



Division of Investment Management  
Analytics Office

# Private Funds Statistics

First Calendar Quarter 2023

October 16, 2023

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.<sup>1</sup> 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 2021 through First Calendar Quarter 2023 as reported by Form PF filers.<sup>2</sup> 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 2023 Private Funds Statistics, please contact:**

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<sup>1</sup>Only 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.

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

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## I Number of Funds and Advisers<sup>3</sup>

**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	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Private Equity Fund	15,892	15,866	19,082	18,961	19,001	19,054	20,875	20,917
Hedge Fund	9,622	9,496	9,458	9,645	9,749	9,783	9,789	9,846
Section 4 Private Equity Fund	5,308	5,309	6,548	6,646	6,644	6,644	7,471	7,381
Other Private Fund	5,385	5,352	6,046	6,286	6,275	6,277	6,721	6,864
Real Estate Fund	3,295	3,289	3,783	3,778	3,781	3,781	4,252	4,253
Venture Capital Fund	1,424	1,419	2,211	2,228	2,286	2,287	2,988	2,991
Securitized Asset Fund	1,915	1,910	2,243	2,251	2,257	2,257	2,481	2,490
Qualifying Hedge Fund	1,966	2,015	2,073	2,093	2,059	2,039	2,071	2,034
Liquidity Fund	76	77	79	79	79	78	71	70
Section 3 Liquidity Fund	56	57	56	54	52	51	50	50
<b>Total</b>	<b>37,609</b>	<b>37,409</b>	<b>42,902</b>	<b>43,228</b>	<b>43,428</b>	<b>43,517</b>	<b>47,177</b>	<b>47,431</b>

**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	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Private Equity Fund	1,460	1,458	1,638	1,636	1,640	1,642	1,752	1,755
Hedge Fund	1,764	1,760	1,859	1,858	1,862	1,860	1,856	1,856
Section 4 Private Equity Fund	369	369	434	435	435	436	452	450
Other Private Fund	691	682	738	738	734	732	758	762
Real Estate Fund	389	388	427	428	430	430	454	454
Venture Capital Fund	176	176	234	236	238	239	283	285
Securitized Asset Fund	166	165	176	175	175	173	177	175
Qualifying Hedge Fund	589	594	618	607	598	582	589	570
Liquidity Fund	37	37	39	39	39	39	34	33
Section 3 Liquidity Fund	24	24	24	23	22	21	21	21
<b>Total</b>	<b>3,396</b>	<b>3,387</b>	<b>3,674</b>	<b>3,674</b>	<b>3,679</b>	<b>3,674</b>	<b>3,786</b>	<b>3,791</b>

<sup>3</sup>In 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	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Hedge Fund	9,579	9,779	9,759	9,778	9,439	9,274	9,354	9,488
Qualifying Hedge Fund	7,888	8,303	8,329	8,261	7,913	7,694	7,819	7,950
Private Equity Fund	4,826	4,826	6,409	6,384	6,397	6,402	6,704	6,640
Section 4 Private Equity Fund	3,673	3,674	4,962	4,949	4,949	4,949	5,272	5,215
Other Private Fund	1,509	1,438	1,748	1,766	1,740	1,716	1,632	1,590
Real Estate Fund	810	812	972	967	969	975	1,137	1,136
Securitized Asset Fund	729	729	869	869	868	869	933	935
Venture Capital Fund	222	222	330	333	334	334	375	374
Liquidity Fund	330	310	318	318	335	335	321	320
Section 3 Liquidity Fund	328	308	316	314	331	331	319	319
<b>Total</b>	18,004	18,114	20,404	20,415	20,080	19,904	20,457	20,483

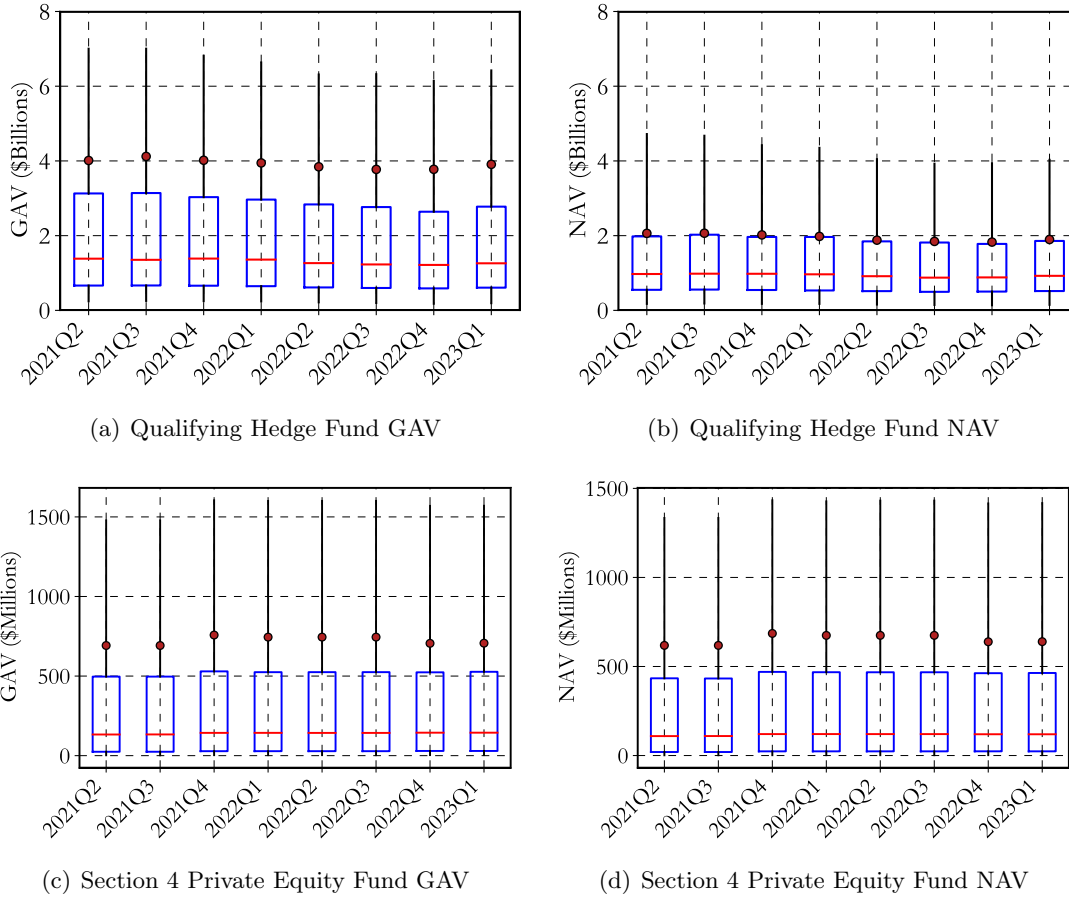
**Table 4:** Aggregate Private Fund Net Asset Value (NAV) (\$ Billions)

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.

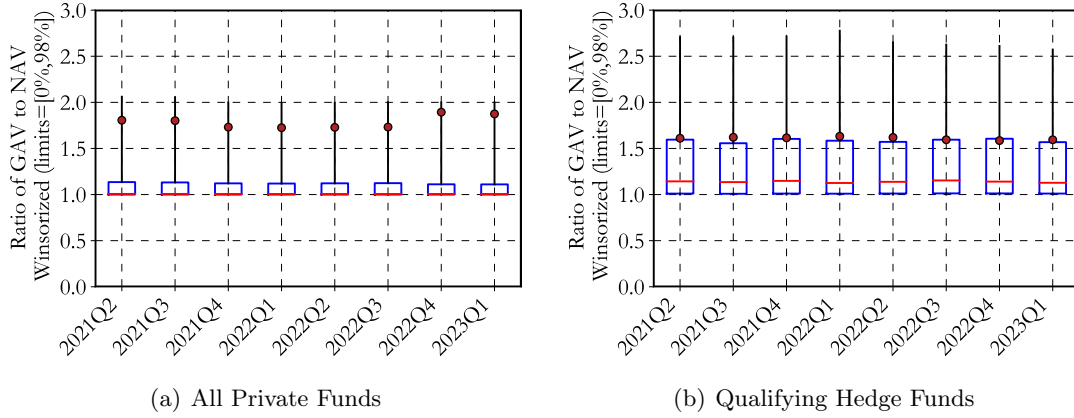
Fund Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Hedge Fund	5,129	5,111	5,130	5,148	4,912	4,848	4,814	4,856
Qualifying Hedge Fund	4,054	4,162	4,187	4,144	3,871	3,764	3,786	3,857
Private Equity Fund	4,270	4,271	5,746	5,729	5,738	5,742	6,022	5,964
Section 4 Private Equity Fund	3,283	3,283	4,489	4,483	4,483	4,483	4,772	4,720
Other Private Fund	1,341	1,274	1,559	1,582	1,557	1,534	1,406	1,363
Real Estate Fund	613	615	745	744	745	750	857	857
Securitized Asset Fund	219	220	264	265	264	264	271	272
Venture Capital Fund	214	215	310	313	314	314	342	341
Liquidity Fund	319	302	313	313	327	331	318	313
Section 3 Liquidity Fund	317	300	311	309	324	327	316	311
<b>Total</b>	12,106	12,007	14,066	14,094	13,858	13,784	14,030	13,965

**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.





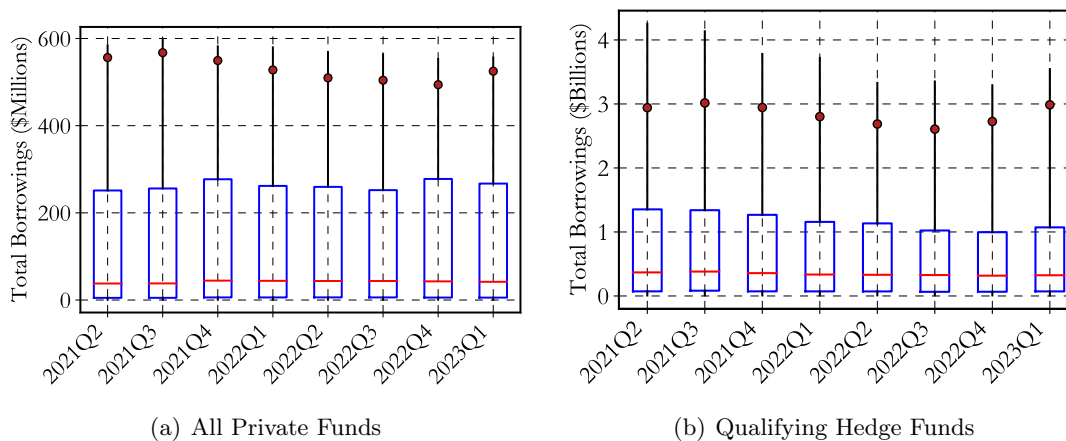
## B Borrowings

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

Fund Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Securitized Asset Fund	50.0	49.8	52.4	49.7	49.3	49.4	56.2	53.3
Qualifying Hedge Fund	45.7	44.6	45.6	43.2	43.4	43.5	44.7	47.4
Hedge Fund	41.6	41.3	42.1	39.9	39.8	40.0	41.1	43.5
Real Estate Fund	13.6	14.0	13.2	12.3	12.2	12.5	14.0	13.2
Section 4 Private Equity Fund	4.9	4.9	5.4	5.5	5.4	5.4	5.7	5.8
Other Private Fund	4.1	3.9	3.5	3.6	3.5	3.7	5.5	5.6
Private Equity Fund	4.7	4.7	5.5	5.5	5.5	5.5	5.7	5.6
Venture Capital Fund	0.5	0.5	0.7	0.7	0.7	0.7	0.6	0.6
Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Section 3 Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

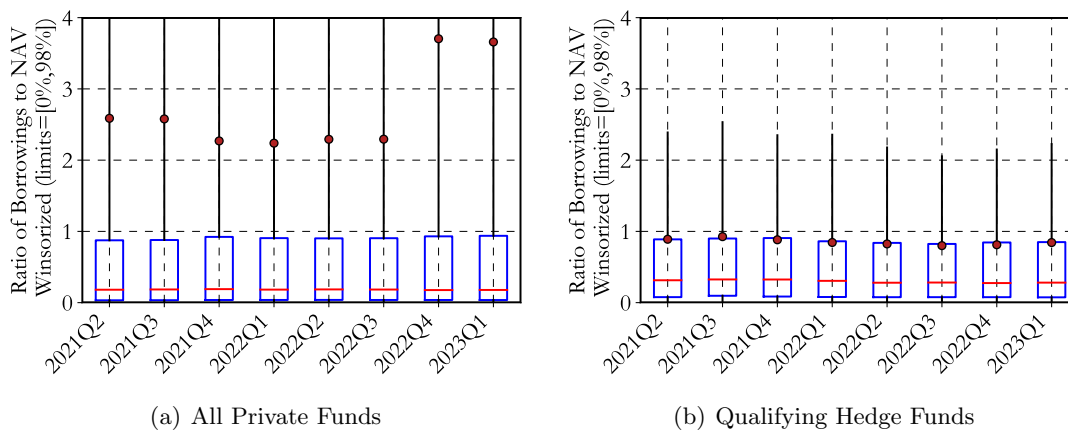
**Figure 3:** Distribution of Total Borrowings for All Private Funds and Qualifying Hedge Funds

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



**Figure 4: Ratio of Borrowings to NAV**

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



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

Creditor Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
US Financial	67.7	67.0	67.1	66.4	66.6	67.7	68.8	68.2
Non-US Financial	29.9	30.5	29.3	30.5	30.3	28.8	27.1	28.7
US Non-Financial	2.2	2.3	2.8	3.1	3.0	3.3	3.3	3.2
Non-US Non-Financial	0.9	0.9	1.0	0.9	0.9	1.0	0.9	0.8

## C Fair Value Hierarchy

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Level One	4,315	4,384	4,669	4,638	4,590	4,562	4,151	4,086
Level Two	3,646	3,648	3,842	3,828	3,834	3,798	3,595	3,569
Level Three	5,204	5,274	6,803	6,832	6,843	6,804	7,558	7,466
Cost-Based	2,333	2,323	2,853	2,878	2,859	2,868	3,075	3,064

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Level One	1,340	1,342	1,691	1,691	1,684	1,690	1,582	1,588
Level Two	1,178	1,196	1,362	1,350	1,369	1,328	1,493	1,477
Level Three	303	338	377	377	340	342	377	377
Cost-Based	2,075	2,071	2,274	2,270	2,271	2,278	2,579	2,574

## D Parallel Managed Accounts<sup>4</sup>

**Table 9:** Number of Funds with Parallel Managed Accounts

As reported on Form PF, Question 11.

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Hedge Fund	575	559	570	579	577	575	565	562
Other Private Fund	487	485	504	503	502	498	478	481
Private Equity Fund	312	312	303	303	315	314	331	407
Qualifying Hedge Fund	200	207	209	210	201	207	213	205
Section 4 Private Equity Fund	115	115	137	137	137	137	146	146
Real Estate Fund	73	73	89	89	89	89	67	68
Venture Capital Fund	17	17	30	30	30	30	39	39
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	11	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
<b>Total</b>	1,478	1,459	1,508	1,516	1,525	1,518	1,490	1,567

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

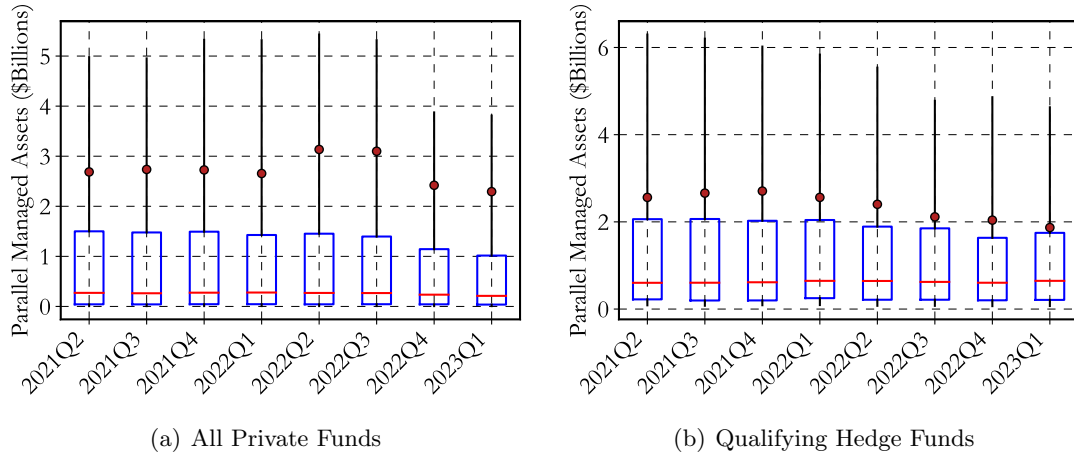
As reported on Form PF, Question 11.

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Hedge Fund	808	840	880	839	765	729	725	696
Other Private Fund	2,647	2,641	2,674	2,671	3,451	3,416	2,369	2,367
Private Equity Fund	98	98	119	120	152	152	114	126
Qualifying Hedge Fund	512	551	566	538	483	438	435	383
Section 4 Private Equity Fund	68	68	102	102	110	110	114	114
Real Estate Fund	7	7	16	16	16	16	14	15
Venture Capital Fund	1	1	2	2	2	2	2	2
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	396	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
<b>Total</b>	3,970	3,992	4,111	4,024	4,781	4,704	3,605	3,592

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

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



### III Fund Domiciles and Adviser Main Offices

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

All Private Funds								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	50.0	49.5	51.8	52.3	52.6	52.9	52.7	52.5
Cayman Islands	34.3	34.8	32.8	32.7	32.4	32.7	32.1	32.5
Luxembourg	3.7	3.7	4.1	4.1	4.1	4.1	5.0	5.0
Ireland	4.1	4.0	3.9	3.9	3.9	3.9	3.6	3.6
Bermuda	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0
United Kingdom	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9
Virgin Islands, British	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8
Other	5.0	5.0	4.7	4.2	4.2	3.6	3.7	3.6

Qualifying Hedge Funds								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Cayman Islands	51.6	51.7	51.7	51.0	52.3	53.1	52.5	52.7
United States	34.1	33.9	34.2	34.9	35.7	35.0	35.6	35.7
Luxembourg	2.5	2.6	2.4	2.4	2.4	2.3	2.7	2.9
Ireland	3.2	3.2	3.2	3.1	3.0	2.8	3.0	2.8
Virgin Islands, British	2.7	2.7	2.6	2.8	3.1	3.1	2.9	2.6
Bermuda	1.6	1.5	1.5	1.7	1.7	1.9	1.9	1.7
Other	4.3	4.5	4.2	4.2	1.8	1.7	1.4	1.6

Section 3 Liquidity Funds								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Ireland	***	***	***	***	***	***	***	***
United States	27.8	26.6	27.6	28.5	27.3	25.5	23.4	23.9
Cayman Islands	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***

Section 4 Private Equity Funds								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	55.2	55.2	56.1	56.9	56.9	56.9	56.2	56.4
Cayman Islands	28.9	28.9	29.3	29.6	29.6	29.6	28.0	28.1
Canada	2.2	2.2	2.0	1.9	1.9	1.9	2.0	2.1
United Kingdom	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4
Bermuda	1.1	1.1	1.2	1.2	1.2	1.2	1.0	1.0
Other	11.1	11.1	9.9	9.0	9.0	9.0	11.3	11.0

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

<b>All Private Funds</b>								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	89.4	89.6	91.2	90.9	91.7	91.9	92.3	91.8
United Kingdom	4.8	4.6	3.9	4.0	3.9	3.9	3.7	4.0
Other	5.9	5.8	4.9	5.1	4.3	4.2	4.0	4.1
<b>Qualifying Hedge Funds</b>								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	87.6	88.0	88.1	88.5	90.7	91.1	90.4	90.9
United Kingdom	4.3	4.1	4.1	3.9	3.7	3.5	4.1	4.0
Australia	***	***	***	***	***	***	***	***
Hong Kong	***	***	***	***	***	***	***	***
Other	4.0	4.1	4.1	4.1	2.2	2.2	3.0	2.8
<b>Section 3 Liquidity Funds</b>								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	***	***	***	***	***	***	***	***
United Kingdom	***	***	***	***	***	***	***	***
<b>Section 4 Private Equity Funds</b>								
Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	94.3	94.3	95.6	95.6	95.6	95.6	95.5	95.4
Canada	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***

## IV Beneficial Ownership

### A All Private Funds

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Private Funds	2,128	2,131	2,598	2,635	2,593	2,588	2,592	2,593
Other	1,948	1,929	2,445	2,444	2,407	2,414	2,540	2,557
State/Muni. Govt. Pension Plans	1,576	1,587	1,858	1,882	1,871	1,862	1,912	1,905
U.S. Individuals	1,226	1,208	1,422	1,417	1,372	1,366	1,323	1,334
Pension Plans	1,277	1,261	1,370	1,375	1,339	1,270	1,306	1,302
Non-Profits	1,208	1,215	1,316	1,298	1,246	1,256	1,245	1,253
Sov. Wealth Funds And For. Official Inst.	855	856	1,007	1,000	1,004	1,010	1,082	1,068
Insurance Companies	583	593	697	704	702	703	744	754
Non-U.S. Individuals	386	384	416	401	396	393	376	314
Unknown Non-U.S. Investors	263	266	317	305	312	305	285	251
State/Muni. Govt. Entities	205	203	232	226	222	223	241	247
Banking/Thrift Inst.	189	188	188	194	193	196	193	190
Sec-Registered Investment Companies	144	138	155	161	151	148	149	150
Broker-Dealers	110	44	42	45	44	42	38	40

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Private Funds	17.6	17.8	18.5	18.7	18.7	18.8	18.5	18.6
Other	16.1	16.1	17.4	17.3	17.4	17.5	18.1	18.3
State/Muni. Govt. Pension Plans	13.0	13.2	13.2	13.4	13.5	13.5	13.6	13.6
U.S. Individuals	10.1	10.1	10.1	10.1	9.9	9.9	9.4	9.6
Pension Plans	10.5	10.5	9.7	9.8	9.7	9.2	9.3	9.3
Non-Profits	10.0	10.1	9.4	9.2	9.0	9.1	8.9	9.0
Sov. Wealth Funds And For. Official Inst.	7.1	7.1	7.2	7.1	7.2	7.3	7.7	7.7
Insurance Companies	4.8	4.9	5.0	5.0	5.1	5.1	5.3	5.4
Non-U.S. Individuals	3.2	3.2	3.0	2.8	2.9	2.8	2.7	2.2
Unknown Non-U.S. Investors	2.2	2.2	2.3	2.2	2.2	2.2	2.0	1.8
State/Muni. Govt. Entities	1.7	1.7	1.7	1.6	1.6	1.6	1.7	1.8
Banking/Thrift Inst.	1.6	1.6	1.3	1.4	1.4	1.4	1.4	1.4
Sec-Registered Investment Companies	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1
Broker-Dealers	0.9	0.4	0.3	0.3	0.3	0.3	0.3	0.3



## B Qualifying Hedge Funds

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Private Funds	695	724	723	732	701	696	689	701
Other	573	598	607	603	571	563	561	586
Non-Profits	594	601	602	581	546	559	528	537
State/Muni. Govt. Pension Plans	430	447	458	462	453	431	445	454
U.S. Individuals	486	492	493	473	432	423	424	423
Pension Plans	477	476	477	476	449	381	408	415
Sov. Wealth Funds And For. Official Inst.	244	256	264	266	267	266	289	282
Insurance Companies	131	140	144	147	150	149	148	164
Non-U.S. Individuals	186	185	181	171	107	102	102	103
State/Muni. Govt. Entities	62	59	62	61	58	59	59	62
Unknown Non-U.S. Investors	80	89	86	82	46	42	46	44
Banking/Thrift Inst.	43	42	41	40	38	41	38	38
Sec-Registered Investment Companies	42	42	38	39	39	38	38	37
Broker-Dealers	6	8	9	9	9	8	9	9

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

As reported on Form PF, Questions 9 and 16.

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Private Funds	17.1	17.4	17.3	17.7	18.1	18.5	18.2	18.2
Other	14.1	14.4	14.5	14.6	14.7	15.0	14.8	15.2
Non-Profits	14.7	14.5	14.4	14.0	14.1	14.8	13.9	13.9
State/Muni. Govt. Pension Plans	10.6	10.7	10.9	11.1	11.7	11.5	11.8	11.8
U.S. Individuals	12.0	11.8	11.8	11.4	11.2	11.2	11.2	11.0
Pension Plans	11.8	11.4	11.4	11.5	11.6	10.1	10.8	10.8
Sov. Wealth Funds And For. Official Inst.	6.0	6.1	6.3	6.4	6.9	7.1	7.6	7.3
Insurance Companies	3.2	3.4	3.4	3.5	3.9	4.0	3.9	4.2
Non-U.S. Individuals	4.6	4.5	4.3	4.1	2.8	2.7	2.7	2.7
State/Muni. Govt. Entities	1.5	1.4	1.5	1.5	1.5	1.6	1.5	1.6
Unknown Non-U.S. Investors	2.0	2.1	2.1	2.0	1.2	1.1	1.2	1.2
Banking/Thrift Inst.	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0
Sec-Registered Investment Companies	1.0	1.0	0.9	0.9	1.0	1.0	1.0	0.9
Broker-Dealers	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

## C Section 3 Liquidity Funds

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Other	105	101	96	103	100	106	108	106
Unknown Non-U.S. Investors	57	50	60	51	64	68	65	63
Private Funds	52	50	57	58	65	64	56	50
Banking/Thrift Inst.	24	***	***	***	***	***	***	***
Broker-Dealers	***	***	***	***	***	***	***	***
Sec-Registered Investment Companies	25	27	23	24	16	15	14	17
Insurance Companies	11	9	9	8	9	8	10	12
Sov. Wealth Funds And For. Official Inst.	***	***	***	***	***	***	***	***
Pension Plans	8	7	7	5	5	***	***	***
Non-U.S. Individuals	4	3	***	***	***	***	***	***
Non-Profits	3	3	4	3	3	3	2	3
State/Muni. Govt. Entities	***	***	3	***	***	***	***	***
U.S. Individuals	***	***	***	***	***	***	***	***
State/Muni. Govt. Pension Plans	1	1	1	1	***	***	1	***

**Table 18:** Beneficial Ownership for Section 3 Liquidity Funds  
(Percent of Aggregate NAV)  
As reported on Form PF, Questions 9 and 16.

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Other	33.1	33.8	31.0	33.4	30.8	32.4	34.1	34.1
Unknown Non-U.S. Investors	18.0	16.7	19.2	16.6	19.9	20.7	20.6	20.2
Private Funds	16.5	16.5	18.5	18.6	19.9	19.6	17.8	15.9
Banking/Thrift Inst.	7.4	***	***	***	***	***	***	***
Broker-Dealers	***	***	***	***	***	***	***	***
Sec-Registered Investment Companies	7.8	8.9	7.5	7.8	4.9	4.6	4.3	5.4
Insurance Companies	3.5	3.2	2.8	2.6	2.8	2.5	3.0	3.9
Sov. Wealth Funds And For. Official Inst.	***	***	***	***	***	***	***	***
Pension Plans	2.4	2.4	2.3	1.7	1.5	***	***	***
Non-U.S. Individuals	1.1	0.9	***	***	***	***	***	***
Non-Profits	1.0	1.1	1.2	1.0	0.9	0.8	0.8	0.9
State/Muni. Govt. Entities	***	***	1.0	***	***	***	***	***
U.S. Individuals	***	***	***	***	***	***	***	***
State/Muni. Govt. Pension Plans	0.3	0.4	0.3	0.3	***	***	0.4	***

## D Section 4 Private Equity Funds

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

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

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

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

## E Concentration

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Other Private Fund	59.4	60.2	57.0	57.5	57.1	57.5	58.9	58.2
Real Estate Fund	56.1	56.1	59.0	59.0	59.0	58.7	56.9	57.0
Hedge Fund	54.3	54.0	53.9	54.6	55.1	54.8	55.4	56.4
Qualifying Hedge Fund	49.7	49.9	50.0	51.0	51.9	51.6	52.1	52.0
Venture Capital Fund	53.9	53.9	52.6	52.5	52.4	52.4	49.9	49.9
Private Equity Fund	51.1	51.1	49.5	49.1	49.2	49.1	49.8	49.4
Section 4 Private Equity Fund	46.2	46.2	44.9	44.7	44.7	44.7	46.5	45.9
Liquidity Fund	47.4	46.3	46.1	48.1	46.7	46.5	45.1	44.3
Section 3 Liquidity Fund	47.1	46.0	45.8	47.7	46.4	46.1	44.8	44.1
Securitized Asset Fund	35.0	35.0	37.3	37.5	37.6	37.8	42.6	43.3
<b>Total</b>	<b>53.3</b>	<b>53.2</b>	<b>52.2</b>	<b>52.4</b>	<b>52.5</b>	<b>52.4</b>	<b>52.8</b>	<b>52.9</b>

## V Derivatives

**Table 22:** Aggregate Derivative Value (\$ Billions)

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

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Hedge Fund	16,252	15,822	15,430	15,866	14,941	14,489	15,178	15,825
Qualifying Hedge Fund	14,363	14,416	14,072	14,268	13,256	12,922	13,306	13,200
Private Equity Fund	66	66	70	69	69	71	158	159
Other Private Fund	134	133	118	110	110	112	105	103
Real Estate Fund	18	18	41	41	41	41	72	76
Section 4 Private Equity Fund	34	34	52	54	54	54	73	72
Securitized Asset Fund	3	3	5	5	5	5	***	6
Venture Capital Fund	***	***	***	***	***	***	0	0
Liquidity Fund	***	***	***	***	***	***	***	0
Section 3 Liquidity Fund	***	***	***	***	0	0	0	0
<b>Total</b>	<b>16,500</b>	<b>16,028</b>	<b>15,692</b>	<b>16,050</b>	<b>15,173</b>	<b>14,730</b>	<b>15,558</b>	<b>16,174</b>

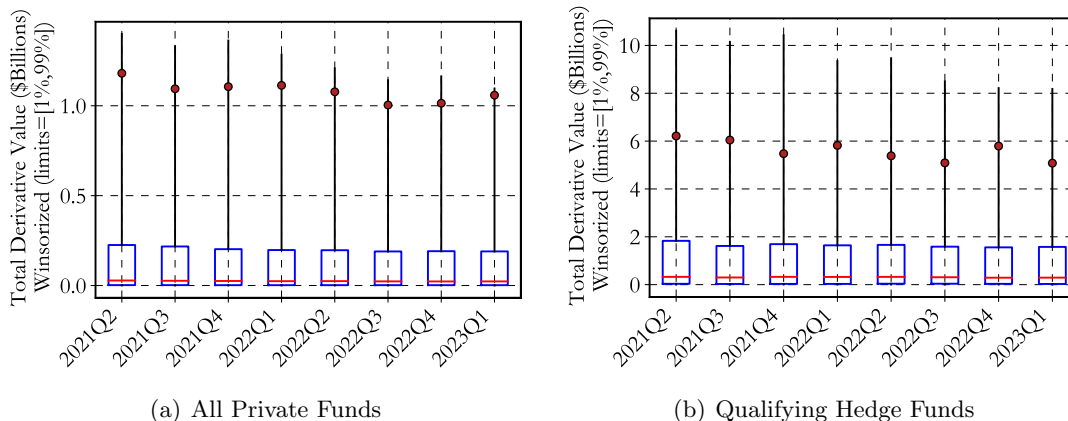
**Table 23:** Aggregate Derivative Value (Percent of Aggregate NAV)

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Hedge Fund	316.8	309.6	300.8	308.2	304.2	298.8	315.3	325.9
Qualifying Hedge Fund	354.3	346.4	336.1	344.3	342.4	343.3	351.5	342.2
Private Equity Fund	1.6	1.6	1.2	1.2	1.2	1.2	2.6	2.7
Other Private Fund	10.0	10.4	7.6	7.0	7.1	7.3	7.5	7.6
Real Estate Fund	2.9	2.9	5.6	5.6	5.6	5.5	8.4	8.9
Section 4 Private Equity Fund	1.0	1.0	1.2	1.2	1.2	1.2	1.5	1.5
Securitized Asset Fund	1.2	1.2	1.8	1.8	1.8	1.8	***	2.1
Venture Capital Fund	***	***	***	***	***	***	0.1	0.1
Liquidity Fund	***	***	***	***	***	***	***	0.0
Section 3 Liquidity Fund	***	***	***	***	0.0	0.0	0.0	0.0
<b>Total</b>	<b>136.3</b>	<b>133.5</b>	<b>111.6</b>	<b>113.9</b>	<b>109.5</b>	<b>106.9</b>	<b>110.9</b>	<b>115.8</b>

**Figure 6: Distribution of Derivative Values**

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



## VI Additional Hedge Fund Industry Information

### A High Frequency Trading

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

Fraction of NAV	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
0%	8,313	8,213	8,389	8,527	8,615	8,674	8,693	8,773
Less than 100%	49	49	49	52	53	50	56	56
100% or More	6	6	8	8	8	8	5	5

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

Fraction of NAV	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
0%	4,986	4,958	4,995	4,995	4,755	4,681	4,662	4,686
Less than 100%	112	117	115	128	127	135	128	138
100% or More	4	5	6	7	8	8	9	9

## B Industry Concentration

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Top 10	7.0	7.3	7.3	7.6	7.8	8.1	7.8	7.9
Top 25	13.0	13.3	13.3	13.5	13.5	13.7	13.3	13.4
Top 50	19.1	19.4	19.3	19.5	19.5	19.6	19.1	19.3
Top 100	27.5	27.9	27.6	27.6	27.3	27.6	27.0	27.4
Top 250	42.2	42.7	42.2	41.9	41.5	41.6	41.2	41.6
Top 500	55.9	56.2	55.7	55.5	54.8	54.9	54.6	54.8

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Top 10	14.8	16.2	16.2	15.8	16.7	16.9	17.7	17.7
Top 25	23.7	25.2	25.3	25.6	26.1	25.7	26.4	26.8
Top 50	32.2	33.5	33.5	33.6	34.1	33.8	34.5	34.8
Top 100	40.8	42.3	41.9	41.9	42.4	42.4	43.1	43.4
Top 250	54.2	55.4	54.9	54.5	54.7	54.7	55.2	55.6
Top 500	65.7	66.8	66.3	66.1	66.0	65.9	66.3	66.6

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Top 10	31.7	32.2	34.7	34.1	34.6	34.1	36.5	35.7
Top 25	47.5	48.0	49.3	48.6	50.1	50.2	51.0	51.2
Top 50	60.2	60.5	61.4	61.0	61.7	62.0	63.4	64.1
Top 100	70.7	71.1	72.1	71.5	72.0	72.4	73.7	74.5
Top 250	83.0	83.2	83.3	83.4	83.1	83.4	84.2	85.0
Top 500	90.8	90.9	90.9	90.8	90.5	90.6	91.0	91.5

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Top 10	39.5	40.9	41.3	38.3	39.3	40.7	37.7	40.4
Top 25	55.0	57.0	55.8	55.3	55.6	56.0	55.5	56.8
Top 50	67.3	69.4	67.7	67.9	67.4	68.2	68.9	69.1
Top 100	78.2	79.6	78.4	79.2	78.9	79.7	80.5	80.8
Top 250	89.3	90.4	89.7	90.3	90.0	90.2	90.7	91.1
Top 500	95.0	95.5	95.2	95.4	95.2	95.3	95.5	95.8

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

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Top 10	34.8	35.1	35.5	34.7	34.6	34.6	33.9	36.0
Top 25	48.5	49.8	48.7	48.7	49.2	49.8	49.9	51.4
Top 50	59.6	60.8	59.9	60.1	60.6	60.9	61.6	62.5
Top 100	70.0	71.0	70.2	70.9	70.9	71.7	72.8	73.8
Top 250	82.8	83.4	82.6	82.9	82.8	83.3	84.1	84.7
Top 500	90.9	91.1	90.7	90.8	90.5	90.8	91.2	91.6



## C Single-Strategy US-Domiciled Hedge Funds

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

Category	Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity	Subtotal	666	654	680	637	589	555	552	550
	Long/Short	310	307	326	311	280	273	272	262
	Long Bias	327	319	324	298	273	251	252	259
	Market Neutral	28	27	***	26	***	29	28	27
	Short Bias	1	1	***	1	***	2	1	1
Other	Subtotal	589	595	625	649	648	656	655	666
Credit	Subtotal	126	134	141	144	144	150	163	180
	Long/Short	68	72	71	72	72	73	77	93
	Asset Based Lending	57	62	70	73	72	77	86	87
Event Driven	Subtotal	61	66	74	76	75	76	83	80
	Distressed/Restruct.	41	47	43	46	47	48	50	49
	Equity	14	13	20	19	18	19	26	26
	Risk Arb./Merger Arb.	6	6	11	10	10	9	7	5
Relative Value	Subtotal	48	49	55	55	56	55	59	63
	F.I. Asset Backed	28	30	31	32	32	32	37	38
	F.I. Corp.	9	9	11	11	11	11	11	11
	F.I. Conv. Arb.	8	7	9	9	9	8	7	7
	Volatility Arb.	1	1	2	2	3	3	3	5
Investment in other funds	F.I. Sov.	1	1	1	1	2	1	2	2
	Subtotal	32	32	33	34	33	32	32	39
Macro	Subtotal	13	13	13	15	15	16	14	13
	Global Macro	9	10	9	10	10	11	9	8
	Commodity	***	3	3	4	4	4	4	4
	Active Trading	***	***	***	***	***	***	***	***
	Currency	***	***	***	***	***	***	***	***
Managed Futures/CTA	Subtotal	6	6	6	7	6	6	6	6
	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
<b>Total</b>	<b>Total</b>	<b>1,369</b>	<b>1,383</b>	<b>1,437</b>	<b>1,433</b>	<b>1,386</b>	<b>1,368</b>	<b>1,385</b>	<b>1,420</b>

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

Category	Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity	Subtotal	1,031	1,035	1,128	1,150	1,153	1,156	1,139	1,144
	Long/Short	451	458	471	480	475	474	496	499
	Long Bias	528	527	605	616	624	627	589	592
	Market Neutral	46	45	***	51	***	51	47	47
	Short Bias	11	11	***	8	***	9	13	12
Other	Subtotal	1,003	1,017	1,034	1,070	1,093	1,114	1,169	1,197
Credit	Subtotal	366	373	383	394	404	422	430	442
	Long/Short	176	178	189	197	210	218	220	232
	Asset Based Lending	193	198	197	200	197	207	213	213
Event Driven	Subtotal	239	236	243	259	270	276	298	297
	Distressed/Restruct.	165	166	164	179	189	195	212	211
	Equity	56	52	59	60	60	61	68	68
	Risk Arb./Merger Arb.	22	21	21	21	21	21	19	19
Relative Value	Subtotal	174	174	186	189	198	201	212	219
	F.I. Asset Backed	95	96	94	93	99	100	107	119
	F.I. Corp.	45	48	55	54	59	58	58	59
	F.I. Conv. Arb.	19	18	20	22	23	26	26	24
	Volatility Arb.	12	11	19	19	20	20	18	18
Investment in other funds	F.I. Sov.	16	15	18	14	19	19	18	18
	Subtotal	233	238	241	260	261	257	306	331
Macro	Subtotal	46	43	45	48	48	45	44	44
	Global Macro	24	22	18	19	19	19	18	18
	Commodity	***	13	15	17	17	16	15	15
	Active Trading	***	***	***	***	***	***	***	***
	Currency	***	***	***	***	***	***	***	***
Managed Futures/CTA	Subtotal	27	24	24	24	23	22	23	23
	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
<b>Total</b>	<b>Total</b>	<b>2,908</b>	<b>2,931</b>	<b>3,079</b>	<b>3,175</b>	<b>3,216</b>	<b>3,265</b>	<b>3,352</b>	<b>3,425</b>

## D Single-Strategy Non-US-Domiciled Hedge Funds

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

Category	Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity	Subtotal	1,280	1,275	1,270	1,143	1,015	962	1,013	1,023
	Long/Short	830	825	813	728	647	617	665	692
	Long Bias	357	360	356	321	280	259	261	229
	Market Neutral	***	***	***	***	***	***	***	***
	Short Bias	***	***	***	***	***	***	***	***
Event Driven	Subtotal	182	178	185	185	180	173	166	420
	Distressed/Restruct.	110	112	117	120	120	119	117	371
	Equity	31	33	35	34	30	25	28	28
Other	Risk Arb./Merger Arb.	41	33	33	30	30	29	21	21
	Subtotal	745	761	767	776	736	715	760	756
Relative Value	Subtotal	423	445	456	434	442	409	369	377
	F.I. Sov.	283	299	315	284	309	283	248	256
	F.I. Asset Backed	78	79	77	75	75	74	71	68
	Volatility Arb.	19	22	22	24	27	23	20	20
	F.I. Corp.	27	28	27	28	18	17	17	19
	F.I. Conv. Arb.	16	17	16	22	13	12	12	14
Credit	Subtotal	303	325	287	297	290	309	314	320
	Long/Short	238	229	210	217	207	219	221	227
	Asset Based Lending	66	96	77	81	83	89	92	94
Macro	Subtotal	401	381	261	280	299	322	321	319
	Global Macro	389	369	250	269	288	307	309	309
	Commodity	9	8	8	8	8	6	7	7
	Active Trading	***	***	***	***	***	***	***	***
	Currency	***	***	***	***	***	***	***	***
Managed Futures/CTA	Subtotal	201	233	209	231	206	240	190	228
	Quantitative	***	***	***	***	***	***	***	***
Investment in other funds	Fundamental	***	***	***	***	***	***	***	***
	Subtotal	34	35	33	33	30	30	27	31
<b>Total</b>	<b>Total</b>	2,415	2,464	2,432	2,390	2,215	2,141	2,147	2,140

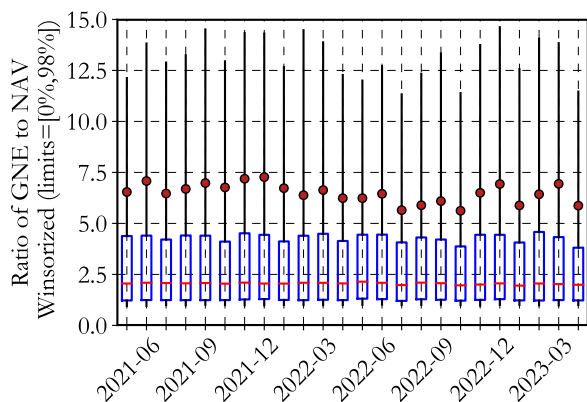
**Table 34:** Number of Single-Strategy Non-US-Domiciled Hedge Funds  
As reported on Form PF, Questions 9, 19, and 20.

Category	Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
	Subtotal	1,084	1,072	1,093	1,097	1,096	1,093	1,069	1,024
Equity	Long/Short	612	607	630	631	631	629	599	596
	Long Bias	375	379	391	394	388	385	385	342
	Market Neutral	***	***	***	***	***	***	***	***
	Short Bias	***	***	***	***	***	***	***	***
	Subtotal	318	321	310	316	318	314	313	313
Event Driven	Distressed/Restruct.	220	223	214	221	223	223	219	223
	Equity	80	79	74	70	70	69	75	70
	Risk Arb./Merger Arb.	48	47	48	50	49	47	43	44
	Subtotal	881	857	853	875	892	881	919	931
Other	Subtotal	307	304	304	302	301	305	294	300
	F.I. Sov.	55	54	60	59	59	61	60	59
	F.I. Asset Backed	151	147	149	146	148	150	139	143
	Volatility Arb.	25	25	27	26	25	24	29	29
	F.I. Corp.	98	98	91	92	88	90	87	91
	F.I. Conv. Arb.	25	27	24	25	26	24	24	24
	Subtotal	358	356	353	368	370	381	375	386
Credit	Long/Short	254	249	248	260	260	267	267	277
	Asset Based Lending	107	111	108	111	113	117	111	112
	Subtotal	211	206	209	213	212	215	216	212
Macro	Global Macro	161	159	161	167	171	170	164	162
	Commodity	38	34	42	40	38	39	45	40
	Active Trading	***	***	***	***	***	***	***	***
	Currency	***	***	***	***	***	***	***	***
	Subtotal	120	123	108	113	120	121	125	129
Managed Futures/CTA	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Investment in other funds	Subtotal	104	102	103	101	104	108	107	106
<b>Total</b>	<b>Total</b>	<b>3,180</b>	<b>3,131</b>	<b>3,103</b>	<b>3,158</b>	<b>3,185</b>	<b>3,187</b>	<b>3,200</b>	<b>3,179</b>

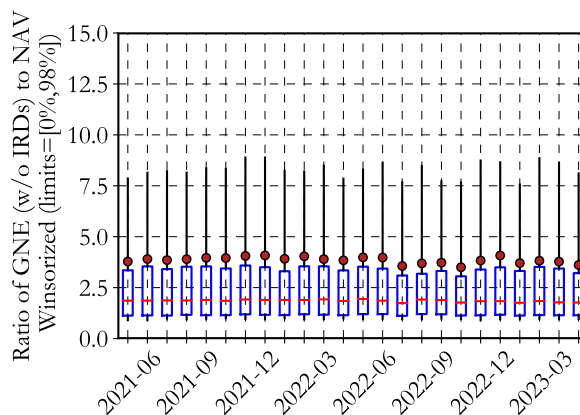
## VII Information Reported by Large Hedge Fund Advisers

### A Economic Leverage

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

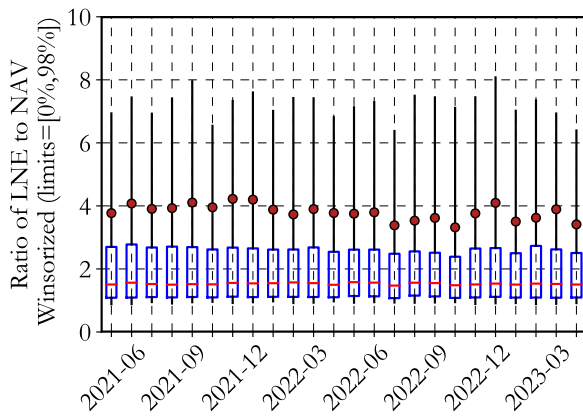


(a) Gross Exposure with Interest Rate Derivatives (IRDs)

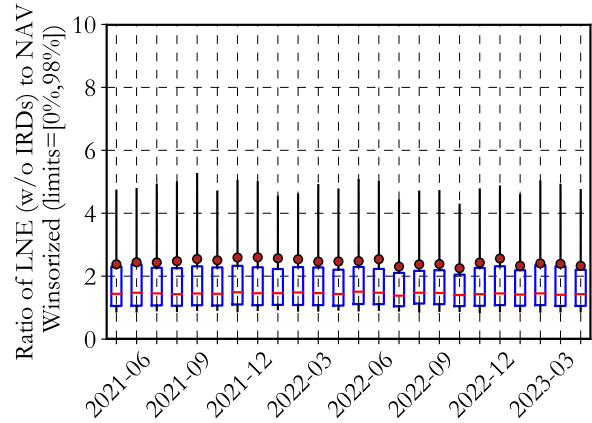


(b) Gross Exposure without IRDs

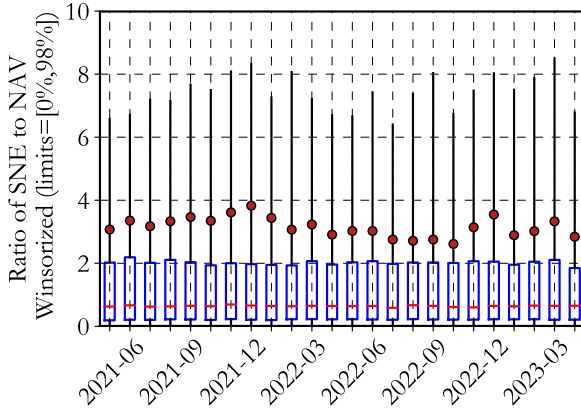
**Figure 8: Ratio of Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value Distribution**  
 See Appendix C and Appendix D for an explanation of boxplots and winsorization.  
 As reported on Form PF, Questions 3(a) and 26.



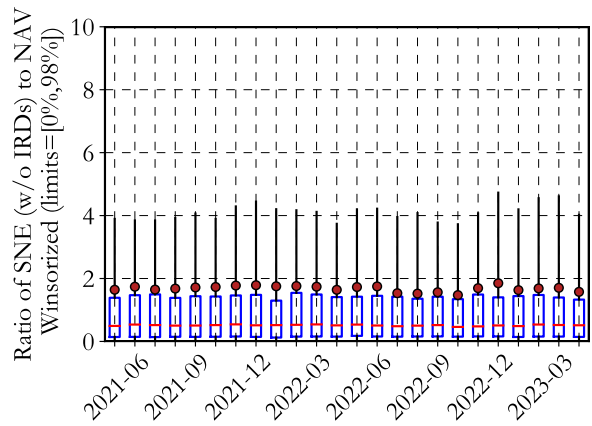
(a) Long Exposure with IRDs



(b) Long Exposure without IRDs



(c) Short Exposure with IRDs



(d) Short Exposure without IRDs

## B Industry Concentration

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

Month	Top 10 Advisers (NAV)	Top 20 Advisers (NAV)	Top 10 Advisers (GNE)	Top 20 Advisers (GNE)
2021-04	16.3	26.5	40.7	55.5
2021-05	16.3	26.5	40.4	55.7
2021-06	16.3	26.5	40.0	54.8
2021-07	16.3	26.6	40.7	56.9
2021-08	17.0	27.5	39.3	56.3
2021-09	17.0	27.5	38.8	55.7
2021-10	17.1	27.4	38.4	56.4
2021-11	17.1	27.4	38.5	56.5
2021-12	17.1	27.4	38.2	54.9
2022-01	17.5	28.2	39.0	55.4
2022-02	16.8	27.3	38.5	55.8
2022-03	16.8	27.3	38.3	55.2
2022-04	17.1	28.0	42.8	57.7
2022-05	17.2	28.1	42.8	58.7
2022-06	17.2	28.1	39.0	55.5
2022-07	17.5	28.3	40.2	57.3
2022-08	17.5	28.3	40.1	57.9
2022-09	17.5	28.3	39.9	57.0
2022-10	17.4	28.2	39.2	57.0
2022-11	17.4	28.2	39.6	57.9
2022-12	17.4	28.2	38.9	55.9
2023-01	17.6	28.6	40.8	58.6
2023-02	17.6	28.6	40.6	59.3
2023-03	17.6	28.6	41.4	58.9

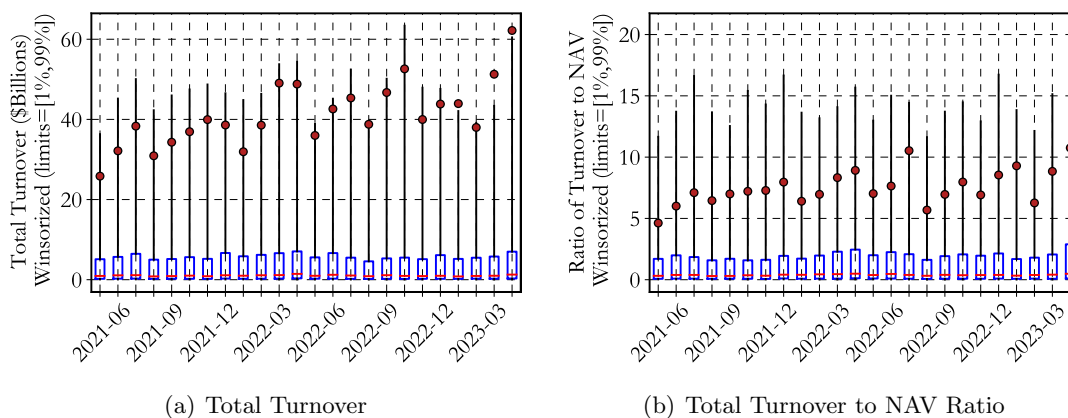
### C Portfolio Turnover

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

Month	Futures	Sov. and muni. bonds	Listed equities	Corporate bonds	Convertible bonds	Total
2021-04	9,445	4,022	3,210	173	51	16,902
2021-05	13,934	4,403	3,375	157	44	21,912
2021-06	16,641	5,152	3,678	151	48	25,671
2021-07	11,986	5,097	3,158	142	29	20,411
2021-08	13,952	5,423	3,100	140	39	22,654
2021-09	15,988	5,468	3,436	167	54	25,112
2021-10	19,432	5,646	3,403	182	38	28,701
2021-11	17,055	6,181	3,775	164	53	27,228
2021-12	14,329	4,656	3,842	120	38	22,986
2022-01	16,568	5,313	3,948	188	40	26,056
2022-02	21,266	6,327	3,792	292	35	31,712
2022-03	23,015	5,986	4,526	255	36	33,818
2022-04	16,025	4,574	3,676	223	27	24,525
2022-05	19,479	5,143	4,252	339	30	29,242
2022-06	22,129	4,903	3,892	312	24	31,261
2022-07	19,117	4,389	3,022	318	17	26,862
2022-08	23,968	5,152	3,433	236	29	32,819
2022-09	29,032	4,931	3,531	205	25	37,724
2022-10	20,479	4,372	4,302	185	32	29,371
2022-11	25,693	5,199	4,376	201	29	35,498
2022-12	25,184	4,522	4,028	149	19	33,903
2023-01	16,082	5,301	4,126	224	32	25,766
2023-02	21,793	6,460	4,084	234	49	32,620
2023-03	27,929	7,294	4,937	245	39	40,443

**Figure 9:** Distributions of Portfolio Turnover

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





## D Region and Country Exposure

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

Region	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
North America	5,579	5,837	5,931	5,851	5,581	5,424	5,546	5,840
Europe EEA	1,487	1,594	1,478	1,633	1,480	1,433	1,657	1,526
Asia	816	800	767	716	713	737	750	730
Europe Other	313	313	305	416	324	336	356	372
South America	91	86	86	92	81	81	86	83
Supranational	47	51	48	42	38	32	27	34
Middle East	54	31	30	27	26	46	26	26
Africa	38	32	26	28	22	21	24	21

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

Region	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
North America	127.6	128.4	130.9	132.1	132.0	131.4	133.9	137.0
Europe EEA	34.0	35.1	32.6	36.9	35.0	34.7	40.0	35.8
Asia	18.7	17.6	16.9	16.2	16.9	17.9	18.1	17.1
Europe Other	7.2	6.9	6.7	9.4	7.7	8.1	8.6	8.7
South America	2.1	1.9	1.9	2.1	1.9	2.0	2.1	1.9
Supranational	1.1	1.1	1.1	0.9	0.9	0.8	0.7	0.8
Middle East	1.2	0.7	0.7	0.6	0.6	1.1	0.6	0.6
Africa	0.9	0.7	0.6	0.6	0.5	0.5	0.6	0.5

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

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

Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	5,284	5,472	5,540	5,541	5,286	5,146	5,275	5,542
Japan	219	233	217	213	240	266	337	332
China (Inc. Hong Kong)	284	251	239	204	198	174	171	171
India	52	53	51	48	47	49	44	44
Brazil	43	33	33	39	34	34	34	31
Russia	18	16	16	5	5	5	3	3

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

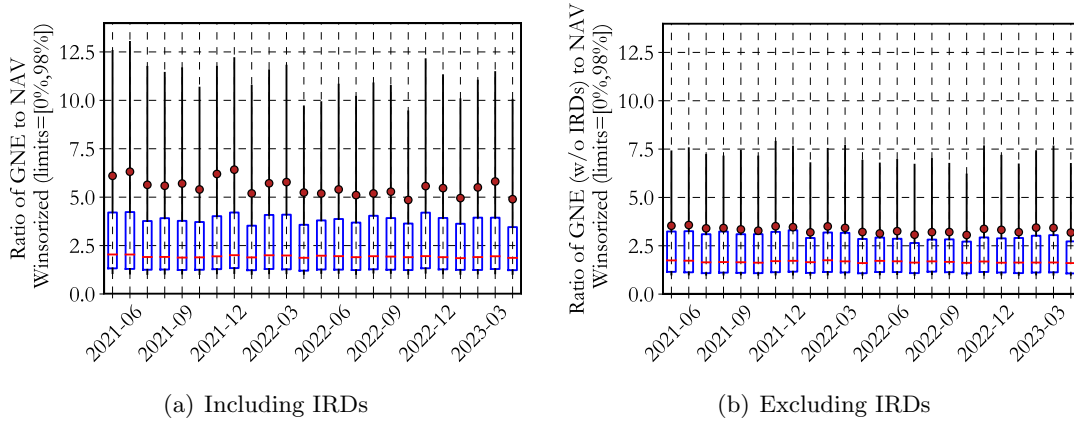
As reported on Form PF, Questions 3(a) and 28.

Country	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
United States	120.9	120.4	122.3	125.1	125.0	124.7	127.4	130.0
Japan	5.0	5.1	4.8	4.8	5.7	6.4	8.1	7.8
China (Inc. Hong Kong)	6.5	5.5	5.3	4.6	4.7	4.2	4.1	4.0
India	1.2	1.2	1.1	1.1	1.1	1.2	1.1	1.0
Brazil	1.0	0.7	0.7	0.9	0.8	0.8	0.8	0.7
Russia	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.1

## VIII Qualifying Hedge Fund Specific Information

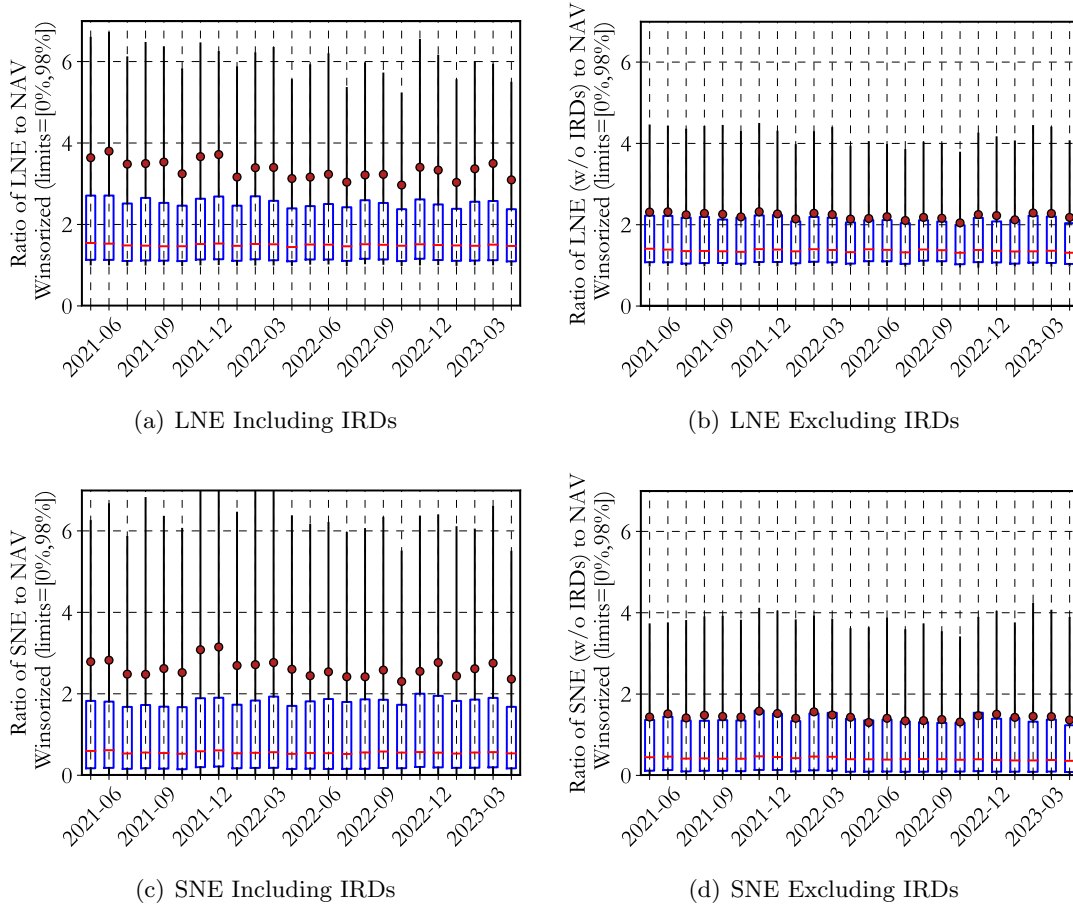
### A Economic Leverage

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



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

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



## B Gross Exposure by Strategy<sup>5</sup>

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

Category	Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity	Subtotal	2,244	2,229	2,252	2,031	1,773	1,684	1,793	1,842
	Long/Short	1,205	1,201	1,212	1,100	970	938	1,016	1,048
	Long Bias	649	649	643	577	467	414	438	448
	Market Neutral	390	***	396	***	***	***	***	***
	Short Bias	0	***	0	***	***	***	***	***
Other	Subtotal	1,365	1,427	1,456	1,483	1,440	1,427	1,458	1,486
Relative Value	Subtotal	1,031	1,035	1,063	1,043	1,028	968	950	1,034
	F.I. Sov.	692	691	709	676	684	638	627	706
	F.I. Asset Backed	95	100	102	110	113	115	121	103
	F.I. Conv. Arb.	133	126	123	112	89	84	82	88
	Volatility Arb.	48	57	65	74	79	72	54	76
Macro	F.I. Corp.	63	61	63	70	62	60	66	61
	Subtotal	814	888	789	850	867	879	992	890
	Global Macro	736	785	699	740	737	740	895	813
	Commodity	44	66	54	73	88	92	58	44
	Currency	***	34	***	***	39	44	37	***
Credit	Active Trading	***	4	***	***	2	2	2	***
	Subtotal	448	453	479	485	482	507	527	543
	Long/Short	346	348	359	359	350	367	378	389
	Asset Based Lending	102	105	119	127	132	140	149	154
Event Driven	Subtotal	452	449	458	429	403	394	371	382
	Distressed/Restruct.	186	202	205	202	201	201	203	201
	Equity	138	141	145	136	112	101	96	106
	Risk Arb./Merger Arb.	129	107	108	91	90	93	72	75
Managed Futures/CTA	Subtotal	215	246	222	238	215	258	196	186
	Quantitative	***	***	***	***	***	***	***	***
Investment in other funds	Fundamental	***	***	***	***	***	***	***	***
	Subtotal	54	57	65	75	69	68	71	84
<b>Total</b>	<b>Total</b>	<b>6,623</b>	<b>6,785</b>	<b>6,783</b>	<b>6,633</b>	<b>6,277</b>	<b>6,185</b>	<b>6,359</b>	<b>6,447</b>

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

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

Category	Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
	Subtotal	55.4	53.6	53.8	49.0	45.8	44.7	47.4	47.8
Equity	Long/Short	29.7	28.8	29.0	26.5	25.0	24.9	26.9	27.2
	Long Bias	16.0	15.6	15.4	13.9	12.1	11.0	11.6	11.6
	Market Neutral	9.6	***	9.5	***	***	***	***	***
	Short Bias	0.0	***	0.0	***	***	***	***	***
Other	Subtotal	33.7	34.3	34.8	35.8	37.2	37.9	38.5	38.5
	Subtotal	25.4	24.9	25.4	25.2	26.6	25.7	25.1	26.8
Relative Value	F.I. Sov.	17.1	16.6	16.9	16.3	17.7	16.9	16.6	18.3
	F.I. Asset Backed	2.3	2.4	2.4	2.7	2.9	3.1	3.2	2.7
	F.I. Conv. Arb.	3.3	3.0	2.9	2.7	2.3	2.2	2.2	2.3
	Volatility Arb.	1.2	1.4	1.5	1.8	2.0	1.9	1.4	2.0
	F.I. Corp.	1.6	1.5	1.5	1.7	1.6	1.6	1.7	1.6
	Subtotal	20.1	21.3	18.8	20.5	22.4	23.3	26.2	23.1
Macro	Global Macro	18.2	18.9	16.7	17.8	19.0	19.7	23.6	21.1
	Commodity	1.1	1.6	1.3	1.8	2.3	2.4	1.5	1.1
	Currency	***	0.8	***	***	1.0	1.2	1.0	***
	Active Trading	***	0.1	***	***	0.1	0.1	0.1	***
	Subtotal	11.0	10.9	11.4	11.7	12.4	13.5	13.9	14.1
Credit	Long/Short	8.5	8.4	8.6	8.7	9.0	9.8	10.0	10.1
	Asset Based Lending	2.5	2.5	2.9	3.1	3.4	3.7	3.9	4.0
	Subtotal	11.2	10.8	10.9	10.3	10.4	10.5	9.8	9.9
Event Driven	Distressed/Restruct.	4.6	4.9	4.9	4.9	5.2	5.3	5.4	5.2
	Equity	3.4	3.4	3.5	3.3	2.9	2.7	2.5	2.7
	Risk Arb./Merger Arb.	3.2	2.6	2.6	2.2	2.3	2.5	1.9	1.9
	Subtotal	5.3	5.9	5.3	5.7	5.6	6.8	5.2	4.8
Managed Futures/CTA	Quantitative	***	***	***	***	***	***	***	***
	Fundamental	***	***	***	***	***	***	***	***
Investment in other funds	Subtotal	1.3	1.4	1.6	1.8	1.8	1.8	1.9	2.2
<b>Total</b>	<b>Total</b>	163.4	163.0	162.0	160.1	162.1	164.3	168.0	167.1

## C Leverage by Strategy

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

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

Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Relative Value	5.7	7.0	7.0	6.0	6.5	6.2	5.9	5.8
Macro	4.8	4.8	4.3	4.6	4.5	4.6	4.9	5.1
Multi-Strategy	3.2	3.3	3.4	3.1	3.0	2.9	3.5	3.6
Credit	1.6	1.5	1.6	1.6	1.6	1.7	1.7	1.7
Equity	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
Other	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5
Managed Futures/CTA	1.5	1.5	1.4	1.5	1.9	1.6	1.5	1.4
Investment in other funds	1.3	1.3	1.3	1.2	1.5	1.4	1.3	1.3
Event Driven	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3

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

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

Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Macro	37.4	35.1	33.2	33.8	30.1	30.4	34.9	38.4
Relative Value	23.3	26.4	27.1	25.4	24.8	23.8	21.3	23.1
Multi-Strategy	16.1	16.2	16.0	14.9	13.2	11.0	14.5	14.1
Managed Futures/CTA	21.4	22.9	16.9	15.0	16.5	14.0	14.3	10.2
Investment in other funds	2.9	3.3	3.3	2.8	4.1	3.9	3.0	5.8
Equity	3.0	2.9	3.1	2.9	2.9	3.4	3.5	3.6
Credit	3.2	3.0	3.1	3.2	3.1	3.2	3.2	3.3
Other	3.2	3.2	3.1	3.1	2.9	2.9	2.9	2.8
Event Driven	2.1	2.0	1.9	1.9	2.0	1.8	1.8	2.1

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

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

Strategy	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Macro	43.7	42.6	44.1	45.4	45.8	43.6	45.7	43.3
Managed Futures/CTA	34.0	42.7	48.2	51.0	56.0	54.2	49.3	35.4
Multi-Strategy	25.4	25.4	26.1	23.9	27.7	27.9	30.5	27.2
Relative Value	20.9	21.1	21.8	23.3	23.8	25.0	23.5	25.9
Equity	7.5	8.1	8.5	10.3	12.7	13.7	13.9	12.3
Other	12.2	11.6	11.8	11.3	11.4	12.3	11.5	9.6
Credit	8.9	8.8	8.3	6.8	8.3	7.3	8.9	8.4
Event Driven	7.2	7.7	8.1	10.7	9.6	9.8	9.8	8.1
Investment in other funds	3.0	1.6	8.2	4.9	6.8	5.5	6.1	7.5

## D Investment Exposures

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

As reported on Form PF, Questions 26 and 30.

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Interest Rate Derivatives	7,465	7,593	7,398	7,765	7,156	7,002	7,605	7,499
Foreign Exchange Derivatives	4,071	4,073	3,963	3,811	3,390	3,479	3,075	3,277
Repurchase Agreements	2,071	2,270	2,220	2,196	2,164	2,085	2,133	2,345
Non-Financial Listed Equities	2,836	2,711	2,751	2,486	2,118	2,018	2,090	2,196
U.S. Treasury Securities	1,726	1,733	1,757	1,690	1,523	1,493	1,698	1,860
Non-Financial Equity Derivatives	1,558	1,593	1,580	1,778	1,483	1,460	1,526	1,519
Sovereign Bonds - Non-U.S. G10	1,416	1,472	1,412	1,373	1,377	1,312	1,479	1,399
Credit Derivatives	714	783	759	746	808	736	680	732
Non-Financial Unlisted Equities	433	417	467	480	479	479	483	498
Cash/Cash Equivalents - Other	572	529	573	850	521	504	521	463
Commodity Derivatives	417	455	393	424	399	376	362	385
Financial Listed Equities	348	361	376	349	307	285	307	312
Leveraged Loans	230	247	261	274	277	281	295	310
Cash/Cash Equivalents - Deposits	205	240	218	216	224	222	240	301
Non-Financial Corporate Bonds	272	271	280	272	248	246	254	261
Non-U.S. Currency Holdings	221	254	216	230	259	220	224	230
Other Derivatives	215	185	202	215	219	210	242	219
Sovereign Bonds - Other	320	332	308	267	209	181	198	206
Physical Real Estate	130	146	166	176	186	171	186	191
Cash/Cash Equivalents - MMFs	172	181	207	198	226	216	215	184
MBS	203	212	205	170	189	183	180	179
Other Private Funds	157	171	177	184	186	185	175	175
Other Loans (Excluding Repo)	123	133	141	144	149	151	155	153
Non-Financial Convertible Bonds	200	178	173	154	125	119	118	122
Other	88	98	112	110	118	112	113	114
Financial Equity Derivatives	110	105	106	102	93	85	88	91
Financial Corporate Bonds	71	73	71	76	71	68	81	75
Other ABS/Structured Products	62	60	59	63	55	57	57	56
U.S. Agency and GSE Securities	43	52	46	47	56	46	60	41
CDO/CLO	37	38	39	39	36	36	40	41
Financial Unlisted Equities	30	27	29	30	27	26	37	39
U.S. State and Local Bonds	19	21	22	19	17	18	16	16
Registered Investment Companies	17	16	16	17	15	14	15	16
Financial Convertible Bonds	10	9	9	8	7	6	6	8
Physical Commodities	5	7	6	9	9	3	6	4

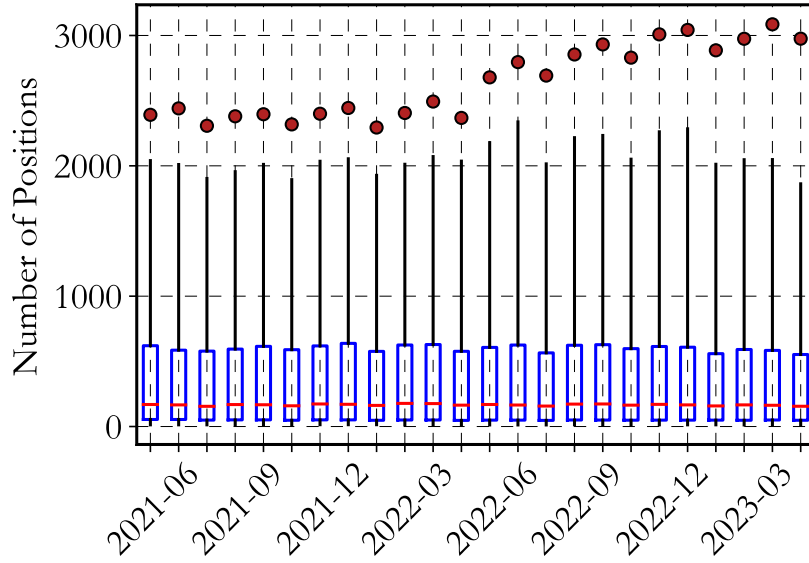


**Table 47:** Percent of Qualifying Hedge Fund Gross Notional Exposure  
Representing Long Notional Exposure  
As reported on Form PF, Questions 26 and 30.

	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Interest Rate Derivatives	48.2	48.2	47.3	48.1	47.4	49.5	50.7	48.5
Foreign Exchange Derivatives	57.7	57.0	55.2	56.0	55.2	54.5	53.1	53.9
Repurchase Agreements	46.5	46.8	48.5	49.0	48.4	47.1	46.4	43.2
Non-Financial Listed Equities	70.1	71.4	71.8	70.3	68.3	67.9	67.5	66.8
U.S. Treasury Securities	56.7	57.2	56.8	59.2	62.8	60.0	59.1	60.7
Non-Financial Equity Derivatives	53.7	51.3	51.9	56.9	50.6	48.3	51.3	50.3
Sovereign Bonds - Non-U.S. G10	50.0	48.5	48.5	47.9	48.2	49.7	48.2	48.9
Credit Derivatives	46.5	46.9	44.5	43.1	40.3	41.3	47.8	45.3
Non-Financial Unlisted Equities	99.7	99.8	99.8	99.6	99.8	99.8	99.6	99.8
Cash/Cash Equivalents - Other	75.1	73.3	71.8	67.3	77.6	78.6	77.4	81.9
Commodity Derivatives	67.0	63.8	65.2	64.3	59.9	55.4	59.1	57.4
Financial Listed Equities	72.3	73.5	73.1	71.4	69.5	68.6	68.1	67.5
Leveraged Loans	99.4	98.0	98.0	98.2	98.7	97.6	97.5	97.8
Cash/Cash Equivalents - Deposits	75.4	72.8	74.9	71.9	67.3	63.6	64.5	65.0
Non-Financial Corporate Bonds	81.0	79.0	74.5	77.2	75.4	76.4	76.8	76.7
Non-U.S. Currency Holdings	53.5	57.0	62.6	61.8	60.7	62.2	65.8	58.8
Other Derivatives	48.2	61.3	50.3	50.5	44.8	41.9	40.7	58.6
Sovereign Bonds - Other	69.7	70.3	64.2	63.4	58.5	60.4	63.2	68.5
Physical Real Estate	***	***	***	***	***	***	***	***
Cash/Cash Equivalents - MMFs	***	***	***	***	99.9	***	99.9	***
MBS	73.6	71.9	70.0	78.4	81.7	83.6	83.6	84.3
Other Private Funds	99.5	***	99.9	99.9	99.9	99.9	100.0	***
Other Loans (Excluding Repo)	93.1	91.7	90.7	91.4	91.6	89.4	91.3	90.2
Non-Financial Convertible Bonds	97.8	97.7	97.9	97.3	97.2	97.5	97.7	98.4
Other	95.3	96.0	94.8	93.4	90.7	90.0	86.4	85.7
Financial Equity Derivatives	60.6	60.1	55.5	54.3	55.6	55.5	59.0	57.0
Financial Corporate Bonds	88.3	87.1	86.4	86.5	87.0	86.3	86.5	81.3
Other ABS/Structured Products	84.5	85.3	84.2	80.7	83.5	82.3	86.2	86.2
U.S. Agency and GSE Securities	59.3	65.0	62.8	55.3	52.8	61.7	58.8	70.6
CDO/CLO	***	***	***	***	86.3	86.7	88.1	87.5
Financial Unlisted Equities	99.8	99.7	99.7	99.7	99.9	99.9	99.9	99.9
U.S. State and Local Bonds	97.9	***	98.6	98.9	***	99.2	***	***
Registered Investment Companies	96.2	97.9	97.8	98.1	98.8	98.3	98.5	99.0
Financial Convertible Bonds	95.8	95.0	96.2	96.7	96.3	96.3	98.1	98.5
Physical Commodities	99.1	98.4	***	99.8	99.4	***	93.9	96.9

### E Number of Positions

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



## F Liquidity

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

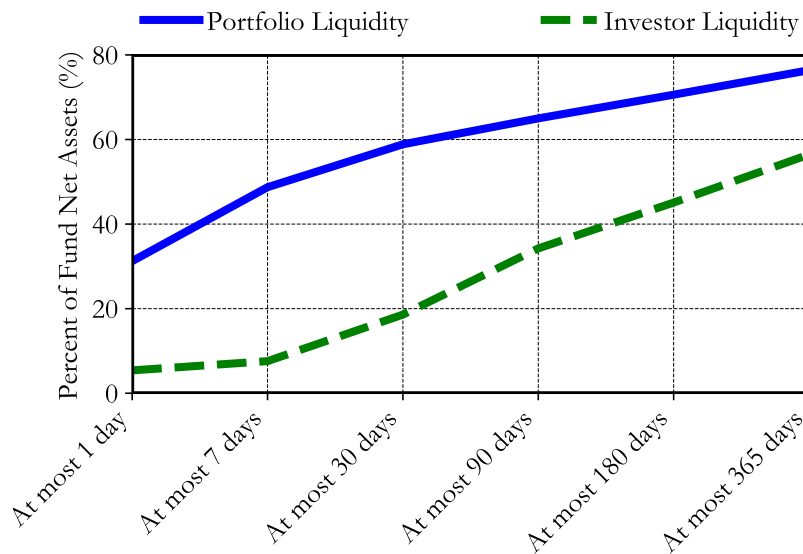
Liquidation Period	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
At most 1 day	7.8	7.5	7.5	7.5	5.8	5.5	5.6	5.4
At most 7 days	11.7	11.2	11.0	10.9	8.6	8.2	8.2	7.6
At most 30 days	23.6	23.1	23.1	23.5	20.0	19.0	18.6	18.6
At most 90 days	40.3	40.2	42.8	39.7	36.6	35.5	37.7	34.2
At most 180 days	51.3	52.2	50.2	50.1	46.9	47.3	45.5	45.1
At most 365 days	64.6	63.4	62.8	62.2	60.3	59.0	58.4	56.4

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

Liquidation Period	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
At most 1 day	33.8	33.2	33.6	35.3	33.5	33.5	32.1	31.2
At most 7 days	54.6	53.2	52.9	53.4	51.4	50.3	49.3	48.7
At most 30 days	67.5	66.1	65.7	64.8	62.2	61.2	60.2	58.9
At most 90 days	74.0	72.9	72.4	71.1	68.3	67.5	66.4	65.0
At most 180 days	78.2	77.3	77.0	75.5	73.5	72.7	71.8	70.6
At most 365 days	83.2	82.2	81.8	80.5	79.2	78.6	77.8	76.4

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

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

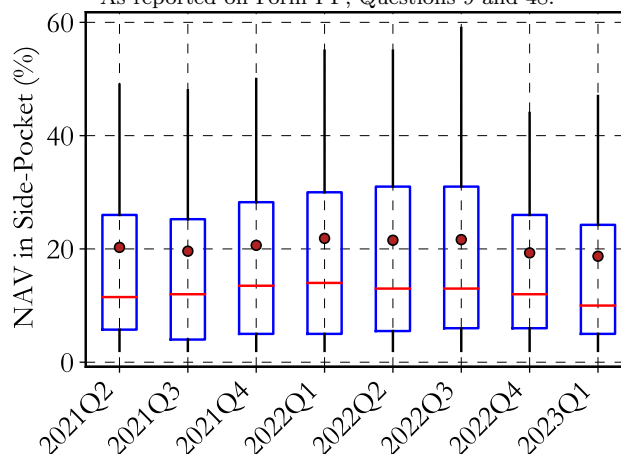


**Table 50:** Restrictions on Qualifying Hedge Fund Assets (\$ Billions)  
As reported on Form PF, Questions 48 and 49.

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
May Suspend	2,956	2,980	2,923	2,883	2,658	2,532	2,497	2,538
May Have Gates	1,909	1,926	1,885	1,878	1,847	1,754	1,728	1,742
Side-Pocketed	100	110	114	104	97	96	90	87
Gated	78	84	84	74	74	75	81	80
Suspended	18	18	18	17	14	13	20	22

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

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



## G Borrowings

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

Type	Subtype	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Secured	Subtotal	3,586	3,670	3,747	3,530	3,397	3,307	3,456	3,730
	Prime Broker	1,931	1,918	1,964	1,842	1,658	1,591	1,649	1,733
	Reverse Repo	1,113	1,205	1,151	1,090	1,150	1,150	1,225	1,426
	Other Secured	542	547	633	599	588	567	582	570
Unsecured	Subtotal	17	32	49	39	34	36	39	39
<b>Total</b>	<b>Total</b>	3,603	3,703	3,796	3,570	3,430	3,344	3,496	3,769

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

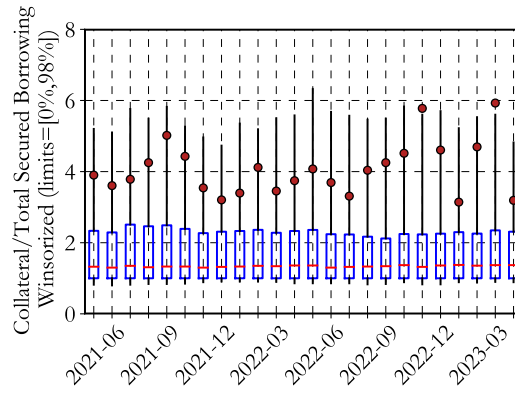
Creditor Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
US Financial	65.8	64.5	65.3	63.7	63.9	65.1	67.0	65.6
Non-US Financial	33.6	34.8	33.9	35.4	35.3	33.8	32.0	33.5
US Non-Financial	0.5	0.6	0.7	0.9	0.7	1.1	1.0	0.8
Non-US Non-Financial	0.1	0.1	0.2	0.0	0.0	0.0	0.1	0.0

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

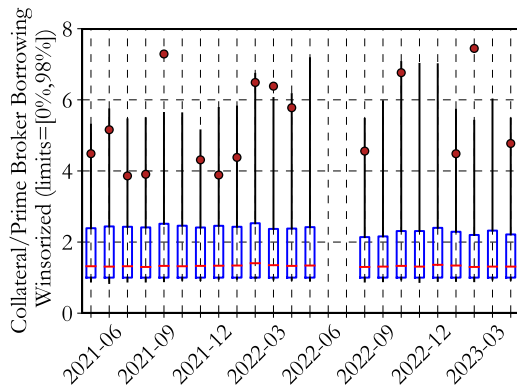
Borrowing Type	Collateral Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Prime Broker	Subtotal	2,454	2,433	2,409	2,236	1,972	1,922	2,021	2,141
	Other	1,659	1,582	1,588	1,471	1,322	1,278	1,355	1,451
	Cash	795	851	821	764	650	644	666	690
Reverse Repo	Subtotal	1,166	1,271	1,204	1,141	1,196	1,192	1,257	1,470
	Other	811	908	826	766	815	793	855	1,034
	Cash	355	363	378	375	381	399	402	437
Other Secured	Subtotal	658	709	755	727	734	723	729	727
	Other	476	522	520	528	561	562	535	566
	Cash	182	186	235	199	173	161	194	161
<b>Total</b>	<b>Total</b>	4,278	4,412	4,369	4,103	3,903	3,837	4,006	4,339

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

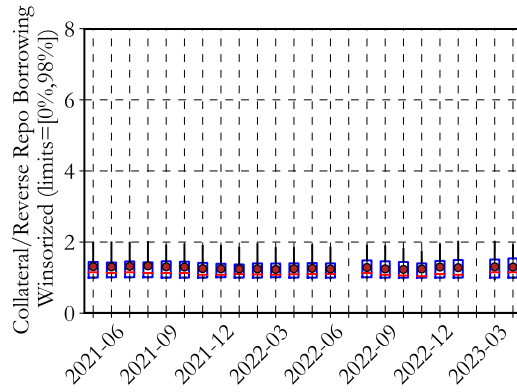
See Appendix C and Appendix D for an explanation of boxplots and winsorization. As reported on Form PF, Question 43.



(a) Total Secured Borrowing



(b) Prime Broker Borrowing

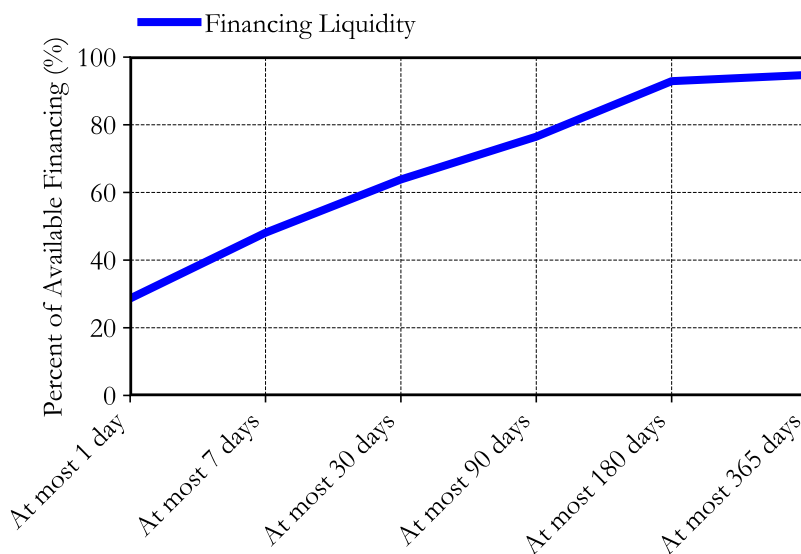


(c) Reverse Repo Borrowing

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

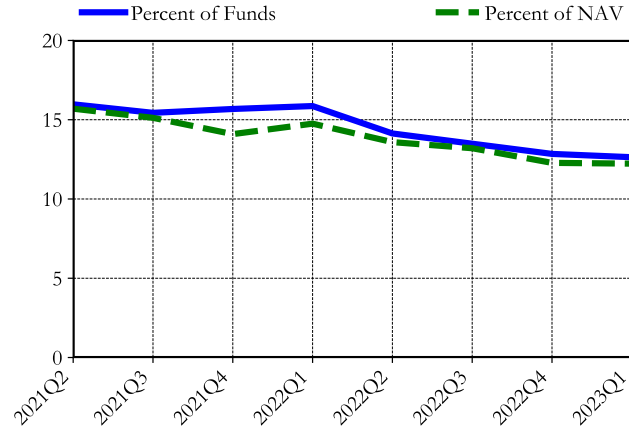
Financing Available	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
At most 1 day	36.5	36.5	26.5	35.6	36.8	27.3	25.4	28.7
At most 7 days	46.9	47.8	42.8	46.3	47.2	47.2	41.5	48.1
At most 30 days	64.9	64.9	63.0	63.7	64.8	62.4	61.8	63.8
At most 90 days	76.9	76.6	77.3	76.6	76.3	75.7	75.3	76.5
At most 180 days	94.5	94.5	93.9	93.9	93.0	92.8	91.9	92.9
At most 365 days	95.8	95.5	95.5	95.2	94.3	94.2	94.0	94.7

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



## H Central Clearing

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





## I Value-at-Risk (“VaR”) Reporting

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

VaR Method	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
VaR (Any Method)	656	662	677	684	651	692	649	618
Historical Simulation	271	265	267	267	274	283	279	266
Monte Carlo Simulation	194	199	201	210	192	185	180	179
Parametric	186	193	201	202	181	220	181	167
Other	50	53	55	52	52	50	53	47
VaR Not Used	1,310	1,353	1,396	1,409	1,408	1,347	1,422	1,416

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

VaR Method	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
VaR (Any Method)	4,261	4,585	4,462	4,441	4,308	4,257	4,318	4,399
Historical Simulation	2,242	2,316	2,192	2,146	2,138	2,138	2,167	2,227
Monte Carlo Simulation	988	984	1,014	1,029	965	915	944	937
Parametric	698	735	721	695	625	641	556	560
Other	905	1,127	1,119	1,124	1,114	1,095	1,220	1,233
VaR Not Used	3,627	3,719	3,867	3,819	3,605	3,436	3,502	3,551

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

VaR Method	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
VaR (Any Method)	1,514	1,538	1,544	1,544	1,411	1,417	1,349	1,334
Historical Simulation	615	615	603	608	597	612	585	578
Monte Carlo Simulation	432	443	448	460	390	371	373	365
Parametric	432	437	441	422	368	373	330	325
Other	170	185	182	191	192	200	191	199
VaR Not Used	2,540	2,624	2,643	2,600	2,460	2,347	2,437	2,523

## J Stress Testing and VaR

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

Risk Tool Used	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Stress and VaR	564	555	561	570	580	588	577	551
Stress, No VaR	450	472	478	479	465	458	466	465
No Stress, VaR	92	107	116	114	71	104	72	67
Neither	860	881	918	930	943	889	956	951

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

Risk Tool Used	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Stress and VaR	3,949	4,220	4,071	4,100	4,075	3,994	4,092	4,180
Stress, No VaR	1,496	1,538	1,555	1,548	1,450	1,384	1,398	1,374
No Stress, VaR	312	364	391	341	233	263	226	219
Neither	2,131	2,181	2,312	2,271	2,155	2,053	2,104	2,177

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

Risk Tool Used	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Stress and VaR	1,310	1,284	1,282	1,296	1,267	1,259	1,212	1,199
Stress, No VaR	887	936	922	904	850	821	843	855
No Stress, VaR	204	254	261	248	144	158	137	135
Neither	1,653	1,688	1,721	1,696	1,611	1,526	1,593	1,668

## K Stress Testing

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

Market Factor	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity Prices	825	843	859	875	863	858	856	831
Currency Rates	740	747	745	765	770	777	767	745
Risk Free Rates	699	707	707	721	735	734	732	711
Credit Spreads	615	609	621	649	656	655	656	649
Implied Volatilities	485	501	499	530	526	523	524	508
Commodity Prices	419	428	425	443	455	451	447	425
Bond Default Rates	253	268	270	291	287	286	288	294
ABS Default Rates	225	228	227	252	252	247	253	258

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

Market Factor	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity Prices	4,875	5,188	5,037	5,079	5,077	4,933	5,054	5,135
Currency Rates	4,369	4,641	4,522	4,554	4,481	4,384	4,512	4,570
Risk Free Rates	4,623	4,921	4,753	4,862	4,799	4,699	4,801	4,838
Credit Spreads	3,906	4,222	4,230	4,351	4,333	4,218	4,345	4,436
Implied Volatilities	3,624	3,909	3,713	3,796	3,787	3,707	3,842	3,837
Commodity Prices	3,605	3,883	3,742	3,846	3,975	3,867	4,002	4,051
Bond Default Rates	1,001	1,136	1,134	1,184	1,123	1,139	1,102	1,119
ABS Default Rates	852	882	899	970	936	901	938	1,093

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

Market Factor	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Equity Prices	1,944	1,985	1,967	1,962	1,887	1,851	1,826	1,825
Currency Rates	1,675	1,671	1,650	1,686	1,631	1,626	1,583	1,583
Risk Free Rates	1,616	1,618	1,594	1,648	1,622	1,618	1,586	1,575
Credit Spreads	1,384	1,372	1,380	1,453	1,441	1,436	1,408	1,419
Implied Volatilities	1,152	1,167	1,128	1,192	1,176	1,166	1,140	1,109
Commodity Prices	1,114	1,123	1,108	1,151	1,169	1,159	1,115	1,113
Bond Default Rates	424	482	467	504	484	471	427	435
ABS Default Rates	380	379	374	422	409	382	390	401

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

Factors Tested	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
0	952	988	1,034	1,044	1,014	993	1,028	1,018
1	210	214	223	212	208	208	206	205
2	121	130	130	129	126	128	129	122
3	96	83	84	83	80	78	81	81
4	106	100	102	100	99	107	100	93
5	127	137	127	126	131	127	128	125
6	155	155	165	167	168	166	167	155
7	60	71	79	81	79	82	82	78
8	139	137	129	151	154	150	150	157

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

Factors Tested	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
0	2,442	2,545	2,704	2,612	2,388	2,316	2,330	2,396
1	425	444	485	432	412	385	374	374
2	638	629	618	568	431	407	406	408
3	342	324	314	306	279	267	297	308
4	340	358	348	344	417	464	394	402
5	926	929	747	871	811	738	778	806
6	1,890	2,101	2,159	2,123	2,193	2,127	2,263	2,097
7	279	360	348	341	335	373	346	527
8	605	613	606	662	647	616	632	632

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

Factors Tested	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
0	1,857	1,942	1,983	1,945	1,754	1,684	1,730	1,803
1	284	300	319	276	255	234	241	243
2	328	322	312	294	269	259	256	257
3	247	231	215	212	190	183	206	212
4	159	172	184	182	169	191	175	167
5	318	321	291	302	281	267	264	280
6	491	477	502	509	543	544	540	509
7	124	170	169	174	160	169	142	149
8	246	227	212	252	249	233	232	238

## IX Section 3 Liquidity Fund Specific Information

### A Liquidity

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

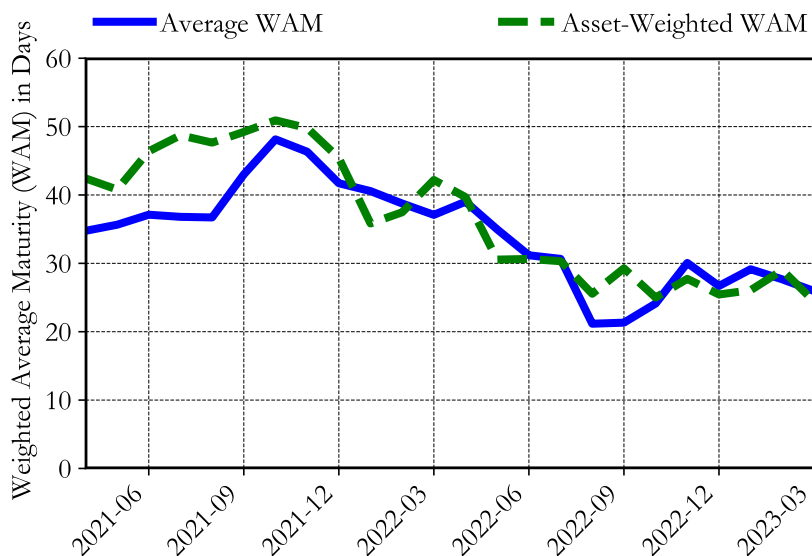
Liquidation Period	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
At most 1 day	70.3	68.6	68.9	69.5	66.4	68.1	70.7	71.1
At most 7 days	92.8	92.6	92.4	91.6	91.8	92.7	93.1	92.9
At most 30 days	97.2	97.3	96.6	96.0	96.5	97.2	97.2	97.3
At most 90 days	98.2	97.8	97.8	97.9	98.5	98.5	98.3	98.2
At most 180 days	99.0	98.8	99.0	99.5	99.6	99.5	99.5	99.3
At most 365 days	99.7	99.8	99.8	99.8	99.8	99.6	99.7	99.7

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

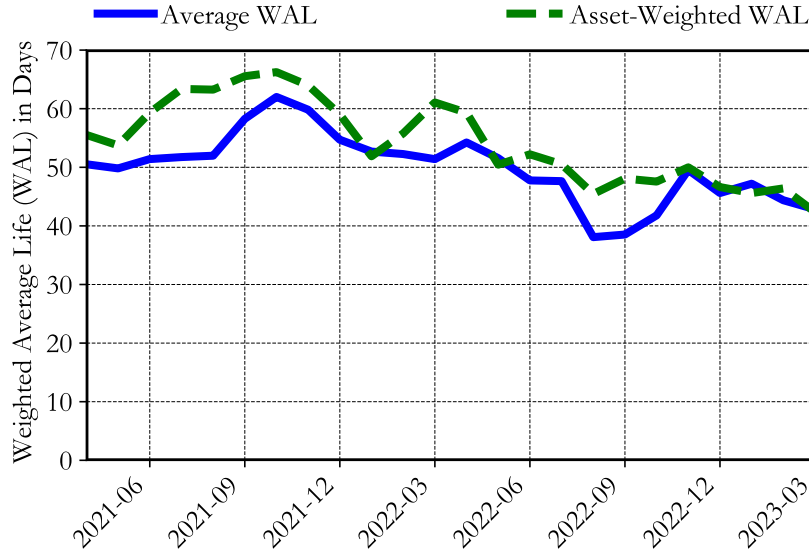
Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
May Suspend	296	278	291	290	310	313	302	294
May Have Gates	263	245	260	261	281	281	275	266
Suspended	0	0	0	0	0	0	0	0
Gated	0	0	0	0	0	0	0	0

### B Portfolio Characteristics

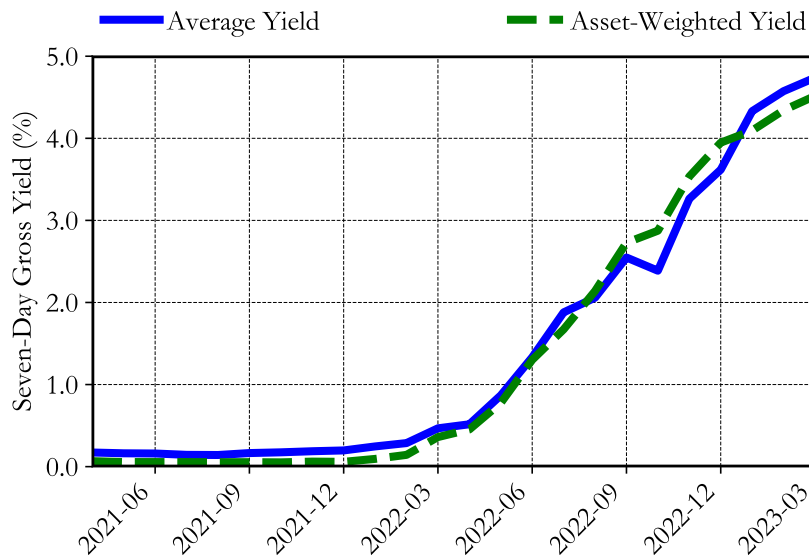
**Figure 18:** Weighted-Average Maturity Reported by Section 3 Liquidity Funds  
As reported on Form PF, Question 55.



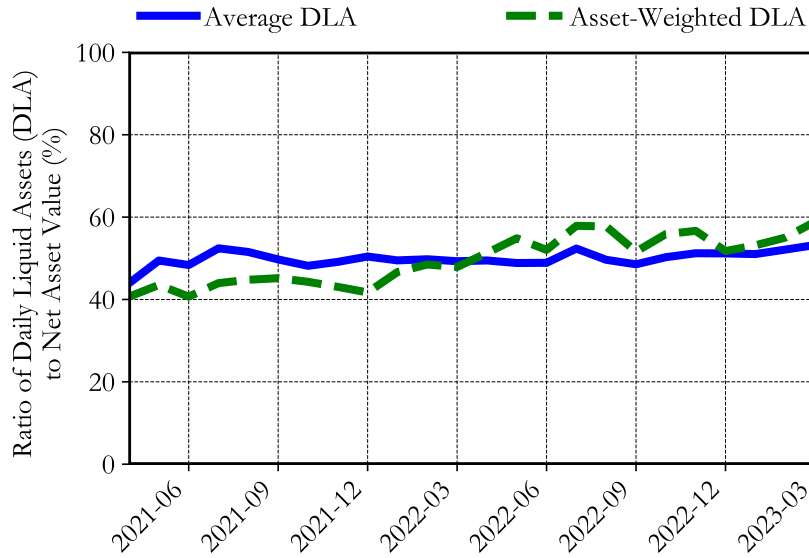
**Figure 19: Weighted-Average Life Reported by Section 3 Liquidity Funds**  
As reported on Form PF, Question 55.



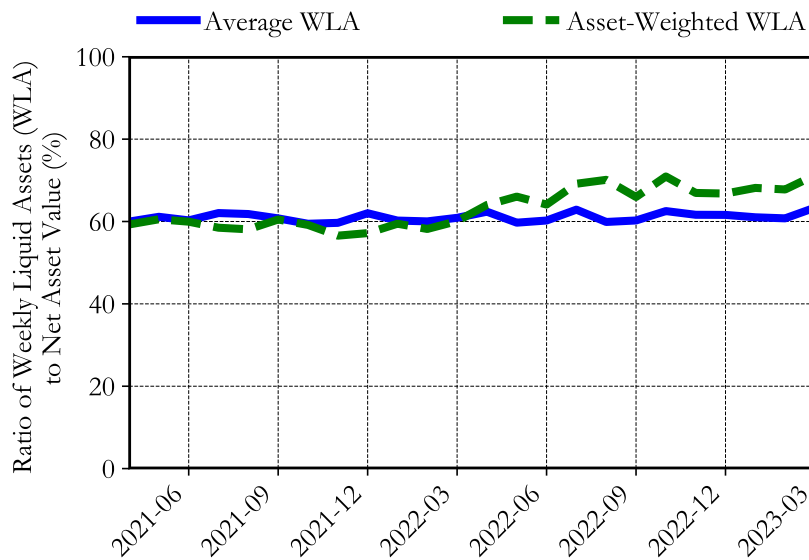
**Figure 20: Seven-Day Gross Yield Reported by Section 3 Liquidity Funds**  
As reported on Form PF, Question 55.



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



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



## C Rule 2a-7 Compliance

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

As reported on Form PF, Questions 9 and 54.

Compliance Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
None	48.2	50.9	51.8	51.9	53.8	52.9	52.0	52.0
Credit Quality	51.8	49.1	48.2	48.1	46.2	47.1	48.0	48.0
Diversification	48.2	45.6	44.6	44.4	42.3	43.1	44.0	44.0
Maturity	48.2	45.6	44.6	44.4	42.3	39.2	44.0	44.0
Liquidity	44.6	42.1	41.1	40.7	36.5	37.3	38.0	38.0
Fully	39.3	38.6	37.5	37.0	34.6	35.3	36.0	36.0

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

As reported on Form PF, Questions 9 and 54.

Compliance Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
None	81.6	80.9	82.1	81.3	83.9	84.3	84.1	83.6
Credit Quality	18.4	19.1	17.9	18.7	16.1	15.7	15.9	16.4
Diversification	17.1	17.4	16.5	17.2	14.6	14.4	14.6	15.1
Maturity	17.1	17.4	16.5	17.2	14.6	14.3	14.6	15.1
Liquidity	16.9	17.2	16.3	17.0	13.4	13.2	13.3	13.7
Fully	14.3	15.0	14.2	15.0	12.5	12.3	12.7	12.9

## D Methods of Calculating NAV

**Table 71:** NAV Calculation Method (Percent of Funds)

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

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

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

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

Type	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1
Stable	66.1	66.7	64.4	67.2	61.2	62.1	65.9	68.8
Floating	33.9	33.3	35.6	32.8	38.8	37.9	34.1	31.2



## E Aggregate Portfolio Holdings

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

Product Type	2021-04	2021-05	2021-06	2021-07	2021-08	2021-09	2021-10	2021-11	2021-12	2022-01	2022-02	2022-03
Repo - Govt. Collateral	23.8	26.1	32.1	26.0	35.2	40.2	31.3	31.6	47.2	44.1	38.1	48.0
Deposits	76.0	80.0	69.9	83.1	75.5	69.7	83.1	82.0	60.8	73.5	80.5	62.8
Commercial Paper	50.0	53.4	51.2	52.3	51.7	51.4	53.1	50.5	48.2	51.9	48.2	46.6
U.S. Treasuries	82.7	86.1	94.8	86.4	80.2	73.1	88.7	88.8	88.7	69.9	81.5	91.4
Asset-Backed Securities	21.8	22.3	21.7	20.9	21.0	23.0	23.9	24.5	24.4	25.2	24.7	26.0
Other	33.4	29.1	27.9	24.0	21.0	26.0	18.9	21.0	26.0	18.4	13.5	16.4
U.S. Govt. Debt	1.5	1.3	1.4	1.3	1.2	1.4	1.3	1.6	1.5	1.6	1.7	2.3
Repo - Other Collateral	13.2	12.4	15.1	12.4	11.6	12.1	7.7	10.6	10.1	8.0	9.1	9.9
Municipal Debt	1.2	1.2	1.1	0.9	0.9	1.1	1.1	1.0	1.1	1.1	1.0	1.0

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

Product Type	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12	2023-01	2023-02	2023-03
Repo - Govt. Collateral	52.2	69.2	67.1	80.9	86.3	78.8	85.2	78.4	84.2	82.0	84.3	103.7
Deposits	73.4	78.9	72.0	85.0	88.8	73.9	91.4	88.9	70.4	78.3	78.0	69.4
Commercial Paper	44.2	46.4	53.6	46.5	42.1	45.3	49.5	53.0	52.9	52.7	47.6	45.1
U.S. Treasuries	84.3	63.4	78.4	57.2	59.9	69.2	48.8	53.8	49.7	43.0	47.5	32.7
Asset-Backed Securities	24.1	18.9	20.8	20.4	20.2	20.6	20.1	17.7	18.6	19.2	20.1	16.9
Other	11.7	13.4	15.7	11.3	10.0	16.6	14.1	13.7	17.9	13.8	10.1	14.5
U.S. Govt. Debt	2.1	2.5	1.9	3.3	5.2	5.2	5.7	5.4	8.7	7.7	7.5	13.9
Repo - Other Collateral	10.7	10.5	9.3	10.4	9.1	8.7	10.4	10.9	9.7	7.7	9.4	10.9
Municipal Debt	1.1	1.0	1.0	0.9	1.0	1.0	0.9	0.9	0.8	0.7	0.7	0.7

## X Section 4 Private Equity Fund Specific Information

### A CPC Industry Concentration

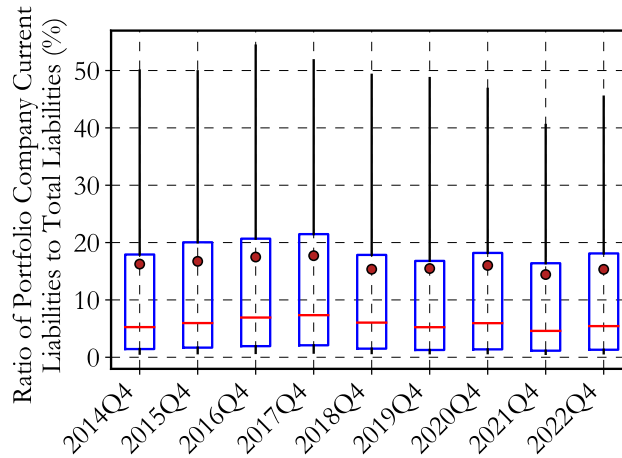
**Table 75: Gross Assets in CPC Industries (Percent of Total)**  
As reported on Form PF, Questions 8 and 77.

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

## B CPC Financial Leverage

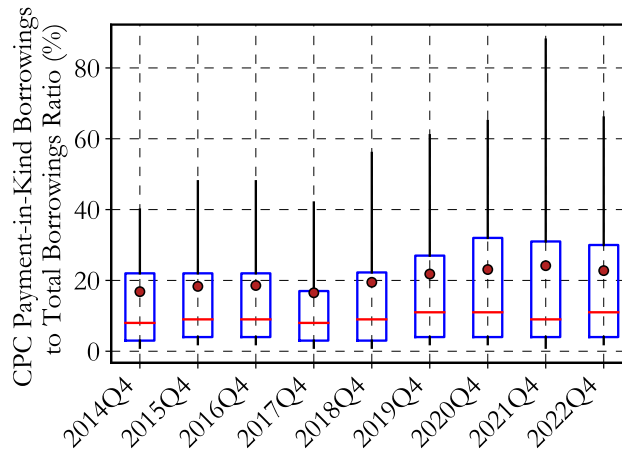
**Figure 23:** Distribution of Ratio of Aggregate CPC Current Liabilities to Total Liabilities of Section 4 Private Equity Funds

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



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

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



## C CPC Investments by Region and Country

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

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

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

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

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

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

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

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

## XI Appendices

### A Form PF Filer Categories

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

#### 1 All Private Fund Advisers

SEC-registered investment advisers with at least \$150 million in private fund assets under management are required to file Form PF. Registered investment advisers with less than \$150 million in private funds assets under management, exempt reporting advisers, and state-registered advisers report general private fund data on Form ADV, but do not file Form PF.<sup>6</sup> 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.<sup>7</sup> 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.<sup>8</sup>

#### 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.

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<sup>6</sup>Note 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.

<sup>7</sup>An 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.

<sup>8</sup>In 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.<sup>9</sup> 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.

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<sup>9</sup>This 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:

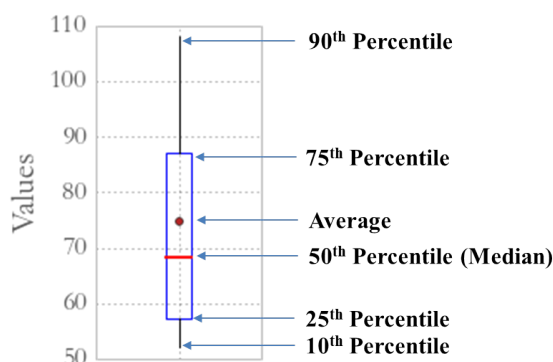
- (Q1): February 15 to May 14
- (Q2): May 15 to August 14
- (Q3): August 15 to November 14
- (Q4): November 15 to February 14

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.<sup>10</sup>

## C How to Read a Boxplot

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

**Figure 25:** How to Read a Boxplot



<sup>10</sup>Form 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.<sup>11</sup> 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.

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

## E Definitions

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

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

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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.