Box 4

ASSET SALES BY HEDGE FUNDS AND CONVENTIONAL OPEN-END INVESTMENT FUNDS AT THE HEIGHT OF THE CRISIS

There is a fairly widespread consensus that the trading activities of hedge funds were not one of the direct causes of the recent financial crisis. Nonetheless, it is difficult to argue that these investors were innocent bystanders, not least because both forced and voluntary deleveraging of their portfolios contributed to, and amplified, the adverse asset price dynamics witnessed in many financial markets during the financial market turmoil. Thus, it can be argued that hedge funds were not simply "caught" by the crisis, but that they had also contributed to it. To shed more light on this contribution, this box provides estimates of net asset sales by hedge funds at the nadir of the crisis, and it compares these sales with the forced sales of conventional open-end investment funds.

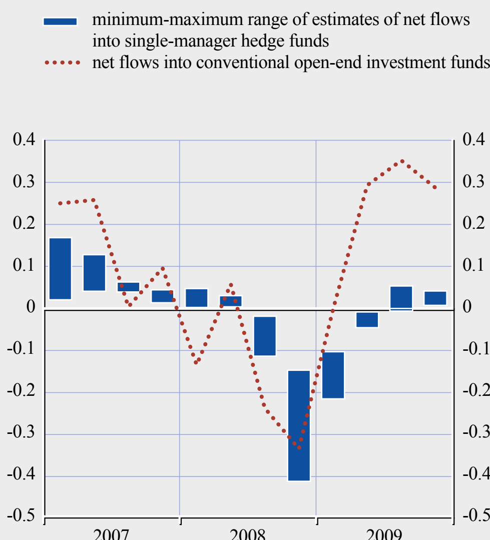
Through the various stages of the crisis, hedge funds had to liquidate their investments as a result of both investors' demands for redemptions and the tightening of lending standards by prime brokers. Conventional open-end investment funds, by contrast, had been forced to sell asset holdings primarily because of investor redemptions as they usually do not employ financial leverage. By having to meet investors' redemption requests at short, usually one-day, notice, traditional open-end investment funds may appear to be far more vulnerable to the volatility of investors' behaviour than hedge funds. However, it must be borne in mind that these investment funds typically invest largely in liquid assets that should usually not be difficult to dispose of in stressed market conditions. Hedge funds, by contrast, are much more likely to invest in less liquid assets, but, at the same time, this tends to be offset by defensive and infrequent investor redemption possibilities. Hedge funds can spread investment portfolio unwinding over the entire redemption notice period, which can vary from a few days to more than three months. Dynamic use and forced reductions of leverage, however, expose hedge funds to leverage-related risks and, through voluntary or forced deleveraging, this introduces another channel through which hedge funds might have an adverse impact on financial markets.

In the period from 2007 to 2009, the quarterly net flows by investors into and out of hedge funds exhibited very similar patterns and, in absolute terms, closely tracked net flows into traditional open-end investment funds (see Chart A). This occurred despite the fact that, irrespective of the chosen data source, the amount of investors' capital entrusted to hedge funds globally was at most a fifth of that of the capital under management of conventional open-end investment funds. This means that, in relative terms, investors' net flows into hedge funds were far more volatile.

According to data reported by a few widely used hedge fund data providers, the largest investor withdrawals from single-manager hedge funds occurred during the third and fourth quarters

Chart A Global net flows into single-manager hedge funds and conventional open-end investment funds

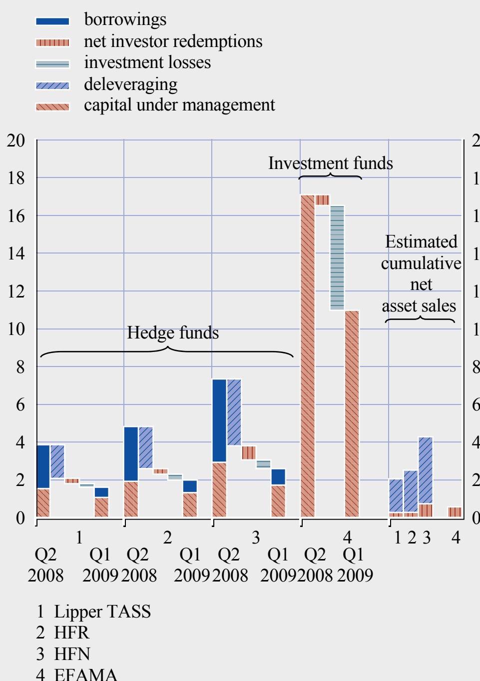
(Q1 2007 – Q4 2009; USD trillions)



Sources: Lipper TASS, Hedge Fund Research (HFR), HedgeFund.net (HFN), European Fund and Asset Management Association (EFAMA) and ECB calculations.
Notes: Data on net flows into open-end investment funds refer to all reporting countries, the number of which increased during the analysis period, and includes equity, bond and balanced/mixed funds. Money market, other (including funds of funds) and unclassified funds were excluded from the analysis.

Chart B Estimated net asset sales by hedge funds and open-end investment funds at the height of the crisis

(Q2 2008 – Q1 2009; USD trillions)



Sources: Lipper TASS, Hedge Fund Research (HFR), HedgeFund.net (HFN), European Fund and Asset Management Association (EFAMA) and ECB calculations.
Notes: It was assumed that conventional open-end investment funds had no leverage, whereas the average leverage supporting net long positions of single-manager hedge funds declined from 2.5 to 1.5, as measured by (borrowings + capital)/capital ratio. Data on open-end investment funds refer to all reporting countries, the number of which increased during the analysis period, and includes equity, bond and balanced/mixed funds. Money market, other (including funds of funds) and unclassified funds were excluded from the analysis.

of 2008, following the bankruptcy of Lehman Brothers in September 2008, and in the first quarter of 2009. The same was essentially true for conventional open-end investment funds.[1] Thus, these three quarters marked the peak of the crisis both in terms of the amounts of investor redemptions and in terms of the intensity of forced and voluntary deleveraging.

One way of estimating the amounts of net sales by various types of investment funds is to decompose declines in gross (leveraged) assets into net investor redemptions, investment losses and reductions in borrowings (deleveraging), assuming that the average leverage supporting net long positions of single-manager hedge funds declined from 2.5 to 1.5, as measured by the (borrowings + capital)/capital ratio.[2] With the available information on total capital under management (net assets) and net investor redemptions, an estimate of investment (valuation) losses can be computed by subtracting net investor redemptions from changes in net assets,

1 An important exception was the net inflows into bond funds in the first quarter of 2009 when investors regained their appetite for high-grade corporate bonds.
2 The focus here is on net long positions since the unwinding of short positions would be associated with the buying of shorted assets. It was also assumed that conventional open-end investment funds had no leverage.

whereas the total amount of deleveraging was simply a residual decline in gross assets. With this, total cumulative net asset liquidations were computed as the sum of net investor redemptions and the amount of deleveraging. It should also be noted that the analysis may still underestimate net asset sales because it does not take into account likely increases in liquidity reserves as a result of both the higher risk aversion and funding liquidity risk associated with prime brokers' margin calls and anticipated further investor redemptions. That said, the findings from this analysis suggest that over the three-quarter period from the end of the second quarter of 2008 to the end of the first quarter of 2009, on a net basis, hedge funds may have sold as much as around USD 2.1 to USD 4.3 trillion of assets, whereas for traditional open-end investment funds, the equivalent amount was only about USD 0.6 trillion of securities (see Chart B).[3]

Overall, the crisis confirmed that certain features of the hedge fund model, namely the combination of leverage and unstable funding sources, may result in substantial position unwinding pressures in times of stress and thereby exacerbate vicious cycles of liquidation and deleveraging. In this respect, the analysis conducted here provides some evidence that at the peak of the recent crisis, the amount of forced and voluntary asset sales by hedge funds may have been sufficiently large to have a non-negligible negative impact on market prices. However, the relative contributions of hedge funds and conventional open-end investment funds to adverse market dynamics remain unclear, since the contributions of banks and other market participants would also need to be taken into account for a comprehensive assessment.

3 Similar estimates, albeit using different data sources, leverage measures and time periods, were also obtained by Charles River Associates, "Impact of the proposed AIFM directive across Europe", October 2009.