfilled by the index candidates. Otherwise, the danger is high to see any portfolio of hedge funds pompously calling itself an index and being distributed to the general public, that is, circumventing the spirit of the Directive.

CONCLUSION

Hedge fund indices sound like an oxymoron — how can one imagine a passive representation of

the world's most active managers? Nevertheless, numerous hedge fund indices have been created and are now being used... and misused. Around the world, it is estimated that well over \$12 billion is invested in hedge funds through index products. Interestingly, the Financial Times reported in February 2006 that 30 percent of the inflows into hedge fund indices came from funds of funds, which suggests these vehicles also have a capacity issue.

Today, well-known brands have put their names on investable hedge funds indices, creating a sense of security signalling maturation and demand for standardisation. As a consequence, regulators now have to decide whether indices of hedge funds, and more generally their derivatives, will be eligible assets for the new UCITS III funds and therefore be accessible to the general public.

In our opinion, existing hedge fund indices are currently not representative of the hedge fund universe, not sufficiently diversified and/or not published in an adequate way. They are essentially non-transparent rule-based FoHFs, managed with some substantial degree of subjectivity. We therefore think that they currently do not fulfil the necessary criteria to be considered as eligible assets for UCITS III, particularly when one remembers that UCITS III funds may be distributed to retail investors. Of course, this opinion needs to be revisited if better quality indices are developed.

Lastly, another interesting question is the macroeconomic impact of authorising hedge fund indices in products accessible to the general public. Conventional wisdom suggests that additional demand will encourage the creation of new hedge funds, including by managers who are not sufficiently talented to extract profits. As the market becomes more efficient, the portion

of skilled managers who can generate incremental returns should decrease. Hedge fund indices will therefore contain a large and potentially growing pool of unskilled managers. This will disappoint investors, waste resources and lead to the creation of a large pool of capital that could potentially destabilise markets. The role of regulators is definitely not simple...

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