



Division of Investment Management  
Analytics Office

# Private Funds Statistics

Third Calendar Quarter 2019

May 14, 2020

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 Fourth Calendar Quarter 2017 through Third Calendar Quarter 2019 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 Third Calendar Quarter 2019 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. 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 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Private Equity Fund	11,541	11,581	11,601	11,610	12,728	12,957	12,971	12,976
Hedge Fund	9,036	9,194	9,307	9,382	9,196	9,391	9,488	9,495
Other Private Fund	4,537	4,608	4,581	4,587	4,898	4,755	4,716	4,702
Section 4 Private Equity Fund	3,482	3,494	3,494	3,495	3,936	3,933	3,933	3,933
Real Estate Fund	2,653	2,663	2,657	2,664	2,837	2,850	2,851	2,839
Qualifying Hedge Fund	1,801	1,772	1,806	1,818	1,827	1,794	1,784	1,801
Securitized Asset Fund	1,504	1,510	1,510	1,514	1,564	1,569	1,577	1,579
Venture Capital Fund	866	866	851	850	961	962	962	959
Liquidity Fund	70	69	68	68	73	72	72	72
Section 3 Liquidity Fund	48	46	45	45	46	45	44	42
<b>Total</b>	<b>30,207</b>	<b>30,491</b>	<b>30,575</b>	<b>30,675</b>	<b>32,257</b>	<b>32,556</b>	<b>32,637</b>	<b>32,622</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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Private Equity Fund	1,145	1,153	1,154	1,157	1,251	1,259	1,261	1,262
Hedge Fund	1,734	1,736	1,739	1,739	1,749	1,742	1,739	1,731
Other Private Fund	586	593	589	590	627	626	628	625
Section 4 Private Equity Fund	293	296	296	296	308	307	307	307
Real Estate Fund	331	333	333	335	347	349	350	349
Qualifying Hedge Fund	551	542	550	545	553	540	536	546
Securitized Asset Fund	155	155	156	158	153	153	154	154
Venture Capital Fund	115	116	116	117	133	132	132	131
Liquidity Fund	39	39	38	38	40	39	39	39
Section 3 Liquidity Fund	25	23	22	22	23	22	22	21
<b>Total</b>	<b>3,030</b>	<b>3,041</b>	<b>3,046</b>	<b>3,046</b>	<b>3,152</b>	<b>3,154</b>	<b>3,152</b>	<b>3,143</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 D 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Hedge Fund	7,242	7,520	7,659	7,911	7,593	8,052	8,255	8,091
Qualifying Hedge Fund	5,863	6,076	6,281	6,386	6,153	6,480	6,735	6,646
Private Equity Fund	2,727	2,766	2,769	2,769	3,175	3,259	3,259	3,259
Section 4 Private Equity Fund	1,941	1,978	1,978	1,978	2,330	2,365	2,365	2,365
Other Private Fund	1,191	1,206	1,208	1,222	1,225	1,222	1,214	1,228
Securitized Asset Fund	485	480	488	490	570	573	575	576
Real Estate Fund	500	505	505	505	568	574	575	575
Liquidity Fund	291	291	311	314	297	292	294	300
Section 3 Liquidity Fund	289	289	307	309	292	289	290	293
Venture Capital Fund	81	82	81	82	111	111	111	112
<b>Total</b>	12,517	12,849	13,021	13,292	13,540	14,085	14,283	14,140

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Hedge Fund	3,883	3,974	4,003	4,059	3,794	4,007	4,091	4,064
Qualifying Hedge Fund	3,047	3,106	3,151	3,188	2,968	3,127	3,180	3,187
Private Equity Fund	2,441	2,484	2,487	2,487	2,814	2,896	2,896	2,894
Section 4 Private Equity Fund	1,755	1,789	1,789	1,789	2,084	2,117	2,117	2,117
Other Private Fund	1,076	1,086	1,106	1,096	1,085	1,083	1,072	1,087
Securitized Asset Fund	152	152	154	154	170	171	172	172
Real Estate Fund	391	394	394	394	443	448	448	448
Liquidity Fund	291	289	309	311	295	288	292	297
Section 3 Liquidity Fund	288	287	305	306	289	285	288	291
Venture Capital Fund	77	77	76	77	98	98	98	99
<b>Total</b>	8,311	8,456	8,530	8,578	8,699	8,990	9,069	9,060

**Figure 1: GAV and NAV Distributions**  
As reported on Form PF, Questions 8 and 9.

<b>Qualifying Hedge Fund GAV (\$ Billions)</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25th Percentile	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Median	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2
75th Percentile	2.5	2.6	2.7	2.7	2.5	2.7	2.8	2.8
90th Percentile	6.0	6.1	6.0	6.1	5.6	6.3	6.4	6.4
Mean	3.3	3.4	3.5	3.5	3.4	3.6	3.8	3.7
<b>Qualifying Hedge Fund NAV (\$ Billions)</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
25th Percentile	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Median	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
75th Percentile	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8
90th Percentile	3.6	3.8	3.7	3.7	3.4	3.6	3.7	3.7
Mean	1.7	1.8	1.7	1.8	1.6	1.7	1.8	1.8
<b>Section 4 Private Equity Fund GAV (\$ Billions)</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75th Percentile	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
90th Percentile	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Mean	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
<b>Section 4 Private Equity Fund NAV (\$ Billions)</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75th Percentile	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
90th Percentile	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Mean	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

**Figure 2: Ratio of GAV to NAV**  
(Winsorized, limits=[0%,98%])

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

<b>All Private Funds</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Median	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75th Percentile	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
90th Percentile	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Mean	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7
<b>Qualifying Hedge Funds</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Median	1.1	1.2	1.2	1.1	1.2	1.1	1.2	1.2
75th Percentile	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
90th Percentile	2.4	2.6	2.5	2.5	2.5	2.6	2.7	2.7
Mean	1.5	1.6	1.6	1.6	1.6	1.6	1.7	1.7



## B Borrowings

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

Fund Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Securitized Asset Fund	51.9	51.2	51.2	50.6	53.5	52.7	52.1	52.2
Qualifying Hedge Fund	41.5	42.9	45.0	44.5	45.1	46.7	47.2	46.7
Hedge Fund	39.4	40.4	41.6	41.3	41.6	43.1	43.3	43.1
Real Estate Fund	13.2	13.5	13.2	13.2	14.7	14.9	14.6	14.6
Section 4 Private Equity Fund	4.6	4.6	4.6	4.6	5.2	5.2	5.2	5.2
Private Equity Fund	5.2	4.9	4.9	4.9	5.3	5.1	5.1	5.1
Other Private Fund	2.2	2.7	2.7	3.0	3.5	3.4	3.5	3.5
Venture Capital Fund	0.6	0.5	0.5	0.6	0.9	0.8	0.9	0.9
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**  
As reported on Form PF, Questions 12 and 43.

All Private Funds (\$ Billions)								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th Percentile	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
90th Percentile	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Mean	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.6
Qualifying Hedge Funds (\$ Billions)								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Median	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75th Percentile	1.0	1.1	1.1	1.1	1.0	1.1	1.1	1.1
90th Percentile	3.0	3.4	3.6	3.4	3.1	3.6	4.0	3.5
Mean	2.1	2.3	2.4	2.5	2.4	2.7	2.8	2.7

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

(Winsorized, limits=[0%,98%])

See Appendix C for an explanation of winsorization.

As reported on Form PF, Questions 9, 10, 12, and 43 (Third Month).

<b>All Private Funds</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75th Percentile	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
90th Percentile	3.5	3.4	3.6	3.7	4.4	4.4	4.5	4.5
Mean	1.7	1.7	1.7	1.7	2.5	2.4	2.5	2.5
<b>Qualifying Hedge Funds</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Median	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
75th Percentile	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
90th Percentile	1.9	2.1	2.1	2.1	2.1	2.3	2.3	2.3
Mean	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9

## C Fair Value Hierarchy

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

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Level One	3,269	3,017	2,976	2,856	3,213	2,679	2,694	2,657
Level Two	2,753	2,299	2,320	2,296	2,930	2,517	2,597	2,596
Level Three	2,898	2,859	2,869	2,882	3,400	3,375	3,371	3,365
Cost-Based	2,225	1,863	1,879	1,840	2,445	1,998	2,016	2,013

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

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Level One	647	788	780	659	311	651	651	646
Level Two	608	588	602	604	714	803	840	837
Level Three	174	174	174	177	155	157	157	158
Cost-Based	479	762	773	733	603	1,060	1,093	1,096

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

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Hedge Fund	669	674	678	686	663	659	648	652
Qualifying Hedge Fund	238	233	234	236	231	223	221	227
Other Private Fund	513	518	514	505	508	509	504	503
Private Equity Fund	292	292	290	279	315	314	315	294
Real Estate Fund	71	71	71	71	68	78	78	78
Liquidity Fund	16	16	16	16	18	15	14	15
Section 3 Liquidity Fund	16	16	16	16	16	13	12	12
Section 4 Private Equity Fund	98	98	98	98	112	112	112	112
Securitized Asset Fund	***	***	***	***	***	***	***	***
Venture Capital Fund	***	***	***	***	***	***	***	***
<b>Total</b>	1,575	1,585	1,583	1,571	1,581	1,584	1,568	1,551

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Hedge Fund	827	770	769	813	770	721	713	712
Qualifying Hedge Fund	594	551	567	570	532	470	466	470
Other Private Fund	1,864	1,869	1,799	1,763	1,821	1,822	1,812	1,812
Private Equity Fund	37	37	37	37	48	48	48	48
Real Estate Fund	6	6	6	6	4	5	5	5
Liquidity Fund	359	361	353	364	383	293	264	294
Section 3 Liquidity Fund	359	361	353	364	382	292	263	292
Section 4 Private Equity Fund	28	28	28	28	33	33	33	33
Securitized Asset Fund	***	***	***	***	***	***	***	***
Venture Capital Fund	***	***	***	***	***	***	***	***
<b>Total</b>	3,094	3,045	2,966	2,984	3,026	2,889	2,843	2,871

<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**  
As reported on Form PF, Question 11.

<b>All Private Funds (\$ Billions)</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75th Percentile	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
90th Percentile	3.6	3.5	3.5	3.5	3.4	3.2	3.3	3.3
Mean	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.9
<b>Qualifying Hedge Funds (\$ Billions)</b>								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25th Percentile	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Median	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.4
75th Percentile	1.9	1.9	1.9	1.8	1.7	1.5	1.5	1.7
90th Percentile	4.0	3.9	4.3	4.4	4.0	4.0	3.8	4.1
Mean	2.5	2.4	2.4	2.4	2.3	2.1	2.1	2.1

### 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	51.4	51.0	50.9	50.9	51.7	50.7	50.5	50.6
Cayman Islands	35.4	35.3	35.2	35.1	34.0	34.7	34.9	34.7
Ireland	4.4	4.4	4.5	4.6	4.6	4.5	4.5	4.7
Luxembourg	1.9	2.0	2.2	2.2	2.9	3.0	3.0	2.9
Virgin Islands, British	1.8	1.8	1.8	1.7	1.5	1.5	1.5	1.5
United Kingdom	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2
Bermuda	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.2
Other	2.6	2.9	2.9	3.0	3.0	3.3	3.3	3.2
Qualifying Hedge Funds								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Cayman Islands	51.3	51.0	50.9	50.6	50.6	51.5	51.9	51.6
United States	35.8	35.6	35.5	35.1	35.6	34.7	34.5	34.7
Virgin Islands, British	4.5	4.4	4.4	4.2	4.1	3.9	3.9	3.9
Ireland	2.9	3.1	3.2	3.3	3.2	3.2	3.2	3.1
Luxembourg	1.9	2.0	2.4	2.7	2.6	2.7	2.7	2.7
Bermuda	1.6	1.7	1.8	1.8	2.0	1.9	1.8	2.1
Other	2.0	2.1	2.0	2.2	1.9	2.0	1.9	1.9
Section 3 Liquidity Funds								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Ireland	***	***	***	***	***	***	***	***
United States	35.1	35.8	36.9	36.8	32.9	30.0	29.7	26.5
Cayman Islands	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***
Section 4 Private Equity Funds								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	60.7	59.5	59.5	59.5	56.9	56.0	56.0	56.0
Cayman Islands	30.4	29.8	29.8	29.8	30.6	30.1	30.1	30.1
United Kingdom	2.7	2.9	2.9	2.9	2.3	2.3	2.3	2.3
Canada	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1
Bermuda	1.0	1.1	1.1	1.1	1.0	0.9	0.9	0.9
Other	4.2	5.7	5.7	5.7	8.2	9.6	9.6	9.6

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

<b>All Private Funds</b>								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	89.5	88.9	88.7	88.8	89.7	89.5	89.5	89.5
United Kingdom	6.5	6.9	7.0	6.9	6.2	6.3	6.2	6.3
Other	4.1	4.3	4.3	4.3	4.1	4.2	4.2	4.2
<b>Qualifying Hedge Funds</b>								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	88.6	88.4	88.7	88.6	89.0	89.0	89.2	89.4
United Kingdom	6.6	6.6	6.5	6.5	6.1	6.0	5.8	5.5
Australia	***	***	***	***	***	***	***	***
Hong Kong	***	***	***	***	***	***	***	***
Other	2.2	2.3	2.3	2.1	2.1	2.0	2.0	2.0
<b>Section 3 Liquidity Funds</b>								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	***	***	***	***	***	***	***	***
United Kingdom	***	***	***	***	***	***	***	***
<b>Section 4 Private Equity Funds</b>								
Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	94.8	94.8	94.8	94.8	94.0	94.1	94.1	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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Private Funds	1,491	1,515	1,533	1,534	1,517	1,549	1,562	1,555
Other	1,189	1,234	1,238	1,250	1,332	1,376	1,381	1,391
State/Muni. Govt. Pension Plans	1,154	1,154	1,164	1,178	1,231	1,250	1,250	1,245
Pension Plans	1,038	1,046	1,049	1,048	1,044	1,068	1,083	1,079
Non-Profits	849	861	869	868	849	894	902	900
U.S. Individuals	818	835	842	851	843	876	886	887
Sov. Wealth Funds And For. Official Inst.	515	540	544	544	555	604	611	609
Insurance Companies	349	352	365	373	399	411	417	416
Unknown Non-U.S. Investors	195	193	189	187	204	216	222	224
Non-U.S. Individuals	187	191	193	195	205	209	210	209
Banking/Thrift Inst.	161	161	170	172	169	171	177	172
State/Muni. Govt. Entities	122	125	129	131	122	130	132	137
Sec-Registered Investment Companies	129	133	128	127	118	126	125	125
Broker-Dealers	112	113	114	121	108	107	109	109

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

As reported on Form PF, Questions 9 and 16.

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Private Funds	17.9	17.9	18.0	17.9	17.4	17.2	17.2	17.2
Other	14.3	14.6	14.5	14.6	15.3	15.3	15.2	15.4
State/Muni. Govt. Pension Plans	13.9	13.6	13.6	13.7	14.1	13.9	13.8	13.7
Pension Plans	12.5	12.4	12.3	12.2	12.0	11.9	11.9	11.9
Non-Profits	10.2	10.2	10.2	10.1	9.8	9.9	9.9	9.9
U.S. Individuals	9.8	9.9	9.9	9.9	9.7	9.7	9.8	9.8
Sov. Wealth Funds And For. Official Inst.	6.2	6.4	6.4	6.3	6.4	6.7	6.7	6.7
Insurance Companies	4.2	4.2	4.3	4.3	4.6	4.6	4.6	4.6
Unknown Non-U.S. Investors	2.3	2.3	2.2	2.2	2.3	2.4	2.4	2.5
Non-U.S. Individuals	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3
Banking/Thrift Inst.	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9
State/Muni. Govt. Entities	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5
Sec-Registered Investment Companies	1.6	1.6	1.5	1.5	1.4	1.4	1.4	1.4
Broker-Dealers	1.3	1.3	1.3	1.4	1.2	1.2	1.2	1.2



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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Private Funds	503	514	517	526	480	508	520	524
Non-Profits	429	429	443	442	404	442	449	446
Other	409	436	443	447	414	428	437	430
Pension Plans	414	416	415	417	399	417	428	422
State/Muni. Govt. Pension Plans	352	342	342	348	343	353	357	366
U.S. Individuals	345	342	352	357	323	347	340	342
Sov. Wealth Funds And For. Official Inst.	166	193	197	195	196	198	206	208
Insurance Companies	78	78	83	91	82	89	90	89
Non-U.S. Individuals	73	76	77	79	75	79	79	83
Broker-Dealers	79	80	81	84	77	77	79	80
Unknown Non-U.S. Investors	58	55	53	53	48	57	58	57
Sec-Registered Investment Companies	65	66	61	59	52	54	54	55
State/Muni. Govt. Entities	42	47	49	50	39	42	45	47
Banking/Thrift Inst.	35	33	36	38	32	33	36	36

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Private Funds	16.5	16.5	16.4	16.5	16.2	16.3	16.4	16.4
Non-Profits	14.1	13.8	14.1	13.9	13.6	14.1	14.1	14.0
Other	13.4	14.0	14.1	14.0	14.0	13.7	13.7	13.5
Pension Plans	13.6	13.4	13.2	13.1	13.5	13.3	13.5	13.2
State/Muni. Govt. Pension Plans	11.5	11.0	10.9	10.9	11.6	11.3	11.2	11.5
U.S. Individuals	11.3	11.0	11.2	11.2	10.9	11.1	10.7	10.7
Sov. Wealth Funds And For. Official Inst.	5.4	6.2	6.2	6.1	6.6	6.3	6.5	6.5
Insurance Companies	2.5	2.5	2.6	2.9	2.8	2.8	2.8	2.8
Non-U.S. Individuals	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.6
Broker-Dealers	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5
Unknown Non-U.S. Investors	1.9	1.8	1.7	1.6	1.6	1.8	1.8	1.8
Sec-Registered Investment Companies	2.1	2.1	1.9	1.8	1.8	1.7	1.7	1.7
State/Muni. Govt. Entities	1.4	1.5	1.6	1.6	1.3	1.3	1.4	1.5
Banking/Thrift Inst.	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Other	55	57	55	57	55	57	58	75
Private Funds	96	94	109	105	97	84	84	69
Unknown Non-U.S. Investors	53	52	52	51	54	60	60	64
Sec-Registered Investment Companies	23	24	24	23	18	19	19	19
Broker-Dealers	***	***	***	***	***	***	***	***
Banking/Thrift Inst.	***	13	17	17	***	***	***	16
Insurance Companies	9	9	12	12	9	10	10	8
Sov. Wealth Funds And For. Official Inst.	***	***	***	***	***	***	***	***
State/Muni. Govt. Entities	***	***	***	***	***	***	***	***
Non-U.S. Individuals	4	4	4	4	5	4	3	4
Pension Plans	5	5	3	4	3	***	***	***
Non-Profits	2	1	***	1	1	1	***	1
State/Muni. Govt. Pension Plans	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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Other	19.1	19.7	17.9	18.7	19.0	20.0	20.1	25.8
Private Funds	33.3	32.6	35.7	34.4	33.6	29.6	29.1	23.8
Unknown Non-U.S. Investors	18.4	18.1	17.0	16.6	18.7	20.9	20.7	22.0
Sec-Registered Investment Companies	7.8	8.3	7.9	7.6	6.2	6.6	6.6	6.7
Broker-Dealers	***	***	***	***	***	***	***	***
Banking/Thrift Inst.	***	4.7	5.6	5.4	***	***	***	5.6
Insurance Companies	3.0	3.3	3.9	3.8	3.1	3.5	3.3	2.8
Sov. Wealth Funds And For. Official Inst.	***	***	***	***	***	***	***	***
State/Muni. Govt. Entities	***	***	***	***	***	***	***	***
Non-U.S. Individuals	1.3	1.4	1.2	1.1	1.7	1.3	1.1	1.2
Pension Plans	1.8	1.7	1.1	1.2	0.9	***	***	***
Non-Profits	0.5	0.5	***	0.4	0.4	0.5	***	0.4
State/Muni. Govt. Pension Plans	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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
State/Muni. Govt. Pension Plans	415	416	416	416	454	454	454	454
Private Funds	353	356	356	356	398	397	397	397
Other	212	225	225	225	322	336	336	336
Sov. Wealth Funds And For. Official Inst.	186	203	203	203	225	244	244	244
Pension Plans	159	159	159	159	175	175	175	175
Insurance Companies	109	109	109	109	127	127	127	127
U.S. Individuals	94	94	94	94	118	118	118	118
Non-Profits	104	104	104	104	116	116	116	116
Non-U.S. Individuals	36	36	36	36	48	48	48	48
State/Muni. Govt. Entities	28	28	28	28	36	36	36	36
Banking/Thrift Inst.	29	29	29	29	31	31	31	31
Sec-Registered Investment Companies	16	16	16	16	17	17	17	17
Unknown Non-U.S. Investors	14	14	14	14	17	17	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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
State/Muni. Govt. Pension Plans	23.6	23.3	23.3	23.3	21.8	21.4	21.4	21.4
Private Funds	20.1	19.9	19.9	19.9	19.1	18.8	18.8	18.8
Other	12.1	12.6	12.6	12.6	15.4	15.9	15.9	15.9
Sov. Wealth Funds And For. Official Inst.	10.6	11.3	11.3	11.3	10.8	11.5	11.5	11.5
Pension Plans	9.1	8.9	8.9	8.9	8.4	8.3	8.3	8.3
Insurance Companies	6.2	6.1	6.1	6.1	6.1	6.0	6.0	6.0
U.S. Individuals	5.3	5.2	5.3	5.2	5.6	5.6	5.6	5.6
Non-Profits	5.9	5.8	5.8	5.8	5.6	5.5	5.5	5.5
Non-U.S. Individuals	2.1	2.0	2.0	2.0	2.3	2.3	2.3	2.3
State/Muni. Govt. Entities	1.6	1.5	1.5	1.5	1.7	1.7	1.7	1.7
Banking/Thrift Inst.	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.5
Sec-Registered Investment Companies	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Unknown Non-U.S. Investors	0.8	0.8	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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Hedge Fund	12,011	13,961	13,260	13,284	12,262	13,939	12,823	13,313
Qualifying Hedge Fund	10,006	11,849	11,184	10,046	9,485	11,078	11,196	11,254
Other Private Fund	148	149	148	134	132	131	128	135
Private Equity Fund	39	40	40	40	38	37	37	37
Section 4 Private Equity Fund	33	34	34	34	31	31	31	31
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Real Estate Fund	17	17	17	17	17	17	17	17
Securitized Asset Fund	3	2	2	2	3	3	3	3
Venture Capital Fund	***	***	***	***	***	***	***	***
<b>Total</b>	12,206	14,154	13,465	13,504	12,502	14,163	13,046	13,339

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

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Hedge Fund	309.3	351.3	331.3	327.3	323.2	347.9	313.4	327.6
Qualifying Hedge Fund	328.3	381.5	354.9	315.1	319.6	354.3	352.1	353.1
Other Private Fund	13.7	13.7	13.4	12.3	12.2	12.1	11.9	12.4
Private Equity Fund	1.6	1.6	1.6	1.6	1.3	1.3	1.3	1.3
Section 4 Private Equity Fund	1.9	1.9	1.9	1.9	1.5	1.5	1.5	1.5
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Real Estate Fund	4.4	4.4	4.4	4.4	3.8	3.7	3.7	3.7
Securitized Asset Fund	1.7	1.6	1.5	1.5	1.6	1.6	1.6	1.6
Venture Capital Fund	***	***	***	***	***	***	***	***
<b>Total</b>	146.9	167.4	157.8	157.4	143.7	157.5	143.8	147.2

**Figure 6:** Distribution of Derivative Values  
As reported on Form PF, Questions 13 and 44 (Third Month).

All Private Funds (\$ Billions)								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th Percentile	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
90th Percentile	1.7	1.7	1.7	1.7	1.5	1.5	1.6	1.5
Mean	1.2	1.3	1.2	1.2	1.1	1.2	1.2	1.2
Qualifying Hedge Funds (\$ Billions)								
Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
Median	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4
75th Percentile	2.3	2.2	2.2	2.1	1.9	2.0	2.4	2.2
90th Percentile	10.0	10.9	9.7	10.4	9.5	11.4	11.6	11.3
Mean	5.2	6.6	6.2	5.5	5.0	6.2	6.5	6.1

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
0%	7,767	7,883	7,990	8,057	7,918	7,987	8,056	8,060
Less than 100%	42	70	69	58	64	67	64	65
100% or More	12	11	11	11	5	5	5	5

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

Fraction of NAV	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
0%	3,771	3,845	3,894	3,955	3,721	3,922	3,990	3,953
Less than 100%	41	46	42	43	43	84	85	87
100% or More	37	38	38	39	35	2	2	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.

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Top 10	7.5	7.2	7.3	7.2	7.4	7.2	7.3	7.4
Top 25	13.4	13.3	13.5	13.5	13.5	13.4	13.5	13.6
Top 50	20.2	20.2	20.1	20.1	19.7	19.7	19.8	19.9
Top 100	28.8	28.6	28.4	28.4	27.9	28.0	28.1	28.2
Top 250	43.2	43.0	42.6	42.5	42.1	42.4	42.6	42.5
Top 500	56.5	56.4	56.0	55.9	55.6	56.2	56.1	56.0

**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.

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Top 10	15.1	15.5	15.5	15.4	16.7	16.5	16.2	15.3
Top 25	23.7	24.2	23.8	24.4	26.0	25.7	25.4	24.9
Top 50	31.8	32.6	32.0	32.9	34.2	34.2	33.7	33.5
Top 100	41.4	41.9	41.7	42.4	43.4	43.4	43.1	42.7
Top 250	55.3	55.5	55.2	56.0	56.6	57.1	56.7	56.3
Top 500	66.6	66.9	66.7	67.2	67.6	68.1	67.9	67.5

**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).

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Top 10	34.4	35.1	34.5	34.7	36.3	36.1	35.2	34.1
Top 25	47.5	49.1	48.3	48.4	51.3	50.9	50.0	50.0
Top 50	59.0	60.0	59.6	60.0	62.9	63.0	62.0	61.8
Top 100	70.8	71.0	70.7	71.0	73.3	73.3	72.8	73.0
Top 250	82.6	82.8	82.9	82.9	84.7	85.0	84.9	84.8
Top 500	90.2	90.4	90.6	90.6	91.6	91.9	91.7	91.7

**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).

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Top 10	33.0	32.4	31.2	31.1	33.8	32.2	29.6	31.1
Top 25	48.2	50.3	50.2	49.2	49.9	50.2	46.9	48.4
Top 50	60.4	62.5	62.6	61.4	62.1	63.0	59.5	61.2
Top 100	72.8	74.0	73.7	73.1	73.5	74.9	72.2	73.4
Top 250	85.9	87.1	86.4	86.2	86.5	87.8	86.1	87.0
Top 500	93.1	93.8	93.3	93.2	93.2	94.0	93.2	93.9

**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).

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Top 10	30.8	29.8	28.8	28.3	30.6	30.3	28.6	28.9
Top 25	45.3	46.7	45.4	44.4	47.3	46.7	44.6	45.7
Top 50	56.5	59.3	58.2	57.5	59.7	59.3	57.3	57.7
Top 100	68.5	70.5	69.5	69.0	70.8	70.8	68.9	69.2
Top 250	82.5	84.1	82.8	82.5	83.7	84.0	82.7	82.8
Top 500	91.1	92.0	91.2	91.0	91.7	91.9	91.3	91.3

## VIII Information Reported by Large Hedge Fund Advisers

### A Economic Leverage

**Figure 7:** Ratio of Hedge Fund Gross Notional Exposure to Net Asset Value  
(Winsorized, limits=[0%,98%])

See Appendix C for an explanation of winsorization.  
As reported on Form PF, Questions 3(a) and 26.

Including Interest Rate Derivatives (IRDs)																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.3
Median	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.3	2.4	2.4	2.3	2.4	2.4	2.2	2.2	2.2	2.1	2.2	2.3	2.3	2.4	2.3	2.2
75th Percentile	5.2	5.2	4.8	5.4	5.3	5.1	5.2	5.4	5.1	5.0	5.0	4.9	5.2	5.1	4.7	5.2	5.1	4.8	4.9	5.0	4.8	5.1	5.0	4.7
90th Percentile	13.4	13.8	12.7	16.4	15.4	14.9	17.6	18.0	16.8	18.7	18.2	17.4	19.0	20.5	17.7	18.4	20.0	18.6	17.6	17.1	16.5	18.9	17.2	15.1
Mean	6.7	7.1	6.5	7.8	7.7	7.4	8.2	8.3	8.0	8.1	8.4	7.7	8.3	8.7	7.7	8.1	8.6	8.3	8.4	8.4	7.9	8.5	8.4	7.5
Excluding IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0
25th Percentile	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Median	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9
75th Percentile	3.7	3.8	3.6	3.8	3.7	3.6	3.8	4.0	3.7	3.9	3.8	3.8	3.8	3.8	3.5	3.8	3.9	3.9	4.1	3.9	3.9	4.2	3.9	3.9
90th Percentile	8.8	9.1	8.6	10.0	9.2	8.8	9.4	9.8	9.0	9.2	9.1	8.9	9.6	8.8	8.4	9.1	9.4	8.7	9.1	8.5	7.9	9.1	8.4	8.1
Mean	4.2	4.3	4.0	4.5	4.2	4.1	4.5	4.5	4.5	4.5	4.6	4.5	5.0	5.1	4.5	4.9	5.0	4.8	5.0	4.9	4.9	5.0	5.1	4.6



**Figure 8: Ratio of Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value (Winsorized, limits=[0%,98%])**  
 See Appendix C for an explanation of winsorization.  
 As reported on Form PF, Questions 3(a) and 26.

Long Exposure Including IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.9	0.9	0.9	0.9	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.2	1.1	1.2	1.1	1.1	1.1
Median	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.7	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6
75th Percentile	3.0	3.1	2.9	3.2	3.2	3.0	3.1	3.2	3.0	3.1	3.1	3.0	3.1	3.1	2.9	3.2	3.2	3.1	3.2	3.1	3.0	3.1	3.1	2.9
90th Percentile	7.8	8.0	6.9	8.9	8.2	8.0	9.2	9.1	9.0	9.9	10.0	9.1	10.3	10.3	9.7	9.4	9.9	9.2	9.2	9.3	9.1	9.7	9.9	8.8
Mean	4.1	4.2	3.9	4.5	4.5	4.3	4.7	4.8	4.6	4.7	4.6	4.3	4.8	5.1	4.5	4.7	5.2	4.9	4.7	4.8	4.4	4.8	4.7	4.3
Long Exposure Excluding IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
25th Percentile	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Median	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
75th Percentile	2.5	2.5	2.4	2.5	2.5	2.4	2.5	2.6	2.4	2.5	2.5	2.4	2.6	2.5	2.4	2.4	2.5	2.4	2.5	2.4	2.5	2.6	2.5	2.3
90th Percentile	5.4	5.5	5.1	5.9	5.2	5.1	5.5	5.4	5.5	5.2	5.3	5.2	5.4	5.1	5.0	5.4	5.5	5.2	5.7	5.6	5.7	5.6	5.3	5.2
Mean	2.7	2.7	2.6	2.7	2.6	2.5	2.8	2.8	2.8	2.7	2.7	3.0	3.1	2.8	2.9	3.0	2.8	3.0	2.9	2.9	2.9	3.0	3.0	2.8
Short Exposure Including IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25th Percentile	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Median	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.8	0.7
75th Percentile	2.3	2.4	2.2	2.5	2.4	2.3	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.0	2.3	2.4	2.3	2.4	2.3	2.3	2.4	2.3	2.3
90th Percentile	7.0	7.7	6.4	8.3	7.8	8.0	9.0	9.8	8.8	9.5	9.1	9.2	9.3	9.6	7.9	9.1	9.3	9.2	9.5	9.1	9.0	10.3	10.3	8.9
Mean	3.2	3.5	3.1	3.6	3.6	3.4	3.8	3.8	3.6	3.8	3.8	3.7	3.7	3.7	3.4	3.8	3.9	3.7	4.0	4.0	3.8	4.1	4.1	3.5
Short Exposure Excluding IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
25th Percentile	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Median	0.7	0.7	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
75th Percentile	1.4	1.5	1.5	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.7
90th Percentile	4.3	4.5	4.2	4.6	4.3	4.4	4.7	5.0	4.4	4.4	4.3	4.4	5.1	3.9	4.2	4.4	4.1	4.1	4.4	4.7	4.6	5.2	4.8	4.2
Mean	1.9	2.0	1.7	2.0	1.9	1.8	2.0	2.0	1.9	2.1	2.1	2.0	2.1	2.1	1.9	2.2	2.2	2.1	2.3	2.2	2.2	2.3	2.3	2.0

## 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)
2017-10	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
2019-04	18.9	28.5	37.7	54.1
2019-05	18.9	28.5	37.4	54.1
2019-06	18.9	28.5	36.3	52.6
2019-07	19.3	28.8	36.7	53.8
2019-08	19.3	28.8	36.7	53.9
2019-09	19.4	28.9	37.3	54.0

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
2017-10	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
2019-04	9,917	3,425	2,263	127	18	15,749
2019-05	18,308	3,834	2,528	134	22	24,826
2019-06	16,336	3,866	2,188	134	25	22,549
2019-07	10,905	3,481	2,278	136	21	16,820
2019-08	15,848	4,384	2,400	116	26	22,774
2019-09	15,763	3,935	2,226	144	34	22,101

**Figure 9:** Distributions of Portfolio Turnover  
(Winsorized, limits=[1%,99%])  
See Appendix C for an explanation of winsorization.  
As reported on Form PF, Questions 3(a) and 27.

Total Turnover (\$ Billions)																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25th Percentile	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
Median	1.0	1.2	1.1	1.2	1.4	1.4	1.1	1.4	1.4	1.0	1.1	1.1	1.4	1.2	1.2	1.1	1.2	1.2	1.0	1.3	1.2	1.0	1.1	1.1
75th Percentile	4.6	5.1	4.8	6.6	6.8	7.4	6.3	6.8	7.7	5.1	6.1	5.8	6.8	6.2	5.8	6.3	6.0	6.6	5.3	7.0	6.9	5.4	6.5	5.8
90th Percentile	34.9	40.1	37.4	51.0	54.5	60.5	42.7	60.4	56.5	38.0	43.6	46.2	58.7	43.8	42.1	43.0	46.6	52.4	46.7	61.5	60.9	47.7	59.2	52.9
Mean	20.6	25.2	26.4	31.2	36.3	37.2	23.2	34.6	31.2	20.6	28.7	28.7	32.0	26.4	25.1	29.1	30.9	25.4	39.7	34.6	28.0	39.0	33.5	
Total Turnover to NAV Ratio																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Median	0.4	0.5	0.4	0.5	0.6	0.5	0.6	0.6	0.4	0.5	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4
75th Percentile	1.7	2.1	2.0	2.4	3.0	2.8	2.5	2.8	2.6	1.7	2.2	2.0	2.7	2.4	2.5	2.4	2.3	2.3	1.9	2.6	2.2	1.9	2.5	2.3
90th Percentile	11.7	13.9	12.8	16.2	18.1	20.0	17.5	21.1	21.2	16.6	19.2	20.7	21.9	19.4	19.5	15.3	16.0	20.2	16.3	20.8	22.3	15.0	23.8	18.9
Mean	6.5	7.3	7.6	9.5	10.9	9.6	9.2	12.5	9.7	6.7	7.6	8.5	8.6	7.6	7.7	6.4	7.5	8.8	8.0	11.8	11.7	9.3	10.5	10.7

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
North America	4,527	4,811	4,923	5,112	5,007	5,323	5,522	5,363
Europe EEA	1,663	1,990	1,822	1,751	1,822	1,804	1,765	1,734
Asia	673	735	698	678	787	844	840	733
South America	133	114	112	101	111	115	119	100
Europe Other	91	86	74	72	70	78	82	82
Supranational	75	72	59	60	66	48	38	69
Africa	31	37	33	31	29	31	33	29
Middle East	26	30	37	26	27	25	28	26

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
North America	135.4	140.5	141.4	147.2	153.0	154.2	156.4	154.9
Europe EEA	49.7	58.1	52.3	50.4	55.7	52.3	50.0	50.1
Asia	20.1	21.5	20.1	19.5	24.0	24.5	23.8	21.2
South America	4.0	3.3	3.2	2.9	3.4	3.3	3.4	2.9
Europe Other	2.7	2.5	2.1	2.1	2.1	2.3	2.3	2.4
Supranational	2.2	2.1	1.7	1.7	2.0	1.4	1.1	2.0
Africa	0.9	1.1	0.9	0.9	0.9	0.9	0.9	0.8
Middle East	0.8	0.9	1.1	0.7	0.8	0.7	0.8	0.8

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

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

Country	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	4,312	4,551	4,683	4,869	4,783	5,201	5,233	5,161
Japan	245	269	244	251	274	265	239	287
China (Inc. Hong Kong)	164	178	184	165	147	187	186	176
Brazil	60	47	50	42	40	43	46	40
India	47	38	36	36	35	36	32	34
Russia	18	16	12	11	9	9	11	11

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
United States	129.0	132.9	134.5	140.2	146.2	150.7	148.3	149.1
Japan	7.3	7.9	7.0	7.2	8.4	7.7	6.8	8.3
China (Inc. Hong Kong)	4.9	5.2	5.3	4.7	4.5	5.4	5.3	5.1
Brazil	1.8	1.4	1.4	1.2	1.2	1.2	1.3	1.2
India	1.4	1.1	1.0	1.0	1.1	1.0	0.9	1.0
Russia	0.5	0.5	0.3	0.3	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**  
 (Winsorized, limits=[0%,98%])  
 See Appendix C for an explanation of winsorization.  
 As reported on Form PF, Questions 9, 10, 26, and 30.

Including Interest Rate Derivatives (IRDs)																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0
25th Percentile	1.5	1.5	1.4	1.5	1.5	1.4	1.5	1.5	1.4	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4
Median	2.3	2.3	2.1	2.2	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.1
75th Percentile	4.6	4.6	4.3	4.7	4.7	4.4	4.6	4.5	4.1	4.6	4.5	4.3	4.7	4.6	4.4	4.6	4.8	4.3	4.7	4.8	4.4	4.7	4.9	4.6
90th Percentile	11.0	11.1	9.5	11.1	10.9	10.0	10.6	11.1	10.5	12.3	11.5	10.9	12.7	11.9	10.7	11.3	11.5	10.7	12.1	13.0	11.1	12.9	12.6	11.3
Mean	5.3	5.4	4.8	5.7	5.8	5.5	5.4	5.3	4.9	5.9	5.8	5.3	6.4	6.6	5.9	6.6	6.9	6.3	7.0	7.4	6.3	7.7	7.3	6.1

  

Excluding IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.3	1.1	1.2	1.2	1.1
Median	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8
75th Percentile	3.5	3.5	3.2	3.5	3.4	3.4	3.4	3.4	3.3	3.4	3.3	3.2	3.7	3.5	3.3	3.6	3.6	3.3	3.7	3.6	3.4	3.6	3.7	3.4
90th Percentile	7.3	7.4	6.5	7.6	7.2	6.8	7.4	7.2	6.9	7.3	6.9	6.7	7.4	7.0	6.8	7.2	7.3	7.0	7.7	7.8	7.2	8.0	8.0	7.4
Mean	3.5	3.5	3.1	3.6	3.4	3.2	3.4	3.4	3.2	3.4	3.3	3.2	3.7	3.6	3.4	3.8	4.0	3.6	3.8	3.8	3.5	3.9	4.0	3.7

**Figure 11: Ratio of Qualifying Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value (Winsorized, limits=[0%,98%])**

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

Long Exposure Including IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1
Median	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
75th Percentile	2.8	2.8	2.7	2.8	2.8	2.8	2.9	2.8	2.6	2.8	2.7	2.6	2.9	2.8	2.7	2.9	2.9	2.7	2.8	2.8	2.7	2.9	2.9	2.8
90th Percentile	6.5	6.4	5.6	6.4	5.9	5.7	5.8	5.9	5.9	6.5	6.4	5.7	6.8	6.4	5.9	6.5	6.0	6.7	7.1	6.4	7.9	7.6	7.0	7.0
Mean	3.3	3.3	2.9	3.4	3.4	3.3	3.3	3.3	3.1	3.5	3.4	3.2	3.8	3.9	3.6	4.1	4.1	3.9	4.1	4.3	3.7	4.4	4.4	3.7
Long Exposure Excluding IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0
Median	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.4	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.4
75th Percentile	2.3	2.3	2.2	2.3	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.4	2.3	2.2	2.4	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.4
90th Percentile	4.4	4.4	4.0	4.5	4.3	4.2	4.2	4.3	4.1	4.4	4.2	3.9	4.3	4.2	4.0	4.5	4.4	4.4	4.7	4.6	4.3	5.3	4.9	4.7
Mean	2.4	2.4	2.1	2.3	2.3	2.2	2.3	2.2	2.2	2.3	2.2	2.2	2.4	2.4	2.3	2.5	2.5	2.4	2.4	2.4	2.3	2.5	2.5	2.4
Short Exposure Including IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
25th Percentile	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Median	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6
75th Percentile	2.0	2.0	1.8	1.9	2.0	1.9	2.0	1.9	1.8	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.1	1.9	2.1	2.0	1.9	2.0	2.0	1.9
90th Percentile	4.7	4.9	4.5	5.0	5.2	5.0	5.0	5.1	5.0	5.9	5.6	5.5	6.0	5.5	5.0	5.3	5.5	5.0	5.8	6.1	5.0	5.9	5.8	5.6
Mean	2.3	2.3	2.1	2.5	2.5	2.4	2.4	2.2	2.6	2.6	2.4	2.9	2.9	2.9	2.6	2.9	3.0	2.8	3.2	3.1	2.8	3.4	3.2	2.8
Short Exposure Excluding IRDs																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25th Percentile	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Median	0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.5	0.5
75th Percentile	1.4	1.4	1.3	1.4	1.5	1.4	1.5	1.4	1.4	1.5	1.5	1.4	1.7	1.5	1.4	1.5	1.6	1.5	1.6	1.6	1.5	1.5	1.5	1.5
90th Percentile	3.2	3.2	3.0	3.4	3.4	3.3	3.5	3.5	3.2	3.4	3.2	3.3	3.7	3.3	2.9	3.1	3.3	3.2	3.6	3.6	3.4	3.8	3.7	3.8
Mean	1.4	1.4	1.2	1.5	1.5	1.4	1.4	1.4	1.3	1.5	1.4	1.4	1.6	1.5	1.4	1.6	1.7	1.6	1.8	1.7	1.6	1.7	1.7	1.6

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

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

Category	Strategy	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Equity	Subtotal	1,664	1,647	1,716	1,761	1,477	1,616	1,644	1,622
	Long/Short	945	925	951	956	762	841	867	833
	Long Bias	371	372	392	414	348	384	392	404
	Market Neutral	***	342	365	383	360	386	380	381
	Short Bias	***	8	8	8	7	5	5	4
Other	Subtotal	999	983	984	1,005	1,013	1,038	1,088	1,097
Relative Value	Subtotal	719	739	786	774	879	963	1,054	1,021
	F.I. Sov.	477	496	537	506	599	686	774	723
	F.I. Asset Backed	119	121	127	137	145	130	134	159
	F.I. Corp.	46	49	52	56	59	67	69	64
	F.I. Conv. Arb.	50	51	49	53	55	60	59	57
Macro	Volatility Arb.	27	22	21	22	21	19	18	19
	Subtotal	660	784	760	819	716	782	753	707
	Global Macro	575	698	670	729	627	695	666	628
	Currency	***	***	45	45	47	46	***	***
	Commodity	40	39	40	41	37	37	38	34
Event Driven	Active Trading	***	***	5	4	4	4	***	***
	Subtotal	353	363	360	350	304	313	337	308
	Distressed/Restruct.	167	165	162	165	164	169	165	160
	Equity	101	97	100	98	76	80	86	78
Credit	Risk Arb./Merger Arb.	86	101	98	88	64	64	86	71
	Subtotal	287	286	297	307	321	325	314	305
	Long/Short	235	248	238	247	256	258	246	234
Managed Futures/CTA	Asset Based Lending	51	38	59	60	65	66	68	71
	Subtotal	142	138	141	157	150	172	191	191
	Quantitative	139	136	139	***	***	***	***	***
Investment in other funds	Fundamental	3	2	2	***	***	***	***	***
	Subtotal	49	44	42	48	44	43	41	48
<b>Total</b>	<b>Total</b>	4,873	4,985	5,086	5,220	4,904	5,251	5,422	5,299

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

Category	Strategy	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
	Subtotal	54.6	53.0	54.4	55.2	49.8	51.7	51.7	50.9
Equity	Long/Short	31.0	29.8	30.2	30.0	25.7	26.9	27.3	26.2
	Long Bias	12.2	12.0	12.4	13.0	11.7	12.3	12.3	12.7
	Market Neutral	***	11.0	11.6	12.0	12.1	12.4	12.0	12.0
	Short Bias	***	0.3	0.3	0.2	0.2	0.2	0.1	0.1
Other	Subtotal	32.8	31.7	31.2	31.5	34.1	33.2	34.2	34.4
	Subtotal	23.6	23.8	24.9	24.3	29.6	30.8	33.1	32.0
Relative Value	F.I. Sov.	15.7	16.0	17.0	15.9	20.2	22.0	24.3	22.7
	F.I. Asset Backed	3.9	3.9	4.0	4.3	4.9	4.2	4.2	5.0
	F.I. Corp.	1.5	1.6	1.6	1.8	2.0	2.2	2.2	2.0
	F.I. Conv. Arb.	1.6	1.6	1.6	1.7	1.9	1.9	1.9	1.8
	Volatility Arb.	0.9	0.7	0.7	0.7	0.7	0.6	0.6	0.6
	Subtotal	21.7	25.2	24.1	25.7	24.1	25.0	23.7	22.2
Macro	Global Macro	18.9	22.5	21.3	22.9	21.1	22.2	20.9	19.7
	Currency	***	***	1.4	1.4	1.6	1.5	***	***
	Commodity	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.1
	Active Trading	***	***	0.1	0.1	0.1	0.1	***	***
	Subtotal	11.6	11.7	11.4	11.0	10.2	10.0	10.6	9.7
Event Driven	Distressed/Restruct.	5.5	5.3	5.1	5.2	5.5	5.4	5.2	5.0
	Equity	3.3	3.1	3.2	3.1	2.6	2.6	2.7	2.5
	Risk Arb./Merger Arb.	2.8	3.3	3.1	2.8	2.1	2.0	2.7	2.2
	Subtotal	9.4	9.2	9.4	9.6	10.8	10.4	9.9	9.6
Credit	Long/Short	7.7	8.0	7.6	7.7	8.6	8.3	7.7	7.3
	Asset Based Lending	1.7	1.2	1.9	1.9	2.2	2.1	2.1	2.2
	Subtotal	4.6	4.5	4.5	4.9	5.0	5.5	6.0	6.0
Managed Futures/CTA	Quantitative	4.6	4.4	4.4	***	***	***	***	***
	Fundamental	0.1	0.1	0.1	***	***	***	***	***
Investment in other funds	Subtotal	1.6	1.4	1.3	1.5	1.5	1.4	1.3	1.5
<b>Total</b>	<b>Total</b>	<b>159.9</b>	<b>160.5</b>	<b>161.4</b>	<b>163.7</b>	<b>165.2</b>	<b>167.9</b>	<b>170.5</b>	<b>166.3</b>

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Relative Value	4.7	5.0	5.0	4.6	5.3	5.3	5.8	5.6
Macro	3.7	3.9	4.1	4.4	3.9	4.2	4.5	4.2
Investment in other funds	1.0	1.3	1.1	1.1	4.8	4.5	1.2	3.9
Multi-Strategy	2.2	2.2	2.2	2.3	2.3	2.3	2.5	1.9
Equity	1.6	1.7	1.6	1.7	1.7	1.7	1.6	1.6
Other	1.6	1.5	1.5	1.6	1.6	1.7	1.8	1.6
Credit	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5
Managed Futures/CTA	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5
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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Macro	21.5	26.8	27.7	23.8	24.6	28.0	29.1	25.7
Relative Value	18.2	21.0	19.7	18.2	20.5	20.9	22.8	21.9
Managed Futures/CTA	10.0	8.4	10.5	14.0	9.7	17.9	19.9	19.8
Investment in other funds	1.7	2.6	2.4	3.6	14.8	12.0	2.4	10.3
Multi-Strategy	8.6	9.7	8.4	8.4	8.7	9.1	9.8	10.1
Other	5.1	4.7	4.1	4.4	4.2	4.4	4.7	4.3
Equity	3.2	4.0	3.3	3.6	3.5	3.6	3.3	3.3
Credit	3.2	3.3	2.9	2.8	3.3	3.2	2.6	2.4
Event Driven	2.0	2.0	1.9	1.9	1.8	1.8	2.0	1.9

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Managed Futures/CTA	58.0	60.6	55.5	47.5	57.4	49.9	48.5	45.2
Macro	40.2	37.0	36.4	36.8	38.3	36.5	38.8	37.6
Multi-Strategy	24.8	24.7	27.1	30.6	29.7	23.0	25.7	22.3
Relative Value	19.3	20.9	17.4	16.5	17.9	17.8	17.0	21.6
Other	21.0	18.4	18.7	19.0	17.9	18.2	18.6	17.0
Investment in other funds	9.4	4.2	6.6	3.6	12.8	14.5	5.8	13.0
Equity	10.2	9.7	11.6	11.4	13.5	10.6	9.6	10.7
Event Driven	9.6	8.0	8.6	9.6	12.2	9.9	7.3	9.9
Credit	9.8	8.3	7.0	7.3	8.2	7.3	6.8	7.1

## 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.

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Cash/Cash Equivalents	680	724	735	743	754	784	805	821
Securities - Equities	2,599	3,029	2,702	2,729	2,297	2,576	2,644	2,538
Securities - Treasuries	1,139	1,182	1,268	1,364	1,630	1,770	2,046	1,967
Securities - G10 (non-US)	1,163	1,291	1,236	1,190	1,223	1,271	1,244	1,099
Securities - Other Bonds	252	286	285	298	310	322	339	335
Securities - Corp. Bonds	253	263	272	277	265	300	301	294
Securities - MBS	266	264	251	275	358	307	232	276
Securities - Conv. Bonds	82	93	97	93	86	87	89	96
Securities - ABS (non-MBS)	77	79	88	87	88	93	96	94
Derivatives - IR	4,358	5,656	5,316	5,306	5,174	6,436	6,583	5,933
Derivatives - FX	3,148	3,735	3,235	2,447	2,252	2,376	2,452	3,074
Derivatives - Equity	1,331	1,362	1,304	1,314	1,107	1,203	1,266	1,415
Derivatives - Credit	716	727	682	666	727	765	714	678
Derivatives - Commodity	378	366	380	380	286	316	309	311
Derivatives - Other	388	541	549	295	286	263	274	220
Repurchase Agreements	1,242	1,405	1,447	1,441	1,626	1,905	1,896	1,843
Other	744	763	790	783	738	795	820	812

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

	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Cash/Cash Equivalents	85.9	80.8	80.1	81.9	82.7	81.9	80.4	80.1
Securities - Equities	71.9	75.5	70.7	70.8	71.2	70.7	70.9	71.1
Securities - Treasuries	62.9	60.3	62.5	63.1	65.2	65.1	60.9	62.4
Securities - G10 (non-US)	50.9	53.0	51.9	49.9	51.8	51.9	52.3	55.2
Securities - Other Bonds	73.4	72.5	72.8	71.0	74.0	75.7	79.3	79.8
Securities - Corp. Bonds	81.5	81.9	82.6	82.9	82.4	83.0	83.0	83.6
Securities - MBS	71.2	73.2	74.3	71.0	67.5	70.4	82.7	82.6
Securities - Conv. Bonds	93.4	88.1	88.0	87.8	86.4	94.2	94.0	92.9
Securities - ABS (non-MBS)	96.8	98.2	95.5	95.0	96.8	97.1	95.6	96.4
Derivatives - IR	49.4	51.3	52.2	49.5	51.2	52.6	52.0	50.2
Derivatives - FX	49.9	56.8	53.5	55.6	54.7	55.1	54.8	59.6
Derivatives - Equity	57.0	51.5	51.6	52.2	51.1	52.9	54.5	54.5
Derivatives - Credit	47.8	44.7	45.3	45.2	41.4	43.0	42.1	44.9
Derivatives - Commodity	64.5	65.8	62.7	59.6	56.5	58.3	59.4	59.0
Derivatives - Other	53.6	45.2	41.6	32.8	63.2	67.8	63.5	56.1
Repurchase Agreements	52.2	51.9	47.7	47.9	42.9	39.8	37.6	35.9
Other	89.9	88.9	88.2	88.0	89.4	87.6	87.5	88.3

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
At most 1 day	8.5	8.9	9.0	8.8	8.4	8.5	8.1	7.6
At most 7 days	15.0	15.4	15.2	14.9	14.8	14.5	14.0	13.8
At most 30 days	28.0	30.0	27.8	27.8	27.8	29.2	27.3	27.0
At most 90 days	50.9	48.9	47.5	47.9	50.2	47.9	46.4	47.0
At most 180 days	60.0	60.3	58.8	61.2	58.4	58.5	57.4	58.5
At most 365 days	73.8	74.1	73.5	73.7	71.8	70.8	70.2	69.7

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
At most 1 day	38.0	38.8	38.9	38.6	39.3	36.9	36.3	35.9
At most 7 days	61.8	62.1	62.1	61.9	61.2	60.2	59.9	58.7
At most 30 days	75.3	75.0	74.9	74.9	73.6	73.0	72.5	71.5
At most 90 days	81.6	81.4	81.2	80.8	79.4	79.0	78.6	77.8
At most 180 days	85.1	84.8	84.7	84.2	82.9	82.7	82.3	81.8
At most 365 days	88.9	88.7	88.9	88.2	86.8	86.7	86.5	86.0

**Figure 12:** Asset Weighted-Average Qualifying Hedge Fund  
Investor and Portfolio Liquidity  
(Percent of Aggregate NAV)

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

Statistic	At most 1 day	At most 7 days	At most 30 days	At most 90 days	At most 180 days	At most 365 days
Port. Liquidity	34.8	57.0	70.1	76.4	80.3	85.1
Inv. Liquidity	7.7	13.1	26.5	46.3	57.0	68.9

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
May Suspend	2,363	2,411	2,431	2,470	2,266	2,396	2,441	2,427
May Have Gates	1,405	1,459	1,489	1,512	1,402	1,488	1,519	1,494
Side-Pocketed	39	42	41	39	42	42	42	45
Gated	38	39	32	34	40	39	40	42
Suspended	17	***	13	12	19	17	16	18

**Figure 13: Percentage of Qualifying Hedge Fund NAV  
Subject to a Side-Pocket Arrangement**  
As reported on Form PF, Questions 9 and 48.

Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
10th Percentile	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
25th Percentile	3.0	3.0	3.0	3.0	3.0	3.0	3.8	4.0
Median	7.0	9.0	7.0	7.0	7.0	7.0	8.5	7.5
75th Percentile	22.0	26.0	24.5	21.8	21.0	21.5	22.0	20.8
90th Percentile	45.0	64.0	49.0	44.0	34.0	34.0	37.0	36.0
Mean	18.1	20.4	18.5	17.1	16.3	15.3	16.0	15.9

## F Borrowings

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

Type	Subtype	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Secured	Subtotal	2,419	2,592	2,813	2,830	2,757	3,016	3,158	3,089
	Prime Broker	1,379	1,418	1,527	1,591	1,289	1,412	1,438	1,358
	Reverse Repo	685	780	894	862	1,081	1,202	1,291	1,330
	Other Secured	356	394	392	377	387	401	429	401
Unsecured	Subtotal	14	14	14	12	12	13	15	16
<b>Total</b>	<b>Total</b>	2,433	2,606	2,827	2,842	2,769	3,028	3,173	3,104

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

Creditor Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
US Financial	61.7	60.5	63.3	63.6	63.0	63.1	63.5	63.6
Non-US Financial	37.9	39.1	36.3	36.1	36.5	36.5	35.9	35.9
US Non-Financial	***	***	***	***	***	***	***	***
Non-US Non-Financial	***	***	***	***	***	***	***	***

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Prime Broker	Subtotal	1,685	1,751	1,841	2,148	1,597	1,723	1,806	1,706
	Other	1,183	1,225	1,272	1,557	1,067	1,158	1,222	1,157
	Cash	502	526	569	591	530	565	584	549
Reverse Repo	Subtotal	718	781	909	885	1,121	1,250	1,355	1,371
	Other	455	513	569	573	702	766	804	836
	Cash	263	268	340	312	420	484	550	535
Other Secured	Subtotal	426	447	468	436	443	456	494	482
	Other	262	296	308	298	278	297	324	339
	Cash	165	152	159	138	165	160	169	143
<b>Total</b>	<b>Total</b>	2,829	2,979	3,217	3,468	3,162	3,429	3,654	3,559

**Figure 14: Ratio of Collateral Posted to Secured Borrowing for Qualifying Hedge Funds (Winsorized, limits=[0%,98%])**  
 See Appendix C for an explanation of winsorization.  
 As reported on Form PF, Question 43 (Third Month).

Ratio of Total Collateral/Total Secured Borrowing																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.9
25th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Median	1.2	1.3	1.3	1.2	1.2	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3	1.3	1.2	1.3	1.3	1.3	1.2
75th Percentile	2.0	1.9	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.0	2.1	2.2	2.2	2.1	2.2	2.1	2.2	2.2
90th Percentile	4.2	4.2	4.2	4.2	4.2	4.6	4.1	4.0	4.8	4.3	4.7	4.7	4.3	4.7	5.7	4.7	4.8	4.8	5.1	4.8	5.0	5.0	4.8	4.9
Mean	2.6	2.3	2.9	3.3	3.1	4.4	3.0	2.5	3.9	2.7	3.1	2.8	3.5	3.2	3.8	2.8	3.0	4.8	3.9	2.8	3.3	3.8	3.3	3.4

  

Ratio of Collateral/Prime Broker Borrowing																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1.0	0.9	0.9	0.9	***	***	0.9
25th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	***	***	1.0
Median	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.4	1.3	1.4	***	***	1.3
75th Percentile	2.2	2.2	2.2	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.5	2.5	2.4	2.5	2.6	2.5	2.5	2.6	***	***	2.6
90th Percentile	4.7	5.4	5.0	5.1	5.8	5.3	5.8	5.6	6.6	6.4	6.2	5.6	5.6	6.4	7.2	6.0	6.2	5.9	6.4	5.2	6.0	***	***	7.4
Mean	3.2	3.6	6.4	5.2	4.7	5.5	4.4	5.2	5.5	3.5	3.6	3.2	4.6	4.4	5.0	5.0	5.7	7.0	6.8	3.8	6.8	***	***	4.9

  

Ratio of Collateral/Reverse Repo Borrowing																								
Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
10th Percentile	1.0	***	1.0	1.0	***	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	***	1.0	***	***	***	1.0	1.0	1.0	***	1.0	***
25th Percentile	1.0	***	1.0	1.0	***	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	***	1.0	***	***	***	1.0	1.0	1.0	***	1.0	***
Median	1.1	***	1.0	1.1	***	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.1	***	1.0	***	***	***	1.0	1.0	1.1	***	1.1	***
75th Percentile	1.4	***	1.4	1.3	***	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	***	1.2	***	***	***	1.3	1.3	1.3	***	1.3	***
90th Percentile	1.5	***	1.5	1.5	***	1.5	1.5	1.5	1.4	1.4	1.5	1.4	1.4	***	1.4	***	***	***	1.4	1.4	1.5	***	1.6	***
Mean	1.2	***	1.2	1.2	***	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	***	1.1	***	***	***	1.1	1.1	1.1	***	1.1	***

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

Financing Available	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
At most 1 day	34.2	31.6	32.9	35.8	30.0	34.7	34.5	39.7
At most 7 days	49.5	51.5	52.7	51.8	50.2	51.4	51.0	54.1
At most 30 days	64.7	64.9	66.7	66.0	68.6	68.6	68.0	68.9
At most 90 days	80.3	80.6	80.6	79.9	82.8	82.7	83.5	82.7
At most 180 days	95.9	95.8	95.8	96.0	95.7	95.7	95.4	95.1
At most 365 days	97.2	96.9	97.1	97.2	96.8	96.7	96.5	96.2

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

Statistic	At most 1 day	At most 7 days	At most 30 days	At most 90 days	At most 180 days	At most 365 days
Financing Liquidity	29.0	47.8	67.4	82.8	95.0	96.1

## G Central Clearing

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

Statistic	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Percent of Funds	17.5	17.0	15.4	15.2	16.3	16.2	15.7	16.2
Percent of NAV	16.7	17.1	16.3	16.3	16.9	16.4	16.3	16.8



## H Value-at-Risk (“VaR”) Reporting

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

VaR Method	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
VaR (Any Method)	663	660	672	682	684	676	665	667
Historical Simulation	278	286	287	298	303	297	305	313
Parametric	193	185	193	194	189	191	189	183
Monte Carlo Simulation	186	175	178	182	186	183	165	167
Other	47	51	52	52	49	45	46	45
VaR Not Used	1,138	1,112	1,134	1,136	1,143	1,118	1,119	1,134

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

VaR Method	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
VaR (Any Method)	3,546	3,661	3,779	3,841	3,652	3,887	4,021	3,906
Historical Simulation	1,882	1,969	2,027	2,017	1,954	2,104	2,212	2,064
Parametric	806	817	837	842	801	817	831	829
Monte Carlo Simulation	835	854	838	670	617	683	700	709
Other	495	496	522	759	742	833	851	868
VaR Not Used	2,317	2,415	2,502	2,546	2,502	2,592	2,714	2,740

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

VaR Method	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
VaR (Any Method)	1,397	1,423	1,430	1,434	1,324	1,385	1,393	1,381
Historical Simulation	562	580	570	575	524	547	561	562
Parametric	490	494	500	496	460	475	482	461
Monte Carlo Simulation	377	375	379	353	337	345	332	334
Other	89	91	96	130	114	128	131	135
VaR Not Used	1,650	1,683	1,721	1,754	1,643	1,742	1,787	1,806

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Stress and VaR	589	593	599	613	606	588	587	598
Stress, No VaR	498	494	490	496	486	453	463	459
No Stress, VaR	74	67	73	69	78	88	78	69
Neither	640	618	644	640	657	665	656	675

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Stress and VaR	3,386	3,499	3,612	3,675	3,496	3,684	3,798	3,726
Stress, No VaR	1,190	1,269	1,294	1,300	1,322	1,322	1,380	1,330
No Stress, VaR	160	162	168	165	155	203	223	181
Neither	1,127	1,146	1,208	1,246	1,180	1,270	1,334	1,410

**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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Stress and VaR	1,289	1,313	1,318	1,320	1,222	1,255	1,254	1,267
Stress, No VaR	736	746	745	757	704	728	740	740
No Stress, VaR	108	110	112	114	103	129	139	114
Neither	914	938	977	998	939	1,014	1,048	1,067

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
At most 1 day	80.5	78.9	79.1	78.8	77.9	77.9	76.2	75.5
At most 7 days	95.5	95.5	96.1	96.0	95.9	95.9	96.1	95.9
At most 30 days	99.5	99.7	99.7	99.5	99.4	99.5	99.6	99.7
At most 90 days	99.7	99.9	99.9	99.8	99.8	99.9	99.9	99.8
At most 180 days	99.8	99.9	100.0	99.9	99.9	100.0	100.0	99.9
At most 365 days	99.9	100.0	100.0	100.0	99.9	100.0	100.0	100.0

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
May Suspend	273	269	284	291	278	273	276	277
May Have Gates	237	232	245	255	243	237	241	245
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 of Section 3 Liquidity Funds (Days)  
As reported on Form PF, Questions 55.

Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
Average WAM	34.4	33.5	33.4	32.0	31.8	32.9	31.5	31.5	33.3	32.7	33.3	33.4	30.9	29.1	27.8	29.1	31.2	30.8	29.0	31.3	29.0	28.8	31.3	29.9
Asset-Weighted WAM	39.2	38.4	35.5	35.7	41.6	42.0	39.7	39.7	40.9	38.1	40.1	38.8	40.3	39.3	37.3	39.9	39.3	36.5	35.7	38.9	36.9	36.9	43.8	45.4

**Figure 18:** Weighted-Average Life of Section 3 Liquidity Funds (Days)  
As reported on Form PF, Questions 55.

Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
Average WAL	59.9	58.9	57.9	68.0	65.8	66.4	64.1	62.2	60.4	60.7	60.8	60.0	55.3	53.7	53.6	53.3	54.1	55.4	54.4	57.8	56.4	60.1	66.0	66.5
Asset-Weighted WAL	69.1	68.6	64.7	66.4	70.7	71.5	68.5	68.1	67.1	66.5	69.1	66.6	67.6	67.4	66.2	66.9	65.8	64.1	67.1	72.9	67.5	68.4	82.2	84.3

**Figure 19:** Seven-Day Gross Yield Section 3 Liquidity Funds (Percent)  
As reported on Form PF, Questions 55.

Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
Average Gross Yield	1.05	1.08	1.23	1.34	1.39	1.61	1.59	1.63	1.73	1.80	1.83	1.90	2.00	1.99	2.14	2.21	2.20	2.26	2.25	2.21	2.19	2.14	1.98	1.87
Asset-Weighted Gross Yield	1.13	1.16	1.31	1.39	1.47	1.65	1.70	1.73	1.85	1.90	1.95	2.03	2.11	2.13	2.27	2.36	2.35	2.33	2.33	2.30	2.27	2.23	2.05	1.95

**Figure 20:** Ratio of Daily Liquid Assets to Net Asset Value  
for Section 3 Liquidity Funds (Percent)  
As reported on Form PF, Questions 55.

Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
Average DLA	44.92	44.13	46.33	43.65	43.10	45.09	48.11	47.25	46.26	48.06	48.94	47.49	50.60	51.81	52.98	49.20	50.30	50.22	51.36	47.51	49.37	51.81	51.50	49.84
Asset-Weighted DLA	45.48	47.36	49.92	46.80	46.54	46.57	49.65	48.87	49.59	50.45	50.89	48.91	50.56	53.77	53.45	51.12	47.72	45.67	46.85	44.60	47.27	47.52	46.05	42.84

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

Statistic	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
Average WLA	58.87	59.08	60.17	58.34	58.58	59.71	61.37	61.20	60.83	60.97	61.64	62.76	63.99	64.76	64.98	62.05	64.24	63.90	63.97	61.47	61.97	63.08	62.73	61.59
Asset-Weighted WLA	57.21	60.15	58.99	58.67	57.99	57.04	58.05	57.80	61.04	58.40	59.40	57.77	59.14	62.42	62.42	58.14	58.47	57.50	56.06	55.44	57.97	58.51	56.49	53.91

## 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	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Credit Quality	56.2	58.7	60.0	60.0	60.9	60.0	61.4	61.9
Diversification	52.1	54.3	55.6	55.6	56.5	55.6	56.8	57.1
Maturity	52.1	54.3	55.6	55.6	56.5	55.6	56.8	57.1
Liquidity	52.1	50.0	51.1	51.1	52.2	51.1	52.3	52.4
Fully	45.8	45.7	46.7	46.7	47.8	46.7	47.7	47.6
None	41.7	41.3	40.0	40.0	39.1	40.0	38.6	38.1

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

As reported on Form PF, Questions 9 and 54.

Compliance Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Credit Quality	14.7	15.9	14.6	14.5	13.4	13.8	13.6	13.6
Diversification	13.7	14.9	13.7	13.5	12.4	12.7	12.8	13.0
Maturity	13.7	14.9	13.7	13.5	12.4	12.7	12.8	13.0
Liquidity	13.7	14.5	13.4	13.3	12.2	12.5	12.6	12.8
Fully	11.8	12.7	11.7	11.5	10.3	10.5	10.8	10.9
None	85.2	84.1	85.4	85.5	86.6	86.2	86.4	86.4

## D Methods of Calculating NAV

**Table 59:** NAV Calculation Method (Percent of Funds)

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Stable	79.2	80.4	80.0	77.8	78.3	80.0	75.0	76.2
Floating	20.8	19.6	20.0	22.2	21.7	20.0	25.0	23.8

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

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

Type	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1	2019Q2	2019Q3
Stable	69.1	70.3	68.4	68.0	70.9	74.4	56.5	62.9
Floating	30.9	29.7	31.6	32.0	29.1	25.6	43.5	37.1

## 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	2017-10	2017-11	2017-12	2018-01	2018-02	2018-03	2018-04	2018-05	2018-06	2018-07	2018-08	2018-09
Deposits	73.6	73.2	66.6	72.3	69.3	54.3	64.2	60.8	64.6	61.5	59.0	64.1
Repo - Govt. Collateral	32.1	31.0	29.6	37.3	30.5	34.2	40.6	39.0	35.1	43.9	45.3	44.8
U.S. Treasuries	50.6	56.4	58.2	54.2	54.2	60.9	56.7	54.5	61.9	53.3	54.5	53.6
Other	41.6	41.9	46.9	48.7	47.5	45.1	45.8	48.1	48.6	47.3	49.9	47.9
Commercial Paper	41.8	41.9	37.5	42.9	41.2	42.2	42.6	44.1	42.8	50.5	47.0	45.7
Asset-Backed Securities	20.6	19.6	19.8	21.7	21.3	21.4	21.9	22.6	23.1	21.9	22.0	20.2
Repo - Other Collateral	16.7	16.2	15.3	16.8	16.8	15.8	17.1	19.7	16.2	17.6	17.2	17.8
U.S. Govt. Debt	5.4	5.6	5.6	4.8	5.6	5.4	4.6	5.2	5.7	5.1	4.5	4.8
Municipal Debt	1.2	1.2	0.9	0.9	1.0	1.0	1.2	1.0	1.1	1.0	1.0	1.2

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

Product Type	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09
Deposits	59.5	60.7	54.2	55.0	58.5	57.6	61.7	62.3	65.8	67.5	70.1	66.1
Repo - Govt. Collateral	49.3	49.9	48.3	58.0	57.6	48.4	58.0	59.0	62.4	69.8	60.6	52.0
U.S. Treasuries	51.4	57.2	60.3	45.1	46.2	48.9	40.9	37.5	39.5	36.6	41.3	50.2
Other	47.2	42.7	46.4	48.5	45.4	45.4	41.2	39.2	44.4	47.4	43.6	41.9
Commercial Paper	46.8	46.5	41.1	43.9	40.4	37.8	40.2	42.0	39.6	40.0	43.2	40.8
Asset-Backed Securities	21.8	22.7	22.4	24.4	21.9	20.8	20.3	21.4	18.6	18.3	18.1	18.3
Repo - Other Collateral	15.6	14.1	14.3	16.8	13.4	12.9	12.7	10.6	11.9	11.4	8.0	9.6
U.S. Govt. Debt	3.5	3.1	3.2	2.9	3.5	4.4	3.2	4.2	3.4	2.3	2.4	2.2
Municipal Debt	0.9	0.9	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6

## 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:** Ratio of Portfolio Company Current to Total Liabilities (Percent)  
As reported on Form PF, Questions 71 and 72.

Statistic	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4
10th Percentile	0.7	0.6	0.7	0.8	0.8	0.7
25th Percentile	1.8	1.4	1.7	1.9	2.1	1.5
Median	5.7	5.3	6.0	6.9	7.3	6.0
75th Percentile	19.6	17.9	20.0	20.7	21.5	17.8
90th Percentile	48.4	50.0	49.9	54.3	51.8	49.3
Mean	17.0	16.2	16.7	17.5	17.7	15.3

**Figure 23:** CPC Payment-in-Kind Borrowings to Total Borrowings (Percent)  
As reported on Form PF, Questions 73.

Statistic	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4	2018Q4
10th Percentile	1.0	1.0	2.0	2.0	1.0	1.0
25th Percentile	4.0	3.0	4.0	4.0	3.0	3.0
Median	9.0	8.0	9.0	9.0	8.0	9.0
75th Percentile	18.0	22.0	22.0	22.0	17.0	22.2
90th Percentile	33.0	40.0	48.0	48.0	42.0	56.0
Mean	14.8	16.8	18.3	18.6	16.5	19.5



## 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.<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 Mitigating the Effects of Outliers

Form PF data occasionally contains spurious outliers. While REO 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.

<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.

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

## D 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.