

Hedge funds: what are the main issues?

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The health and dynamism of modern financial markets strongly depend on the existence of innovative and risk taking investors and institutions. Hedge funds play an important role in fostering market efficiency and stability.

The theoretical value added brought by hedge funds may, however, not fully materialize in practice, looking at their performances, but hedge funds investors should be able to make informed judgments.

The specific role and market impact of hedge funds may increase the potential for market manipulation and market abuse. However, hedge funds are not fundamentally different, in this regard, from other investors: strong and efficient implementation of existing rules and procedures should be adequate and sufficient to preserve market integrity.

It is an open question whether stronger “governance” requirements should be introduced for those hedge funds indirectly collecting retail investors’ money, either through professional codes of conducts, market mechanisms reinforced by a “rating” process or more compulsory and binding regulations. One of the issues that could be considered is whether and how to eventually encourage hedge funds to apply the set of best practices for asset valuation proposed by the International Organization of Securities Commissions.

Hedge funds’ activities may have implications for systemic risk, both through potential losses to their bank creditors and through adverse market dynamics that might in turn affect banks. Potential mitigating actions should take into account these two aspects. First, appropriate intervention by the supervisors on the prime brokers to make sure that they ask and get broad information from hedge funds and that they put in place a comprehensive risk management of all hedge funds related exposures is essential. Second, there might be scope for policy makers to encourage appropriate organization of infrastructure in order to improve the information available on the markets in which hedge funds operate. Finally, authorities may explore how to devise processes giving them, on a case by case basis, access to relevant information about hedge fund exposures and positions.

Hedge funds play an increasingly active role in many financial markets. They have recently, attracted a lot of attention. This article seeks to highlight some of the main issues which seem worth considering in the light of the current international debate on hedge funds.

1| THE ROLE OF HEDGE FUNDS IN FINANCIAL MARKETS

1|1 Hedge funds and market efficiency, liquidity and stability

Any discussion should start with a clear recognition of the benefits brought by hedge funds to financial market efficiency, as well as an acknowledgement of the fact that most / some of those benefits would not exist if hedge funds were directly and specifically regulated.

Market efficiency requires that prices reflect at any time all the information available to investors. That, in turn, means that all profitable arbitrage opportunities can be permanently exploited, including between assets with different risk characteristics.

Market efficiency depends on "technical" conditions i.e. the ability for supply and demand for financial instruments to meet through an appropriate infrastructure. Technical efficiency is a necessary but not sufficient condition. Economic efficiency also requires that some market participants are willing to incur (sometimes) significant costs to gather information and, then, take the risk to act on this information with the hope of making a profit. Those actions move markets and, as such, ensure that prices do reflect available information. This process of "price discovery" rests upon the ability of some investors to hold proprietary information and be able to take advantage of it. This means that there are pockets of inefficiency in the markets which can be exploited by informed investors. In other words, –this is a well known paradox¹–, a market is efficient only if some investors believe it is inefficient.

This is the basic rationale against forcing hedge funds to be *publicly* transparent about their positions and strategies.

Hedge funds have an edge in fostering financial innovation, as shown by their significant involvement in complex and innovative markets (e.g. structured credit). A significant part of their research goes into devising new strategies and products aimed at packaging, distributing and holding risk.

Hedge funds bring to the market investors with a presumably higher –in any case different– propensity to take risks. As such they increase the risk taking capacity available in the financial system and contribute to a better allocation of these risks.

Heterogeneity of investors is good for market stability. If all players had homogeneous risk profiles and preferences, markets would barely trade. To the extent that hedge funds exhibit "different" risk profiles and risk aversion, –and they have specific analytical and informational capabilities– they may act as "contrarians" when prices move away from equilibrium and help and stabilize financial markets by providing, in those circumstances, additional liquidity.

1|2 Mixed evidence on the theoretical benefits of hedge funds

The many theoretical benefits of hedge funds, as described above, may fail to materialize in practice. A whole body of research has been devoted to look at hedge funds performance. The results are not all conclusive, in part due to data availability and reliability. Reporting to third-party databases computing aggregate hedge fund returns is voluntary, and their results may be affected by survival bias. There may be doubt, nevertheless, as to whether some investment strategies implemented by hedge funds deliver true diversification as well as a better risk / return over the long run.

According to some estimates, a stronger correlation between hedge funds returns in recent years points to great similarities in investment strategies. Correlations between those returns and equity market performances (and even perhaps fixed income market yields and currency carry trade returns) create doubts about the "absolute return" characteristic of hedge funds as well as their contribution to effective portfolio diversification.

¹ Grossman (S.) and Stiglitz (J.) (1980): "On the impossibility of informationally efficient markets", *American Economic Review* 70 (3), June

It is thus not clear, in some cases, that superior returns are obtained through truly innovative portfolio selection (delivering *alpha*, or "out performance") rather than simply by taking in more systematic risk (exploiting *beta*). In the latter case, the issue of whether fees taken by hedge funds managers (typically 2% of assets managed plus 20% of profits) are always met with commensurate returns arises. Such a fee structure may also create a bias towards "fat tail" investment strategies (such as selling put options) delivering high returns most of the time with a small probability of huge losses.

These problems, however serious they may be, do not, by themselves, make a case for any kind of regulation. Investors in hedge funds are –or should be– able to make informed judgments. To the extent that hedge fund managers are extracting abnormal remunerations, these should be progressively challenged and eliminated through increased competition. Indeed, several investment banks are now starting to sell synthetic instruments replicating hedge fund strategies and, hopefully, producing similar returns at significantly lower costs for investors.

2 | HEDGE-FUND-RELATED RISKS FOR THE FINANCIAL SYSTEM

2|1 Investor protection

High net worth individuals are still predominant among hedge funds' investors, but hedge funds now tap into a larger share of household savings that is channeled through institutional investors (mainly funds of funds and pension funds). The latter now amounts to around 30% of the investor base. Traditionally, direct investment in hedge funds used to be accessible only to wealthy investors, due to high entry tickets (e.g. 100,000 dollars or more). Some jurisdictions (e.g. France) actually impose high quantitative barriers for direct hedge fund investment (from 125,000 to 250,000 euros). However, the development of the fund of hedge funds industry has blurred this type of barrier, and has lowered significantly the entry ticket for an indirect exposure to hedge funds. As part of a similar trend, pension funds have increased their

allocation to alternative investments (including hedge funds).

By itself, "retailisation", namely increased participation of retail investors in hedge funds, does not make a case for specific regulation of hedge funds, providing, however, that appropriate investor protection measures are taken independently. For fund of funds, particular care should be given to the conditions of their authorization, and their rules for governance, asset allocation, and due diligence. For pension funds, the responsibility and control of trustees could be reinforced.

However, even after accounting for such investor protection measures, another concern is about the valuation processes in hedge funds, especially for complex or illiquid financial instruments. Hedge funds frequently invest in assets that are complex or illiquid by nature or in more liquid assets but in such amounts that their positions sometimes become difficult to value. Besides, since managers' remuneration is based on the mark-to-market, or more often mark-to-model, profits at the end of the year, overoptimistic valuation of positions may prove very tempting. In other terms, given the incentive structure of hedge fund managers, their interests are not necessarily perfectly and permanently aligned with those of their investors. It is thus not clear how to reconcile the two objectives of, on the one hand, giving hedge funds' managers sufficient leeway to value their most complex assets, and on the other hand, ensuring the integrity of valuation, especially when retail money is (indirectly) involved.

2|2 Market integrity

Regarding market integrity, which relates to market abuse and insider trading, actual risks exist. They are not per se specific to –but can develop more easily within– hedge funds. Insider information may not be adequately managed in hedge funds, partly because they are not subject to "Chinese walls" or similar rules. Conflicts of interest may arise if a hedge fund is engaged across markets, and is tempted to use in one market an information obtained from his involvement in another (e.g. hedge funds engaged in private equity may use information to trade on credit markets). In addition, hedge funds have become dominant in some markets (e.g. structured credit) and might be able to manipulate prices.

However, hedge funds are not fundamentally different, in this regard, from other investors: strong and efficient implementation of existing rules and procedures should be adequate and sufficient to preserve market integrity. Implementation issues may complicate the issue, though, especially since hedge funds are active in relatively opaque market segments and on complicated cross-market operations which cannot be easily screened by market supervisors.

2/3 Systemic risk

Systemic risk occurs whenever failure of one individual institution can trigger very adverse consequences for a significant number of other institutions. There are many possible transmission channels:

- through an increase in counterparty risk as failure of one entity can endanger the viability of its counterparties, thus starting a chain effect;
- through a reduction in market liquidity because, to prevent default, a financial institution may start selling assets and liquidating positions, an action susceptible of creating brutal price adjustments; if other institutions are marked to market, they will themselves engage in further liquidations, thus aggravating the impact of the initial shock;
- through "pure" contagion triggered, for instance, by a general reassessment of risk inside an asset class or through a wide range of asset classes.

From that point of view, it is clear that hedge funds potentially might present significant and specific risks. To start with, they are major –often dominant– actors in several important market segments. They account for around 40% of the turnover of major stock exchanges. They are prominent participants in credit markets (27% of investors in high yield bonds according to The Bond Market Association, a quarter of credit derivatives turnover according to Fitch). More than other investors, hedge funds pursue global, cross-market strategies, and may increase the linkages (positive and negative) of markets across countries and asset classes.

In some cases, hedge fund activity may result in one-way markets and higher volatility in less liquid market segments, particularly during periods of stress. Since hedge funds heavily support liquidity in some markets, liquidity may dry up very rapidly, should they decide to withdraw and close their positions simultaneously.² Furthermore, they can leverage themselves with very high multiples either directly (through borrowing from prime brokers) or indirectly (through intensive selling of credit derivatives). They may thus be especially vulnerable to a sudden decrease in market liquidity. Last but not least, hedge funds keep close and permanent business relations with large banks, which are central actors in the financial system.

Apart from the "lender of last resort" intervention (which will not be discussed here), the best protection against systemic risk rests on two preventive "pillars": a strong capital base for major market participants and efficient risk management.

Hedge funds have no capital base of their own but can rely on their investors' capital. Lock up periods (typically one to two years) help stabilizing the financial system in times of stress since capital is "constrained" to remain available and absorb shocks. A further buffer is provided by margin and collateral requirements imposed on hedge funds by prime brokers, which should insulate lending banks from any difficulties suffered by their hedge funds clients. Finally, banks have a strong incentive in fostering comprehensive and accurate risk management systems at their client hedge funds.

Those two pillars form a very solid base for an efficient market discipline on hedge funds' risk taking and activity. They have worked well in recent episodes. The most recent examples of hedge fund-related turbulences (the May 2005 crisis on credit markets and the Amaranth demise in September 2006) are a case in point.

However, those episodes have taken place in very benign economic conditions, and the impact of hedge funds difficulties on financial stability could be different in a less favourable environment.

² A case in point is May 2005 where a number of hedge funds tried to unwind similar positions on Credit default swap (CDS) index tranches, causing temporary but still widespread dislocation, before other hedge funds entered the market to exploit the mispricings created by this situation.

In addition, several actual or potential fragilities can be detected in the way market discipline presently works. Some of the mechanisms devised to protect individual institutions could increase, rather than reduce, some aspects of systemic risk in time of stress. Margin calls, while guaranteeing lenders against any possible loss, can force widespread liquidation of assets and positions by hedge funds in falling markets, especially in a context of fair value accounting thus increasing the risk of contagion through withdrawal of liquidity and market instability.

Another concern is that the capital buffer of hedge funds could be rapidly exhausted in stress situations if their leverage ratio is high, as shown by the failure of the Long-term capital Management (LTCM) fund in 1998. It does not seem to be the case at the moment, as anecdotal evidence suggests that leverage remains limited compared to the pre-LTCM period. But it is increasing. Besides, *effective* leverage has become notoriously difficult to measure, due to the difficulty in capturing the effect of different layers of leverage, and in particular the leverage embedded in the most complex forms of credit derivatives.³

A last important concern is that the relationship between hedge funds and their prime brokers is complex and fragile. Prime brokers' incentives are not always perfectly aligned with the requirements of proper market discipline, as these entities depend on hedge funds for a very significant part of their revenue. If no pressure were exerted by banking supervisors, competition between prime brokers to get hedge funds' clientele could lead to a relatively weak enforcement of risk monitoring and market discipline. Furthermore, many hedge funds deal with several prime brokers, none of which getting automatically a comprehensive view of their activities, risk profile, and exposures. Finally, hedge funds and prime brokers might be competitors on many activities, and find themselves on opposite sides of the market. This creates inherent conflicts of interest and puts some limitations on the quantity and quality of information that can productively be exchanged between them.

3| SOME TENTATIVE CONCLUSIONS

From the preceding analysis, it emerges that two important questions might be highlighted to frame the debate on hedge funds.

3|1 The consequences of increased involvement of retail investors in hedge funds

On the one hand, existing rules and procedures for investor protection should provide the basis for effective regulation in this field. On the other hand, it is not clear how those rules can always be made compatible with the non transparent environment in which hedge funds necessarily operate. It is an open question whether stronger "governance" requirements should be introduced for those hedge funds indirectly collecting retail investors' money, either through professional codes of conducts, market mechanisms reinforced by a "rating" process or more compulsory and binding regulations. In this light, the work of International Organization of Securities Commissions (IOSCO) to develop a set of best practices for the valuation of hedge fund assets seems very promising.⁴ In order to encourage hedge funds to apply them, banking supervisors could take them into account in their requirements vis-à-vis prime brokers.

3|2 The implications of hedge funds' activities for systemic risk

Potential risks arise both directly through the potential losses that prime brokers could incur as a result of their exposures to hedge funds, but also indirectly through adverse market dynamics triggered by hedge funds (for instance market liquidity disturbances due to disorderly portfolio liquidation). Such dynamics

³ As a striking illustration, let's imagine that 100 of cash are invested in a fund of hedge funds. This is total capital. Then, this hedge fund borrows 200 and invests the capital and the borrowed money (i.e. 300) in another hedge fund. This other hedge fund borrows again 300 and invests the total (i.e. 600) in a subordinated Collateralized debt obligations (CDOs) tranche, which is typically leveraged 10 times. Overall, the total exposure of the fund of hedge fund is 6,000 but the share of capital is still 100, i.e. a leverage of 60 times! With such a pyramid of leverage, a fall of 2% in the value of assets is enough to wipe out the entire capital.

⁴ Within a group bringing together regulators and representatives of the alternative management industry, IOSCO has suggested standard procedures in the area of hedge funds valuation and assigned responsibilities in the valuation process among all concerned parties: the prime broker, the depositary, the auditor and, naturally, the manager. It has published a series of guiding principles which professionals will be encouraged to apply to themselves.

might seriously affect banks, even if they had managed their counterparty risks carefully. Therefore, the challenge is not only to foster market discipline in the hedge fund –prime broker relationship, although this is key and remains a precondition, but also to prevent, or at least mitigate, the effects of potential adverse market dynamics.

Financial markets have undergone significant structural changes since the 2000 Report on Highly Leveraged Institutions. These changes basically come to the simple observation that market dynamics are increasingly dissociated from banking intermediation. The distribution and allocation of risk –hence liquidity– takes place more and more outside banks' balance sheets, although banks keep a central role in the financial system through the "originate and distribute" model.

A first change is the growth of securitization and credit derivatives, which have facilitated the dispersion of credit risk across firms and across sectors of the financial system. However, it has also made markets more opaque, complicating the identification of the ultimate bearers of risk and the interlinkages between various market segments.

In connection with the growth of derivatives, the means used to create leverage in the financial system have expanded and diversified beyond the banking sector. In particular, the importance of "embedded" instrument leverage (e.g. the case of CDOs) has increased, allowing for the accumulation of different layers of leverage and hence new forms of risk concentration.

Finally, new valuation challenges for complex financial instruments have emerged. The models used to measure exposure and price risk in the newest and often illiquid instruments are, by definition, less grounded in experience.

Those structural changes have taken place so far in a very benign financial environment characterized by ample liquidity, broad based rise in asset prices and subdued volatility. Admittedly, risk management techniques have also improved markedly, in a continuous effort to adapt to this new environment. However, the current financial system remains essentially an untested world in stress situations.

In such a new –and fast evolving– financial landscape, it is not easy to figure out how a hedge fund related crisis would look like. It often takes a combination of causes to account for the potential reasons for a crisis. Therefore, we need to maintain a degree of humility and caution about our capacity to anticipate the nature and dynamics of future stresses to the financial system, in particular as regards the concentration of risk and the existence of crowded trades. However, the practical question of who needs to know what and when, in order to minimize systemic risk and cope efficiently with it when it materializes, cannot be so easily discarded.

To this end, two avenues can be explored:

- **Improving the information available on the markets in which hedge funds operate.** One of the intrinsic strengths of markets with organized infrastructure when compared with markets which are totally over-the-counter (OTC) is their capacity to record transactions in a centralized manner and in a "seamless" way, thanks to advanced technology. Therefore, it is easier to know what the main participants are doing without having to put in place a heavy reporting scheme, which would otherwise be needed in an OTC market to get such information. The example of the credit derivative market is very relevant, as the implementation of a "data warehouse"⁵ will probably yield precious information for financial stability, even though that was not the initial purpose. There might be scope for policymakers to encourage such "organization" of infrastructure in certain market segments or platforms that are deemed relevant for financial stability, like the Federal Reserve Bank of New York did for OTC derivatives, and to encourage hedge funds to use such "organized" markets. This would also be beneficial for the prevention of market abuse and insider trading.

- **Devising processes to obtain relevant information for crisis management.** In order to use wisely and efficiently their crisis management tools without creating moral hazard, authorities may need to get access to critical information at a certain time. One avenue to explore would be, for authorities, to devise processes giving them, on a case by case basis, access to relevant information about hedge funds. There might be value in making sure ex ante that specific information about hedge funds can be gathered easily and quickly if needed.

5 Work has been undertaken under the aegis of the G10 Committee for Payment and Settlement System (CPSS) concerning the infrastructure of OTC derivatives markets and how it can be strengthened.

Finally, such avenues would not be as effective if they were not preceded by a stronger grip by supervisors on the relationship between hedge funds and prime brokers. In particular, supervisors should insist that prime brokers ask and get sufficient information from hedge funds in order not only to assess their own risk, but get a broader view of all implications deriving, through financial markets, of

their clients' activities (including through the use of stress tests). This "indirect supervision" approach is the least intrusive and also the most effective in the short term, in particular at the international level. Implementation of the pillar II of the Basel II agreement will give banking supervisors additional tools in that respect.

