

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.

December 30, 2019

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 more than \$8.5 trillion in net assets. Although private fund assets are still less than one half of the total assets of registered investment companies, they represent a much higher proportion of total registered and unregistered investment fund assets than in past decades. 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 allows the Commission to better monitor and identify trends that may affect private funds, advisers and investors.

Part III of this seventh 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, 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 more than \$8.5 trillion in reported net assets as of the first quarter of 2019,¹ 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, private 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.

¹ *Private Fund Statistics*, Table 4, at the Appendix.

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* footnote 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”). The Commission recently solicited public comment on the collection of information requirements of Form PF, and the Office of Management and Budget (“OMB”) approved the continuation of the collection without change pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et. seq.) (the “PRA”). See *Proposed Collection of Information, Comment Request*, 83 Fed. Reg. 1278 (Jan. 10, 2018); OMB, Office of Information and Regulatory Affairs, OMB Control Number History, <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>.

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

A. Overview of Form PF

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

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, Public Law No. 111-203, § 404, 124 Stat. 1376 (the “Dodd-Frank Act”).

⁷ Adopting Release, *supra* footnote 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 note 6, *supra*.

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* footnote 2, at Section II.E

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

access the data, 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 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;

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>.

- 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
- 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 Federal Reserve Board 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 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

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* footnote 7.

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

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, including their exposure to certain international markets. This type of 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

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, staff has used data about private liquidity funds from Form PF to consider the effects of money market reform implementation¹⁷ and to monitor for potential effects in short-term financing markets. Staff’s experience with Form PF informed the development of new Form N-PORT, a portfolio holdings reporting form for registered investment companies, and recent amendments to Form ADV filing requirements.¹⁸

B. Informing the Public about the Private Fund Industry

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

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 Money Market Fund Reform Release, *supra* footnote 3. The compliance date for money market reform was October 14, 2016.

¹⁸ See *Investment Company Reporting Modernization*, Investment Company Act Release No. 32314 (Oct. 13, 2016) [81 Fed. Reg. 81870 (Nov. 18, 2016)], <https://www.gpo.gov/fdsys/pkg/FR-2016-11-18/pdf/2016-25349.pdf>; *Form ADV and Investment Advisers Act Rules*, Investment Advisers Act Release No. 4509 (Aug. 25, 2016) [81 Fed. Reg. 60417 (Sept. 1, 2016)], <https://www.gpo.gov/fdsys/pkg/FR-2016-09-01/pdf/2016-20832.pdf>. See also *Investment Company Reporting Modernization Frequently Asked Questions*, updated April 27, 2018, <https://www.sec.gov/investment/investment-company-reporting-modernization-faq#n-port>; *Frequently Asked Questions on Form ADV and IARD*, <https://www.sec.gov/divisions/investment/iard/iardfaq.shtml>.

data.¹⁹ As supplemented with new data and analysis in May 2017, the report includes [90] separate tables and figures that offer analyses of hedge fund industry practices.²⁰ 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.²¹

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.²² Staff understands that the financial industry press monitors the release of these quarterly reports and industry participants may use the report to assist investors with investment decisions.²³

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

¹⁹ See *SEC Staff Publishes Private Funds Statistics Report*, Press Release (Oct. 16, 2015), <https://www.sec.gov/news/pressrelease/2015-240.html>.

²⁰ See *SEC Staff Supplements Quarterly Private Funds Statistics*, Press Release (May 3, 2017), <https://www.sec.gov/news/press-release/2017-92>.

²¹ Historical reports can be found at: <https://www.sec.gov/divisions/investment/private-funds-statistics.shtml>.

²² See Division of Investment Management, *Money Market Fund Statistics*, <https://www.sec.gov/divisions/investment/mmf-statistics.shtml>.

²³ See, e.g., 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.icsolutions.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>.

hedge funds.²⁴ Another staff white paper used Form PF data to characterize private liquidity funds and compare them to registered money market funds.²⁵

C. Assisting the Examinations and Enforcement Programs²⁶

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.

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,

²⁴ 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. These papers report analyses using data reported on Form PF in quarterly filings from 2013 to 2015.

²⁵ 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.

²⁶ 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).

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. More recently, beginning in July 2018, the Commission also makes Form PF data available to the Federal Reserve Board 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.²⁷ 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.

²⁷ See, e.g., *Financial Stability Oversight Council 2018 Annual Report* (updated June 20, 2019), <https://home.treasury.gov/system/files/261/FSOC2018AnnualReport.pdf>. Section 4.13.5 of this report includes certain aggregated data from Form PF in describing recent developments relating to alternative funds.

Appendix

(Private Funds Statistics, First Calendar Quarter 2019)



Division of Investment Management
Analytics Office

Private Funds Statistics

First Calendar Quarter 2019

October 25, 2019

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 Second Calendar Quarter 2017 through First Calendar Quarter 2019 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 First Calendar Quarter 2019 Private Funds Statistics, please contact:

Tim Dulaney, PhD, FRM or Tim Husson, PhD, FRM at FormPF@sec.gov with subject line “First Calendar Quarter 2019-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. This report relies upon the Form PF database constructed and maintained by the Office of Research and Data Services in the Division of Economic and Risk Analysis.

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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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Private Equity Fund | 10,389 | 10,298 | 11,541 | 11,581 | 11,601 | 11,610 | 12,711 | 12,941 |
| Hedge Fund | 9,126 | 9,166 | 9,036 | 9,194 | 9,307 | 9,382 | 9,194 | 9,388 |
| Other Private Fund | 4,499 | 4,458 | 4,537 | 4,608 | 4,581 | 4,587 | 4,898 | 4,755 |
| Section 4 Private Equity Fund | 3,009 | 2,989 | 3,482 | 3,494 | 3,494 | 3,495 | 3,936 | 3,933 |
| Real Estate Fund | 2,452 | 2,443 | 2,653 | 2,663 | 2,657 | 2,664 | 2,837 | 2,850 |
| Qualifying Hedge Fund | 1,717 | 1,727 | 1,801 | 1,772 | 1,806 | 1,818 | 1,827 | 1,794 |
| Securitized Asset Fund | 1,475 | 1,477 | 1,504 | 1,510 | 1,510 | 1,514 | 1,564 | 1,569 |
| Venture Capital Fund | 787 | 773 | 866 | 866 | 851 | 850 | 961 | 962 |
| Liquidity Fund | 69 | 69 | 70 | 69 | 68 | 68 | 73 | 72 |
| Section 3 Liquidity Fund | 47 | 46 | 48 | 46 | 45 | 45 | 46 | 45 |
| Total | 28,797 | 28,684 | 30,207 | 30,491 | 30,575 | 30,675 | 32,238 | 32,537 |

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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Private Equity Fund | 1,092 | 1,089 | 1,145 | 1,153 | 1,154 | 1,157 | 1,247 | 1,256 |
| Hedge Fund | 1,690 | 1,691 | 1,734 | 1,736 | 1,739 | 1,739 | 1,748 | 1,741 |
| Other Private Fund | 580 | 577 | 586 | 593 | 589 | 590 | 627 | 626 |
| Section 4 Private Equity Fund | 250 | 247 | 293 | 296 | 296 | 296 | 308 | 307 |
| Real Estate Fund | 316 | 315 | 331 | 333 | 333 | 335 | 347 | 349 |
| Qualifying Hedge Fund | 534 | 536 | 551 | 542 | 550 | 545 | 553 | 540 |
| Securitized Asset Fund | 153 | 154 | 155 | 155 | 156 | 158 | 153 | 153 |
| Venture Capital Fund | 111 | 110 | 115 | 116 | 116 | 117 | 133 | 132 |
| Liquidity Fund | 38 | 38 | 39 | 39 | 38 | 38 | 40 | 39 |
| Section 3 Liquidity Fund | 24 | 23 | 25 | 23 | 22 | 22 | 23 | 22 |
| Total | 2,925 | 2,925 | 3,030 | 3,041 | 3,046 | 3,046 | 3,147 | 3,149 |

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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Hedge Fund | 6,862 | 7,184 | 7,242 | 7,520 | 7,659 | 7,911 | 7,593 | 8,052 |
| Qualifying Hedge Fund | 5,681 | 5,856 | 5,863 | 6,076 | 6,281 | 6,386 | 6,153 | 6,480 |
| Private Equity Fund | 2,324 | 2,310 | 2,727 | 2,766 | 2,769 | 2,769 | 3,175 | 3,259 |
| Section 4 Private Equity Fund | 1,648 | 1,641 | 1,941 | 1,978 | 1,978 | 1,978 | 2,330 | 2,365 |
| Other Private Fund | 1,088 | 1,061 | 1,191 | 1,206 | 1,208 | 1,222 | 1,225 | 1,222 |
| Real Estate Fund | 434 | 433 | 500 | 505 | 505 | 505 | 568 | 574 |
| Securitized Asset Fund | 454 | 453 | 485 | 480 | 488 | 490 | 570 | 573 |
| Liquidity Fund | 276 | 282 | 291 | 291 | 311 | 314 | 297 | 292 |
| Section 3 Liquidity Fund | 273 | 279 | 289 | 289 | 307 | 309 | 292 | 289 |
| Venture Capital Fund | 65 | 63 | 81 | 82 | 81 | 82 | 111 | 111 |
| Total | 11,503 | 11,787 | 12,517 | 12,849 | 13,021 | 13,292 | 13,538 | 14,083 |

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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Hedge Fund | 3,658 | 3,780 | 3,883 | 3,974 | 4,003 | 4,059 | 3,794 | 4,007 |
| Qualifying Hedge Fund | 2,890 | 2,984 | 3,047 | 3,106 | 3,151 | 3,188 | 2,968 | 3,127 |
| Private Equity Fund | 2,082 | 2,069 | 2,441 | 2,484 | 2,487 | 2,487 | 2,813 | 2,895 |
| Section 4 Private Equity Fund | 1,496 | 1,489 | 1,755 | 1,789 | 1,789 | 1,789 | 2,084 | 2,117 |
| Other Private Fund | 995 | 971 | 1,076 | 1,086 | 1,106 | 1,096 | 1,085 | 1,082 |
| Real Estate Fund | 341 | 340 | 391 | 394 | 394 | 394 | 443 | 448 |
| Securitized Asset Fund | 145 | 144 | 152 | 152 | 154 | 154 | 170 | 171 |
| Liquidity Fund | 275 | 280 | 291 | 289 | 309 | 311 | 295 | 288 |
| Section 3 Liquidity Fund | 272 | 278 | 288 | 287 | 305 | 306 | 289 | 285 |
| Venture Capital Fund | 62 | 61 | 77 | 77 | 76 | 77 | 98 | 98 |
| Total | 7,558 | 7,646 | 8,311 | 8,456 | 8,530 | 8,578 | 8,697 | 8,989 |

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

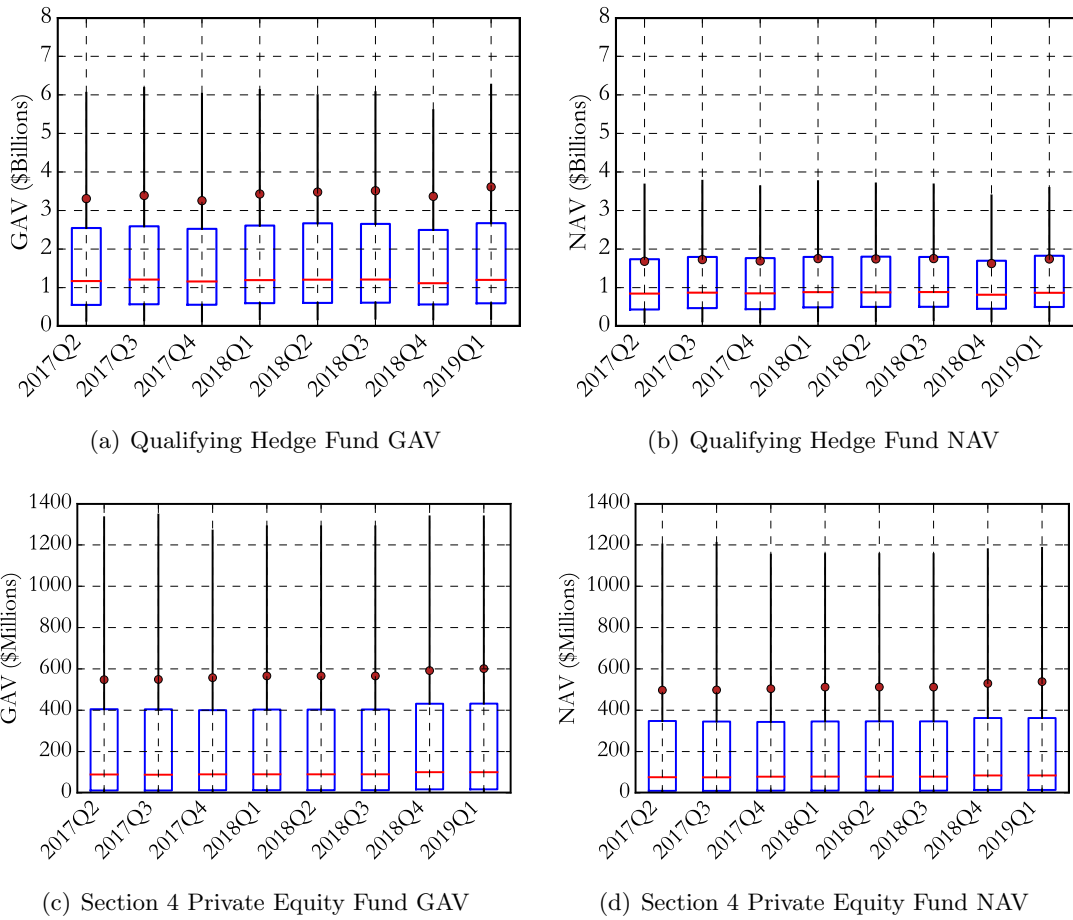
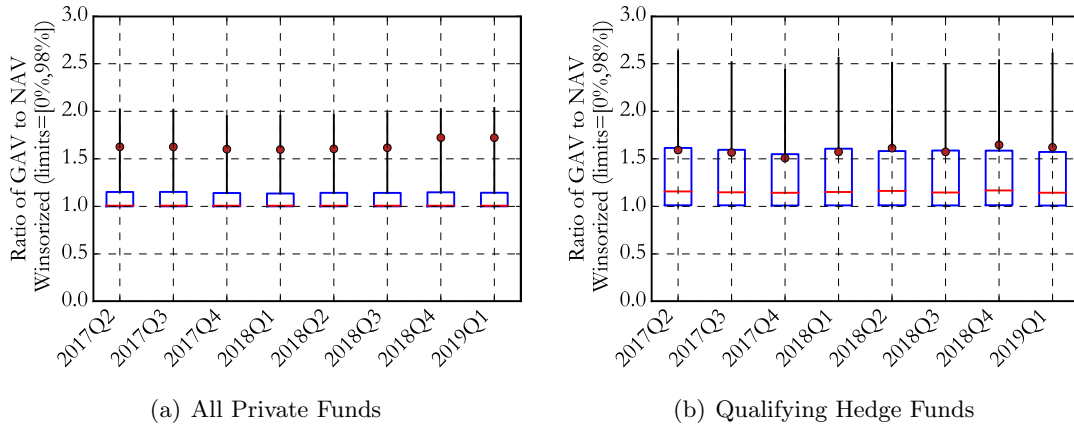


Figure 2: Ratio of GAV to NAV

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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Securitized Asset Fund | 48.8 | 48.4 | 51.9 | 51.2 | 51.2 | 50.6 | 53.5 | 52.7 |
| Qualifying Hedge Fund | 42.3 | 41.8 | 41.5 | 42.9 | 45.0 | 44.5 | 45.1 | 46.7 |
| Hedge Fund | 39.3 | 39.6 | 39.4 | 40.4 | 41.6 | 41.3 | 41.6 | 43.1 |
| Real Estate Fund | 12.7 | 12.7 | 13.2 | 13.5 | 13.2 | 13.2 | 14.7 | 14.9 |
| Section 4 Private Equity Fund | 4.0 | 4.1 | 4.6 | 4.6 | 4.6 | 4.6 | 5.2 | 5.2 |
| Private Equity Fund | 5.0 | 5.0 | 5.2 | 4.9 | 4.9 | 4.9 | 5.3 | 5.1 |
| Other Private Fund | 2.7 | 2.7 | 2.2 | 2.7 | 2.7 | 3.0 | 3.5 | 3.4 |
| Venture Capital Fund | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.9 | 0.8 |
| 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).

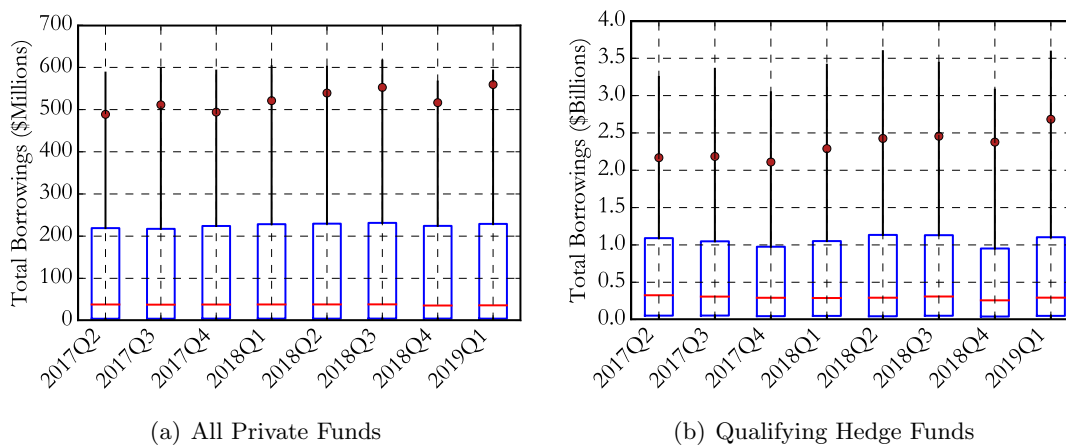
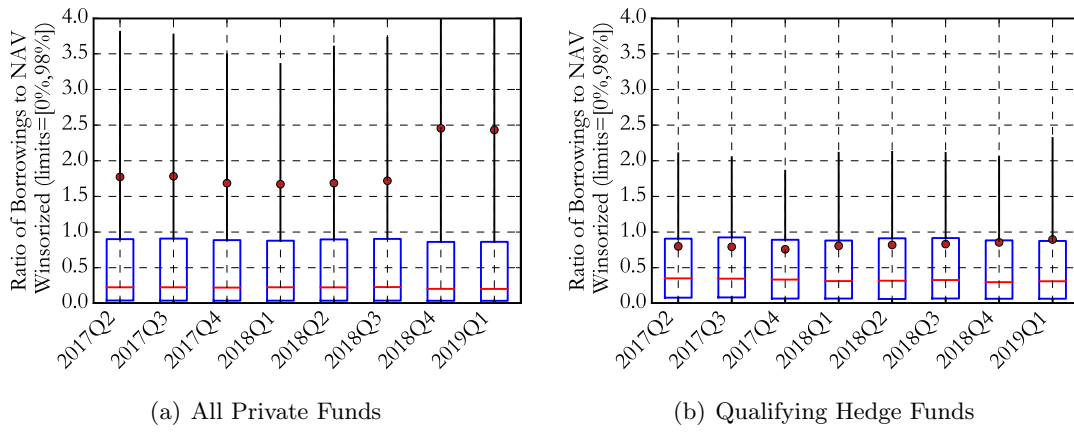


Figure 4: Ratio of Borrowings to NAV

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).



C Fair Value Hierarchy

Table 6: Assets According to Fair Value Hierarchy (\$ Billions)
As reported on Form PF, Question 14.

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Level One | 2,566 | 2,558 | 3,269 | 3,017 | 2,976 | 2,856 | 3,213 | 2,679 |
| Level Two | 2,182 | 2,223 | 2,753 | 2,299 | 2,320 | 2,296 | 2,930 | 2,517 |
| Level Three | 2,515 | 2,509 | 2,898 | 2,859 | 2,869 | 2,882 | 3,400 | 3,375 |
| Cost-Based | 1,706 | 1,711 | 2,225 | 1,863 | 1,879 | 1,840 | 2,445 | 1,997 |

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

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Level One | 650 | 651 | 647 | 788 | 780 | 659 | 311 | 651 |
| Level Two | 451 | 455 | 608 | 588 | 602 | 604 | 714 | 803 |
| Level Three | 140 | 137 | 174 | 174 | 174 | 177 | 155 | 157 |
| Cost-Based | 644 | 650 | 479 | 762 | 773 | 733 | 603 | 1,060 |

D Parallel Managed Accounts⁴

Table 8: 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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Hedge Fund | 661 | 668 | 669 | 674 | 678 | 686 | 663 | 659 |
| Other Private Fund | 501 | 499 | 513 | 518 | 514 | 505 | 508 | 509 |
| Private Equity Fund | 239 | 272 | 292 | 292 | 290 | 279 | 315 | 314 |
| Qualifying Hedge Fund | 220 | 227 | 238 | 233 | 234 | 236 | 231 | 223 |
| Section 4 Private Equity Fund | 88 | 88 | 98 | 98 | 98 | 98 | 112 | 112 |
| Real Estate Fund | 77 | 77 | 71 | 71 | 71 | 71 | 68 | 78 |
| Liquidity Fund | 16 | 16 | 16 | 16 | 16 | 16 | 18 | 15 |
| Section 3 Liquidity Fund | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 13 |
| Venture Capital Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Securitized Asset Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Total | 1,534 | 1,571 | 1,575 | 1,585 | 1,583 | 1,571 | 1,581 | 1,584 |

Table 9: Aggregate Value in Parallel Managed Accounts (\$ Billions)

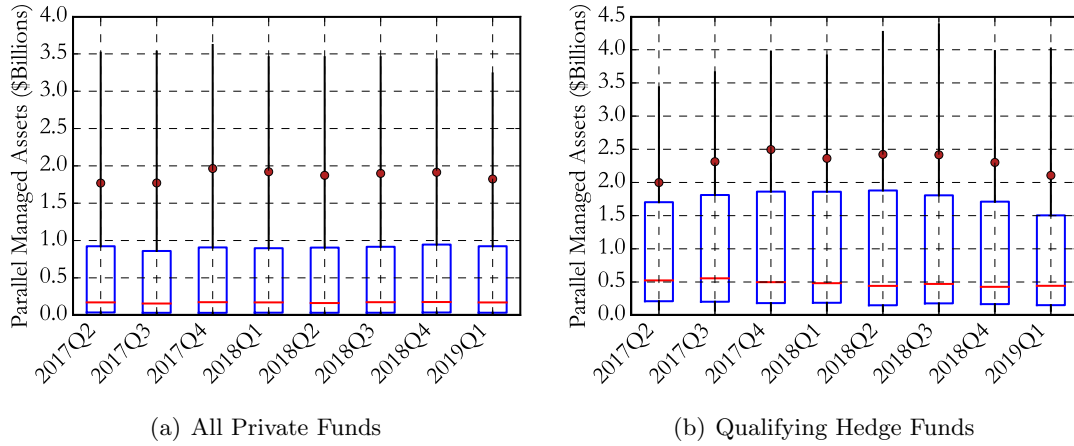
As reported on Form PF, Question 11.

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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Hedge Fund | 680 | 714 | 827 | 770 | 769 | 813 | 770 | 721 |
| Other Private Fund | 1,489 | 1,508 | 1,864 | 1,869 | 1,799 | 1,763 | 1,821 | 1,822 |
| Private Equity Fund | 28 | 28 | 37 | 37 | 37 | 37 | 48 | 48 |
| Qualifying Hedge Fund | 440 | 525 | 594 | 551 | 567 | 570 | 532 | 470 |
| Section 4 Private Equity Fund | 22 | 22 | 28 | 28 | 28 | 28 | 33 | 33 |
| Real Estate Fund | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 5 |
| Liquidity Fund | 330 | 345 | 359 | 361 | 353 | 364 | 383 | 293 |
| Section 3 Liquidity Fund | 330 | 345 | 359 | 361 | 353 | 364 | 382 | 292 |
| Venture Capital Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Securitized Asset Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Total | 2,714 | 2,782 | 3,094 | 3,045 | 2,966 | 2,984 | 3,026 | 2,889 |

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

| All Private Funds | | | | | | | | |
|--------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| United States | 51.5 | 51.0 | 51.4 | 51.0 | 50.9 | 50.9 | 51.7 | 50.7 |
| Cayman Islands | 36.4 | 36.6 | 35.4 | 35.3 | 35.2 | 35.1 | 34.0 | 34.7 |
| Ireland | 4.2 | 4.3 | 4.4 | 4.4 | 4.5 | 4.6 | 4.6 | 4.5 |
| Luxembourg | 1.6 | 1.6 | 1.9 | 2.0 | 2.2 | 2.2 | 2.9 | 3.0 |
| Virgin Islands, British | 2.0 | 2.0 | 1.8 | 1.8 | 1.8 | 1.7 | 1.5 | 1.5 |
| United Kingdom | 1.1 | 1.1 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 |
| Bermuda | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 |
| Other | 2.0 | 2.1 | 2.6 | 2.9 | 2.9 | 3.0 | 3.0 | 3.3 |
| Qualifying Hedge Funds | | | | | | | | |
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| Cayman Islands | 52.4 | 51.7 | 51.3 | 51.0 | 50.9 | 50.6 | 50.6 | 51.5 |
| United States | 35.0 | 35.3 | 35.8 | 35.6 | 35.5 | 35.1 | 35.6 | 34.7 |
| Virgin Islands, British | 5.0 | 4.8 | 4.5 | 4.4 | 4.4 | 4.2 | 4.1 | 3.9 |
| Ireland | 2.7 | 2.8 | 2.9 | 3.1 | 3.2 | 3.3 | 3.2 | 3.2 |
| Luxembourg | 1.6 | 1.7 | 1.9 | 2.0 | 2.4 | 2.7 | 2.6 | 2.7 |
| Bermuda | 1.7 | 1.7 | 1.6 | 1.7 | 1.8 | 1.8 | 2.0 | 1.9 |
| Other | 1.6 | 2.0 | 2.0 | 2.1 | 2.0 | 2.2 | 1.9 | 2.0 |
| Section 3 Liquidity Funds | | | | | | | | |
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| Ireland | *** | *** | *** | *** | *** | *** | *** | *** |
| United States | 36.8 | 34.7 | 35.1 | 35.8 | 36.9 | 36.8 | 32.9 | 30.0 |
| Cayman Islands | *** | *** | *** | *** | *** | *** | *** | *** |
| Other | *** | *** | *** | *** | *** | *** | *** | *** |
| Section 4 Private Equity Funds | | | | | | | | |
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| United States | 63.8 | 63.7 | 60.7 | 59.5 | 59.5 | 59.5 | 56.9 | 56.0 |
| Cayman Islands | 29.4 | 29.5 | 30.4 | 29.8 | 29.8 | 29.8 | 30.6 | 30.1 |
| United Kingdom | 1.9 | 2.0 | 2.7 | 2.9 | 2.9 | 2.9 | 2.3 | 2.3 |
| Canada | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 |
| Bermuda | 1.1 | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 1.0 | 0.9 |
| Other | 2.9 | 2.9 | 4.2 | 5.7 | 5.7 | 5.7 | 8.2 | 9.7 |

Table 11: Adviser Main Office Location (Percent of NAV)
As reported on Form PF, Question 9 and Form ADV.

| All Private Funds | | | | | | | | |
|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| United States | 89.0 | 88.9 | 89.5 | 88.9 | 88.7 | 88.8 | 89.7 | 89.5 |
| United Kingdom | 6.7 | 6.8 | 6.5 | 6.9 | 7.0 | 6.9 | 6.2 | 6.3 |
| Other | 4.2 | 4.3 | 4.1 | 4.3 | 4.3 | 4.3 | 4.1 | 4.2 |
| Qualifying Hedge Funds | | | | | | | | |
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| United States | 89.3 | 89.0 | 88.6 | 88.4 | 88.7 | 88.6 | 89.0 | 89.0 |
| United Kingdom | 6.2 | 6.3 | 6.6 | 6.6 | 6.5 | 6.5 | 6.1 | 6.0 |
| Australia | *** | *** | *** | *** | *** | *** | *** | *** |
| Hong Kong | *** | *** | *** | *** | *** | *** | *** | *** |
| Other | 2.3 | 2.3 | 2.2 | 2.3 | 2.3 | 2.1 | 2.1 | 2.0 |
| Section 3 Liquidity Funds | | | | | | | | |
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| United States | *** | *** | *** | *** | *** | *** | *** | *** |
| United Kingdom | *** | *** | *** | *** | *** | *** | *** | *** |
| Section 4 Private Equity Funds | | | | | | | | |
| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
| United States | 95.1 | 95.1 | 94.8 | 94.8 | 94.8 | 94.8 | 94.0 | 94.1 |
| Canada | *** | *** | *** | *** | *** | *** | *** | *** |
| Other | *** | *** | *** | *** | *** | *** | *** | *** |

IV Beneficial Ownership

Table 12: Beneficial Ownership for All Private Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Private Funds | 1,371 | 1,371 | 1,491 | 1,515 | 1,533 | 1,534 | 1,517 | 1,549 |
| Other | 1,011 | 1,039 | 1,189 | 1,234 | 1,238 | 1,250 | 1,332 | 1,375 |
| State/Muni. Govt. Pension Plans | 1,033 | 1,048 | 1,154 | 1,154 | 1,164 | 1,178 | 1,231 | 1,250 |
| Pension Plans | 967 | 973 | 1,038 | 1,046 | 1,049 | 1,048 | 1,044 | 1,068 |
| Non-Profits | 779 | 790 | 849 | 861 | 869 | 868 | 849 | 894 |
| U.S. Individuals | 790 | 799 | 818 | 835 | 842 | 851 | 842 | 875 |
| Sov. Wealth Funds And For. Official Inst. | 444 | 445 | 515 | 540 | 544 | 544 | 555 | 604 |
| Insurance Companies | 312 | 314 | 349 | 352 | 365 | 373 | 399 | 411 |
| Unknown Non-U.S. Investors | 185 | 188 | 195 | 193 | 189 | 187 | 204 | 216 |
| Non-U.S. Individuals | 185 | 183 | 187 | 191 | 193 | 195 | 205 | 209 |
| Banking/Thrift Inst. | 143 | 147 | 161 | 161 | 170 | 172 | 169 | 171 |
| State/Muni. Govt. Entities | 107 | 108 | 122 | 125 | 129 | 131 | 122 | 130 |
| Sec-Registered Investment Companies | 121 | 128 | 129 | 133 | 128 | 127 | 118 | 126 |
| Broker-Dealers | 107 | 111 | 112 | 113 | 114 | 121 | 108 | 107 |

Table 13: Beneficial Ownership for All Private Funds
(Percent of Aggregate NAV)

As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Private Funds | 18.1 | 17.9 | 17.9 | 17.9 | 18.0 | 17.9 | 17.4 | 17.2 |
| Other | 13.4 | 13.6 | 14.3 | 14.6 | 14.5 | 14.6 | 15.3 | 15.3 |
| State/Muni. Govt. Pension Plans | 13.7 | 13.7 | 13.9 | 13.6 | 13.6 | 13.7 | 14.1 | 13.9 |
| Pension Plans | 12.8 | 12.7 | 12.5 | 12.4 | 12.3 | 12.2 | 12.0 | 11.9 |
| Non-Profits | 10.3 | 10.3 | 10.2 | 10.2 | 10.2 | 10.1 | 9.8 | 9.9 |
| U.S. Individuals | 10.5 | 10.4 | 9.8 | 9.9 | 9.9 | 9.9 | 9.7 | 9.7 |
| Sov. Wealth Funds And For. Official Inst. | 5.9 | 5.8 | 6.2 | 6.4 | 6.4 | 6.3 | 6.4 | 6.7 |
| Insurance Companies | 4.1 | 4.1 | 4.2 | 4.2 | 4.3 | 4.3 | 4.6 | 4.6 |
| Unknown Non-U.S. Investors | 2.5 | 2.5 | 2.3 | 2.3 | 2.2 | 2.2 | 2.3 | 2.4 |
| Non-U.S. Individuals | 2.5 | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.3 |
| Banking/Thrift Inst. | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 |
| State/Muni. Govt. Entities | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 |
| Sec-Registered Investment Companies | 1.6 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 |
| Broker-Dealers | 1.4 | 1.5 | 1.3 | 1.3 | 1.3 | 1.4 | 1.2 | 1.2 |

Table 14: Beneficial Ownership for Qualifying Hedge Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Private Funds | 503 | 508 | 503 | 514 | 517 | 526 | 480 | 508 |
| Non-Profits | 404 | 418 | 429 | 429 | 443 | 442 | 404 | 442 |
| Other | 385 | 409 | 409 | 436 | 443 | 447 | 414 | 428 |
| Pension Plans | 386 | 398 | 414 | 416 | 415 | 417 | 399 | 417 |
| State/Muni. Govt. Pension Plans | 314 | 331 | 352 | 342 | 342 | 348 | 343 | 353 |
| U.S. Individuals | 331 | 340 | 345 | 342 | 352 | 357 | 323 | 347 |
| Sov. Wealth Funds And For. Official Inst. | 158 | 160 | 166 | 193 | 197 | 195 | 196 | 198 |
| Insurance Companies | 73 | 74 | 78 | 78 | 83 | 91 | 82 | 89 |
| Non-U.S. Individuals | 68 | 70 | 73 | 76 | 77 | 79 | 75 | 79 |
| Broker-Dealers | 75 | 79 | 79 | 80 | 81 | 84 | 77 | 77 |
| Unknown Non-U.S. Investors | 52 | 56 | 58 | 55 | 53 | 53 | 48 | 57 |
| Sec-Registered Investment Companies | 62 | 65 | 65 | 66 | 61 | 59 | 52 | 54 |
| State/Muni. Govt. Entities | 42 | 42 | 42 | 47 | 49 | 50 | 39 | 42 |
| Banking/Thrift Inst. | 33 | 33 | 35 | 33 | 36 | 38 | 32 | 33 |

**Table 15: Beneficial Ownership for Qualifying Hedge Funds
(Percent of Aggregate NAV)**
As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Private Funds | 17.4 | 17.0 | 16.5 | 16.5 | 16.4 | 16.5 | 16.2 | 16.3 |
| Non-Profits | 14.0 | 14.0 | 14.1 | 13.8 | 14.1 | 13.9 | 13.6 | 14.1 |
| Other | 13.3 | 13.7 | 13.4 | 14.0 | 14.1 | 14.0 | 14.0 | 13.7 |
| Pension Plans | 13.4 | 13.3 | 13.6 | 13.4 | 13.2 | 13.1 | 13.5 | 13.3 |
| State/Muni. Govt. Pension Plans | 10.9 | 11.1 | 11.5 | 11.0 | 10.9 | 10.9 | 11.6 | 11.3 |
| U.S. Individuals | 11.5 | 11.4 | 11.3 | 11.0 | 11.2 | 11.2 | 10.9 | 11.1 |
| Sov. Wealth Funds And For. Official Inst. | 5.5 | 5.4 | 5.4 | 6.2 | 6.2 | 6.1 | 6.6 | 6.3 |
| Insurance Companies | 2.5 | 2.5 | 2.5 | 2.5 | 2.6 | 2.9 | 2.8 | 2.8 |
| Non-U.S. Individuals | 2.4 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 |
| Broker-Dealers | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.5 |
| Unknown Non-U.S. Investors | 1.8 | 1.9 | 1.9 | 1.8 | 1.7 | 1.6 | 1.6 | 1.8 |
| Sec-Registered Investment Companies | 2.1 | 2.2 | 2.1 | 2.1 | 1.9 | 1.8 | 1.8 | 1.7 |
| State/Muni. Govt. Entities | 1.4 | 1.4 | 1.4 | 1.5 | 1.6 | 1.6 | 1.3 | 1.3 |
| Banking/Thrift Inst. | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.1 | 1.1 |

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

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Private Funds | 89 | 83 | 96 | 94 | 109 | 105 | 97 | 84 |
| Unknown Non-U.S. Investors | 52 | 55 | 53 | 52 | 52 | 51 | 54 | 60 |
| Other | 51 | 51 | 55 | 57 | 55 | 57 | 55 | 57 |
| Broker-Dealers | *** | *** | *** | *** | *** | *** | *** | *** |
| Sec-Registered Investment Companies | 21 | 24 | 23 | 24 | 24 | 23 | 18 | 19 |
| Banking/Thrift Inst. | 12 | *** | *** | 13 | 17 | 17 | *** | *** |
| Insurance Companies | 9 | 10 | 9 | 9 | 12 | 12 | 9 | 10 |
| Sov. Wealth Funds And For. Official Inst. | *** | *** | *** | *** | *** | *** | *** | *** |
| Non-U.S. Individuals | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 |
| Pension Plans | 5 | 5 | 5 | 5 | 3 | 4 | 3 | *** |
| State/Muni. Govt. Entities | *** | *** | *** | *** | *** | *** | *** | *** |
| Non-Profits | 2 | 2 | 2 | 1 | *** | 1 | 1 | 1 |
| State/Muni. Govt. Pension Plans | 1 | 1 | 1 | 1 | *** | 2 | 2 | *** |
| U.S. Individuals | *** | *** | *** | *** | *** | *** | *** | *** |

Table 17: Beneficial Ownership for Section 3 Liquidity Funds
(Percent of Aggregate NAV)

As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| Private Funds | 32.6 | 30.0 | 33.3 | 32.6 | 35.7 | 34.4 | 33.6 | 29.6 |
| Unknown Non-U.S. Investors | 19.2 | 19.8 | 18.4 | 18.1 | 17.0 | 16.6 | 18.7 | 20.9 |
| Other | 18.7 | 18.5 | 19.1 | 19.7 | 17.9 | 18.7 | 19.0 | 20.0 |
| Broker-Dealers | *** | *** | *** | *** | *** | *** | *** | *** |
| Sec-Registered Investment Companies | 7.6 | 8.6 | 7.8 | 8.3 | 7.9 | 7.6 | 6.2 | 6.6 |
| Banking/Thrift Inst. | 4.3 | *** | *** | 4.7 | 5.6 | 5.4 | *** | *** |
| Insurance Companies | 3.3 | 3.7 | 3.0 | 3.3 | 3.9 | 3.8 | 3.1 | 3.5 |
| Sov. Wealth Funds And For. Official Inst. | *** | *** | *** | *** | *** | *** | *** | *** |
| Non-U.S. Individuals | 1.5 | 1.4 | 1.3 | 1.4 | 1.2 | 1.1 | 1.7 | 1.3 |
| Pension Plans | 1.8 | 1.9 | 1.8 | 1.7 | 1.1 | 1.2 | 0.9 | *** |
| State/Muni. Govt. Entities | *** | *** | *** | *** | *** | *** | *** | *** |
| Non-Profits | 0.6 | 0.6 | 0.5 | 0.5 | *** | 0.4 | 0.4 | 0.5 |
| State/Muni. Govt. Pension Plans | 0.4 | 0.4 | 0.4 | 0.3 | *** | 0.6 | 0.6 | *** |
| U.S. Individuals | *** | *** | *** | *** | *** | *** | *** | *** |

Table 18: Beneficial Ownership for Section 4 Private Equity Funds (\$ Billions)
As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| State/Muni. Govt. Pension Plans | 366 | 366 | 415 | 416 | 416 | 416 | 454 | 454 |
| Private Funds | 284 | 284 | 353 | 356 | 356 | 356 | 398 | 397 |
| Other | 161 | 161 | 212 | 225 | 225 | 225 | 322 | 336 |
| Sov. Wealth Funds And For. Official Inst. | 154 | 153 | 186 | 203 | 203 | 203 | 225 | 244 |
| Pension Plans | 142 | 139 | 159 | 159 | 159 | 159 | 175 | 175 |
| Insurance Companies | 94 | 94 | 109 | 109 | 109 | 109 | 127 | 127 |
| U.S. Individuals | 88 | 88 | 94 | 94 | 94 | 94 | 118 | 118 |
| Non-Profits | 92 | 90 | 104 | 104 | 104 | 104 | 116 | 116 |
| Non-U.S. Individuals | 34 | 34 | 36 | 36 | 36 | 36 | 48 | 48 |
| State/Muni. Govt. Entities | 22 | 22 | 28 | 28 | 28 | 28 | 36 | 36 |
| Banking/Thrift Inst. | 31 | 31 | 29 | 29 | 29 | 29 | 31 | 31 |
| Sec-Registered Investment Companies | 12 | 12 | 16 | 16 | 16 | 16 | 17 | 17 |
| Unknown Non-U.S. Investors | 14 | 13 | 14 | 14 | 14 | 14 | 17 | 17 |
| Broker-Dealers | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

Table 19: Beneficial Ownership for Section 4 Private Equity Funds
(Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 16.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| State/Muni. Govt. Pension Plans | 24.5 | 24.6 | 23.6 | 23.3 | 23.3 | 23.3 | 21.8 | 21.4 |
| Private Funds | 19.0 | 19.1 | 20.1 | 19.9 | 19.9 | 19.9 | 19.1 | 18.8 |
| Other | 10.8 | 10.8 | 12.1 | 12.6 | 12.6 | 12.6 | 15.4 | 15.9 |
| Sov. Wealth Funds And For. Official Inst. | 10.3 | 10.3 | 10.6 | 11.3 | 11.3 | 11.3 | 10.8 | 11.5 |
| Pension Plans | 9.5 | 9.4 | 9.1 | 8.9 | 8.9 | 8.9 | 8.4 | 8.3 |
| Insurance Companies | 6.3 | 6.3 | 6.2 | 6.1 | 6.1 | 6.1 | 6.1 | 6.0 |
| U.S. Individuals | 5.9 | 5.9 | 5.3 | 5.2 | 5.3 | 5.2 | 5.6 | 5.6 |
| Non-Profits | 6.2 | 6.1 | 5.9 | 5.8 | 5.8 | 5.8 | 5.6 | 5.5 |
| Non-U.S. Individuals | 2.3 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 | 2.3 | 2.3 |
| State/Muni. Govt. Entities | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.7 | 1.7 |
| Banking/Thrift Inst. | 2.0 | 2.1 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 |
| Sec-Registered Investment Companies | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 |
| Unknown Non-U.S. Investors | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Broker-Dealers | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |

V Derivatives

Table 20: 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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Hedge Fund | 10,100 | 11,369 | 12,133 | 14,212 | 13,419 | 13,597 | 12,677 | 14,163 |
| Qualifying Hedge Fund | 8,765 | 9,583 | 10,127 | 12,095 | 11,314 | 10,331 | 9,871 | 11,298 |
| Other Private Fund | 108 | 109 | 148 | 149 | 148 | 134 | 132 | 131 |
| Private Equity Fund | 38 | 38 | 39 | 40 | 40 | 40 | 38 | 37 |
| Section 4 Private Equity Fund | 34 | 34 | 33 | 34 | 34 | 34 | 31 | 31 |
| Liquidity Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Section 3 Liquidity Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Real Estate Fund | 16 | 16 | 17 | 17 | 17 | 17 | 17 | 17 |
| Securitized Asset Fund | 14 | 13 | 3 | 2 | 2 | 2 | 3 | 3 |
| Venture Capital Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Total | 10,330 | 11,573 | 12,328 | 14,330 | 13,620 | 13,818 | 12,913 | 14,386 |

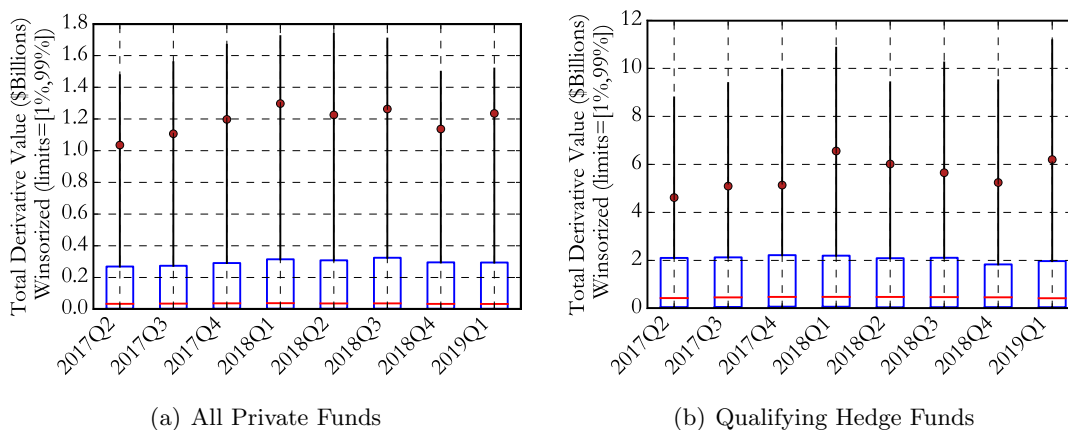
Table 21: Aggregate Derivative Value (Percent of Aggregate NAV)

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

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Hedge Fund | 276.1 | 300.8 | 312.5 | 357.6 | 335.2 | 335.0 | 334.1 | 353.5 |
| Qualifying Hedge Fund | 303.3 | 321.1 | 332.3 | 389.4 | 359.0 | 324.0 | 332.6 | 361.3 |
| Other Private Fund | 10.9 | 11.2 | 13.7 | 13.7 | 13.4 | 12.3 | 12.2 | 12.1 |
| Private Equity Fund | 1.8 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.3 | 1.3 |
| Section 4 Private Equity Fund | 2.3 | 2.3 | 1.9 | 1.9 | 1.9 | 1.9 | 1.5 | 1.5 |
| Liquidity Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Section 3 Liquidity Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Real Estate Fund | 4.7 | 4.7 | 4.4 | 4.4 | 4.4 | 4.4 | 3.8 | 3.7 |
| Securitized Asset Fund | 9.4 | 9.2 | 1.7 | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 |
| Venture Capital Fund | *** | *** | *** | *** | *** | *** | *** | *** |
| Total | 136.7 | 151.4 | 148.3 | 169.5 | 159.7 | 161.1 | 148.5 | 160.0 |

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 High Frequency Trading

Table 22: Number of Hedge Funds Using High Frequency Trading (HFT) Strategies
As reported on Form PF, Question 21.

| Fraction of NAV | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0% | 7,668 | 7,704 | 7,767 | 7,883 | 7,990 | 8,057 | 7,918 | 7,986 |
| Less than 100% | 66 | 63 | 42 | 70 | 69 | 58 | 64 | 67 |
| 100% or More | 12 | 13 | 12 | 11 | 11 | 11 | 5 | 5 |

Table 23: Hedge Fund Assets Managed Using HFT Strategies (\$ Billions)
As reported on Form PF, Questions 9 and 21.

| Fraction of NAV | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0% | 3,551 | 3,652 | 3,771 | 3,845 | 3,894 | 3,955 | 3,721 | 3,922 |
| Less than 100% | 78 | 43 | 41 | 46 | 42 | 43 | 43 | 84 |
| 100% or More | 3 | 37 | 37 | 38 | 38 | 39 | 35 | 2 |

VII Hedge Fund Industry Concentration

Table 24: 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.

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Top 10 | 7.7 | 7.5 | 7.5 | 7.2 | 7.3 | 7.2 | 7.4 | 7.2 |
| Top 25 | 13.5 | 13.2 | 13.4 | 13.3 | 13.5 | 13.5 | 13.5 | 13.4 |
| Top 50 | 20.3 | 20.0 | 20.2 | 20.2 | 20.1 | 20.1 | 19.7 | 19.7 |
| Top 100 | 28.6 | 28.5 | 28.8 | 28.6 | 28.4 | 28.4 | 27.9 | 28.0 |
| Top 250 | 43.5 | 43.4 | 43.2 | 43.0 | 42.6 | 42.5 | 42.1 | 42.4 |
| Top 500 | 56.9 | 56.8 | 56.5 | 56.4 | 56.0 | 55.9 | 55.6 | 56.2 |

Table 25: 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.

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Top 10 | 14.9 | 15.5 | 15.1 | 15.5 | 15.5 | 15.4 | 16.7 | 16.5 |
| Top 25 | 23.2 | 24.2 | 23.7 | 24.2 | 23.8 | 24.4 | 26.0 | 25.7 |
| Top 50 | 31.6 | 32.6 | 31.8 | 32.6 | 32.0 | 32.9 | 34.2 | 34.2 |
| Top 100 | 41.3 | 42.2 | 41.4 | 41.9 | 41.7 | 42.4 | 43.4 | 43.4 |
| Top 250 | 55.1 | 56.0 | 55.3 | 55.5 | 55.2 | 56.0 | 56.6 | 57.1 |
| Top 500 | 66.8 | 67.4 | 66.6 | 66.9 | 66.7 | 67.2 | 67.6 | 68.1 |

Table 26: 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).

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Top 10 | 33.3 | 35.0 | 34.4 | 35.1 | 34.5 | 34.7 | 36.3 | 36.1 |
| Top 25 | 46.2 | 47.5 | 47.5 | 49.1 | 48.3 | 48.4 | 51.3 | 50.9 |
| Top 50 | 57.3 | 58.6 | 59.0 | 60.0 | 59.6 | 60.0 | 62.9 | 63.0 |
| Top 100 | 69.2 | 70.2 | 70.8 | 71.0 | 70.7 | 71.0 | 73.3 | 73.3 |
| Top 250 | 81.8 | 82.6 | 82.6 | 82.8 | 82.9 | 82.9 | 84.7 | 85.0 |
| Top 500 | 90.1 | 90.5 | 90.2 | 90.4 | 90.6 | 90.6 | 91.6 | 91.9 |

Table 27: 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).

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Top 10 | 32.4 | 32.6 | 32.6 | 31.8 | 30.8 | 30.4 | 32.7 | 31.7 |
| Top 25 | 46.7 | 49.4 | 47.9 | 49.7 | 49.6 | 48.5 | 49.0 | 50.0 |
| Top 50 | 59.5 | 61.7 | 60.3 | 62.2 | 62.1 | 61.3 | 62.0 | 63.0 |
| Top 100 | 72.1 | 73.7 | 72.8 | 73.9 | 73.3 | 73.0 | 73.6 | 74.9 |
| Top 250 | 85.8 | 86.5 | 86.0 | 87.0 | 86.3 | 86.2 | 86.6 | 87.8 |
| Top 500 | 92.7 | 93.2 | 93.0 | 93.8 | 93.2 | 93.2 | 93.3 | 94.0 |

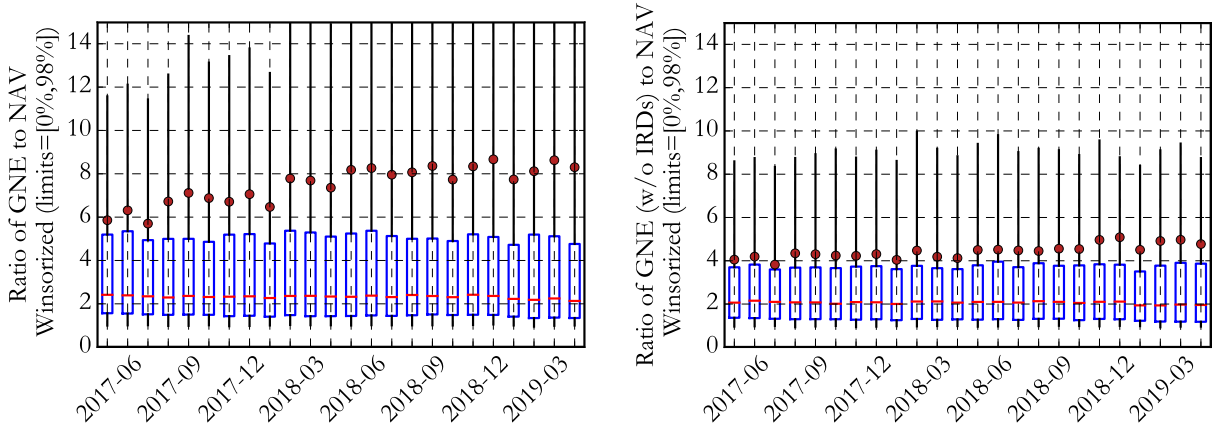
Table 28: Percent of Aggregate Hedge Fund Gross Notional Exposure
Reported by Top Hedge Funds Sorted by Gross Notional Exposure
As reported on Form PF, Questions 26 and 30 (Month 3).

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| Top 10 | 30.4 | 30.4 | 30.5 | 29.6 | 28.4 | 27.6 | 29.7 | 30.0 |
| Top 25 | 43.5 | 45.2 | 45.1 | 46.3 | 44.7 | 44.1 | 47.2 | 47.0 |
| Top 50 | 55.7 | 57.1 | 56.6 | 59.2 | 58.1 | 57.8 | 60.2 | 59.7 |
| Top 100 | 67.7 | 68.8 | 68.6 | 70.5 | 69.6 | 69.4 | 71.2 | 71.1 |
| Top 250 | 82.0 | 82.6 | 82.6 | 84.0 | 82.8 | 82.7 | 83.9 | 84.2 |
| Top 500 | 90.7 | 91.1 | 91.1 | 92.0 | 91.2 | 91.1 | 91.8 | 92.0 |

VIII Information Reported by Large Hedge Fund Advisers

A Economic Leverage

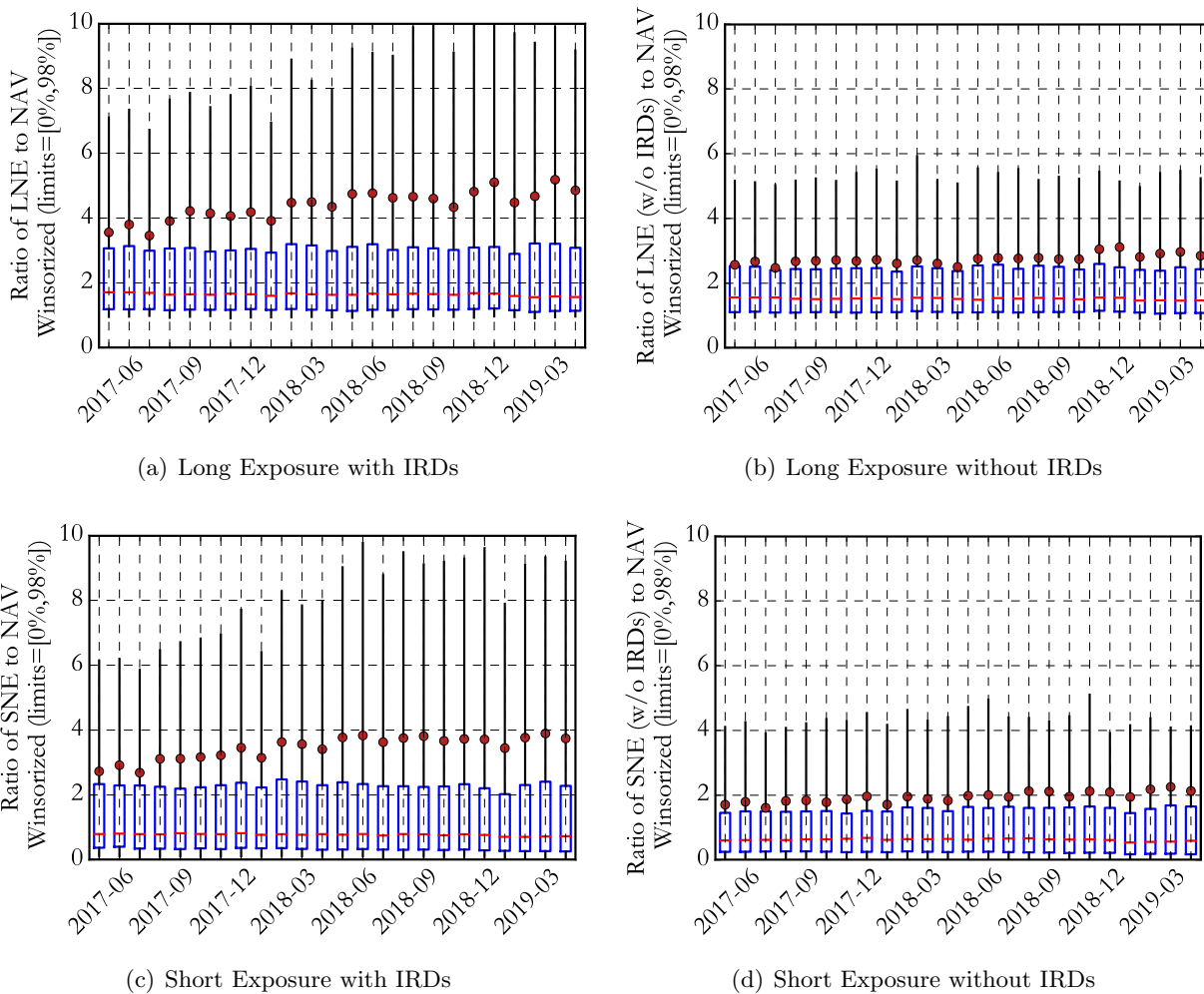
Figure 7: Ratio of Hedge Fund Gross Notional Exposure to Net Asset Value
 See Appendix C and Appendix D for an explanation of boxplots and winsorization.
 As reported on Form PF, Questions 3(a) and 26.



(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.



B Industry Concentration

Table 29: 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) |
|---------|-----------------------|-----------------------|-----------------------|-----------------------|
| 2017-04 | 18.5 | 28.1 | 36.1 | 50.1 |
| 2017-05 | 18.5 | 28.1 | 36.5 | 50.5 |
| 2017-06 | 18.5 | 28.1 | 36.3 | 50.5 |
| 2017-07 | 18.6 | 28.1 | 36.6 | 51.1 |
| 2017-08 | 18.6 | 28.1 | 37.4 | 52.5 |
| 2017-09 | 18.6 | 28.1 | 36.2 | 50.8 |
| 2017-10 | 18.4 | 27.7 | 36.0 | 51.3 |
| 2017-11 | 18.4 | 27.7 | 36.3 | 52.0 |
| 2017-12 | 18.4 | 27.7 | 36.5 | 51.8 |
| 2018-01 | 18.4 | 27.7 | 37.5 | 53.6 |
| 2018-02 | 18.4 | 27.7 | 41.0 | 56.3 |
| 2018-03 | 18.4 | 27.7 | 40.0 | 55.3 |
| 2018-04 | 18.1 | 27.2 | 41.0 | 56.4 |
| 2018-05 | 18.1 | 27.2 | 40.3 | 56.0 |
| 2018-06 | 18.1 | 27.2 | 38.1 | 53.7 |
| 2018-07 | 18.2 | 27.4 | 35.4 | 51.2 |
| 2018-08 | 18.3 | 27.6 | 34.1 | 49.9 |
| 2018-09 | 18.3 | 27.6 | 34.4 | 49.6 |
| 2018-10 | 19.2 | 28.7 | 35.4 | 51.9 |
| 2018-11 | 19.2 | 28.7 | 36.4 | 52.4 |
| 2018-12 | 19.2 | 28.7 | 36.9 | 52.1 |
| 2019-01 | 19.0 | 28.5 | 37.4 | 53.2 |
| 2019-02 | 18.9 | 28.5 | 36.9 | 53.0 |
| 2019-03 | 18.9 | 28.5 | 36.8 | 53.0 |

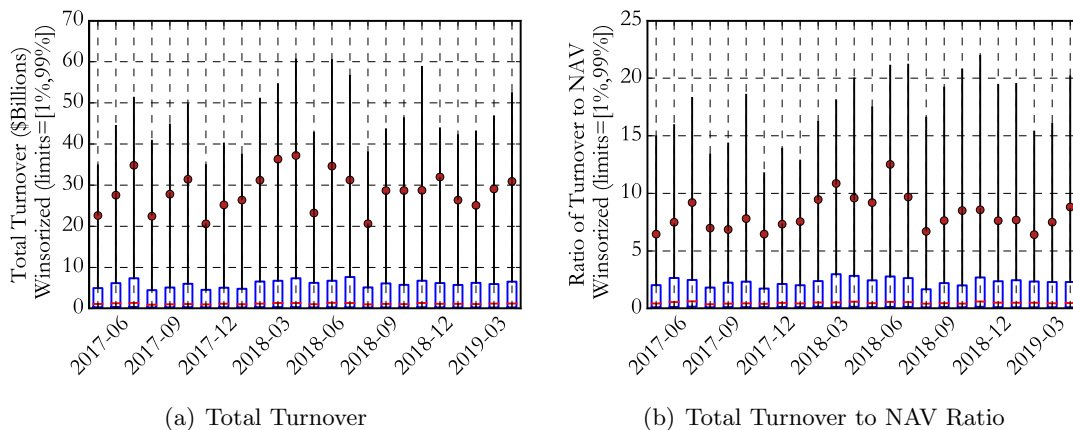
C Portfolio Turnover

Table 30: Aggregate Portfolio Turnover (\$ Billions)
As reported on Form PF, Question 27.

| Month | Futures | Sov. and muni. bonds | Listed equities | Corporate bonds | Convertible bonds | Total |
|---------|---------|----------------------|-----------------|-----------------|-------------------|--------|
| 2017-04 | 10,971 | 1,992 | 1,846 | 85 | 16 | 14,910 |
| 2017-05 | 11,955 | 3,001 | 2,189 | 131 | 25 | 17,300 |
| 2017-06 | 16,994 | 2,963 | 2,187 | 115 | 23 | 22,282 |
| 2017-07 | 11,133 | 2,673 | 2,099 | 101 | 17 | 16,023 |
| 2017-08 | 10,809 | 2,932 | 2,385 | 92 | 21 | 16,239 |
| 2017-09 | 13,460 | 2,997 | 2,259 | 109 | 24 | 18,849 |
| 2017-10 | 8,761 | 2,646 | 2,220 | 107 | 29 | 13,763 |
| 2017-11 | 10,364 | 2,857 | 2,399 | 210 | 25 | 15,856 |
| 2017-12 | 13,350 | 2,459 | 2,081 | 70 | 15 | 17,976 |
| 2018-01 | 16,512 | 3,164 | 2,449 | 142 | 33 | 22,299 |
| 2018-02 | 18,150 | 3,516 | 2,446 | 132 | 27 | 24,271 |
| 2018-03 | 17,329 | 3,238 | 2,273 | 153 | 33 | 23,027 |
| 2018-04 | 10,382 | 2,733 | 2,438 | 119 | 22 | 15,693 |
| 2018-05 | 15,734 | 3,727 | 2,499 | 132 | 31 | 22,122 |
| 2018-06 | 15,104 | 3,080 | 2,582 | 119 | 29 | 20,913 |
| 2018-07 | 8,108 | 3,178 | 2,272 | 92 | 17 | 13,668 |
| 2018-08 | 11,643 | 3,280 | 2,417 | 96 | 20 | 17,455 |
| 2018-09 | 12,915 | 2,953 | 2,110 | 114 | 32 | 18,124 |
| 2018-10 | 11,765 | 3,180 | 3,018 | 129 | 23 | 18,115 |
| 2018-11 | 13,470 | 3,214 | 2,576 | 112 | 20 | 19,393 |
| 2018-12 | 12,715 | 2,911 | 2,189 | 72 | 13 | 17,901 |
| 2019-01 | 9,675 | 3,783 | 2,353 | 159 | 23 | 15,993 |
| 2019-02 | 11,269 | 4,095 | 2,048 | 135 | 22 | 17,569 |
| 2019-03 | 14,103 | 3,779 | 2,295 | 143 | 27 | 20,347 |

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

| Region | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| North America | 4,500 | 5,089 | 4,527 | 4,811 | 4,923 | 5,112 | 5,007 | 5,322 |
| Europe EEA | 1,669 | 1,708 | 1,663 | 1,990 | 1,822 | 1,751 | 1,822 | 1,804 |
| Asia | 600 | 713 | 673 | 735 | 698 | 678 | 787 | 844 |
| South America | 102 | 108 | 133 | 114 | 112 | 101 | 111 | 115 |
| Europe Other | 78 | 77 | 91 | 86 | 74 | 72 | 70 | 78 |
| Supranational | 68 | 67 | 75 | 72 | 59 | 60 | 66 | 48 |
| Africa | 23 | 24 | 31 | 37 | 33 | 31 | 29 | 31 |
| Middle East | 23 | 23 | 26 | 30 | 37 | 26 | 27 | 25 |

Table 32: Large Hedge Fund Adviser Hedge Fund
Region Exposure (Percent of Aggregate NAV)
As reported on Form PF, Questions 3(a) and 28.

| Region | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| North America | 142.9 | 155.9 | 135.4 | 140.5 | 141.4 | 147.2 | 153.0 | 154.2 |
| Europe EEA | 53.0 | 52.3 | 49.7 | 58.1 | 52.3 | 50.4 | 55.7 | 52.3 |
| Asia | 19.0 | 21.8 | 20.1 | 21.5 | 20.1 | 19.5 | 24.0 | 24.5 |
| South America | 3.2 | 3.3 | 4.0 | 3.3 | 3.2 | 2.9 | 3.4 | 3.3 |
| Europe Other | 2.5 | 2.4 | 2.7 | 2.5 | 2.1 | 2.1 | 2.1 | 2.3 |
| Supranational | 2.2 | 2.0 | 2.2 | 2.1 | 1.7 | 1.7 | 2.0 | 1.4 |
| Africa | 0.7 | 0.7 | 0.9 | 1.1 | 0.9 | 0.9 | 0.9 | 0.9 |
| Middle East | 0.7 | 0.7 | 0.8 | 0.9 | 1.1 | 0.7 | 0.8 | 0.7 |

Table 33: Large Hedge Fund Adviser Hedge Fund
Country Exposure (\$ Billions)

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

| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| United States | 4,246 | 4,824 | 4,312 | 4,551 | 4,683 | 4,869 | 4,783 | 5,200 |
| Japan | 229 | 233 | 245 | 269 | 244 | 251 | 274 | 265 |
| China (Inc. Hong Kong) | 144 | 152 | 164 | 178 | 184 | 165 | 147 | 187 |
| Brazil | 42 | 45 | 60 | 47 | 50 | 42 | 40 | 43 |
| India | 35 | 37 | 47 | 38 | 36 | 36 | 35 | 36 |
| Russia | 13 | 16 | 18 | 16 | 12 | 11 | 9 | 9 |

Table 34: Large Hedge Fund Adviser Hedge Fund
Country Exposure (Percent of Aggregate NAV)

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

| Country | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| United States | 134.9 | 147.8 | 129.0 | 132.9 | 134.5 | 140.2 | 146.2 | 150.7 |
| Japan | 7.3 | 7.1 | 7.3 | 7.9 | 7.0 | 7.2 | 8.4 | 7.7 |
| China (Inc. Hong Kong) | 4.6 | 4.7 | 4.9 | 5.2 | 5.3 | 4.7 | 4.5 | 5.4 |
| Brazil | 1.3 | 1.4 | 1.8 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 |
| India | 1.1 | 1.1 | 1.4 | 1.1 | 1.0 | 1.0 | 1.1 | 1.0 |
| Russia | 0.4 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 |

IX 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.

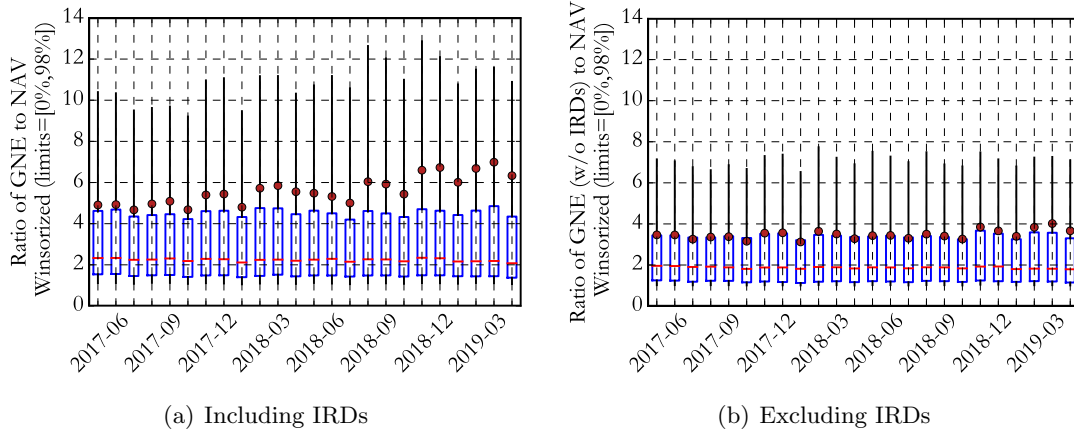
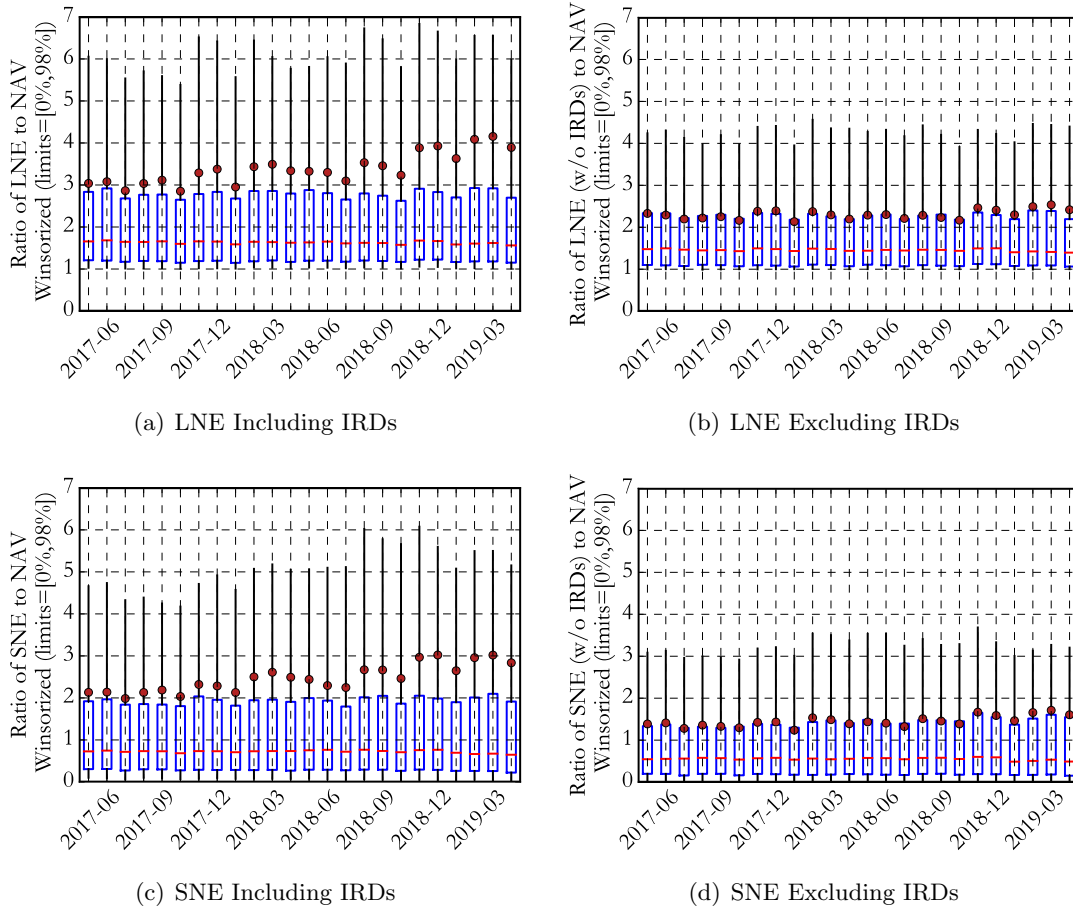


Figure 11: Ratio of Qualifying Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value

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

| Category | Strategy | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Subtotal | 1,547 | 1,635 | 1,664 | 1,647 | 1,716 | 1,761 | 1,477 | 1,616 |
| Equity | Long/Short | 906 | 926 | 945 | 925 | 951 | 956 | 762 | 841 |
| | Market Neutral | *** | *** | *** | 342 | 365 | 383 | 360 | 386 |
| | Long Bias | 330 | 369 | 371 | 372 | 392 | 414 | 348 | 384 |
| | Short Bias | *** | *** | *** | 8 | 8 | 8 | 7 | 5 |
| | Subtotal | 935 | 968 | 999 | 983 | 984 | 1,005 | 1,013 | 1,038 |
| Other | Subtotal | 750 | 815 | 719 | 739 | 786 | 774 | 879 | 963 |
| | F.I. Sov. | 507 | 566 | 477 | 496 | 537 | 506 | 599 | 686 |
| | F.I. Asset Backed | 120 | 119 | 119 | 121 | 127 | 137 | 145 | 130 |
| | F.I. Corp. | 48 | 50 | 46 | 49 | 52 | 56 | 59 | 67 |
| | F.I. Conv. Arb. | 47 | 49 | 50 | 51 | 49 | 53 | 55 | 60 |
| | Volatility Arb. | 29 | 31 | 27 | 22 | 21 | 22 | 21 | 19 |
| Macro | Subtotal | 652 | 699 | 660 | 784 | 760 | 819 | 716 | 782 |
| | Global Macro | 570 | 617 | 575 | 698 | 670 | 729 | 627 | 695 |
| | Currency | *** | *** | *** | *** | 45 | 45 | 47 | 46 |
| | Commodity | 35 | 38 | 40 | 39 | 40 | 41 | 37 | 37 |
| | Active Trading | *** | *** | *** | *** | 5 | 4 | 4 | 4 |
| Credit | Subtotal | 285 | 289 | 287 | 286 | 297 | 307 | 321 | 325 |
| | Long/Short | 240 | 240 | 235 | 248 | 238 | 247 | 256 | 258 |
| | Asset Based Lending | 45 | 49 | 51 | 38 | 59 | 60 | 65 | 66 |
| Event Driven | Subtotal | 353 | 359 | 353 | 363 | 360 | 350 | 304 | 313 |
| | Distressed/Restruct. | 167 | 170 | 167 | 165 | 162 | 165 | 164 | 169 |
| | Equity | 100 | 100 | 101 | 97 | 100 | 98 | 76 | 80 |
| | Risk Arb./Merger Arb. | 86 | 89 | 86 | 101 | 98 | 88 | 64 | 64 |
| Managed Futures/CTA | Subtotal | 137 | 136 | 142 | 138 | 141 | 157 | 150 | 172 |
| | Quantitative | *** | 134 | *** | *** | *** | *** | *** | *** |
| | Fundamental | *** | 2 | *** | *** | *** | *** | *** | *** |
| Investment in other funds | Subtotal | 48 | 49 | 49 | 44 | 42 | 48 | 44 | 43 |
| Total | Total | 4,706 | 4,951 | 4,873 | 4,985 | 5,086 | 5,220 | 4,904 | 5,251 |

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

| Category | Strategy | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------------------|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Subtotal | 53.5 | 54.8 | 54.6 | 53.0 | 54.4 | 55.2 | 49.8 | 51.7 |
| Equity | Long/Short | 31.4 | 31.0 | 31.0 | 29.8 | 30.2 | 30.0 | 25.7 | 26.9 |
| | Market Neutral | *** | *** | *** | 11.0 | 11.6 | 12.0 | 12.1 | 12.4 |
| | Long Bias | 11.4 | 12.4 | 12.2 | 12.0 | 12.4 | 13.0 | 11.7 | 12.3 |
| | Short Bias | *** | *** | *** | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| Other | Subtotal | 32.3 | 32.4 | 32.8 | 31.7 | 31.2 | 31.5 | 34.1 | 33.2 |
| | Subtotal | 26.0 | 27.3 | 23.6 | 23.8 | 24.9 | 24.3 | 29.6 | 30.8 |
| Relative Value | F.I. Sov. | 17.5 | 19.0 | 15.7 | 16.0 | 17.0 | 15.9 | 20.2 | 22.0 |
| | F.I. Asset Backed | 4.2 | 4.0 | 3.9 | 3.9 | 4.0 | 4.3 | 4.9 | 4.2 |
| | F.I. Corp. | 1.7 | 1.7 | 1.5 | 1.6 | 1.6 | 1.8 | 2.0 | 2.2 |
| | F.I. Conv. Arb. | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.7 | 1.9 | 1.9 |
| | Volatility Arb. | 1.0 | 1.1 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 |
| | Subtotal | 22.5 | 23.4 | 21.7 | 25.2 | 24.1 | 25.7 | 24.1 | 25.0 |
| Macro | Global Macro | 19.7 | 20.7 | 18.9 | 22.5 | 21.3 | 22.9 | 21.1 | 22.2 |
| | Currency | *** | *** | *** | *** | 1.4 | 1.4 | 1.6 | 1.5 |
| | Commodity | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 |
| | Active Trading | *** | *** | *** | *** | 0.1 | 0.1 | 0.1 | 0.1 |
| | Subtotal | 9.8 | 9.7 | 9.4 | 9.2 | 9.4 | 9.6 | 10.8 | 10.4 |
| Credit | Long/Short | 8.3 | 8.1 | 7.7 | 8.0 | 7.6 | 7.7 | 8.6 | 8.3 |
| | Asset Based Lending | 1.6 | 1.6 | 1.7 | 1.2 | 1.9 | 1.9 | 2.2 | 2.1 |
| | Subtotal | 12.2 | 12.0 | 11.6 | 11.7 | 11.4 | 11.0 | 10.2 | 10.0 |
| Event Driven | Distressed/Restruct. | 5.8 | 5.7 | 5.5 | 5.3 | 5.1 | 5.2 | 5.5 | 5.4 |
| | Equity | 3.5 | 3.4 | 3.3 | 3.1 | 3.2 | 3.1 | 2.6 | 2.6 |
| | Risk Arb./Merger Arb. | 3.0 | 3.0 | 2.8 | 3.3 | 3.1 | 2.8 | 2.1 | 2.0 |
| | Subtotal | 4.7 | 4.6 | 4.6 | 4.5 | 4.5 | 4.9 | 5.0 | 5.5 |
| Managed Futures/CTA | Quantitative | *** | 4.5 | *** | *** | *** | *** | *** | *** |
| | Fundamental | *** | 0.1 | *** | *** | *** | *** | *** | *** |
| Investment in other funds | Subtotal | 1.6 | 1.6 | 1.6 | 1.4 | 1.3 | 1.5 | 1.5 | 1.4 |
| Total | Total | 162.9 | 165.9 | 159.9 | 160.5 | 161.4 | 163.7 | 165.2 | 167.9 |

C Leverage by Strategy

Table 37: Asset Weighted-Average Ratio of GAV to NAV
by Strategy

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

| Strategy | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Relative Value | 5.0 | 5.0 | 4.7 | 5.0 | 5.1 | 4.7 | 5.4 | 5.4 |
| Investment in other funds | 1.0 | *** | 1.0 | 1.3 | 1.1 | 1.1 | 4.8 | 4.5 |
| Macro | 3.6 | 3.9 | 3.7 | 3.9 | 4.1 | 4.4 | 3.9 | 4.2 |
| Multi-Strategy | 2.2 | 2.3 | 2.2 | 2.2 | 2.2 | 2.3 | 2.3 | 2.3 |
| Equity | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.7 | 1.7 | 1.7 |
| Other | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 |
| Credit | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| Managed Futures/CTA | 1.9 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 | 1.4 |
| Event Driven | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 |

Table 38: 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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Macro | 18.1 | 20.6 | 21.5 | 26.8 | 27.7 | 23.8 | 24.6 | 28.0 |
| Relative Value | 17.6 | 18.5 | 18.2 | 20.9 | 19.9 | 19.0 | 21.4 | 22.4 |
| Managed Futures/CTA | 9.5 | 8.4 | 10.0 | 8.4 | 10.5 | 14.0 | 9.7 | 17.9 |
| Investment in other funds | 1.6 | *** | 1.7 | 2.6 | 2.4 | 3.6 | 14.8 | 12.0 |
| Multi-Strategy | 7.9 | 9.0 | 8.6 | 9.7 | 8.4 | 8.4 | 8.7 | 9.1 |
| Other | 5.3 | 5.4 | 5.4 | 5.0 | 4.4 | 4.7 | 4.5 | 4.4 |
| Equity | 3.2 | 3.2 | 3.2 | 4.0 | 3.3 | 3.6 | 3.5 | 3.6 |
| Credit | 3.0 | 3.1 | 3.2 | 3.3 | 2.9 | 2.8 | 3.3 | 3.2 |
| Event Driven | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 | 1.8 | 1.8 |

Table 39: Asset Weighted-Average Percent of Unencumbered Cash
by Strategy

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

| Strategy | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Managed Futures/CTA | 61.2 | 59.0 | 58.0 | 60.6 | 55.5 | 47.5 | 57.4 | 49.9 |
| Macro | 40.5 | 40.3 | 40.2 | 37.0 | 36.4 | 36.8 | 38.3 | 36.5 |
| Multi-Strategy | 22.4 | 24.9 | 24.8 | 24.7 | 27.0 | 30.6 | 29.7 | 23.0 |
| Relative Value | 19.9 | 21.0 | 19.3 | 20.9 | 18.7 | 18.5 | 20.1 | 19.8 |
| Other | 20.6 | 21.3 | 21.0 | 18.5 | 18.8 | 19.2 | 18.1 | 18.2 |
| Investment in other funds | 6.2 | *** | 9.4 | 4.2 | 6.6 | 3.6 | 12.8 | 14.5 |
| Equity | 11.5 | 9.8 | 10.2 | 9.7 | 11.5 | 11.4 | 13.5 | 10.6 |
| Event Driven | 11.1 | 10.0 | 9.7 | 8.1 | 8.6 | 9.6 | 12.2 | 9.9 |
| Credit | 10.9 | 9.9 | 9.8 | 8.3 | 7.0 | 7.3 | 8.3 | 7.3 |

D Investment Exposures

Table 40: Aggregate Qualifying Hedge Fund Gross Notional Exposure
by Asset Type (\$ Billions)
As reported on Form PF, Questions 26 and 30.

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cash/Cash Equivalents | 682 | 677 | 681 | 726 | 741 | 747 | 763 | 786 |
| Securities - Equities | 2,393 | 2,521 | 2,600 | 3,037 | 2,713 | 2,740 | 2,300 | 2,580 |
| Securities - Treasuries | 1,107 | 1,156 | 1,158 | 1,196 | 1,342 | 1,477 | 1,793 | 1,931 |
| Securities - G10 (non-US) | 1,037 | 1,138 | 1,179 | 1,321 | 1,277 | 1,241 | 1,270 | 1,312 |
| Securities - Other Bonds | 233 | 263 | 254 | 289 | 286 | 299 | 312 | 325 |
| Securities - MBS | 241 | 254 | 266 | 264 | 252 | 276 | 358 | 309 |
| Securities - Corp. Bonds | 269 | 259 | 253 | 264 | 272 | 278 | 266 | 301 |
| Securities - ABS (non-MBS) | 77 | 75 | 77 | 80 | 88 | 87 | 88 | 93 |
| Securities - Conv. Bonds | 89 | 82 | 82 | 94 | 97 | 93 | 86 | 87 |
| Derivatives - IR | 3,824 | 4,125 | 4,446 | 5,699 | 5,390 | 5,512 | 5,355 | 6,600 |
| Derivatives - FX | 2,711 | 3,051 | 3,149 | 3,738 | 3,245 | 2,470 | 2,278 | 2,413 |
| Derivatives - Equity | 1,215 | 1,283 | 1,331 | 1,364 | 1,307 | 1,317 | 1,110 | 1,208 |
| Derivatives - Credit | 683 | 798 | 716 | 733 | 684 | 669 | 730 | 770 |
| Derivatives - Commodity | 331 | 368 | 378 | 366 | 381 | 380 | 286 | 316 |
| Derivatives - Other | 273 | 267 | 412 | 568 | 580 | 339 | 319 | 263 |
| Repurchase Agreements | 1,374 | 1,348 | 1,280 | 1,452 | 1,533 | 1,553 | 1,771 | 1,995 |
| Other | 725 | 775 | 748 | 764 | 792 | 784 | 741 | 796 |

Table 41: Percent of Qualifying Hedge Fund Gross Notional Exposure
Representing Long Notional Exposure
As reported on Form PF, Questions 26 and 30.

| | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cash/Cash Equivalents | 86.8 | 88.0 | 85.9 | 80.8 | 79.8 | 82.0 | 82.9 | 82.0 |
| Securities - Equities | 70.0 | 70.3 | 71.9 | 75.5 | 70.7 | 70.8 | 71.2 | 70.7 |
| Securities - Treasuries | 63.2 | 62.3 | 62.9 | 60.4 | 62.7 | 63.1 | 64.2 | 63.2 |
| Securities - G10 (non-US) | 50.2 | 50.3 | 50.5 | 52.5 | 51.4 | 49.4 | 51.4 | 51.9 |
| Securities - Other Bonds | 77.7 | 70.8 | 73.6 | 72.8 | 72.9 | 71.0 | 74.0 | 75.6 |
| Securities - MBS | 73.6 | 71.9 | 71.2 | 73.2 | 74.2 | 71.0 | 67.6 | 70.2 |
| Securities - Corp. Bonds | 79.9 | 81.2 | 81.6 | 81.9 | 82.6 | 82.8 | 82.4 | 83.0 |
| Securities - ABS (non-MBS) | 98.0 | 96.7 | 96.8 | 98.2 | 95.5 | 95.0 | 96.8 | 97.1 |
| Securities - Conv. Bonds | 95.6 | 94.1 | 93.4 | 88.2 | 88.0 | 87.8 | 86.5 | 94.2 |
| Derivatives - IR | 47.3 | 47.7 | 49.4 | 51.2 | 52.2 | 49.3 | 50.9 | 52.2 |
| Derivatives - FX | 50.1 | 49.8 | 49.9 | 56.8 | 53.5 | 55.6 | 54.6 | 55.1 |
| Derivatives - Equity | 55.6 | 56.8 | 57.0 | 51.5 | 51.6 | 52.2 | 51.1 | 52.9 |
| Derivatives - Credit | 47.7 | 47.4 | 47.8 | 44.8 | 45.3 | 45.2 | 41.4 | 43.1 |
| Derivatives - Commodity | 58.9 | 64.1 | 64.5 | 65.7 | 62.7 | 59.6 | 56.5 | 58.3 |
| Derivatives - Other | 53.3 | 51.2 | 53.7 | 46.6 | 41.6 | 34.4 | 60.9 | 67.8 |
| Repurchase Agreements | 49.5 | 52.0 | 52.2 | 52.0 | 47.1 | 47.3 | 42.2 | 39.6 |
| Other | 90.3 | 87.0 | 89.9 | 88.9 | 88.1 | 87.9 | 89.4 | 87.5 |

E Liquidity

Table 42: Investor Liquidity for Qualifying Hedge Funds (Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 50.

| Liquidation Period | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| At most 1 day | 8.1 | 8.3 | 8.5 | 8.9 | 9.0 | 8.8 | 8.4 | 8.5 |
| At most 7 days | 14.4 | 14.6 | 15.0 | 15.4 | 15.2 | 14.9 | 14.8 | 14.5 |
| At most 30 days | 27.1 | 27.5 | 28.0 | 30.0 | 27.8 | 27.8 | 27.8 | 29.2 |
| At most 90 days | 46.6 | 48.2 | 50.9 | 48.9 | 47.5 | 47.9 | 50.2 | 47.9 |
| At most 180 days | 59.3 | 61.6 | 60.0 | 60.3 | 58.8 | 61.2 | 58.4 | 58.5 |
| At most 365 days | 73.9 | 73.6 | 73.8 | 74.1 | 73.5 | 73.7 | 71.8 | 70.8 |

Table 43: Portfolio Liquidity for Qualifying Hedge Funds (Percent of Aggregate NAV)
As reported on Form PF, Questions 9, 26, 30, and 32.

| Liquidation Period | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| At most 1 day | 38.1 | 37.7 | 38.0 | 38.8 | 38.9 | 38.7 | 39.3 | 37.0 |
| At most 7 days | 61.7 | 61.5 | 61.8 | 62.2 | 62.1 | 61.9 | 61.2 | 60.2 |
| At most 30 days | 75.6 | 75.5 | 75.3 | 75.0 | 75.0 | 74.9 | 73.7 | 73.0 |
| At most 90 days | 81.7 | 81.9 | 81.6 | 81.4 | 81.3 | 80.8 | 79.4 | 79.0 |
| At most 180 days | 85.2 | 85.3 | 85.1 | 84.8 | 84.7 | 84.2 | 83.0 | 82.7 |
| At most 365 days | 89.0 | 88.9 | 88.9 | 88.7 | 88.9 | 88.2 | 86.8 | 86.7 |

Figure 12: Asset Weighted-Average Qualifying Hedge Fund
Investor and Portfolio Liquidity

As reported on Form PF, Questions 9, 26, 30, 32, and 50 as of First Calendar Quarter 2019.

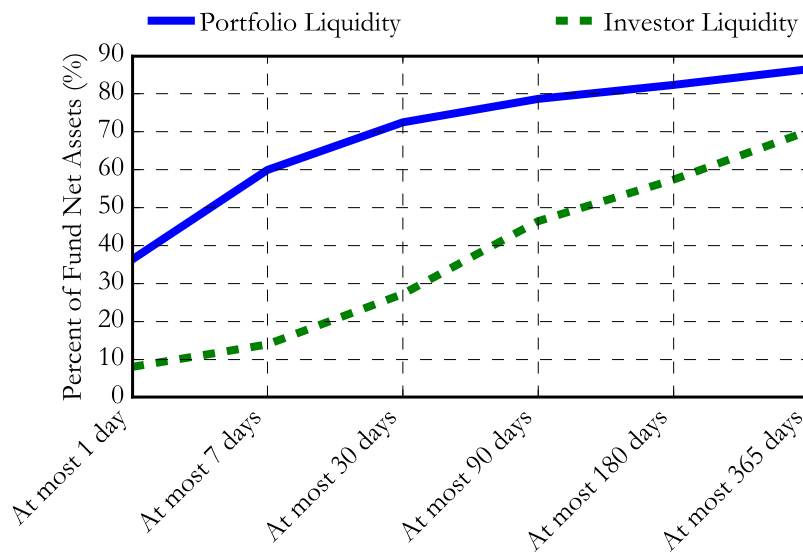
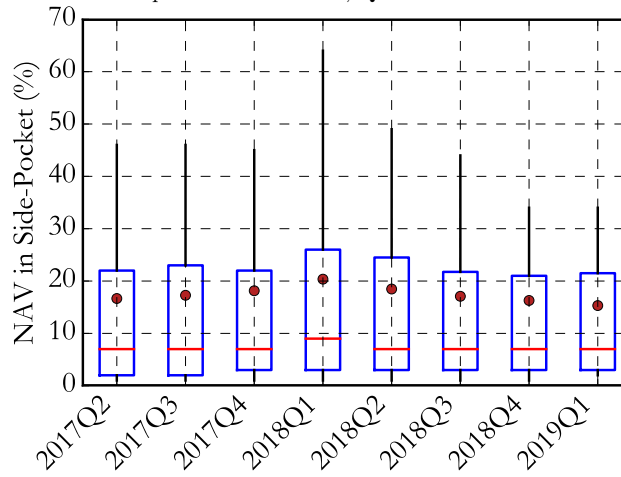


Table 44: Restrictions on Qualifying Hedge Fund Assets (\$ Billions)
As reported on Form PF, Questions 48 and 49.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| May Suspend | 2,263 | 2,325 | 2,363 | 2,411 | 2,431 | 2,470 | 2,266 | 2,396 |
| May Have Gates | 1,359 | 1,392 | 1,405 | 1,459 | 1,489 | 1,512 | 1,402 | 1,488 |
| Side-Pocketed | 38 | 39 | 39 | 42 | 41 | 39 | 42 | 42 |
| Gated | 28 | 30 | 38 | 39 | 32 | 34 | 40 | 39 |
| Suspended | 27 | 22 | 17 | *** | 13 | 12 | 19 | 17 |

Figure 13: 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.



F Borrowings

Table 45: Borrowings of Qualifying Hedge Funds (\$ Billions)
As reported on Form PF, Question 43 (Third Month).

| Type | Subtype | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|--------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Secured | Subtotal | 2,391 | 2,437 | 2,419 | 2,592 | 2,813 | 2,830 | 2,757 | 3,016 |
| | Prime Broker | 1,265 | 1,371 | 1,379 | 1,418 | 1,527 | 1,591 | 1,289 | 1,412 |
| | Reverse Repo | 795 | 721 | 685 | 780 | 894 | 862 | 1,081 | 1,202 |
| | Other Secured | 331 | 345 | 356 | 394 | 392 | 377 | 387 | 401 |
| Unsecured | Subtotal | 11 | 12 | 14 | 14 | 14 | 12 | 12 | 13 |
| Total | Total | 2,402 | 2,448 | 2,433 | 2,606 | 2,827 | 2,842 | 2,769 | 3,028 |

Table 46: Aggregate Borrowing by Creditor Entity Type (Percent)
As reported on Form PF, Question 43 (Third Month).

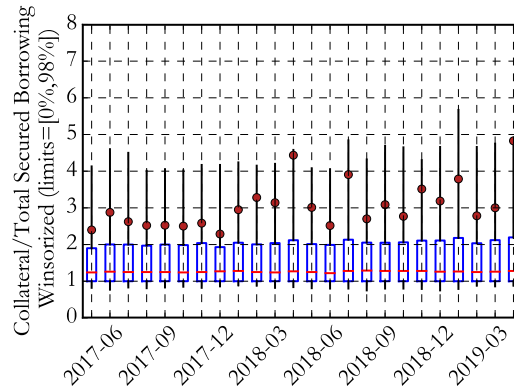
| Creditor Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| US Financial | 61.1 | 61.4 | 61.7 | 60.5 | 63.3 | 63.6 | 63.0 | 63.1 |
| Non-US Financial | 38.5 | 38.3 | 37.9 | 39.1 | 36.3 | 36.1 | 36.5 | 36.5 |
| US Non-Financial | 0.3 | *** | *** | *** | *** | *** | *** | *** |
| Non-US Non-Financial | 0.1 | *** | *** | *** | *** | *** | *** | *** |

**Table 47: Aggregate Collateral for Secured Borrowings
of Qualifying Hedge Funds (\$ Billions)**
As reported on Form PF, Question 43 (Third Month).

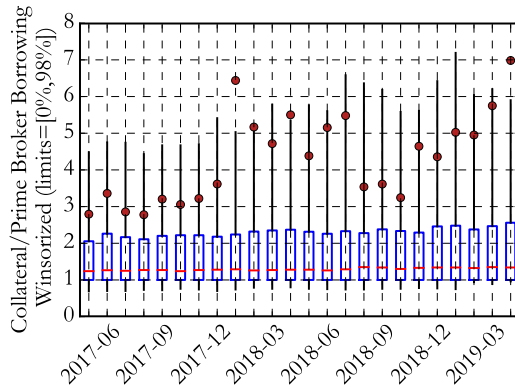
| Borrowing Type | Collateral Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Prime Broker | Subtotal | 1,544 | 1,672 | 1,685 | 1,751 | 1,841 | 2,148 | 1,597 | 1,723 |
| | Other | 1,022 | 1,151 | 1,183 | 1,225 | 1,272 | 1,557 | 1,067 | 1,158 |
| | Cash | 521 | 522 | 502 | 526 | 569 | 591 | 530 | 565 |
| Reverse Repo | Subtotal | 786 | 734 | 718 | 781 | 909 | 885 | 1,121 | 1,250 |
| | Other | 506 | 478 | 455 | 513 | 569 | 573 | 702 | 766 |
| | Cash | 281 | 256 | 263 | 268 | 340 | 312 | 420 | 484 |
| Other Secured | Subtotal | 407 | 423 | 426 | 447 | 468 | 436 | 443 | 456 |
| | Other | 251 | 265 | 262 | 296 | 308 | 298 | 278 | 297 |
| | Cash | 156 | 158 | 165 | 152 | 159 | 138 | 165 | 160 |
| Total | Total | 2,737 | 2,830 | 2,829 | 2,979 | 3,217 | 3,468 | 3,162 | 3,429 |

Figure 14: Ratio of Collateral Posted to Secured Borrowing for Qualifying Hedge Funds

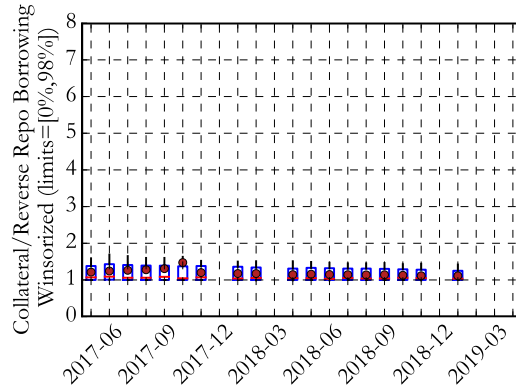
See Appendix C and Appendix D for an explanation of boxplots and winsorization. As reported on Form PF, Question 43.



(a) Total Secured Borrowing



(b) Prime Broker Borrowing

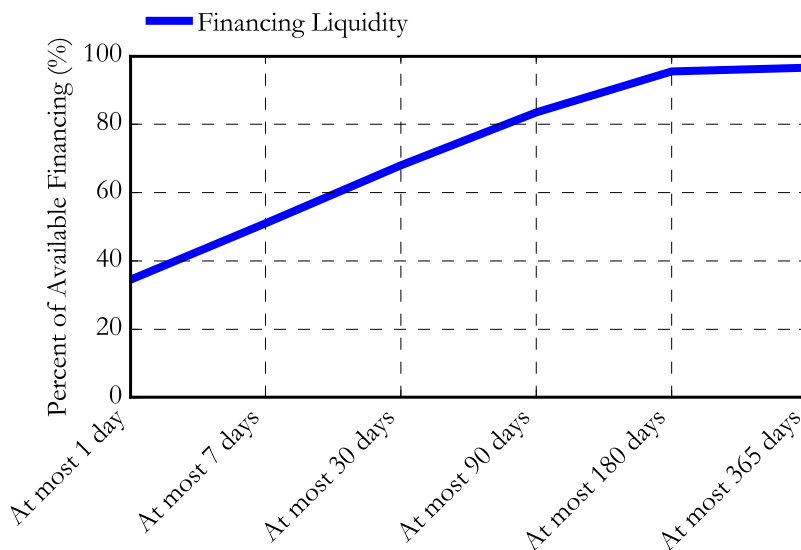


(c) Reverse Repo Borrowing

Table 48: Financing Liquidity for Qualifying Hedge Funds
(Percent of Available Financing)
As reported on Form PF, Question 46.

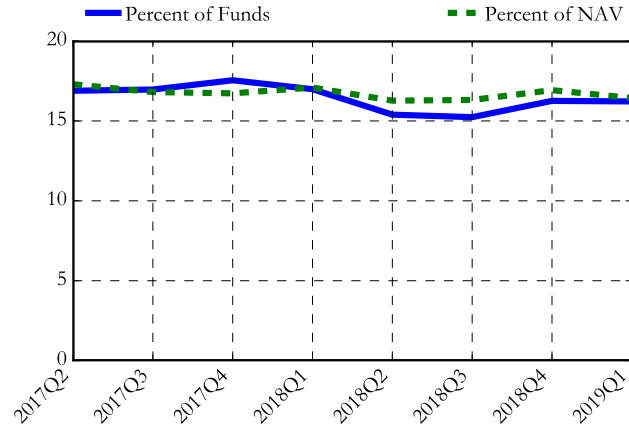
| Financing Available | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| At most 1 day | 34.6 | 35.4 | 34.2 | 31.6 | 32.9 | 35.8 | 30.0 | 34.7 |
| At most 7 days | 53.4 | 51.7 | 49.5 | 51.5 | 52.7 | 51.8 | 50.2 | 51.4 |
| At most 30 days | 65.4 | 64.1 | 64.7 | 64.9 | 66.7 | 66.0 | 68.6 | 68.6 |
| At most 90 days | 80.8 | 79.3 | 80.3 | 80.6 | 80.6 | 79.9 | 82.8 | 82.7 |
| At most 180 days | 96.2 | 96.0 | 95.9 | 95.8 | 95.8 | 96.0 | 95.7 | 95.7 |
| At most 365 days | 97.4 | 97.3 | 97.2 | 96.9 | 97.1 | 97.2 | 96.8 | 96.7 |

Figure 15: Weighted-Average Qualifying Hedge Fund
Financing Liquidity (Percent of Available Financing)
As reported on Form PF, Question 46 as of First Calendar Quarter 2019.



G Central Clearing

Figure 16: Qualifying Hedge Funds Using Central Clearing
As reported on Form PF, Question 39.



H Value-at-Risk (“VaR”) Reporting

Table 49: Number of Qualifying Hedge Funds Using VaR
As reported on Form PF, Question 40.

| VaR Method | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| VaR (Any Method) | 649 | 649 | 663 | 660 | 672 | 682 | 684 | 676 |
| Historical Simulation | 249 | 271 | 278 | 286 | 287 | 298 | 303 | 297 |
| Parametric | 190 | 186 | 193 | 185 | 193 | 194 | 189 | 191 |
| Monte Carlo Simulation | 205 | 188 | 186 | 175 | 178 | 182 | 186 | 183 |
| Other | 44 | 42 | 47 | 51 | 52 | 52 | 49 | 45 |
| VaR Not Used | 1,068 | 1,078 | 1,138 | 1,112 | 1,134 | 1,136 | 1,143 | 1,118 |

Table 50: Aggregate Qualifying Hedge Fund GAV Managed Using VaR (\$ Billions)
As reported on Form PF, Questions 8 and 40.

| VaR Method | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| VaR (Any Method) | 3,480 | 3,586 | 3,546 | 3,661 | 3,779 | 3,841 | 3,652 | 3,887 |
| Historical Simulation | 1,798 | 1,900 | 1,882 | 1,969 | 2,027 | 2,017 | 1,954 | 2,104 |
| Parametric | 760 | 767 | 806 | 817 | 837 | 842 | 801 | 817 |
| Monte Carlo Simulation | 938 | 930 | 835 | 854 | 838 | 670 | 617 | 683 |
| Other | 431 | 461 | 495 | 496 | 522 | 759 | 742 | 833 |
| VaR Not Used | 2,201 | 2,269 | 2,317 | 2,415 | 2,502 | 2,546 | 2,502 | 2,592 |

Table 51: Aggregate Qualifying Hedge Fund NAV Managed Using VaR (\$ Billions)
As reported on Form PF, Questions 9 and 40.

| VaR Method | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| VaR (Any Method) | 1,366 | 1,394 | 1,397 | 1,423 | 1,430 | 1,434 | 1,324 | 1,385 |
| Historical Simulation | 504 | 561 | 562 | 580 | 570 | 575 | 524 | 547 |
| Parametric | 474 | 477 | 490 | 494 | 500 | 496 | 460 | 475 |
| Monte Carlo Simulation | 416 | 386 | 377 | 375 | 379 | 353 | 337 | 345 |
| Other | 90 | 90 | 89 | 91 | 96 | 130 | 114 | 128 |
| VaR Not Used | 1,524 | 1,590 | 1,650 | 1,683 | 1,721 | 1,754 | 1,643 | 1,742 |

I Stress Testing and VaR

Table 52: 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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Stress and VaR | 555 | 555 | 589 | 593 | 599 | 613 | 606 | 588 |
| Stress, No VaR | 457 | 467 | 498 | 494 | 490 | 496 | 486 | 453 |
| No Stress, VaR | 94 | 94 | 74 | 67 | 73 | 69 | 78 | 88 |
| Neither | 611 | 611 | 640 | 618 | 644 | 640 | 657 | 665 |

Table 53: 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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Stress and VaR | 3,209 | 3,350 | 3,386 | 3,499 | 3,612 | 3,675 | 3,496 | 3,684 |
| Stress, No VaR | 1,114 | 1,178 | 1,190 | 1,269 | 1,294 | 1,300 | 1,322 | 1,322 |
| No Stress, VaR | 271 | 236 | 160 | 162 | 168 | 165 | 155 | 203 |
| Neither | 1,086 | 1,091 | 1,127 | 1,146 | 1,208 | 1,246 | 1,180 | 1,270 |

Table 54: 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 | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Stress and VaR | 1,219 | 1,236 | 1,289 | 1,313 | 1,318 | 1,320 | 1,222 | 1,255 |
| Stress, No VaR | 673 | 712 | 736 | 746 | 745 | 757 | 704 | 728 |
| No Stress, VaR | 147 | 158 | 108 | 110 | 112 | 114 | 103 | 129 |
| Neither | 850 | 878 | 914 | 938 | 977 | 998 | 939 | 1,014 |

X Section 3 Liquidity Fund Specific Information

A Liquidity

Table 55: Investor Liquidity For Section 3 Liquidity Funds (Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 64.

| Liquidation Period | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| At most 1 day | 79.6 | 79.1 | 80.5 | 78.9 | 79.1 | 78.8 | 77.9 | 77.9 |
| At most 7 days | 95.2 | 95.5 | 95.5 | 95.5 | 96.1 | 96.0 | 95.9 | 95.9 |
| At most 30 days | 99.5 | 99.5 | 99.5 | 99.7 | 99.7 | 99.5 | 99.4 | 99.5 |
| At most 90 days | 99.8 | 99.7 | 99.7 | 99.9 | 99.9 | 99.8 | 99.8 | 99.9 |
| At most 180 days | 99.9 | 99.8 | 99.8 | 99.9 | 100.0 | 99.9 | 99.9 | 100.0 |
| At most 365 days | 99.9 | 99.9 | 99.9 | 100.0 | 100.0 | 100.0 | 99.9 | 100.0 |

Table 56: Suspensions and Gates of Section 3 Liquidity Funds (\$ Billions)
As reported on Form PF, Question 63.

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| May Suspend | 255 | 261 | 273 | 269 | 284 | 291 | 278 | 273 |
| May Have Gates | 224 | 226 | 237 | 232 | 245 | 255 | 243 | 237 |
| Suspended | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Gated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

B Portfolio Characteristics

Figure 17: Weighted-Average Maturity Reported by Section 3 Liquidity Funds
As reported on Form PF, Question 55.

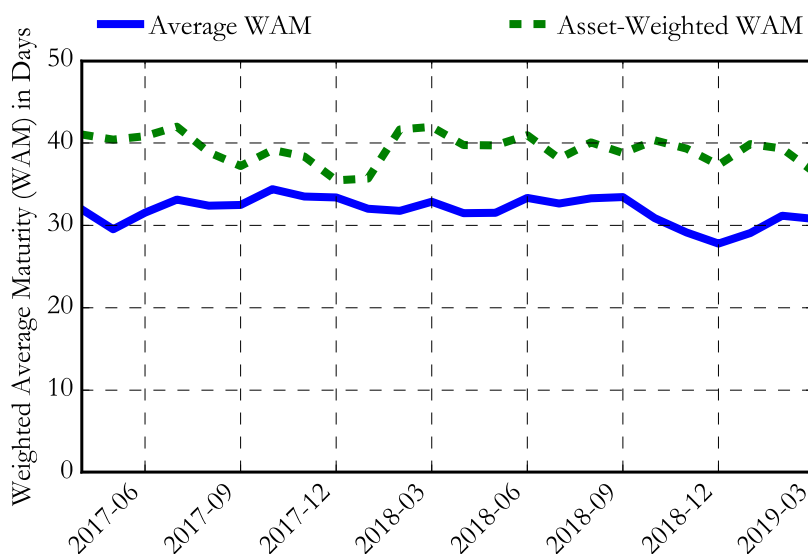


Figure 18: Weighted-Average Life Reported by Section 3 Liquidity Funds
As reported on Form PF, Question 55.

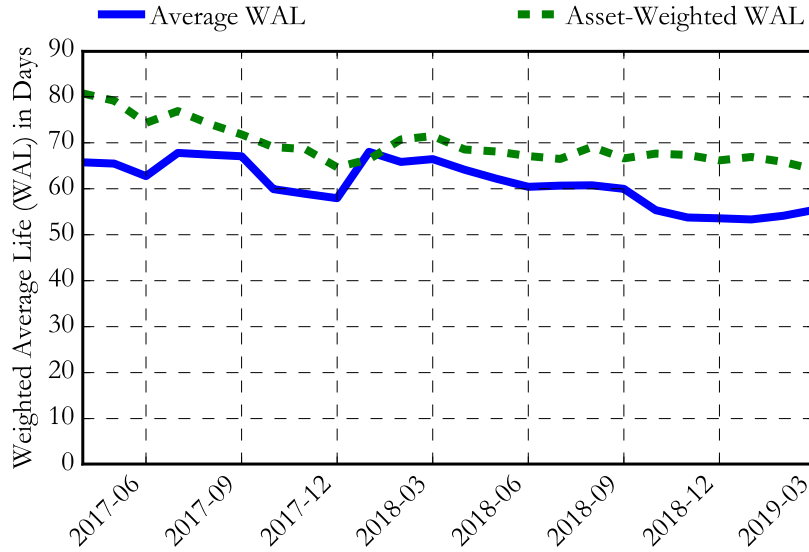


Figure 19: Seven-Day Gross Yield Reported by Section 3 Liquidity Funds
As reported on Form PF, Question 55.

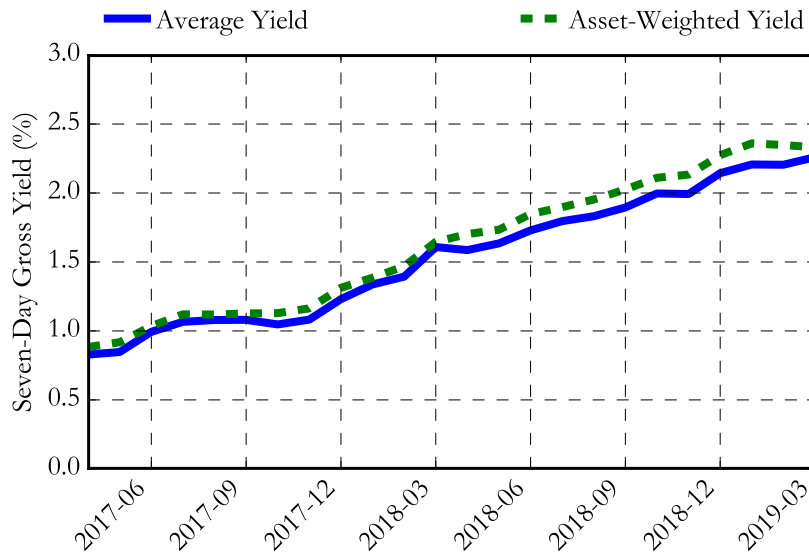


Figure 20: Ratio of Daily Liquid Assets to Net Asset Value of Section 3 Liquidity Funds
As reported on Form PF, Question 55.

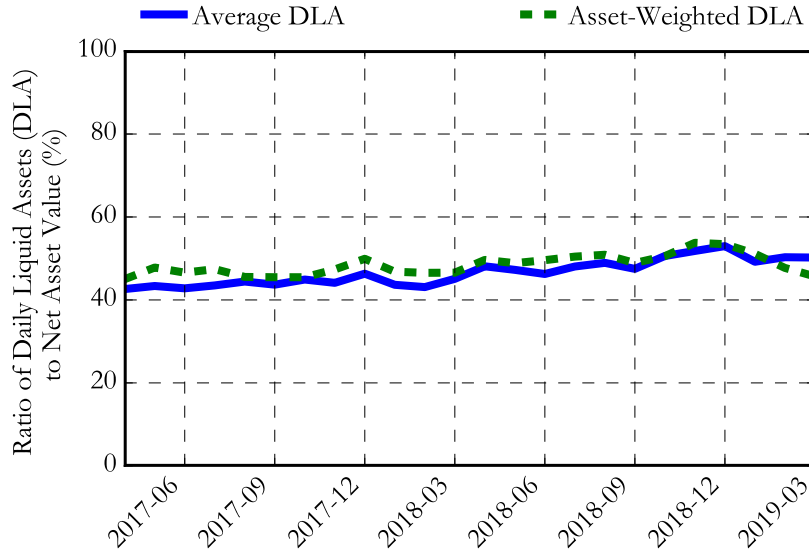
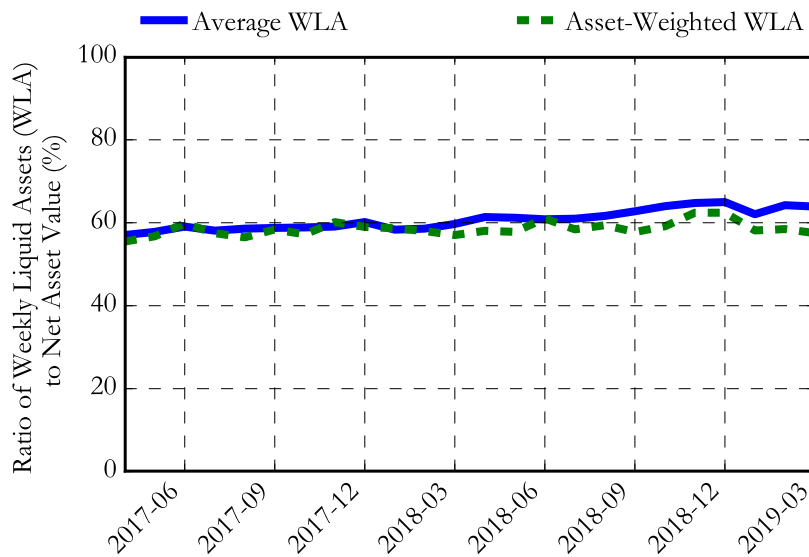


Figure 21: Ratio of Weekly Liquid Assets (WLA) to Net Asset Value of Section 3 Liquidity Funds
As reported on Form PF, Question 55.



C Rule 2a-7 Compliance

Table 57: Rule 2a-7 Compliance (Percent of Funds)

As reported on Form PF, Questions 9 and 54.

| Compliance Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Credit Quality | 59.6 | 56.5 | 56.2 | 58.7 | 60.0 | 60.0 | 60.9 | 60.0 |
| Diversification | 55.3 | 52.2 | 52.1 | 54.3 | 55.6 | 55.6 | 56.5 | 55.6 |
| Maturity | 55.3 | 52.2 | 52.1 | 54.3 | 55.6 | 55.6 | 56.5 | 55.6 |
| Liquidity | 55.3 | 52.2 | 52.1 | 50.0 | 51.1 | 51.1 | 52.2 | 51.1 |
| Fully | 48.9 | 45.7 | 45.8 | 45.7 | 46.7 | 46.7 | 47.8 | 46.7 |
| None | 38.3 | 41.3 | 41.7 | 41.3 | 40.0 | 40.0 | 39.1 | 40.0 |

Table 58: Rule 2a-7 Compliance (Percent of Aggregate NAV)

As reported on Form PF, Questions 9 and 54.

| Compliance Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Credit Quality | 15.9 | 15.9 | 14.7 | 15.9 | 14.6 | 14.5 | 13.4 | 13.8 |
| Diversification | 14.9 | 14.9 | 13.7 | 14.9 | 13.7 | 13.5 | 12.4 | 12.7 |
| Maturity | 14.7 | 15.0 | 13.7 | 14.9 | 13.7 | 13.5 | 12.4 | 12.7 |
| Liquidity | 14.7 | 15.0 | 13.7 | 14.5 | 13.4 | 13.3 | 12.2 | 12.5 |
| Fully | 12.8 | 12.8 | 11.8 | 12.7 | 11.7 | 11.5 | 10.3 | 10.5 |
| None | 84.1 | 83.9 | 85.2 | 84.1 | 85.4 | 85.5 | 86.6 | 86.2 |

D Methods of Calculating NAV

Table 59: NAV Calculation Method (Percent of Funds)

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

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| Stable | 78.7 | 78.3 | 79.2 | 80.4 | 80.0 | 77.8 | 78.3 | 80.0 |
| Floating | 21.3 | 21.7 | 20.8 | 19.6 | 20.0 | 22.2 | 21.7 | 20.0 |

Table 60: NAV Calculation Method (Percent of Aggregate NAV)

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

| Type | 2017Q2 | 2017Q3 | 2017Q4 | 2018Q1 | 2018Q2 | 2018Q3 | 2018Q4 | 2019Q1 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| Stable | 68.3 | 70.2 | 69.1 | 70.3 | 68.4 | 68.0 | 70.9 | 74.4 |
| Floating | 31.7 | 29.8 | 30.9 | 29.7 | 31.6 | 32.0 | 29.1 | 25.6 |

E Aggregate Portfolio Holdings

Table 61: Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions) — 1 of 2
As reported on Form PF, Question 63.

| Product Type | 2017-04 | 2017-05 | 2017-06 | 2017-07 | 2017-08 | 2017-09 | 2017-10 | 2017-11 | 2017-12 | 2018-01 | 2018-02 | 2018-03 |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Deposits | 73.5 | 72.2 | 69.1 | 74.3 | 73.9 | 69.7 | 73.6 | 73.2 | 66.6 | 72.3 | 69.3 | 54.3 |
| U.S. Treasuries | 55.9 | 50.4 | 47.5 | 50.9 | 48.5 | 47.0 | 50.6 | 56.4 | 58.2 | 54.2 | 54.2 | 60.9 |
| Repo - Govt. Collateral | 21.0 | 27.2 | 27.5 | 28.6 | 29.0 | 30.2 | 32.1 | 31.0 | 29.6 | 37.3 | 30.5 | 34.2 |
| Other | 39.8 | 44.5 | 44.3 | 43.9 | 42.7 | 43.5 | 41.6 | 41.9 | 46.9 | 48.7 | 47.5 | 45.1 |
| Commercial Paper | 34.0 | 37.6 | 36.2 | 39.6 | 37.7 | 39.4 | 41.8 | 41.9 | 37.5 | 42.9 | 41.2 | 42.2 |
| Asset-Backed Securities | 23.4 | 22.8 | 19.8 | 19.1 | 18.6 | 21.4 | 20.6 | 19.6 | 19.8 | 21.7 | 21.3 | 21.4 |
| Repo - Other Collateral | 17.2 | 16.3 | 16.6 | 16.9 | 16.7 | 15.2 | 16.7 | 16.2 | 15.3 | 16.8 | 16.8 | 15.8 |
| U.S. Govt. Debt | 4.6 | 5.0 | 5.7 | 4.3 | 4.0 | 5.5 | 5.4 | 5.6 | 5.6 | 4.8 | 5.6 | 5.4 |
| Municipal Debt | 0.9 | 1.1 | 0.9 | 0.9 | 0.9 | 0.9 | 1.2 | 1.2 | 0.9 | 0.9 | 1.0 | 1.0 |

Table 62: Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions) — 2 of 2
As reported on Form PF, Question 63.

| Product Type | 2018-04 | 2018-05 | 2018-06 | 2018-07 | 2018-08 | 2018-09 | 2018-10 | 2018-11 | 2018-12 | 2019-01 | 2019-02 | 2019-03 |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Deposits | 64.2 | 60.8 | 64.6 | 61.5 | 59.0 | 64.1 | 59.5 | 60.7 | 54.2 | 55.0 | 58.5 | 57.6 |
| U.S. Treasuries | 56.7 | 54.5 | 61.9 | 53.3 | 54.5 | 53.6 | 51.4 | 57.2 | 60.3 | 45.1 | 46.2 | 48.9 |
| Repo - Govt. Collateral | 40.6 | 39.0 | 35.1 | 43.9 | 45.3 | 44.8 | 49.3 | 49.9 | 48.3 | 58.0 | 57.6 | 48.4 |
| Other | 45.8 | 48.1 | 48.6 | 47.3 | 49.9 | 47.9 | 47.2 | 42.7 | 46.4 | 48.5 | 45.4 | 45.4 |
| Commercial Paper | 42.6 | 44.1 | 42.8 | 50.5 | 47.0 | 45.7 | 46.8 | 46.5 | 41.1 | 43.9 | 40.4 | 37.8 |
| Asset-Backed Securities | 21.9 | 22.6 | 23.1 | 21.9 | 22.0 | 20.2 | 21.8 | 22.7 | 22.4 | 24.4 | 21.9 | 20.8 |
| Repo - Other Collateral | 17.1 | 19.7 | 16.2 | 17.6 | 17.2 | 17.8 | 15.6 | 14.1 | 14.3 | 16.8 | 13.4 | 12.9 |
| U.S. Govt. Debt | 4.6 | 5.2 | 5.7 | 5.1 | 4.5 | 4.8 | 3.5 | 3.1 | 3.2 | 2.9 | 3.5 | 4.4 |
| Municipal Debt | 1.2 | 1.0 | 1.1 | 1.0 | 1.0 | 1.2 | 0.9 | 0.9 | 0.9 | 1.0 | 0.9 | 0.9 |

XI Section 4 Private Equity Fund Specific Information

A CPC Industry Concentration

Table 63: Gross Assets in CPC Industries (Percent of Total)
As reported on Form PF, Questions 8 and 77.

| Type | 2013Q4 | 2014Q4 | 2015Q4 | 2016Q4 | 2017Q4 | 2018Q4 |
|---------------------------------------|--------|--------|--------|--------|--------|--------|
| Software Publishers | 2.8 | 3.8 | 4.9 | 6.1 | 6.0 | 8.0 |
| Oil & Gas Extraction | 7.9 | 7.8 | 5.8 | 6.7 | 6.2 | 4.9 |
| Electric Power Generation,... | 3.8 | 3.8 | 3.7 | 4.1 | 4.2 | 4.5 |
| Data Processing, Hosting, &... | 2.9 | 2.3 | 1.8 | 2.0 | 2.3 | 3.5 |
| Telecommunications Data Processing... | 2.6 | 2.5 | 2.7 | 2.3 | 2.2 | 2.4 |
| Pharmaceutical & Medicine Mfg | 1.0 | 1.3 | 1.5 | 1.4 | 1.5 | 2.4 |
| Other Financial Investment... | 2.0 | 1.8 | 1.8 | 1.7 | 1.4 | 2.1 |
| Medical Equipment & Supplies Mfg | 1.1 | 1.3 | 0.9 | 0.6 | 0.7 | 2.0 |
| Pipeline Transportation | 2.4 | 2.6 | 2.4 | 2.2 | 1.9 | 1.8 |
| Custom Computer Programming... | 0.9 | 1.0 | 1.5 | 1.5 | 1.5 | 1.8 |
| Other Information Services | 2.0 | 2.1 | 1.9 | 1.8 | 2.0 | 1.7 |
| All Other Professional,... | 0.4 | 0.6 | 0.6 | 0.9 | 0.8 | 1.4 |
| Management, Scientific, &... | 1.0 | 1.2 | 1.1 | 1.3 | 1.6 | 1.4 |
| Activities Related to Credit... | 1.2 | 1.2 | 1.4 | 1.0 | 1.2 | 1.3 |
| Other Financial Vehicles | 0.4 | 0.4 | 0.6 | 1.8 | 1.6 | 1.3 |
| Educational Services | 1.4 | 1.3 | 1.3 | 1.2 | 1.4 | 1.2 |
| Insurance Agencies & Brokerages | 0.9 | 1.0 | 1.0 | 1.2 | 1.1 | 1.0 |
| Scientific Research & Development... | 0.9 | 0.9 | 1.0 | 0.7 | 1.0 | 1.0 |
| Support Activities for Mining | 1.3 | 1.6 | 1.2 | 1.0 | 1.0 | 1.0 |

B CPC Financial Leverage

Figure 22: 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.

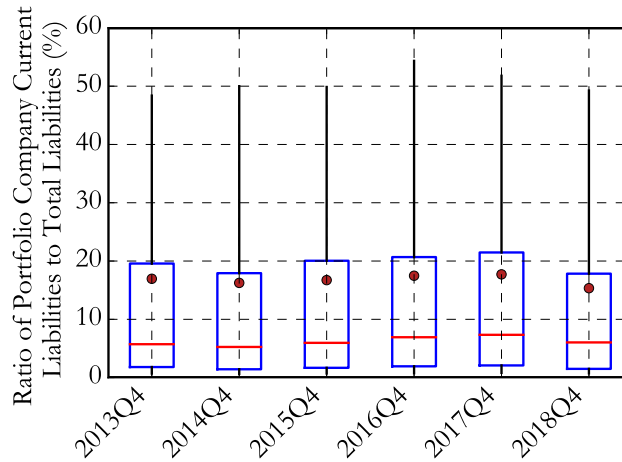
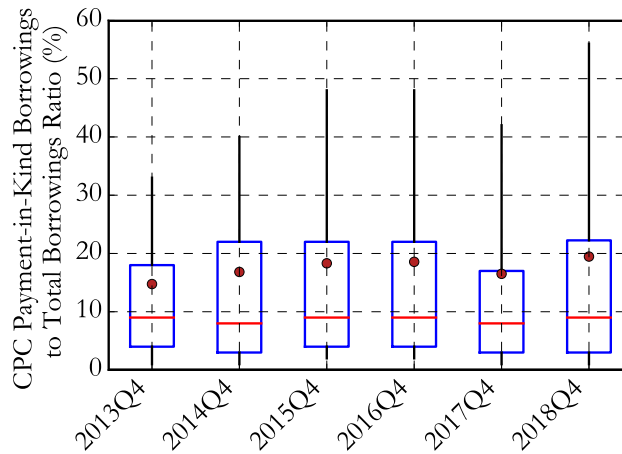


Figure 23: Distribution of CPC Payment-in-Kind or Zero Coupon Borrowings to Total Borrowings Ratio

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



C CPC Investments by Region and Country

Table 64: Aggregate Gross Value of Private Equity
Investments by Region (\$ Billions)
As reported on Form PF, Questions 70 and 78.

| Region | 2013Q4 | 2014Q4 | 2015Q4 | 2016Q4 | 2017Q4 | 2018Q4 |
|---------------|--------|--------|--------|--------|--------|--------|
| North America | 5,249 | 4,506 | 4,132 | 3,942 | 3,961 | 4,219 |
| Europe EEA | 1,432 | 1,259 | 941 | 848 | 963 | 1,256 |
| Asia | 445 | 462 | 447 | 406 | 379 | 435 |
| South America | 75 | 85 | 58 | 111 | 184 | 140 |
| Supranational | 65 | 67 | 23 | 37 | 49 | 55 |
| Europe Other | 25 | 9 | 21 | 22 | 40 | 46 |
| Middle East | 8 | 12 | 9 | 15 | 23 | 16 |
| Africa | 21 | 12 | 12 | 18 | 14 | 10 |

Table 65: Private Equity CPC Investments by Region
(Percent of Aggregate CPC Gross Asset Value)
As reported on Form PF, Questions 70 and 78.

| Region | 2013Q4 | 2014Q4 | 2015Q4 | 2016Q4 | 2017Q4 | 2018Q4 |
|---------------|--------|--------|--------|--------|--------|--------|
| North America | 71.7 | 70.2 | 73.2 | 73.0 | 70.5 | 68.3 |
| Europe EEA | 19.6 | 19.6 | 16.7 | 15.7 | 17.1 | 20.3 |
| Asia | 6.1 | 7.2 | 7.9 | 7.5 | 6.8 | 7.0 |
| South America | 1.0 | 1.3 | 1.0 | 2.0 | 3.3 | 2.3 |
| Supranational | 0.9 | 1.0 | 0.4 | 0.7 | 0.9 | 0.9 |
| Europe Other | 0.3 | 0.1 | 0.4 | 0.4 | 0.7 | 0.7 |
| Middle East | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.3 |
| Africa | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 |

Table 66: Aggregate Gross Asset Value of Private Equity
CPC Investments by Country (\$ Billions)
As reported on Form PF, Questions 70 and 78.

| Country | 2013Q4 | 2014Q4 | 2015Q4 | 2016Q4 | 2017Q4 | 2018Q4 |
|---------------------|--------|--------|--------|--------|--------|--------|
| United States | 5,002 | 4,305 | 3,943 | 3,776 | 3,794 | 4,023 |
| China and Hong Kong | 171 | 186 | 173 | 114 | 147 | 154 |
| India | 63 | 83 | 89 | 92 | 73 | 104 |
| Brazil | 45 | 58 | 41 | 88 | 131 | 96 |
| Japan | 108 | 98 | 85 | 79 | 52 | 52 |
| Russia | 3 | 2 | 5 | 4 | 4 | 2 |

Table 67: Private Equity CPC Investments by Country
(Percent of Aggregate CPC Gross Asset Value)
As reported on Form PF, Questions 70 and 78.

| Country | 2013Q4 | 2014Q4 | 2015Q4 | 2016Q4 | 2017Q4 | 2018Q4 |
|---------------------|--------|--------|--------|--------|--------|--------|
| United States | 68.3 | 67.1 | 69.9 | 69.9 | 67.6 | 65.1 |
| China and Hong Kong | 2.3 | 2.9 | 3.1 | 2.1 | 2.6 | 2.5 |
| India | 0.9 | 1.3 | 1.6 | 1.7 | 1.3 | 1.7 |
| Brazil | 0.6 | 0.9 | 0.7 | 1.6 | 2.3 | 1.6 |
| Japan | 1.5 | 1.5 | 1.5 | 1.5 | 0.9 | 0.8 |
| Russia | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 |

XII 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:

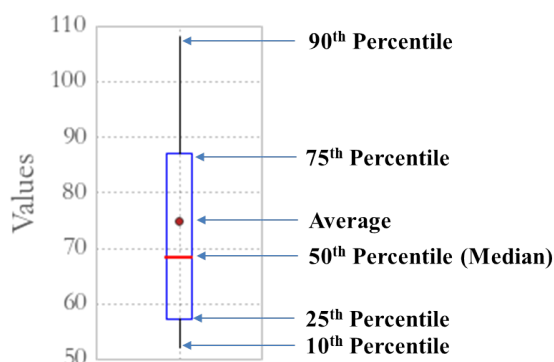
- (Q1): February 15 to May 14
- (Q2): May 15 to August 14
- (Q3): August 15 to November 14
- (Q4): November 15 to February 14

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 24 for an explanation of each feature.

Figure 24: 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.

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| <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. |

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| <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. |