



Division of Investment Management  
Analytics Office

# Private Funds Statistics

Fourth Calendar Quarter 2017

August 2, 2018

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 First Calendar Quarter 2016 through Fourth Calendar Quarter 2017 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 Fourth Calendar Quarter 2017 Private Funds Statistics, please contact:**

Tim Dulaney, PhD, FRM or Tim Husson, PhD, FRM at FormPF@sec.gov with subject line “Fourth Calendar Quarter 2017-Private Funds Statistics”.

---

<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.

## Contents

<b>I</b>	<b>Number of Funds and Advisers</b>	<b>4</b>
<b>II</b>	<b>Gross and Net Assets</b>	<b>5</b>
	A Aggregate Assets by Fund Type over Time . . . . .	5
	B Borrowings . . . . .	8
	C Fair Value Hierarchy . . . . .	10
	D Parallel Managed Accounts . . . . .	11
<b>III</b>	<b>Fund Domiciles and Adviser Main Offices</b>	<b>13</b>
<b>IV</b>	<b>Beneficial Ownership</b>	<b>15</b>
<b>V</b>	<b>Derivatives</b>	<b>19</b>
<b>VI</b>	<b>High Frequency Trading</b>	<b>20</b>
<b>VII</b>	<b>Hedge Fund Industry Concentration</b>	<b>21</b>
<b>VIII</b>	<b>Information Reported by Large Hedge Fund Advisers</b>	<b>23</b>
	A Economic Leverage . . . . .	23
	B Industry Concentration . . . . .	25
	C Portfolio Turnover . . . . .	26
	D Region and Country Exposure . . . . .	27
<b>IX</b>	<b>Qualifying Hedge Fund Specific Information</b>	<b>29</b>
	A Economic Leverage . . . . .	29
	B Gross Exposure by Strategy . . . . .	31
	C Leverage by Strategy . . . . .	33
	D Investment Exposures . . . . .	34
	E Liquidity . . . . .	35
	F Borrowings . . . . .	37
	G Central Clearing . . . . .	39
	H Value-at-Risk (“VaR”) Reporting . . . . .	40
	I Stress Testing and VaR . . . . .	41
<b>X</b>	<b>Section 3 Liquidity Fund Specific Information</b>	<b>42</b>
	A Liquidity . . . . .	42
	B Portfolio Characteristics . . . . .	42
	C Rule 2a-7 Compliance . . . . .	44
	D Methods of Calculating NAV . . . . .	44

E Aggregate Portfolio Holdings . . . . .	45
<b>XI Section 4 Private Equity Fund Specific Information</b>	<b>46</b>
A CPC Industry Concentration . . . . .	46
B CPC Financial Leverage . . . . .	47
C CPC Investments by Region and Country . . . . .	48
<b>XII Appendices</b>	<b>50</b>
A Form PF Filer Categories . . . . .	50
1 All Private Fund Advisers . . . . .	50
2 Large Hedge Fund Advisers . . . . .	50
3 Large Liquidity Fund Advisers . . . . .	51
4 Large Private Equity Fund Advisers . . . . .	51
5 Other Private Fund Advisers . . . . .	51
B Handling Annual and Quarterly Data . . . . .	52
C Mitigating the Effects of Outliers . . . . .	52
D Definitions . . . . .	53

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Equity Fund	9,714	9,725	9,752	10,364	10,382	10,362	10,272	11,460
Hedge Fund	8,920	8,928	8,994	8,927	9,082	9,123	9,156	9,007
Other Private Fund	4,099	4,125	4,116	4,438	4,462	4,484	4,442	4,512
Section 4 Private Equity Fund	2,740	2,742	2,747	3,002	3,006	3,009	2,989	3,480
Real Estate Fund	2,102	2,100	2,117	2,447	2,445	2,443	2,434	2,632
Qualifying Hedge Fund	1,599	1,608	1,620	1,652	1,674	1,720	1,722	1,803
Securitized Asset Fund	1,421	1,418	1,417	1,451	1,463	1,475	1,477	1,504
Venture Capital Fund	635	646	651	761	759	769	755	846
Liquidity Fund	64	66	67	69	70	69	69	70
Section 3 Liquidity Fund	36	37	36	44	45	47	46	48
<b>Total</b>	26,955	27,008	27,114	28,457	28,663	28,725	28,605	30,031

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Equity Fund	1,025	1,025	1,024	1,092	1,095	1,091	1,088	1,132
Hedge Fund	1,694	1,688	1,685	1,687	1,686	1,687	1,687	1,722
Other Private Fund	564	567	568	580	578	578	574	579
Section 4 Private Equity Fund	243	243	243	248	250	250	247	292
Real Estate Fund	294	292	294	312	314	312	311	322
Qualifying Hedge Fund	525	525	516	531	527	534	535	551
Securitized Asset Fund	157	156	154	149	151	153	154	155
Venture Capital Fund	97	98	100	109	109	110	109	113
Liquidity Fund	37	37	37	39	39	38	38	39
Section 3 Liquidity Fund	19	19	19	24	24	24	23	25
<b>Total</b>	2,844	2,839	2,836	2,914	2,916	2,917	2,916	2,997

<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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Hedge Fund	6,162	6,329	6,464	6,408	6,704	6,895	7,219	7,274
Qualifying Hedge Fund	4,992	5,102	5,246	5,218	5,494	5,716	5,892	5,903
Private Equity Fund	2,060	2,063	2,064	2,318	2,326	2,323	2,310	2,722
Section 4 Private Equity Fund	1,472	1,472	1,472	1,645	1,648	1,648	1,641	1,941
Other Private Fund	973	978	981	1,066	1,077	1,088	1,060	1,186
Real Estate Fund	410	410	411	436	436	433	432	499
Securitized Asset Fund	420	420	420	448	449	454	453	485
Liquidity Fund	273	287	292	293	282	276	282	291
Section 3 Liquidity Fund	247	258	249	274	267	273	279	289
Venture Capital Fund	55	56	55	64	64	64	63	80
<b>Total</b>	<b>10,352</b>	<b>10,542</b>	<b>10,688</b>	<b>11,032</b>	<b>11,338</b>	<b>11,533</b>	<b>11,818</b>	<b>12,537</b>

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Hedge Fund	3,407	3,436	3,496	3,493	3,611	3,669	3,791	3,891
Qualifying Hedge Fund	2,655	2,670	2,740	2,744	2,829	2,901	2,995	3,060
Private Equity Fund	1,884	1,886	1,887	2,075	2,084	2,082	2,069	2,438
Section 4 Private Equity Fund	1,377	1,377	1,377	1,492	1,496	1,496	1,489	1,754
Other Private Fund	872	877	882	977	987	994	970	1,072
Real Estate Fund	326	326	327	341	342	340	339	391
Securitized Asset Fund	138	138	140	141	141	145	144	152
Liquidity Fund	272	285	290	292	281	275	280	291
Section 3 Liquidity Fund	246	256	247	273	265	272	278	288
Venture Capital Fund	52	53	52	61	61	62	60	76
<b>Total</b>	<b>6,951</b>	<b>7,000</b>	<b>7,074</b>	<b>7,380</b>	<b>7,506</b>	<b>7,566</b>	<b>7,653</b>	<b>8,310</b>

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

<b>Qualifying Hedge Fund GAV (\$ Billions)</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
25th Percentile	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.6
Median	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.2
75th Percentile	2.6	2.6	2.6	2.5	2.5	2.6	2.6	2.5
90th Percentile	5.8	5.8	6.0	6.0	6.0	6.1	6.2	6.0
Mean	3.1	3.2	3.2	3.2	3.3	3.3	3.4	3.3
<b>Qualifying Hedge Fund NAV (\$ Billions)</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
10th Percentile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25th Percentile	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
Median	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9
75th Percentile	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8
90th Percentile	3.7	3.7	3.7	3.6	3.7	3.7	3.8	3.7
Mean	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Section 4 Private Equity Fund GAV (\$ Billions)</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
<b>Section 4 Private Equity Fund NAV (\$ Billions)</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.4	0.4	0.4	0.4	0.3	0.3	0.3
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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	1.2	1.2	1.2	1.2	1.1
90th Percentile	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9
Mean	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
<b>Qualifying Hedge Funds</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	1.2	1.2	1.2	1.2	1.1	1.2	1.1	1.1
75th Percentile	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5
90th Percentile	2.5	2.5	2.6	2.5	2.7	2.6	2.5	2.4
Mean	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5

## B Borrowings

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

Fund Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Securitized Asset Fund	48.9	48.7	48.4	50.7	49.5	48.8	48.4	51.9
Qualifying Hedge Fund	39.1	38.2	39.9	39.7	41.0	42.0	41.6	41.3
Hedge Fund	36.8	36.3	38.1	37.3	38.4	39.1	39.4	39.1
Real Estate Fund	13.2	13.2	13.2	13.9	12.9	12.7	12.8	13.2
Private Equity Fund	4.8	4.9	4.9	5.1	5.0	5.0	5.0	5.2
Section 4 Private Equity Fund	3.4	3.4	3.4	4.0	4.0	4.0	4.1	4.6
Other Private Fund	2.2	2.2	2.1	2.8	2.7	2.7	2.7	2.1
Venture Capital Fund	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6
Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Section 3 Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Figure 3:** Distribution of Total Borrowings  
As reported on Form PF, Questions 12 and 43.

All Private Funds (\$ Billions)								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5
Qualifying Hedge Funds (\$ Billions)								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.0
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	1.0	1.1	1.1	1.1	1.0
90th Percentile	3.2	2.9	3.2	3.2	3.4	3.2	3.4	3.0
Mean	1.8	1.9	2.0	1.9	2.1	2.2	2.2	2.1

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9
90th Percentile	2.8	3.0	3.0	3.6	3.8	3.8	3.8	3.5
Mean	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.7

  

<b>Qualifying Hedge Funds</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3
75th Percentile	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
90th Percentile	1.8	1.9	2.0	1.9	2.1	2.1	2.1	1.9
Mean	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8

## C Fair Value Hierarchy

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

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Level One	2,481	2,464	2,485	2,877	2,585	2,578	2,562	3,274
Level Two	2,140	2,070	2,063	2,544	2,201	2,186	2,231	2,764
Level Three	2,271	2,265	2,263	2,594	2,512	2,512	2,506	2,887
Cost-Based	1,581	1,539	1,537	1,972	1,691	1,723	1,731	2,240

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

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Level One	668	680	677	519	664	661	665	662
Level Two	476	424	427	417	462	451	455	608
Level Three	111	108	107	142	136	140	137	172
Cost-Based	673	694	695	464	659	654	660	487

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Hedge Fund	696	699	696	664	654	661	668	664
Other Private Fund	408	406	409	482	498	497	495	508
Private Equity Fund	252	252	251	239	240	239	273	293
Qualifying Hedge Fund	234	237	233	233	224	220	227	238
Section 4 Private Equity Fund	82	82	82	88	88	88	88	98
Real Estate Fund	52	52	52	77	77	77	77	72
Liquidity Fund	16	14	15	15	16	16	16	16
Section 3 Liquidity Fund	15	14	15	15	16	16	16	16
Venture Capital Fund	***	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
<b>Total</b>	1,459	1,458	1,458	1,517	1,525	1,530	1,568	1,567

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Hedge Fund	633	619	651	629	666	680	714	827
Other Private Fund	1,296	1,278	1,332	1,400	1,438	1,489	1,508	1,863
Private Equity Fund	96	96	96	29	29	28	28	37
Qualifying Hedge Fund	449	428	448	422	438	440	525	594
Section 4 Private Equity Fund	19	19	19	22	22	22	22	28
Real Estate Fund	11	11	11	6	6	6	6	6
Liquidity Fund	321	305	312	309	333	330	345	359
Section 3 Liquidity Fund	316	305	312	309	333	330	345	359
Venture Capital Fund	***	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
<b>Total</b>	2,513	2,465	2,557	2,555	2,653	2,714	2,782	3,094

<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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.8	0.9	0.9	0.9	0.9
90th Percentile	3.5	3.3	3.5	3.2	3.5	3.5	3.5	3.6
Mean	1.7	1.7	1.8	1.7	1.7	1.8	1.8	2.0
<b>Qualifying Hedge Funds (\$ Billions)</b>								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
10th Percentile	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
25th Percentile	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Median	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5
75th Percentile	1.2	1.2	1.5	1.3	1.6	1.7	1.8	1.9
90th Percentile	3.0	3.0	3.4	3.2	3.4	3.4	3.7	4.0
Mean	1.9	1.8	1.9	1.8	2.0	2.0	2.3	2.5

### 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	50.8	50.7	50.8	51.3	51.4	51.4	51.0	51.3
Cayman Islands	37.3	37.2	37.1	36.4	36.4	36.4	36.7	35.5
Ireland	3.8	3.9	3.9	4.3	4.2	4.2	4.3	4.5
Luxembourg	1.3	1.5	1.5	1.4	1.5	1.6	1.6	1.9
Virgin Islands, British	2.4	2.3	2.3	2.2	2.2	2.0	2.0	1.8
United Kingdom	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.3
Bermuda	1.3	1.3	1.2	1.3	1.3	1.3	1.3	1.2
Other	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.6
Qualifying Hedge Funds								
Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Cayman Islands	54.6	54.4	53.7	52.9	52.7	52.5	51.8	51.3
United States	32.7	33.1	33.8	34.3	34.6	35.0	35.3	35.7
Virgin Islands, British	5.7	5.7	5.5	5.5	5.3	5.0	4.8	4.5
Ireland	2.6	2.5	2.6	2.7	2.7	2.7	2.8	2.9
Luxembourg	1.2	1.2	1.3	1.3	1.3	1.5	1.7	1.9
Bermuda	1.4	1.4	1.4	1.8	1.7	1.7	1.7	1.6
Other	1.8	1.7	1.7	1.7	1.7	1.6	1.9	2.0
Section 3 Liquidity Funds								
Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Ireland	***	***	***	***	***	***	***	***
United States	36.5	34.2	34.1	33.1	33.9	36.8	34.7	35.1
Cayman Islands	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***
Section 4 Private Equity Funds								
Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	62.0	62.0	62.0	63.8	63.8	63.8	63.7	60.7
Cayman Islands	30.3	30.3	30.3	29.5	29.4	29.4	29.5	30.4
United Kingdom	2.6	2.6	2.6	1.9	1.9	1.9	2.0	2.7
Bermuda	1.3	1.3	1.3	1.1	1.1	1.1	1.1	1.0
Canada	1.2	1.2	1.2	0.9	0.9	0.9	0.9	1.0
Other	2.6	2.6	2.7	2.9	2.9	2.9	2.9	4.1

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	89.5	89.6	89.6	90.1	89.3	89.0	88.8	89.4
United Kingdom	6.6	6.6	6.6	6.2	6.5	6.8	6.9	6.5
Other	3.9	3.9	3.7	3.8	4.1	4.2	4.3	4.1
<b>Qualifying Hedge Funds</b>								
Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	89.3	89.5	89.4	89.6	89.4	89.3	88.9	88.5
United Kingdom	5.7	5.6	5.7	5.7	5.9	6.3	6.4	6.7
Australia	***	***	***	***	***	***	***	***
Hong Kong	***	***	***	***	***	***	***	***
Other	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.2
<b>Section 3 Liquidity Funds</b>								
Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	58.4	59.4	64.1	62.5	64.2	64.1	63.0	62.8
United Kingdom	***	***	***	***	***	***	***	***
France	***	***	***	***	***	***	***	***
<b>Section 4 Private Equity Funds</b>								
Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	97.2	97.2	97.2	95.1	95.1	95.1	95.1	94.8
Canada	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***

## IV Beneficial Ownership

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Funds	1,328	1,324	1,324	1,342	1,356	1,372	1,372	1,491
Other	883	895	920	976	997	1,011	1,039	1,188
State/Muni. Govt. Pension Plans	912	920	935	1,009	1,029	1,033	1,048	1,153
Pension Plans	882	894	909	948	958	967	973	1,037
Non-Profits	705	704	724	749	770	778	790	848
U.S. Individuals	768	771	778	773	786	789	798	816
Sov. Wealth Funds and For. Official Inst.	382	386	387	429	438	443	444	514
Insurance Companies	274	276	275	305	310	312	314	348
Unknown Non-U.S. Investors	163	171	170	187	187	186	189	194
Non-U.S. Individuals	196	199	199	198	198	185	183	187
Banking/Thrift Inst.	144	149	145	136	140	142	146	159
SEC-Registered Investment Companies	123	121	119	125	127	129	137	138
State/Muni. Govt. Entities	87	89	90	100	105	107	108	122
Broker-Dealers	107	104	97	102	104	107	111	112

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

As reported on Form PF, Questions 9 and 16.

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Funds	19.1	18.9	18.7	18.2	18.1	18.1	17.9	17.9
Other	12.7	12.8	13.0	13.2	13.3	13.4	13.6	14.3
State/Muni. Govt. Pension Plans	13.1	13.1	13.2	13.7	13.7	13.7	13.7	13.9
Pension Plans	12.7	12.8	12.9	12.8	12.8	12.8	12.7	12.5
Non-Profits	10.1	10.1	10.2	10.2	10.3	10.3	10.3	10.2
U.S. Individuals	11.0	11.0	11.0	10.5	10.5	10.4	10.4	9.8
Sov. Wealth Funds and For. Official Inst.	5.5	5.5	5.5	5.8	5.8	5.9	5.8	6.2
Insurance Companies	3.9	3.9	3.9	4.1	4.1	4.1	4.1	4.2
Unknown Non-U.S. Investors	2.3	2.4	2.4	2.5	2.5	2.5	2.5	2.3
Non-U.S. Individuals	2.8	2.8	2.8	2.7	2.6	2.5	2.4	2.3
Banking/Thrift Inst.	2.1	2.1	2.1	1.8	1.9	1.9	1.9	1.9
SEC-Registered Investment Companies	1.8	1.7	1.7	1.7	1.7	1.7	1.8	1.7
State/Muni. Govt. Entities	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5
Broker-Dealers	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.3

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Funds	513	509	504	490	495	505	510	505
Non-Profits	363	359	380	383	395	405	418	428
Pension Plans	347	352	364	369	379	387	399	414
Other	323	333	356	356	375	386	410	409
State/Muni. Govt. Pension Plans	272	278	291	304	310	314	331	352
U.S. Individuals	305	308	319	318	324	331	340	345
Sov. Wealth Funds and For. Official Inst.	137	136	140	143	152	158	160	166
Broker-Dealers	77	76	69	68	72	75	79	79
Insurance Companies	64	65	65	67	70	73	74	78
SEC-Registered Investment Companies	77	76	75	71	70	70	74	74
Non-U.S. Individuals	64	65	66	65	68	68	70	74
Unknown Non-U.S. Investors	48	46	46	41	45	52	56	58
State/Muni. Govt. Entities	31	32	33	35	41	42	42	42
Banking/Thrift Inst.	30	33	30	29	31	33	33	35

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Funds	19.3	19.1	18.4	17.9	17.5	17.4	17.0	16.5
Non-Profits	13.7	13.4	13.9	13.9	14.0	13.9	13.9	14.0
Pension Plans	13.1	13.2	13.3	13.5	13.4	13.3	13.3	13.5
Other	12.2	12.5	13.0	13.0	13.3	13.3	13.7	13.4
State/Muni. Govt. Pension Plans	10.2	10.4	10.6	11.1	11.0	10.8	11.0	11.5
U.S. Individuals	11.5	11.5	11.7	11.6	11.5	11.4	11.3	11.3
Sov. Wealth Funds and For. Official Inst.	5.1	5.1	5.1	5.2	5.4	5.4	5.3	5.4
Broker-Dealers	2.9	2.8	2.5	2.5	2.5	2.6	2.6	2.6
Insurance Companies	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5
SEC-Registered Investment Companies	2.9	2.9	2.7	2.6	2.5	2.4	2.5	2.4
Non-U.S. Individuals	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4
Unknown Non-U.S. Investors	1.8	1.7	1.7	1.5	1.6	1.8	1.9	1.9
State/Muni. Govt. Entities	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.4
Banking/Thrift Inst.	1.1	1.2	1.1	1.1	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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Funds	79	79	80	81	75	89	83	96
Other	38	38	40	52	51	51	51	55
Unknown Non-U.S. Investors	***	***	60	65	60	52	55	53
SEC-Registered Investment Companies	17	17	18	16	18	21	24	23
Broker-Dealers	***	***	***	***	***	***	***	***
Banking/Thrift Inst.	***	***	***	10	***	12	***	***
Insurance Companies	7	8	8	9	9	9	10	9
Pension Plans	5	5	***	5	5	5	5	5
Sov. Wealth Funds and For. Official Inst.	***	***	***	***	***	***	***	***
Non-U.S. Individuals	17	17	4	4	4	4	4	4
State/Muni. Govt. Entities	***	***	***	***	***	***	***	***
Non-Profits	***	***	***	1	2	2	2	2
State/Muni. Govt. Pension Plans	***	***	***	1	1	1	1	1
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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Private Funds	32.2	30.9	32.3	29.6	28.3	32.6	30.0	33.3
Other	15.5	14.7	16.2	19.2	19.3	18.7	18.5	19.1
Unknown Non-U.S. Investors	***	***	24.2	23.7	22.7	19.2	19.9	18.4
SEC-Registered Investment Companies	7.1	6.5	7.1	5.9	6.9	7.6	8.6	7.8
Broker-Dealers	***	***	***	***	***	***	***	***
Banking/Thrift Inst.	***	***	***	3.6	***	4.3	***	***
Insurance Companies	2.9	3.3	3.2	3.3	3.4	3.3	3.7	3.0
Pension Plans	1.9	1.8	***	1.7	1.8	1.8	1.9	1.8
Sov. Wealth Funds and For. Official Inst.	***	***	***	***	***	***	***	***
Non-U.S. Individuals	6.9	6.8	1.6	1.4	1.5	1.5	1.4	1.3
State/Muni. Govt. Entities	***	***	***	***	***	***	***	***
Non-Profits	***	***	***	0.5	0.6	0.6	0.6	0.5
State/Muni. Govt. Pension Plans	***	***	***	0.4	0.6	0.4	0.4	0.4
U.S. Individuals	***	***	***	***	***	***	***	***

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
State/Muni. Govt. Pension Plans	326	326	326	366	366	366	366	415
Private Funds	270	270	270	283	285	284	284	353
Other	140	140	140	162	162	161	161	212
Sov. Wealth Funds and For. Official Inst.	132	132	131	153	154	154	153	186
Pension Plans	138	137	138	142	142	142	139	159
Insurance Companies	84	84	84	94	94	94	94	109
Non-Profits	87	87	87	92	92	92	90	104
U.S. Individuals	95	95	95	88	88	88	88	94
Non-U.S. Individuals	35	35	35	34	34	34	34	36
Banking/Thrift Inst.	32	32	32	31	31	31	31	29
State/Muni. Govt. Entities	19	19	19	22	22	22	22	28
SEC-Registered Investment Companies	5	5	5	12	12	12	12	16
Unknown Non-U.S. Investors	15	15	15	14	14	14	13	14
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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
State/Muni. Govt. Pension Plans	23.7	23.7	23.6	24.5	24.5	24.5	24.6	23.6
Private Funds	19.6	19.6	19.6	19.0	19.0	19.0	19.1	20.1
Other	10.2	10.2	10.2	10.8	10.8	10.8	10.8	12.1
Sov. Wealth Funds and For. Official Inst.	9.6	9.6	9.5	10.3	10.3	10.3	10.3	10.6
Pension Plans	10.0	10.0	10.0	9.5	9.5	9.5	9.4	9.1
Insurance Companies	6.1	6.1	6.1	6.3	6.3	6.3	6.3	6.2
Non-Profits	6.3	6.3	6.3	6.1	6.1	6.2	6.1	5.9
U.S. Individuals	6.9	6.9	6.9	5.9	5.9	5.9	5.9	5.3
Non-U.S. Individuals	2.5	2.6	2.5	2.3	2.3	2.3	2.3	2.1
Banking/Thrift Inst.	2.3	2.3	2.3	2.0	2.0	2.0	2.1	1.7
State/Muni. Govt. Entities	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.6
SEC-Registered Investment Companies	0.4	0.4	0.4	0.8	0.8	0.8	0.8	0.9
Unknown Non-U.S. Investors	1.1	1.1	1.1	0.9	0.9	0.9	0.9	0.8
Broker-Dealers	0.0	0.0	0.0	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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Hedge Fund	9,181	9,363	9,400	9,192	10,249	10,166	11,447	12,472
Qualifying Hedge Fund	8,028	8,073	8,207	7,919	8,833	8,832	9,661	10,468
Other Private Fund	98	96	97	112	108	108	108	146
Private Equity Fund	54	54	53	38	38	38	38	39
Section 4 Private Equity Fund	42	42	42	35	35	34	34	33
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Real Estate Fund	21	21	21	16	16	16	16	17
Securitized Asset Fund	11	11	10	14	14	14	13	3
Venture Capital Fund	***	***	***	***	***	***	***	***
<b>Total</b>	<b>9,367</b>	<b>9,499</b>	<b>9,546</b>	<b>9,393</b>	<b>10,397</b>	<b>10,395</b>	<b>11,649</b>	<b>12,666</b>

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

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Hedge Fund	269.5	272.5	268.9	263.1	283.8	277.1	301.9	320.5
Qualifying Hedge Fund	302.4	302.3	299.5	288.6	312.3	304.4	322.5	342.1
Other Private Fund	11.2	10.9	11.0	11.4	10.9	10.8	11.2	13.6
Private Equity Fund	2.8	2.8	2.8	1.8	1.8	1.8	1.8	1.6
Section 4 Private Equity Fund	3.1	3.1	3.1	2.3	2.3	2.3	2.3	1.9
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Real Estate Fund	6.6	6.6	6.6	4.8	4.8	4.7	4.8	4.4
Securitized Asset Fund	7.9	7.7	7.4	9.8	9.8	9.4	9.2	1.7
Venture Capital Fund	***	***	***	***	***	***	***	***
<b>Total</b>	<b>134.8</b>	<b>135.7</b>	<b>134.9</b>	<b>127.3</b>	<b>138.5</b>	<b>137.4</b>	<b>152.2</b>	<b>152.4</b>

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

All Private Funds (\$ Billions)								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.2	0.3	0.3	0.3	0.3
90th Percentile	1.4	1.4	1.3	1.3	1.4	1.5	1.6	1.7
Mean	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.2
Qualifying Hedge Funds (\$ Billions)								
Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
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	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
75th Percentile	2.0	2.1	2.0	2.0	2.2	2.1	2.2	2.3
90th Percentile	9.2	8.9	8.0	7.7	8.6	9.2	10.0	10.3
Mean	4.9	4.5	4.3	4.2	4.7	4.7	5.2	5.5

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
0%	7,466	7,489	7,534	7,495	7,624	7,669	7,697	7,745
Less than 100%	63	64	70	62	62	66	63	42
100% or More	9	10	9	11	12	11	12	12

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

Fraction of NAV	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
0%	3,287	3,323	3,379	3,379	3,497	3,562	3,663	3,780
Less than 100%	84	83	84	78	79	78	43	41
100% or More	2	2	2	2	3	3	37	37

## 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.

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Top 10	7.9	7.8	7.9	7.9	7.7	7.7	7.5	7.4
Top 25	13.7	13.6	13.8	13.7	13.3	13.5	13.2	13.2
Top 50	20.5	20.4	20.6	20.5	20.2	20.2	20.0	20.0
Top 100	29.2	29.1	29.2	29.0	28.6	28.5	28.4	28.5
Top 250	44.3	44.1	44.2	44.1	43.7	43.4	43.4	43.1
Top 500	57.9	57.6	57.7	57.5	57.0	56.9	56.8	56.4

**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.

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Top 10	15.0	15.0	14.4	14.7	14.6	14.9	15.4	15.1
Top 25	23.3	23.6	22.9	23.2	23.5	23.1	24.1	23.7
Top 50	30.5	31.2	31.2	31.4	32.0	31.5	32.5	31.9
Top 100	40.0	40.8	41.0	41.0	41.5	41.3	42.2	41.4
Top 250	54.4	54.9	55.2	55.0	55.2	55.2	56.0	55.4
Top 500	66.4	66.7	66.9	66.8	66.8	66.9	67.5	66.7

**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).

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Top 10	32.7	32.7	32.8	31.5	31.9	33.3	35.0	34.5
Top 25	43.9	45.3	45.5	44.4	45.1	46.2	47.5	47.5
Top 50	54.5	56.0	56.5	56.1	56.7	57.4	58.7	59.0
Top 100	66.3	67.5	68.6	68.5	68.8	69.2	70.2	70.9
Top 250	80.6	80.6	81.7	81.6	81.5	81.8	82.6	82.6
Top 500	89.5	89.5	90.2	90.0	89.9	90.1	90.5	90.3

**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).

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Top 10	31.5	34.5	36.9	34.7	34.1	32.2	32.4	31.8
Top 25	47.2	48.7	50.5	48.5	48.0	46.4	49.1	47.6
Top 50	60.0	60.7	61.3	60.1	60.5	59.1	61.3	60.4
Top 100	71.8	72.2	73.1	73.0	73.2	71.8	73.4	73.0
Top 250	85.5	85.7	86.1	86.1	86.3	85.8	86.4	86.2
Top 500	92.8	92.9	93.2	93.3	93.2	92.7	93.3	93.2

**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).

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Top 10	28.6	31.5	32.6	31.6	30.9	30.2	30.2	29.8
Top 25	42.6	44.0	45.3	45.4	44.5	43.2	44.9	44.4
Top 50	54.7	55.0	56.3	56.8	56.6	55.4	56.9	56.5
Top 100	66.5	66.9	67.4	68.6	68.8	67.6	68.6	68.7
Top 250	81.2	81.3	81.5	82.2	82.5	81.9	82.5	82.8
Top 500	91.1	90.8	90.8	91.2	91.3	90.7	91.1	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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.5	1.4
Median	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.3	2.3
75th Percentile	4.7	4.8	4.7	4.8	4.9	4.8	4.8	4.8	4.9	4.8	4.9	4.8	4.6	5.1	5.2	5.0	5.2	5.3	4.9	5.0	4.9	5.2	5.2	4.8
90th Percentile	11.1	11.7	11.1	11.6	12.0	11.2	11.5	11.5	10.7	12.6	12.2	10.5	11.7	11.8	11.3	11.6	12.1	11.4	12.6	14.4	13.5	13.4	13.8	12.7
Mean	5.2	5.5	5.6	5.4	5.7	5.3	5.4	5.7	5.4	6.0	6.1	5.5	6.0	6.2	6.0	5.9	6.3	5.7	6.7	7.1	6.9	6.7	7.1	6.5
Excluding IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	1.0	1.0	1.0	0.9	1.0	1.0	0.9	1.0	1.0
25th Percentile	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Median	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.0
75th Percentile	3.4	3.4	3.4	3.7	3.7	3.6	3.6	3.7	3.6	3.7	3.6	3.4	3.6	3.7	3.6	3.7	3.8	3.6	3.7	3.7	3.7	3.7	3.8	3.6
90th Percentile	6.8	6.7	7.0	7.2	7.4	6.9	7.0	7.2	7.6	7.9	8.2	7.8	8.1	8.4	7.9	8.6	8.7	8.3	8.7	8.9	9.2	8.8	9.1	8.6
Mean	3.4	3.4	3.4	3.6	3.6	3.5	3.7	3.8	3.7	4.0	4.0	3.7	4.0	4.1	3.9	4.1	4.2	3.8	4.3	4.3	4.2	4.2	4.3	4.1

**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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.9	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	0.9
25th Percentile	1.2	1.1	1.2	1.2	1.2	1.2	1.1	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	1.2	1.2	1.2
Median	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.6
75th Percentile	2.8	2.9	2.8	3.0	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.8	3.0	3.2	3.0	3.1	3.1	3.0	3.1	3.1	3.0	3.0	3.1	2.9
90th Percentile	6.1	6.7	6.1	6.1	6.4	6.2	6.4	6.4	6.2	6.7	6.3	6.0	6.5	6.8	6.3	7.1	7.3	6.7	7.6	7.9	7.4	7.8	8.0	6.9
Mean	3.2	3.3	3.3	3.3	3.4	3.3	3.3	3.4	3.3	3.5	3.6	3.3	3.6	3.6	3.6	3.6	3.8	3.5	3.9	4.2	4.2	4.1	4.2	3.9

  

Long Exposure Excluding IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	1.0	0.9	1.0	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
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	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5
75th Percentile	2.2	2.2	2.2	2.5	2.5	2.3	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.6	2.4	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.4
90th Percentile	4.2	4.1	4.4	4.7	4.7	4.6	4.5	4.5	4.7	4.7	4.9	4.6	4.8	4.9	4.7	5.2	5.1	5.0	5.2	5.2	5.2	5.4	5.5	5.1
Mean	2.2	2.2	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.5	2.5	2.4	2.5	2.6	2.5	2.6	2.7	2.5	2.7	2.7	2.7	2.7	2.7	2.6

  

Short Exposure Including IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.4
Median	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.7	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	0.8
75th Percentile	1.9	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.2	2.2	2.0	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.4	2.2
90th Percentile	5.9	5.6	5.4	5.4	5.4	5.1	5.8	5.7	5.3	5.9	6.0	6.0	6.0	6.4	6.4	6.1	6.2	5.9	6.5	6.7	6.8	7.0	7.7	6.4
Mean	2.3	2.4	2.5	2.5	2.6	2.4	2.6	2.7	2.4	2.8	2.9	2.6	2.7	2.8	2.8	2.7	2.9	2.7	3.1	3.1	3.2	3.2	3.5	3.2

  

Short Exposure Excluding IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.1	0.1	0.0	0.0	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	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	0.3
Median	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6
75th Percentile	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.4	1.3	1.5	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.5
90th Percentile	3.3	3.0	3.1	3.5	3.6	3.4	3.3	3.5	3.3	3.6	3.8	3.7	3.9	3.9	3.8	4.1	4.3	3.9	4.1	4.2	4.4	4.3	4.5	4.2
Mean	1.3	1.4	1.4	1.4	1.5	1.4	1.5	1.6	1.5	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.8	1.6	1.8	1.8	1.8	1.9	2.0	1.7

## 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)
2016-01	17.6	27.5	35.8	50.0
2016-02	17.4	27.3	38.2	51.4
2016-03	17.4	27.3	35.9	49.1
2016-04	17.9	27.8	37.4	51.2
2016-05	18.0	28.0	38.2	51.7
2016-06	18.0	28.0	37.1	51.0
2016-07	18.0	27.9	38.1	52.4
2016-08	18.0	27.9	38.9	52.8
2016-09	18.0	27.9	38.7	52.8
2016-10	18.1	27.9	39.6	53.2
2016-11	18.1	27.9	40.0	53.4
2016-12	18.1	27.9	36.8	50.8
2017-01	18.6	28.2	38.4	52.2
2017-02	18.6	28.2	39.0	52.8
2017-03	18.6	28.2	37.3	51.1
2017-04	18.5	28.1	36.1	50.1
2017-05	18.5	28.1	36.5	50.5
2017-06	18.5	28.1	36.3	50.5
2017-07	18.6	28.1	36.6	51.1
2017-08	18.6	28.1	37.4	52.5
2017-09	18.6	28.1	36.2	50.8
2017-10	18.4	27.8	36.0	51.3
2017-11	18.4	27.7	36.3	52.0
2017-12	18.5	27.8	36.6	51.9

## 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
2016-01	8,762	2,265	2,190	110	15	13,342
2016-02	10,272	2,439	2,239	101	15	15,065
2016-03	11,639	2,104	2,036	119	18	15,916
2016-04	8,476	2,073	1,972	111	22	12,653
2016-05	9,577	2,588	1,969	110	17	14,261
2016-06	12,915	2,793	2,108	99	21	17,936
2016-07	7,649	2,346	1,824	89	14	11,921
2016-08	9,564	2,515	1,874	90	19	14,062
2016-09	11,718	3,114	1,937	104	20	16,894
2016-10	8,570	2,434	1,887	97	24	13,013
2016-11	13,406	3,481	2,235	95	19	19,236
2016-12	11,117	2,265	1,785	70	17	15,255
2017-01	11,430	2,596	1,855	123	20	16,025
2017-02	12,332	2,750	1,869	105	21	17,078
2017-03	14,741	2,735	2,043	125	25	19,669
2017-04	11,035	1,992	1,846	85	16	14,975
2017-05	12,042	3,001	2,189	131	25	17,387
2017-06	17,107	2,963	2,187	115	23	22,395
2017-07	11,207	2,673	2,099	101	17	16,098
2017-08	10,895	2,932	2,385	92	21	16,325
2017-09	13,554	2,997	2,260	109	24	18,944
2017-10	8,837	2,646	2,222	107	29	13,840
2017-11	10,447	2,857	2,400	210	25	15,941
2017-12	13,442	2,459	2,082	70	15	18,068

**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.

Statistic	Total Turnover (\$ Billions)																							
	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.0	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	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
Median	1.3	1.3	1.4	1.2	1.2	1.3	1.1	1.1	1.2	1.1	1.5	1.1	1.2	1.3	1.5	1.1	1.3	1.4	1.0	1.0	1.1	1.0	1.2	1.1
75th Percentile	5.4	6.6	5.9	4.8	5.1	6.2	4.7	5.5	6.2	5.1	6.8	5.6	5.5	6.1	7.0	5.1	6.2	7.6	4.5	5.3	6.0	4.7	5.1	4.9
90th Percentile	28.3	28.3	32.3	30.5	31.0	39.1	30.0	35.0	46.3	35.3	51.6	43.6	42.0	43.2	55.7	35.2	50.4	51.2	42.4	44.7	59.2	35.7	43.1	37.6
Mean	23.0	24.9	26.3	20.4	24.4	29.1	19.6	24.0	29.6	22.3	32.9	25.9	25.6	29.6	33.9	22.7	27.7	35.0	22.5	27.9	31.5	20.7	25.3	26.5
Statistic	Total Turnover to NAV Ratio																							
	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	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	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Median	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.7	0.5	0.5	0.5	0.6	0.4	0.6	0.6	0.4	0.4	0.5	0.4	0.5	0.5
75th Percentile	2.1	2.3	2.3	1.9	2.1	2.2	1.8	2.0	2.1	2.0	2.9	2.4	2.2	2.6	2.9	2.0	2.7	2.5	1.9	2.3	2.4	1.8	2.1	2.1
90th Percentile	10.2	10.6	12.7	12.7	13.5	19.0	12.0	12.3	18.2	14.2	18.6	16.7	14.6	17.8	19.5	15.2	16.3	19.6	13.9	19.0	20.7	13.0	13.9	13.8
Mean	7.4	7.5	7.6	6.8	7.9	9.1	6.6	7.0	8.1	7.7	10.2	8.7	7.9	8.5	9.4	6.5	7.5	9.3	7.0	6.9	7.8	6.5	7.4	7.6

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
North America	3,879	3,943	4,106	4,077	4,406	4,500	5,089	4,526
Europe EEA	1,216	1,198	1,219	1,223	1,709	1,669	1,708	1,660
Asia	619	601	611	531	596	600	713	673
South America	101	91	91	87	95	102	108	133
Europe Other	61	62	67	64	80	78	77	91
Supranational	30	30	33	46	60	68	67	75
Africa	21	21	19	18	19	23	24	31
Middle East	22	22	20	18	20	23	23	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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
North America	134.1	136.4	138.4	136.3	141.7	142.9	155.9	135.6
Europe EEA	42.1	41.4	41.1	40.9	55.0	53.0	52.3	49.7
Asia	21.4	20.8	20.6	17.7	19.2	19.0	21.8	20.2
South America	3.5	3.2	3.1	2.9	3.1	3.2	3.3	4.0
Europe Other	2.1	2.1	2.3	2.1	2.6	2.5	2.4	2.7
Supranational	1.0	1.0	1.1	1.5	1.9	2.2	2.0	2.2
Africa	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.9
Middle East	0.8	0.8	0.7	0.6	0.6	0.7	0.7	0.8

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

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

Country	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	3,638	3,659	3,920	3,866	4,182	4,246	4,824	4,312
Japan	290	264	263	219	231	229	233	245
China (Inc. Hong Kong)	139	129	136	129	130	144	152	164
Brazil	42	35	36	37	40	42	45	60
India	28	30	35	30	32	35	37	47
Russia	11	13	15	14	17	13	16	18

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
United States	125.8	126.5	132.1	129.3	134.5	134.9	147.8	129.1
Japan	10.0	9.1	8.9	7.3	7.4	7.3	7.1	7.3
China (Inc. Hong Kong)	4.8	4.4	4.6	4.3	4.2	4.6	4.7	4.9
Brazil	1.4	1.2	1.2	1.2	1.3	1.3	1.4	1.8
India	1.0	1.0	1.2	1.0	1.0	1.1	1.1	1.4
Russia	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5

## 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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	1.2	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
25th Percentile	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.5	1.4	1.5	1.6	1.5	1.5	1.5	1.4	1.5	1.5	1.4
Median	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.1
75th Percentile	4.6	4.7	4.3	4.5	4.6	4.3	4.6	4.6	4.3	4.6	4.6	4.4	4.6	4.6	4.4	4.6	4.7	4.4	4.4	4.5	4.3	4.6	4.7	4.4
90th Percentile	8.7	8.9	8.5	8.9	8.8	8.6	9.1	9.3	8.6	9.4	9.5	8.3	9.7	10.0	9.6	10.4	10.3	9.5	9.7	9.8	9.4	11.0	11.4	9.5
Mean	4.9	4.9	4.3	4.8	4.7	4.4	4.6	4.6	4.2	4.5	4.6	4.2	4.6	4.7	4.4	4.9	4.9	4.7	5.0	5.1	4.7	5.4	5.5	4.9
Excluding IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	1.3	1.3	1.2	1.3	1.3	1.2	1.3	1.3	1.2	1.3	1.3	1.2	1.3	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1
Median	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8
75th Percentile	3.3	3.2	3.1	3.3	3.3	3.3	3.3	3.4	3.2	3.5	3.4	3.3	3.5	3.4	3.3	3.4	3.4	3.3	3.3	3.4	3.3	3.5	3.5	3.2
90th Percentile	6.3	6.2	5.7	6.4	6.4	6.0	6.5	6.5	6.4	6.6	7.0	6.2	6.8	6.9	6.8	7.3	7.1	6.8	6.6	6.9	6.7	7.3	7.4	6.6
Mean	3.2	3.1	2.9	3.2	3.1	3.0	3.2	3.1	3.1	3.3	3.3	3.1	3.2	3.3	3.2	3.5	3.5	3.3	3.4	3.4	3.2	3.6	3.6	3.2

**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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	1.2	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	1.2	1.2
Median	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.7	1.6	1.7	1.7	1.6
75th Percentile	2.8	2.7	2.6	2.8	2.8	2.7	2.8	2.8	2.7	2.8	2.8	2.7	2.9	2.9	2.8	2.9	2.9	2.7	2.8	2.8	2.7	2.8	2.8	2.7
90th Percentile	5.1	5.1	4.6	5.4	5.1	5.0	5.2	5.4	5.0	5.3	5.3	4.8	5.5	5.5	5.3	6.1	6.0	5.5	5.7	5.7	5.4	6.5	6.5	5.6
Mean	3.0	3.0	2.7	2.8	2.8	2.8	2.8	2.8	2.7	2.8	2.8	2.6	2.8	2.8	2.7	3.0	3.1	2.9	3.1	3.1	2.9	3.3	3.3	3.0
Long Exposure Excluding IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	1.1
Median	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.4	1.5	1.5	1.4
75th Percentile	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2
90th Percentile	3.7	3.6	3.5	3.7	3.9	3.6	3.9	3.9	3.8	4.0	4.0	3.8	4.1	4.1	4.1	4.3	4.4	4.1	4.0	4.3	4.1	4.4	4.5	4.0
Mean	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.2	2.4	2.4	2.2
Short Exposure Including IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	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	0.3	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	0.7	0.8	0.8	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
75th Percentile	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	2.0	2.0	1.8	2.0	2.0	2.0	1.9	2.0	1.8	1.9	1.9	1.8	2.0	2.0	1.8
90th Percentile	4.3	4.4	4.2	4.4	4.1	4.0	4.3	4.3	4.0	4.5	4.5	4.2	4.6	4.9	5.0	4.7	4.9	4.4	4.4	4.3	4.3	4.7	5.2	4.7
Mean	2.1	2.0	1.9	2.0	2.0	1.8	1.9	1.9	1.8	1.9	2.0	1.8	1.9	2.1	2.0	2.1	2.1	2.0	2.1	2.2	2.1	2.3	2.3	2.2
Short Exposure Excluding IRDs																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	0.5	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.5
75th Percentile	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.4	1.4	1.3
90th Percentile	2.9	2.7	2.7	3.1	2.9	2.8	2.8	2.8	2.8	3.0	3.0	2.8	3.0	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.2	3.2	3.0
Mean	1.2	1.1	1.1	1.2	1.2	1.1	1.2	1.2	1.1	1.3	1.3	1.2	1.2	1.3	1.3	1.4	1.4	1.3	1.4	1.3	1.3	1.4	1.4	1.3

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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
	Subtotal	1,360	1,367	1,431	1,408	1,495	1,560	1,646	1,677
Equity	Long/Short	865	850	878	841	880	906	926	945
	Long Bias	268	274	284	288	310	330	369	371
	Market Neutral	221	237	265	273	***	***	***	***
	Short Bias	5	6	5	6	***	***	***	***
	Subtotal	812	828	837	851	884	940	974	1,006
Other	Subtotal	784	781	763	701	717	784	851	760
Relative Value	F.I. Sov.	547	541	517	469	488	541	601	518
	F.I. Asset Backed	127	128	129	123	115	120	119	119
	F.I. Conv. Arb.	38	35	38	39	44	47	49	50
	F.I. Corp.	45	42	43	41	41	48	50	46
	Volatility Arb.	28	34	36	28	30	29	31	27
	Subtotal	555	595	668	697	702	661	709	671
Macro	Global Macro	486	523	599	614	621	579	626	586
	Currency	***	***	***	***	44	***	***	***
	Commodity	33	35	34	38	35	35	38	40
	Active Trading	***	***	***	***	3	***	***	***
	Subtotal	358	325	335	324	342	353	359	353
Event Driven	Distressed/Restruct.	170	166	172	173	172	167	170	167
	Equity	97	85	91	80	94	100	100	101
	Risk Arb./Merger Arb.	92	75	72	71	77	86	89	86
	Subtotal	356	363	267	274	283	285	289	287
Credit	Long/Short	316	328	227	231	240	240	240	235
	Asset Based Lending	40	35	40	43	43	45	49	51
	Subtotal	98	115	123	124	140	147	145	152
Managed Futures/CTA	Quantitative	***	109	***	***	131	144	143	149
	Fundamental	***	6	***	***	9	3	2	3
Investment in other funds	Subtotal	40	42	42	43	42	48	49	49
<b>Total</b>	<b>Total</b>	4,363	4,417	4,467	4,421	4,606	4,777	5,023	4,954

<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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
	Subtotal	51.2	51.2	52.2	51.3	52.9	53.8	55.0	54.8
Equity	Long/Short	32.6	31.8	32.1	30.7	31.1	31.2	30.9	30.9
	Long Bias	10.1	10.3	10.3	10.5	11.0	11.4	12.3	12.1
	Market Neutral	8.3	8.9	9.7	10.0	***	***	***	***
	Short Bias	0.2	0.2	0.2	0.2	***	***	***	***
Other	Subtotal	30.6	31.0	30.6	31.0	31.3	32.4	32.5	32.9
	Subtotal	29.5	29.3	27.9	25.5	25.3	27.0	28.4	24.8
Relative Value	F.I. Sov.	20.6	20.3	18.9	17.1	17.2	18.6	20.1	16.9
	F.I. Asset Backed	4.8	4.8	4.7	4.5	4.0	4.1	4.0	3.9
	F.I. Conv. Arb.	1.4	1.3	1.4	1.4	1.6	1.6	1.7	1.6
	F.I. Corp.	1.7	1.6	1.6	1.5	1.4	1.6	1.7	1.5
	Volatility Arb.	1.1	1.3	1.3	1.0	1.1	1.0	1.1	0.9
	Subtotal	20.9	22.3	24.4	25.4	24.8	22.8	23.7	21.9
Macro	Global Macro	18.3	19.6	21.9	22.4	21.9	20.0	20.9	19.2
	Currency	***	***	***	***	1.6	***	***	***
	Commodity	1.2	1.3	1.3	1.4	1.2	1.2	1.3	1.3
	Active Trading	***	***	***	***	0.1	***	***	***
	Subtotal	13.5	12.2	12.2	11.8	12.1	12.2	12.0	11.5
Event Driven	Distressed/Restruct.	6.4	6.2	6.3	6.3	6.1	5.8	5.7	5.4
	Equity	3.6	3.2	3.3	2.9	3.3	3.4	3.3	3.3
	Risk Arb./Merger Arb.	3.4	2.8	2.6	2.6	2.7	3.0	3.0	2.8
	Subtotal	13.4	13.6	9.7	10.0	10.0	9.8	9.7	9.4
Credit	Long/Short	11.9	12.3	8.3	8.4	8.5	8.3	8.0	7.7
	Asset Based Lending	1.5	1.3	1.5	1.6	1.5	1.6	1.6	1.7
	Subtotal	3.7	4.3	4.5	4.5	4.9	5.1	4.9	5.0
Managed Futures/CTA	Quantitative	***	4.1	***	***	4.6	5.0	4.8	4.9
	Fundamental	***	0.2	***	***	0.3	0.1	0.1	0.1
Investment in other funds	Subtotal	1.5	1.6	1.5	1.6	1.5	1.6	1.6	1.6
<b>Total</b>	<b>Total</b>	164.4	165.4	163.0	161.1	162.8	164.7	167.7	161.9

## C Leverage by Strategy

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

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

Strategy	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Relative Value	4.5	4.7	4.2	4.1	4.6	5.1	5.1	4.7
Macro	2.8	3.1	3.1	3.2	3.6	3.5	3.8	3.6
Multi-Strategy	1.9	1.8	2.4	2.4	2.3	2.2	2.3	2.2
Other	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7
Equity	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Credit	1.5	1.5	1.6	1.5	1.6	1.6	1.5	1.5
Event Driven	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3
Managed Futures/CTA	1.2	1.2	1.2	1.2	1.2	1.9	1.2	1.2
Investment in other funds	1.1	1.1	1.1	1.1	1.1	1.0	***	1.0

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Macro	14.7	14.6	11.2	13.3	16.4	17.5	19.9	21.9
Relative Value	16.1	16.9	16.9	16.4	19.1	17.7	18.7	18.4
Managed Futures/CTA	9.8	7.3	8.2	7.3	8.0	9.5	8.4	10.0
Multi-Strategy	7.0	7.1	11.0	10.1	8.0	7.9	9.0	8.6
Other	4.1	4.5	4.6	4.7	5.0	5.3	5.4	5.4
Credit	4.1	4.0	2.9	2.7	3.3	3.0	3.1	3.2
Equity	3.4	3.2	3.1	3.1	3.2	3.2	3.2	3.2
Event Driven	2.1	2.1	2.0	2.0	2.2	2.0	2.0	2.0
Investment in other funds	1.9	1.4	1.5	1.4	1.7	1.6	***	1.7

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Managed Futures/CTA	57.7	68.3	68.8	67.7	65.5	61.2	59.0	58.0
Macro	44.0	42.8	40.9	40.0	36.6	39.0	38.6	38.5
Multi-Strategy	25.5	26.4	26.9	28.1	25.5	22.4	24.9	24.8
Other	24.5	26.5	26.8	25.6	21.5	20.6	21.3	21.0
Relative Value	27.8	27.2	21.6	22.5	22.7	20.4	21.5	19.8
Equity	13.0	13.9	11.2	12.3	10.6	11.5	9.7	10.2
Credit	12.0	14.1	10.9	11.7	9.8	10.9	9.9	9.8
Event Driven	10.0	12.0	11.6	11.5	8.0	11.1	10.0	9.7
Investment in other funds	10.3	8.4	6.2	5.5	3.4	6.2	***	9.4

## 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.

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Cash/Cash Equivalents	723	734	694	675	681	684	691	686
Securities - Equities	2,049	2,000	2,139	2,116	2,302	2,396	2,522	2,602
Securities - G10 (non-US)	744	723	797	972	1,033	1,056	1,159	1,202
Securities - Treasuries	1,002	1,059	1,116	1,140	1,145	1,108	1,157	1,159
Securities - MBS	237	250	258	227	246	241	254	266
Securities - Other Bonds	209	234	213	196	209	240	270	261
Securities - Corp. Bonds	250	246	252	252	268	269	259	254
Securities - Conv. Bonds	67	63	71	69	82	89	82	82
Securities - ABS (non-MBS)	79	73	76	76	75	77	75	78
Derivatives - IR	3,566	3,645	3,759	3,546	4,170	3,846	4,148	4,483
Derivatives - FX	2,640	2,581	2,478	2,442	2,649	2,726	3,070	3,360
Derivatives - Equity	953	1,005	1,081	1,115	1,195	1,228	1,297	1,369
Derivatives - Credit	732	608	630	598	640	687	805	720
Derivatives - Other	133	120	138	137	144	286	280	460
Derivatives - Commodity	246	290	307	325	330	332	369	379
Repurchase Agreements	1,045	1,060	1,113	1,156	1,314	1,398	1,373	1,304
Other	642	648	669	679	701	731	780	755

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

	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Cash/Cash Equivalents	87.0	88.1	87.3	86.9	85.0	86.9	88.1	86.0
Securities - Equities	69.3	69.2	69.8	70.1	70.2	70.0	70.3	71.8
Securities - G10 (non-US)	56.6	55.5	53.4	49.6	49.2	50.0	50.0	50.2
Securities - Treasuries	69.6	66.8	66.6	68.1	65.3	63.2	62.3	62.9
Securities - MBS	78.7	76.6	74.7	76.0	74.1	73.6	71.9	71.2
Securities - Other Bonds	74.8	71.6	78.0	75.4	78.1	78.3	71.5	74.4
Securities - Corp. Bonds	80.3	80.9	82.9	81.7	80.9	79.9	81.2	81.5
Securities - Conv. Bonds	93.3	95.2	95.5	95.2	95.2	95.6	94.1	93.4
Securities - ABS (non-MBS)	99.1	99.4	99.0	98.7	98.0	98.0	96.7	96.8
Derivatives - IR	49.6	50.8	52.8	51.0	48.3	47.2	47.7	49.4
Derivatives - FX	50.4	52.5	51.7	48.5	50.8	50.1	49.7	47.1
Derivatives - Equity	53.4	55.0	55.3	55.1	56.2	55.5	56.8	57.6
Derivatives - Credit	46.0	44.4	47.3	48.2	47.1	47.6	47.2	47.5
Derivatives - Other	57.0	58.2	60.2	58.6	62.6	55.2	53.2	53.1
Derivatives - Commodity	59.3	62.2	63.4	63.4	64.2	58.8	64.0	64.4
Repurchase Agreements	43.3	43.4	45.3	48.7	50.0	49.4	51.6	51.9
Other	90.5	90.5	89.6	89.0	87.8	90.3	86.7	89.2

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
At most 1 day	7.8	8.0	8.3	8.2	8.4	8.4	8.5	8.8
At most 7 days	14.0	14.1	14.4	14.1	14.5	14.6	14.8	15.2
At most 30 days	27.5	27.3	26.5	26.6	28.6	27.2	27.7	28.2
At most 90 days	47.1	46.8	47.3	49.7	47.7	46.8	48.4	51.1
At most 180 days	60.4	60.1	61.9	58.9	59.8	59.5	61.8	60.1
At most 365 days	75.3	75.6	74.7	74.2	74.2	74.0	73.7	74.0

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
At most 1 day	41.6	41.6	40.1	40.1	38.3	38.6	38.0	38.7
At most 7 days	65.7	65.1	63.9	63.4	61.6	62.4	61.9	62.7
At most 30 days	78.5	78.0	77.3	76.7	76.1	76.5	76.1	76.3
At most 90 days	84.6	84.1	83.8	83.1	82.2	82.6	82.4	82.6
At most 180 days	88.0	87.8	87.3	86.4	85.8	86.2	85.9	86.2
At most 365 days	91.4	91.2	90.7	89.8	89.6	89.8	89.3	89.6

**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 Fourth Calendar Quarter 2017

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	38.7	62.7	76.3	82.6	86.2	89.6
Inv. Liquidity	8.8	15.2	28.2	51.1	60.1	74.0

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
May Suspend	2,122	2,141	2,180	2,154	2,222	2,275	2,338	2,376
May Have Gates	1,289	1,307	1,330	1,290	1,338	1,362	1,396	1,409
Side-Pocketed	38	37	38	38	39	38	39	39
Gated	29	27	30	27	27	28	30	38
Suspended	14	16	16	19	27	27	22	17

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

Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
10th Percentile	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25th Percentile	2.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0
Median	6.0	6.0	6.0	7.0	8.0	7.0	7.0	7.0
75th Percentile	16.2	19.0	20.5	19.8	21.5	22.0	23.0	22.0
90th Percentile	28.0	29.0	31.0	31.0	32.0	46.0	46.0	45.0
Mean	12.9	13.6	15.5	15.6	16.7	16.7	17.3	18.1

## F Borrowings

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

Type	Subtype	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
	Subtotal	1,942	1,939	2,079	2,057	2,239	2,391	2,437	2,419
Secured	Prime Broker	977	980	1,084	1,087	1,186	1,265	1,371	1,379
	Reverse Repo	696	692	729	675	739	795	721	685
	Other Secured	269	267	267	295	313	331	345	356
Unsecured	Subtotal	10	9	11	12	14	11	12	14
<b>Total</b>	<b>Total</b>	1,952	1,948	2,090	2,069	2,253	2,402	2,448	2,433

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

Creditor Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
US Financial	62.8	62.3	64.7	63.2	61.2	61.1	61.4	61.7
Non-US Financial	36.7	37.3	34.8	36.3	38.4	38.5	38.3	37.9
US Non-Financial	0.4	0.3	0.3	0.3	***	0.3	***	***
Non-US Non-Financial	0.1	0.1	0.2	0.1	***	0.1	***	***

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

Borrowing Type	Collateral Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
	Subtotal	1,253	1,229	1,339	1,334	1,467	1,545	1,674	1,686
Prime Broker	Other	801	776	861	857	949	1,022	1,151	1,183
	Cash	452	454	478	477	518	522	523	503
	Subtotal	718	711	774	691	783	786	734	718
Reverse Repo	Other	547	518	574	451	517	506	478	455
	Cash	171	194	200	241	266	281	256	263
	Subtotal	320	308	312	349	384	407	423	426
Other Secured	Other	240	230	236	210	254	251	265	262
	Cash	79	78	77	139	130	156	158	165
<b>Total</b>	<b>Total</b>	2,291	2,249	2,426	2,375	2,634	2,738	2,831	2,830

**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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.9	0.8	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	0.8	0.8	0.8	0.8	0.8	0.8	0.8	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	1.0	1.0
Median	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.2	1.3	1.2	1.2	1.3	1.2	1.3	1.3	1.3
75th Percentile	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	1.9	2.1	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1
90th Percentile	4.1	4.0	3.9	3.7	3.5	3.8	3.5	3.8	4.0	3.6	3.7	4.3	4.8	4.2	4.3	4.1	4.6	4.5	4.0	4.0	4.0	4.2	4.2	4.2
Mean	2.3	2.2	2.3	2.1	2.1	2.1	1.9	2.2	2.3	2.2	2.5	2.7	4.2	2.6	2.7	2.4	2.9	2.6	2.5	2.5	2.5	2.6	2.3	3.0

  

Ratio of Collateral/Prime Broker Borrowing																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
10th Percentile	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7
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	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.2	1.3	1.3	1.3
75th Percentile	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	2.0	2.0	2.2	2.3	2.1	2.1	2.1	2.3	2.2	2.1	2.2	2.2	2.2	2.2	2.2
90th Percentile	4.7	4.8	4.4	4.3	4.4	4.5	4.0	4.3	4.1	4.4	4.6	5.1	5.7	4.5	4.5	4.5	4.8	4.7	4.4	4.7	4.7	4.7	5.4	5.0
Mean	2.5	2.5	2.5	2.4	2.6	2.4	2.2	2.6	2.8	2.8	3.2	3.6	5.0	3.6	4.1	2.8	3.4	2.9	2.8	3.2	3.1	3.2	3.6	6.5

  

Ratio of Collateral/Reverse Repo Borrowing																								
Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
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	***	***
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	***	***
Median	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	***	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	***
75th Percentile	1.4	1.4	1.4	1.5	1.5	1.4	1.5	1.4	1.4	1.4	1.4	***	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	***	***
90th Percentile	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	***	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.5	***	***
Mean	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.2	1.2	***	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.5	1.2	***	***

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

Financing Available	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
At most 1 day	43.3	43.5	37.1	35.8	36.3	34.6	35.3	34.2
At most 7 days	52.7	52.8	53.6	48.1	52.9	53.3	51.7	49.5
At most 30 days	66.5	65.8	65.2	64.0	65.0	65.3	64.0	64.7
At most 90 days	81.8	81.7	80.8	81.0	80.2	80.8	79.2	80.3
At most 180 days	96.1	95.9	96.0	95.9	95.9	96.1	95.9	95.9
At most 365 days	97.6	97.4	97.5	97.3	97.3	97.4	97.3	97.2

**Figure 15: Weighted-Average Qualifying Hedge Fund**  
 Financing Liquidity (Percent of Available Financing)  
 As reported on Form PF, Question 46 as of Fourth Calendar Quarter 2017.

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	34.2	49.5	64.7	80.3	95.9	97.2

## G Central Clearing

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

Statistic	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Percent of Funds	18.2	17.5	16.4	17.6	16.5	16.9	16.6	17.5
Percent of NAV	18.3	17.4	17.7	16.8	17.4	17.2	16.7	16.7

## H Value-at-Risk (“VaR”) Reporting

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

VaR Method	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
VaR (Any Method)	622	626	623	631	640	652	652	666
Historical Simulation	240	237	239	234	238	249	271	278
Parametric	192	190	193	196	190	190	186	193
Monte Carlo Simulation	196	188	186	196	202	207	190	188
Other	38	41	46	42	44	45	43	48
VaR Not Used	977	982	997	1,021	1,034	1,068	1,070	1,137

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

VaR Method	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
VaR (Any Method)	3,079	3,205	3,269	3,225	3,428	3,516	3,624	3,587
Historical Simulation	1,602	1,688	1,762	1,700	1,829	1,798	1,900	1,882
Parametric	729	756	746	731	737	760	767	806
Monte Carlo Simulation	648	628	642	645	862	947	940	846
Other	317	321	344	373	425	457	489	524
VaR Not Used	1,913	1,898	1,977	1,994	2,066	2,201	2,268	2,316

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

VaR Method	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
VaR (Any Method)	1,270	1,293	1,310	1,303	1,345	1,377	1,406	1,411
Historical Simulation	463	483	501	479	491	504	561	562
Parametric	457	449	462	459	465	474	477	490
Monte Carlo Simulation	346	336	342	352	403	424	394	386
Other	88	90	94	94	95	94	94	93
VaR Not Used	1,385	1,378	1,430	1,441	1,484	1,524	1,589	1,649

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Stress and VaR	538	545	548	555	548	558	558	592
Stress, No VaR	444	454	447	453	451	457	467	498
No Stress, VaR	84	81	75	76	92	94	94	74
Neither	533	528	550	568	583	611	603	639

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Stress and VaR	2,861	3,001	3,090	3,045	3,189	3,244	3,388	3,426
Stress, No VaR	1,011	1,008	1,030	1,001	1,076	1,114	1,178	1,190
No Stress, VaR	218	204	179	179	240	271	236	160
Neither	902	890	948	993	990	1,086	1,089	1,126

**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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Stress and VaR	1,144	1,162	1,193	1,185	1,199	1,230	1,248	1,302
Stress, No VaR	669	666	666	661	683	673	712	736
No Stress, VaR	125	131	117	117	146	147	158	108
Neither	717	712	763	780	801	850	877	914

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
At most 1 day	81.2	77.4	80.1	80.9	78.0	79.6	79.1	80.5
At most 7 days	96.0	96.0	98.3	97.3	95.5	95.2	95.5	95.5
At most 30 days	99.7	99.7	99.9	99.6	99.7	99.5	99.5	99.5
At most 90 days	100.0	100.0	100.0	99.8	100.0	99.8	99.7	99.7
At most 180 days	100.0	100.0	100.0	99.9	100.0	99.9	99.8	99.8
At most 365 days	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.9

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
May Suspend	232	241	232	253	246	255	261	273
May Have Gates	200	207	199	220	215	224	227	237
Suspended	0	0	0	0	0	0	0	0
Gated	0	0	0	0	0	0	0	0

### B Portfolio Characteristics

**Figure 17:** Weighted-Average Maturity of Section 3 Liquidity Funds (Days)  
As reported on Form PF, Questions 55.

Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
Average WAM	33.4	34.5	36.3	33.1	30.2	30.5	29.0	28.3	30.7	28.9	28.3	29.0	34.5	32.0	31.7	33.4	29.0	29.6	32.8	30.6	31.1	34.0	32.1	32.2
Asset-Weighted WAM	43.5	49.3	49.6	45.6	41.6	42.1	41.2	44.8	44.8	42.2	43.0	39.3	42.9	42.1	40.3	41.4	40.6	40.8	42.1	38.8	37.4	39.2	38.5	35.6

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

Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
Average WAL	61.4	61.7	63.3	81.9	79.6	80.1	78.2	77.8	74.5	62.0	61.1	61.5	67.5	65.1	65.2	68.5	64.1	58.8	67.9	63.8	63.7	59.2	55.8	55.0
Asset-Weighted WAL	70.8	73.6	74.0	81.1	76.7	78.8	78.3	85.6	82.6	78.9	78.4	70.4	74.3	76.8	77.5	81.2	79.4	74.0	77.0	73.8	71.7	68.6	68.4	64.5

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

Statistic	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
Average Gross Yield	0.38	0.41	0.42	0.45	0.49	0.50	0.47	0.46	0.54	0.47	0.48	0.66	0.88	0.90	1.07	0.84	0.82	0.95	1.06	1.03	1.03	1.06	1.03	1.17
Asset-Weighted Gross Yield	0.36	0.39	0.42	0.43	0.43	0.43	0.43	0.44	0.49	0.53	0.54	0.63	0.69	0.70	0.83	0.88	0.91	1.03	1.12	1.12	1.13	1.13	1.16	1.31

**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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
Average DLA	45.12	47.72	45.91	45.79	46.28	45.16	47.42	46.80	49.53	43.19	43.06	45.35	45.84	45.96	45.05	45.43	43.59	43.11	44.43	44.65	43.97	46.25	44.50	46.46
Asset-Weighted DLA	53.51	56.74	53.39	50.43	52.78	51.56	55.51	51.92	52.41	49.64	51.95	53.09	51.00	48.27	46.95	45.25	48.03	46.92	47.54	45.72	45.71	45.67	47.66	50.09

**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	2016-01	2016-02	2016-03	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
Average WLA	53.45	56.31	53.86	54.48	56.13	55.00	57.02	57.95	61.64	57.37	57.36	59.88	59.29	59.10	60.73	59.23	58.12	58.54	58.54	58.62	58.70	59.72	58.87	60.16
Asset-Weighted WLA	60.12	61.85	59.62	57.80	60.48	59.26	63.11	60.07	60.22	57.65	60.37	62.29	60.06	56.93	58.18	55.67	56.92	59.65	57.36	56.45	58.38	57.36	59.98	58.91

## 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	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Credit Quality	61.1	64.9	61.1	59.1	57.8	59.6	56.5	56.2
Diversification	58.3	62.2	58.3	56.8	55.6	55.3	52.2	52.1
Liquidity	52.8	54.1	55.6	56.8	55.6	55.3	52.2	52.1
Maturity	58.3	62.2	58.3	56.8	55.6	55.3	52.2	52.1
Fully	47.2	48.6	50.0	50.0	48.9	48.9	45.7	45.8
None	36.1	32.4	36.1	38.6	40.0	38.3	41.3	41.7

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

As reported on Form PF, Questions 9 and 54.

Compliance Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Credit Quality	16.2	17.9	13.5	14.4	15.5	15.9	15.9	14.7
Diversification	16.2	17.9	13.5	13.8	14.9	14.9	14.9	13.7
Liquidity	10.8	11.3	12.2	13.6	14.8	14.7	15.0	13.7
Maturity	16.0	17.7	13.5	13.6	14.8	14.7	15.0	13.7
Fully	10.0	10.4	11.0	11.8	12.8	12.8	12.8	11.8
None	83.6	82.0	86.1	85.5	84.3	84.0	83.9	85.2

## D Methods of Calculating NAV

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

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Stable	***	***	***	81.8	80.0	78.7	78.3	79.2
Floating	***	***	***	18.2	20.0	21.3	21.7	20.8

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

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

Type	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4
Stable	***	***	***	69.9	71.4	68.3	70.2	69.1
Floating	***	***	***	30.1	28.6	31.7	29.8	30.9

## E Aggregate Portfolio Holdings

**Table 61:** Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions) — 1 of 2  
As reported on Form PF, Question 56.

Product Type	2016Q1
U.S. Treasuries	79.7
Other	39.2
Deposits	32.6
Repo - Govt. Collateral	30.9
Commercial Paper	22.8
Asset-Backed Securities	12.8
Repo - Other Collateral	***
U.S. Govt. Debt	5.5
Municipal Debt	***

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

Product Type	2016-04	2016-05	2016-06	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12	2017-01	2017-02	2017-03
Deposits	51.1	57.5	55.3	58.6	55.5	55.3	62.8	67.5	73.3	77.6	76.5	75.0
U.S. Treasuries	66.8	67.1	69.9	70.3	67.2	64.8	66.2	71.5	73.4	65.8	69.1	64.2
Other	24.0	28.0	30.4	29.3	31.6	33.7	31.1	30.7	42.4	63.8	61.9	53.7
Commercial Paper	28.0	26.6	25.5	27.1	26.0	26.9	36.3	35.6	38.8	40.4	43.1	45.5
Repo - Other Collateral	***	***	***	***	***	6.4	11.4	14.9	15.5	33.1	30.4	30.3
Repo - Govt. Collateral	42.8	40.8	35.6	36.6	41.7	35.9	52.4	47.3	37.2	31.2	26.3	24.2
Asset-Backed Securities	12.8	14.0	16.8	19.0	20.2	22.8	24.5	24.3	24.0	25.9	23.8	23.6
U.S. Govt. Debt	4.4	4.2	5.2	5.9	5.0	5.9	5.3	4.2	4.2	4.1	3.9	4.9
Municipal Debt	***	***	***	***	***	1.1	6.1	4.7	3.0	2.5	2.1	0.8

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

Product Type	2017-04	2017-05	2017-06	2017-07	2017-08	2017-09	2017-10	2017-11	2017-12
Deposits	82.0	81.4	77.3	83.5	83.2	79.7	83.0	83.6	73.2
U.S. Treasuries	66.1	62.8	57.5	61.5	56.6	55.3	61.1	66.4	69.0
Other	55.2	66.4	67.2	62.8	60.6	62.1	57.1	55.7	64.7
Commercial Paper	40.5	44.8	41.3	45.9	45.1	45.2	48.2	47.7	41.8
Repo - Other Collateral	41.1	46.4	35.4	38.6	46.6	48.8	40.0	36.8	32.0
Repo - Govt. Collateral	26.4	34.9	34.8	32.7	30.9	32.5	38.6	36.7	29.6
Asset-Backed Securities	26.7	25.2	21.3	22.0	21.8	23.9	22.6	21.7	20.6
U.S. Govt. Debt	5.0	5.3	6.0	4.5	4.0	5.8	5.5	5.8	5.9
Municipal Debt	1.5	1.6	1.1	1.3	1.1	1.1	1.1	1.1	0.9

## XI Section 4 Private Equity Fund Specific Information

### A CPC Industry Concentration

**Table 64:** Gross Assets in CPC Industries (Percent of Total)  
As reported on Form PF, Questions 8 and 77.

Type	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4
Oil & Gas Extraction	7.9	7.8	5.8	6.7	6.2
Software Publishers	2.8	3.8	4.9	6.1	6.0
Electric Power Generation, Transmission & Distribution	3.8	3.8	3.7	4.1	4.2
Data Processing, Hosting, & Related Services	2.9	2.3	1.8	2.0	2.3
Telecommunications Data Processing Services	2.6	2.5	2.7	2.3	2.2
Other Information Services	2.0	2.1	1.9	1.8	2.0
Pipeline Transportation	2.4	2.6	2.4	2.2	1.9
Other Financial Vehicles	0.4	0.4	0.6	1.8	1.6
Management, Scientific, & Technical Consulting Services	1.0	1.2	1.1	1.3	1.6
Pharmaceutical & Medicine Mfg	1.0	1.3	1.5	1.4	1.5
Custom Computer Programming Services	0.9	1.0	1.5	1.5	1.5
Educational Services	1.4	1.3	1.3	1.2	1.4
Other Financial Investment Activities	2.0	1.8	1.8	1.7	1.4
Investigation & Security Services	0.5	0.5	0.7	1.2	1.4
Activities Related to Credit Intermediation	1.2	1.2	1.4	1.0	1.2
Other Insurance Related Activities	0.9	1.0	1.0	2.0	1.2
Utility System Construction	0.4	0.5	0.8	0.8	1.2
Insurance Agencies & Brokerages	0.9	1.0	1.0	1.2	1.1
Natural Gas Distribution	0.5	0.4	0.6	0.7	1.0
Support Activities for Mining	1.3	1.6	1.2	1.0	1.0
Fruit & Vegetable Preserving & Specialty Food Mfg	0.2	0.1	0.0	0.1	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
10th Percentile	0.7	0.6	0.7	0.8	0.8
25th Percentile	1.8	1.4	1.7	1.9	2.1
Median	5.7	5.3	6.0	6.9	7.3
75th Percentile	19.6	17.9	20.0	20.7	21.4
90th Percentile	49.1	50.0	49.9	54.3	51.7
Mean	17.0	16.2	16.7	17.5	17.7

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

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

## C CPC Investments by Region and Country

**Table 65:** 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
North America	5,279	4,506	4,132	3,942	4,274
Europe EEA	1,423	1,259	941	848	1,543
Asia	571	462	447	406	379
South America	75	85	58	111	258
Europe Other	25	9	21	22	98
Supranational	65	67	23	37	49
Middle East	8	12	9	15	23
Africa	20	12	12	18	14

**Table 66:** 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
North America	70.7	70.2	73.2	73.0	64.4
Europe EEA	19.1	19.6	16.7	15.7	23.2
Asia	7.6	7.2	7.9	7.5	5.7
South America	1.0	1.3	1.0	2.0	3.9
Europe Other	0.3	0.1	0.4	0.4	1.5
Supranational	0.9	1.0	0.4	0.7	0.7
Middle East	0.1	0.2	0.2	0.3	0.3
Africa	0.3	0.2	0.2	0.3	0.2

**Table 67:** 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
United States	5,039	4,305	3,943	3,776	3,794
China and Hong Kong	171	186	173	114	147
Brazil	45	58	41	88	131
India	63	83	89	92	73
Japan	233	98	85	79	52
Russia	3	2	5	4	4

**Table 68:** 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
United States	67.5	67.1	69.9	69.9	57.1
China and Hong Kong	2.3	2.9	3.1	2.1	2.2
Brazil	0.6	0.9	0.7	1.6	2.0
India	0.8	1.3	1.6	1.7	1.1
Japan	3.1	1.5	1.5	1.5	0.8
Russia	0.0	0.0	0.1	0.1	0.1

## 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.

---

<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.

---

<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.

---

<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.