Online Appendix to

Informed Trading in Government Bond Markets

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First Draft: February 2019
This Draft: January 2021

Table A1: Daily Order Flows and Contemporaneous Bond Returns – Portfolio Sorting

This table reports the contemporaneous returns to calendar-time long-short gilt portfolios sorted by daily order flows of hedge funds and mutual funds. In Panel A, the sorting variable is daily order flows of hedge funds. In Panel B, the sorting variable is daily order flows of mutual funds. In Panel C, the sorting variable is the daily order flows of hedge and mutual funds combined. For each bond on each day, we calculate the daily order flow of hedge funds (mutual funds) as the net buy volume scaled by the total trading volume of hedge funds (mutual funds). We then sort all gilts into three groups based on the daily order flows of hedge funds (mutual funds) and weigh the bonds equally within each group. We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A (Daily Level): Hedge Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	1.46	(1.44)	-0.72	(-2.58)	-0.58	(-1.95)
2	2.10	(2.02)	-0.14	(-0.51)	-0.13	(-0.49)
3 (High)	2.39	(2.43)	0.29	(1.01)	0.31	(1.09)
H-L	**0.92**	**(2.31)**	**1.10**	**(2.56)**	**0.89**	**(2.16)**

Panel B (Daily Level): Mutual Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	1.18	(1.23)	-0.84	(-2.20)	-0.85	(-2.24)
2	2.63	(2.26)	0.18	(0.55)	0.38	(1.12)
3 (High)	2.15	(2.13)	-0.01	(-0.04)	-0.01	(-0.02)
H-L	0.97	(1.74)	0.83	(1.51)	0.84	(1.55)

Panel C: Hedge Funds and Mutual Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	1.15	(1.30)	-0.81	(-2.61)	-0.84	(-2.89)
2	2.25	(2.04)	-0.25	(-0.99)	-0.15	(-0.64)
3 (High)	2.96	(3.20)	0.86	(3.82)	0.82	(3.60)
H-L	**1.82**	(**3.91**)	**1.67**	(**3.70**)	**1.66**	(**3.80**)

Table A2: Daily Order Flows and Future Bond Returns – Portfolio Sorting

This table reports detailed results of calendar-time long-short gilt portfolios sorted by daily order flows of hedge funds and mutual funds (Table 2). For each bond on each day, we calculate the daily order flow of hedge funds (mutual funds) as the net buy volume scaled by the total trading volume of hedge funds (mutual funds). We then sort all gilts into three groups based on the daily order flows of hedge funds (mutual funds) and weigh the bonds equally within each group. We report the return (alpha) spreads between the top and bottom terciles ("High minus Low": H-L) on the following trading day (Panel A), five trading days (Panel B), ten trading days (Panel C), one month (Panel D), and two months (Panel E). We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A: Holding Period = 1 day

	Hedge Funds						Mutual Funds					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	1.26	(1.20)	-0.76	(-2.07)	-0.75	(-2.04)	1.52	(1.55)	-0.33	(-0.90)	-0.34	(-0.92)
2	1.72	(1.76)	-0.34	(-1.18)	-0.32	(-1.13)	2.20	(1.97)	-0.03	(-0.09)	0.04	(0.11)
3 (High)	2.54	(2.65)	0.62	(2.23)	0.64	(2.26)	1.97	(2.02)	0.01	(0.03)	-0.00	(-0.01)
H-L	**1.28**	(**2.80**)	**1.38**	(**3.16**)	**1.39**	(**3.20**)	0.45	(0.95)	0.34	(0.72)	0.34	(0.71)

Panel B: Holding Period = 5 days

	Hedge Funds						Mutual Funds					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	8.86	(1.98)	-1.33	(-1.79)	-1.08	(-1.49)	8.60	(2.05)	-1.01	(-1.29)	-0.80	(-1.01)
2	9.92	(2.06)	-0.90	(-1.16)	-0.53	(-0.68)	11.72	(2.30)	0.50	(0.52)	0.79	(0.86)
3 (High)	11.74	(2.66)	1.61	(2.15)	1.85	(2.72)	10.35	(2.35)	0.41	(0.50)	0.70	(0.85)
H-L	**2.88**	(**3.16**)	**2.94**	(**3.32**)	**2.94**	(**3.55**)	1.75	(1.63)	1.43	(1.41)	1.50	(1.49)

Panel C: Holding Period = 10 Days

	Hedge Funds						Mutual Funds					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	18.42	(2.40)	-2.22	(-2.51)	-1.46	(-1.70)	17.22	(2.62)	-1.90	(-1.75)	-1.23	(-1.09)
2	19.71	(2.24)	-1.70	(-1.81)	-0.66	(-0.69)	22.92	(2.62)	0.19	(0.17)	0.76	(0.73)
3 (High)	21.06	(2.72)	0.67	(0.75)	1.28	(1.41)	19.76	(2.63)	-0.72	(-0.68)	0.17	(0.16)
H-L	**2.64**	(**2.33**)	**2.89**	(**2.62**)	**2.74**	(**2.49**)	2.54	(1.70)	1.18	(0.85)	1.40	(0.98)

Panel D: Holding Period = 1 Month

	Hedge Funds						Mutual Funds					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	40.62	(2.89)	-3.12	(-2.33)	-2.07	(-1.46)	37.61	(3.26)	-3.34	(-1.96)	-2.86	(-1.59)
2	44.04	(2.81)	-1.20	(-0.83)	-0.05	(-0.03)	45.37	(3.01)	-1.82	(-1.11)	-0.37	(-0.22)
3 (High)	41.94	(3.01)	-0.67	(-0.51)	0.32	(0.24)	44.08	(3.16)	0.66	(0.39)	1.95	(1.10)
H-L	1.32	(0.73)	2.46	(1.45)	2.39	(1.37)	**6.47**	(**2.59**)	4.00	(1.66)	4.81	(1.83)

Panel E: Holding Period = 2 Months

	Hedge Funds						Mutual Funds					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	74.75	(2.87)	0.03	(0.03)	2.54	(2.22)	65.28	(2.64)	-4.11	(-3.84)	-2.69	(-2.65)
2	77.28	(2.83)	-4.47	(-3.47)	-1.12	(-0.83)	88.84	(2.60)	-0.72	(-0.64)	1.18	(1.10)
3 (High)	73.47	(2.92)	-0.31	(-0.24)	0.97	(0.76)	80.89	(2.82)	2.24	(1.98)	2.86	(2.55)
H-L	-1.28	(-0.31)	-0.34	(-0.19)	-1.57	(-0.85)	**15.61**	(**3.67**)	**6.35**	(**3.49**)	**5.55**	(**3.03**)

Table A3: Daily Order Flows and Intraday Bond Returns

This table reports intraday returns to the long-short gilt portfolios sorted by daily order flows of hedge funds. For each trade, the intraday return is measured as the percentage difference between the transaction price and the closing price on the same day. For each bond on each day, we calculate the average intraday returns across hedge funds. Panel A includes all trading days, Panel B includes days prior to macroeconomic-news announcements, Panel C includes days prior to monetary policy announcements (MPC), and Panel D includes days prior to announcements of inflation and labor statistics. We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. T-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A: All Trading Days						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	3.89	6.52	-0.30	-0.95	-0.30	-0.93
2	4.28	7.37	-0.24	-0.68	-0.26	-0.74
3 (High)	4.57	8.22	0.52	1.52	0.54	1.57
H-L	**0.68**	**2.00**	**0.82**	**2.30**	**0.83**	**2.33**
Panel B: The Day Prior to Macro-news Announcements						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	7.43	5.6	0.42	0.48	0.36	0.39
2	8.29	6.79	0.57	0.75	0.63	0.80
3 (High)	10.05	4.51	2.78	1.68	2.71	1.60
H-L	**2.63**	**2.08**	**2.36**	**2.57**	**2.35**	**2.56**
Panel C: The Day Prior to MPC						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	8.81	5.23	0.92	0.77	1.19	1.07
2	10.01	6.80	1.25	0.97	1.26	0.82
3 (High)	10.64	4.71	2.68	1.43	2.79	1.49
H-L	1.83	1.41	**1.76**	**2.16**	1.60	1.80
Panel D: The Day Prior to Announcements of Labor and Inflation Statistics						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	6.15	6.05	0.42	0.63	0.21	0.29
2	6.70	7.87	0.53	1.17	0.56	1.09
3 (High)	9.51	6.43	3.07	2.50	2.78	2.31
H-L	**3.36**	**3.24**	**2.65**	**2.96**	**2.57**	**2.88**

Table A4: Daily Order Flows and Contemporaneous Bond Returns
Sub-period Analysis Sorted by Market Volatility

This table reports the subsample analysis of Table A1 (the contemporaneous returns to calendar-time long-short gilt portfolios sorted by daily order flows of hedge funds and mutual funds). To conduct the subsample analysis, we follow Figure 3 and divide all trading into three subperiods—periods with low, high, and ultra-high market volatilities, with cutoffs at the 50th and 90th percentiles of the time-series distribution. Our main proxy for market volatilities is the forward-looking VIX index constructed from FTSE 100 options minus the average VIX in the past three months. For each subsample period, we repeat the analysis of Table A1. In Panel A, we report the contemporaneous returns to calendar-time long-short gilt portfolios sorted by daily order flows of hedge funds and mutual funds in the sample period with low market volatilities. In Panel B, we report the contemporaneous returns to calendar-time long-short gilt portfolios sorted by daily order flows of hedge funds and mutual funds in the sample period with high market volatilities. In Panel C, we report the contemporaneous returns to calendar-time long-short gilt portfolios sorted by daily order flows of hedge funds and mutual funds in the sample period with ultra-high market volatilities. We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. *T*-statistics are computed based on standard errors with Newey-West correction and are reported in parentheses. Long-short portfolio returns significant at the 10% level are indicated in bold.

Panel A: Subsample with Low Market Volatilities						
Hedge Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	-0.04	-0.02	-0.48	-1.21	-0.38	-0.97
2	-0.12	-0.07	-0.55	-0.82	-0.53	-0.75
3 (High)	0.70	0.47	0.29	0.79	0.26	0.71
H-L	0.74	1.41	0.77	1.50	0.63	1.29
Mutual Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	-0.13	-0.09	-0.58	-1.40	-0.56	-1.36
2	0.54	0.30	-0.02	-0.05	0.01	0.02
3 (High)	0.62	0.38	0.14	0.24	0.16	0.28
H-L	0.75	0.91	0.72	0.88	0.72	0.89

Panel B: Subsample with High Market Volatilities						
Hedge Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	3.16	1.95	-0.56	-1.30	-0.53	-1.24
2	4.59	2.07	0.47	0.63	0.48	0.62
3 (High)	4.24	2.69	0.59	1.25	0.60	1.26
H-L	**1.08**	**1.96**	**1.15**	**1.87**	**1.13**	**1.84**
Mutual Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	3.03	1.61	-0.59	-1.09	-0.57	-1.04
2	4.06	1.88	0.20	0.42	0.23	0.49
3 (High)	4.41	2.41	0.70	1.21	0.70	1.22
H-L	1.38	1.64	1.30	1.59	1.27	1.56

Panel C: Subsample with Extreme High Market Volatilities						
Hedge Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	-0.86	-0.36	-2.03	-2.34	-1.75	-2.13
2	2.31	1.01	1.06	0.97	1.55	1.54
3 (High)	1.63	0.82	0.55	0.74	0.80	1.08
H-L	**2.49**	**1.78**	**2.59**	**1.88**	**2.56**	**1.89**
Mutual Funds						
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	0.83	0.42	-0.28	-0.44	-0.02	-0.03
2	0.05	0.02	-1.17	-1.68	-0.83	-1.26
3 (High)	1.27	0.62	0.15	0.17	0.43	0.51
H-L	0.43	0.41	0.43	0.41	0.45	0.43

Table A5: Order Flows and Future Bond Returns (Fama-MacBeth Regressions)

This table reports results of Fama-MacBeth regressions in Table 4 with two additional order flow variables: order flow of high-connection clients and order flow of active clients. High-connection clients are those with above-median dealer connections in the month before the formation period. Active clients are those with above-median trading volume in the month before the formation period. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

Panel A: Daily Order Flows and Future Bond Returns

	$Return_{d+1}$			$Retrun_{d+1:d+5}$		
$Order\ Flow\ of\ Hedge\ Funds_d$	0.003***	0.003**	0.004***	0.005**	0.005**	0.005***
	(3.269)	(2.064)	(3.389)	(2.382)	(2.292)	(2.243)
$Order\ Flow\ of\ High - Connection\ Clients_d$	0.001		0.015	0.004		0.024
	(1.058)		(0.871)	(1.882)		(1.549)
$Order\ Flow\ of\ Active\ Clients_d$		0.002	-0.013		0.003	-0.019
		(1.374)	(-0.734)		(1.334)	(-1.258)
$Return_d$	-0.264**	-0.276**	-0.323***	-0.099	-0.095	-0.141
	(-2.534)	(-2.655)	(-2.951)	(-0.986)	(-0.944)	(-1.444)
$Size_d$	-0.002	-0.001	-0.007	0.030**	0.029**	0.023*
	(-0.276)	(-0.253)	(-0.885)	(2.410)	(2.246)	(1.776)
$Maturity_d$	0.015	0.009	0.015	0.308***	0.293**	0.316***
	(0.267)	(0.155)	(0.289)	(2.662)	(2.498)	(2.672)
No. Obs.	22,960	22,960	22,960	22,960	22,960	22,960
Adj. R^2	0.794	0.795	0.793	0.782	0.783	0.781

Panel B: Monthly Order Flows and Future Bond Returns

	$Return_{m+1}$		
$Order\ Flow\ of\ Mutual\ Funds_m$	0.188**	0.208**	0.220**
	(2.131)	(2.111)	(2.078)
$Order\ Flow\ of\ High - Connection\ Clients_m$	0.029		-0.167
	(0.809)		(-0.859)
$Order\ Flow\ of\ Active\ Client_m$		0.001	0.162
		(0.014)	(0.895)
$Return_m$	-0.112	-0.118	-0.103
	(-1.198)	(-1.270)	(-1.139)
$Size_m$	-0.076**	-0.093**	-0.078*
	(-2.009)	(-2.429)	(-1.882)
$Maturity_m$	0.400***	0.399***	0.400***
	(3.355)	(3.454)	(3.387)
No. Obs.	2,804	2,804	2,804
Adj. R^2	0.797	0.797	0.798

Table A6: Client Types and Future Client Performance

This table reports results of Fama-MacBeth regressions of client performance on client types, dealer connections, and trading activity (trading volume and number of trades). Following Kondor and Pinter (2019), for each institution on every day (or month), we track its trading and calculate the trade-weighted portfolio return on the following day (or month). Panel A conducts regressions at the daily frequency, and Panel B conducts regressions at the monthly frequency. The main independent variable in Panel A is a dummy variable, $D_{Hedge\ Fund}$, that equals one if the client is a hedge fund and zero otherwise; the main independent variable in Panel B is a dummy variable, $D_{Mutual\ Fund}$, that equals one if the client is a mutual fund and zero otherwise. *Connections with dealers* is the number of dealers with whom the client has trading relations in the previous month. *Volume* is the logarithm of trading volume of the client in the previous month. *Number of trades* is the logarithm of the number of transactions by the client in the previous month. T-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

Panel A: Performance of Transaction on the Daily Level

	$Performance_{d+1}$			$Performance_{d+1:d+5}$		
$D_{Hedge\ Fund}$	0.020**		0.020**	0.041**		0.040**
	(2.461)		(2.412)	(2.457)		(2.395)
Connections with dealers		0.001***	0.001***		0.002**	0.002**
		(2.756)	(2.763)		(2.274)	(2.249)
Volume	0.002***	0.003***	0.002**	0.001	0.002	-0.001
	(3.120)	(3.698)	(2.543)	(0.405)	(0.920)	(-0.027)
Number of trades	0.002	-0.001	0.000	0.002	-0.004	-0.002
	(1.322)	(-0.541)	(0.131)	(0.646)	(-1.226)	(-0.455)
No. Obs.	198,933	198,933	198,933	198,933	198,933	198,933
Adj. R^2	0.003	0.003	0.004	0.002	0.001	0.002

Panel B: Performance of Transaction on the Monthly Level

	$Performance_{m+1}$		
$D_{Mutual\ Fund}$	0.089		0.089
	(3.234)		(3.257)
Connections with dealers		0.006	0.005
		(1.447)	(1.246)
Volume	0.002	-0.006	-0.001
	(0.237)	(-0.543)	(-0.019)
Number of trades	-0.004	-0.006	-0.011
	(-0.437)	(-0.575)	(-1.267)
No. Obs.	21,735	21,735	21,735
Adj. R^2	0.003	0.001	0.002

Table A7: Client Types and Future Performance: Client-Bond Level Regressions

This table reports results of panel regressions of client-bond returns on client types, connections with dealers, and trading activity (trading volume and number of trades). The dependent variable is the future return of each bond traded by each client (institution). Panel A conducts regressions at the daily frequency, and Panel B conducts regressions at the monthly frequency. The main independent variable in Panel A is a dummy variable, $D_{Hedge\ Fund}$, that equals one if the client is a hedge fund and zero otherwise; the main independent variable in Panel B is a dummy variable, $D_{Mutual\ Fund}$, that equals one if the client is a mutual fund and zero otherwise. *Connections with dealer* is the number of dealers with whom the client has trading relations in the previous month. *Volume* is the logarithm of trading volume of the client in the previous month. *Number of trades* is the logarithm of the number of transactions by the client in the previous month. Time fixed effects are included in all regression specifications. *T*-statistics, based on standard errors clustered at both the time and bond levels, are reported in parentheses. ***, ** and * indicate significance at the 1%, 5%, and 10% level, respectively.

Panel A: Performance of Transaction on the Daily Level

	$Performance_{d+1}$			$Performance_{d+1:d+5}$		
$D_{Hedge\ Fund}$	0.0124***		0.0145***	0.0301***		0.0329***
	(2.712)		(3.218)	(3.694)		(4.078)
Connections with dealers		0.0010***	0.0011***		0.0013**	0.0015**
		(3.181)	(3.375)		(2.150)	(2.368)
Volume	0.0004	0.0004	0.0001	0.0017	0.0020	0.0012
	(0.645)	(0.630)	(0.054)	(1.357)	(1.586)	(0.900)
Number of trades	0.0041**	0.0017	0.0023	0.0008	-0.0030	-0.0016
	(2.138)	(0.863)	(1.155)	(0.221)	(-0.807)	(-0.425)
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
No. Obs.	709,332	709,332	709,332	709,310	709,310	709,310
Adj. R^2	0.014	0.014	0.014	0.015	0.015	0.015

Panel B: Performance of Transaction on the Monthly Level

	$Performance_{m+1}$		
$D_{Mutual\ Fund}$	0.0539***		0.0530***
	(2.982)		(3.063)
Connections with dealers		0.0018	0.0010
		(0.921)	(0.546)
Volume	0.0046	0.0001	0.0042
	(0.714)	(0.019)	(0.681)
Number of trades	0.0180**	0.0186**	0.0164**
	(2.323)	(2.313)	(2.022)
Fixed Effects	Yes	Yes	Yes
No. Obs.	122,215	122,215	122,215
Adj. R^2	0.004	0.004	0.004

Table A8: Order Flows and Future Bond Returns (Liquid vs. Non-Liquid Bonds)

This table repeats the Fama-MacBeth regressions in Table 4 for two subsamples of government bonds: more liquid versus less liquid bonds. The dummy variable, $D_{Liquid\ Bond}$, equals one if the bond is an on-the-run or a first off-the-run 2-, 5-, 10-, 15-, 20-, or 30-year government bond, and zero otherwise. In columns (1)-(2), the dependent variables are the one-day (five-day) ahead bond returns, and the main independent variable is daily hedge fund order flows. In column (3), the dependent variable is the one-month ahead bond return and the main independent variable is monthly mutual fund order flows. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

	$Return_{d+1}$	$Return_{d+1:d+5}$		$Return_{m+1}$
	(1)	(2)		(3)
$Order\ Flow\ of\ Hedge\ Funds_d$	0.007***	0.048*	$Order\ Flow\ of\ Mutual\ Funds_m$	0.383**
$\times D_{Liquid\ Bond}$	(2.648)	(1.739)	$\times D_{Liquid\ Bond}$	(2.604)
$Order\ Flow\ of\ Hedge\ Funds_d$	-0.004	0.002	$Order\ Flow\ of\ Mutual\ Funds_m$	0.115*
	(-1.406)	(0.171)		(1.853)
$D_{Liquid\ Bond}$	-0.001	0.014	$D_{Liquid\ Bond}$	0.032*
	(-0.153)	(0.272)		(1.726)
$Return_d$	-0.003	-0.539	$Return_m$	-0.116
	(-0.396)	(-1.123)		(-1.297)
$Size_d$	-0.270**	-1.296	$Size_m$	-0.070**
	(-2.004)	(-1.315)		(-2.139)
$Maturity_d$	0.013	1.497*	$Maturity_m$	0.285***
	(0.204)	(1.710)		(3.513)
No. Obs.	23,325	23,325	No. Obs.	2,804
Adj. R^2	0.788	0.784	Adj. R^2	0.84

Table A9: Non-Dealer Order Flows and Future Hedge Fund Order Flows

This table reports results of panel regressions of hedge fund order flows on lagged order flows by other investor types. For each bond in a five-day window, we calculate the order flow of each investor type (e.g., hedge funds) as the net buy volume scaled by the total trading volume of this group of investors. The dependent variable is hedge fund order flows on days *d+1* to *d+5*. In columns (1)-(2), the independent variable is mutual fund order flow on days *d-4* to *d*. In columns (3)-(4), the independent variable is order flows of pension and insurance companies (ICPF) on days *d-4* to *d*. In columns (5)-(6), the independent variable is order flows of non-dealer banks on days *d-4* to *d*. Other control variables include size, maturity, trading volume, lagged bond returns, and lagged order flows. Time fixed effects are included in all regression specifications. *T*-statistics, based on standard errors clustered at both the time and bond levels, are reported in parentheses. ***, ** and * indicate significance at the 1%, 5%, and 10% level, respectively.

$DepVar$ = $Order\ Flow\ of\ Hedge\ Funds_{d+1:d+5}$						
$Others$ =	Mutual Funds		IPCFs		Banks	
	(1)	(2)	(3)	(4)	(5)	(6)
$Order\ Flow\ of\ Hedge\ Funds_{d-4:d}$	0.101***	0.075***	0.094***	0.070***	0.092***	0.074***
	(9.258)	(5.863)	(8.495)	(6.572)	(7.627)	(5.814)
$Order\ Flow\ of\ Others_{d-4:d}$	-0.024	-0.031	-0.015	-0.013	0.000	0.008
	(-1.295)	(-1.233)	(-1.550)	(-1.182)	(0.020)	(0.525)
$Size_d$		-0.045*		-0.025		-0.040
		(-1.766)		(-0.990)		(-1.624)
$Maturity_d$		0.001		0.000		-0.001
		(0.827)		(0.136)		(-0.970)
$Volume_{d-4:d}$		-0.012		-0.005		-0.009
		(-1.515)		(-0.743)		(-1.068)
$Return_{d-4:d}$		-7.480		-6.460		-5.716
		(-1.374)		(-1.170)		(-1.093)
$Order\ Flow\ of\ Hedge\ Funds_{d-9:d-5}$		-0.009		-0.006		-0.001
		(-0.935)		(-0.492)		(-0.040)
$Order\ Flow\ of\ Hedge\ Funds_{d-14:d-10}$		-0.009		0.012		-0.001
		(-0.839)		(1.024)		(-0.075)
$Order\ Flow\ of\ Hedge\ Funds_{d-19:d-15}$		0.016		0.015		0.013
		(1.541)		(1.432)		(1.221)
$Order\ Flow\ of\ Hedge\ Funds_{d-24:d-20}$		0.002		0.005		0.001
		(0.189)		(0.534)		(0.108)
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
No. Obs.	40,126	26,483	38,630	28,082	39,324	27,977
Adj. R^2	0.048	0.065	0.048	0.063	0.046	0.059

Table A10: Daily Hedge Fund Order Flows and Future Bond Returns – Double Sorting

This table reports the return predictability of daily hedge fund order flows for periods with high and low mutual fund flow-induced trading (*FIT*). We follow Lou (2012) to calculate *FIT* for each bond on each day. We then aggregate the absolute value of *FIT* across all bonds and use this aggregate *FIT* measure to divide our sample period into high-*FIT* and low-*FIT* days. For each subperiod, we repeat the portfolio sorting exercise of Table 2. We report the return (alpha) spreads between the top and bottom terciles ("High minus Low": H-L) on the following trading day (Panel A), and the following five trading days (Panel B). We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A: Holding Period = 1 day

	High Flow-Induced Trade						Low Flow-Induced Trade					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	1.25	(0.80)	-1.25	(-2.13)	-1.26	(-2.19)	1.28	(0.82)	-0.25	(-0.53)	-0.28	(-0.59)
2	2.14	(1.60)	-0.31	(-0.85)	-0.31	(-0.85)	1.27	(0.82)	-0.32	(-0.75)	-0.33	(-0.77)
3 (High)	3.52	(2.65)	1.20	(3.07)	1.21	(3.12)	1.52	(1.05)	0.04	(0.11)	0.04	(0.09)
H-L	**2.27**	(**2.93**)	**2.46**	(**3.37**)	**2.47**	(**3.50**)	0.24	(0.44)	0.29	(0.54)	0.32	(0.59)

Panel B: Holding Period = 5 days

	High Flow-Induced Trade						Low Flow-Induced Trade					
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
1 (Low)	11.09	(1.88)	-1.20	(-1.10)	-1.16	(-1.07)	6.54	(0.93)	-1.32	(-1.37)	-0.93	(-1.00)
2	12.47	(1.96)	-0.63	(-0.55)	-0.34	(-0.31)	7.27	(0.93)	-1.03	(-0.95)	-0.80	(-0.73)
3 (High)	15.10	(2.51)	2.78	(2.60)	2.55	(2.70)	8.25	(1.20)	0.49	(0.54)	0.84	(0.95)
H-L	**4.01**	(**3.10**)	**3.98**	(**3.30**)	**3.71**	(**3.40**)	1.70	(1.32)	1.81	(1.46)	1.77	(1.49)

Table A11: Hedge Fund Order Flows and Macro-News Announcements

This table reports robustness checks for the portfolio returns to the long-short gilt portfolio sorted by daily hedge fund order flows on (or around) macroeconomics news announcement days (Table 6). Macroeconomic news includes Monetary Policy Committee (MPC) meetings and announcements of inflation and labor statistics. In Panel A, we consider alternative windows to calculate order flows (in the one, two, or three days prior to each announcement). In Panel B, we also consider alternative windows to calculate the returns around macroeconomic announcement days (from the day before to the day after each announcement). We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A: Predicting returns on announcement days						
Sorting Variable	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
	All Macroeconomic News					
Past 1 day's order flow	**2.50**	(**2.26**)	**2.52**	(**2.41**)	**2.52**	(**2.62**)
Past 2 days' order flow	**4.12**	(**3.36**)	**4.30**	(**3.31**)	**4.10**	(**3.64**)
Past 3 days' order flow	**3.43**	(**3.16**)	**3.53**	(**3.35**)	**3.36**	(**3.75**)
	Monetary Policy Committee (MPC) Meetings					
Past 1 day's order flow	0.90	(1.74)	**1.00**	(**1.97**)	**1.22**	(**2.74**)
Past 2 days' order flow	**4.69**	(**2.56**)	**5.03**	(**2.49**)	3.99	(1.91)
Past 3 days' order flow	**3.24**	(**2.35**)	**3.33**	(**2.32**)	**2.34**	(1.28)
	Inflation and Labor Announcements					
Past 1 day's order flow	**3.42**	(**2.96**)	**3.54**	(**3.17**)	**3.53**	(**3.16**)
Past 2 days' order flow	**3.42**	(**2.96**)	**3.54**	(**3.17**)	**3.53**	(**3.16**)
Past 3 days' order flow	**2.98**	(**2.87**)	**2.98**	(**2.86**)	**2.98**	(**2.87**)

Panel B: Predicting returns in the (-1,1) window around announcement days						
	All Macroeconomic News					
Past 1 day's order flow	**8.72**	(**4.26**)	**8.69**	(**4.19**)	**8.51**	(**4.29**)
Past 2 days' order flow	**5.30**	(**2.74**)	**5.28**	(**2.69**)	**5.14**	(**2.75**)
Past 3 days' order flow	**4.54**	(**2.51**)	**4.49**	(**2.47**)	**4.38**	(**2.46**)
	Monetary Policy Committee (MPC) Meetings					
Past 1 day's order flow	**8.50**	(**2.93**)	**8.50**	(**3.01**)	**7.46**	(**2.86**)
Past 2 days' order flow	**7.62**	(**2.58**)	**7.63**	(**2.57**)	**6.79**	(**2.56**)
Past 3 days' order flow	**7.13**	(**2.86**)	**7.13**	(**2.84**)	**6.21**	(**2.80**)
	Inflation and Labor Announcements					
Past 1 day's order flow	**9.11**	(**3.31**)	**9.00**	(**3.62**)	**9.01**	(**3.79**)
Past 2 days' order flow	**3.20**	(**2.08**)	**3.17**	(**2.13**)	**3.33**	(**2.46**)
Past 3 days' order flow	1.58	(0.87)	1.39	(0.91)	2.40	(1.72)

Table A12: Mutual Fund Order Flows and Future Non-Dealer Order Flows

This table reports results of panel regressions of monthly order flows (excluding mutual funds) on lagged monthly mutual fund order flows. For each bond in month m, we calculate the order flow of each investor type (e.g., hedge funds) as the net buy volume scaled by the total trading volume of this investor type. The independent variable is mutual fund order flows in month m. In columns (1) and (2), the dependent variable is hedge fund order flows in month m+1. In columns (3) and (4), the dependent variable is order flows of insurance and pension companies (ICPF) in month m+1. In columns (5) and (6), the dependent variable is order flows of non-dealer banks in month m+1. Other control variables include the bond size, maturity, trading volume, lagged bond returns, lagged order flows. Time fixed effects are included in all regression specifications. T-statistics, based on standard errors clustered at both the time and bond levels, are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

$DepVar = Order\ Flows\ of\ Others_{m+1}$						
$Others =$	Hedge Funds		IPCFs		Banks	
	(1)	(2)	(3)	(4)	(5)	(6)
$Order\ Flows\ of\ Mutual\ Funds_m$	0.010	-0.014	0.072*	0.037	0.051	-0.010
	(0.198)	(-0.272)	(1.945)	(0.942)	(1.391)	(-0.322)
$Order\ Flows\ of\ Others_m$	0.021	0.028	0.045*	0.013	0.023	-0.026
	(0.947)	(1.318)	(1.983)	(0.568)	(0.710)	(-0.825)
$Order\ Flow\ of\ Others_{m-1}$		0.024		-0.036*		0.016
		(0.777)		(-1.670)		(0.712)
$Order\ Flow\ of\ Others_{m-2}$		-0.027		0.007		0.002
		(-1.002)		(0.278)		(0.089)
$Order\ Flow\ of\ Others_{m-3}$		-0.018		-0.044*		0.004
		(-0.781)		(-1.765)		(0.183)
$Order\ Flow\ of\ Others_{m-4}$		0.022		-0.008		-0.021
		(0.994)		(-0.373)		(-0.816)
$Size_m$		0.014		-0.346***		-0.049
		(0.246)		(-4.466)		(-1.411)
$Maturity_m$		-0.001		2.508		0.000
		(-1.085)		(1.659)		(0.544)
$Volume_m$		-0.020		0.007		0.025***
		(-1.299)		(0.645)		(3.503)
$Return_m$		-0.271		-0.091		-0.086
		(-0.339)		(-0.133)		(-0.135)
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
No. Obs.	2,751	2,535	2,869	2,653	2,869	2,653
Adj. R^2	0.030	0.038	0.094	0.090	0.034	0.042

Table A13: Trading Volume around Macroeconomic-News Announcements

This table reports the dynamics of trading volume around macroeconomic-news announcements by investor type and bond maturity. Day 0 corresponds to the announcement day. Weeks -2, -1, 1, and 2 are the two calendar weeks before and the two calendar weeks after the announcement day. For ease of interpretation, we normalize the daily trading volume in each period by the average daily trading volume in week -2 (i.e., daily volume in week -2 is normalized to 1).

Maturity	Week -2	Week -1	Day -1	Day 0	Week 1	Week 2
Panel A: Hedge Funds						
<5 years	100%	111%	118%	115%	111%	89%
Between 5 and 10 Years	100%	99%	111%	116%	99%	103%
Between 10 and 30 Years	100%	85%	101%	90%	85%	98%
>30 Years	100%	98%	100%	109%	108%	109%
Panel B: Mutual Funds						
<5 years	100%	103%	107%	137%	104%	97%
Between 5 and 10 Years	100%	101%	114%	124%	102%	107%
Between 10 and 30 Years	100%	103%	117%	116%	100%	97%
>30 Years	100%	105%	104%	115%	103%	107%
Panel C: Banks						
<5 years	100%	94%	96%	91%	77%	79%
Between 5 and 10 Years	100%	99%	107%	109%	90%	87%
Between 10 and 30 Years	100%	106%	114%	102%	88%	88%
>30 Years	100%	108%	121%	115%	108%	105%
Panel D: ICPFs						
<5 years	100%	110%	104%	119%	107%	103%
Between 5 and 10 Years	100%	100%	108%	134%	105%	112%
Between 10 and 30 Years	100%	106%	112%	104%	98%	97%
>30 Years	100%	107%	103%	113%	112%	112%

Table A14: Hedge/Mutual Fund Order Flows and Economic Surprise

This table reports forecasting regressions of the UK economic surprise index (ESI) of Eguren-Martin and McLaren (2015) on hedge fund and mutual fund trading. The daily ESI is based on a) over 100 macroeconomic indicators, and b) investor expectations from Bloomberg surveys of market participants. In Panel A, the dependent variable is the ESI on day d+1 or on days d+1 to d+5, and the key independent variable is $Trade\ Weighted\ Duration$ based on hedge fund trading on day d (defined in the same way as in Table 7). In Panel B, the dependent variable is the ESI in month m+1 or in months m+1 to m+3, and the key independent variable is $Trade\ Weighted\ Duration$ based on mutual fund trading at month m. Other control variables include the forward spread, changes in analyst forecasts of interest rates, changes in analyst forecasts of the GDP growth rate, changes in analyst forecasts of the inflation rate. T-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. *, **, and *** indicate significant at 10%, 5%, and 1% level, respectively.

Panel A: $Trade\ Weighted\ Duration$ of Hedge Funds and ESI				
	ESI_{d+1}		$ESI_{d+1:d+5}$	
$Trade\ Weighted\ Duration_d$	-0.007	-0.007	-0.040*	-0.039*
	(-0.14)	(-0.16)	(-1.84)	(-1.75)
$Forward\ Spread_d$		-0.038		-0.033
		(-0.44)		(-0.35)
$\Delta IR\ Forecast_d$		-0.226		-0.186
		(-0.22)		(-0.17)
$\Delta GDP\ Forecast_d$		0.414		0.216
		(0.44)		(0.22)
$\Delta Inflation\ Forecast_d$		0.361		0.400
		(0.39)		(0.40)
No. Obs.	1,442	1,442	1,442	1,442
Adj. R^2	-0.001	-0.003	0.002	0.001
Panel B: $Trade\ Weighted\ Duration$ of Mutual Funds and ESI				
	ESI_{m+1}		$ESI_{m+1:m+3}$	
$Trade\ Weighted\ Duration_m$	-0.079**	-0.092**	-0.105**	-0.116***
	(-2.38)	(-2.35)	(-2.27)	(-2.88)
$Forward\ Spread_m$		-0.211**		-0.053***
		(-2.27)		(-5.47)
$\Delta IR\ Forecast_m$		-0.016		-0.001
		(-2.09)		(-0.18)
$\Delta GDP\ Forecast_m$		0.024		0.012
		(3.55)		(1.88)
$\Delta Inflation\ Forecast_m$		0.011		0.011
		(1.54)		(1.98)
No. Obs.	77	77	77	77
Adj. R^2	0.011	0.066	0.106	0.214

Table A15: Order Flows and Future Bond Returns (Robustness Checks)

This table reports robustness checks for the portfolio sorting exercise reported in Tables 2 and 3. In Panel A, the sorting variable is daily hedge fund order flows and the holding period is one day. We conduct subsample analyses in Panel A1, consider an alternative measure of bond returns based on the clean price in Panel A2, and use an alternative definition of order flows (net buy volume scaled by the number of shares outstanding) in Panel A3. In Panel B, the sorting variable is monthly mutual fund order flows and the holding period is one month. Again, we conduct subsample analyses in Panel B1, consider an alternative measure of bond returns based on the clean price in Panel B2, and use an alternative definition of order flows in Panel B3. We report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. T-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A: Return Predictability of Daily Hedge Fund Order Flows						
Panel A1: August 2011 − October 2014						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	12.35	(2.01)	0.02	(0.02)	0.30	(0.30)
3 (High)	14.54	(2.50)	2.16	(2.47)	2.42	(2.78)
H-L	**2.19**	(**1.99**)	**2.14**	(**2.01**)	**2.12**	(1.98)
November 2014 – December 2017						
1 (Low)	4.92	(0.64)	-2.59	(-2.69)	-2.16	(-2.25)
3 (High)	8.57	(1.11)	1.18	(1.24)	1.36	(1.48)
H-L	**3.65**	(**2.87**)	**3.77**	(**2.99**)	**3.52**	(**2.93**)

Panel A2: Predicting Bond Price Changes						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	3.53	(0.68)	-0.22	(-0.30)	-1.45	(-1.21)
3 (High)	6.59	(1.28)	2.85	(4.23)	1.90	(1.78)
H-L	**3.05**	(**3.56**)	**3.07**	(**3.62**)	**3.35**	(**2.28**)

Panel A3: Alternative Measure of Order Flows						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	8.55	(1.95)	-1.02	(-1.15)	-0.50	(-0.60)
3 (High)	11.42	(2.58)	1.46	(1.61)	1.91	(2.26)
H-L	**2.87**	(**2.60**)	**2.48**	(**2.28**)	**2.41**	(**2.24**)

Panel B: Return Predictability of Monthly Mutual Fund Order Flows						
Panel B1: August 2011 − October 2014						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	32.67	(1.34)	-10.82	(-2.50)	-12.63	(-4.06)
5 (High)	53.83	(2.27)	11.48	(2.56)	11.90	(4.17)
H-L	**21.16**	(**2.98**)	**22.30**	(**3.34**)	**24.53**	(**5.06**)
November 2014 – December 2017						
1 (Low)	18.00	(1.49)	-5.88	(-0.98)	-5.63	(-1.05)
5 (High)	44.84	(2.75)	11.76	(2.28)	10.46	(2.28)
H-L	**26.84**	(**2.23**)	17.64	(1.90)	**16.09**	(**2.00**)

Panel B2: Predicting Bond Price Changes						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	-2.32	(-0.18)	-36.96	(-7.79)	-36.97	(-8.22)
5 (High)	20.49	(1.33)	-18.69	(-5.75)	-18.17	(-6.21)
H-L	**22.81**	(**3.61**)	**18.27**	(**3.20**)	**18.80**	(**3.86**)

Panel B3: Alternative Measure of Order Flows						
	Return	T-stat	Alpha (1F)	T-stat	Alpha (3F)	T-stat
1 (Low)	33.72	(2.43)	29.40	(1.06)	32.52	(1.24)
5 (High)	59.50	(3.13)	56.23	(1.65)	59.60	(1.87)
H-L	**25.79**	**(3.28)**	**26.84**	**(2.57)**	**27.07**	**(2.85)**

Table A16: Order Flows and Future Bond Returns
Non-Dealer Banks, Insurance Companies and Pension Funds (ICPFs)

This table reports returns to calendar-time long-short gilt portfolios sorted by daily (monthly) order flows of non-dealer banks (banks) and insurance companies and pension funds (ICPFs). In Panel A, the sorting variable is daily order flows of non-dealer banks and ICPFs. In Panel B, the sorting variable is monthly order flows of non-dealer banks and ICPFs. In Panel A, for each bond in each day, we calculate the daily order flow of banks (ICPFs) as the net buy volume scaled by the total trading volume of banks (ICPF). We then sort all gilts into three groups based on the daily order flows of banks (ICPFs) and weigh the bonds equally within each group. In Panel B, for each bond in each month, we calculate the monthly order flow of banks (ICPFs) as the net buy volume scaled by the total trading volume of banks (ICPFs). We then sort all gilts into five groups based on the monthly order flows of hedge funds (mutual funds) and weigh the bonds equally within each group. In both panels, we report the raw returns, alphas adjusted by the market factor (1F Alpha), and alphas adjusted by the market, slope, and curvature factors (3F Alpha). All returns and alphas are reported in basis points. *T*-statistics are computed based on standard errors with Newey-West corrections and are reported in parentheses. Long-short portfolio returns significant at the 5% level are indicated in bold.

Panel A: Daily Order Flows and Bond Returns

Non-Dealer Banks

	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
Low	9.66	(1.90)	-0.59	(-0.63)	-0.20	(-0.21)
High	10.42	(2.19)	0.64	(0.83)	0.99	(1.30)
H-L	0.76	(0.64)	1.23	(0.99)	1.19	(0.93)

ICPFs

	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
Low	10.32	(1.80)	-0.54	(-0.94)	-0.55	(-0.99)
High	11.66	(1.93)	0.51	(0.80)	0.36	(0.59)
H-L	1.34	(1.41)	1.04	(1.05)	0.92	(0.94)

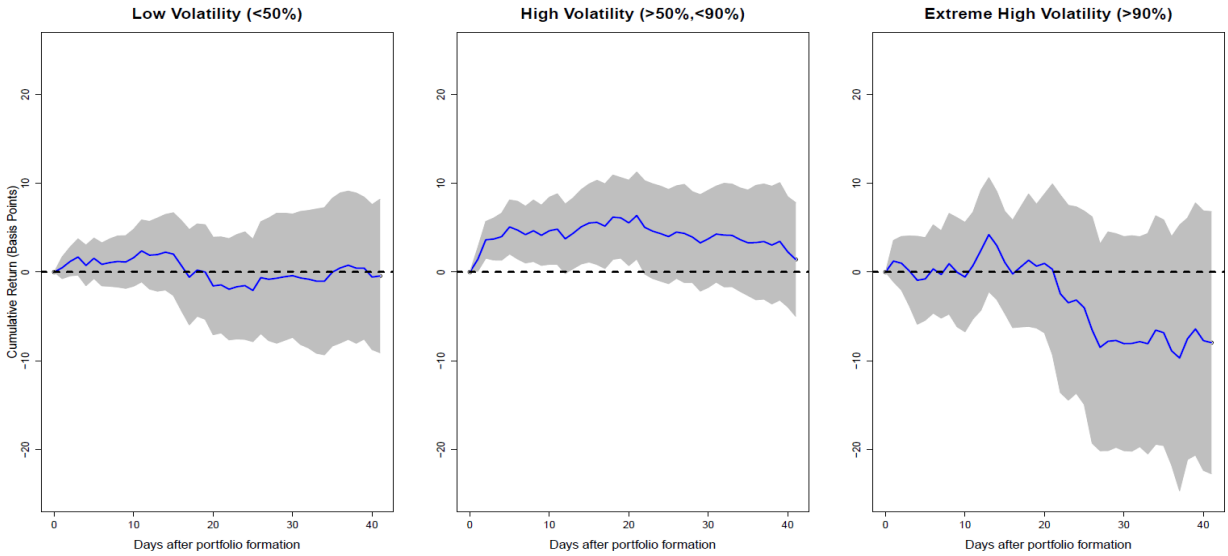
Panel B: Monthly Order Flows and Bond Returns

Non-Dealer Banks

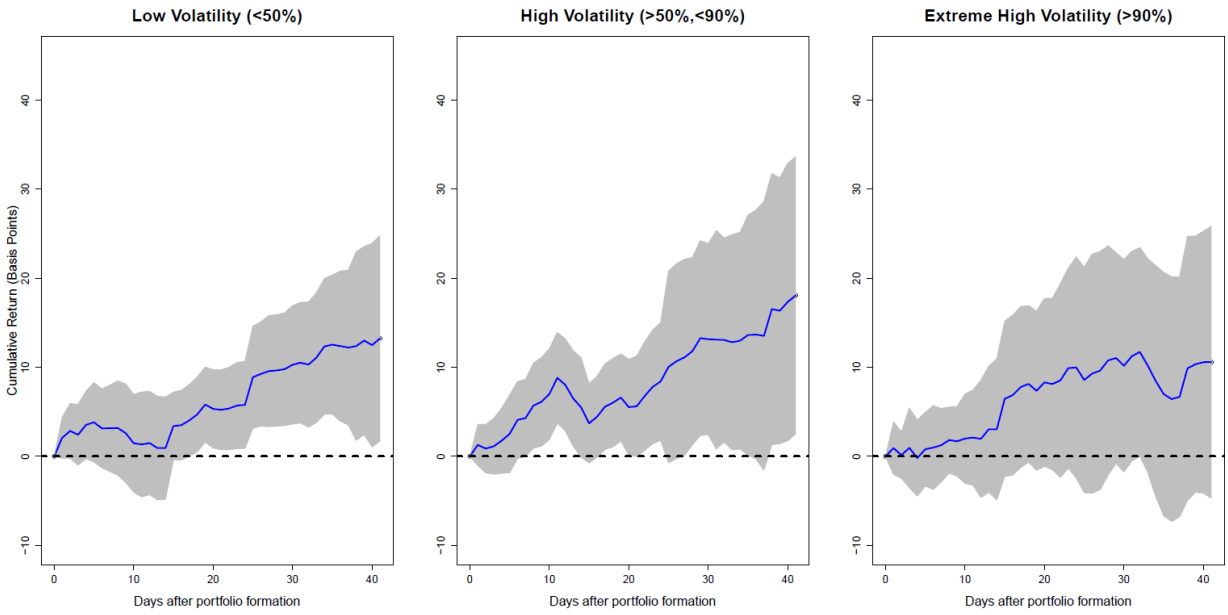
	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
Low	48.48	(2.64)	0.86	(0.19)	0.01	(0.00)
High	52.27	(2.98)	6.92	(1.31)	6.30	(1.17)
H-L	3.79	(0.71)	6.07	(1.10)	6.30	(1.05)

ICPFs

	Return	*T*-stat	Alpha (1F)	*T*-stat	Alpha (3F)	*T*-stat
Low	40.31	(2.64)	0.84	(0.31)	0.41	(0.16)
High	38.75	(1.90)	-6.35	(-1.00)	-6.36	(-1.01)
H-L	-1.56	(-0.17)	-7.19	(-0.99)	-6.79	(-1.02)



Panel A



Panel B

Figure A1: Subsample Analysis of Event-Time Long-Short Portfolio Returns

This figure shows subsample analysis of event-time returns to the long-short portfolio sorted by daily order flows of hedge funds (Panel A) and of mutual funds (Panel B). We now divide all trading into three subperiods—periods with low, high, and ultra-high market volatilities, with cutoffs at the 50th and 90th percentiles of the time-series distribution. The market volatility is the standard deviation of 15-min returns of the aggregate bond index within each day minus the average these standard deviations in the past three months. For each subsample, we repeat the exercise in Figure 2.

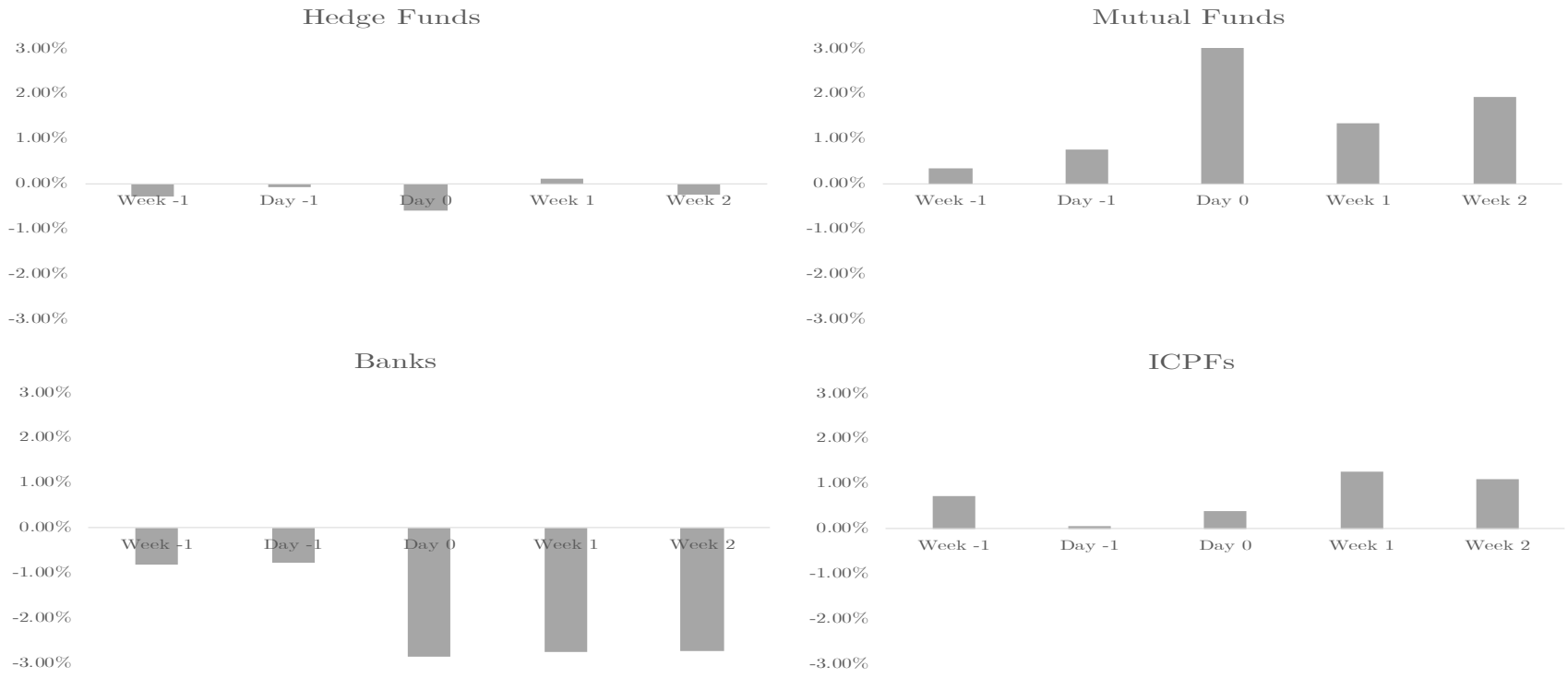


Figure A2: Fractions of Trading Volumes by Different Types of Clients around Macro-Announcements

This figure shows the fractions of trading volume by different types of clients around macro-news announcements. Day 0 corresponds to the announcement day; Day -1 corresponds the day prior to the announcement day. Weeks -2 and -1 are the two calendar weeks before Day -1; Weeks +1 and +2 are the two calendar weeks after Day 0. For each type of clients at each trading day, we calculate the fraction of trading volume by this type of clients over the total trading volume across all types of clients. For ease of interpretation, for each type of clients in one specific day (e.g., Day 0), we calculate the difference between the fraction of trading volume by this type of clients and that at Week -2. (i.e., the fractions of trading volume by each type of clients at Week -2 is normalized to 0). For reference, on Week -2, the fractions of trading volumes by hedge funds, mutual funds, banks and ICPFS, are 17.1%, 49.3%, 22.1%, and 11.6%, respectively.