

# Division of Investment Management Analytics Office

# **Private Funds Statistics**

First Calendar Quarter 2018

November 13, 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 Second Calendar Quarter 2016 through First Calendar Quarter 2018 as reported by Form PF filers.<sup>2</sup> Please see the Appendix for information on the categories of Form PF filers, the definitions of capitalized terms, a description of the boxplots used in several figures, as well as other technical descriptions.

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

If you have any questions or comments about First Calendar Quarter 2018 Private Funds Statistics, please contact:

Tim Dulaney, PhD, FRM or Tim Husson, PhD, FRM at FormPF@sec.gov with subject line "First Calendar Quarter 2018-Private Funds Statistics".

<sup>&</sup>lt;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>&</sup>lt;sup>2</sup>The Commission began receiving Form PF filings from Large Hedge Fund Advisers in July 2012. A full data set was not received until March 2013. This report relies upon the Form PF database constructed and maintained by the Office of Research and Data Services in the Division of Economic and Risk Analysis.

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

Table 1: Number of Funds
The "Total" row shows the total reported, and will not equal the sum of the preceding rows, because the rows are not mutually exclusive.

Fund Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Equity Fund	9,725	9,752	10,364	10,382	10,362	10,272	11,493	11,532
Hedge Fund	8,931	8,993	8,926	9,082	9,120	9,153	9,023	$9,\!175$
Other Private Fund	4,139	4,130	4,449	4,473	4,495	4,453	$4,\!524$	4,594
Section 4 Private Equity Fund	2,742	2,747	3,002	3,006	3,009	2,989	3,482	3,494
Real Estate Fund	2,103	2,120	2,453	2,451	2,449	2,440	2,641	2,651
Qualifying Hedge Fund	1,604	1,616	1,648	1,670	1,716	1,718	1,799	1,769
Securitized Asset Fund	1,418	1,417	1,451	1,463	1,475	1,477	1,504	1,510
Venture Capital Fund	646	651	761	759	769	755	848	848
Liquidity Fund	66	67	69	70	68	68	69	68
Section 3 Liquidity Fund	37	36	44	45	46	45	47	45
Total	27,028	27,130	28,473	28,680	28,738	28,618	30,102	30,378

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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Equity Fund	1,025	1,024	1,092	1,095	1,091	1,088	1,140	1,147
Hedge Fund	1,688	1,685	1,688	1,687	1,688	1,688	1,728	1,729
Other Private Fund	568	569	581	579	579	575	581	587
Section 4 Private Equity Fund	243	243	248	250	250	247	293	296
Real Estate Fund	293	295	314	316	314	313	326	328
Qualifying Hedge Fund	525	516	531	527	534	535	551	541
Securitized Asset Fund	156	154	149	151	153	154	155	155
Venture Capital Fund	98	100	109	109	110	109	114	115
Liquidity Fund	37	37	39	39	38	38	39	39
Section 3 Liquidity Fund	19	19	24	24	24	23	25	23
Total	2,840	2,837	2,916	2,918	2,919	2,918	3,013	3,023

<sup>&</sup>lt;sup>3</sup>In this report, "Funds" means all private funds reported on Form PF and "Advisers" means all SEC-registered investment advisers that file a Form PF to report private funds. Please see Appendix E for definitions of other capitalized terms used in this report.

#### II Gross and Net Assets

#### A Aggregate Assets by Fund Type over Time

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

As reported on Form PF, Question 8.

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

Fund Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Hedge Fund	6,268	6,421	6,385	6,628	6,847	7,167	7,215	7,530
Qualifying Hedge Fund	5,044	5,204	$5,\!196$	5,419	5,668	5,840	5,840	6,090
Private Equity Fund	2,063	2,064	2,318	2,326	2,323	2,310	2,724	2,763
Section 4 Private Equity Fund	1,472	1,472	1,645	1,648	1,648	1,641	1,941	1,978
Other Private Fund	978	982	1,066	1,077	1,088	1,060	1,189	1,204
Real Estate Fund	410	411	436	436	433	432	499	504
Securitized Asset Fund	420	420	448	449	454	453	485	480
Liquidity Fund	287	292	293	282	273	278	287	287
Section 3 Liquidity Fund	258	249	274	267	271	275	285	284
Venture Capital Fund	56	55	64	64	64	63	81	81
Total	10,482	10,646	11,009	11,263	11,483	11,764	12,480	12,849

**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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Hedge Fund	3,424	3,483	3,480	3,598	3,656	3,778	3,879	3,969
Qualifying Hedge Fund	2,658	2,727	2,731	2,816	2,888	2,982	3,046	3,103
Private Equity Fund	1,886	1,887	2,075	2,084	2,082	2,069	2,440	2,483
Section 4 Private Equity Fund	1,377	1,377	1,492	1,496	1,496	1,489	1,755	1,789
Other Private Fund	877	882	977	987	994	970	1,074	1,084
Real Estate Fund	326	327	341	342	340	339	390	393
Securitized Asset Fund	138	140	141	141	145	144	152	152
Liquidity Fund	285	290	292	281	272	277	286	285
Section 3 Liquidity Fund	256	247	273	265	269	274	284	282
Venture Capital Fund	53	52	61	61	62	60	76	77
Total	6,988	7,062	7,368	7,494	7,550	7,637	8,299	8,442

Figure 1: GAV and NAV Distributions

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

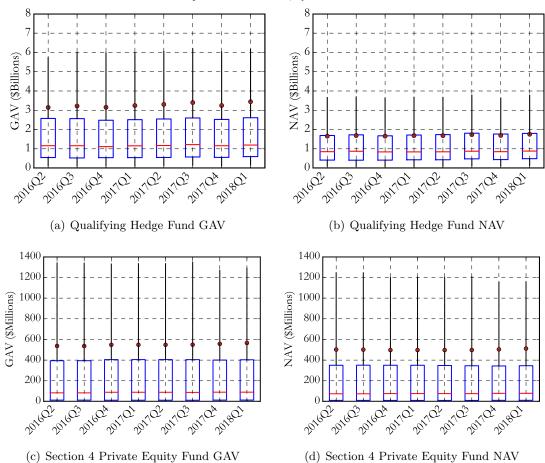
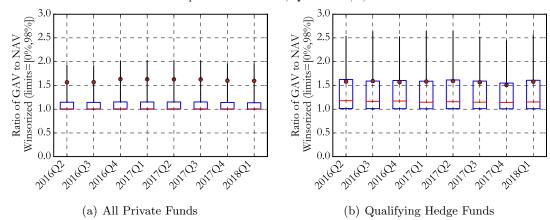


Figure 2: Ratio of GAV to NAV

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



#### **B** Borrowings

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

Fund Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Securitized Asset Fund	48.7	48.4	50.7	49.5	48.8	48.4	51.9	51.2
Qualifying Hedge Fund	38.5	40.0	39.8	41.3	42.2	41.8	41.6	42.8
Hedge Fund	36.5	38.2	37.4	38.6	39.2	39.6	39.4	40.3
Real Estate Fund	13.3	13.2	13.9	12.9	12.7	12.8	13.2	13.5
Private Equity Fund	4.9	4.9	5.1	5.0	5.0	5.0	5.2	4.9
Section 4 Private Equity Fund	3.4	3.4	4.0	4.0	4.0	4.1	4.6	4.6
Other Private Fund	2.2	2.1	2.8	2.7	2.7	2.7	2.2	2.7
Venture Capital Fund	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5
Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Section 3 Liquidity Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

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

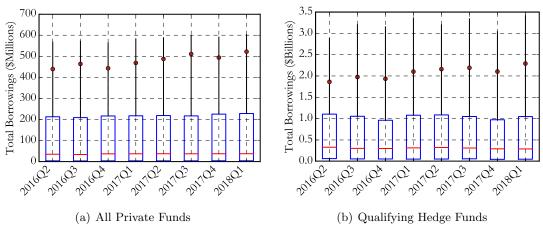
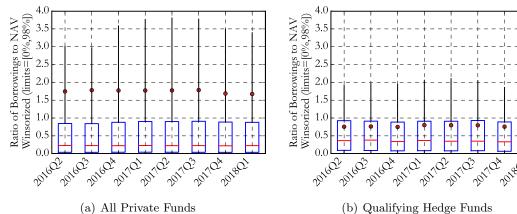


Figure 4: Ratio of Borrowings to NAV

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



#### C Fair Value Hierarchy

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

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Level One	2,457	2,473	2,869	2,577	2,570	2,559	3,271	3,009
Level Two	2,061	2,058	2,537	2,194	2,179	2,218	2,742	2,301
Level Three	2,265	2,263	2,594	2,513	2,513	2,507	2,895	2,855
Cost-Based	1,539	1,538	1,972	1,691	1,723	1,731	2,243	1,884

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

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Level One	674	671	519	664	661	665	662	788
Level Two	424	427	417	462	450	455	612	610
Level Three	108	107	142	136	140	137	174	174
Cost-Based	694	695	464	659	654	660	487	772

#### 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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Hedge Fund	699	695	663	653	660	668	668	673
Other Private Fund	410	413	486	502	501	499	513	517
Private Equity Fund	252	251	239	240	239	273	293	293
Qualifying Hedge Fund	236	232	232	223	219	227	238	233
Section 4 Private Equity Fund	82	82	88	88	88	88	98	98
Real Estate Fund	52	52	77	77	77	77	71	71
Liquidity Fund	14	15	15	16	16	16	16	16
Section 3 Liquidity Fund	14	15	15	16	16	16	16	16
Venture Capital Fund	***	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
Total	1,462	1,461	1,520	1,528	1,533	1,572	1,575	1,584

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

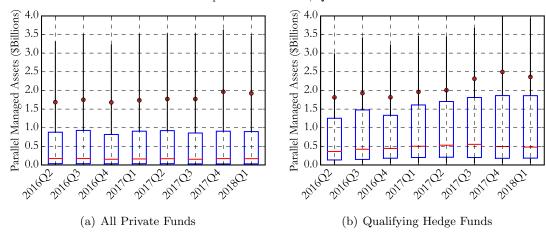
As reported on Form PF, Question 11.

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

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Hedge Fund	619	651	629	666	680	714	827	770
Other Private Fund	1,279	1,332	1,401	1,438	1,489	1,508	1,864	1,869
Private Equity Fund	96	96	29	29	28	28	37	37
Qualifying Hedge Fund	428	447	422	437	439	525	594	551
Section 4 Private Equity Fund	19	19	22	22	22	22	28	28
Real Estate Fund	11	11	6	6	6	6	6	6
Liquidity Fund	305	312	309	333	330	345	359	361
Section 3 Liquidity Fund	305	312	309	333	330	345	359	361
Venture Capital Fund	***	***	***	***	***	***	***	***
Securitized Asset Fund	***	***	***	***	***	***	***	***
Total	2,465	2,557	2,554	2,653	2,714	2,782	3,094	3,044

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

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



# III Fund Domiciles and Adviser Main Offices

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

	All Private Funds												
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1					
United States	50.8	50.8	51.3	51.4	51.5	51.0	51.4	51.0					
Cayman Islands	37.2	37.1	36.4	36.4	36.4	36.7	35.4	35.3					
Ireland	3.9	3.9	4.3	4.2	4.2	4.3	4.5	4.4					
Luxembourg	1.5	1.5	1.4	1.5	1.6	1.6	1.9	2.0					
Virgin Islands, British	2.3	2.3	2.2	2.2	2.0	2.0	1.8	1.8					
United Kingdom	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.3					
Bermuda	1.3	1.2	1.3	1.3	1.3	1.3	1.2	1.2					
Other	2.1	2.1	2.1	2.0	2.0	2.1	2.6	3.0					
Qualifying Hedge Funds													
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1					
Cayman Islands	54.4	53.6	52.8	52.6	52.4	51.8	51.3	51.1					
United States	33.1	33.8	34.3	34.6	35.0	35.3	35.8	35.6					
Virgin Islands, British	5.7	5.5	5.5	5.3	5.0	4.8	4.5	4.4					
Ireland	2.5	2.6	2.7	2.7	2.7	2.8	2.9	3.1					
Luxembourg	1.2	1.3	1.3	1.4	1.6	1.7	1.9	2.0					
Bermuda	1.4	1.4	1.8	1.7	1.7	1.7	1.6	1.7					
Other	1.7	1.7	1.7	1.7	1.6	1.9	2.0	2.1					
		Sectio	n 3 Liqui	idity Fun	ds								
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1					
Ireland	***	***	***	***	***	***	***	***					
United States	34.2	34.1	33.1	33.9	36.2	33.8	34.1	34.8					
Cayman Islands	***	***	***	***	***	***	***	***					
Other	***	***	***	***	***	***	***	***					
	1	Section 4	Private	Equity F	unds								
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1					
United States	62.0	62.0	63.8	63.8	63.8	63.7	60.7	59.5					
Cayman Islands	30.3	30.3	29.5	29.4	29.4	29.5	30.4	29.8					
United Kingdom	2.6	2.6	1.9	1.9	1.9	2.0	2.7	2.9					
Bermuda	1.3	1.3	1.1	1.1	1.1	1.1	1.0	1.1					
Canada	1.2	1.2	0.9	0.9	0.9	0.9	1.0	1.0					
Other	2.6	2.7	2.9	2.9	2.9	2.9	4.2	5.7					

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

			A 11 D .					
-			All Priva	ate Fund	S			
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
United States	89.5	89.6	90.0	89.3	89.0	88.8	89.4	88.8
United Kingdom	6.6	6.6	6.2	6.5	6.8	6.9	6.5	6.9
Other	3.9	3.8	3.8	4.1	4.2	4.3	4.1	4.3
		Qu	alifying l	Hedge Fu	ınds			
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
United States	89.5	89.3	89.5	89.3	89.2	88.9	88.4	88.3
United Kingdom	5.6	5.7	5.8	5.9	6.4	6.4	6.8	6.7
Australia	***	***	***	***	***	***	***	***
Hong Kong	***	***	***	***	***	***	***	***
Other	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.3
		Sect	tion 3 Lie	quidity F	unds			
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
United States	59.4	64.1	62.5	64.2	63.7	62.5	62.3	64.7
United Kingdom	***	***	***	***	***	***	***	***
France	***	***	***	***	***	***	***	***
		Section	1 4 Priva	te Equity	y Funds			
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
United States	97.2	97.2	95.1	95.1	95.1	95.1	94.8	94.8
Canada	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***

#### Beneficial Ownership IV

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

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Funds	1,324	1,323	1,340	1,355	1,371	1,371	1,492	1,515
Other	894	919	975	996	1,011	1,039	1,189	1,233
State/Muni. Govt. Pension Plans	919	934	1,008	1,028	1,032	1,047	1,153	1,153
Pension Plans	892	908	946	956	966	972	1,037	1,045
Non-Profits	703	724	749	770	778	789	848	860
U.S. Individuals	771	779	773	786	789	798	817	833
Sov. Wealth Funds and For. Official Inst.	386	387	429	438	443	445	514	539
Insurance Companies	276	275	305	310	312	314	349	352
Non-U.S. Individuals	199	199	198	198	185	183	187	191
Unknown Non-U.S. Investors	172	170	187	187	186	189	194	190
Banking/Thrift Inst.	149	145	136	140	142	146	159	160
SEC-Registered Investment Companies	112	112	117	118	117	123	124	130
State/Muni. Govt. Entities	89	90	100	105	107	108	122	126
Broker-Dealers	104	97	102	104	107	111	112	113

Table 13: Beneficial Ownership for All Private Funds (Percent of Aggregate NAV) As reported on Form PF, Questions 9 and 16.

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Funds	18.9	18.7	18.2	18.1	18.2	18.0	18.0	17.9
Other	12.8	13.0	13.2	13.3	13.4	13.6	14.3	14.6
State/Muni. Govt. Pension Plans	13.2	13.2	13.7	13.7	13.7	13.7	13.9	13.7
Pension Plans	12.8	12.9	12.8	12.8	12.8	12.7	12.5	12.4
Non-Profits	10.1	10.2	10.2	10.3	10.3	10.3	10.2	10.2
U.S. Individuals	11.0	11.0	10.5	10.5	10.5	10.4	9.8	9.9
Sov. Wealth Funds and For. Official Inst.	5.5	5.5	5.8	5.8	5.9	5.8	6.2	6.4
Insurance Companies	4.0	3.9	4.1	4.1	4.1	4.1	4.2	4.2
Non-U.S. Individuals	2.8	2.8	2.7	2.6	2.5	2.4	2.3	2.3
Unknown Non-U.S. Investors	2.5	2.4	2.5	2.5	2.5	2.5	2.3	2.2
Banking/Thrift Inst.	2.1	2.1	1.8	1.9	1.9	1.9	1.9	1.9
SEC-Registered Investment Companies	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.5
State/Muni. Govt. Entities	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5
Broker-Dealers	1.5	1.4	1.4	1.4	1.4	1.5	1.3	1.3

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

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Funds	508	503	489	493	504	509	504	515
Other	332	356	356	375	386	410	409	436
Non-Profits	359	379	382	395	404	417	428	428
Pension Plans	350	363	367	377	385	397	413	415
U.S. Individuals	308	319	318	324	331	340	345	341
State/Muni. Govt. Pension Plans	278	290	303	310	313	330	351	341
Sov. Wealth Funds and For. Official Inst.	136	140	143	152	158	160	166	193
Broker-Dealers	76	69	68	72	75	79	79	80
Insurance Companies	65	65	67	70	73	74	78	78
Non-U.S. Individuals	65	66	65	68	68	70	74	76
SEC-Registered Investment Companies	68	67	63	62	60	64	63	64
Unknown Non-U.S. Investors	46	46	41	45	52	56	58	55
State/Muni. Govt. Entities	32	33	35	41	42	42	42	47
Banking/Thrift Inst.	33	30	29	31	33	33	35	33

Table 15: Beneficial Ownership for Qualifying Hedge Funds (Percent of Aggregate NAV)

As reported on Form PF, Questions 9 and 16.

Туре	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Funds	19.1	18.4	17.9	17.5	17.4	17.1	16.5	16.6
Other	12.5	13.0	13.0	13.3	13.4	13.7	13.4	14.0
Non-Profits	13.5	13.9	14.0	14.0	14.0	14.0	14.1	13.8
Pension Plans	13.2	13.3	13.5	13.4	13.3	13.3	13.6	13.4
U.S. Individuals	11.6	11.7	11.7	11.5	11.5	11.4	11.3	11.0
State/Muni. Govt. Pension Plans	10.4	10.6	11.1	11.0	10.8	11.1	11.5	11.0
Sov. Wealth Funds and For. Official Inst.	5.1	5.1	5.2	5.4	5.5	5.4	5.4	6.2
Broker-Dealers	2.9	2.5	2.5	2.5	2.6	2.6	2.6	2.6
Insurance Companies	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.5
Non-U.S. Individuals	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4
SEC-Registered Investment Companies	2.6	2.5	2.3	2.2	2.1	2.1	2.1	2.1
Unknown Non-U.S. Investors	1.7	1.7	1.5	1.6	1.8	1.9	1.9	1.8
State/Muni. Govt. Entities	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.5
Banking/Thrift Inst.	1.2	1.1	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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Private Funds	79	80	81	75	89	83	96	94
Other	38	40	52	51	51	51	55	56
Unknown Non-U.S. Investors	***	60	65	60	52	55	53	***
SEC-Registered Investment Companies	17	18	16	18	18	20	18	23
Broker-Dealers	***	***	***	***	***	***	***	***
Banking/Thrift Inst.	***	***	10	***	12	***	***	13
Insurance Companies	8	8	9	9	9	10	9	9
Pension Plans	5	***	5	5	5	5	5	5
Sov. Wealth Funds and For. Official Inst.	***	***	***	***	***	***	***	***
Non-U.S. Individuals	17	4	4	4	4	4	4	4
Non-Profits	***	***	1	2	2	2	2	1
State/Muni. Govt. Entities	***	***	***	***	***	***	***	***
State/Muni. Govt. Pension Plans	***	***	1	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 2016Q3 2016Q4 2017Q1 2017Q2 2017Q3 2017Q4 2018Q1 2016Q2 Private Funds 30.9 32.3 29.6 28.3 32.9 30.4 33.8 33.1 Other 14.7 16.2 19.2 19.3 18.9 18.7 19.4 20.0 Unknown Non-U.S. Investors \*\*\* 24.223.722.7 19.4 20.2 18.7 \*\*\* SEC-Registered Investment Companies 6.57.1 5.9 6.9 6.7 7.46.5 8.1 \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* Broker-Dealers \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* Banking/Thrift Inst. 3.6 4.44.83.0 Insurance Companies 3.3 3.2 3.3 3.4 3.4 3.7 3.3 \*\*\* Pension Plans 1.8 1.7 1.8 1.9 1.9 1.8 1.8 \*\*\* Sov. Wealth Funds and For. Official Inst. \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* \*\*\* Non-U.S. Individuals 6.8 1.6 1.4 1.5 1.5 1.4 1.4 1.4 Non-Profits \*\*\* \*\*\* 0.50.60.6 0.60.50.5\*\*\* \*\*\* State/Muni. Govt. Entities State/Muni. Govt. Pension Plans \*\*\* 0.6 0.40.3 0.40.40.4\*\*\* \*\*\* \*\*\* \*\*\* U.S. Individuals

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

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
State/Muni. Govt. Pension Plans	326	326	366	366	366	366	415	416
Private Funds	270	270	283	285	284	284	353	356
Other	140	140	162	162	161	161	212	225
Sov. Wealth Funds and For. Official Inst.	132	131	153	154	154	153	186	203
Pension Plans	137	138	142	142	142	139	159	159
Insurance Companies	84	84	94	94	94	94	109	109
Non-Profits	87	87	92	92	92	90	104	104
U.S. Individuals	95	95	88	88	88	88	94	94
Non-U.S. Individuals	35	35	34	34	34	34	36	36
Banking/Thrift Inst.	32	32	31	31	31	31	29	29
State/Muni. Govt. Entities	19	19	22	22	22	22	28	28
SEC-Registered Investment Companies	5	5	12	12	12	12	16	16
Unknown Non-U.S. Investors	15	15	14	14	14	13	14	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 2016Q3 2016Q4 2017Q1 2017Q2 2017Q3 2017Q4 2018Q1 2016Q2 State/Muni. Govt. Pension Plans 23.7 23.6 24.5 24.5 24.5 24.6 23.6 23.3 Private Funds 19.6 19.6 19.0 19.0 19.0 19.1 20.1 19.9 10.210.2 10.8 10.8 10.8 10.8 12.1 12.6Sov. Wealth Funds and For. Official Inst. 9.69.5 10.3 10.3 10.3 10.3 10.6 11.3 Pension Plans 10.010.09.59.59.5 9.49.1 8.9Insurance Companies 6.1 6.1 6.36.36.36.36.26.1 Non-Profits 6.3 6.3 6.1 6.1 6.2 6.1 5.9 5.8U.S. Individuals 6.9 6.9 5.9 5.9 5.9 5.9 5.3 5.2Non-U.S. Individuals 2.6 2.5 2.3 2.3 2.3 2.3 2.1 2.0 Banking/Thrift Inst. 2.3 2.3 2.0 2.0 2.0 2.1 1.7 1.6 State/Muni. Govt. Entities 1.4 1.4 1.5 1.5 1.5 1.5 1.6 1.5 SEC-Registered Investment Companies 0.40.40.8 0.80.8 0.80.90.9Unknown Non-U.S. Investors 0.91.1 1.1 0.9 0.9 0.9 0.8 0.8Broker-Dealers 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1

#### **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.

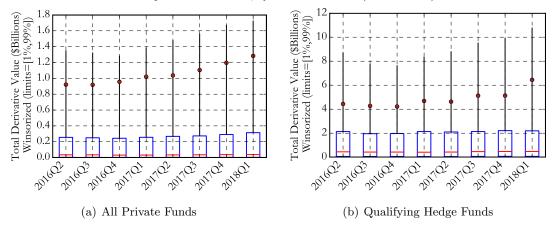
Туре	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Hedge Fund	9,318	9,346	9,142	10,178	10,105	11,361	12,117	14,025
Qualifying Hedge Fund	8,025	8,152	$7,\!869$	8,763	8,771	9,575	10,113	11,909
Other Private Fund	96	97	112	108	108	108	146	148
Private Equity Fund	54	53	38	38	38	38	39	40
Section 4 Private Equity Fund	42	42	35	35	34	34	33	34
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Real Estate Fund	21	21	16	16	16	16	17	17
Securitized Asset Fund	11	10	14	14	14	13	3	2
Venture Capital Fund	***	***	***	***	***	***	***	***
Total	9,454	9,491	9,343	10,327	10,335	11,564	12,311	14,141

**Table 21:** Aggregate Derivative Value (Percent of Aggregate NAV) As reported on Form PF, Questions 9, 13, and 44 (Third Month).

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Hedge Fund	272.2	268.3	262.7	282.9	276.4	300.7	312.4	353.4
Qualifying Hedge Fund	302.0	298.9	288.2	311.2	303.7	321.1	332.0	383.7
Other Private Fund	10.9	11.0	11.4	10.9	10.8	11.2	13.6	13.6
Private Equity Fund	2.8	2.8	1.8	1.8	1.8	1.8	1.6	1.6
Section 4 Private Equity Fund	3.1	3.1	2.3	2.3	2.3	2.3	1.9	1.9
Liquidity Fund	***	***	***	***	***	***	***	***
Section 3 Liquidity Fund	***	***	***	***	***	***	***	***
Real Estate Fund	6.6	6.6	4.8	4.8	4.7	4.8	4.4	4.4
Securitized Asset Fund	7.7	7.4	9.8	9.8	9.4	9.2	1.7	1.6
Venture Capital Fund	***	***	***	***	***	***	***	***
Total	135.3	134.4	126.8	137.8	136.9	151.4	148.3	167.5

Figure 6: Distribution of Derivative Values

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



#### VI High Frequency Trading

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

Fraction of NAV	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
0%	7,492	7,533	7,493	7,623	7,665	7,693	7,758	7,868
Less than $100\%$	64	70	62	62	66	63	42	70
100% or More	10	9	11	12	11	12	12	11

**Table 23:** Hedge Fund Assets Managed Using HFT Strategies (\$ Billions)

As reported on Form PF, Questions 9 and 21.

Fraction of NAV	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
0%	3,310	3,367	3,366	3,484	3,548	3,650	3,768	3,840
Less than $100\%$	83	84	78	79	78	43	41	46
100% or More	2	2	2	3	3	37	37	38

### 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.

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Top 10	7.8	7.9	8.0	7.7	7.7	7.5	7.5	7.3
Top $25$	13.6	13.9	13.8	13.4	13.5	13.2	13.4	13.3
Top $50$	20.4	20.6	20.6	20.3	20.3	20.0	20.2	20.2
Top 100	29.2	29.3	29.1	28.7	28.6	28.5	28.8	28.6
Top $250$	44.2	44.3	44.2	43.7	43.5	43.5	43.3	43.0
Top 500	57.6	57.7	57.5	57.0	56.9	56.8	56.6	56.5

**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.

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Top 10	15.2	14.5	14.7	14.6	15.0	15.5	15.2	15.5
Top $25$	23.6	23.0	23.3	23.2	23.2	24.2	23.6	24.1
Top $50$	31.0	31.2	31.5	31.7	31.5	32.5	31.6	32.7
Top 100	40.6	40.9	41.1	41.2	41.2	42.1	41.2	42.1
Top $250$	54.7	55.1	55.0	54.9	55.1	55.9	55.3	55.7
Top 500	66.6	66.9	66.8	66.5	66.8	67.4	66.6	67.0

**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).

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Top 10	32.8	32.9	31.6	32.1	33.5	35.1	34.5	35.2
Top $25$	45.4	45.6	44.5	45.3	46.4	47.7	47.6	49.1
Top $50$	56.2	56.7	56.2	56.8	57.5	58.8	59.1	60.0
Top 100	67.5	68.7	68.6	68.8	69.2	70.3	70.9	71.1
Top $250$	80.6	81.7	81.7	81.4	81.8	82.6	82.6	82.9
Top $500$	89.5	90.2	90.0	89.9	90.1	90.5	90.2	90.4

**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).

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Top 10	34.7	37.1	34.9	34.4	32.4	32.7	32.7	32.3
Top $25$	49.0	50.8	48.8	48.4	46.7	49.4	48.0	50.2
Top $50$	61.0	61.7	60.4	60.9	59.4	61.7	60.4	62.1
Top 100	72.6	73.5	73.4	73.5	72.2	73.7	72.9	73.7
Top $250$	85.8	86.2	86.2	86.4	85.9	86.5	86.0	86.9
Top 500	92.9	93.2	93.3	93.3	92.8	93.3	93.1	93.7

**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).

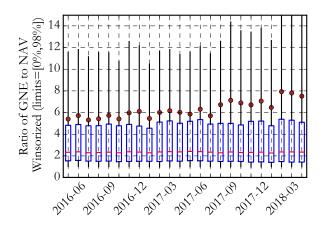
	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Top 10	31.7	32.8	31.7	31.1	30.4	30.4	30.4	29.8
Top $25$	44.2	45.6	45.6	44.7	43.5	45.2	45.0	46.6
Top $50$	55.3	56.5	57.0	56.9	55.7	57.2	56.6	59.3
Top 100	67.2	67.8	68.9	69.0	67.8	68.9	68.7	70.5
Top $250$	81.4	81.7	82.3	82.6	82.0	82.6	82.7	84.0
Top 500	90.9	90.9	91.3	91.4	90.8	91.2	91.2	92.0

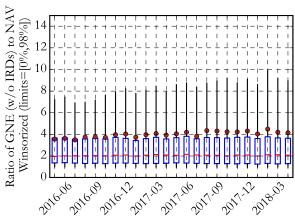
# VIII Information Reported by Large Hedge Fund Advisers

#### A Economic Leverage

**Figure 7:** Ratio of Hedge Fund Gross Notional Exposure to Net Asset Value See Appendix C and Appendix D for an explanation of boxplots and winsorization.

As reported on Form PF, Questions 3(a) and 26.





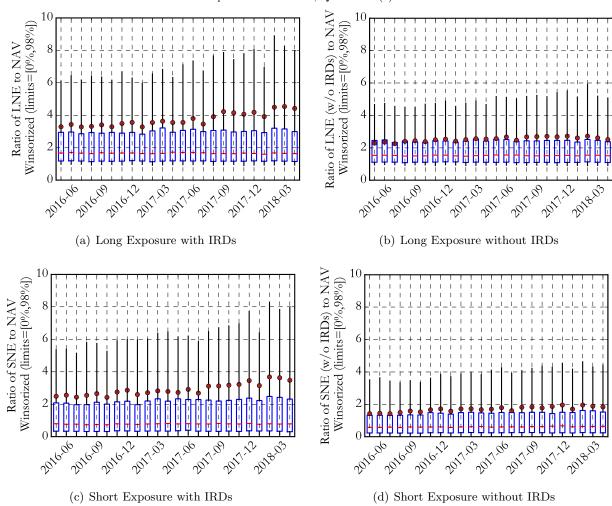
(a) Gross Exposure with Interest Rate Derivatives (IRDs)

(b) Gross Exposure without IRDs

Figure 8: Ratio of Hedge Fund Long Notional Exposure (LNE) and Short Notional Exposure (SNE) to Net Asset Value Distribution

See Appendix C and Appendix D for an explanation of boxplots and winsorization.

As reported on Form PF, Questions 3(a) and 26.



#### B Industry Concentration

**Table 29:** Large Hedge Fund Adviser Asset and Exposure Concentration (Percent of Total Reported)

As reported on Form PF, Questions 3(a) and 26.

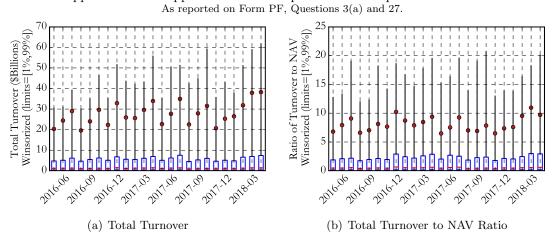
Month	Top 10 Advisers (NAV)	Top 20 Advisers (NAV)	Top 10 Advisers (GNE)	Top 20 Advisers (GNE)
2016-04	17.9	27.8	37.4	51.2
2016-05	18.0	28.0	38.2	51.7
2016-06	18.0	27.9	37.1	51.0
2016-07	18.0	27.9	38.1	52.4
2016 - 08	18.0	27.9	38.9	52.8
2016-09	18.0	27.9	38.7	52.8
2016-10	18.1	27.9	39.6	53.2
2016-11	18.1	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	27.7	36.0	51.3
2017 - 11	18.4	27.7	36.3	52.0
2017 - 12	18.4	27.7	36.5	51.8
2018-01	18.5	27.7	37.3	53.4
2018-02	18.5	27.7	40.6	56.4
2018-03	18.5	27.8	39.9	55.6

#### 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
2016-04	8,478	2,075	1,972	111	22	12,659
2016-05	9,579	2,592	1,969	110	17	14,267
2016-06	12,917	2,794	2,109	99	21	17,939
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
2018-01	16,747	3,164	2,452	142	33	$22,\!538$
2018-02	18,566	3,516	2,450	132	27	24,690
2018-03	18,103	3,238	2,277	153	33	23,804

Figure 9: Distributions of Portfolio Turnover See Appendix C and Appendix D for an explanation of boxplots and winsorization.



#### 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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
North America	3,946	4,106	4,077	4,406	4,500	5,089	4,527	4,809
Europe EEA	1,200	1,219	1,223	1,709	1,669	1,708	1,663	1,990
Asia	602	611	531	596	600	713	673	734
South America	91	91	87	95	102	108	133	114
Europe Other	62	67	64	80	78	77	91	86
Supranational	30	33	46	60	68	67	75	72
Africa	21	19	18	19	23	24	31	37
Middle East	22	20	18	20	23	23	26	30

**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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
North America	136.4	138.4	136.3	141.7	142.9	155.9	135.4	140.6
Europe EEA	41.5	41.1	40.9	55.0	53.0	52.3	49.7	58.2
Asia	20.8	20.6	17.7	19.2	19.0	21.8	20.1	21.5
South America	3.2	3.1	2.9	3.1	3.2	3.3	4.0	3.3
Europe Other	2.1	2.3	2.1	2.6	2.5	2.4	2.7	2.5
Supranational	1.0	1.1	1.5	1.9	2.2	2.0	2.2	2.1
Africa	0.7	0.6	0.6	0.6	0.7	0.7	0.9	1.1
Middle East	0.8	0.7	0.6	0.6	0.7	0.7	0.8	0.9

Table 33: Large Hedge Fund Adviser Hedge Fund Country Exposure (\$ Billions)
As reported on Form PF, Questions 3(a) and 28.

Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
United States	3,661	3,920	3,866	4,182	4,246	4,824	4,312	4,543
Japan	264	263	219	231	229	233	245	269
China (Inc. Hong Kong)	129	136	129	130	144	152	164	178
Brazil	35	36	37	40	42	45	60	47
India	30	35	30	32	35	37	47	38
Russia	13	15	14	17	13	16	18	16

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

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

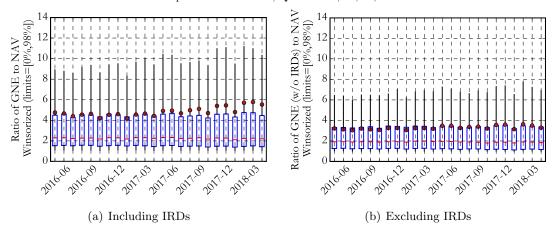
Country	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
United States	126.6	132.1	129.3	134.5	134.9	147.8	129.0	132.8
Japan	9.1	8.9	7.3	7.4	7.3	7.1	7.3	7.9
China (Inc. Hong Kong)	4.4	4.6	4.3	4.2	4.6	4.7	4.9	5.2
Brazil	1.2	1.2	1.2	1.3	1.3	1.4	1.8	1.4
India	1.0	1.2	1.0	1.0	1.1	1.1	1.4	1.1
Russia	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5

# IX Qualifying Hedge Fund Specific Information

#### A Economic Leverage

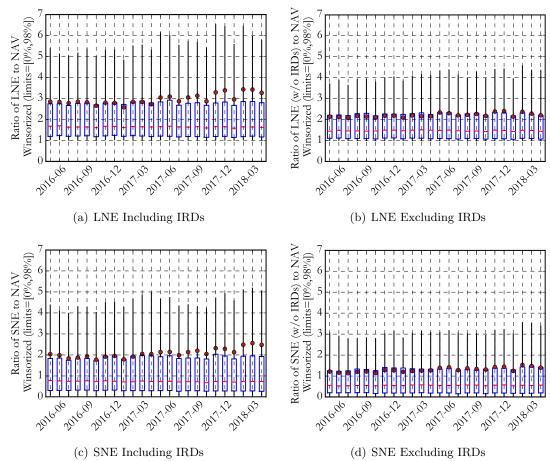
**Figure 10:** Ratio of Qualifying Hedge Fund Gross Notional Exposure to Net Asset Value See Appendix C and Appendix D for an explanation of boxplots and winsorization.

As reported on Form PF, Questions 9, 10, 26, and 30.



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

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



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

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

Category	Strategy	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
	Subtotal	1,367	1,431	1,408	1,495	1,560	1,646	1,677	1,658
	Long/Short	850	878	841	880	906	926	945	925
Equity	Long Bias	274	284	288	310	330	369	371	371
	Market Neutral	237	265	273	***	***	***	***	355
	Short Bias	6	5	6	***	***	***	***	8
Other	Subtotal	828	837	851	884	940	974	1,006	992
	Subtotal	781	763	701	717	784	851	760	785
	F.I. Sov.	541	517	469	488	541	601	518	542
Relative Value	F.I. Asset Backed	128	129	123	115	120	119	119	121
Relative value	F.I. Conv. Arb.	35	38	39	44	47	49	50	51
	F.I. Corp.	42	43	41	41	48	50	46	49
	Volatility Arb.	34	36	28	30	29	31	27	22
	Subtotal	581	655	683	688	646	695	655	780
	Global Macro	509	585	600	606	565	612	571	694
Macro	Currency	***	***	***	44	***	***	***	***
	Commodity	35	34	38	35	35	38	40	39
	Active Trading	***	***	***	3	***	***	***	***
	Subtotal	325	335	324	342	353	359	353	363
Event Driven	Distressed/Restruct.	166	172	173	172	167	170	167	165
Event Driven	Risk Arb./Merger Arb.	75	72	71	77	86	89	86	101
	Equity	85	91	80	94	100	100	101	97
	Subtotal	363	267	274	283	285	289	287	286
Credit	Long/Short	328	227	231	240	240	240	235	248
	Asset Based Lending	35	40	43	43	45	49	51	38
	Subtotal	115	123	124	140	147	145	152	148
Managed Futures/CTA	Quantitative	109	***	***	131	144	143	149	146
	Fundamental	6	***	***	9	3	2	3	2
Investment in other funds	Subtotal	42	42	43	$4\overline{2}$	48	49	49	44
Total	Total	4,403	4,454	4,407	4,592	4,762	5,008	4,938	5,057

<sup>&</sup>lt;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.

Category	Strategy	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
	Subtotal	51.5	52.5	51.6	53.1	54.0	55.2	55.0	53.4
	Long/Short	32.0	32.2	30.8	31.3	31.4	31.1	31.0	29.8
Equity	Long Bias	10.3	10.4	10.6	11.0	11.4	12.4	12.2	11.9
	Market Neutral	8.9	9.7	10.0	***	***	***	***	11.4
	Short Bias	0.2	0.2	0.2	***	***	***	***	0.3
Other	Subtotal	31.1	30.7	31.2	31.4	32.6	32.7	33.0	32.0
	Subtotal	29.4	28.0	25.7	25.5	$27.\bar{2}$	$28.\bar{5}$	$25.\bar{0}$	$25.\bar{3}$
	F.I. Sov.	20.4	19.0	17.2	17.3	18.7	20.2	17.0	17.5
Relative Value	F.I. Asset Backed	4.8	4.7	4.5	4.1	4.2	4.0	3.9	3.9
Relative value	F.I. Conv. Arb.	1.3	1.4	1.4	1.6	1.6	1.7	1.6	1.6
	F.I. Corp.	1.6	1.6	1.5	1.4	1.7	1.7	1.5	1.6
	Volatility Arb.	1.3	1.3	1.0	1.1	1.0	1.1	0.9	0.7
	Subtotal	21.9	24.0	25.0	24.4	22.4	23.3	21.5	25.1
	Global Macro	19.2	21.5	22.0	21.5	19.6	20.5	18.7	22.4
Macro	Currency	***	***	***	1.6	***	***	***	***
	Commodity	1.3	1.3	1.4	1.3	1.2	1.3	1.3	1.3
	Active Trading	***	***	***	0.1	***	***	***	***
	Subtotal	12.2	12.3	11.9	12.2	12.2	12.0	11.6	11.7
Event Driven	Distressed/Restruct.	6.2	6.3	6.4	6.1	5.8	5.7	5.5	5.3
Event Driven	Risk Arb./Merger Arb.	2.8	2.6	2.6	2.7	3.0	3.0	2.8	3.3
	Equity	3.2	3.3	2.9	3.3	3.5	3.4	3.3	3.1
	Subtotal	13.7	9.8	10.0	10.1	9.9	9.7	9.4	9.2
Credit	Long/Short	12.3	8.3	8.4	8.5	8.3	8.1	7.7	8.0
	Asset Based Lending	1.3	1.5	1.6	1.5	1.6	1.6	1.7	1.2
	Subtotal	4.3	4.5	4.5	5.0	$-5.\bar{1}$	4.9	5.0	4.8
Managed Futures/CTA	Quantitative	4.1	***	***	4.6	5.0	4.8	4.9	4.7
	Fundamental	0.2	***	***	0.3	0.1	0.1	0.1	0.1
Investment in other funds	Subtotal	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.4
Total	Total	165.7	163.3	161.4	163.1	164.9	168.0	162.1	162.9

#### 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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Relative Value	4.7	4.2	4.1	4.6	5.1	5.1	4.7	5.1
Macro	3.0	3.0	3.3	3.5	3.5	3.8	3.6	3.9
Multi-Strategy	1.8	2.4	2.4	2.3	2.2	2.3	2.2	2.2
Equity	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7
Other	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6
Credit	1.5	1.6	1.5	1.6	1.6	1.5	1.5	1.5
Event Driven	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Investment in other funds	1.1	1.1	1.1	1.1	1.0	***	1.0	1.3
Managed Futures/CTA	1.2	1.2	1.2	1.2	1.9	1.2	1.2	1.2

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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Macro	15.2	11.6	13.8	17.0	18.3	20.8	21.6	26.0
Relative Value	16.9	16.9	16.4	19.1	17.7	18.7	18.4	21.2
Multi-Strategy	7.1	11.0	10.1	8.0	7.9	9.0	8.6	9.7
Managed Futures/CTA	7.3	8.2	7.3	8.0	9.5	8.4	10.0	8.4
Other	4.5	4.6	4.7	5.0	5.3	5.4	5.4	5.0
Equity	3.2	3.1	3.1	3.2	3.2	3.2	3.2	4.0
Credit	4.0	2.9	2.7	3.3	3.0	3.1	3.2	3.3
Investment in other funds	1.4	1.5	1.4	1.7	1.6	***	1.7	2.6
Event Driven	2.1	2.0	2.0	2.2	2.0	2.0	2.0	2.0

**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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Managed Futures/CTA	68.3	68.8	67.7	65.5	61.2	59.0	58.0	60.6
Macro	44.7	42.9	41.8	38.0	40.6	40.6	41.1	37.5
Multi-Strategy	26.4	26.9	28.1	25.5	22.4	24.9	24.8	24.7
Relative Value	27.2	21.6	22.5	22.7	20.4	21.5	19.8	21.2
Other	26.5	26.8	25.6	21.5	20.6	21.3	21.0	18.5
Equity	13.9	11.2	12.3	10.6	11.5	9.7	10.2	9.7
Credit	14.1	10.9	11.7	9.8	10.9	9.9	9.8	8.3
Event Driven	12.0	11.6	11.5	8.0	11.1	10.0	9.7	8.1
Investment in other funds	8.4	6.2	5.5	3.4	6.2	***	9.4	4.2

#### 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.

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Cash/Cash Equivalents	734	692	675	681	684	690	686	688
Securities - Equities	2,000	2,139	$2,\!116$	2,302	2,396	2,522	2,601	3,038
Securities - G10 (non-US)	723	794	970	1,027	1,052	1,153	1,195	1,344
Securities - Treasuries	1,050	1,109	1,137	1,138	1,096	1,151	1,154	1,194
Securities - Other Bonds	224	203	185	197	223	252	248	284
Securities - Corp. Bonds	246	252	251	267	269	259	254	264
Securities - MBS	250	258	227	246	241	254	266	258
Securities - Conv. Bonds	63	71	69	82	89	82	82	94
Securities - ABS (non-MBS)	73	76	75	75	77	74	77	80
Derivatives - IR	3,619	3,734	3,523	4,130	3,817	4,103	4,421	5,558
Derivatives - FX	2,566	2,458	2,425	2,630	2,705	3,044	3,139	3,722
Derivatives - Equity	1,003	1,079	1,112	1,191	1,226	1,295	1,345	1,379
Derivatives - Credit	603	624	590	632	678	793	704	733
Derivatives - Other	120	138	137	144	285	280	428	523
Derivatives - Commodity	290	307	324	330	332	369	379	367
Repurchase Agreements	1,060	1,113	$1,\!156$	1,314	1,398	1,372	1,303	1,466
Other	648	668	678	700	730	778	753	798

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

	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Cash/Cash Equivalents	88.1	87.2	86.9	85.0	86.9	88.1	85.9	82.6
Securities - Equities	69.2	69.8	70.1	70.2	70.0	70.3	71.8	75.4
Securities - G10 (non-US)	55.5	53.5	49.7	49.4	50.0	50.1	50.4	52.2
Securities - Treasuries	66.9	66.8	68.0	65.4	63.2	62.1	62.8	60.4
Securities - Other Bonds	71.1	77.7	75.0	77.9	78.2	72.2	73.7	73.2
Securities - Corp. Bonds	80.9	82.9	81.7	80.9	79.9	81.2	81.5	81.8
Securities - MBS	76.6	74.7	76.0	74.1	73.6	71.9	71.2	73.5
Securities - Conv. Bonds	95.2	95.5	95.2	95.2	95.6	94.1	93.4	88.2
Securities - ABS (non-MBS)	99.4	99.0	98.7	98.0	98.0	96.7	96.8	98.2
Derivatives - IR	50.9	52.9	51.1	48.4	47.3	47.8	49.5	50.2
Derivatives - FX	52.6	51.8	48.6	50.9	50.2	49.8	49.9	56.8
Derivatives - Equity	55.0	55.4	55.1	56.2	55.5	56.8	56.9	51.5
Derivatives - Credit	44.5	47.4	48.3	47.3	47.6	47.4	47.7	44.8
Derivatives - Other	58.2	60.2	58.6	62.6	55.2	53.2	54.9	54.0
Derivatives - Commodity	62.2	63.5	63.5	64.2	58.8	64.1	64.5	65.7
Repurchase Agreements	43.4	45.3	48.7	50.0	49.4	51.7	51.9	51.6
Other	90.5	89.7	89.1	87.8	90.3	86.7	89.3	86.9

#### 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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
At most 1 day	7.7	8.0	7.9	8.1	8.1	8.2	8.5	8.9
At most 7 days	13.8	14.2	13.9	14.2	14.4	14.6	14.9	15.4
At most 30 days	27.1	26.4	26.4	28.4	27.0	27.5	28.0	30.0
At most 90 days	46.5	47.1	49.5	47.4	46.6	48.2	50.9	48.9
At most 180 days	60.0	61.7	58.7	59.7	59.3	61.6	60.0	60.3
At most 365 days	75.5	74.6	74.1	74.1	73.9	73.6	73.8	74.1

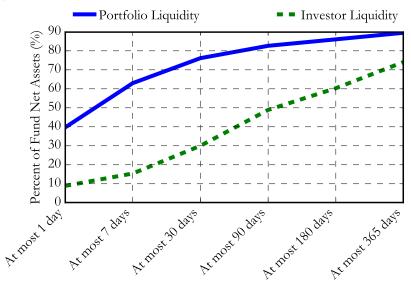
**Table 43:** Portfolio Liquidity for Qualifying Hedge Funds (Percent of Aggregate NAV)

As reported on Form PF, Questions 9, 26, 30, and 32.

Liquidation Period	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
At most 1 day	41.6	40.2	40.2	38.4	38.7	38.0	38.8	39.6
At most 7 days	65.0	63.7	63.2	61.5	62.2	61.8	62.5	63.0
At most 30 days	77.9	77.2	76.7	76.0	76.4	76.0	76.2	76.1
At most 90 days	84.0	83.8	83.0	82.1	82.5	82.4	82.6	82.6
At most 180 days	87.8	87.3	86.3	85.8	86.1	85.8	86.1	86.1
At most 365 days	91.1	90.7	89.8	89.6	89.7	89.2	89.6	89.5

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

As reported on Form PF, Questions 9, 26, 30, 32, and 50 as of First Calendar Quarter 2018.

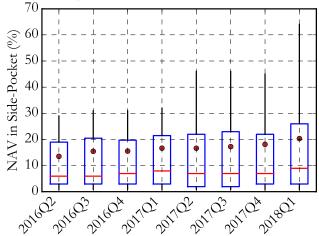


**Table 44:** Restrictions on Qualifying Hedge Fund Assets (\$ Billions) As reported on Form PF, Questions 48 and 49.

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
May Suspend	2,141	2,172	2,146	2,209	2,261	2,324	2,362	2,409
May Have Gates	1,307	1,330	1,290	1,338	1,362	1,396	1,409	1,461
Side-Pocketed	37	38	38	39	38	39	39	42
Gated	27	30	27	27	28	30	38	39
Suspended	16	16	19	27	27	22	17	***

**Figure 13:** Percentage of Qualifying Hedge Fund NAV Subject to a Side-Pocket Arrangement

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



## F Borrowings

Table 45: Borrowings of Qualifying Hedge Funds (\$ Billions)

As reported on Form PF, Question 43 (Third Month).

Type	Subtype	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
	Subtotal	1,931	2,071	2,054	2,224	2,380	2,428	2,412	2,591
Secured	Prime Broker	980	1,084	1,087	1,186	1,265	1,371	1,379	1,418
Secured	Reverse Repo	685	720	672	725	784	712	677	778
	Other Secured	267	267	295	313	331	345	356	394
Unsecured	Subtotal	9	11	12	14	11	12	14	$1\overline{4}$
Total	Total	1,940	2,082	2,066	2,238	2,391	2,440	2,426	2,605

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

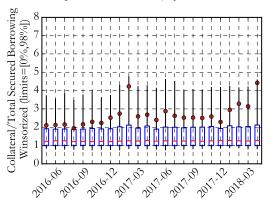
Creditor Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
US Financial	62.1	64.6	63.1	61.2	61.0	61.3	61.6	60.5
Non-US Financial	37.5	35.0	36.4	38.4	38.6	38.4	37.9	39.1
US Non-Financial	0.3	0.3	0.3	***	0.3	***	***	***
Non-US Non-Financial	0.1	0.2	0.1	***	0.1	***	***	***

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

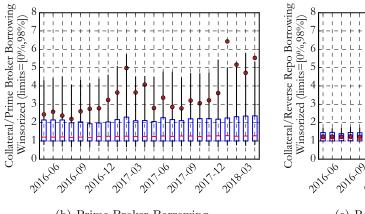
Borrowing Type	Collateral Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
	Subtotal	1,229	1,339	1,334	1,467	1,545	1,674	1,686	1,752
Prime Broker	Other	776	861	857	949	1,022	1,151	1,183	1,225
	Cash	454	478	477	518	522	523	503	527
	Subtotal	704	733	687	768	776	726	711	779
Reverse Repo	Other	510	533	446	503	495	470	448	511
	Cash	194	200	241	266	281	256	263	268
	Subtotal	308	312	349	384	-407	423	426	447
Other Secured	Other	230	236	210	254	251	265	262	296
	Cash	78		139	130	156	158	165	152
Total	Total	2,242	2,385	2,370	2,620	2,727	2,822	2,823	2,978

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

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



(a) Total Secured Borrowing



Winsorized (limits=[0%,6,%8%])

Winsorized (limits=[0,6,%8,6])

Winsorized (limits=[0,6,%8,6])

Winsorized (limits=[0,6,%8,6])

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(b) Prime Broker Borrowing

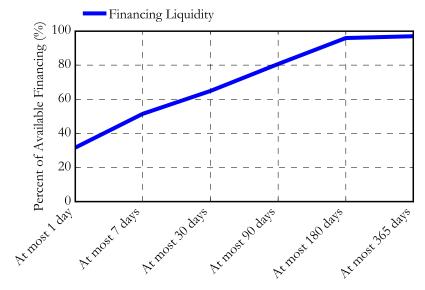
(c) Reverse Repo Borrowing

**Table 48:** Financing Liquidity for Qualifying Hedge Funds (Percent of Available Financing)

As reported on Form PF, Question 46.

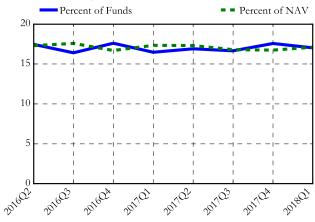
Financing Available	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
At most 1 day	43.5	37.1	35.8	36.4	34.7	35.4	34.2	31.7
At most 7 days	52.8	53.6	48.1	53.0	53.3	51.7	49.5	51.5
At most 30 days	65.8	65.1	64.0	65.0	65.3	64.0	64.7	64.9
At most 90 days	81.7	80.9	81.1	80.1	80.8	79.2	80.3	80.6
At most 180 days	96.0	96.1	96.0	96.0	96.2	96.0	95.9	95.8
At most 365 days	97.4	97.5	97.3	97.3	97.4	97.3	97.2	96.9

Figure 15: Weighted-Average Qualifying Hedge Fund Financing Liquidity (Percent of Available Financing) As reported on Form PF, Question 46 as of First Calendar Quarter 2018.



# G Central Clearing

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



# H Value-at-Risk ("VaR") Reporting

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

VaR Method	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
VaR (Any Method)	622	619	627	636	648	648	662	659
Historical Simulation	236	238	233	237	248	270	277	285
Parametric	190	193	196	190	190	186	193	184
Monte Carlo Simulation	185	183	193	199	204	187	185	175
Other	41	46	42	44	45	43	48	52
VaR Not Used	982	997	1,021	1,034	1,068	1,070	1,137	1,110

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

VaR Method	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
VaR (Any Method)	3,146	3,226	3,202	3,353	3,467	3,573	3,524	3,678
Historical Simulation	1,639	1,728	1,686	1,764	1,760	1,860	1,832	1,953
Parametric	756	746	731	737	760	767	806	815
Monte Carlo Simulation	619	633	635	853	936	928	833	854
Other	321	344	373	425	457	489	524	530
VaR Not Used	1,898	1,977	1,994	2,066	2,201	2,268	$2,\!316$	2,412

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

VaR Method	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
VaR (Any Method)	1,280	1,298	1,290	1,332	1,364	1,392	1,397	1,422
Historical Simulation	478	497	474	486	500	558	559	577
Parametric	449	462	459	465	474	477	490	492
Monte Carlo Simulation	328	335	344	394	415	384	375	375
Other	90	94	94	95	94	94	93	95
VaR Not Used	1,378	1,430	1,441	1,484	1,524	1,589	1,649	1,681

### 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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Stress and VaR	541	544	551	544	554	554	588	592
Stress, No VaR	454	447	453	451	457	467	498	494
No Stress, VaR	81	75	76	92	94	94	74	67
Neither	528	550	568	583	611	603	639	616

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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Stress and VaR	2,942	3,047	3,023	3,113	3,196	3,337	3,363	3,516
Stress, No VaR	1,008	1,030	1,001	1,076	1,114	1,178	1,190	1,269
No Stress, VaR	204	179	179	240	271	236	160	162
Neither	890	948	993	990	1,086	1,089	1,126	1,143

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	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Stress and VaR	1,149	1,181	1,173	1,186	1,216	1,235	1,288	1,312
Stress, No VaR	666	666	661	683	673	712	736	746
No Stress, VaR	131	117	117	146	147	158	108	110
Neither	712	763	780	801	850	877	914	935

# 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.

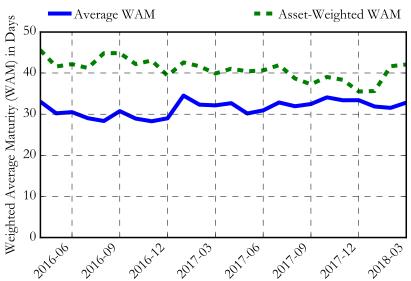
Liquidation Period	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
At most 1 day	77.4	80.1	80.9	78.0	79.4	78.8	80.2	78.6
At most 7 days	96.0	98.3	97.3	95.5	95.1	95.4	95.4	95.5
At most 30 days	99.7	99.9	99.6	99.7	99.5	99.5	99.5	99.7
At most 90 days	100.0	100.0	99.8	100.0	99.8	99.7	99.7	99.9
At most 180 days	100.0	100.0	99.9	100.0	99.9	99.8	99.8	99.9
At most 365 days	100.0	100.0	100.0	100.0	99.9	99.9	99.9	100.0

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

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
May Suspend	241	232	253	246	252	257	269	265
May Have Gates	207	199	220	215	221	223	233	228
Suspended	0	0	0	0	0	0	0	0
Gated	0	0	0	0	0	0	0	0

#### **B** Portfolio Characteristics

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



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

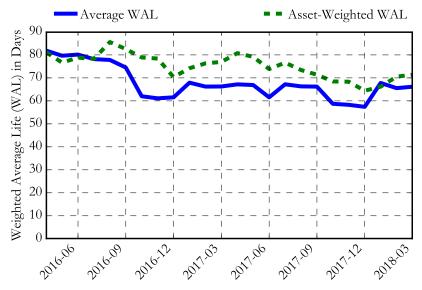


Figure 19: Seven-Day Gross Yield Reported by Section 3 Liquidity Funds As reported on Form PF, Question 55.

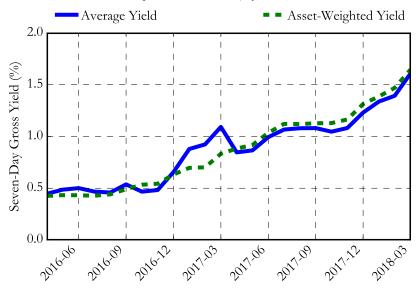


Figure 20: Ratio of Daily Liquid Assets to Net Asset Value of Section 3 Liquidity Funds
As reported on Form PF, Question 55.

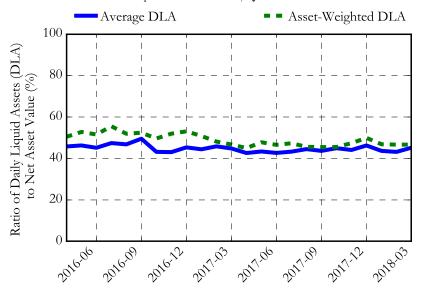
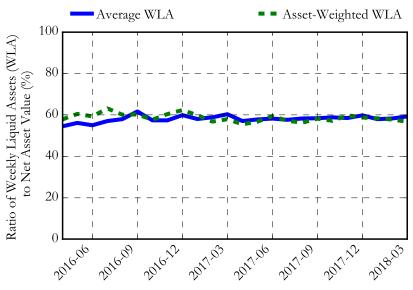


Figure 21: Ratio of Weekly Liquid Assets to Net Asset Value of Section 3 Liquidity Funds
As reported on Form PF, Question 55.



### C Rule 2a-7 Compliance

**Table 57:** Rule 2a-7 Compliance (Percent of Funds) As reported on Form PF, Questions 9 and 54.

Compliance Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Credit Quality	64.9	61.1	59.1	57.8	58.7	55.6	55.3	57.8
Diversification	62.2	58.3	56.8	55.6	54.3	51.1	51.1	53.3
Maturity	62.2	58.3	56.8	55.6	54.3	51.1	51.1	53.3
Liquidity	54.1	55.6	56.8	55.6	54.3	51.1	51.1	48.9
Fully	48.6	50.0	50.0	48.9	47.8	44.4	44.7	44.4
None	32.4	36.1	38.6	40.0	39.1	42.2	42.6	42.2

**Table 58:** Rule 2a-7 Compliance (Percent of Aggregate NAV)
As reported on Form PF, Questions 9 and 54.

Compliance Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Credit Quality	17.9	13.5	14.4	15.5	15.0	14.8	13.4	14.6
Diversification	17.9	13.5	13.8	14.9	14.0	13.9	12.4	13.6
Maturity	17.7	13.5	13.6	14.8	13.8	13.9	12.4	13.6
Liquidity	11.3	12.2	13.6	14.8	13.8	13.9	12.4	13.2
Fully	10.4	11.0	11.8	12.8	11.9	11.7	10.5	11.3
None	82.0	86.1	85.5	84.3	84.9	85.0	86.5	85.4

## D Methods of Calculating NAV

**Table 59:** NAV Calculation Method (Percent of Funds) As reported on Form PF, Questions 9, 52, and 53.

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Stable	***	***	81.8	80.0	78.3	77.8	78.7	80.0
Floating	***	***	18.2	20.0	21.7	22.2	21.3	20.0

**Table 60:** NAV Calculation Method (Percent of Aggregate NAV) As reported on Form PF, Questions 9, 52, and 53.

Type	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1
Stable	***	***	69.9	71.4	68.0	69.9	68.7	69.9
Floating	***	***	30.1	28.6	32.0	30.1	31.3	30.1

# E Aggregate Portfolio Holdings

 $\textbf{Table 61:} \ \, \text{Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions)} \ -- \ 1 \ \text{of 2} \\ \quad \text{As reported on Form PF, Question 63.}$ 

	2016.04	2016.05	2016.06	2016.05	2016.08	2018.09	2016.10	2016.11	2016.12	201201	201703	201203
Product Type	P,	P,	P,	P,	₽,	₽,	P,	S,	S,	₽,	₽,	P,
U.S. Treasuries	66.8	67.1	69.9	70.3	67.2	64.8	66.2	71.5	73.4	65.9	69.1	64.2
Deposits	51.1	57.5	55.3	58.6	55.5	55.3	62.8	67.5	73.3	77.6	76.8	75.0
Other	24.0	28.0	30.4	29.3	31.6	33.7	31.1	30.7	42.4	63.7	61.9	53.7
Commercial Paper	28.0	26.6	25.5	27.1	26.0	26.9	36.3	35.6	38.8	39.9	42.6	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	26.5	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 62:** Section 3 Liquidity Fund Aggregate Product Exposures (\$Billions) — 2 of 2 As reported on Form PF, Question 63.

	7,07	7,05	20,7	201705	201208	20120	07.70	17.71	1,5	2018.01	~ % % %	2018.03
Product Type	2012	2017	2012	8	8	6	2017	3017	3017	6	2018	8
U.S. Treasuries	64.7	61.4	56.1	60.8	55.8	54.6	60.1	65.4	68.0	65.3	64.3	68.3
Deposits	82.8	81.7	77.3	84.1	83.6	79.7	82.8	83.1	73.2	82.0	79.4	63.1
Other	53.7	65.0	65.9	60.9	58.7	60.2	54.8	53.6	62.4	66.7	64.9	56.4
Commercial Paper	40.3	44.2	41.3	46.4	44.7	45.2	48.7	48.5	41.8	50.0	49.5	47.7
Repo - Other Collateral	41.1	46.4	35.4	38.6	46.6	48.8	40.0	36.8	32.0	37.7	41.1	37.7
Repo - Govt. Collateral	26.2	34.6	34.5	32.3	30.5	32.1	38.2	36.3	29.2	37.0	31.2	34.0
Asset-Backed Securities	26.7	25.2	21.3	22.0	21.8	23.9	22.6	21.7	20.6	23.4	22.9	22.5
U.S. Govt. Debt	4.8	5.0	5.8	4.0	3.5	5.3	5.0	5.3	5.4	4.4	5.2	5.0
Municipal Debt	1.5	1.6	1.1	1.3	1.1	1.1	1.1	1.1	0.9	0.9	1.0	1.0

# XI Section 4 Private Equity Fund Specific Information

# A CPC Industry Concentration

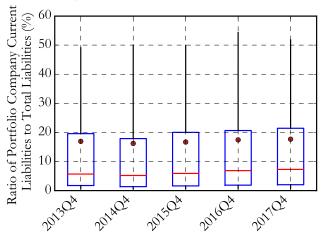
Table 63: Gross Assets in CPC Industries (Percent of Total)
As reported on Form PF, Questions 8 and 77.

Type	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4
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

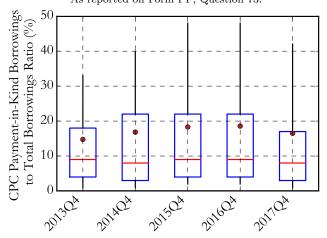
**Figure 22:** Distribution of Ratio of Aggregate CPC Current Liabilities to Total Liabilities of Section 4 Private Equity Funds

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



**Figure 23:** Distribution of CPC Payment-in-Kind or Zero Coupon Borrowings to Total Borrowings Ratio See Appendix C for an explanation of boxplots.

As reported on Form PF, Question 73.



## C CPC Investments by Region and Country

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

Region	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4
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 65:** Private Equity CPC Investments by Region (Percent of Aggregate CPC Gross Asset Value)

As reported on Form PF, Questions 70 and 78.

Region	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4
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 66:** Aggregate Gross Asset Value of Private Equity CPC Investments by Country (\$ Billions)
As reported on Form PF, Questions 70 and 78.

Country	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4
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 67:** Private Equity CPC Investments by Country (Percent of Aggregate CPC Gross Asset Value)

As reported on Form PF, Questions 70 and 78.

Country	2013Q4	2014Q4	2015Q4	2016Q4	2017Q4
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>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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. 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>&</sup>lt;sup>9</sup>This includes "other private funds," which are private funds that do not meet the Form PF definition of hedge fund, liquidity fund, private equity fund, real estate fund, securitized asset fund, or venture capital fund.

#### B Handling Annual and Quarterly Data

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

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

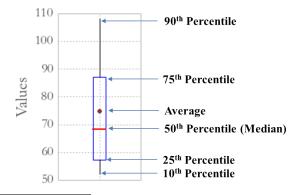
- (Q1): February 15 to May 14
- (Q2): May 15 to August 14
- (Q3): August 15 to November 14
- (Q4): November 15 to February 14

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

#### C How to Read a Boxplot

In these figures, the boxes extend from the twenty-fifth percentile to the seventy-fifth percentile, while the levels (the dashed vertical lines) extend from the tenth to the twenty-fifth percentile as well as the seventy-fifth to the ninetieth percentile. Also shown as a red line within the box is the median (the fiftieth percentile) and the horizontal dashed line is mean of the distribution. See Figure 24 for an explanation of each feature.

Figure 24: How to Read a Boxplot



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

#### D Mitigating the Effects of Outliers

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

Winsorization is a technique for reducing the effect of outliers by reducing the size of the largest and smallest values in a distribution. 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.

 $<sup>^{11}\</sup>text{Such}$  techniques are known as 'robust statistics', reviewed for example in Wilcox (2012), Introduction to Robust Estimation & Hypothesis Testing, 3rd Edition.

#### E Definitions

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

Aggregate Exposure 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.

Borrowing In Form PF, borrowings include secured borrowings, unsecured borrow-

ings, as well as synthetic borrowings (e.g., total return swaps that meet

the failed sale accounting requirements).

CPC Controlled portfolio company, as defined in Form PF.

Gross Notional Exposure (GNE) 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.

Hedge Fund 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.

IRDs Interest rate derivatives, including foreign exchange derivatives used for

either investment or hedging.

Large Hedge Fund Adviser An adviser that has at least \$1.5 billion in hedge fund assets under

management.

Large Liquidity Fund Adviser An adviser that has at least \$1 billion in combined liquidity fund and money market fund assets under management.

Large Private Equity Fund Adviser An adviser that has at least a \$2 billion in private equity fund assets under management.

Parallel Managed Account 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.

Qualifying Hedge Fund 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.

Section 3 Liquidity Fund A liquidity fund advised by a Large Liquidity Fund Adviser.

Value

Section 4 Private Equity Fund A private equity fund advised by a Large Private Equity Fund Adviser.

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.