

U.S. Securities and Exchange Commission

Annual Staff Report Relating to the Use of Form PF Data



This is a report of the Staff of the U.S. Securities and Exchange Commission.

The Commission has expressed no view regarding the analysis, findings, or conclusions contained herein.

February 21, 2024

Executive Summary

Since July 2012, the Commission has collected data about hedge funds, private equity funds, and other private funds reported by certain registered investment advisers to private funds on Form PF. This collection is pursuant to amendments to the Investment Advisers Act of 1940 (“Advisers Act”), enacted in 2010, that provide that the Commission require registered investment advisers to maintain records and file reports regarding the private funds they advise, for use by the Commission and by the Financial Stability Oversight Council (“FSOC”). The Commission is the primary regulator of advisers to private funds.

Private funds and their advisers play an important role in both private and public capital markets. These funds, including hedge funds, private equity funds and liquidity funds (which operate, in certain respects, similarly to money market funds), currently have approximately \$14 trillion in net assets. Private funds invest in large and small businesses and use strategies that range from long-term investments in equity to rapid trading and investments in complex instruments. Their investors include individuals, institutions, governmental and private pension funds, and non-profit organizations. The economic activity of private funds is significant both to large portions of the capital markets and to many individual American investors.

Before Form PF was adopted, the Commission and other regulators had limited visibility into this economic activity. With the significant increase in private fund advisers registered with the Commission in 2012, Form PF represented an improvement in available data about private funds compared with the third party data on which the Commission would otherwise rely. Form PF data allow the Commission to better monitor and identify trends that may affect private funds, advisers, and investors.

Part III of this eleventh Annual Report Relating to the Use of Form PF Data highlights the uses of the Form PF Data by the Commission and Commission staff. These include:

- *Informing Commission Policy.* Commission staff uses data from Form PF to identify trends and develop analyses that deepen staff understanding of private funds, private fund advisers and the markets in which they participate, subject to a framework designed to maintain the security and confidentiality of the data. The data set resulting from Form PF has provided a better perspective of the trading strategies and other activities of private funds, and of how private funds and their advisers may be affected by market and geopolitical events. This enhances the Commission’s ability to evaluate and frame regulatory policy, inform policy discussions of private fund activity, and test with evidence assertions about private fund activity.
- *Informing the Public.* Staff’s quarterly public report, *Private Funds Statistics*, provides analyses of aggregated Form PF data, including information about industry trends. Staff also uses Form PF data to conduct and publish research intended to deepen public understanding of private funds and their market activities and risks.
- *Prioritizing and Informing Examination and Enforcement Efforts.* Staff reviews and analyzes Form PF data to identify potential compliance risk areas and assist in prioritizing the use of exam and enforcement resources. Reports summarizing key information, which can be rapidly and automatically generated, expedite staff’s preparation and conduct of focused exams by helping to identify areas of inquiry.
- *Facilitating Coordination with Other Regulators.* The Commission adopted Form PF in part to obtain data that FSOC can use for the assessment of systemic risk in the U.S. financial markets. Accordingly, the Commission makes Form PF data available to FSOC through the Office of Financial Research (“OFR”) and to the Federal Reserve Board (“FRB”), subject to agreements regarding appropriate use of and confidentiality protections for Form PF data. Staff also uses Form PF data when coordinating with other federal regulators and international organizations in areas of mutual interest, subject to protections designed to maintain data security.

I. Introduction

Today's U.S. private fund industry, including hedge funds, private equity, and other private funds, with approximately \$14 trillion in reported net assets as of the second quarter of 2023¹ plays an active and important role in the U.S. private and public capital markets. Important financial innovations, capital market trends, and new investment strategies and structures have emerged first among private funds and private fund advisers. As the primary U.S. regulator of advisers to private funds,² the Commission depends on robust and reliable information to inform its understanding of private funds and private fund advisers, including how private funds and advisers participate in financial markets, so that it can carry out its mission of protecting investors, maintaining fair, orderly, and efficient markets, and facilitating capital formation. Further, because of private funds' important role in capital markets, the Commission can better identify potential trends in the markets that it regulates by understanding new developments and trends in private funds.

Form PF and Advisers Act rule 204(b)–1, adopted by the Commission in 2011, require certain registered investment advisers to private funds (including hedge funds, private equity funds, liquidity funds, and other private funds) to file Form PF to report information about the private funds they manage.³ Section 204(b) of the Advisers Act requires an annual report to Congress regarding how the Commission has used the Form PF data to monitor markets for the protection of investors and the integrity of the markets.⁴ This report is being submitted to Congress to satisfy that requirement.⁵

This is a report of the staff of the Commission, and the Commission has expressed no view regarding any analysis, findings, or conclusions contained herein.

II. Overview of Form PF and Form PF Data Management at the Commission

A. Overview of Form PF

¹ *Private Funds Statistics, Second Calendar Quarter 2023*, p.5, Table 4, at the Appendix. Reported net assets of private funds have more than doubled since this data collection began, growing from about \$5 trillion as of the end of the first quarter of 2013. See *Private Funds Statistics, Fourth Quarter 2014*, Table 4.

² Section 202(a)(29) defines a “private fund” as “an issuer that would be an investment company, as defined by section 3 of the Investment Company Act, but for section 3(c)(1) or 3(c)(7) of that Act.” Some investment advisers registered with the Commission are also registered with and regulated by the U.S. Commodity Futures Trading Commission as commodity pool operators (“CPOs”) or commodity trading advisers (“CTAs”). See *Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF*, Investment Advisers Act Release No. 3308 (Oct. 31, 2011) at n. 10 and text accompanying n. 49 [76 Fed. Reg. 71128, 71132 (Nov. 16, 2011)], <https://www.gpo.gov/fdsys/pkg/FR-2011-11-16/pdf/2011-28549.pdf> (the “Adopting Release”).

³ See *Adopting Release*, *supra* note 2; see also *Money Market Fund Reform; Amendments to Form PF*, Investment Advisers Act Release No. 3879 (July 23, 2014) [79 Fed. Reg. 47736 (Aug. 14, 2014)], <https://www.gpo.gov/fdsys/pkg/FR-2014-08-14/pdf/2014-17747.pdf> (amending certain reporting required by private liquidity funds) (the “Money Market Fund Reform Release”). <https://www.reginfo.gov/public/do/PRAOMBHistory?ombControlNumber=3235-0679>.

⁴ Advisers Act Section 204(b)(11), 15 U.S.C. § 80b-4(b)(11).

⁵ See Division of Investment Management, U.S. Securities and Exchange Commission, Annual Staff Report Relating to the Use of Form PF Data, <https://www.sec.gov/reports>.

Form PF provides the Commission information that it uses in carrying out its mission.⁶ Before Form PF was adopted, the Commission and other regulators had more limited visibility into the economic activity of private funds. With the significant increase in private fund advisers registered with the Commission in 2012, Form PF represented an improvement in available data about private funds compared with the third party data on which the Commission would otherwise rely.⁷ The data set that is generated from information reported by private fund advisers on Form PF is more reliable and complete when contrasted with private vendor databases that cover only voluntarily-provided private fund data and are not representative of the total population. The Commission adopted Form PF in part to obtain data that FSOC can use for the assessment of systemic risk in the U.S. financial markets.⁸ As required by statute, the Commission designed Form PF in consultation with FSOC.⁹

Generally, investment advisers registered (or required to be registered) with the Commission with at least \$150 million in private fund assets under management must file Form PF. Most private fund advisers file annually to report general information such as the types of private funds advised (*e.g.*, hedge funds, private equity funds, or liquidity funds), fund size, use of borrowings and derivatives, strategy, and types of investors. Certain larger advisers provide more information on a more frequent basis, including more detailed information on particular hedge funds and liquidity funds.

B. How the Commission Secures and Manages Form PF Data

Advisers file Form PF using the Private Fund Reporting Depository (“PFRD”), an electronic filing system maintained by the Financial Industry Regulatory Authority (“FINRA”).¹⁰ Commission staff receives Form PF data via a direct feed from FINRA and maintains the data on access-controlled internal data systems. Consistent with provisions under the Advisers Act that provide heightened confidentiality protections for any proprietary information of private fund advisers submitted on Form PF,¹¹ Commission staff has implemented systems and controls designed to limit access to Form PF data and protect its confidentiality within and outside the agency. This includes limits on access to FINRA’s PFRD system and to internal data systems that contain PF Data to staff experts across the Commission who have been authorized to access the data, requirements that any PF Data is shared only with other SEC staff who have a need to see it for Work Duties, and processes under which any Form PF data released to the public is reviewed before release so that the data is aggregated and/or masked to avoid public disclosure of proprietary information of private fund advisers. Senior staff members from various Divisions and Offices within the Commission are members of the Form PF Steering Committee--now led by staff from the SEC’s Office of Chief Data

⁶ Section 204(b) of the Advisers Act requires the Commission to implement recordkeeping and reporting requirements for private fund advisers as necessary and appropriate in the public interest and for the protection of investors, or for the assessment of systemic risk by FSOC. Section 204(b) was enacted as part of the Dodd- Frank Wall Street Reform and Consumer Protection Act of 2010, Public Law No. 111-203, § 404, 124 Stat. 1376 (the “Dodd-Frank Act”).

⁷ Adopting Release, *supra* note 2, at 71129 n. 11 (describing transition period for registration by private fund advisers that previously relied on the repealed exemption under section 203(b)(3) of the Advisers Act) and 71130 n.19 (citing FSOC 2011 Annual Report, <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>).

⁸ *See supra* note 6.

⁹ *See* Advisers Act section 204(b)(3) (requires the Commission to consult with FSOC).

¹⁰ The Commission developed PFRD to implement reporting requirements on Form PF. PFRD is operated under a contract between the Commission and FINRA as an extension of the Investment Adviser Reporting Depository system used by advisers to register with the Commission on Form ADV. *See* Adopting Release, *supra* note 2, at Section II.E

¹¹ Advisers Act Section 204(b)(10), 15 U.S.C. § 80b-4(b)(10).

Officer, tasked with overseeing these systems and controls for access, use, and security of Form PF data. The Committee, on an ongoing basis, monitors and updates these systems and controls, and meets regularly to address any new matters arising from time to time relating to the access, use, and security of the Form PF data.

C. Efforts to Improve the Quality of Form PF Data

Commission staff works with filers to improve the quality of data filed on Form PF. For example:

- Staff responds to specific, factual inquiries about how to complete and file Form PF on an ongoing basis. Staff maintains a separate email address that advisers and others can use to obtain answers to questions about how to complete and file Form PF. Staff also issued and periodically updates a series of “Frequently Asked Questions” that address specific, factual questions received from advisers and other members of the public related to Form PF.¹²
- Staff regularly contacts individual filers when staff members identify anomalous and possibly erroneous data as well as possibly delinquent or missing filings. Staff works with these individual filers to determine steps for improving timeliness and accuracy of filings.
- When delinquencies persist, the staff has taken further steps to ensure that information is appropriately filed.¹³

D. Analytical Tools Using Form PF Data

Commission staff has developed various analytical tools to use Form PF data in support of its monitoring of private funds and private fund advisers, consistent with the systems and controls discussed above in Section II.B. These tools enhance staff’s ability to assess large volumes of data, streamline analysis of the data by automating certain analytical processes, and evaluate Form PF data alongside other relevant datasets. As examples, these analytical tools have enhanced the staff’s ability to:

- identify “outliers” among private funds and private fund advisers using factors such as performance, investment exposures, and liquidity;
- identify private funds based on one or more areas of policy interest, such as type of strategy, types of investments, use of derivatives, and extent of leverage;
- monitor changes and other trends in industry exposures, asset composition, and trading activity;
- empirically test claims made in the financial press or other public sources regarding private funds and the private fund industry; and

¹² The Form PF Frequently Asked Questions (“PF FAQs”), <https://www.sec.gov/divisions/investment/pfrd/pfrdfaq.shtml>, represent the views of the staff of the Division of Investment Management. The PF FAQs are not a rule, regulation, or statement of the Commission, and the Commission has neither approved nor disapproved the information therein. The public Form PF inquiry email address as well as a phone number to reach staff with questions relating to Form PF is published at <https://www.sec.gov/divisions/investment/iard/iardhelp.shtml>. See also Division of Investment Management: Electronic Filing of Form PF for Investment Advisers on PFRD (PFRD Home Page) at <https://www.sec.gov/divisions/investment/pfrd.shtml>.

¹³ The Commission announced settlement orders with 13 registered investment advisers who repeatedly failed to file Form PF providing information about the private funds that they advise. See *SEC Charges 13 Private Fund Advisers for Repeated Filing Failures*, Press Release June 1, 2018, at <https://www.sec.gov/news/press-release/2018-100>.

- facilitate assessment of the operations and investment activities of private funds and private fund advisers.

III. How the Commission Uses Form PF Data

The Commission staff in the various Divisions and Offices use Form PF data in mission-focused activities, including to inform policy by identifying and monitoring private fund trends, inform the public, conduct focused exams, and pursue potential wrongdoing. Additionally, consistent with the Advisers Act, the Commission makes the Form PF database available to FSOC through OFR.¹⁴ Staff also makes the Form PF database available to the FRB and uses Form PF data when coordinating with other federal regulators and international organizations in areas of mutual interest involving private fund advisers, subject to appropriate protections for data security. The following provides more detail on how the Commission staff uses Form PF data.

A. Informing Commission Policy

The Commission staff analyzes Form PF data to identify trends and possible emerging risks among private funds and private fund advisers and to develop analyses that deepen the Commission's understanding of private funds, private fund advisers, and the markets in which they participate. As compared to third-party sources, Form PF provides the Commission with a broader perspective and more complete view of the financial markets in general and the private fund industry in particular. Using data collected on Form PF promotes the ability of the Commission staff to analyze information related to private fund activity, evaluate existing regulatory policies and programs directed to private fund advisers, evaluate the impact of policy choices on private funds' activities, and consider whether activities of private funds may involve any potential wrongdoing that indicates a need for regulatory action. The Commission and its staff use this insight in support of the Commission's mission to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.

Some examples of how the Commission and staff use Form PF Data to inform policy are as follows:

Assess Private Funds Activities and Trends. Staff uses Form PF data to identify and monitor the activities of private funds, trends in the private funds industry and the possible effects on the broader financial markets. Through this analysis, staff may consider persistent questions and test perceptions – and in some cases, misconceptions – about the activities of private funds and the effects of these activities in the markets the Commission regulates. For example, staff uses Form PF data to assess funds' use of borrowing and leverage based on multiple metrics, including gross notional exposure to net asset value (economic leverage), long and short notional exposures, gross and net exposure by investment strategy, aggregate borrowings and posted collateral. Staff also uses Form PF data to consider liquidity trends, including funds' portfolio, investor and financing liquidity, funds' usage of derivatives and high frequency trading (among other strategies), and how private fund advisers use risk management tools such as stress tests and value at risk (VaR) reporting in the management of private funds.¹⁵

Assess Effects of Market and Geopolitical Events. Staff analyzes Form PF data to determine how private funds and private fund advisers might be affected by market and geopolitical events. Staff has assessed the exposure of private funds to various types of assets and financial markets. This type of

¹⁴ OFR was established under the Dodd-Frank Act to support FSOC in fulfilling FSOC's purpose and duties. See Section 152 of the Dodd-Frank Act, *supra* note 7.

¹⁵ Staff makes some of this analysis publicly available in *Private Funds Statistics*, its quarterly report. See Appendix and Section III.B, *infra*.

assessment, aggregated with other industry information that may be available to staff, facilitates development of a broader understanding of the potential effects of certain market or global events for private funds and the financial markets regulated by the Commission in which private funds participate.

Identify New Developments in Broader Financial Markets. Form PF data has the potential to capture new developments and trends among private funds and private fund advisers. This provides the Commission and staff with a window into potential new developments and trends in the broader public markets regulated by the Commission. For example, it is well-known that certain “alternative” investment strategies first offered in hedge funds have more recently been developed and modified to be offered by mutual funds.¹⁶ Staff has also used Form PF data to monitor trends in hedge fund exposures to leveraged loans and collateralized loan obligations.

Assess Effects of Rulemaking. The Commission and staff also are using information from Form PF to assess the potential impact of rulemaking proposals and analyze impacts of its rulemaking on markets and market participants. For example, the Commission relied on data derived from Form PF in recently adopted amendments to Form PF which require new current reporting of certain events for large hedge fund advisers and advisers to private equity funds, among other things.¹⁷ The Commission also used Form PF data to estimate the number of affected parties in a recent final rulemaking to prohibit conflicts of interest in certain securitizations.¹⁸ The Commission also used statistics on private funds, which are published quarterly as discussed below, to inform several recent rulemakings, including: final amendments to certain rules that govern money market funds, which were designed to improve the resilience and transparency of money market funds;¹⁹ a final rule to enhance oversight on private fund advisers and to further protect private fund investors;²⁰ in a final rule requiring the publication of certain short sale related data;²¹ and in final rules to facilitate improved risk management at U.S. Treasury securities central clearing agencies and increased central clearing in the U.S. Treasury market.²²

B. Informing the Public about the Private Fund Industry

¹⁶ See, e.g., FINRA, *Alternative Funds Are Not Your Typical Mutual Funds*, <http://www.finra.org/investors/alerts/alternative-funds-are-not-your-typical-mutual-funds> (describing “alternative mutual funds” as funds that seek to accomplish the fund’s objectives through non-traditional investments and trading strategies that “may bring to mind” the strategies and investments of hedge funds).

¹⁷ See *Form PF; Event Reporting for Large Hedge Fund Advisers and Private Equity Fund Advisers; Requirements for Large Private Equity Fund Adviser Reporting*, Advisers Act Release No. 6297 (May 3, 2023), [88 FR 38146 (June 12, 2023)], <https://www.sec.gov/files/rules/final/2023/ia-6297.pdf>.

¹⁸ See *Prohibition Against Conflicts of Interest in Certain Securitizations*, Securities Act Release No. 33-11254 (Nov. 27, 2023), [88 FR 85396 (Dec. 7, 2023)], <https://www.sec.gov/files/rules/final/2023/33-11254.pdf>.

¹⁹ See *Money Market Fund Reforms*, Securities Act Release No. 33-11211, (July 12, 2023), [88 FR 51404 (Aug. 3, 2023)], <https://www.sec.gov/files/rules/final/2023/33-11211.pdf>

²⁰ See *Private Fund Advisers; Documentation of Registered Investment Adviser Compliance Reviews*, Advisers Act Release No. 6383 (Aug. 23, 2023), [88 FR 63206 (Sept. 14, 2023)], <https://www.sec.gov/files/rules/final/2023/ia-6383.pdf>.

²¹ See *Short Position and Short Activity Reporting by Institutional Investment Managers*, Securities Exchange Act Release No. 34-98738 (Oct. 13, 2023), [88 FR 75100 (Nov. 1, 2023)], <https://www.sec.gov/files/rules/final/2023/34-98738.pdf>

²² See *Standards for Covered Clearing Agencies for U.S. Treasury Securities and Application of the Broker-Dealer Customer Protection Rule With Respect to U.S. Treasury Securities*, Securities Exchange Act Release No. 34-99149 (Dec. 13, 2023), [89 FR 2714 (Jan. 16, 2024)], <https://www.sec.gov/files/rules/final/2023/34-99149.pdf>

The Commission seeks to provide the public with more transparency into and an understanding of the private funds industry by publishing aggregated information and analysis from Form PF, subject to its systems and controls designed to preserve the confidentiality of proprietary information of individual advisers. Following are two examples.

Private Funds Statistics. Since October 2015, Commission staff has published a quarterly report, *Private Funds Statistics*, which contains aggregated private fund industry statistics derived from Form PF data.²³ As supplemented with new data and analysis in May 2017, and more recently in December 2020, the report includes more than 100 separate tables and figures that offer analyses of hedge fund industry practices.²⁴ To avoid public disclosure of proprietary information of private fund advisers, the Form PF data provided in these reports is aggregated, rounded and/or masked under processes that are reviewed periodically for effectiveness. Information included in the reports is typically at least six months old when published. The Appendix contains the most recent report.²⁵

Private Funds Statistics is designed to enhance public understanding of the private fund industry and facilitate Commission and staff participation in meetings and discussions with industry professionals, investors, and other regulators. Statistics that are published quarterly in *Private Funds Statistics*, include, for example, statistics describing numbers and assets of private funds; the extent of private funds' borrowing and derivatives holdings; comparisons of investor, portfolio, and financing liquidity; use of financial and economic leverage by certain hedge funds; and categories of investment exposures. The report also includes information about the characteristics of private liquidity funds that may facilitate comparisons with data published by staff relating to registered money market funds.²⁶ Staff understands that the financial industry press monitors the release of these quarterly reports and industry participants may use the report

²³ See *SEC Staff Publishes Private Funds Statistics Report*, Press Release (Oct. 16, 2015), <https://www.sec.gov/news/pressrelease/2015-240.html>.

²⁴ See *SEC Staff Supplements Quarterly Private Funds Statistics*, Press Release (Dec. 10, 2020), <https://www.sec.gov/news/press-release/2020-313>; *SEC Staff Supplements Quarterly Private Funds Statistics*, Press Release (May 3, 2017), <https://www.sec.gov/news/press-release/2017-92>.

²⁵ Historical reports can be found at: <https://www.sec.gov/divisions/investment/private-funds-statistics.shtml>.

²⁶ See Division of Investment Management, *Money Market Fund Statistics*, <https://www.sec.gov/divisions/investment/mmf-statistics.shtml>.

to assist investors with investment decisions.²⁷ In addition, the staff understands that other regulators and organizations may also monitor these public reports for their own risk monitoring activities.²⁸

Staff Research Publications. Commission staff has used Form PF data to contribute to the Commission's and investors' understanding of the economic forces and dynamics underlying the private funds market by conducting and publishing research on various topics, such as characteristics of leverage used by hedge funds and consideration of self-reporting bias in commercial hedge fund databases. Research is aggregated and/or masked under processes that are reviewed periodically for effectiveness to avoid public disclosure of proprietary information of private fund advisers before any publication. Published staff research and white papers have used Form PF data to describe liquidity and other characteristics of certain

²⁷ See, e.g. Finadium, "SEC publishes expanded analysis of hedge funds from forms PF and ADV" (Dec. 10, 2020); Graham Bippart, Private Funds CFO Blog, *A CFO's 2020 Outlook* (Feb. 12, 2020), <https://www.privatefundscfo.com/a-cfos-2020-outlook-part-one-us-steadily-losing-fund-domicile-market-share/>; Andy Jones, PEI Blog, *Private Equity Firms – Form PF Data* (Nov. 10, 2018), <http://blog.privateequityinfo.com/index.php/2018/11/10/private-equity-firms-form-pf-data/>; ICS Group, *Summary of the 2017 Q2 Private Fund Statistics* (Feb. 23, 2018), <https://www.i-c-solutions.net/updates/2018/02/23/2017-private-fund-statistics/>; Marc Gorfinkle, SS&C Technologies, *SEC releases expanded private fund statistics* (Dec. 11, 2017), <https://www.ssctech.com/blog/sec-releases-expanded-private-fund-statistics/>; Crane Data, *Prime Streak Ends; Still UP 20% YTD; SEC: Private Funds Drop in Q'17* (Oct. 27, 2017), <https://cranedata.com/archives/all-articles/6890/>; Lance Pan, Capital Advisors Group, *Demystifying Private Liquidity Funds: Reaffirming Advantages of Separately Management Accounts* (Mar. 14, 2017), <https://www.capitaladvisors.com/research/demystifying-private-liquidity-funds/>; Judy Gross, *SEC Releases Data on Private Funds: Big Picture of US Private Fund Industry Emerges*, *Forbes* (Oct. 26, 2015), <https://www.forbes.com/sites/judygross/2015/10/26/sec-releases-data-on-private-funds-big-picture-of-us-private-fund-industry-emerges/#6b77bbb393e5>.

²⁸ See IOSCO investment Funds Statistics Report, Jan. 2022, <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD693.pdf>. See also, Investment Funds Statistics Report, 2d ed., 41-App'x A .2 (Methodology), Jan. 2023, <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD725.pdf>

hedge funds.²⁹ Another staff white paper used Form PF data to characterize private liquidity funds and compare them to registered money market funds.³⁰

C. Assisting the Examinations and Enforcement Programs³¹

Form PF data allows Commission staff to more efficiently prioritize its examinations and enforcement activities. Commission staff's analyses of Form PF data include risk-based analysis and monitoring initiatives that facilitate the identification of potential compliance risks and assist in prioritizing the use of exam and enforcement resources. For example, Commission staff may use Form PF data to identify private fund advisers whose activities involve areas of specific examination focus or that may present heightened compliance risks.

Before beginning an examination of an investment adviser, staff reviews applicable regulatory filings, such as Form ADV. For advisers that manage private funds, Form PF filings may also be reviewed as part of a routine pre-examination evaluation for risk identification and scoping. This review, in conjunction with other data sources, provides staff with an understanding of an adviser's current business, operations, and investment strategy as well as an analysis of how this strategy has evolved or changed over different reporting periods.

Commission staff has developed automated analyses and risk metrics that summarize and combine Form PF data with Form ADV data about an adviser's private funds and advisory business. These reports expedite staff preparation for examinations of a private fund adviser and its private funds and are designed to make exams more efficient by helping to focus areas of inquiry. These reports also assist staff in identifying potential reporting errors, compliance issues, or other issues of interest for the examination team to consider in their examination scope. Developed based on examiner insight and experiences, these reports distribute knowledge gained from exams and analysis to relevant staff on a need-to-know basis, which in turn informs monitoring programs. Generated from analytical tools that use custom code developed by staff to automate report production, these reports deliver intuitive and timely output to examiners, using the most recently filed Form PF and Form ADV data.

²⁹ See George O. Aragon, A. Tolga Ergun, Mila Getmansky, and Giulio Girardi, Division of Economic Risk and Analysis, *Hedge Fund Liquidity Management* (May 17, 2017), https://www.sec.gov/dera/staff-papers/working-papers/aragon-ergun-getmansky-girardi_HF-Liquidity-Management; George O. Aragon, A. Tolga Ergun, Mila Getmansky, and Giulio Girardi, Division of Economic Risk and Analysis, *Hedge Funds: Portfolio, Investor and Financing Liquidity* (May 17, 2017), https://www.sec.gov/dera/staff-papers/white-papers/aragon-ergun-getmansky-girardi_HF-Liquidity; George O. Aragon, A. Tolga Ergun, Mila Getmansky, and Giulio Girardi, *Measuring Hedge Fund Liquidity Mismatch*, (July 1, 2021), <https://jai.pm-research.com/content/ijaltinv/24/1/26.full.pdf>., Aragon, George O. and Ergun, A. Tolga and Girardi, Giulio, *Hedge Fund Liquidity Management: Insights for Fund Performance* Mar. 22, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3734596. These papers report analyses using data reported on Form PF in quarterly filings from 2013 to 2017.

³⁰ See Daniel Hiltgen, Division of Economic Risk and Analysis, *Private Liquidity Funds: Characteristics and Risk Indicators* (Jan. 27, 2017), https://www.sec.gov/dera/staff-papers/white-papers/27jan17_hiltgen_private-liquidity-funds.html. The observations of the white paper indicate that, while most private liquidity funds and their parallel accounts did not formally commit to comply with the rule 2a-7 risk limits that apply to registered money market funds, the vast majority held portfolios that were consistent with those limits during the period studied.

³¹ Because examination and enforcement matters are generally non-public, this report only summarizes generally how Form PF data has been integrated into exam and enforcement matters. See Advisers Act Section 210(b).

Commission staff also obtains and reviews Form PF information to focus its enforcement investigations, including investigations of private fund advisers. For example, Commission staff used Form PF data together with other information to identify hedge fund advisers whose reported data — such as returns, exposures, liquidity — appear inconsistent with the funds’ investment strategies or other benchmarks. These reviews have, in certain cases, led to examinations and enforcement investigations.

D. Coordination and Consultation with Other Financial Regulators

As required by statute, and as described above, the Commission adopted Form PF in part to obtain information about the operations and investment activities of private funds for FSOC to use in the assessment of systemic risk in the U.S. financial markets. The Commission has made the Form PF data available to FSOC through OFR since 2013, subject to agreements regarding appropriate use of and confidentiality protections for Form PF data. Beginning in July 2018, the Commission also makes Form PF data available to the FRB under agreements regarding appropriate use of and confidentiality protections for the Form PF data, which are similar to those provided under applicable agreements with OFR.

The Commission staff also uses Form PF data in its collaborations with other federal regulators on areas of mutual interest, such as on matters affecting the integrity of the financial markets and in communications with international organizations on areas of mutual interest regarding private funds and their investment advisers. For example, the staff regularly discusses information and analysis of Form PF data with OFR. The staff has also used reports of data from Form PF in connection with its participation in FSOC’s review of asset management products and activities.³² Commission staff from time to time also may provide certain Form PF data to other federal regulators in connection with compliance and enforcement matters. In every instance where staff shares information with an external regulatory entity, staff seeks to limit the type and amount of data that may be shared consistent with the purpose for sharing, and the information is either subject to assurances of confidentiality or aggregated to prevent disclosure of any proprietary information of private fund advisers.

IV. Conclusion

During the past year, the Commission staff has continued to use Form PF data to enhance the Commission’s efforts to protect investors and the integrity of our markets, including through our work with other federal regulators and international organizations.

³² See, e.g., *Financial Stability Oversight Council 2021 Annual Report* (updated Dec. 17, 2021), [home.treasury.gov/system/files/261/FSOC2021AnnualReport.pdf](https://www.home.treasury.gov/system/files/261/FSOC2021AnnualReport.pdf). Section 3.5.2.5 of this report includes data from the SEC’s Private Funds Statistics in describing recent developments relating to alternative funds.

Appendix

(Private Funds Statistics, Second Calendar Quarter 2023)



Division of Investment Management
Analytics Office

Private Funds Statistics

Second Calendar Quarter 2023

January 9, 2024

This is a report of the Staff of the Division of Investment Management's Analytics Office of the U.S. Securities and Exchange Commission. The Commission has expressed no view regarding the analysis, findings, or conclusions contained herein.

Introduction

This report provides a summary of recent private fund industry statistics and trends, reflecting data collected through Form PF and Form ADV filings.¹ Form PF information provided in this report is aggregated, rounded, and/or masked to avoid potential disclosure of proprietary information of individual Form PF filers.

This report reflects data from Third Calendar Quarter 2021 through Second Calendar Quarter 2023 as reported by Form PF filers.² Please see the Appendix for information on the categories of Form PF filers, the definitions of capitalized terms, a description of the boxplots used in several figures, as well as other technical descriptions.

The Staff continues to work with data reported on Form PF and with filers to identify and correct filing errors. Staff updates reported statistics based on amended filings and also may make certain adjustments to the statistics presented to correct what appear to be clear filing errors. Further, the Staff has employed certain assumptions in aggregating the data. Future adjustments to these methodologies and amended filings that change the underlying data could lead to changes in previously reported statistics.

If you have any questions or comments about Second Calendar Quarter 2023 Private Funds Statistics, please contact:

Tim Dulaney, PhD, FRM, Tim Husson, PhD, FRM, or Trevor Tatum at FormPF@sec.gov with subject line “Second Calendar Quarter 2023-Private Funds Statistics”.

¹Only SEC-registered advisers with at least \$150 million in private fund assets under management must report to the Commission on Form PF. SEC-registered investment advisers with less than \$150 million in private fund assets under management, SEC exempt reporting advisers, and state-registered investment advisers are not required to file Form PF, but report general information about the private funds they manage on Form ADV.

²The Commission began receiving Form PF filings from Large Hedge Fund Advisers in July 2012. A full data set was not received until March 2013.

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I Number of Funds and Advisers³

Table 1: Number of Funds

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Fund Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Equity Fund	15,866	19,082	18,961	19,001	19,054	20,878	20,920	20,933
Hedge Fund	9,497	9,458	9,645	9,749	9,783	9,791	9,850	9,854
Section 4 Private Equity Fund	5,309	6,548	6,646	6,644	6,644	7,471	7,381	7,464
Other Private Fund	5,352	6,046	6,286	6,275	6,277	6,744	6,887	6,844
Real Estate Fund	3,289	3,783	3,778	3,781	3,781	4,269	4,270	4,272
Venture Capital Fund	1,419	2,211	2,228	2,286	2,287	2,988	2,991	3,000
Securitized Asset Fund	1,910	2,243	2,251	2,257	2,257	2,458	2,467	2,471
Qualifying Hedge Fund	2,016	2,074	2,094	2,061	2,040	2,072	2,044	2,088
Liquidity Fund	77	79	79	79	78	71	70	69
Section 3 Liquidity Fund	57	56	54	52	51	50	50	50
Total	37,410	42,902	43,228	43,428	43,517	47,199	47,455	47,443

Table 2: Number of Advisers Advising Each Fund Type

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Fund Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Equity Fund	1,458	1,638	1,636	1,640	1,642	1,753	1,756	1,756
Hedge Fund	1,762	1,861	1,860	1,863	1,861	1,859	1,860	1,859
Section 4 Private Equity Fund	369	434	435	435	436	452	450	452
Other Private Fund	682	738	738	734	732	759	763	765
Real Estate Fund	388	427	428	430	430	459	459	460
Venture Capital Fund	176	234	236	238	239	283	285	286
Securitized Asset Fund	165	176	175	175	173	177	175	174
Qualifying Hedge Fund	596	620	609	601	585	592	576	590
Liquidity Fund	37	39	39	39	39	34	33	33
Section 3 Liquidity Fund	24	24	23	22	21	21	21	21
Total	3,389	3,676	3,676	3,680	3,675	3,794	3,799	3,798

³In this report, “Funds” means all private funds reported on Form PF and “Advisers” means all SEC-registered investment advisers that file a Form PF to report private funds. Please see Appendix E for definitions of other capitalized terms used in this report.

II Gross and Net Assets

A Aggregate Assets by Fund Type over Time

Table 3: Aggregate Private Fund Gross Asset Value (GAV) (\$ Billions)

As reported on Form PF, Question 8.

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Fund Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Hedge Fund	9,784	9,763	9,777	9,435	9,275	9,362	9,505	9,904
Qualifying Hedge Fund	8,309	8,333	8,267	7,922	7,694	7,827	8,000	8,438
Private Equity Fund	4,826	6,409	6,384	6,397	6,402	6,705	6,641	6,652
Section 4 Private Equity Fund	3,674	4,962	4,949	4,949	4,949	5,272	5,215	5,228
Other Private Fund	1,438	1,748	1,766	1,740	1,716	1,643	1,602	1,574
Real Estate Fund	812	972	967	969	975	1,138	1,137	1,136
Securitized Asset Fund	729	869	869	868	869	921	924	922
Venture Capital Fund	222	330	333	334	334	375	374	374
Liquidity Fund	310	318	318	335	335	321	320	332
Section 3 Liquidity Fund	308	316	314	331	331	319	319	330
Total	18,120	20,407	20,414	20,076	19,904	20,466	20,502	20,893

Table 4: Aggregate Private Fund Net Asset Value (NAV) (\$ Billions)

As reported on Form PF, Question 9.

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Fund Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Hedge Fund	5,115	5,134	5,153	4,918	4,856	4,823	4,864	4,918
Qualifying Hedge Fund	4,166	4,191	4,149	3,879	3,772	3,795	3,881	3,939
Private Equity Fund	4,271	5,746	5,729	5,738	5,742	6,022	5,965	5,976
Section 4 Private Equity Fund	3,283	4,489	4,483	4,483	4,483	4,772	4,720	4,730
Other Private Fund	1,274	1,559	1,582	1,557	1,534	1,413	1,370	1,343
Real Estate Fund	615	745	744	745	750	858	858	858
Securitized Asset Fund	220	264	265	264	264	264	265	265
Venture Capital Fund	215	310	313	314	314	342	341	341
Liquidity Fund	302	313	313	327	331	318	313	319
Section 3 Liquidity Fund	300	311	309	324	327	316	311	317
Total	12,011	14,071	14,098	13,865	13,792	14,041	13,975	14,020

Figure 1: GAV and NAV Distributions
See Appendix C for an explanation of boxplots.
As reported on Form PF, Questions 8 and 9.

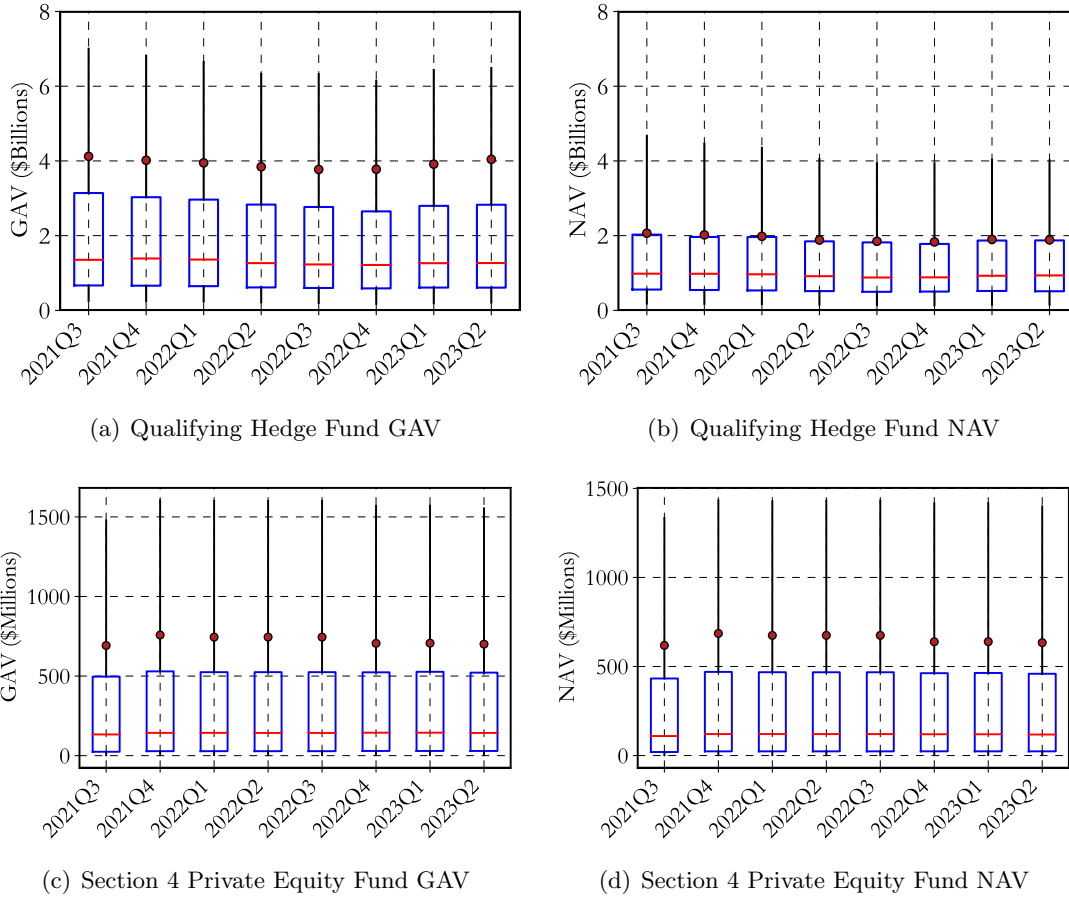
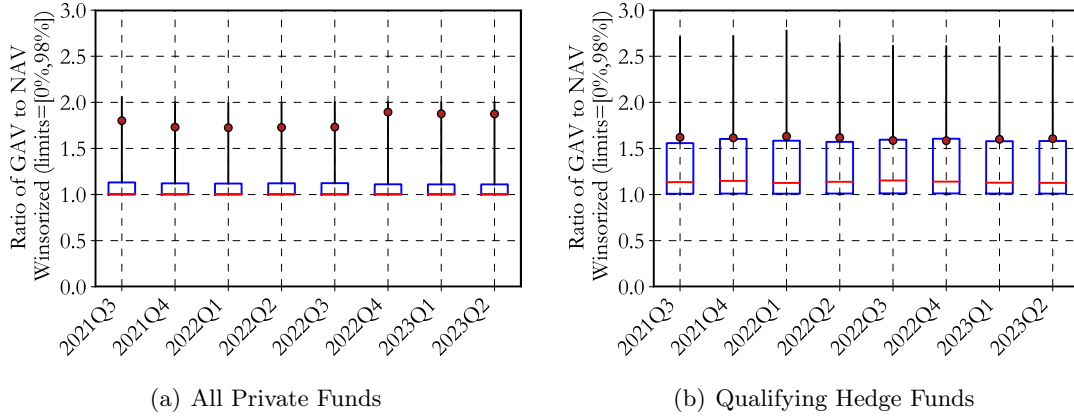


Figure 2: Ratio of GAV to NAV

See Appendix C and Appendix D for an explanation of boxplots and winsorization.
As reported on Form PF, Questions 8, 9, and 10.



B Borrowings

Table 5: Aggregate Borrowings (Percent of Aggregate GAV)
As reported on Form PF, Questions 8, 12, and 43 (Third Month).

Fund Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Securitized Asset Fund	49.8	52.4	49.7	49.3	49.4	56.5	53.7	53.7
Qualifying Hedge Fund	44.6	45.6	43.2	43.3	43.4	44.4	46.9	48.0
Hedge Fund	41.3	42.1	39.8	39.7	39.9	40.7	43.2	44.1
Real Estate Fund	14.0	13.2	12.3	12.2	12.5	14.0	13.2	13.2
Other Private Fund	3.9	3.5	3.6	3.5	3.7	5.6	5.8	5.9
Section 4 Private Equity Fund	4.9	5.4	5.5	5.4	5.4	5.7	5.8	5.8
Private Equity Fund	4.7	5.5	5.5	5.5	5.5	5.7	5.6	5.6
Venture Capital Fund	0.5	0.7	0.7	0.7	0.7	0.6	0.6	0.6
Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Section 3 Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 3: Distribution of Total Borrowings for All Private Funds and Qualifying Hedge Funds

See Appendix C for an explanation of boxplots.
As reported on Form PF, Questions 12 and 43 (Third Month).

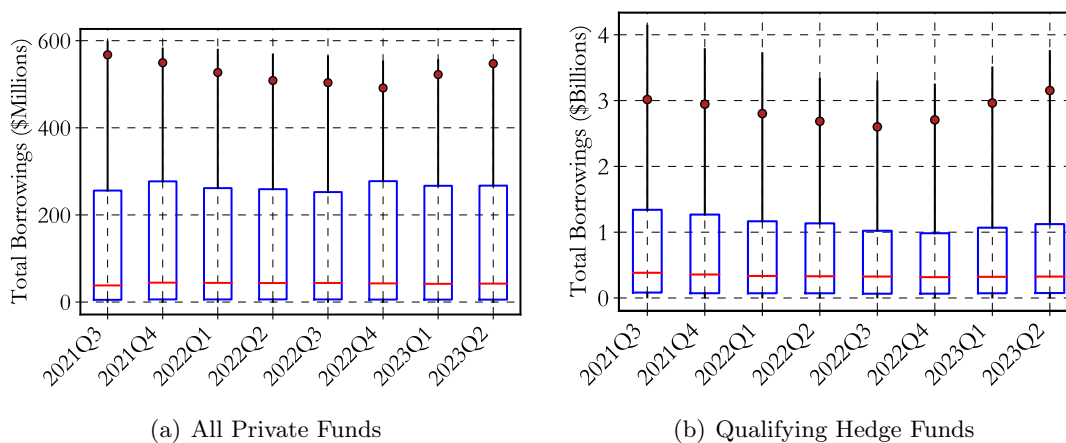


Figure 4: Ratio of Borrowings to NAV

See Appendix C and Appendix D for an explanation of boxplots and winsorization.
As reported on Form PF, Questions 9, 10, 12, and 43 (Third Month).

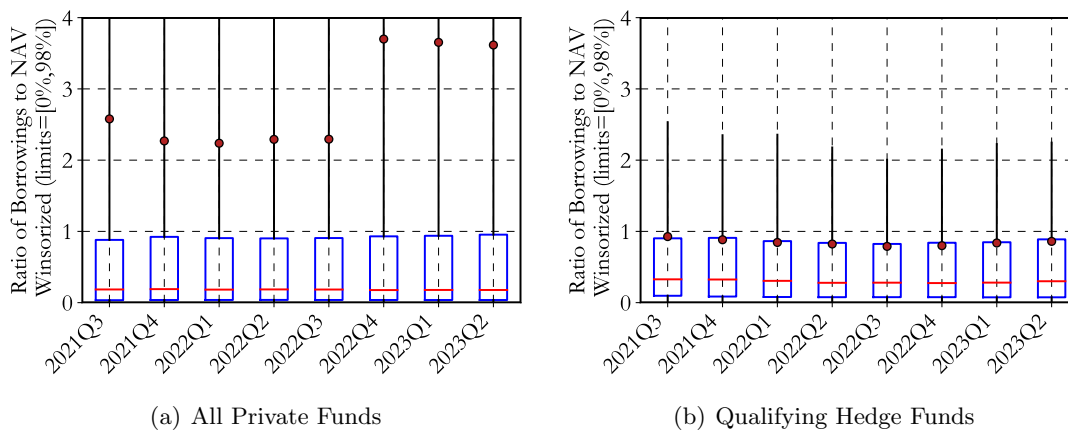


Table 6: Aggregate Borrowing by Creditor Entity Type (Percent)
As reported on Form PF, Questions 12 and 43 (Third Month).

Creditor Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
US Financial	67.0	67.1	66.5	66.7	67.7	66.8	66.8	66.8
Non-US Financial	30.6	29.3	30.4	30.2	28.8	29.0	30.1	30.3
US Non-Financial	2.3	2.8	3.1	3.0	3.3	3.3	3.2	3.0
Non-US Non-Financial	0.9	1.0	0.9	0.9	1.0	0.9	0.8	0.7

C Fair Value Hierarchy

Table 7: Assets According to Fair Value Hierarchy (\$ Billions)
As reported on Form PF, Question 14.

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Level One	4,383	4,688	4,657	4,609	4,581	4,155	4,090	4,067
Level Two	3,650	3,842	3,827	3,834	3,798	3,590	3,555	3,508
Level Three	5,274	6,803	6,832	6,843	6,804	7,560	7,468	7,472
Cost-Based	2,323	2,852	2,877	2,859	2,867	3,059	3,039	3,036

Table 8: Liabilities According to Fair Value Hierarchy (\$ Billions)
As reported on Form PF, Question 14.

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Level One	1,341	1,702	1,702	1,695	1,701	1,583	1,589	1,590
Level Two	1,197	1,362	1,349	1,369	1,327	1,488	1,466	1,433
Level Three	338	377	377	340	342	377	377	391
Cost-Based	2,071	2,273	2,270	2,270	2,277	2,559	2,554	2,555

D Parallel Managed Accounts⁴

Table 9: Number of Funds with Parallel Managed Accounts

As reported on Form PF, Question 11.

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Hedge Fund	560	571	580	578	576	566	562	559
Other Private Fund	485	504	503	502	498	478	481	458
Private Equity Fund	312	303	303	315	314	331	407	413
Qualifying Hedge Fund	208	210	211	202	208	214	207	203
Section 4 Private Equity Fund	115	137	137	137	137	146	146	152
Real Estate Fund	73	89	89	89	89	67	68	68
Venture Capital Fund	17	30	30	30	30	39	39	39
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
Total	1,460	1,509	1,517	1,526	1,519	1,491	1,567	1,547

Table 10: Aggregate Value in Parallel Managed Accounts (\$ Billions)

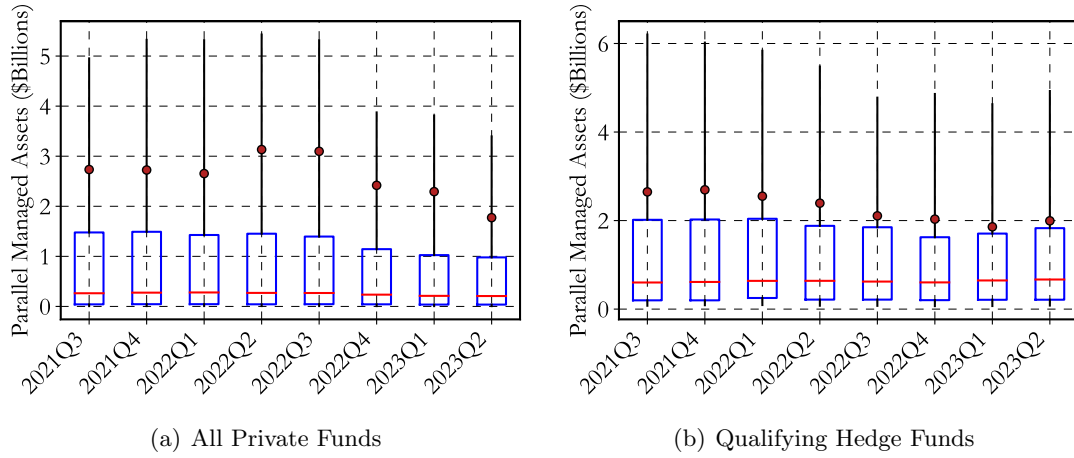
As reported on Form PF, Question 11.

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Hedge Fund	840	881	840	765	729	725	695	693
Other Private Fund	2,641	2,674	2,671	3,451	3,416	2,369	2,367	1,535
Private Equity Fund	98	119	120	152	152	114	126	119
Qualifying Hedge Fund	551	566	538	483	438	435	385	405
Section 4 Private Equity Fund	68	102	102	110	110	114	114	108
Real Estate Fund	7	16	16	16	16	14	15	15
Venture Capital Fund	1	2	2	2	2	2	2	2
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
Total	3,992	4,111	4,025	4,781	4,705	3,606	3,592	2,743

⁴Certain data points in the tables in this section and other sections may be masked to avoid possible disclosure of proprietary information of individual Form PF filers.

Figure 5: Parallel Managed Account Value Distributions
See Appendix C for an explanation of boxplots.
As reported on Form PF, Question 11.



III Fund Domiciles and Adviser Main Offices

Table 11: Fund Domicile (Percent of NAV)
As reported on Form PF, Question 9 and Form ADV.

All Private Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	49.5	51.8	52.2	52.5	52.9	52.7	52.5	52.4
Cayman Islands	34.9	32.8	32.7	32.4	32.7	32.2	32.6	32.7
Luxembourg	3.7	4.1	4.1	4.1	4.1	5.0	5.0	4.9
Ireland	4.0	3.9	3.9	3.9	3.9	3.6	3.6	3.6
Bermuda	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0
United Kingdom	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9
Virgin Islands, British	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Other	5.0	4.6	4.2	4.2	3.6	3.7	3.6	3.6
Qualifying Hedge Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Cayman Islands	51.8	51.8	51.1	52.4	53.2	52.6	53.0	53.3
United States	33.9	34.2	34.9	35.7	34.9	35.5	35.5	35.3
Luxembourg	2.5	2.4	2.4	2.4	2.3	2.7	2.9	3.0
Ireland	3.2	3.2	3.1	3.0	2.8	3.0	2.7	2.7
Virgin Islands, British	2.7	2.6	2.8	3.1	3.1	2.8	2.6	2.5
Bermuda	1.5	1.5	1.7	1.7	1.9	1.9	1.7	1.6
Other	4.4	4.2	4.1	1.8	1.7	1.4	1.6	1.6
Section 3 Liquidity Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Ireland	***	***	***	***	***	***	***	***
United States	26.6	27.6	28.5	27.3	25.5	23.4	23.9	23.5
Cayman Islands	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***
Section 4 Private Equity Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	55.2	56.1	56.9	56.9	56.9	56.2	56.4	56.4
Cayman Islands	28.9	29.3	29.6	29.6	29.6	28.0	28.1	28.1
Canada	2.2	2.0	1.9	1.9	1.9	2.0	2.1	2.1
United Kingdom	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Bermuda	1.1	1.2	1.2	1.2	1.2	1.0	1.0	1.0
Other	11.1	9.9	9.0	9.0	9.0	11.3	11.0	11.0

Table 12: Adviser Main Office Location (Percent of NAV)
As reported on Form PF, Question 9 and Form ADV.

All Private Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	89.6	91.2	90.9	91.8	91.9	92.3	91.9	91.8
United Kingdom	4.6	3.9	4.0	3.9	3.9	3.7	4.0	4.1
Other	5.8	4.9	5.1	4.3	4.2	4.0	4.1	4.1
Qualifying Hedge Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	88.0	88.1	88.5	90.7	91.1	90.5	90.7	91.6
United Kingdom	4.1	4.1	3.9	3.7	3.5	4.1	3.9	4.0
Australia	***	***	***	***	***	***	***	***
Hong Kong	***	***	***	***	***	***	***	***
Other	4.1	4.1	4.1	2.2	2.2	3.0	3.1	2.1
Section 3 Liquidity Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	***	***	***	***	***	***	***	***
United Kingdom	***	***	***	***	***	***	***	***
Section 4 Private Equity Funds								
Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	94.3	95.6	95.6	95.6	95.6	95.5	95.4	95.5
Canada	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***

IV Beneficial Ownership

A All Private Funds

Table 13: Beneficial Ownership for All Private Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Funds	2,132	2,597	2,635	2,594	2,589	2,597	2,595	2,611
Other	1,929	2,445	2,444	2,408	2,415	2,541	2,557	2,555
State/Muni. Govt. Pension Plans	1,587	1,858	1,882	1,871	1,862	1,912	1,905	1,914
U.S. Individuals	1,208	1,422	1,417	1,372	1,366	1,324	1,335	1,348
Pension Plans	1,263	1,372	1,378	1,342	1,273	1,307	1,305	1,293
Non-Profits	1,215	1,316	1,298	1,246	1,256	1,245	1,254	1,268
Sov. Wealth Funds And For. Official Inst.	856	1,007	1,000	1,004	1,010	1,082	1,068	1,080
Insurance Companies	594	697	705	702	703	745	754	761
Non-U.S. Individuals	384	416	402	396	393	376	315	318
Unknown Non-U.S. Investors	266	317	306	312	306	286	252	254
State/Muni. Govt. Entities	203	232	226	222	223	240	247	249
Banking/Thrift Inst.	189	188	195	194	197	193	190	179
Sec-Registered Investment Companies	138	155	161	151	148	149	150	145
Broker-Dealers	44	42	45	44	42	38	40	38

**Table 14: Beneficial Ownership for All Private Funds
(Percent of Aggregate NAV)**
As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Funds	17.7	18.5	18.7	18.7	18.8	18.5	18.6	18.6
Other	16.1	17.4	17.3	17.4	17.5	18.1	18.3	18.2
State/Muni. Govt. Pension Plans	13.2	13.2	13.4	13.5	13.5	13.6	13.6	13.6
U.S. Individuals	10.1	10.1	10.1	9.9	9.9	9.4	9.6	9.6
Pension Plans	10.5	9.8	9.8	9.7	9.2	9.3	9.3	9.2
Non-Profits	10.1	9.4	9.2	9.0	9.1	8.9	9.0	9.0
Sov. Wealth Funds And For. Official Inst.	7.1	7.2	7.1	7.2	7.3	7.7	7.6	7.7
Insurance Companies	4.9	5.0	5.0	5.1	5.1	5.3	5.4	5.4
Non-U.S. Individuals	3.2	3.0	2.8	2.9	2.8	2.7	2.3	2.3
Unknown Non-U.S. Investors	2.2	2.3	2.2	2.3	2.2	2.0	1.8	1.8
State/Muni. Govt. Entities	1.7	1.7	1.6	1.6	1.6	1.7	1.8	1.8
Banking/Thrift Inst.	1.6	1.3	1.4	1.4	1.4	1.4	1.4	1.3
Sec-Registered Investment Companies	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0
Broker-Dealers	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3

B Qualifying Hedge Funds

Table 15: Beneficial Ownership for Qualifying Hedge Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Funds	724	723	732	703	698	694	711	734
Other	598	607	604	572	564	562	590	595
Non-Profits	602	602	581	546	559	528	537	549
State/Muni. Govt. Pension Plans	447	458	462	453	432	446	455	467
U.S. Individuals	492	493	473	433	423	424	424	439
Pension Plans	478	479	478	452	384	409	418	412
Sov. Wealth Funds And For. Official Inst.	256	264	266	268	266	289	283	292
Insurance Companies	140	144	147	151	149	148	164	161
Non-U.S. Individuals	186	182	171	108	102	102	104	103
State/Muni. Govt. Entities	59	62	61	58	59	59	62	63
Unknown Non-U.S. Investors	89	86	82	47	43	47	45	45
Banking/Thrift Inst.	42	41	41	39	42	38	39	36
Sec-Registered Investment Companies	42	38	39	39	38	38	37	32
Broker-Dealers	8	9	9	9	8	9	9	9

**Table 16: Beneficial Ownership for Qualifying Hedge Funds
(Percent of Aggregate NAV)**

As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Funds	17.4	17.2	17.6	18.1	18.5	18.3	18.3	18.6
Other	14.4	14.5	14.6	14.7	15.0	14.8	15.2	15.1
Non-Profits	14.4	14.4	14.0	14.1	14.8	13.9	13.8	13.9
State/Muni. Govt. Pension Plans	10.7	10.9	11.1	11.7	11.4	11.7	11.7	11.9
U.S. Individuals	11.8	11.8	11.4	11.2	11.2	11.2	10.9	11.1
Pension Plans	11.5	11.4	11.5	11.6	10.2	10.8	10.8	10.5
Sov. Wealth Funds And For. Official Inst.	6.1	6.3	6.4	6.9	7.1	7.6	7.3	7.4
Insurance Companies	3.4	3.4	3.5	3.9	4.0	3.9	4.2	4.1
Non-U.S. Individuals	4.5	4.3	4.1	2.8	2.7	2.7	2.7	2.6
State/Muni. Govt. Entities	1.4	1.5	1.5	1.5	1.6	1.5	1.6	1.6
Unknown Non-U.S. Investors	2.1	2.1	2.0	1.2	1.1	1.3	1.2	1.2
Banking/Thrift Inst.	1.0	1.0	1.0	1.0	1.1	1.0	1.0	0.9
Sec-Registered Investment Companies	1.0	0.9	0.9	1.0	1.0	1.0	0.9	0.8
Broker-Dealers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

C Section 3 Liquidity Funds

Table 17: Beneficial Ownership for Section 3 Liquidity Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Other	101	96	103	100	106	108	106	114
Unknown Non-U.S. Investors	50	60	51	64	68	65	63	64
Private Funds	50	57	58	65	64	56	50	49
Banking/Thrift Inst.	***	***	***	***	***	***	***	***
Broker-Dealers	***	***	***	***	***	***	***	***
Sec-Registered Investment Companies	27	23	24	16	15	14	17	16
Insurance Companies	9	9	8	9	8	10	12	11
Sov. Wealth Funds And For. Official Inst.	***	***	***	***	***	***	***	***
Non-U.S. Individuals	3	***	***	***	***	***	***	***
Pension Plans	7	7	5	5	***	***	***	5
Non-Profits	3	4	3	3	3	2	3	3
State/Muni. Govt. Entities	***	3	***	***	***	***	***	***
U.S. Individuals	***	***	***	***	***	***	***	***
State/Muni. Govt. Pension Plans	1	1	1	***	***	1	***	***

Table 18: Beneficial Ownership for Section 3 Liquidity Funds
(Percent of Aggregate NAV)

As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Other	33.8	31.0	33.4	30.8	32.4	34.1	34.1	35.8
Unknown Non-U.S. Investors	16.7	19.2	16.6	19.9	20.7	20.6	20.2	20.1
Private Funds	16.5	18.5	18.6	19.9	19.6	17.8	15.9	15.5
Banking/Thrift Inst.	***	***	***	***	***	***	***	***
Broker-Dealers	***	***	***	***	***	***	***	***
Sec-Registered Investment Companies	8.9	7.5	7.8	4.9	4.6	4.3	5.4	5.0
Insurance Companies	3.2	2.8	2.6	2.8	2.5	3.0	3.9	3.6
Sov. Wealth Funds And For. Official Inst.	***	***	***	***	***	***	***	***
Non-U.S. Individuals	0.9	***	***	***	***	***	***	***
Pension Plans	2.4	2.3	1.7	1.5	***	***	***	1.5
Non-Profits	1.1	1.2	1.0	0.9	0.8	0.8	0.9	0.8
State/Muni. Govt. Entities	***	1.0	***	***	***	***	***	***
U.S. Individuals	***	***	***	***	***	***	***	***
State/Muni. Govt. Pension Plans	0.4	0.3	0.3	***	***	0.4	***	***

D Section 4 Private Equity Funds

Table 19: Beneficial Ownership for Section 4 Private Equity Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Funds	662	957	974	973	973	1,031	1,018	1,020
Other	544	819	802	802	802	887	875	876
State/Muni. Govt. Pension Plans	655	836	850	851	851	887	874	876
Sov. Wealth Funds And For. Official Inst.	388	501	477	477	477	525	515	515
Pension Plans	247	324	325	326	326	361	361	362
Insurance Companies	190	252	255	256	256	283	282	284
Non-Profits	180	237	238	238	238	259	259	259
U.S. Individuals	187	265	265	265	265	245	246	246
State/Muni. Govt. Entities	63	82	82	82	82	94	94	95
Non-U.S. Individuals	71	83	77	77	77	68	67	67
Sec-Registered Investment Companies	27	49	50	50	50	49	48	48
Banking/Thrift Inst.	38	45	49	49	49	47	44	45
Unknown Non-U.S. Investors	25	33	34	34	34	33	33	33
Broker-Dealers	3	3	3	3	3	3	3	3

Table 20: Beneficial Ownership for Section 4 Private Equity Funds
(Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 16.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Private Funds	20.2	21.3	21.7	21.7	21.7	21.6	21.6	21.6
Other	16.6	18.2	17.9	17.9	17.9	18.6	18.5	18.5
State/Muni. Govt. Pension Plans	20.0	18.6	19.0	19.0	19.0	18.6	18.5	18.5
Sov. Wealth Funds And For. Official Inst.	11.8	11.2	10.6	10.6	10.6	11.0	10.9	10.9
Pension Plans	7.5	7.2	7.3	7.3	7.3	7.6	7.6	7.7
Insurance Companies	5.8	5.6	5.7	5.7	5.7	5.9	6.0	6.0
Non-Profits	5.5	5.3	5.3	5.3	5.3	5.4	5.5	5.5
U.S. Individuals	5.7	5.9	5.9	5.9	5.9	5.1	5.2	5.2
State/Muni. Govt. Entities	1.9	1.8	1.8	1.8	1.8	2.0	2.0	2.0
Non-U.S. Individuals	2.2	1.9	1.7	1.7	1.7	1.4	1.4	1.4
Sec-Registered Investment Companies	0.8	1.1	1.1	1.1	1.1	1.0	1.0	1.0
Banking/Thrift Inst.	1.2	1.0	1.1	1.1	1.1	1.0	0.9	1.0
Unknown Non-U.S. Investors	0.8	0.7	0.8	0.8	0.8	0.7	0.7	0.7
Broker-Dealers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

E Concentration

Table 21: Weighted-Average Beneficial Ownership of Top 5 Owners (Percent)
As reported on Form PF, Questions 9 and 15.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Other Private Fund	60.2	57.0	57.5	57.1	57.5	59.0	58.4	58.3
Real Estate Fund	56.1	59.0	59.0	59.0	58.7	56.9	57.0	57.0
Hedge Fund	54.0	53.9	54.6	55.0	54.7	55.5	56.3	56.2
Qualifying Hedge Fund	49.9	49.9	50.9	51.9	51.6	52.1	51.9	51.8
Venture Capital Fund	53.9	52.6	52.5	52.4	52.4	49.9	49.9	49.9
Private Equity Fund	51.1	49.5	49.1	49.2	49.1	49.8	49.4	49.5
Section 4 Private Equity Fund	46.2	44.9	44.7	44.7	44.7	46.5	45.9	46.0
Liquidity Fund	46.3	46.1	48.1	46.7	46.5	45.1	44.3	43.1
Section 3 Liquidity Fund	46.0	45.8	47.7	46.4	46.1	44.8	44.1	42.9
Securitized Asset Fund	35.0	37.3	37.5	37.6	37.8	41.6	42.3	41.8
Total	53.2	52.2	52.4	52.4	52.3	52.9	52.9	52.9

V Derivatives

Table 22: Aggregate Derivative Value (\$ Billions)

As reported on Form PF, Questions 13 and 44 (Third Month).

The “Total” row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Hedge Fund	15,878	15,521	15,633	14,545	14,016	14,759	15,271	14,986
Qualifying Hedge Fund	14,471	14,163	14,282	13,289	12,454	12,890	13,005	13,594
Private Equity Fund	66	70	69	69	71	158	159	159
Other Private Fund	133	118	110	110	112	105	103	104
Real Estate Fund	18	41	41	41	41	72	76	78
Section 4 Private Equity Fund	34	52	54	54	54	73	72	72
Securitized Asset Fund	3	5	5	5	5	***	6	4
Venture Capital Fund	***	***	***	***	***	0	0	0
Liquidity Fund	***	***	***	***	***	***	0	0
Section 3 Liquidity Fund	***	***	***	0	0	0	0	0
Total	16,084	15,783	15,817	14,777	14,257	15,139	15,618	15,344

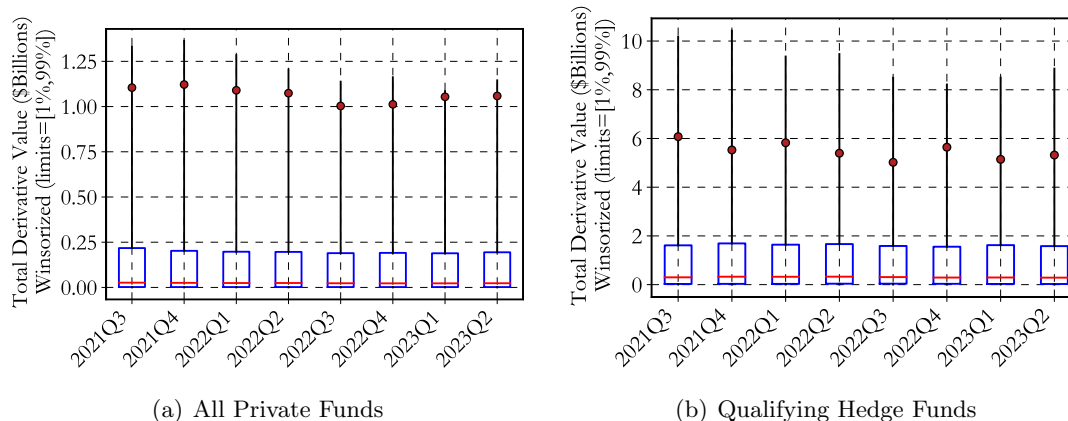
Table 23: Aggregate Derivative Value (Percent of Aggregate NAV)

As reported on Form PF, Questions 9, 13, and 44 (Third Month).

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Hedge Fund	310.4	302.3	303.4	295.7	288.6	306.0	314.0	304.7
Qualifying Hedge Fund	347.4	337.9	344.2	342.6	330.2	339.7	335.1	345.1
Private Equity Fund	1.6	1.2	1.2	1.2	1.2	2.6	2.7	2.7
Other Private Fund	10.4	7.6	7.0	7.1	7.3	7.4	7.5	7.8
Real Estate Fund	2.9	5.6	5.6	5.6	5.5	8.4	8.9	9.0
Section 4 Private Equity Fund	1.0	1.2	1.2	1.2	1.2	1.5	1.5	1.5
Securitized Asset Fund	1.2	1.8	1.8	1.8	1.8	***	2.1	1.4
Venture Capital Fund	***	***	***	***	***	0.1	0.1	0.1
Liquidity Fund	***	***	***	***	***	***	0.0	0.0
Section 3 Liquidity Fund	***	***	***	0.0	0.0	0.0	0.0	0.0
Total	133.9	112.2	112.2	106.6	103.4	107.8	111.8	109.4

Figure 6: Distribution of Derivative Values

See Appendix C and Appendix D for an explanation of boxplots and winsorization. As reported on Form PF, Questions 13 and 44 (Third Month).



VI Additional Hedge Fund Industry Information

A High Frequency Trading

Table 24: Number of Hedge Funds Using High Frequency Trading (HFT) Strategies
As reported on Form PF, Question 21.

Fraction of NAV	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
0%	8,214	8,389	8,527	8,615	8,674	8,695	8,776	8,862
Less than 100%	49	49	52	53	50	56	56	54
100% or More	6	8	8	8	8	5	5	5

Table 25: Hedge Fund Assets Managed Using HFT Strategies (\$ Billions)
As reported on Form PF, Questions 9 and 21.

Fraction of NAV	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
0%	4,962	4,999	5,000	4,761	4,689	4,671	4,694	4,756
Less than 100%	117	115	128	127	135	128	138	133
100% or More	5	6	7	8	8	9	9	9

B Industry Concentration

Table 26: Percent of Aggregate Hedge Fund Net Asset Value
Reported by Top Hedge Funds Sorted by Net Asset Value
As reported on Form PF, Questions 9 and 10.

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Top 10	7.3	7.3	7.6	7.8	8.1	7.8	7.9	7.8
Top 25	13.3	13.3	13.5	13.5	13.7	13.3	13.4	13.2
Top 50	19.4	19.3	19.5	19.4	19.6	19.1	19.3	19.4
Top 100	27.8	27.6	27.6	27.3	27.5	27.0	27.3	27.3
Top 250	42.7	42.2	41.9	41.5	41.6	41.2	41.6	41.5
Top 500	56.2	55.7	55.5	54.9	54.9	54.6	54.8	54.7

Table 27: Percent of Aggregate Hedge Fund Gross Asset Value
Reported by Top Hedge Funds Sorted by Gross Asset Value
As reported on Form PF, Questions 8 and 10.

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Top 10	16.2	16.2	15.8	16.7	16.9	17.7	17.7	18.9
Top 25	25.2	25.3	25.6	26.1	25.7	26.3	26.7	28.0
Top 50	33.5	33.4	33.6	34.1	33.8	34.5	34.8	36.2
Top 100	42.3	41.9	42.0	42.4	42.4	43.0	43.3	44.6
Top 250	55.4	54.9	54.5	54.6	54.7	55.1	55.5	56.5
Top 500	66.8	66.3	66.1	66.0	65.9	66.3	66.6	67.3

Table 28: Percent of Aggregate Hedge Fund Borrowings
Reported by Top Hedge Funds Sorted by Borrowings
As reported on Form PF, Questions 12 and 43 (Month 3).

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Top 10	32.2	34.7	34.2	34.7	34.2	36.7	36.0	37.4
Top 25	48.0	49.3	48.7	50.2	50.3	51.4	51.5	52.5
Top 50	60.5	61.4	61.1	61.9	62.1	63.4	64.1	64.7
Top 100	71.1	72.1	71.5	72.0	72.4	73.6	74.5	74.7
Top 250	83.2	83.3	83.4	83.1	83.4	84.1	84.9	85.3
Top 500	90.9	90.9	90.8	90.5	90.6	90.9	91.5	91.9

Table 29: Percent of Aggregate Hedge Fund Derivative Value
Reported by Top Hedge Funds Sorted by Derivative Value
As reported on Form PF, Questions 13 and 44 (Month 3).

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Top 10	40.7	41.0	38.9	39.0	40.3	37.4	40.3	41.5
Top 25	56.8	55.4	55.3	54.9	55.0	54.6	56.0	55.1
Top 50	69.2	67.6	67.6	66.7	67.3	68.2	68.3	67.4
Top 100	79.6	78.5	79.0	78.3	79.0	80.0	80.3	79.3
Top 250	90.5	89.8	90.2	89.8	90.0	90.5	90.8	90.5
Top 500	95.5	95.2	95.4	95.1	95.2	95.4	95.6	95.4

Table 30: Percent of Aggregate Hedge Fund Gross Notional Exposure
Reported by Top Hedge Funds Sorted by Gross Notional Exposure
As reported on Form PF, Questions 26 and 30 (Month 3).

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Top 10	35.0	35.4	34.7	34.6	34.8	34.0	36.2	37.5
Top 25	49.6	48.5	48.7	49.1	49.2	49.5	50.8	50.5
Top 50	60.7	59.7	60.0	60.5	60.3	61.0	61.9	61.4
Top 100	70.9	70.2	70.8	70.8	71.2	72.3	73.3	72.7
Top 250	83.4	82.7	82.9	82.8	83.0	83.8	84.3	84.1
Top 500	91.1	90.7	90.8	90.5	90.6	91.0	91.4	91.2

C Single-Strategy US-Domiciled Hedge Funds

Table 31: Exposures of Single-Strategy US-Domiciled Hedge Funds (\$ Billions)
As reported on Form PF, Questions 9, 19, and 20.

Category	Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Equity	Subtotal	654	680	637	589	555	552	549	584
	Long/Short	307	326	311	280	273	272	262	293
	Long Bias	319	324	298	273	251	251	259	263
	Market Neutral	27	***	26	***	29	28	27	27
	Short Bias	1	***	1	***	2	1	1	1
Other	Subtotal	595	625	649	648	656	655	666	673
Credit	Subtotal	134	141	144	144	150	163	179	170
	Asset Based Lending	62	70	73	72	77	86	87	94
	Long/Short	72	71	72	72	73	77	93	77
Event Driven	Subtotal	66	74	76	75	76	83	80	82
	Distressed/Restruct.	47	43	46	47	48	50	49	51
	Equity	13	20	19	18	19	26	26	27
	Risk Arb./Merger Arb.	6	11	10	10	9	7	5	4
Relative Value	Subtotal	49	55	55	56	55	59	63	64
	F.I. Asset Backed	30	31	32	32	32	37	38	37
	F.I. Corp.	9	11	11	11	11	11	11	12
	F.I. Conv. Arb.	7	9	9	9	8	7	7	7
	Volatility Arb.	1	2	2	3	3	3	5	7
Investment in other funds	F.I. Sov.	1	1	1	2	1	2	2	2
	Subtotal	32	33	34	33	32	32	40	40
Macro	Subtotal	13	13	15	15	16	14	13	14
	Global Macro	10	9	10	10	11	9	8	9
	Commodity	3	3	4	4	4	4	4	4
	Active Trading	***	***	***	***	***	***	***	1
	Currency	***	***	***	***	***	***	***	0
Managed Futures/CTA	Subtotal	6	6	7	6	6	6	6	6
	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Total	Total	1,383	1,437	1,433	1,386	1,368	1,385	1,419	1,443

Table 32: Number of Single-Strategy US-Domiciled Hedge Funds
As reported on Form PF, Questions 9, 19, and 20.

Category	Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
	Subtotal	1,035	1,128	1,150	1,153	1,156	1,136	1,141	1,142
Equity	Long/Short	458	471	480	475	474	494	497	511
	Long Bias	527	605	616	624	627	588	591	583
	Market Neutral	45	***	51	***	51	47	47	46
	Short Bias	11	***	8	***	9	13	12	12
Other	Subtotal	1,017	1,034	1,070	1,093	1,114	1,169	1,197	1,223
	Subtotal	373	383	394	404	422	429	441	455
Credit	Asset Based Lending	198	197	200	197	207	212	212	220
	Long/Short	178	189	197	210	218	220	232	238
	Subtotal	236	243	259	270	276	298	297	305
Event Driven	Distressed/Restruct.	166	164	179	189	195	212	211	218
	Equity	52	59	60	60	61	68	68	69
	Risk Arb./Merger Arb.	21	21	21	21	21	19	19	19
	Subtotal	174	186	189	198	201	212	219	221
Relative Value	F.I. Asset Backed	96	94	93	99	100	107	119	123
	F.I. Corp.	48	55	54	59	58	58	59	57
	F.I. Conv. Arb.	18	20	22	23	26	26	24	24
	Volatility Arb.	11	19	19	20	20	18	18	18
	F.I. Sov.	15	18	14	19	19	18	18	18
Investment in other funds	Subtotal	238	241	260	261	257	306	331	334
	Subtotal	43	45	48	48	45	44	44	46
Macro	Global Macro	22	18	19	19	19	18	18	21
	Commodity	13	15	17	17	16	15	15	15
	Active Trading	***	***	***	***	***	***	***	10
	Currency	***	***	***	***	***	***	***	0
	Subtotal	24	24	24	23	22	23	23	24
Managed Futures/CTA	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Total	Total	2,931	3,079	3,175	3,216	3,265	3,348	3,421	3,474

D Single-Strategy Non-US-Domiciled Hedge Funds

Table 33: Exposures of Single-Strategy Non-US-Domiciled Hedge Funds (\$ Billions)
As reported on Form PF, Questions 9, 19, and 20.

Category	Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
	Subtotal	1,275	1,269	1,141	1,010	954	977	969	996
Equity	Long/Short	825	812	726	641	609	629	638	667
	Long Bias	360	356	321	280	259	261	229	225
	Market Neutral	***	***	***	***	***	***	***	***
	Short Bias	***	***	***	***	***	***	***	***
	Subtotal	761	767	776	736	715	760	756	762
Other	Subtotal	445	456	434	442	409	369	377	352
Relative Value	F.I. Sov.	299	315	284	309	283	248	256	229
	F.I. Asset Backed	79	77	75	75	74	71	68	68
	Volatility Arb.	22	22	24	27	23	20	20	23
	F.I. Corp.	28	27	28	18	17	17	19	18
	F.I. Conv. Arb.	17	16	22	13	12	12	14	14
	Subtotal	385	267	286	306	329	329	326	337
Macro	Global Macro	373	255	275	295	314	316	316	328
	Commodity	8	8	8	8	6	7	7	7
	Active Trading	***	***	***	***	***	***	***	***
	Currency	***	***	***	***	***	***	***	***
	Subtotal	325	287	297	290	309	314	321	333
Credit	Long/Short	229	210	217	207	219	221	227	232
	Asset Based Lending	96	77	81	83	89	93	94	101
	Subtotal	233	209	231	206	240	190	226	285
Managed Futures/CTA	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
	Subtotal	178	185	185	180	173	166	420	182
Event Driven	Distressed/Restruct.	112	117	120	120	119	117	371	132
	Equity	33	35	34	30	25	28	28	27
	Risk Arb./Merger Arb.	33	33	30	30	29	21	21	22
Investment in other funds	Subtotal	35	33	33	30	30	27	31	37
Total	Total	2,468	2,436	2,394	2,222	2,148	2,156	2,148	2,172

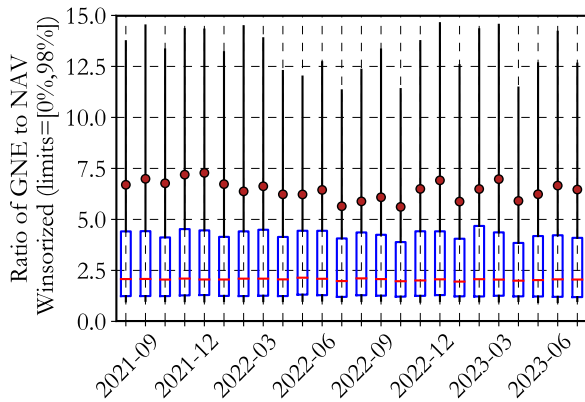
Table 34: Number of Single-Strategy Non-US-Domiciled Hedge Funds
As reported on Form PF, Questions 9, 19, and 20.

Category	Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Equity	Subtotal	1,072	1,092	1,096	1,095	1,092	1,074	1,028	1,015
	Long/Short	607	629	630	630	628	602	599	592
	Long Bias	379	391	394	388	385	386	343	340
	Market Neutral	***	***	***	***	***	***	***	***
	Short Bias	***	***	***	***	***	***	***	***
Other	Subtotal	857	853	875	892	881	919	932	935
	Subtotal	304	304	302	301	305	294	300	303
Relative Value	F.I. Sov.	54	60	59	59	61	60	59	59
	F.I. Asset Backed	147	149	146	148	150	139	143	147
	Volatility Arb.	25	27	26	25	24	29	29	30
	F.I. Corp.	98	91	92	88	90	87	91	90
	F.I. Conv. Arb.	27	24	25	26	24	24	24	25
Macro	Subtotal	207	210	214	213	216	217	213	212
	Global Macro	160	162	168	172	171	165	163	163
	Commodity	34	42	40	38	39	45	40	40
	Active Trading	***	***	***	***	***	***	***	***
	Currency	***	***	***	***	***	***	***	***
Credit	Subtotal	356	353	368	370	381	376	387	405
	Long/Short	249	248	260	260	267	267	277	285
	Asset Based Lending	111	108	111	113	117	112	113	123
Managed Futures/CTA	Subtotal	123	108	113	120	121	125	129	126
	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Event Driven	Subtotal	321	310	316	318	314	313	313	317
	Distressed/Restruct.	223	214	221	223	223	219	223	227
	Equity	79	74	70	70	69	75	70	70
	Risk Arb./Merger Arb.	47	48	50	49	47	43	44	44
Investment in other funds	Subtotal	102	103	101	104	108	107	107	112
Total	Total	3,132	3,103	3,158	3,185	3,187	3,207	3,186	3,205

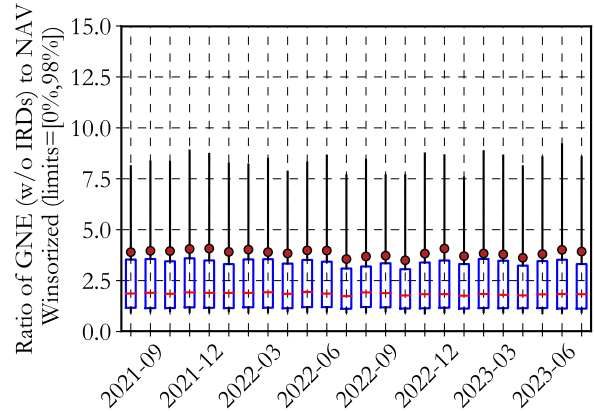
VII Information Reported by Large Hedge Fund Advisers

A Economic Leverage

Figure 7: Ratio of Hedge Fund Gross Notional Exposure to Net Asset Value
 See Appendix C and Appendix D for an explanation of boxplots and winsorization.
 As reported on Form PF, Questions 3(a) and 26.

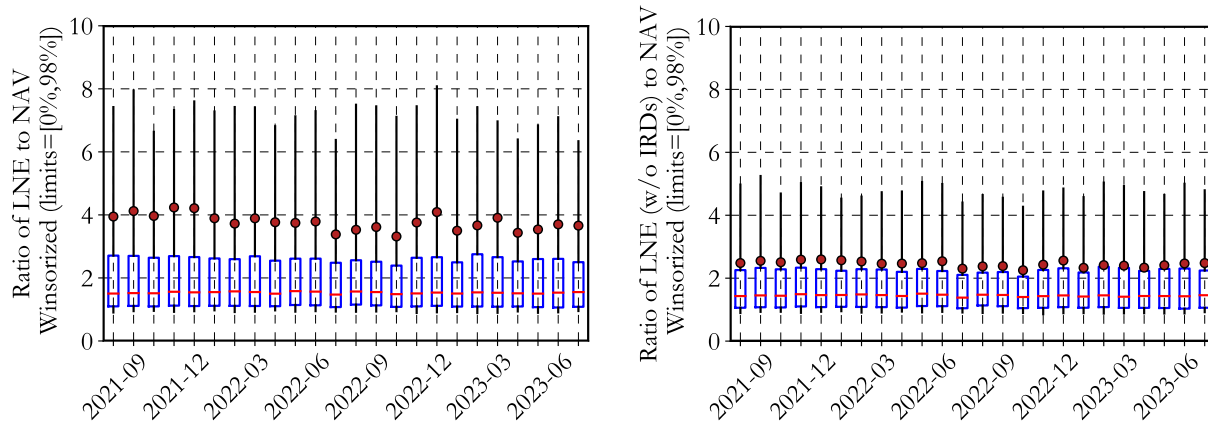


(a) Gross Exposure with Interest Rate Derivatives (IRDs)



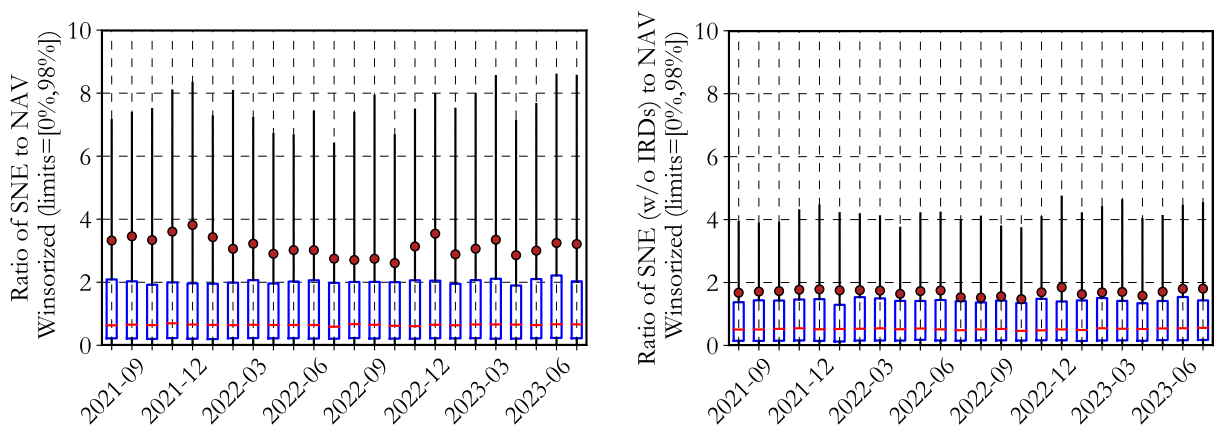
(b) Gross Exposure without IRDs

Figure 8: Ratio of Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value Distribution
 See Appendix C and Appendix D for an explanation of boxplots and winsorization.
 As reported on Form PF, Questions 3(a) and 26.



(a) Long Exposure with IRDs

(b) Long Exposure without IRDs



(c) Short Exposure with IRDs

(d) Short Exposure without IRDs

B Industry Concentration

Table 35: Large Hedge Fund Adviser Asset and Exposure Concentration
(Percent of Total Reported)
As reported on Form PF, Questions 3(a) and 26.

Month	Top 10 Advisers (NAV)	Top 20 Advisers (NAV)	Top 10 Advisers (GNE)	Top 20 Advisers (GNE)
2021-07	16.3	26.6	40.6	56.7
2021-08	17.0	27.5	39.2	56.1
2021-09	17.0	27.5	38.7	55.6
2021-10	17.1	27.4	38.3	56.2
2021-11	17.1	27.4	38.4	56.3
2021-12	17.1	27.4	38.1	54.7
2022-01	17.5	28.1	38.9	55.4
2022-02	16.8	27.2	38.4	55.7
2022-03	16.8	27.2	38.3	55.1
2022-04	17.1	28.0	42.8	57.7
2022-05	17.2	28.1	42.8	58.7
2022-06	17.2	28.1	39.0	55.5
2022-07	17.5	28.3	40.1	57.3
2022-08	17.5	28.3	40.1	57.9
2022-09	17.5	28.3	39.8	57.0
2022-10	17.4	28.2	39.2	57.0
2022-11	17.4	28.2	39.6	57.9
2022-12	17.4	28.2	38.9	55.9
2023-01	17.5	28.5	39.7	58.5
2023-02	17.5	28.5	39.8	59.0
2023-03	17.5	28.5	40.9	58.2
2023-04	17.7	28.7	42.0	59.1
2023-05	17.7	28.7	42.2	59.6
2023-06	17.7	28.7	41.9	59.0

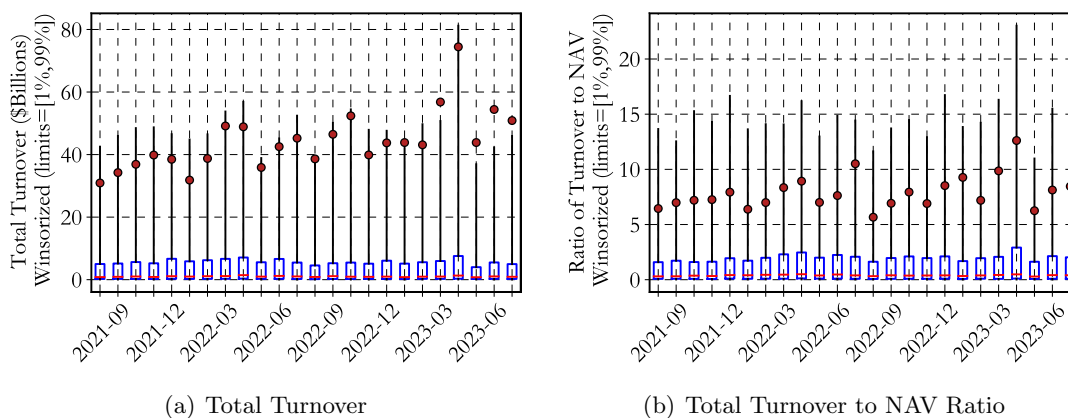
C Portfolio Turnover

Table 36: Aggregate Portfolio Turnover (\$ Billions)
As reported on Form PF, Question 27.

Month	Futures	Sov. and muni. bonds	Listed equities	Corporate bonds	Convertible bonds	Total
2021-07	12,043	5,110	3,159	142	29	20,483
2021-08	13,973	5,438	3,101	140	39	22,691
2021-09	16,020	5,485	3,438	168	54	25,165
2021-10	19,432	5,666	3,409	183	38	28,729
2021-11	17,055	6,210	3,779	164	53	27,262
2021-12	14,329	4,672	3,843	121	38	23,002
2022-01	16,735	5,340	3,951	188	40	26,254
2022-02	21,395	6,355	3,793	292	35	31,871
2022-03	23,132	6,016	4,527	255	36	33,966
2022-04	16,025	4,574	3,677	223	27	24,526
2022-05	19,479	5,143	4,253	339	30	29,243
2022-06	22,129	4,903	3,893	312	24	31,262
2022-07	19,117	4,389	3,024	318	17	26,865
2022-08	23,968	5,152	3,436	236	29	32,821
2022-09	29,032	4,931	3,534	205	25	37,726
2022-10	20,479	4,372	4,303	185	32	29,372
2022-11	25,693	5,199	4,376	201	29	35,498
2022-12	25,184	4,522	4,028	149	19	33,903
2023-01	19,016	5,313	4,127	231	33	28,719
2023-02	30,530	6,510	4,085	239	50	41,415
2023-03	35,960	7,330	4,937	253	39	48,518
2023-04	18,521	5,689	3,841	164	30	28,244
2023-05	26,490	7,479	4,700	244	43	38,957
2023-06	23,309	7,088	4,717	215	41	35,370

Figure 9: Distributions of Portfolio Turnover

See Appendix C and Appendix D for an explanation of boxplots and winsorization.
As reported on Form PF, Questions 3(a) and 27.



D Region and Country Exposure

Table 37: Large Hedge Fund Adviser Hedge Fund
Region Exposure (\$ Billions)
As reported on Form PF, Questions 3(a) and 28.

Region	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
North America	5,849	5,944	5,865	5,581	5,426	5,547	5,855	6,179
Europe EEA	1,595	1,482	1,637	1,480	1,433	1,658	1,530	1,455
Asia	800	768	718	713	737	750	732	753
Europe Other	314	306	418	324	336	356	372	393
South America	87	86	93	81	81	86	83	90
Supranational	51	48	42	38	32	27	34	36
Middle East	31	30	27	26	46	26	26	31
Africa	33	27	29	22	21	24	21	23

Table 38: Large Hedge Fund Adviser Hedge Fund
Region Exposure (Percent of Aggregate NAV)
As reported on Form PF, Questions 3(a) and 28.

Region	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
North America	128.5	131.0	132.2	132.0	131.4	133.9	136.7	143.0
Europe EEA	35.1	32.7	36.9	35.0	34.7	40.0	35.7	33.7
Asia	17.6	16.9	16.2	16.9	17.9	18.1	17.1	17.4
Europe Other	6.9	6.7	9.4	7.7	8.1	8.6	8.7	9.1
South America	1.9	1.9	2.1	1.9	2.0	2.1	1.9	2.1
Supranational	1.1	1.1	0.9	0.9	0.8	0.7	0.8	0.8
Middle East	0.7	0.7	0.6	0.6	1.1	0.6	0.6	0.7
Africa	0.7	0.6	0.7	0.5	0.5	0.6	0.5	0.5

Table 39: Large Hedge Fund Adviser Hedge Fund
Country Exposure (\$ Billions)

As reported on Form PF, Questions 3(a) and 28.

Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	5,479	5,548	5,549	5,287	5,148	5,276	5,556	5,887
Japan	233	217	213	240	266	337	332	354
China (Inc. Hong Kong)	251	239	204	198	174	171	171	138
India	53	51	48	47	49	44	44	50
Brazil	33	33	39	34	34	34	31	40
Russia	16	16	5	5	5	3	3	3

Table 40: Large Hedge Fund Adviser Hedge Fund
Country Exposure (Percent of Aggregate NAV)

As reported on Form PF, Questions 3(a) and 28.

Country	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
United States	120.4	122.3	125.1	125.0	124.7	127.3	129.8	136.2
Japan	5.1	4.8	4.8	5.7	6.4	8.1	7.8	8.2
China (Inc. Hong Kong)	5.5	5.3	4.6	4.7	4.2	4.1	4.0	3.2
India	1.2	1.1	1.1	1.1	1.2	1.1	1.0	1.2
Brazil	0.7	0.7	0.9	0.8	0.8	0.8	0.7	0.9
Russia	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1

VIII Qualifying Hedge Fund Specific Information

A Economic Leverage

Figure 10: Ratio of Qualifying Hedge Fund Gross Notional Exposure to Net Asset Value
 See Appendix C and Appendix D for an explanation of boxplots and winsorization.
 As reported on Form PF, Questions 9, 10, 26, and 30.

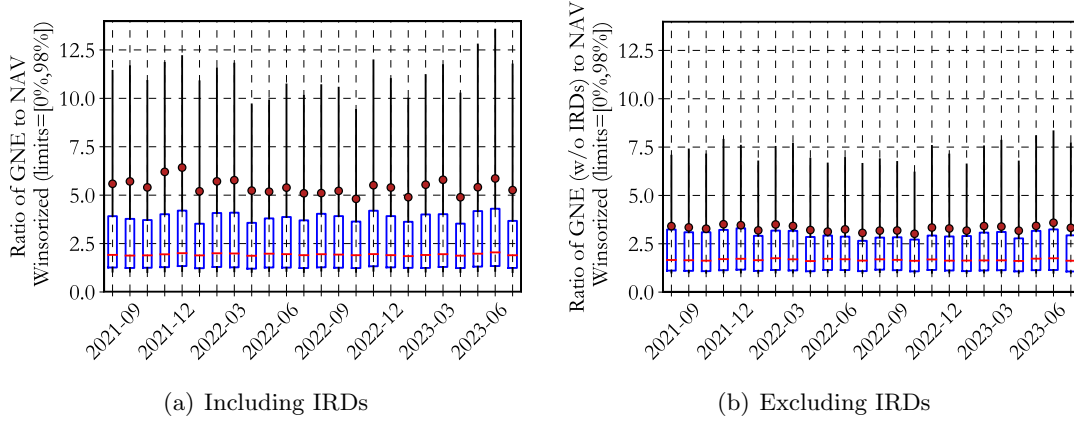
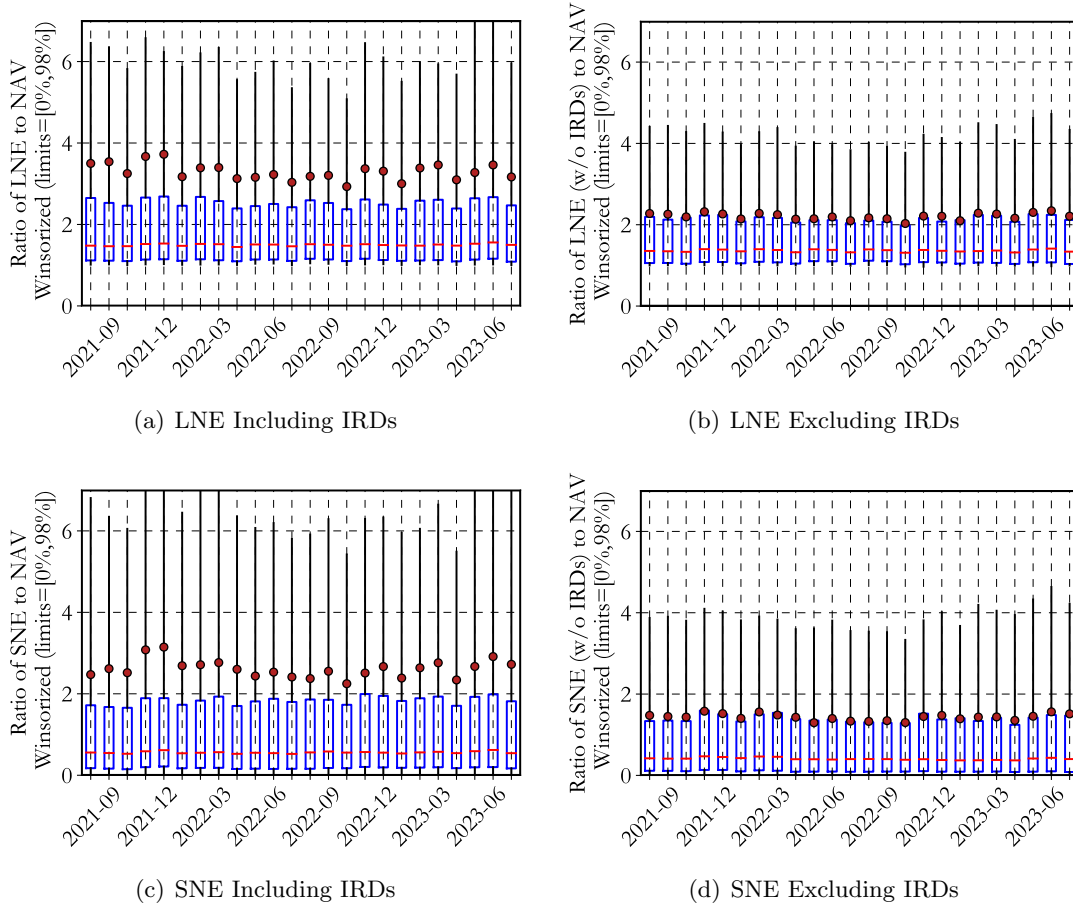


Figure 11: Ratio of Qualifying Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value

See Appendix C and Appendix D for an explanation of boxplots and winsorization.
As reported on Form PF, Questions 9, 10, 26, and 30.



B Gross Exposure by Strategy⁵

Table 41: Exposures of Hedge Funds (\$ Billions)
As reported on Form PF, Questions 9 and 20.

Category	Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
	Subtotal	2,229	2,250	2,029	1,773	1,676	1,757	1,793	1,887
Equity	Long/Short	1,201	1,211	1,098	969	930	980	995	1,064
	Long Bias	649	643	577	467	414	438	448	453
	Market Neutral	***	396	***	***	***	***	***	***
	Short Bias	***	0	***	***	***	***	***	***
	Subtotal	1,427	1,456	1,483	1,441	1,427	1,458	1,487	1,512
Other	Subtotal	1,035	1,063	1,043	1,028	969	950	1,035	1,091
Relative Value	F.I. Sov.	691	709	676	684	638	627	706	722
	F.I. Asset Backed	100	102	110	113	115	121	103	129
	F.I. Conv. Arb.	126	123	112	89	84	82	88	94
	Volatility Arb.	57	65	74	79	72	54	76	85
	F.I. Corp.	61	63	70	62	60	66	61	61
	Subtotal	893	794	856	874	886	999	897	995
Macro	Global Macro	790	704	745	744	748	902	820	924
	Commodity	66	54	73	88	92	58	44	40
	Currency	34	***	***	39	44	37	***	***
	Active Trading	4	***	***	2	2	2	***	***
	Subtotal	453	479	485	482	507	527	543	538
Credit	Long/Short	348	359	359	350	367	378	390	369
	Asset Based Lending	105	119	127	132	140	149	154	168
	Subtotal	449	458	429	403	394	371	382	397
Event Driven	Distressed/Restruct.	202	205	202	201	201	203	201	210
	Equity	141	145	136	112	101	96	106	102
	Risk Arb./Merger Arb.	107	108	91	90	93	72	75	85
	Subtotal	246	222	238	215	258	196	195	287
Managed Futures/CTA	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Investment in other funds	Subtotal	57	65	75	69	68	71	84	86
Total	Total	6,789	6,787	6,637	6,284	6,185	6,330	6,416	6,793

⁵Form PF Question 20 requires advisers to indicate which strategies best describe the reporting fund's strategies including a good faith estimate of the reporting fund's allocation among strategies, and provides a list of investment strategies for this purpose. Form PF does not define the investment strategies listed by Question 20.

Table 42: Exposures of Hedge Funds (Percent of NAV)
As reported on Form PF, Questions 9 and 20.

Category	Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
	Subtotal	53.5	53.7	48.9	45.7	44.4	46.3	46.2	47.9
Equity	Long/Short	28.8	28.9	26.5	25.0	24.7	25.8	25.6	27.0
	Long Bias	15.6	15.4	13.9	12.0	11.0	11.6	11.6	11.5
	Market Neutral	***	9.4	***	***	***	***	***	***
	Short Bias	***	0.0	***	***	***	***	***	***
Other	Subtotal	34.2	34.8	35.7	37.1	37.8	38.5	38.3	38.4
	Subtotal	24.9	25.4	25.1	26.5	25.7	25.1	26.7	27.7
Relative Value	F.I. Sov.	16.6	16.9	16.3	17.6	16.9	16.5	18.2	18.3
	F.I. Asset Backed	2.4	2.4	2.7	2.9	3.0	3.2	2.7	3.3
	F.I. Conv. Arb.	3.0	2.9	2.7	2.3	2.2	2.2	2.3	2.4
	Volatility Arb.	1.4	1.5	1.8	2.0	1.9	1.4	2.0	2.2
	F.I. Corp.	1.5	1.5	1.7	1.6	1.6	1.7	1.6	1.6
	Subtotal	21.4	18.9	20.6	22.5	23.5	26.3	23.1	25.3
Macro	Global Macro	19.0	16.8	18.0	19.2	19.8	23.8	21.1	23.4
	Commodity	1.6	1.3	1.8	2.3	2.4	1.5	1.1	1.0
	Currency	0.8	***	***	1.0	1.2	1.0	***	***
	Active Trading	0.1	***	***	0.1	0.1	0.1	***	***
	Subtotal	10.9	11.4	11.7	12.4	13.5	13.9	14.0	13.7
Credit	Long/Short	8.4	8.6	8.7	9.0	9.7	10.0	10.0	9.4
	Asset Based Lending	2.5	2.9	3.0	3.4	3.7	3.9	4.0	4.3
	Subtotal	10.8	10.9	10.3	10.4	10.5	9.8	9.8	10.1
Event Driven	Distressed/Restruct.	4.8	4.9	4.9	5.2	5.3	5.4	5.2	5.3
	Equity	3.4	3.5	3.3	2.9	2.7	2.5	2.7	2.6
	Risk Arb./Merger Arb.	2.6	2.6	2.2	2.3	2.5	1.9	1.9	2.2
	Subtotal	5.9	5.3	5.7	5.5	6.8	5.2	5.0	7.3
Managed Futures/CTA	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Investment in other funds	Subtotal	1.4	1.6	1.8	1.8	1.8	1.9	2.2	2.2
Total	Total	163.0	162.0	160.0	162.0	164.0	166.9	165.3	172.4

C Leverage by Strategy

Table 43: Asset Weighted-Average Ratio of GAV to NAV
by Strategy

As reported on Form PF, Questions 8, 9, 10, and 20.

Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Relative Value	7.0	7.0	6.0	6.5	6.2	5.9	5.8	6.2
Macro	4.8	4.2	4.5	4.3	4.5	4.9	5.0	5.6
Multi-Strategy	3.3	3.4	3.1	3.0	2.9	3.5	3.6	3.9
Credit	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.8
Equity	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.7
Managed Futures/CTA	1.5	1.4	1.5	1.9	1.6	1.5	1.6	1.5
Other	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.4
Investment in other funds	1.3	1.3	1.2	1.5	1.4	1.3	1.3	1.4
Event Driven	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3

Table 44: Asset Weighted-Average Ratio of GNE to NAV
by Strategy

As reported on Form PF, Questions 9, 10, 20, 26, and 30 (Third Month).

Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Macro	34.6	32.9	33.0	29.2	29.6	34.9	37.3	36.8
Relative Value	26.4	27.1	25.4	24.8	23.8	21.3	23.1	25.5
Managed Futures/CTA	22.9	16.9	15.0	16.5	14.0	14.3	12.1	17.1
Multi-Strategy	16.2	16.0	14.9	13.2	11.0	14.5	14.1	14.8
Investment in other funds	3.3	3.3	2.8	4.1	3.9	3.0	5.8	3.6
Credit	3.0	3.1	3.2	3.1	3.2	3.2	3.4	3.5
Equity	2.9	3.1	2.9	2.9	2.9	2.9	3.0	3.1
Other	3.2	3.1	3.1	2.9	2.9	2.9	2.8	2.7
Event Driven	2.0	1.9	1.9	2.0	1.8	1.8	2.1	2.1

Table 45: Asset Weighted-Average Percent of Unencumbered Cash
by Strategy

As reported on Form PF, Questions 9, 10, 20, and 33 (Third Month).

Strategy	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Macro	42.3	42.8	44.1	44.1	42.2	45.7	43.1	41.3
Managed Futures/CTA	42.7	48.2	51.0	56.0	54.2	49.3	39.9	38.8
Relative Value	21.1	21.8	23.3	23.8	25.0	23.5	25.9	26.6
Multi-Strategy	25.4	26.1	23.9	27.7	27.9	30.5	27.3	25.7
Investment in other funds	1.6	8.2	4.9	6.8	5.5	6.1	7.5	11.3
Equity	8.1	8.5	10.3	12.7	13.6	13.8	12.4	11.1
Other	11.6	11.8	11.3	11.5	12.3	11.5	9.6	9.0
Event Driven	7.7	8.1	10.7	9.6	10.0	9.8	8.1	8.4
Credit	8.8	8.3	6.8	8.3	7.3	8.9	8.5	7.4

D Investment Exposures

Table 46: Aggregate Qualifying Hedge Fund Gross Notional Exposure
by Asset Type (\$ Billions)

As reported on Form PF, Questions 26 and 30.

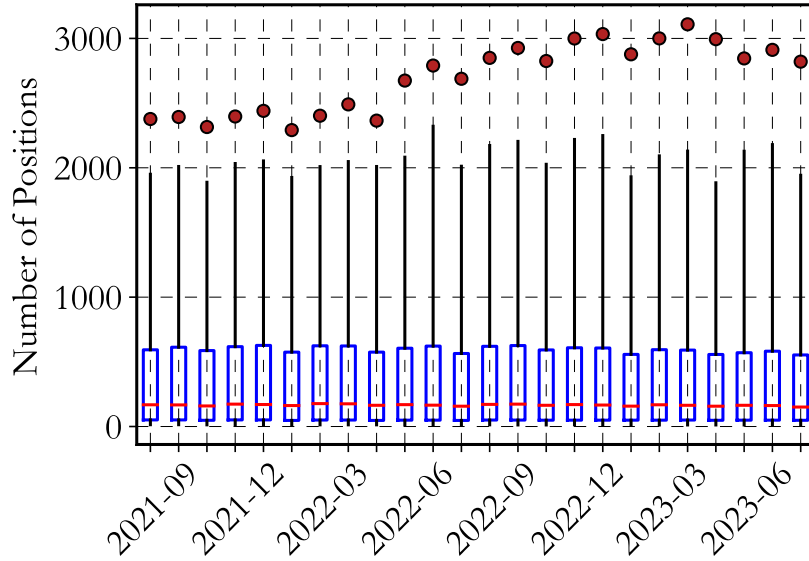
	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Interest Rate Derivatives	7,640	7,476	7,770	7,165	6,606	7,256	7,238	7,159
Foreign Exchange Derivatives	4,077	3,973	3,819	3,415	3,407	3,068	3,354	3,676
Repurchase Agreements	2,270	2,221	2,197	2,167	2,074	2,136	2,349	2,513
Non-Financial Listed Equities	2,712	2,751	2,488	2,120	2,020	2,092	2,200	2,321
U.S. Treasury Securities	1,735	1,760	1,690	1,523	1,493	1,671	1,814	2,176
Non-Financial Equity Derivatives	1,595	1,578	1,775	1,482	1,459	1,465	1,496	1,587
Sovereign Bonds - Non-U.S. G10	1,472	1,412	1,373	1,377	1,311	1,471	1,386	1,399
Credit Derivatives	783	759	750	809	740	683	739	848
Non-Financial Unlisted Equities	416	465	477	478	478	483	498	509
Cash/Cash Equivalents - Other	534	573	854	527	509	519	469	493
Commodity Derivatives	455	393	424	399	374	360	387	374
Financial Listed Equities	361	376	348	307	285	307	312	338
Leveraged Loans	247	261	274	277	281	295	310	323
Non-Financial Corporate Bonds	272	280	272	248	246	254	265	281
Non-U.S. Currency Holdings	254	216	231	261	220	220	225	257
Cash/Cash Equivalents - Deposits	240	218	216	224	221	240	301	248
Sovereign Bonds - Other	332	308	267	209	181	197	208	221
Other Derivatives	188	207	215	219	210	242	220	218
MBS	212	205	170	189	183	180	179	208
Physical Real Estate	146	166	176	186	171	186	191	203
Other Private Funds	175	183	184	186	184	175	175	177
Cash/Cash Equivalents - MMFs	181	208	199	228	218	215	187	174
Other ABS/Structured Products	60	59	63	55	57	56	56	161
Other Loans (Excluding Repo)	133	141	144	149	151	155	153	160
Non-Financial Convertible Bonds	178	173	154	125	119	118	123	128
Other	98	112	110	118	112	113	114	120
Financial Equity Derivatives	105	105	101	93	84	87	93	107
Financial Corporate Bonds	73	71	76	71	68	79	75	80
U.S. Agency and GSE Securities	52	46	47	56	46	60	41	69
CDO/CLO	38	39	39	36	36	40	41	41
Financial Unlisted Equities	27	29	30	27	26	37	39	35
U.S. State and Local Bonds	21	22	19	17	18	16	16	18
Registered Investment Companies	16	16	17	15	14	15	16	16
Financial Convertible Bonds	9	9	8	7	6	6	8	7
Physical Commodities	7	6	9	9	3	6	4	4

Table 47: Percent of Qualifying Hedge Fund Gross Notional Exposure
Representing Long Notional Exposure
As reported on Form PF, Questions 26 and 30.

	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Interest Rate Derivatives	48.5	47.8	48.1	47.4	47.0	50.6	48.3	46.8
Foreign Exchange Derivatives	57.0	55.2	56.0	55.2	54.6	53.0	53.8	55.6
Repurchase Agreements	46.8	48.5	49.0	48.5	47.2	46.5	43.2	40.0
Non-Financial Listed Equities	71.4	71.8	70.3	68.2	67.8	67.4	66.8	66.7
U.S. Treasury Securities	57.2	56.9	59.2	62.8	60.0	59.2	61.5	56.2
Non-Financial Equity Derivatives	51.4	51.9	56.9	50.6	48.3	51.5	50.4	51.4
Sovereign Bonds - Non-U.S. G10	48.5	48.5	47.9	48.2	49.7	48.2	48.9	46.6
Credit Derivatives	47.0	44.5	43.0	40.2	41.1	47.7	45.9	47.3
Non-Financial Unlisted Equities	99.8	99.9	99.7	99.8	99.9	99.6	99.8	99.8
Cash/Cash Equivalents - Other	73.3	71.9	67.2	77.3	78.5	77.4	81.7	80.2
Commodity Derivatives	63.8	65.2	64.3	59.9	55.4	59.1	57.5	55.9
Financial Listed Equities	73.5	73.1	71.4	69.5	68.6	68.1	67.5	66.7
Leveraged Loans	98.0	98.0	98.2	98.7	97.6	97.5	97.8	97.6
Non-Financial Corporate Bonds	79.1	74.5	77.2	75.4	76.4	76.8	76.2	75.9
Non-U.S. Currency Holdings	56.8	62.5	61.7	60.8	62.1	66.1	59.1	60.7
Cash/Cash Equivalents - Deposits	72.8	74.9	71.9	67.3	63.6	64.5	65.0	69.6
Sovereign Bonds - Other	70.2	64.2	63.4	58.6	60.7	63.5	69.0	69.2
Other Derivatives	61.9	51.6	50.5	44.8	41.9	40.8	58.7	51.5
MBS	71.9	70.0	78.4	81.7	83.6	83.6	84.3	84.0
Physical Real Estate	***	***	***	***	***	***	***	***
Other Private Funds	99.9	99.9	99.9	99.9	99.9	100.0	***	100.0
Cash/Cash Equivalents - MMFs	***	***	***	99.9	***	99.9	***	***
Other ABS/Structured Products	85.3	84.2	80.7	83.5	82.3	86.5	86.2	91.1
Other Loans (Excluding Repo)	91.7	90.7	91.4	91.6	89.4	91.3	90.3	90.1
Non-Financial Convertible Bonds	97.7	97.9	97.3	97.2	97.5	97.7	98.4	98.5
Other	96.0	94.8	93.4	90.7	90.0	86.4	85.7	83.4
Financial Equity Derivatives	60.1	55.5	54.2	55.6	55.5	59.0	56.9	58.3
Financial Corporate Bonds	87.1	86.4	86.5	87.0	86.3	88.6	82.2	80.7
U.S. Agency and GSE Securities	65.0	62.8	55.3	52.8	61.7	58.8	70.5	59.7
CDO/CLO	***	***	***	86.3	86.7	88.1	87.5	87.6
Financial Unlisted Equities	99.7	99.7	99.7	99.9	99.9	99.9	99.9	99.9
U.S. State and Local Bonds	***	98.6	98.9	***	99.2	98.8	99.3	***
Registered Investment Companies	97.9	97.8	98.1	98.8	98.3	98.5	99.0	98.8
Financial Convertible Bonds	95.0	96.2	96.7	96.3	96.3	98.1	98.5	97.8
Physical Commodities	98.4	***	99.8	99.4	***	93.9	96.9	98.2

E Number of Positions

Figure 12: Number of Positions Reported by Qualifying Hedge Funds
As reported on Form PF, Question 34.



F Liquidity

Table 48: Investor Liquidity for Qualifying Hedge Funds (Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 50.

Liquidation Period	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
At most 1 day	7.5	7.5	7.5	5.8	5.5	5.6	5.4	5.6
At most 7 days	11.1	11.0	10.9	8.6	8.2	8.2	7.5	7.8
At most 30 days	23.1	23.1	23.4	19.9	18.9	18.5	18.6	17.9
At most 90 days	40.2	42.9	39.8	36.7	35.6	37.8	34.5	34.1
At most 180 days	52.3	50.3	50.1	47.0	47.4	45.6	45.4	44.3
At most 365 days	63.5	62.8	62.2	60.4	59.1	58.5	56.7	56.5

Table 49: Portfolio Liquidity for Qualifying Hedge Funds (Percent of Aggregate NAV)
As reported on Form PF, Questions 9, 26, 30, and 32.

Liquidation Period	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
At most 1 day	33.3	33.7	35.4	33.6	33.6	32.3	31.5	31.3
At most 7 days	53.2	52.9	53.5	51.5	50.4	49.4	49.0	49.1
At most 30 days	66.1	65.7	64.9	62.3	61.3	60.3	59.1	59.6
At most 90 days	73.0	72.5	71.1	68.4	67.6	66.4	65.2	65.7
At most 180 days	77.3	77.0	75.5	73.5	72.8	71.8	70.8	70.7
At most 365 days	82.2	81.9	80.5	79.3	78.6	77.9	76.5	76.7

Figure 13: Asset Weighted-Average Qualifying Hedge Fund
Investor and Portfolio Liquidity

As reported on Form PF, Questions 9, 26, 30, 32, and 50 as of Second Calendar Quarter 2023.

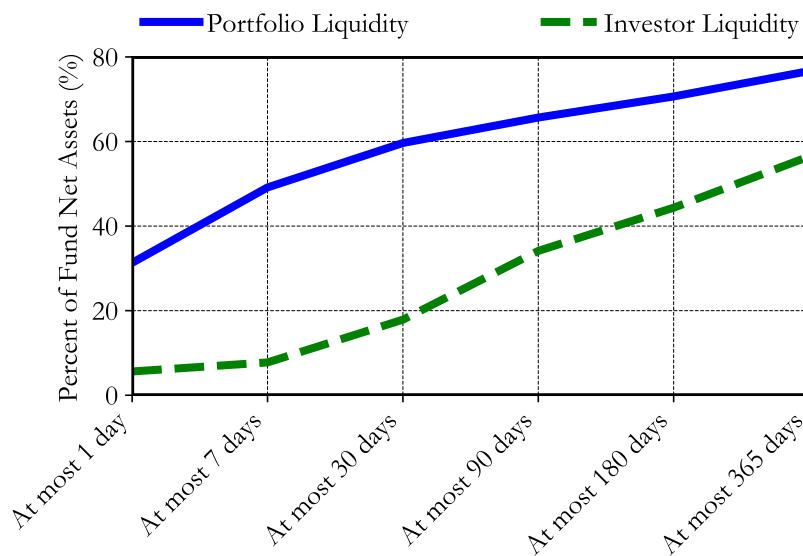
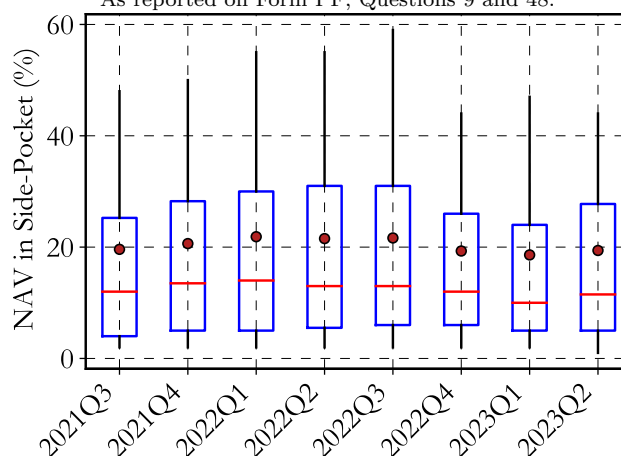


Table 50: Restrictions on Qualifying Hedge Fund Assets (\$ Billions)
As reported on Form PF, Questions 48 and 49.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
May Suspend	2,981	2,924	2,884	2,660	2,534	2,499	2,562	2,574
May Have Gates	1,926	1,885	1,878	1,847	1,754	1,728	1,757	1,762
Side-Pocketed	110	114	104	97	96	90	87	90
Gated	84	84	74	74	75	81	80	81
Suspended	18	18	17	14	13	20	22	23

Figure 14: Percentage of Qualifying Hedge Fund NAV Subject to a Side-Pocket Arrangement

See Appendix C for an explanation of boxplots.
As reported on Form PF, Questions 9 and 48.



G Borrowings

Table 51: Borrowings of Qualifying Hedge Funds (\$ Billions)
As reported on Form PF, Question 43 (Third Month).

Type	Subtype	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Secured	Subtotal	3,671	3,747	3,531	3,397	3,300	3,431	3,709	4,008
	Reverse Repo	1,205	1,151	1,090	1,150	1,143	1,215	1,432	1,636
	Prime Broker	1,919	1,964	1,842	1,659	1,590	1,634	1,706	1,824
	Other Secured	547	633	599	588	567	582	570	547
Unsecured	Subtotal	32	49	39	34	36	39	40	38
Total	Total	3,704	3,796	3,570	3,431	3,336	3,470	3,748	4,046

Table 52: Aggregate Borrowing by Creditor Entity Type (Percent)
As reported on Form PF, Question 43 (Third Month).

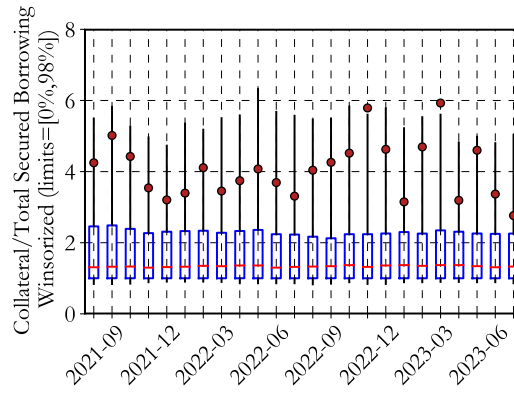
Creditor Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
US Financial	64.5	65.3	63.7	63.9	65.1	64.1	63.6	64.2
Non-US Financial	34.8	33.9	35.4	35.4	33.8	34.8	35.5	35.1
US Non-Financial	0.6	0.7	0.9	0.7	1.1	1.0	0.8	0.7
Non-US Non-Financial	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0

Table 53: Aggregate Collateral for Secured Borrowings
of Qualifying Hedge Funds (\$ Billions)
As reported on Form PF, Question 43 (Third Month).

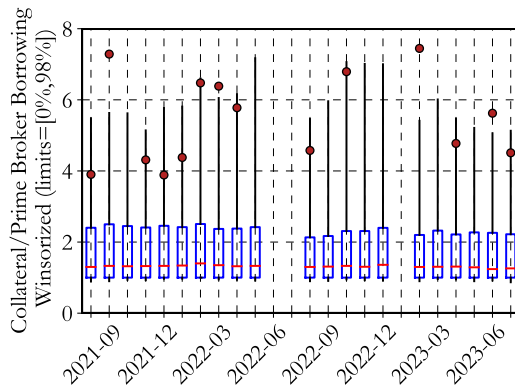
Borrowing Type	Collateral Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Prime Broker	Subtotal	2,433	2,408	2,236	1,971	1,921	2,025	2,123	2,239
	Other	1,582	1,586	1,471	1,321	1,277	1,353	1,423	1,504
	Cash	852	822	765	650	644	672	700	734
Reverse Repo	Subtotal	1,271	1,204	1,141	1,196	1,185	1,262	1,475	1,677
	Other	908	826	766	815	786	788	940	1,028
	Cash	363	378	375	381	399	473	535	649
Other Secured	Subtotal	709	755	727	734	723	729	727	721
	Other	522	520	528	561	562	535	566	561
	Cash	186	235	199	173	161	194	161	160
Total	Total	4,413	4,367	4,103	3,902	3,829	4,016	4,325	4,637

Figure 15: Ratio of Collateral Posted to Secured Borrowing for Qualifying Hedge Funds

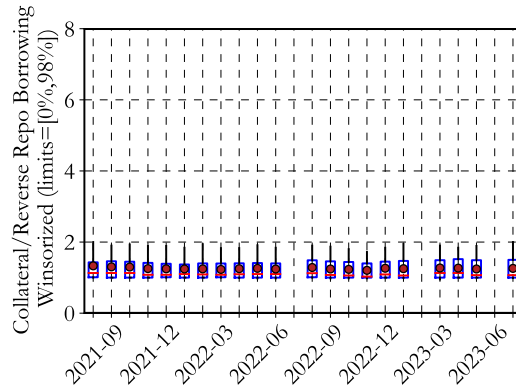
See Appendix C and Appendix D for an explanation of boxplots and winsorization. As reported on Form PF, Question 43.



(a) Total Secured Borrowing



(b) Prime Broker Borrowing

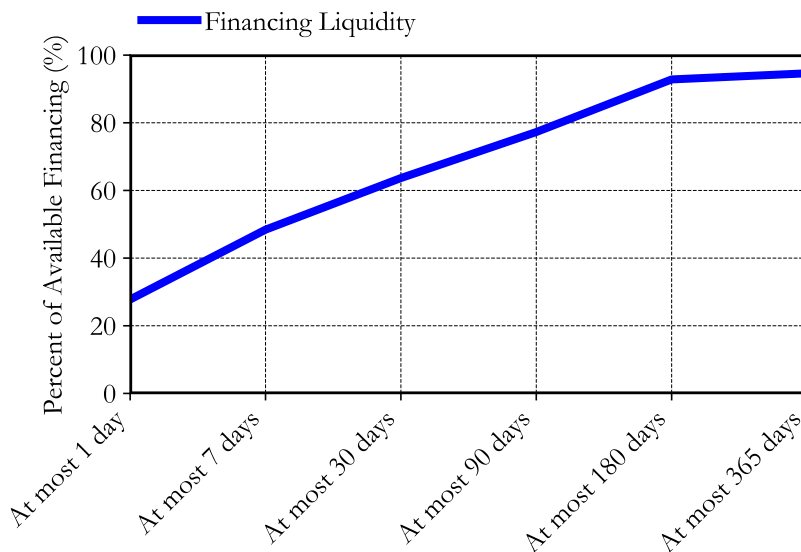


(c) Reverse Repo Borrowing

Table 54: Financing Liquidity for Qualifying Hedge Funds
(Percent of Available Financing)
As reported on Form PF, Question 46.

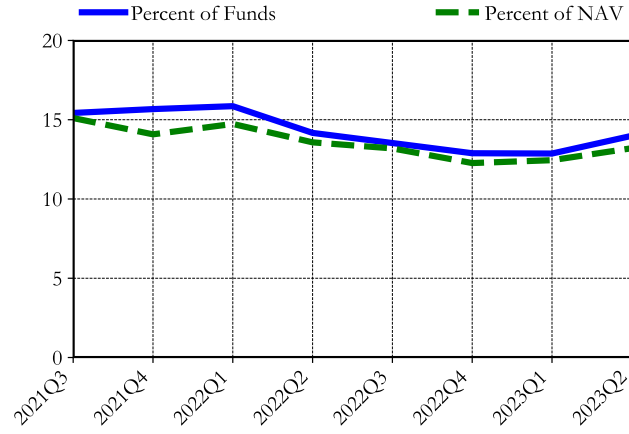
Financing Available	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
At most 1 day	36.4	26.4	35.5	36.7	27.1	25.3	28.4	27.8
At most 7 days	47.7	42.7	46.2	47.0	47.0	41.4	47.8	48.4
At most 30 days	64.8	63.0	63.6	64.7	62.2	61.7	63.6	63.7
At most 90 days	76.6	77.3	76.6	76.2	75.5	75.3	76.3	77.3
At most 180 days	94.4	93.9	93.9	92.9	92.8	91.8	92.8	92.8
At most 365 days	95.5	95.5	95.1	94.3	94.2	94.0	94.6	94.6

Figure 16: Weighted-Average Qualifying Hedge Fund
Financing Liquidity (Percent of Available Financing)
As reported on Form PF, Question 46 as of Second Calendar Quarter 2023.



H Central Clearing

Figure 17: Qualifying Hedge Funds Using Central Clearing
As reported on Form PF, Question 39.



I Value-at-Risk (“VaR”) Reporting

Table 55: Number of Qualifying Hedge Funds Using VaR
As reported on Form PF, Question 40.

VaR Method	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
VaR (Any Method)	663	678	685	653	694	651	625	646
Historical Simulation	266	268	268	275	284	280	271	284
Monte Carlo Simulation	199	201	210	193	186	181	181	180
Parametric	193	201	202	181	220	181	167	171
Other	53	55	52	52	50	53	47	51
VaR Not Used	1,353	1,396	1,409	1,408	1,346	1,421	1,419	1,442

Table 56: Aggregate Qualifying Hedge Fund GAV Managed Using VaR (\$ Billions)
As reported on Form PF, Questions 8 and 40.

VaR Method	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
VaR (Any Method)	4,590	4,467	4,449	4,317	4,266	4,326	4,436	4,770
Historical Simulation	2,322	2,198	2,154	2,146	2,146	2,174	2,263	2,500
Monte Carlo Simulation	984	1,014	1,029	966	916	945	938	907
Parametric	735	721	695	625	641	556	560	577
Other	1,127	1,119	1,124	1,114	1,095	1,220	1,233	1,389
VaR Not Used	3,718	3,866	3,817	3,605	3,428	3,501	3,564	3,668

Table 57: Aggregate Qualifying Hedge Fund NAV Managed Using VaR (\$ Billions)
As reported on Form PF, Questions 9 and 40.

VaR Method	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
VaR (Any Method)	1,542	1,549	1,550	1,418	1,425	1,357	1,352	1,363
Historical Simulation	619	608	613	604	620	593	595	607
Monte Carlo Simulation	443	448	460	391	372	373	367	352
Parametric	437	441	422	368	373	330	325	329
Other	185	182	191	192	200	191	199	209
VaR Not Used	2,624	2,642	2,599	2,461	2,347	2,437	2,529	2,577

J Stress Testing and VaR

Table 58: Number of Qualifying Hedge Funds Managed Using VaR or Market Factor Change Testing (“Stress Testing”) As reported on Form PF, Questions 40 and 42.

Risk Tool Used	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Stress and VaR	556	562	571	581	589	578	556	576
Stress, No VaR	472	478	479	465	458	466	469	467
No Stress, VaR	107	116	114	72	105	73	69	70
Neither	881	918	930	943	888	955	950	975

Table 59: Aggregate Qualifying Hedge Fund GAV Managed Using VaR or Stress Testing (\$ Billions) As reported on Form PF, Questions 8, 40, and 42.

Risk Tool Used	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Stress and VaR	4,226	4,076	4,108	4,084	4,001	4,099	4,216	4,528
Stress, No VaR	1,538	1,555	1,548	1,450	1,384	1,398	1,386	1,427
No Stress, VaR	364	391	341	234	264	227	221	241
Neither	2,181	2,311	2,269	2,155	2,045	2,104	2,178	2,241

Table 60: Aggregate Qualifying Hedge Fund NAV Managed Using VaR or Stress Testing (\$ Billions) As reported on Form PF, Questions 9, 40, and 42.

Risk Tool Used	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Stress and VaR	1,288	1,287	1,302	1,274	1,266	1,220	1,216	1,226
Stress, No VaR	936	922	904	850	821	843	860	872
No Stress, VaR	254	261	248	144	159	138	136	137
Neither	1,688	1,720	1,695	1,611	1,526	1,594	1,669	1,705

K Stress Testing

Table 61: Number of Qualifying Hedge Funds Stressing Each Market Factor
As reported on Form PF, Question 42.

Market Factor	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Equity Prices	844	860	876	864	859	857	839	856
Currency Rates	748	746	766	771	778	768	751	770
Risk Free Rates	708	708	722	736	735	732	718	733
Credit Spreads	610	622	650	657	656	657	655	662
Implied Volatilities	501	499	530	526	523	524	512	525
Commodity Prices	428	425	443	455	451	447	429	440
Bond Default Rates	268	270	291	287	286	288	296	293
ABS Default Rates	228	227	252	252	247	253	258	261

Table 62: Aggregate GAV of Qualifying Hedge Funds
Stressing Each Market Factor (\$ Billions)
As reported on Form PF, Questions 8 and 42.

Market Factor	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Equity Prices	5,194	5,042	5,087	5,086	4,940	5,062	5,179	5,523
Currency Rates	4,646	4,527	4,562	4,489	4,392	4,519	4,610	4,917
Risk Free Rates	4,927	4,758	4,870	4,808	4,707	4,801	4,883	5,210
Credit Spreads	4,228	4,235	4,359	4,341	4,225	4,352	4,479	4,774
Implied Volatilities	3,909	3,713	3,796	3,787	3,707	3,842	3,873	4,428
Commodity Prices	3,883	3,742	3,846	3,975	3,867	4,002	4,078	4,385
Bond Default Rates	1,136	1,134	1,184	1,123	1,139	1,102	1,132	1,239
ABS Default Rates	882	899	970	936	901	938	1,093	1,238

Table 63: Aggregate NAV of Qualifying Hedge Funds
Stressing Each Market Factor (\$ Billions)
As reported on Form PF, Questions 9 and 42.

Market Factor	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Equity Prices	1,989	1,972	1,967	1,894	1,858	1,833	1,846	1,870
Currency Rates	1,675	1,655	1,691	1,639	1,634	1,590	1,601	1,596
Risk Free Rates	1,623	1,599	1,654	1,629	1,625	1,586	1,593	1,607
Credit Spreads	1,377	1,385	1,459	1,448	1,443	1,416	1,436	1,447
Implied Volatilities	1,167	1,128	1,192	1,176	1,166	1,140	1,124	1,192
Commodity Prices	1,123	1,108	1,151	1,169	1,159	1,115	1,123	1,145
Bond Default Rates	482	467	504	484	471	427	443	437
ABS Default Rates	379	374	422	409	382	390	401	415

Table 64: Number of Qualifying Hedge Funds Stressing Market Factors
As reported on Form PF, Question 42.

Factors Tested	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
0	988	1,034	1,044	1,015	993	1,028	1,019	1,045
1	214	223	212	208	208	206	207	206
2	130	130	129	126	128	129	123	123
3	83	84	83	80	78	82	81	82
4	101	103	101	100	108	100	94	101
5	137	127	126	131	127	128	126	134
6	155	165	167	168	166	167	159	164
7	71	79	81	79	82	82	78	80
8	137	129	151	154	150	150	157	153

Table 65: Aggregate GAV of Qualifying Hedge Funds
Stressing Market Factors (\$ Billions)
As reported on Form PF, Questions 8 and 42.

Factors Tested	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
0	2,545	2,702	2,611	2,389	2,309	2,330	2,399	2,482
1	444	485	432	412	385	374	377	385
2	629	618	568	431	407	406	412	426
3	324	314	306	279	267	305	308	331
4	363	353	352	425	471	394	404	406
5	929	747	871	811	738	778	809	627
6	2,101	2,159	2,123	2,193	2,127	2,263	2,133	2,458
7	360	348	341	335	373	346	527	597
8	613	606	662	647	616	632	632	724

Table 66: Aggregate NAV of Qualifying Hedge Funds
Stressing Market Factors (\$ Billions)
As reported on Form PF, Questions 9 and 42.

Factors Tested	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
0	1,942	1,982	1,944	1,755	1,685	1,732	1,805	1,842
1	300	319	276	255	234	241	246	246
2	322	312	294	269	259	256	258	259
3	231	215	212	190	183	214	212	217
4	176	189	187	176	198	175	168	158
5	321	291	302	281	267	264	281	272
6	477	502	509	543	544	540	524	553
7	170	169	174	160	169	142	149	155
8	227	212	252	249	233	232	238	237

IX Section 3 Liquidity Fund Specific Information

A Liquidity

Table 67: Investor Liquidity For Section 3 Liquidity Funds (Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 64.

Liquidation Period	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
At most 1 day	68.6	68.9	69.5	66.4	68.1	70.7	71.1	71.0
At most 7 days	92.6	92.4	91.6	91.8	92.7	93.1	92.9	92.6
At most 30 days	97.3	96.6	96.0	96.5	97.2	97.2	97.3	97.0
At most 90 days	97.8	97.8	97.9	98.5	98.5	98.3	98.2	97.9
At most 180 days	98.8	99.0	99.5	99.6	99.5	99.5	99.3	99.1
At most 365 days	99.8	99.8	99.8	99.8	99.6	99.7	99.7	99.8

Table 68: Suspensions and Gates of Section 3 Liquidity Funds (\$ Billions)
As reported on Form PF, Question 63.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
May Suspend	278	291	290	310	313	302	294	301
May Have Gates	245	260	261	281	281	275	266	274
Suspended	0	0	0	0	0	0	0	0
Gated	0	0	0	0	0	0	0	0

B Portfolio Characteristics

Figure 18: Weighted-Average Maturity Reported by Section 3 Liquidity Funds
As reported on Form PF, Question 55.

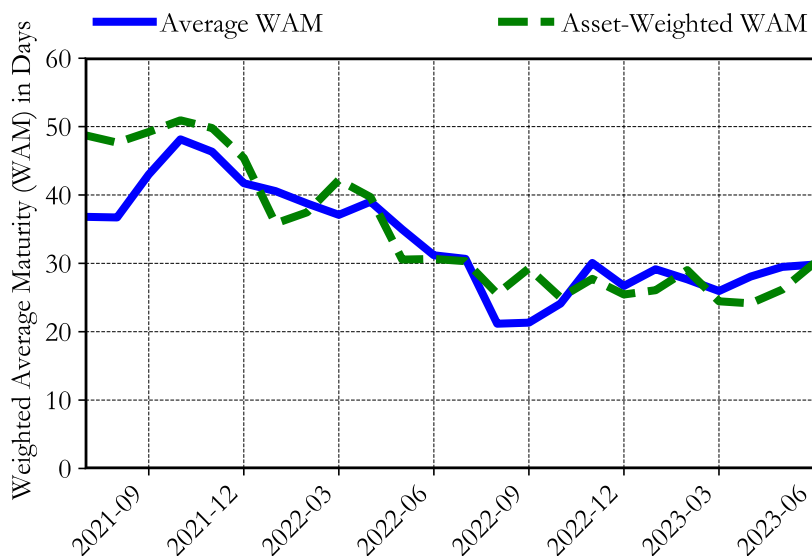


Figure 19: Weighted-Average Life Reported by Section 3 Liquidity Funds
As reported on Form PF, Question 55.

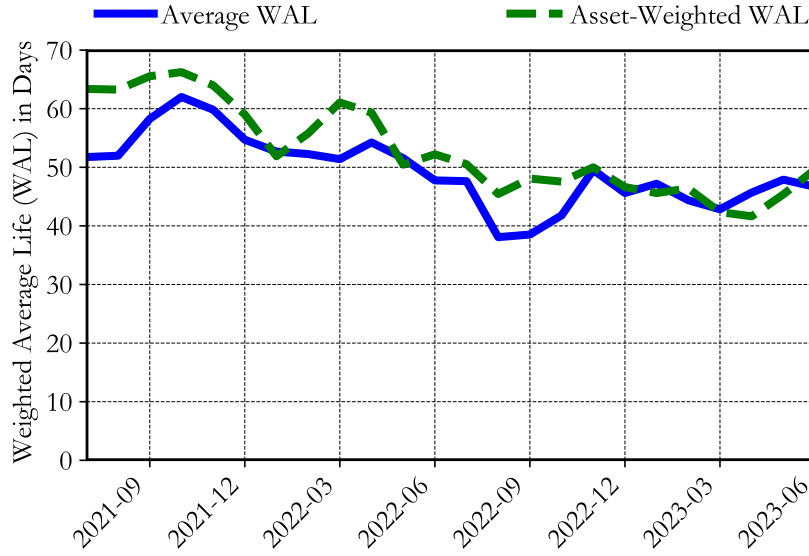


Figure 20: Seven-Day Gross Yield Reported by Section 3 Liquidity Funds
As reported on Form PF, Question 55.

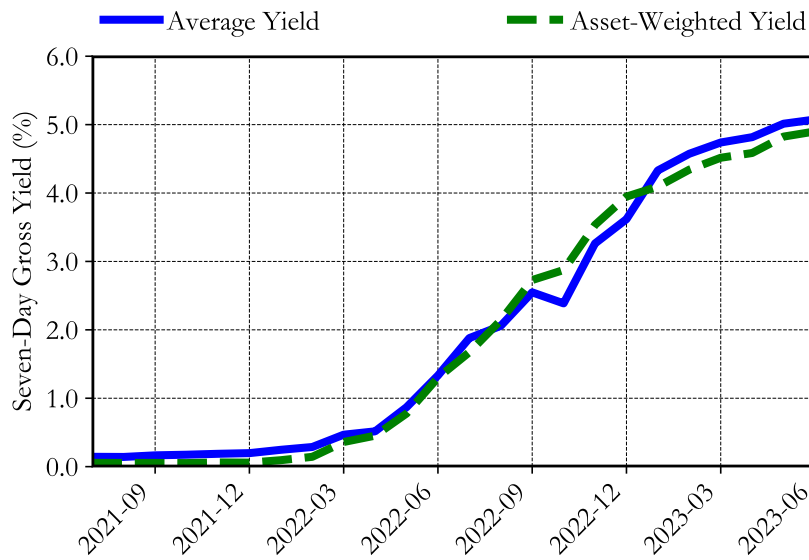


Figure 21: Ratio of Daily Liquid Assets to Net Asset Value of Section 3 Liquidity Funds
As reported on Form PF, Question 55.

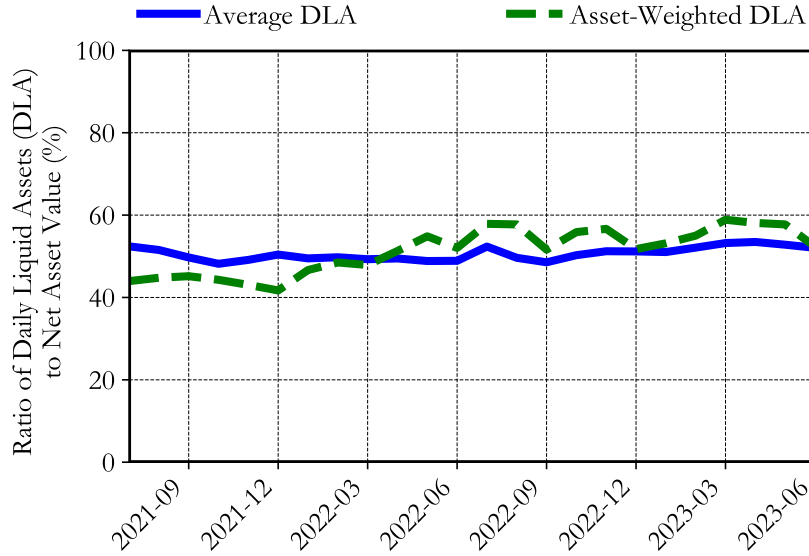
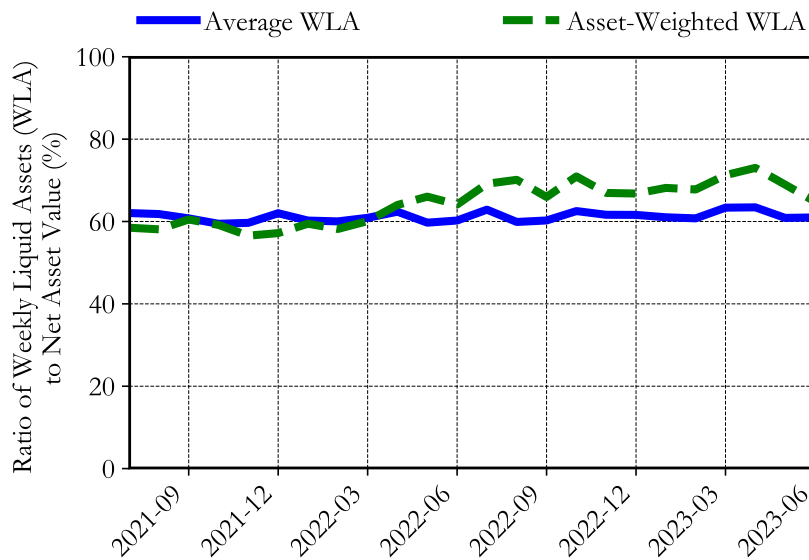


Figure 22: Ratio of Weekly Liquid Assets to Net Asset Value of Section 3 Liquidity Funds
As reported on Form PF, Question 55.



C Rule 2a-7 Compliance

Table 69: Rule 2a-7 Compliance (Percent of Funds)

As reported on Form PF, Questions 9 and 54.

Compliance Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
None	50.9	51.8	51.9	53.8	52.9	52.0	52.0	52.0
Credit Quality	49.1	48.2	48.1	46.2	47.1	48.0	48.0	48.0
Diversification	45.6	44.6	44.4	42.3	43.1	44.0	44.0	44.0
Maturity	45.6	44.6	44.4	42.3	39.2	44.0	44.0	44.0
Liquidity	42.1	41.1	40.7	36.5	37.3	38.0	38.0	38.0
Fully	38.6	37.5	37.0	34.6	35.3	36.0	36.0	36.0

Table 70: Rule 2a-7 Compliance (Percent of Aggregate NAV)

As reported on Form PF, Questions 9 and 54.

Compliance Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
None	80.9	82.1	81.3	83.9	84.3	84.1	83.6	84.2
Credit Quality	19.1	17.9	18.7	16.1	15.7	15.9	16.4	15.8
Diversification	17.4	16.5	17.2	14.6	14.4	14.6	15.1	14.5
Maturity	17.4	16.5	17.2	14.6	14.3	14.6	15.1	14.5
Liquidity	17.2	16.3	17.0	13.4	13.2	13.3	13.7	13.2
Fully	15.0	14.2	15.0	12.5	12.3	12.7	12.9	12.5

D Methods of Calculating NAV

Table 71: NAV Calculation Method (Percent of Funds)

As reported on Form PF, Questions 9, 52, and 53.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Stable	77.2	75.0	74.1	71.2	64.7	72.0	72.0	72.0
Floating	22.8	25.0	25.9	28.8	35.3	28.0	28.0	28.0

Table 72: NAV Calculation Method (Percent of Aggregate NAV)

As reported on Form PF, Questions 9, 52, and 53.

Type	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2
Stable	66.7	64.4	67.2	61.2	62.1	65.9	68.8	69.1
Floating	33.3	35.6	32.8	38.8	37.9	34.1	31.2	30.9

E Aggregate Portfolio Holdings

Table 73: Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions) — 1 of 2
As reported on Form PF, Question 63.

Product Type	2021-07	2021-08	2021-09	2021-10	2021-11	2021-12	2022-01	2022-02	2022-03	2022-04	2022-05	2022-06
Repo - Govt. Collateral	26.0	35.2	40.2	31.3	31.6	47.2	44.1	38.1	48.0	52.2	69.2	67.1
Deposits	83.1	75.5	69.7	83.1	82.0	60.8	73.5	80.5	62.8	73.4	78.9	72.0
U.S. Treasuries	86.4	80.2	73.1	88.7	88.8	88.7	69.9	81.5	91.4	84.3	63.4	78.4
Commercial Paper	52.3	51.7	51.4	53.1	50.5	48.2	51.9	48.2	46.6	44.2	46.4	53.6
Other	24.0	21.0	26.0	18.9	21.0	26.0	18.4	13.5	16.4	11.7	13.4	15.7
Asset-Backed Securities	20.9	21.0	23.0	23.9	24.5	24.4	25.2	24.7	26.0	24.1	18.9	20.8
Repo - Other Collateral	12.4	11.6	12.1	7.7	10.6	10.1	8.0	9.1	9.9	10.7	10.5	9.3
U.S. Govt. Debt	1.3	1.2	1.4	1.3	1.6	1.5	1.6	1.7	2.3	2.1	2.5	1.9
Municipal Debt	0.9	0.9	1.1	1.1	1.0	1.1	1.1	1.0	1.0	1.1	1.0	1.0

Table 74: Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions) — 2 of 2
As reported on Form PF, Question 63.

Product Type	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12	2023-01	2023-02	2023-03	2023-04	2023-05	2023-06
Repo - Govt. Collateral	80.9	86.3	78.8	85.2	78.4	84.2	82.0	84.3	103.7	105.4	104.9	75.3
Deposits	85.0	88.8	73.9	91.4	88.9	70.4	78.3	78.0	69.4	75.3	81.7	75.3
U.S. Treasuries	57.2	59.9	69.2	48.8	53.8	49.7	43.0	47.5	32.7	25.6	27.2	58.5
Commercial Paper	46.5	42.1	45.3	49.5	53.0	52.9	52.7	47.6	45.1	47.8	47.0	47.7
Other	11.3	10.0	16.6	14.1	13.7	17.9	13.8	10.1	14.5	21.8	15.3	21.0
Asset-Backed Securities	20.4	20.2	20.6	20.1	17.7	18.6	19.2	20.1	16.9	17.7	17.8	18.2
Repo - Other Collateral	10.4	9.1	8.7	10.4	10.9	9.7	7.7	9.4	10.9	11.2	10.0	11.1
U.S. Govt. Debt	3.3	5.2	5.2	5.7	5.4	8.7	7.7	7.5	13.9	13.1	10.7	6.3
Municipal Debt	0.9	1.0	1.0	0.9	0.9	0.8	0.7	0.7	0.7	1.0	1.0	0.9

X Section 4 Private Equity Fund Specific Information

A CPC Industry Concentration

Table 75: Gross Assets in CPC Industries (Percent of Total)
As reported on Form PF, Questions 8 and 77.

Type	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4	2019Q4	2020Q4	2021Q4	2022Q4
Software Publishers	3.8	4.9	6.1	6.0	8.0	10.6	9.7	11.7	12.0
Computing Infrastructure...	2.3	1.8	2.0	2.3	3.5	4.2	3.6	3.4	4.2
Other Financial Vehicles	0.4	0.6	1.8	1.6	1.3	1.2	1.8	2.2	2.9
Custom Computer Programming...	1.0	1.5	1.5	1.5	1.8	2.1	1.9	2.5	2.8
Insurance Agencies and Brokerages	1.0	1.0	1.2	1.1	1.0	1.1	1.5	1.7	1.8
All Other Professional,...	0.6	0.6	0.9	0.8	1.4	1.4	1.9	1.4	1.4
Computer Systems Design Services	0.8	0.6	1.0	0.8	0.6	0.6	1.0	1.6	1.1
Other Computer Related Services	0.4	0.5	0.9	0.9	1.0	0.8	1.2	1.5	1.0
Engineering Services	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.7
Offices of Physicians	0.2	0.3	0.4	0.3	0.3	0.5	0.5	0.7	0.7
Natural Gas Distribution	0.4	0.6	0.7	1.0	1.0	0.7	0.8	0.6	0.6
Other Activities Related to Real...	0.5	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.6
Consumer Lending	0.6	0.8	0.9	0.8	0.6	0.6	0.7	0.6	0.5
Commercial Banking	1.1	0.9	0.8	0.7	0.3	0.3	0.4	0.4	0.5
Hotels and Motels	0.7	0.6	0.7	0.4	0.2	0.4	0.4	0.4	0.5
Lessors of Nonresidential Buildings	0.8	0.8	0.7	0.7	0.6	1.1	0.6	0.4	0.5
Full-Service Restaurants	0.9	0.7	0.5	0.5	0.3	0.4	0.3	0.2	0.4
Offices of Other Holding Companies	0.3	0.6	0.3	0.4	0.5	0.4	0.4	0.4	0.4
Home Health Care Services	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.4	0.4
Offices of Dentists	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Commercial and Service Industry...	0.1	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2
Lessors of Residential Buildings...	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2
Marketing Research and Public...	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2
Supermarkets and Other Grocery...	0.5	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2
Electric Power Generation,...	3.8	3.7	4.1	4.2	4.5	4.3	4.8	3.7	***
Semiconductor & Other Electronic...	0.7	0.6	0.4	0.3	0.5	0.5	0.6	0.5	***
Facilities Support Services	0.1	0.2	0.2	0.3	0.1	0.1	0.2	0.2	0.2
Real Estate Credit	0.4	0.9	0.6	0.5	0.4	0.4	0.4	0.2	0.1
Support Activities for Water...	0.6	0.5	0.6	0.7	0.7	0.5	0.4	0.3	***

B CPC Financial Leverage

Figure 23: Distribution of Ratio of Aggregate CPC Current Liabilities to Total Liabilities of Section 4 Private Equity Funds

See Appendix C for an explanation of boxplots.
As reported on Form PF, Questions 71 and 72.

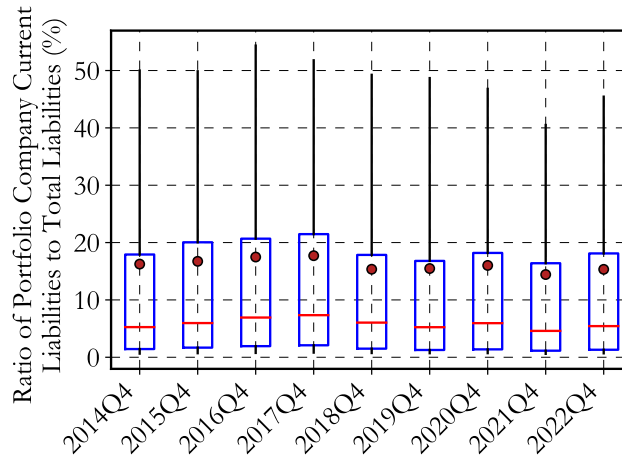
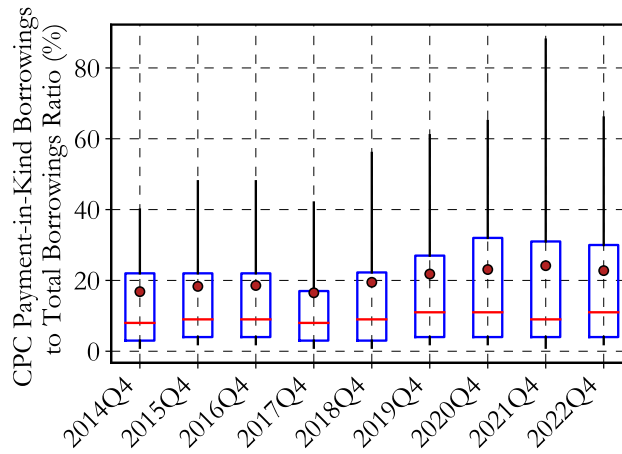


Figure 24: Distribution of CPC Payment-in-Kind or Zero Coupon Borrowings to Total Borrowings Ratio

See Appendix C for an explanation of boxplots.
As reported on Form PF, Question 73.



C CPC Investments by Region and Country

Table 76: Aggregate Gross Value of Private Equity
Investments by Region (\$ Billions)
As reported on Form PF, Questions 70 and 78.

Region	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4	2019Q4	2020Q4	2021Q4	2022Q4
North America	4,506	4,132	3,942	3,961	4,211	5,163	6,633	9,558	10,956
Europe EEA	1,259	941	848	963	1,256	1,547	2,155	3,576	3,072
Asia	462	447	406	379	435	561	1,028	881	1,079
Europe Other	9	21	22	40	46	69	158	409	613
South America	85	58	111	184	140	149	141	171	216
Middle East	12	9	15	23	16	18	44	124	151
Supranational	67	23	37	49	55	60	78	82	77
Africa	12	12	18	14	10	15	9	12	14

Table 77: Private Equity CPC Investments by Region
(Percent of Aggregate CPC Gross Asset Value)
As reported on Form PF, Questions 70 and 78.

Region	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4	2019Q4	2020Q4	2021Q4	2022Q4
North America	70.2	73.2	73.0	70.5	68.2	68.0	64.7	64.6	67.7
Europe EEA	19.6	16.7	15.7	17.1	20.3	20.4	21.0	24.2	19.0
Asia	7.2	7.9	7.5	6.8	7.0	7.4	10.0	6.0	6.7
Europe Other	0.1	0.4	0.4	0.7	0.7	0.9	1.5	2.8	3.8
South America	1.3	1.0	2.0	3.3	2.3	2.0	1.4	1.2	1.3
Middle East	0.2	0.2	0.3	0.4	0.3	0.2	0.4	0.8	0.9
Supranational	1.0	0.4	0.7	0.9	0.9	0.8	0.8	0.6	0.5
Africa	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1

Table 78: Aggregate Gross Asset Value of Private Equity
CPC Investments by Country (\$ Billions)
As reported on Form PF, Questions 70 and 78.

Country	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4	2019Q4	2020Q4	2021Q4	2022Q4
United States	4,305	3,943	3,776	3,794	4,015	4,803	6,243	8,364	10,298
India	83	89	92	73	104	128	229	277	280
China and Hong Kong	186	173	114	147	154	149	235	210	279
Japan	98	85	79	52	52	78	283	128	201
Brazil	58	41	88	131	96	93	78	55	96
Russia	2	5	4	4	2	1	1	6	27

Table 79: Private Equity CPC Investments by Country
(Percent of Aggregate CPC Gross Asset Value)
As reported on Form PF, Questions 70 and 78.

Country	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4	2019Q4	2020Q4	2021Q4	2022Q4
United States	67.1	69.9	69.9	67.6	65.1	63.3	60.9	56.5	63.6
India	1.3	1.6	1.7	1.3	1.7	1.7	2.2	1.9	1.7
China and Hong Kong	2.9	3.1	2.1	2.6	2.5	2.0	2.3	1.4	1.7
Japan	1.5	1.5	1.5	0.9	0.8	1.0	2.8	0.9	1.2
Brazil	0.9	0.7	1.6	2.3	1.6	1.2	0.8	0.4	0.6
Russia	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2

XI Appendices

A Form PF Filer Categories

The amount of information an adviser must report and the frequency with which it must report on Form PF depends on the amount of the adviser's private fund assets and the types of private funds managed. Reporting advisers must identify the types of private funds they manage on Form PF.

1 All Private Fund Advisers

SEC-registered investment advisers with at least \$150 million in private fund assets under management are required to file Form PF. Registered investment advisers with less than \$150 million in private funds assets under management, exempt reporting advisers, and state-registered advisers report general private fund data on Form ADV, but do not file Form PF.⁶ Not all Form PF filers report on a quarterly basis. Smaller private fund advisers and all private equity fund advisers file Form PF on an annual basis, while larger hedge fund advisers and larger liquidity fund advisers file the form quarterly.⁷ As a result of the difference in reporting frequency, information in this report related to funds that are reported annually may be dated by several months.⁸

2 Large Hedge Fund Advisers

Large Hedge Fund Advisers have at least \$1.5 billion in hedge fund assets under management. A Large Hedge Fund Adviser is required to file Form PF quarterly and provide data about each hedge fund it managed during the reporting period (irrespective of the size of the fund).

Large Hedge Fund Advisers must report more information on Form PF about Qualifying Hedge Funds than other hedge funds they manage during the reporting period. A Qualifying Hedge Fund is any hedge fund advised by a Large Hedge Fund Adviser that had a NAV (individually or in combination with any feeder funds, parallel funds, and/or dependent parallel managed accounts) of at least \$500 million as of the last day of any month in the fiscal quarter immediately preceding the adviser's most recently completed fiscal quarter. This report provides information about all hedge funds reported by Large Hedge Fund Advisers, including Qualifying Hedge Funds and smaller hedge funds. This report also provides an overview of certain data reported solely for Qualifying Hedge Funds.

⁶Note that these thresholds are on a gross basis. Exempt reporting advisers are advisers that rely on the exemptions from SEC registration in Advisers Act section 203(l) for venture capital fund advisers and section 203(m) for advisers managing less than \$150 million in private fund assets in the U.S.

⁷An adviser may be a large hedge fund adviser that must file quarterly to report data about the hedge funds it manages as well as a private equity fund adviser that must file only annually to report data about the private equity funds it manages.

⁸In addition, because some Form PF filers have fiscal year ends that are not December 31, not all Form PF data is filed as of a single date.

3 Large Liquidity Fund Advisers

Large Liquidity Fund Advisers have at least \$1 billion in combined liquidity fund and money market fund assets under management. On a quarterly basis, such advisers report on Form PF data about the liquidity funds they managed during the reporting period (irrespective of the size of the fund). This report contains information about all liquidity funds reported by Large Liquidity Fund Advisers (referred to in this report as “Section 3 Liquidity Funds”).

4 Large Private Equity Fund Advisers

Large Private Equity Fund Advisers have at least a \$2 billion in private equity fund assets under management. These advisers are required to file Form PF annually in connection with the private equity funds they managed during the reporting period. Smaller Private Equity Fund Advisers must file annually as well, but provide less detail regarding the private equity funds they manage. This report provides information about private equity funds managed by Large Private Equity Fund Advisers (referred to in this report as “Section 4 Private Equity Funds”).

5 Other Private Fund Advisers

All advisers required to file Form PF that are not Large Hedge Fund Advisers or Large Liquidity Fund Advisers must file Form PF annually to report data about each private fund managed by the adviser.⁹ These “annual filing advisers” include smaller fund advisers, Large Private Equity Fund advisers, and venture capital fund advisers. Annual filers must provide specific information about each of the private funds they manage on an annual basis.

⁹This includes “other private funds,” which are private funds that do not meet the Form PF definition of hedge fund, liquidity fund, private equity fund, real estate fund, securitized asset fund, or venture capital fund.

B Handling Annual and Quarterly Data

Only a subset of filers (Large Hedge Fund Advisers and Large Liquidity Fund Advisers) are required to file Form PF quarterly; all other filings are made annually. Annual filings are typically, but not always, made at the end of the calendar year, as Form PF allows filings to be made at the end of an adviser’s fiscal year. In order to present the most complete and recent data possible, while accounting for differences in filing dates, we use the following procedure for determining which data to consider in any given quarter:

First, filings are grouped by their report date within their reported year:

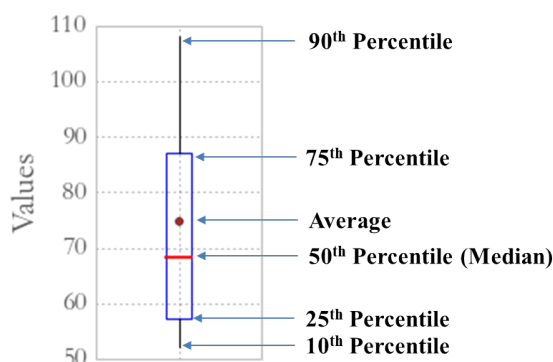
- (Q1): February 15 to May 14
- (Q2): May 15 to August 14
- (Q3): August 15 to November 14
- (Q4): November 15 to February 14

Then, responses for funds that have no information are ‘filled forward’ — essentially, copied from last reported values — up to a maximum of three quarters. Any fund that has no data four quarters after its most recent date is no longer counted or included in any calculations.¹⁰

C How to Read a Boxplot

In these figures, the boxes extend from the twenty-fifth percentile to the seventy-fifth percentile, while the levels (the dashed vertical lines) extend from the tenth to the twenty-fifth percentile as well as the seventy-fifth to the ninetieth percentile. Also shown as a red line within the box is the median (the fiftieth percentile) and the horizontal dashed line is mean of the distribution. See Figure 25 for an explanation of each feature.

Figure 25: How to Read a Boxplot



¹⁰Form PF has no requirement to inform the SEC if a fund liquidates or otherwise terminates operations. Therefore, liquidations or terminations may not be reflected on this report for up to one year after ceasing operations.

D Mitigating the Effects of Outliers

Form PF data occasionally contains spurious outliers. While Analytics Office staff actively engages in outreach to identify and correct such values, not all aberrant values have been corrected as of this writing. To reduce the effect of these outliers on the aggregate measures reported here, we have chosen to winsorize or trim some data sets.

Winsorization is a technique for reducing the effect of outliers by reducing the size of the largest and smallest values in a distribution.¹¹ For example, to calculate a 95%/5% winsorized data set, all the values above the ninety-fifth percentile are set to the value of the ninety-fifth percentile, and all the values below the fifth percentile are set to the value of the fifth percentile. Effectively, this procedure makes the very largest values smaller (but still large), and all the smallest values larger (but still small). This approach can be more effective than trimming (simply removing the largest and/or smallest values) because it does not change the number of data points and does not change the median or other percentile values within the 95%/5% range. All instances of winsorization or trimming have been noted and include the affected percentiles.

¹¹Such techniques are known as ‘robust statistics’, reviewed for example in Wilcox (2012), *Introduction to Robust Estimation & Hypothesis Testing*, 3rd Edition.

E Definitions

Included by reference are all definitions included in the glossary of Form PF.

<i>Aggregate Exposure</i>	A dollar value for long and short positions as of the last day in each month of the reporting period, by sub-asset class, including all exposure whether held physically, synthetically or through derivatives. Includes closed out and OTC forward positions that have not expired, as well as positions in side-pockets.
<i>Borrowing</i>	In Form PF, borrowings include secured borrowings, unsecured borrowings, as well as synthetic borrowings (e.g., total return swaps that meet the failed sale accounting requirements).
<i>CPC</i>	Controlled portfolio company, as defined in Form PF.
<i>Gross Notional Exposure (GNE)</i>	The gross nominal or notional value of all transactions that have been entered into but not yet settled as of the data reporting date. For contracts with variable nominal or notional principal amounts, the basis for reporting is the nominal or notional principal amounts as of the data reporting date.
<i>Hedge Fund</i>	Any private fund (other than a securitized asset fund): (a) with respect to which one or more investment advisers (or related persons of investment advisers) may be paid a performance fee or allocation calculated by taking into account unrealized gains (other than a fee or allocation the calculation of which may take into account unrealized gains solely for the purpose of reducing such fee or allocation to reflect net unrealized losses); (b) that may borrow an amount in excess of one-half of its net asset value (including any committed capital) or may have gross notional exposure in excess of twice its net asset value (including any committed capital); or (c) that may sell securities or other assets short or enter into similar transactions (other than for the purpose of hedging currency exposure or managing duration). The definition of a hedge fund for Form PF purposes also includes any commodity pool an adviser reports on Form PF.
<i>IRDs</i>	Interest rate derivatives, including foreign exchange derivatives used for either investment or hedging.
<i>Large Hedge Fund Adviser</i>	An adviser that has at least \$1.5 billion in hedge fund assets under management.

<i>Large Liquidity Fund Adviser</i>	An adviser that has at least \$1 billion in combined liquidity fund and money market fund assets under management.
<i>Large Private Equity Fund Adviser</i>	An adviser that has at least a \$2 billion in private equity fund assets under management.
<i>Parallel Managed Account</i>	An account advised by an adviser that pursues substantially the same investment objective and strategy and invests side by side in substantially the same positions as the reporting fund.
<i>Qualifying Hedge Fund</i>	A hedge fund advised by a Large Hedge Fund Adviser that has a net asset value (individually or in combination with any feeder funds, parallel funds, and/or dependent parallel managed accounts) of at least \$500 million as of the last day of any month in the fiscal quarter immediately preceding the adviser's most recently completed fiscal quarter.
<i>Section 3 Liquidity Fund</i>	A liquidity fund advised by a Large Liquidity Fund Adviser.
<i>Section 4 Private Equity Fund</i>	A private equity fund advised by a Large Private Equity Fund Adviser.
<i>Value</i>	For derivatives (other than options), "value" means gross notional value; for options, "value" means delta adjusted notional value; for all other investments and for all borrowings where the reporting fund is the creditor, "value" means market value or, where there is not a readily available market value, fair value; for borrowings where the reporting fund is the debtor, "value" means the value you report internally and to current and prospective investors.