



A Presentation on Hedge Fund Data

March 28, 2024

Ted Berg, Neth Karunamuni, Daniel Stemp

- Hedge funds play a prominent role in global financial markets. Their activities provide several benefits, and some activities come with risks.
- Regulation of hedge funds is different, for good reasons, compared to other financial entities such as mutual funds, pension funds, insurance companies, and banks.
- There are important differences between those entities and hedge funds. For example, hedge funds have greater flexibility regarding investment activities, including leverage.
- Form PF provides important insights into hedge fund activities. These insights allow the OFR, and other agencies with access to Form PF, to better inform regulators and policymakers.

- Arbitrage activities reduce or eliminate mispricing.
- Provision of liquidity in periods of calm and stress.
- Add depth and breadth to capital markets.
- Serve as a source of risk transfer and diversification; hedge funds assume risk that otherwise would remain on the balance sheets of other firms.

Following charts and data are based on the subset of larger hedge fund advisers that submit quarterly Form PF reports. Fund data for advisers that only file annual reports (e.g., smaller hedge funds) are excluded.

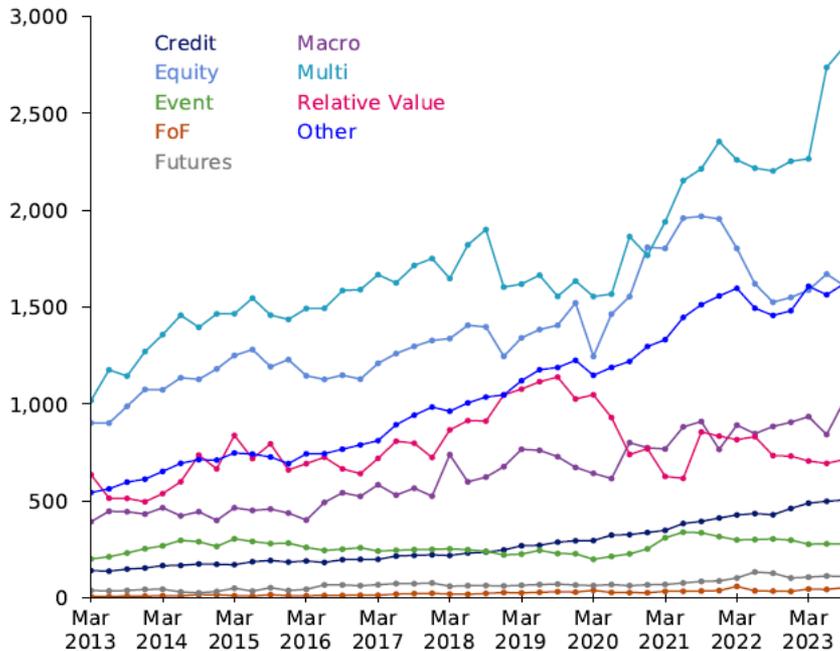
These charts are complementary to data published by the SEC in its quarterly Private Fund Statistics reports.

- Form PF includes information on over 9,800 hedge funds. Most hedge fund advisers file annually to report general information about the funds advised, while certain larger advisers provide more information quarterly.
- We focus on the subset of larger advisers, which oversaw almost 2,100 hedge funds as of Q3 2023. These funds, in aggregate, represent:
 - net assets of ~\$4 trillion
 - gross assets of ~\$9 trillion
 - gross notional exposure of ~\$26 trillion
- Interest rate derivatives (IRD) represent the largest notional exposure at just under \$8 trillion (10-year bond equivalents). IRDs have increased significantly since 2017.
- Treasury exposures, included within “US Gov” series, have increased meaningfully over the past year; includes Treasury cash and futures exposures.

Gross assets and gross notional exposures



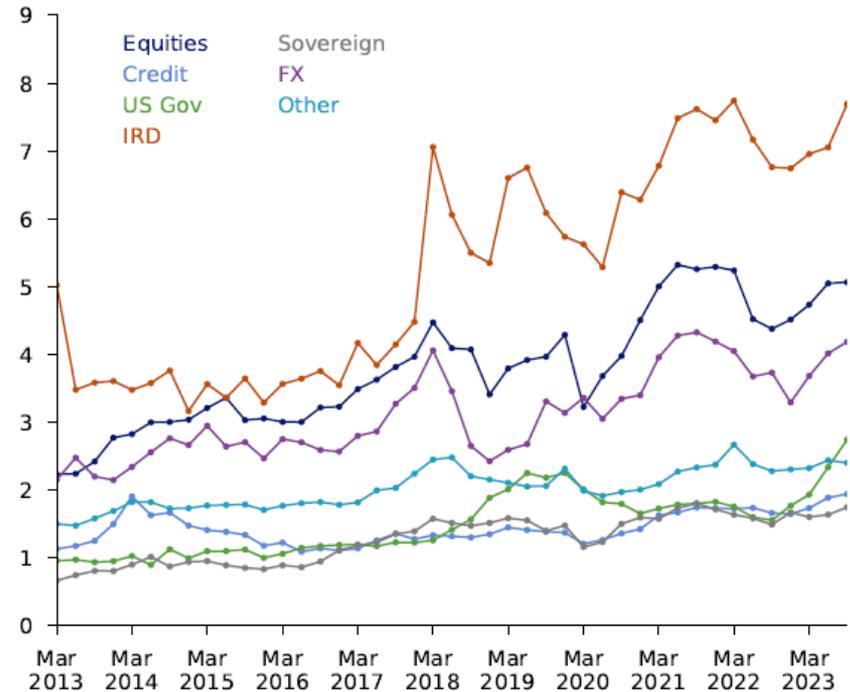
Gross Asset Value by Strategy (\$ billions)



Note: Data as of Q3 2023. Funds with 75% or more of assets concentrated in a strategy are classified as that strategy type. Otherwise, funds are classified as multi-strategy. The advisor may report "other" only if the fund's strategy is significantly different from those listed in Form PF. Form PF Questions 8, 20.

Sources: SEC Form PF, Office of Financial Research

Gross Notional Exposure by Asset Class (\$ trillions)



Note: Data as of Q3 2023. Exposures represent the value of long plus the absolute value of short notional exposures as reported on Form PF Questions 26 and 30 (excluding repo positions).

Sources: SEC Form PF, Office of Financial Research

There is variation in hedge fund leverage

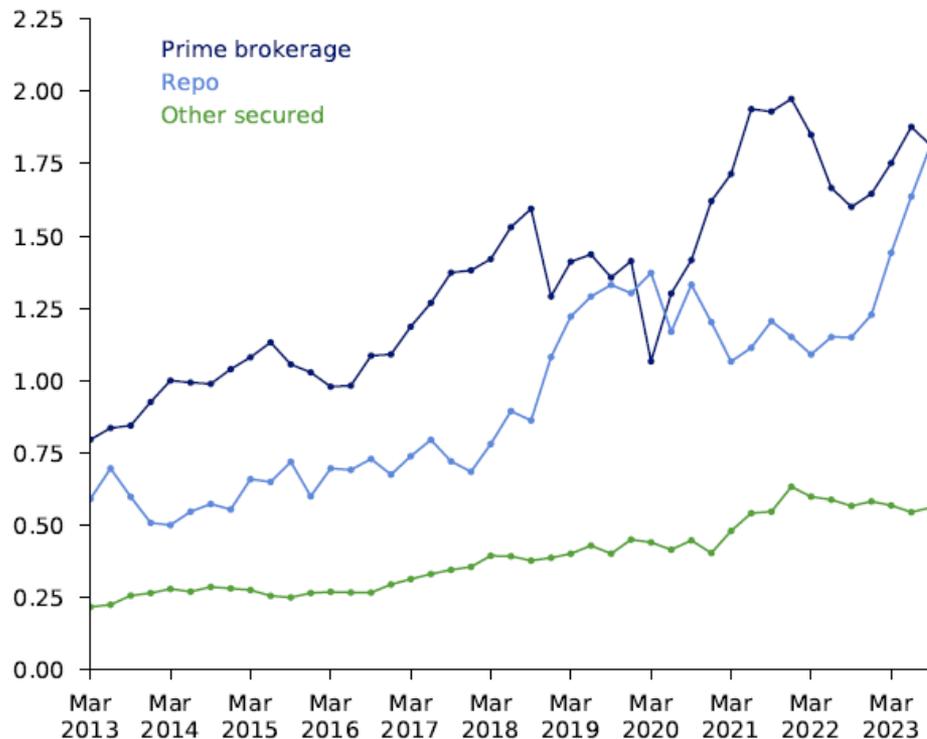


- Leverage, in and of itself, does not equate to high risk, but elevated leverage combined with short-term funding warrant closer inspection. Rapid borrowing growth is another flag for additional analysis.
- Hedge funds borrow (\$4.2 trillion) on a secured basis. Repurchase agreement, or repo (\$1.8 trillion), debt outstanding is at a record high.
- Some funds have high leverage ratios (gross-to-net assets), but these funds generally hold less-volatile assets.
- Other sources of leverage include derivatives (off-balance sheet).

Borrowing amounts and leverage ratios



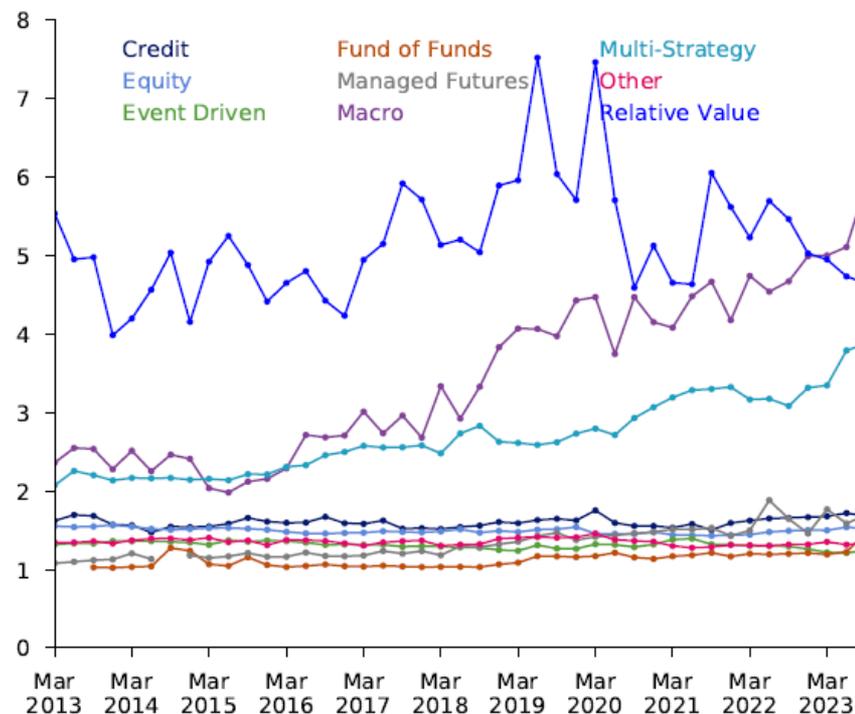
Borrowing by Type (\$ trillions)



Note: Data as of Q3 2023. Excludes unsecured (<1 percent of total). Form PF Question 43.

Sources: SEC Form PF, Office of Financial Research

Leverage by Strategy (ratio - NAV weighted)



Note: Data as of Q3 2023. Leverage is gross assets divided by net assets based on Form PF Questions 8 and 9, respectively. Leverage ratios represent weighted averages based on net assets.

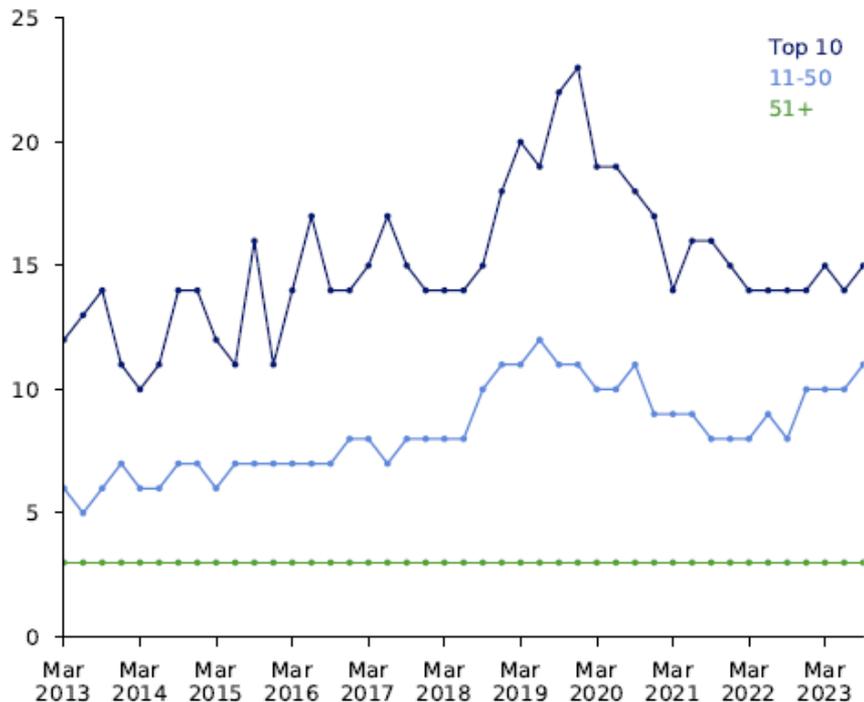
Sources: SEC Form PF, Office of Financial Research

- Hedge funds are interconnected with banks (broker-dealers) via derivatives and borrowings. Larger funds typically have multiple creditor relationships, but they tend to concentrate borrowing among a few creditors.
- U.S. Global Systemically Important Banks (G-SIBs) comprise ~53% of lending to hedge funds, followed by foreign G-SIBs (~33%). Smaller banks and nonbanks comprise the remainder.
- A few large banks comprise a material share of lending to hedge funds.

Counterparty lending relationships



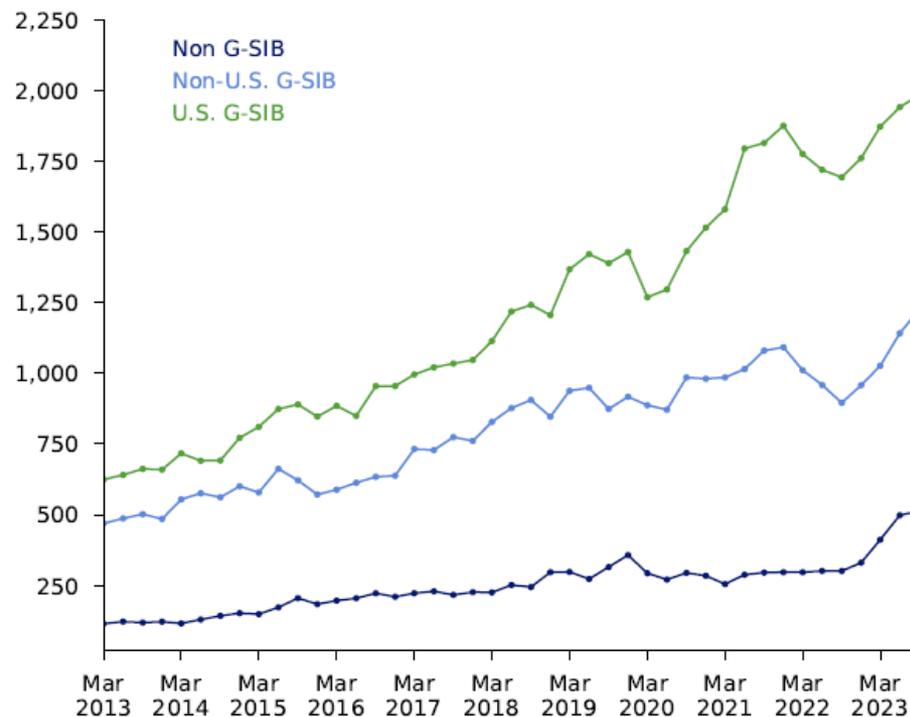
Average Number of Creditors by Size Cohort



Note: Data as of Q3 2023. Values are rounded to the nearest whole number. Cohorts are based on gross asset value (GAV) on a quarterly basis. Data reflects borrowings from creditors that are equal to or greater than 5% of reporting fund's net asset value; excludes creditors that do not meet this threshold. Form PF Questions 8, 47.

Sources: SEC Form PF, Office of Financial Research

Borrowing by Counterparty (\$ billions)

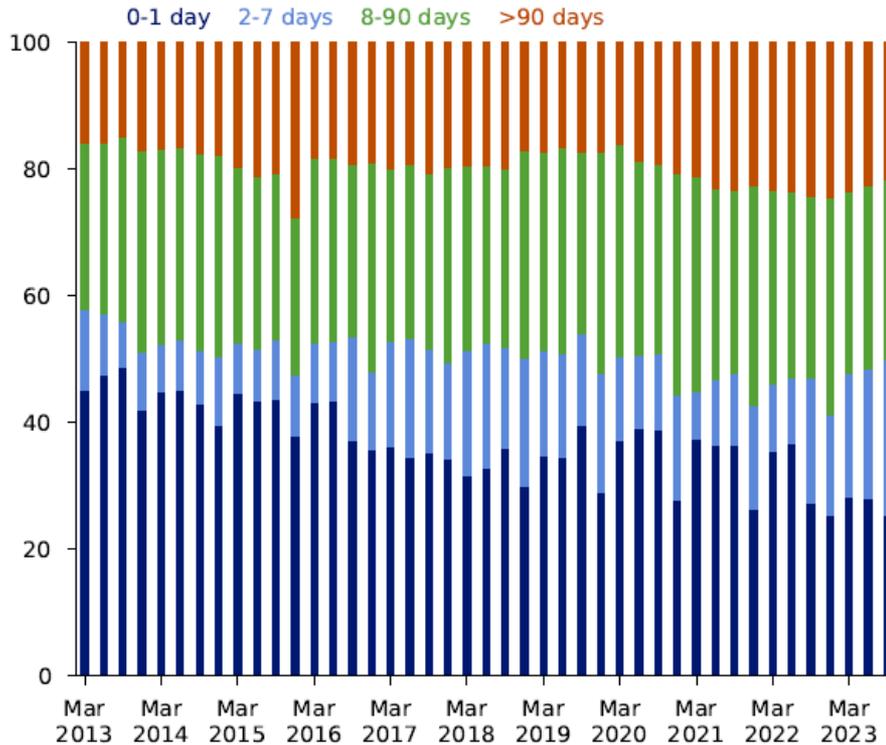


Note: Data as of Q3 2023. Data reflects borrowings from creditors that are equal to or greater than 5% of reporting fund's net asset value; excludes creditors that do not meet this threshold. Form PF Questions 8, 47.

Sources: SEC Form PF, Office of Financial Research

- Almost half of hedge fund borrowings are concentrated in short-term maturities. As discussed in the prior slide, the largest funds generally have multiple lenders to balance financing needs.
- Short-term liquidity needs may be satisfied with cash, liquid assets (assets easily converted into cash), and assets that may be used as collateral to borrow cash.
 - About 60% of hedge fund portfolios are invested in liquid assets.
 - Unencumbered cash is a key source of liquidity. Funds with large derivatives exposures often have high levels of unencumbered cash.

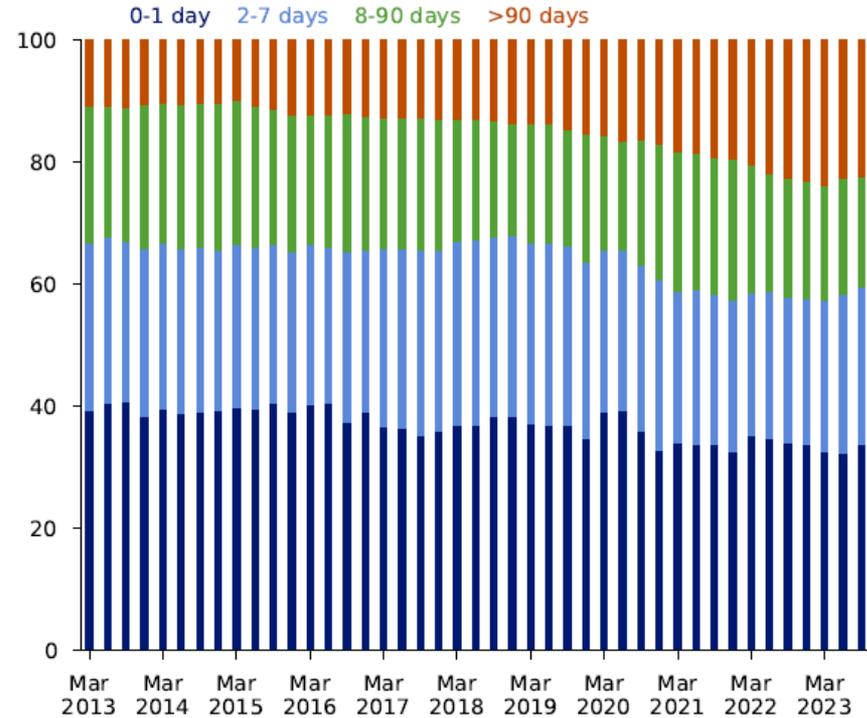
Financing Liquidity by Maturity (percent of total)



Note: Data as of Q3 2023. Includes utilized borrowing and available but undrawn cash financing. Form PF questions 8, 46.

Sources: SEC Form PF, Office of Financial Research

Portfolio Liquidity (percent of total)



Note: Data as of Q3 2023. Estimate of the proportion of gross assets that may be liquidated, assuming no fire-sale discounting, within specified periods as reported on Form PF questions 8, 32, and 33. 0-1 day includes cash holdings.

Sources: SEC Form PF, Office of Financial Research

- Form PF is an SEC regulatory filing containing sensitive data on private funds.
- Private funds are pooled investment vehicles excluded from the definition of investment company in the Investment Company Act of 1940.
- SEC-registered investment advisers with at least \$150 million in private fund assets under management use Form PF to report, on a non-public basis, information about the funds they manage.
- Most advisers file Form PF *annually* to report general information (e.g., fund size, leverage, liquidity and investor types). Larger hedge fund advisers file *quarterly* and report more granular information.

- SEC defines a hedge fund as any private fund having any one of three common characteristics of a hedge fund:
 - Overseen by investment adviser who is paid a performance fee;
 - May borrow an amount in excess of one-half of its net asset value (NAV) or may have gross notional exposure in excess of twice its NAV;
 - May sell securities or other assets short.
- Other common characteristics to describe hedge funds include:
 - Private pools of capital;
 - Complex trading strategies and leverage;
 - Holdings include tradeable instruments, including securities and derivatives, and non-tradeable instruments (private investments);
 - Active trading and short-term investment strategies.