Research reveals why hedge funds are an unlikely large source of systemic risk

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The *Journal of Financial Economics* recently published a paper by Andrew Ang, Chair, Ann F. Kaplan Professor of Business and Chair, Finance and Economics Division at Columbia Business School; Sergiy Gorovyy, PhD candidate, Columbia Business School; and Gregory B. van Inwegen, Head of Quantitative Research/Managing Director for Tailored Portfolio Group of Citi Private Bank, that was the first paper to formally investigate hedge fund leverage using actual hedge fund ratios. Contrary to popular belief, the researchers found that hedge funds, in general, are only modestly leveraged. The average hedge fund leverages its equity by two times. In addition, hedge fund leverage is counter-cyclical to the leverage of the finance sector and large financial intermediaries. During the financial crisis, the leverage of investment banks spiked up to above 40 during the first quarter of 2009. During that time, the average hedge fund leverage was only 1.4, and hedge funds had started to substantially reduce their leverage in 2007 long before the onset of the financial crisis.

The relatively frequent and sophisticated use of leverage is a defining characteristic of the hedge fund industry. Yet, little is known about hedge fund leverage. Hedge funds are not required to report their activities to the same extent as mutual funds, pension funds, banks, insurance companies, and other financial institutions. In order to explore hedge fund leverage, the researchers studied actual leverage ratios of hedge funds—the first study to obtain such information—for a large cross section of funds. They studied both how hedge fund leverage has evolved over time for the whole hedge fund industry and various hedge fund sectors and the determinants of hedge fund leverage across funds, that is what makes one fund take different leverage from another fund. Finally, they compared hedge fund leverage to the leverage of listed financial companies.

The study revealed hedge fund leverage decreased prior to the start of the financial crisis in mid-2007. At the same point in time, the leverage of investment banks continued to increase. Furthermore, during the worst periods of the financial crisis in 2008, hedge fund leverage was at its lowest while the leverage of investment banks was at its highest. The researchers discuss two possibilities for the early reduction in leverage by hedge funds: a voluntary reduction in leverage because hedge fund managers, on average, had skill, or that the reduction in leverage was involuntary and was forced upon hedge funds by prime brokers, who provide hedge funds with the ability to leverage. Given that many prime brokers are run by investment banks which increased leverage in 2007 and performed extremely badly over 2008-9, the first explanation is more likely. In addition, the researchers found that changes in hedge fund leverage tend to be more predictable by economy-wide factors than by fund-specific characteristics. In particular, decreases in funding costs and increases in market values forecast increases in hedge fund leverage, and decreases in fund return volatilities predict future increases in leverage.

These findings will be influential, as the research indicates hedge funds are unlikely to represent a large source of systemic risk. An important implication is that regulators should be more concerned with the traditional regulated finance sector, especially banks and large financial institutions which provide hedge funds with leverage, rather than hedge funds themselves.

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