Internet Appendix for "Hedge Fund Contagion and Liquidity Shocks"*

This Internet Appendix contains a number of tables referred to in the published article. Table IA.I presents summary statistics as in the published paper's Table I except it uses raw, rather than filtered, returns. Table IA.II provides detail of the filtering process described in Section II.A. of the published paper. Table IA.III adds additional control variables to the tests of contagion presented in Table II, and referred to in Footnote 9, of the published paper. Table IA.IVa and b present summary statistics and the initial contagion analysis of the published paper (Tables I and II) using Credit Suisse/Tremont hedge fund indices rather than the HFR indices used in the published paper. Table IA.V. presents correlations between the filtered returns and the contagion channel variables, which are discussed in Section III of the published paper. Table IA.VIa-c present the results of Tables II, V, and VI from the published paper, but using raw returns rather than filtered returns for all analyses. Tables IA.VIIa and b present the results of Tables V and VI from the published paper, but using Credit Suisse/Tremont hedge fund indices rather than the HFR indices. Tables IA.VIIIa and b present the results of Tables V and VI from the published paper, using HFR indices, but using an OLS regression approach rather than a multinomial logit. Tables IA.IXa-c present the tests of Tables II, V, and VI from the published paper, splitting the sample into two equal subperiods. Table IA.X performs the "panic" tests described at the end of Section III of the published paper. Finally, Tables IA. XI, XII, XIII, and XIV perform the omitted factor tests described in Section IV of the published paper.

Table IA.I.: Summary Statistics of Raw Monthly Returns on HFR Indices and Market Factors: January 1990 to December 2008

Table IA.II.: Summary of Filtering Analysis using AR(1) Models and Risk Factors

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* Boyson, Nicole M., Christof W. Stahel, and René M. Stulz, 2010, Internet Appendix to "Hedge Fund Contagion and Liquidity Shocks", *Journal of Finance* 65, 1789-1816, http://www.afajof.org/supplements.asp. Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries (other than missing material) should be directed to the authors of the article.

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Table IA.I
Summary Statistics of Raw Monthly Returns on HFR Indices and Market Factors: January 1990 to October 2008

Summary statistics for monthly data on raw returns for eight HFR monthly hedge fund indices and three market factors used in the paper are reported below. The indices include Convertible Arbitrage, Distressed Securities, Event Driven, Equity Hedge, Equity Market Neutral, Merger Arbitrage, Global Macro, and Relative Value and are described more fully in Section II of the main article. The market factors are from Datastream and include the return on the Russell 3000 Index, the change in the Federal Reserve Bank competitiveness-weighted dollar index (the FRB Dollar Index), and the daily return on the Lehman Brothers U.S. Bond Index. The number of observations is 226. Correlations between the variables, autocorrelations, as well as Jarque-Bera test statistics for normality are reported below the summary statistics. A * indicates significance at the 5% level.

	HFR Hedge Fund Indices								Main Market Factors		
	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value	Russell 3000 Index	Return on LB bond Index	Δ in FRB Dollar Index
Panel A: Summary Statistics											
Mean	0.590	1.019	0.989	1.134	0.664	0.755	1.156	0.823	0.722	0.551	0.031
Median	0.970	1.100	1.280	1.305	0.629	0.960	0.854	0.879	1.348	0.662	-0.009
Standard deviation	1.762	1.850	1.997	2.662	0.922	1.251	2.288	1.272	4.245	1.095	1.908
Skewness	-5.516	-1.069	-1.450	-0.256	-0.090	-2.206	0.407	-2.482	-0.826	-0.406	-0.520
Excess kurtosis	44.800	6.073	4.794	2.189	1.035	8.573	0.769	16.359	1.877	0.609	1.664
Panel B: Correlations											
Convertible Arbitrage	1.00	0.65*	0.64*	0.57*	0.33*	0.50*	0.27*	0.79*	0.46*	0.26*	0.21*
Distressed Securities		1.00	0.83*	0.67*	0.31*	0.58*	0.44*	0.76*	0.53*	0.10	0.07
Event Driven			1.00	0.82*	0.33*	0.76*	0.53*	0.72*	0.73*	0.12	0.11
Equity Hedge				1.00	0.45*	0.58*	0.57*	0.65*	0.75*	0.12	0.15*
Equity Market Neutral					1.00	0.32*	0.31*	0.38*	0.21*	0.20*	0.11
Merger Arbitrage						1.00	0.33*	0.55*	0.56*	0.12	0.05
Global Macro							1.00	0.35*	0.38*	0.32*	0.01
Relative Value								1.00	0.51*	0.16	0.12
Russell 3000 return									1.00	0.17*	0.15
Return on LB bond Index										1.00	0.24*
Δ in FRB Dollar Index											1.00
Panel C: Autocorrelation Test for Significance at Six Lags											
Ljung-Box test (1-6)	81.9*	70.6*	29.6*	19.7*	37.4*	18.0*	15.1*	46.0*	--	--	--
p-value	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	--	--	--
Panel D: Jarque Bera Normality Test											
	19187.0*	371.7*	282.8*	44.5*	9.4*	838.7*	11.1*	2631.6*			
	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00			

Table IA.II
Summary of Filtering Analysis using AR(1) Models and Risk Factors

Raw monthly hedge fund returns from January 1990 to October 2008 are filtered using AR(1) models to adjust for autocorrelation and a number of other factors from the asset pricing literature to control for well-known commonalities in hedge fund returns. These include a stock market factor (Russell 3000 Index), a bond market factor (the return on the Lehman Brothers U.S. Bond Index), a currency factor (the change in the FRB Dollar Index), an equity size spread factor, the change in the 10-year constant maturity Treasury yield to maturity, the change in the BAA-10-year CMT credit spread, lookback straddle factors for bonds, currencies, commodities, short-term interest rates, and equities, the return on the three-month Treasury bill, and the negative portion of the S&P 500 index to proxy for a put option. The additional factors and details of the modeling process are described further in Section II of the main article. The residuals from this filtering exercise are used in all of the paper's analyses. Below, the regression coefficients are listed with their corresponding *t*-values in parentheses. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value
Intercept	-0.448**	0.320	0.370*	-0.225	-0.051	0.246	0.676*	0.203
	(-2.08)	*(1.57)*	*(1.90)*	*(-0.80)*	*(-0.27)*	*(1.18)*	*(1.76)*	*(0.95)*
AR1	0.544***	0.450***	0.230***	0.130***	0.048	0.102*	0.143***	0.198***
	(11.95)	*(10.85)*	*(5.09)*	*(3.37)*	*(0.79)*	*(1.76)*	*(2.54)*	*(3.85)*
Russell 3000 index	0.039	0.103***	0.198***	0.415***	0.042	0.056*	0.206***	0.024
	(1.14)	*(2.75)*	*(6.02)*	*(9.90)*	*(1.59)*	*(1.71)*	*(3.87)*	*(0.84)*
Return on LB Bond index	1.090***	0.891***	0.628***	0.006	-0.214	-0.076	1.029*	0.652***
	(4.21)	*(3.44)*	*(2.53)*	*(0.02)*	*(-1.07)*	*(-0.27)*	*(1.89)*	*(2.66)*
Change in FRB Dollar index	0.035	-0.032	-0.022	0.027	0.012	-0.020	-0.214***	0.005
	(0.82)	*(-0.89)*	*(-0.65)*	*(0.54)*	*(0.43)*	*(-0.59)*	*(-3.45)*	*(0.10)*
Equity size spread	0.052**	0.190***	0.233***	0.350***	0.066***	0.103***	0.204***	0.075***
	(2.23)	*(8.03)*	*(9.86)*	*(12.90)*	*(2.94)*	*(4.67)*	*(4.84)*	*(4.24)*
Δ in 10-year CMT YTM	3.301***	3.042***	2.275*	-0.150	-1.446	-0.456	2.145	2.037
	(2.46)	*(2.46)*	*(1.93)*	*(-0.09)*	*(-1.45)*	*(-0.34)*	*(0.85)*	*(1.62)*
Δ in Baa-10yr CMT spread	-2.112***	-1.009	-0.426	0.467	0.140	-0.262	2.052*	-1.529**
	(-2.73)	*(-1.61)*	*(-0.66)*	*(0.48)*	*(0.24)*	*(-0.44)*	*(1.92)*	*(-2.13)*
Lookback straddle: bonds	0.050	-1.309***	-0.519	-0.013	-0.362	0.200	-0.361	-0.393
	(0.11)	*(-2.95)*	*(-1.17)*	*(-0.01)*	*(-0.83)*	*(0.45)*	*(-0.41)*	*(-0.86)*
Lookback straddle: currencies	0.047	0.359	0.373	0.738	0.661**	0.367	2.531***	-0.062
	(0.11)	*(0.91)*	*(1.07)*	*(1.37)*	*(2.11)*	*(0.84)*	*(3.87)*	*(-0.13)*
Lookback straddle: commodities	0.020	0.187	-0.136	1.103	0.407	-0.338	2.320***	-0.054
	(0.03)	*(0.38)*	*(-0.31)*	*(1.63)*	*(0.88)*	*(-0.64)*	*(2.72)*	*(-0.09)*
Lookback straddle: interest rates	-0.814***	-0.297	-0.592***	-1.411***	-0.663***	-0.239	-1.349**	-0.604**
	(-3.56)	*(-1.07)*	*(-2.56)*	*(-3.01)*	*(-3.43)*	*(-0.66)*	*(-2.21)*	*(-2.26)*
Lookback straddle: equities	0.585	0.229	0.592*	1.072*	0.313	0.193	2.075***	0.614
	(1.12)	*(0.42)*	*(1.73)*	*(1.81)*	*(0.92)*	*(0.36)*	*(3.28)*	*(1.32)*
Three month Treasury bill	0.243	-0.163	0.135	0.933***	0.735***	0.626***	-0.252	0.296
	(1.38)	*(-1.01)*	*(0.83)*	*(3.57)*	*(4.38)*	*(3.21)*	*(-0.75)*	*(1.59)*
Negative portion of S&P 500	0.046	0.103*	0.139***	0.019	-0.003	0.146***	0.048	0.108**
	(0.86)	*(1.74)*	*(2.62)*	*(0.23)*	*(-0.06)*	*(2.64)*	*(0.49)*	*(2.16)*
Adjusted R^2	71.8	71.8	78.7	75.6	23.1	45.6	37.8	57.5

Table IA.III
Contagion Tests Using Filtered Return Data and Additional Control Variables

The event of a worst return in each hedge fund style is separately modeled as the outcome of a binary variable and estimated as a logit regression. The independent variables include the equally weighted return of the other hedge fund indices, winsorized at the 10% level, the VIX, measures of currency market and bond market volatility from a GARCH model, indicator variables set to one if the main markets (Russell 3000, Lehman Brothers Bond, and Dollar-Weighted Currency Index) have a realization in the bottom decile of the entire time series of returns, and *COUNT*, which takes a value from zero to seven and is the number of other hedge fund indices that also have worst returns for the month. Below the coefficients are the *t*-values in parentheses. R^2 MAX is the scaled coefficient of determination suggested by Nagelkerke (1991). Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value
Constant	-2.667***	-3.316***	-3.757***	-3.240***	-2.583***	-2.821***	-2.643***	-2.950***
	(-10.34)	*(-10.91)*	*(-10.06)*	*(-10.58)*	*(-10.08)*	*(-10.59)*	*(-10.01)*	*(-10.91)*
Equally-weighted return of other hedge fund indices (10% winsorized)	-0.254	-1.124***	-3.725***	-1.072**	0.185	-0.654	-0.280	0.013
	(-0.62)	*(-2.35)*	*(-5.23)*	*(-2.01)*	*(0.47)*	*(-1.50)*	*(-0.57)*	*(0.03)*
Volatility Measures								
VIX	0.050**	0.022	-0.029	-0.041*	0.015	0.006	0.026	-0.006
	(2.21)	*(0.95)*	*(-1.27)*	*(-1.69)*	*(0.64)*	*(0.24)*	*(1.16)*	*(-0.25)*
LB bond volatility	-0.243**	0.154	0.218	0.272	-0.058	-0.226*	0.035	0.096
	(-2.03)	*(0.80)*	*(1.18)*	*(1.35)*	*(-0.39)*	*(-1.94)*	*(0.23)*	*(0.53)*
Currency volatility	0.008	0.025**	-0.038**	0.000	0.009	-0.002	-0.034*	0.006
	(0.56)	*(2.03)*	*(-2.24)*	*(0.02)*	*(0.62)*	*(-0.13)*	*(-1.86)*	*(0.44)*
Worst Return Indicator Variables on Main Markets								
Russell 3000 indicator	-0.286	1.045*	1.596***	0.463	-0.371	0.227	0.046	-0.119
	(-0.45)	*(1.83)*	*(2.49)*	*(0.65)*	*(-0.53)*	*(0.35)*	*(0.07)*	*(-0.18)*
LB Bond indicator	-0.209	0.323	-0.203	-0.243	-0.466	0.053	0.850*	-0.743
	(-0.34)	*(0.59)*	*(-0.33)*	*(-0.37)*	*(-0.67)*	*(0.09)*	*(1.73)*	*(-1.01)*
Currency market indicator	0.413	1.096**	0.523	1.303***	-0.247	-0.280	0.361	-14.010
	(0.75)	*(2.21)*	*(0.96)*	*(2.74)*	*(-0.39)*	*(-0.43)*	*(0.66)*	*(-0.05)*
Other Hedge Fund Index Indicator Variable								
COUNT	0.370***	0.509***	0.238*	0.627***	0.509***	0.493***	0.248	0.921***
	(2.40)	*(3.21)*	*(1.65)*	*(3.92)*	*(3.25)*	*(3.25)*	*(1.51)*	*(4.87)*
R^2 MAX	15.1	33.4	50.2	31.8	10.6	21.9	12.8	33.6

Internet Table IA.IVa
Summary Statistics of Filtered Monthly Returns on Credit Suisse/Tremont Indices and Market Factors: January 1994 to October 2008

Summary statistics for monthly data on filtered returns for seven Credit Suisse/Tremont monthly hedge fund indices and three market factors used in the paper are reported below. The indices include Convertible Arbitrage, Distressed Securities, Event Driven, Equity Hedge, Equity Market Neutral, Merger Arbitrage, and Global Macro and are described fully in Section II of the main article. The market factors are from Datastream and include the return on the Russell 3000 Index, the change in the Federal Reserve Bank competitiveness-weighted dollar index (the FRB Dollar Index), and the daily return on the Lehman Brothers U.S. Bond Index. The number of observations is 176. Correlations between the variables, autocorrelations, as well as Jarque-Bera test statistics for normality are reported below the summary statistics. A * indicates significance at the 5% level.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Russell 3000 Index	Return on LB bond Index	Δ in FRB Dollar Index
Panel A: Summary Statistics										
Median	0.047	0.129	0.039	-0.052	0.016	0.000	0.117	0.684	0.102	-0.064
Standard deviation	1.160	1.190	1.018	1.632	0.659	0.848	2.556	4.350	1.008	1.004
Skewness	-1.286	-1.452	-1.974	0.422	-0.215	-0.075	-0.264	-0.861	-0.438	-0.228
Excess kurtosis	6.755	9.650	14.206	2.397	0.564	1.814	1.476	1.563	0.743	0.524
Panel B: Correlations										
Convertible Arbitrage	1.00	0.34*	0.48*	0.18*	0.22*	0.24*	0.11	0.00	-0.02	-0.02
Distressed Securities		1.00	0.85*	0.28*	0.24*	0.21*	0.12	-0.01	-0.02	0.00
Event Driven			1.00	0.43*	0.28*	0.37*	0.25*	-0.01	-0.02	0.00
Equity Hedge				1.00	0.17*	0.06	0.41*	0.01	0.01	0.00
Equity Market Neutral					1.00	0.15*	0.21*	0.01	0.00	-0.01
Merger Arbitrage						1.00	0.03	-0.01	-0.01	-0.01
Global Macro							1.00	0.01	0.01	-0.01
Russell 3000 return								1.00	0.06*	0.20
Return on LB bond Index									1.00	0.15*
Δ in FRB Dollar Index										1.00
Panel C: Autocorrelations Test for Significance at Six Lags										
Ljung-Box test (1-6)	12.09	8.42	8.32	7.24	0.71	9.58	11.63	--	--	--
p-value	0.06	0.21	0.22	0.30	0.99	0.14	0.07	--	--	--
Panel D: Jarque Bera Normality Test										
Jarque-Bera Test	360.5	701.1	1503.2	43.8	3.3	22.1	16.4	--	--	--
p-value	0.00	0.00	0.00	0.00	0.19	0.00	0.00	--	--	--

Table IA.IVb
Baseline Logit Model for Credit Suisse/Tremont Indices, January 1994 to October 2008

The event of a worst return in each hedge fund style is separately modeled as the outcome of a binary variable and estimated as a logit regression. The only independent variable is *COUNT*, which takes a value from zero to six and is the number of other hedge fund indices that also have worst returns for the month. Below the coefficients are the t-values in parentheses. R^2 MAX is the scaled coefficient of determination suggested by Nagelkerke (1991). Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro
Constant	-2.68***	-3.10***	-3.09***	-2.68***	-2.58***	-2.46***	-2.63***
	(-11.48)	*(-13.15)*	*(-10.05)*	*(-17.33)*	*(-9.05)*	*(-8.24)*	*(-9.23)*
Other Hedge Fund Index Indicator Variable							
COUNT	0.59***	0.99***	0.97***	0.60***	0.50***	0.37**	0.54***
	(4.22)	*(6.76)*	*(5.15)*	*(6.37)*	*(2.87)*	*(1.98)*	*(3.14)*
R^2 MAX	12.5	31.4	24.4	21.0	7.4	3.8	8.9

Table IA.V
Correlations Between Filtered Returns and Contagion Channel Variables

Correlations between filtered returns on the eight HFR style indices and the contagion channel variables used in the paper are reported below. A * indicates significance at the 5% level.

	Baa-10y Treasury CMT Spread	TED Spread	CSS Liquidity Measure	Repo Volume	Contemporaneous HF Flows	Bank Index	Prime Broker Index
Convertible Arbitrage	-0.04	-0.24*	-0.14*	0.04	-0.11	-0.05	0.02
Distressed Securities	-0.01	-0.16*	-0.06	0.03	-0.11	0.00	0.06
Event Driven	-0.02	-0.16*	-0.10	-0.09	-0.04	-0.02	0.02
Equity Hedge	0.02	-0.09	-0.06	-0.01	-0.02	-0.25*	-0.08
Equity Market Neutral	0.01	-0.04	-0.11	0.03	0.02	-0.08	0.01
Merger Arbitrage	-0.02	-0.11	-0.12	-0.02	-0.06	0.07	0.03
Global Macro	0.02	-0.07	-0.03	-0.08	0.01	-0.05	0.01
Relative Value	-0.02	-0.13	-0.12	0.07	-0.05	-0.01	0.03

Table IA.VIa
Baseline Logit Model Using Raw Returns and Controlling for Filtering Variables

The event of a worst return in each hedge fund style is separately modeled as the outcome of a binary variable and estimated as a logit regression. The independent variables include the filtering variables from the filtering analysis described in Section II of the main article and *COUNT*, which takes a value from zero to seven and is the number of other hedge fund indices that also have worst returns for the month. Since we do not pre-filter the returns, we include the filtering variables directly in the logit model. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value
Russell 3000 index	-1.183**	-9.221***	-4.054***	-7.124***	-3.713***	-2.431***	-5.278***	-3.854***
	(-2.03)	*(-8.04)*	*(-6.22)*	*(-7.71)*	*(-5.32)*	*(-3.98)*	*(-6.18)*	*(-5.57)*
Return on LB Bond index	-0.171	-0.686***	-0.927***	-0.065	0.184**	-0.198*	-0.017	0.02
	(-1.57)	*(-4.25)*	*(-3.66)*	*(-0.56)*	*(2.02)*	*(-1.66)*	*(-0.20)*	*(0.21)*
Change in FRB Dollar index	-3.718***	-1.092	-0.071	-1.16	1.762***	-0.708	-1.283*	-1.135
	(-4.00)	*(-1.09)*	*(-0.08)*	*(-1.32)*	*(2.41)*	*(-0.98)*	*(-1.80)*	*(-1.51)*
Equity size spread	-0.138	0.068	-0.05	-0.300***	-0.209*	-0.373***	0.535***	0.169
	(-1.24)	*(0.67)*	*(-0.41)*	*(-3.23)*	*(-1.91)*	*(-3.60)*	*(3.97)*	*(1.46)*
Δ in 10-year CMT YTM	0.075	0.116*	-0.375***	-0.202***	0.047	-0.424***	-0.364***	-0.142**
	(1.21)	*(1.75)*	*(-3.11)*	*(-2.98)*	*(0.65)*	*(-5.18)*	*(-5.08)*	*(-2.14)*
Δ in Baa-10yr CMT spread	-16.595***	-7.93*	-1.345	-4.897	11.139***	-2.667	0.79	-2.992
	(-3.87)	*(-1.73)*	*(-0.33)*	*(-1.23)*	*(3.17)*	*(-0.79)*	*(0.23)*	*(-0.86)*
Lookback straddle: bonds	1.176	5.764***	7.75***	1.16	2.763	2.196	-2.952*	0.272
	(0.56)	*(2.51)*	*(3.05)*	*(0.55)*	*(1.43)*	*(1.00)*	*(-1.87)*	*(0.15)*
Lookback straddle: currencies	2.385**	6.925***	-4.191**	2.118	0.536	-8.666***	-0.443	-1.492
	(2.17)	*(4.29)*	*(-2.04)*	*(1.38)*	*(0.42)*	*(-4.04)*	*(-0.34)*	*(-1.00)*
Lookback straddle: commodities	-0.913	0.634	-3.009**	5.295***	-0.381	1.623	-2.064	-1.26
	(-0.83)	*(0.59)*	*(-2.07)*	*(4.44)*	*(-0.32)*	*(1.56)*	*(-1.62)*	*(-1.11)*
Lookback straddle: interest rates	-1.582	7.941***	-4.261*	-3.469**	-0.488	4.393***	-8.452***	1.300
	(-0.95)	*(4.93)*	*(-1.92)*	*(-2.06)*	*(-0.31)*	*(3.17)*	*(-4.19)*	*(0.85)*
Lookback straddle: equities	0.515	-2.706***	1.143	0.572	1.671**	-1.522	2.315***	0.784
	(0.62)	*(-3.35)*	*(1.52)*	*(1.16)*	*(2.16)*	*(-1.46)*	*(3.62)*	*(1.14)*
Three month Treasury bill	-0.300	-1.44	4.366***	-6.231***	-0.559	1.684	0.862	-1.249
	(-0.21)	*(-1.18)*	*(3.01)*	*(-4.67)*	*(-0.53)*	*(1.44)*	*(0.75)*	*(-1.20)*
Negative portion of S&P 500	-0.181	3.600***	-0.999	0.762	-1.056**	-1.715***	1.421***	0.601
	(-0.34)	*(5.06)*	*(-1.62)*	*(1.41)*	*(-2.22)*	*(-3.55)*	*(2.83)*	*(1.25)*
Other Hedge Fund Index Indicator Variable								
COUNT	0.837***	2.595***	0.903***	1.095***	0.799***	0.409***	0.193	0.791***
	(4.85)	*(7.84)*	*(4.75)*	*(7.43)*	*(5.23)*	*(3.18)*	*(1.29)*	*(5.57)*
Pseudo R^2	65.4	94.4	95.3	91.1	52.3	77.7	59.2	57.3

Table IA.VIb
Contemporaneous Liquidity Shocks and Hedge Fund Contagion Using Raw Hedge Fund Return Data

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*) and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to contemporaneous negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, Changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). Since data are not pre-filtered, all the pre-filtering variables are included in the analysis but not reported below for brevity. *t*-values are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$							
	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-6.475***	-6.001***	-8.157***	-10.900***	-7.183***	-5.694***	-6.428***
	(-8.09)	*(-8.07)*	*(-8.26)*	*(-6.65)*	*(-8.09)*	*(-7.70)*	*(-8.42)*
Constant *(HIGH)*	-1.277*	-3.582***	0.004	-0.816	-4.891***	-2.302***	-1.867***
	(-1.79)	*(-4.43)*	*(0.01)*	*(-0.65)*	*(-4.18)*	*(-2.65)*	*(-2.54)*
Winsorized Continuous Channel Variables							
Cont. Chan. Winsorized variable$_t$ (*LOW*)	-7.063*	0.010	-1.866***	-0.004	0.082	-0.077	0.093
	(-1.79)	*(0.27)*	*(-3.10)*	*(-0.03)*	*(0.58)*	*(-0.93)*	*(1.18)*
Cont. Chan. Winsorized variable$_t$ (*HIGH*)	23.705***	-0.323***	3.713***	-0.330	0.538**	0.436***	-0.641***
	(3.65)	*(-4.54)*	*(3.08)*	*(-1.26)*	*(1.98)*	*(4.29)*	*(-2.88)*
Indicator Variables							
Indicator$_{t+1}$ (*LOW*)					1.156***		
					(2.53)		
Indicator$_{t+1}$ (*HIGH*)					4.399***		
					(5.46)		
Indicator$_t$ (*LOW*)	0.229	0.160	2.696***	2.405***	0.888*	-1.372***	1.872***
	(0.38)	*(0.28)*	*(5.00)*	*(3.19)*	*(1.69)*	*(-2.62)*	*(3.43)*
Indicator$_t$ (*HIGH*)	1.276*	10.968***	0.843	-2.959	1.687**	2.344***	-0.947
	(1.81)	*(6.10)*	*(1.22)*	*(-1.63)*	*(2.08)*	*(2.39)*	*(-1.51)*
Pseudo R^2	96.9	98.7	97.5	99.4	97.7	97.1	96.5

Table IA.VIc
Lagged Liquidity Shocks and Hedge Fund Contagion Using Raw Hedge Fund Return Data

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to lagged negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). Since data are not pre-filtered, all the pre-filtering variables are included in the analysis but not reported below for brevity. I-values are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$							
	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-6.543***	-6.715***	-6.756***	-7.680***	-6.783***	-5.734***	-6.427***
	(-8.42)	*(-8.24)*	*(-8.33)*	*(-7.64)*	*(-7.89)*	*(-8.05)*	*(-8.19)*
Constant *(HIGH)*	-0.734	-1.239*	-0.730	-11.767	-2.126**	-1.841***	-2.228***
	(-1.12)	*(-1.92)*	*(-0.93)*	*(-0.73)*	*(-2.20)*	*(-2.66)*	*(-3.22)*
Winsorized Continuous Channel Variables							
Cont. Chan. Winsorized variable$_t$ (*LOW*)	-9.070**	0.069**	0.748	-0.209***	0.124	0.061	-0.110
	(-2.18)	*(2.33)*	*(1.44)*	*(-3.01)*	*(0.96)*	*(0.98)*	*(-1.44)*
Cont. Chan. Winsorized variable$_t$ (*HIGH*)	26.070***	0.079***	4.467***	3.558*	-0.016	0.235***	-0.374**
	(3.51)	*(2.34)*	*(4.52)*	*(1.81)*	*(-0.06)*	*(3.61)*	*(-2.30)*
Indicator Variables							
Indicator$_{t+1}$ (*LOW*)					1.405***		
					(2.78)		
Indicator$_{t+1}$ (*HIGH*)					3.162***		
					(3.85)		
Indicator$_t$ (*LOW*)	0.075	1.736***	1.510***	0.063	0.183	0.685*	1.545***
	(0.15)	*(4.16)*	*(3.50)*	*(0.10)*	*(0.42)*	*(1.67)*	*(3.84)*
Indicator$_t$ (*HIGH*)	-0.792	0.900	1.934***	35.444	-0.413	2.819***	1.918***
	(-1.22)	*(1.57)*	*(3.52)*	*(1.51)*	*(-0.64)*	*(4.41)*	*(3.83)*
Pseudo R^2	96.8	96.5	97.2	99.9	96.7	97.4	96.7

Table IA.VIIa
Contemporaneous Liquidity Shocks and Hedge Fund Contagion Using Credit Suisse/Tremont Hedge Fund Return Data

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to contemporaneous negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). I-values are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$							
	Channel Variable = *CRSPRD*	**Channel Variable = *TEDSPRD***	**Channel Variable = *STKLIQ***	**Channel Variable = *REPO***	**Channel Variable = *FLOW***	**Channel Variable = *BANK***	**Channel Variable = *PBI***
Constant *(LOW)*	-1.84***	-1.88***	-1.74***	-1.70***	-1.87***	-1.59***	-1.94***
	(-8.76)	*(-8.73)*	*(-7.04)*	*(-8.31)*	*(-9.14)*	*(-7.80)*	*(-8.84)*
Constant *(HIGH)*	-4.29***	-3.95***	-3.19***	-3.40***	-4.00***	-4.34***	-4.13***
	(-6.60)	*(-6.85)*	*(-6.04)*	*(-7.79)*	*(-7.62)*	*(-6.32)*	*(-6.64)*
Winsorized Continuous Channel Variables							
Cont. Chan. Winsorized variable$_t$ (*LOW*)	-0.16	-0.01	-0.37	-0.01	-0.89***	-0.02	0.06**
	(-0.10)	*(-0.43)*	*(-0.84)*	*(-0.16)*	*(-3.60)*	*(-0.49)*	*(2.02)*
Cont. Chan. Winsorized variable$_t$ (*HIGH*)	-2.97	0.02	5.06*	-0.15	-0.23	0.18**	0.04
	(-0.79)	*(0.24)*	*(1.82)*	*(-0.92)*	*(-0.55)*	*(2.03)*	*(0.39)*
Indicator Variables							
Indicator$_{t+1}$ (*LOW*)					-0.04		
					(-0.12)		
Indicator$_{t+1}$ (*HIGH*)					0.36		
					(0.60)		
Indicator$_t$ (*LOW*)	0.27	0.35	-0.72	-0.55	0.12	-0.73	0.21
	(0.66)	*(0.84)*	*(-1.32)*	*(-1.09)*	*(0.29)*	*(-1.50)*	*(0.45)*
Indicator$_t$ (*HIGH*)	2.08**	1.43	-0.50	0.02	1.36	1.93*	1.78*
	(2.19)	*(1.54)*	*(-0.51)*	*(0.02)*	*(1.58)*	*(1.84)*	*(1.83)*
Pseudo R^2	4.4	4.2	10.2	2.4	26.0	4.9	6.4

Table IA.VIIb
Liquidity Shocks and Hedge Fund Contagion Using Credit Suisse/Tremont Hedge Fund Return Data

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to lagged negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). *t*-values are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$							
	Channel Variable = *CRSPRD*	**Channel Variable = *TEDSPRD***	**Channel Variable = *STKLIQ***	**Channel Variable = *REPO***	**Channel Variable = *FLOW***	**Channel Variable = *BANK***	**Channel Variable = *PBI***
Constant *(LOW)*	-1.99***	-1.86***	-1.96***	-1.87***	-1.87***	-1.90***	-2.13***
	(-10.15)	*(-10.15)*	*(-9.54)*	*(-9.62)*	*(-9.42)*	*(-9.56)*	*(-10.54)*
Constant *(HIGH)*	-3.08***	-3.10***	-3.56***	-4.05***	-3.63***	-3.71***	-4.02***
	(-9.49)	*(-9.30)*	*(-7.72)*	*(-7.52)*	*(-7.38)*	*(-8.13)*	*(-8.03)*
Winsorized Continuous Channel Variables							
Cont. Chan. Winsorized variable$_t$ (*LOW*)	1.11	0.01	-0.67*	0.02	-0.88***	0.01	0.05*
	(0.78)	*(0.37)*	*(-1.82)*	*(0.39)*	*(-3.65)*	*(0.30)*	*(1.88)*
Cont. Chan. Winsorized variable$_t$ (*HIGH*)	2.29	0.12	3.94**	-0.16	-0.32	0.06	-0.09
	(0.62)	*(1.56)*	*(2.25)*	*(-1.28)*	*(-0.70)*	*(0.91)*	*(-1.13)*
Indicator Variables							
Indicator$_t$ (*LOW*)					0.08		
					(0.20)		
Indicator$_t$ (*HIGH*)					1.57*		
					(1.74)		
Indicator$_{t-1}$ (*LOW*)	0.88***	0.42	0.10	-0.06	0.02	0.46	0.90***
	(2.65)	*(1.25)*	*(0.26)*	*(-0.16)*	*(0.05)*	*(1.32)*	*(2.80)*
Indicator$_{t-1}$ (*HIGH*)	-11.11	-10.98	0.71	1.60***	-11.34	0.77	1.72***
	(-0.07)	*(-0.08)*	*(1.01)*	*(2.32)*	*(-0.10)*	*(1.09)*	*(2.62)*
Pseudo R^2	8.0	6.5	9.6	5.1	30.1	2.4	12.0

Table IA.VIIIa
Contemporaneous Liquidity Shocks and Hedge Fund Contagion Using an OLS Regression with COUNT8 as the Dependent Variable

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($COUNT8_t$) that takes the value of one to eight based on the number of hedge fund indices that have coincident worst returns in a month. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to contemporaneous negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chodia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). *t*-values are shown below the coefficients in parentheses. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$							
	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant	0.624***	0.650***	0.868***	0.860***	0.709***	0.608***	0.709***
	(5.48)	*(5.63)*	*(6.32)*	*(6.48)*	*(6.65)*	*(5.37)*	*(6.21)*
Winsorized Continuous Channel Variables							
Cont. Chan. Winsorized variable$_t$	-1.239	-0.010	0.319	-0.014	0.016	0.075***	0.019
	(-1.40)	*(-0.64)*	*(1.04)*	*(-0.39)*	*(0.27)*	*(3.15)*	*(1.01)*
Indicator Variables							
Indicator$_t$	0.619***	0.608***	0.064	-0.250	0.431**	0.551**	0.351
	(2.72)	*(2.60)*	*(0.26)*	*(-0.87)*	*(1.98)*	*(2.29)*	*(1.47)*
Adjusted R^2	2.4	2.5	0.1	0.0	1.1	3.5	0.0

Table IA.VIIIb
Lagged Liquidity Shocks and Hedge Fund Contagion Using an OLS Regression with COUNT8 as the Dependent Variable

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable (*COUNT8$_t$)* that takes the value of one to eigth based on the number of hedge fund indices that have coincident worst returns in a month. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to lagged negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). *t*-values are shown below the coefficients in parentheses. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: *OCCUR$_t$*							
	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant	0.855***	0.766***	0.853***	0.695***	0.792***	0.667***	0.731***
	(8.57)	*(7.75)*	*(8.08)*	*(5.92)*	*(7.95)*	*(6.83)*	*(7.36)*
Winsorized Continuous Channel Variables							
Cont. Chan. Winsorized variable$_t$	-0.100	0.017	0.422*	0.001	-0.038	0.039	0.001
	(-0.13)	*(1.32)*	*(1.68)*	*(0.04)*	*(-0.72)*	*(2.06)*	*(0.05)*
Indicator Variables							
Indicator$_{t-1}$	-0.135	0.379**	0.224	0.328	0.183	0.478***	0.376**
	(-0.67)	*(1.89)*	*(1.12)*	*(1.40)*	*(0.93)*	*(2.47)*	*(1.91)*
Adjusted R^2	0.1	1.1	0.1	0.0	0.0	3.8	0.1

Table IA.IXa
Contagion Tests Using Filtered Return Data for the Split Sample

As a robustness test, we repeat all the tests of the paper splitting the sample into two equal subperiods: January 1990 to May 1999 and June 1999 to October 2008. This table presents the initial contagion tests, as in Table II of the main article. The event of a worst return in each hedge fund style is separately modeled as the outcome of a binary variable and estimated as a logit regression. The independent variable is *COUNT* variable which takes a value from zero to seven and is the number of other hedge fund indices that also have worst returns for the month. Below the coefficients are the *t*-statistics in parentheses. R^2 MAX is the scaled coefficient of determination suggested by Nagelkerke (1991). Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value
Subperiod 1: January 1990 to May 1999								
Constant	-2.55***	-2.70***	-2.23***	-2.42***	-3.32***	-2.62***	-2.78***	-2.71***
	(-5.78)	*(-4.01)*	*(-4.42)*	*(-6.41)*	*(-7.17)*	*(-8.04)*	*(-5.78)*	*(-6.36)*
Other Hedge Fund Index Indicator Variable								
COUNT	0.44*	0.58	0.13	0.33	1.07***	0.51***	0.64***	0.58***
	(1.77)	*(1.53)*	*(0.41)*	*(1.46)*	*(4.00)*	*(2.77)*	*(2.38)*	*(2.42)*
R^2 MAX	5.7	8.2	0.4	3.2	27.3	9.3	11.5	10.0
Subperiod 2: June 1999 to October 2008								
Constant	-2.66***	-2.90***	-3.19***	-2.72***	-3.39***	-2.66***	-2.97***	-3.13***
	(-8.53)	*(-6.28)*	*(-5.87)*	*(-8.12)*	*(-6.26)*	*(-6.16)*	*(-6.44)*	*(-7.12)*
Other Hedge Fund Index Indicator Variable								
COUNT	0.49***	0.66***	0.86***	0.53***	0.98***	0.49***	0.71***	0.81***
	(3.57)	*(3.24)*	*(3.45)*	*(3.60)*	*(4.02)*	*(2.54)*	*(3.45)*	*(4.17)*
R^2 MAX	14.7	20.1	29.6	16.3	35.2	11.8	22.8	29.7

Table IA.IXb

Liquidity Shocks and Hedge Fund Contagion, Contemporaneous Contagion Channel Variables for the Split Sample

As a robustness test, we repeat all the tests of the paper splitting the sample into two equal subperiods: January 1990 to May 1999 and June 1999 to October 2008. This table presents liquidity shock tests, as in Table V of the main text. The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to contemporaneous negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, Subramanyam (2005) Liquidity Measure (*STKLIQ*), changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). The *t*-statistics are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Subperiod 1: January 1990 to May 1999
Dependent Variable: *OCCUR*

	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-1.49***	-1.38***	-2.47***	-1.48***	-1.61***	-1.75***	-2.06***
	(-5.86)	*(-5.20)*	*(-5.20)*	*(-4.38)*	*(-5.90)*	*(-5.53)*	*(-6.82)*
Constant *(HIGH)*	-4.23***	-2.93***	0.02	-3.43***	-3.92***	-5.02***	-4.03***
	(-4.61)	*(-5.56)*	*(0.01)*	*(-4.26)*	*(-5.37)*	*(-3.76)*	*(-4.88)*
Winsorized Continuous Channel Variables							
Cont. Chan. Wins. variable$_t$ (*LOW*)	-0.86	0.05	-3.41***	0.00	0.13	0.12***	0.13***
	(-0.40)	*(1.21)*	*(-2.82)*	*(0.03)*	*(0.90)*	*(2.14)*	*(3.29)*
Cont. Chan. Wins. variable$_t$ (*HIGH*)	-0.35	0.05	19.92*	-0.24	0.31	0.19	-0.07
	(-0.04)	*(0.55)*	*(1.81)*	*(-0.78)*	*(1.11)*	*(1.01)*	*(-0.36)*
Contemporaneous Indicator Variables							
Indicator$_{t+1}$ (*LOW*)					0.12		
					(0.28)		
Indicator$_{t+1}$ (*HIGH*)					0.43		
					(0.44)		
Indicator$_t$ (*LOW*)	0.53	0.41	1.09*	-0.38	0.84*	0.60	1.44***
	(1.14)	*(0.81)*	*(1.95)*	*(-0.49)*	*(1.77)*	*(1.05)*	*(2.84)*
Indicator$_t$ (*HIGH*)	1.99	-14.56	-2.33*	-10.32	1.13	3.12*	1.57
	(1.50)	*(-0.01)*	*(-1.70)*	*(-0.07)*	*(0.96)*	*(1.73)*	*(1.20)*
Pseudo R^2	0.054	0.088	0.153	0.044	0.045	0.093	0.164

Subperiod 2: June 1999 to October 2008
Dependent Variable: *OCCUR*

	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-1.76***	-2.46***	-1.55***	-1.51***	-1.71***	-1.37***	-1.48***
	(-6.56)	*(-8.17)*	*(-5.63)*	*(-5.57)*	*(-6.89)*	*(-5.78)*	*(-6.18)*
Constant *(HIGH)*	-4.22***	-4.59***	-2.71***	-2.57***	-4.42***	-3.33***	-3.25***
	(-5.14)	*(-5.34)*	*(-5.89)*	*(-5.91)*	*(-5.37)*	*(-5.72)*	*(-5.95)*
Winsorized Continuous Channel Variables							
Cont. Chan. Wins. variable$_t$ (*LOW*)	-2.19	-0.11***	0.31	-0.08	0.04	-0.01	-0.05
	(-1.32)	*(-4.04)*	*(0.58)*	*(-0.87)*	*(0.41)*	*(-0.16)*	*(-0.96)*
Cont. Chan. Wins. variable$_t$ (*HIGH*)	-5.94*	-0.07	0.42	0.00	-0.04	0.17**	0.05
	(-1.68)	*(-0.83)*	*(0.45)*	*(-0.03)*	*(-0.10)*	*(2.24)*	*(0.60)*
Contemporaneous Indicator Variables							
Indicator$_{t+1}$ (*LOW*)					0.46		
					(0.9)		
Indicator$_{t+1}$ (*HIGH*)					1.04		
					(1.42)		
Indicator$_t$ (*LOW*)	-0.45	1.50***	-0.67	-0.79	-0.82	-12.63	-1.24*
	(-0.67)	*(2.71)*	*(-0.94)*	*(-1.19)*	*(-1.22)*	*(-0.07)*	*(-1.73)*
Indicator$_t$ (*HIGH*)	3.04***	3.63***	0.01	-0.61	2.34**	1.49	1.49
	(2.65)	*(2.93)*	*(0.01)*	*(-0.57)*	*(2.10)*	*(1.45)*	*(1.48)*
Pseudo R^2	0.141	0.323	0.015	0.020	0.209	0.195	0.068

Table IA.IXc

Liquidity Shocks and Hedge Fund Contagion, Lagged Contagion Channel Variables for the Split Sample

As a robustness test, we repeat all the tests of the paper splitting the sample into two equal subperiods: January 1990 to May 1999 and June 1999 to October 2008. This table presents liquidity shock tests, as in Table VI of the main text. The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous contagion channel variables (winsorized at the 25th percentile) and indicator variables corresponding to lagged negative quartile realizations of the contagion channel variables. The contagion channel variables and their corresponding indicator variables include: the change in the Baa-10-year CMT Credit Spread (*CRSPRD*), the change in the Treasury-Eurodollar spread (*TEDSPRD*), the change in the Chordia, Sarkar, Subramanyam (2005) Liquidity Measure (*STKLIQ*), changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the monthly change in the Datastream Bank Index (*BANK)*, and the monthly change in the Prime Broker Index (*PBI*). The *t*-statistics are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Subperiod 1: January 1990 to May 1999
Dependent Variable: *OCCUR*

	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-1.23***	-1.60***	-1.86***	-1.51***	-1.52***	-1.74***	-1.78***
	(-5.97)	*(-6.83)*	*(-5.72)*	*(-5.19)*	*(-5.77)*	*(-6.62)*	*(-7.41)*
Constant *(HIGH)*	-3.00***	-3.20***	-3.11***	-14.66	-3.54***	-2.95***	-3.49***
	(-6.54)	*(-6.37)*	*(-3.47)*	*(-0.08)*	*(-5.23)*	*(-6.31)*	*(-6.22)*
Winsorized Continuous Channel Variables							
Cont. Chan. Wins. variable$_t$ (*LOW*)	0.14	0.09***	-1.56	0.01	0.15	0.08*	0.05*
	(0.07)	*(2.49)*	*(-1.58)*	*(0.19)*	*(1.02)*	*(1.72)*	*(1.75)*
Cont. Chan. Wins. variable$_t$ (*HIGH*)	9.48	-0.04	8.32*	-0.11	0.34	-0.13	-0.23
	(1.10)	*(-0.45)*	*(1.73)*	*(-0.46)*	*(1.24)*	*(-0.88)*	*(-1.38)*
Lagged Indicator Variables							
Indicator$_t$ (*LOW*)					0.96		
					(2.03)		
Indicator$_t$ (*HIGH*)					1.37		
					(1.18)		
Indicator$_{t-1}$ (*LOW*)	-0.28	1.29	0.58	-0.99	-0.37	0.79	1.06
	(-0.66)	*(3.22)*	*(1.37)*	*(-1.2)*	*(-0.85)*	*(2.01)*	*(2.8)*
Indicator$_{t-1}$ (*HIGH*)	-11.07	-10.24	2.45	12.18	-11.38	-15.13	0.57
	(-0.06)	*(-0.07)*	*(2.43)*	*(0.07)*	*(-0.06)*	*(-0.01)*	*(0.61)*
Pseudo R^2	0.051	0.176	0.153	0.140	0.087	0.109	0.148

Subperiod 2: June 1999 to October 2008
Dependent Variable: *OCCUR*

	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-1.67***	-1.98***	-1.42***	-1.73***	-1.64***	-1.77***	-1.48***
	(-6.94)	*(-8.17)*	*(-6.63)*	*(-6.61)*	*(-6.75)*	*(-6.66)*	*(-6.70)*
Constant *(HIGH)*	-2.81***	-3.18***	-3.11***	-2.87***	-4.41***	-3.57***	-3.11***
	(-7.11)	*(-6.89)*	*(-6.89)*	*(-6.52)*	*(-5.34)*	*(-5.86)*	*(-6.76)*
Winsorized Continuous Channel Variables							
Cont. Chan. Wins. variable$_t$ (*LOW*)	-3.37**	-0.07***	-0.42	-0.01	0.06	0.07	0.00
	(-2.20)	*(-2.81)*	*(-0.94)*	*(-0.10)*	*(0.59)*	*(1.38)*	*(0.10)*
Cont. Chan. Wins. variable$_t$ (*HIGH*)	2.15	0.22***	0.52	0.05	-0.05	0.07	-0.05
	(0.73)	*(2.38)*	*(0.93)*	*(0.49)*	*(-0.11)*	*(1.20)*	*(-0.74)*
Lagged Indicator Variables							
Indicator$_t$ (*LOW*)					-0.57		
					(-0.85)		
Indicator$_t$ (*HIGH*)					2.35**		
					(2.09)		
Indicator$_{t-1}$ (*LOW*)	-1.17*	0.06	-12.68	0.07	-0.07	0.12	-1.66**
	(-1.84)	*(0.12)*	*(-0.08)*	*(0.14)*	*(-0.12)*	*(0.22)*	*(-2.02)*
Indicator$_{t-1}$ (*HIGH*)	0.48	0.62	1.10**	0.49	0.99	1.90***	1.06
	(0.68)	*(0.94)*	*(1.69)*	*(0.66)*	*(1.35)*	*(2.44)*	*(1.61)*
Pseudo R^2	0.085	0.188	0.198	0.007	0.202	0.106	0.100

Table IA.X
Contemporaneous and Lagged Panic Tests

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include the continuous measure of VIX as a proxy for the panic effect (winsorized at the 25th percentile) and indicator variables corresponding to contemporaneous (lagged) negative quartile realizations of VIX. The *t*-statistics are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Contemporaneous Tests Dependent Variable: *OCCUR*	
	VIX
Constant *(LOW)*	-2.21***
	(-9.71)
Constant *(HIGH)*	-3.39***
	(-8.58)
Continuous Variable	
Continuous Winsorized VIX_t (*LOW*)	-0.09***
	(-2.68)
Continuous Winsorized VIX_t (*HIGH*)	-0.02
	(-0.26)
Indicator Variable	
VIX_t (*LOW*)	1.36***
	(3.24)
VIX_t (*HIGH*)	0.43
	(0.53)
Pseudo R^2	5.7

Lagged Tests Dependent Variable: *OCCUR*	
	VIX
Constant *(LOW)*	-1.72***
	(-10.74)
Constant *(HIGH)*	-3.31***
	(-9.96)
Continuous Variable	
Continuous Winsorized VIX_t (*LOW*)	-0.02
	(-0.61)
Continuous Winsorized VIX_t (*HIGH*)	0.01
	(0.15)
Lagged Indicator Variable	
VIX_t (*LOW*)	0.08
	(0.26)
VIX_t (*HIGH*)	0.25
	(0.39)
Pseudo R^2	0.3

Table IA.XI
Omitted Factor Test Filtering Analysis using AR(1) Models, Common Risk Factors, and Contagion Channel Variables

Raw monthly hedge fund returns from January 1990 to October 2008 are filtered using AR(1) models to adjust for autocorrelation and a number of other factors from the asset pricing literature to control for well-known commonalities in hedge fund returns. These include a stock market factor (Russell 3000 Index), a bond market factor (the return on the Lehman Brothers U.S. bond index), a currency factor (the change in the FRB Dollar index), an equity size spread factor, the change in the 10-year constant maturity Treasury yield to maturity, the change in the BAA-10-year CMT credit spread, lookback straddle factors for bonds, currencies, commodities, short-term interest rates, and equities, the return on a three-month Treasury bill, and the negative portion of the S&P 500 index to proxy for a put option. In addition, five continuous contagion channel variables are added as described in Section IV of the main text. The residuals from this filtering exercise are used in all the analyses in Section IV and reported in Internet Appendix Tables IA.X to IA.XII. Below, the regression coefficients are listed with their corresponding I-values in parentheses. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value
Intercept	-0.24	0.55***	0.50***	-0.11	-0.02	0.36	0.81*	0.30
	(-1.01)	*(2.54)*	*(2.34)*	*(-0.38)*	*(-0.09)*	*(1.64)*	*(1.75)*	*(1.30)*
AR1	0.53***	0.45***	0.22***	0.14***	0.07	0.09	0.14**	0.18***
	(12.4)	*(10.57)*	*(4.67)*	*(3.83)*	*(1.08)*	*(1.44)*	*(2.20)*	*(3.12)*
Russell 3000 index	0.03	0.06	0.18***	0.51***	0.04	0.02	0.20***	0.00
	(0.68)	*(1.33)*	*(4.70)*	*(9.39)*	*(1.25)*	*(0.54)*	*(2.64)*	*(0.10)*
Return on LB Bond index	0.94***	0.70***	0.52*	0.17	-0.25	-0.23	0.98*	0.54**
	(3.62)	*(2.43)*	*(1.87)*	*(0.44)*	*(-1.21)*	*(-0.78)*	*(1.68)*	*(2.16)*
Change in FRB Dollar index	0.05	-0.01	-0.01	0.00	0.01	-0.01	-0.21***	0.02
	(1.30)	*(-0.32)*	*(-0.33)*	*(0.08)*	*(0.49)*	*(-0.20)*	*(-3.26)*	*(0.37)*
Equity size spread	0.04	0.18***	0.22***	0.32***	0.06***	0.10***	0.19***	0.07***
	(1.62)	*(7.27)*	*(9.59)*	*(10.69)*	*(2.52)*	*(4.31)*	*(4.61)*	*(4.04)*
Δ in 10-year CMT YTM	2.93**	2.43*	2.02	0.72	-1.49	-1.00	2.15	1.76
	(2.27)	*(1.76)*	*(1.52)*	*(0.41)*	*(-1.44)*	*(-0.72)*	*(0.79)*	*(1.43)*
Δ in Baa-10yr CMT spread	-1.68***	-0.69	-0.09	1.50	0.54	-0.25	2.62**	-1.21*
	(-2.53)	*(-0.95)*	*(-0.13)*	*(1.44)*	*(0.77)*	*(-0.39)*	*(2.08)*	*(-1.80)*
Lookback straddle: bonds	-0.06	-1.31***	-0.61	-0.01	-0.44	0.08	-0.33	-0.50
	(-0.13)	*(-2.96)*	*(-1.29)*	*(-0.01)*	*(-1.02)*	*(0.16)*	*(-0.35)*	*(-1.02)*
Lookback straddle: currencies	-0.05	0.19	0.32	0.60	0.62*	0.35	2.41***	-0.11
	(-0.13)	*(0.50)*	*(0.90)*	*(1.20)*	*(1.92)*	*(0.84)*	*(3.68)*	*(-0.23)*
Lookback straddle: commodities	0.04	0.18	-0.09	0.63	0.35	-0.21	2.18***	0.00
	(0.07)	*(0.35)*	*(-0.19)*	*(1.04)*	*(0.73)*	*(-0.38)*	*(2.44)*	*(0.00)*
Lookback straddle: interest rates	-0.36	0.01	-0.29	-0.97**	-0.50**	-0.06	-1.05	-0.36
	(-1.59)	*(0.02)*	*(-1.00)*	*(-1.99)*	*(-2.25)*	*(-0.18)*	*(-1.62)*	*(-1.25)*
Lookback straddle: equities	0.58	0.26	0.59*	1.02	0.32	0.25	2.06***	0.63
	(1.20)	*(0.46)*	*(1.73)*	*(1.64)*	*(0.93)*	*(0.51)*	*(3.16)*	*(1.36)*
Three month Treasury bill	0.19	-0.21	0.10	0.78***	0.69***	0.62***	-0.31	0.28
	(1.13)	*(-1.39)*	*(0.61)*	*(3.25)*	*(4.11)*	*(3.29)*	*(-0.93)*	*(1.53)*
Negative Portion of S&P 500	0.04	0.12**	0.14**	0.03	-0.01	0.14***	0.06	0.10*
	(0.77)	*(2.02)*	*(2.30)*	*(0.40)*	*(-0.17)*	*(2.37)*	*(0.57)*	*(1.93)*
TED Spread	-0.03***	-0.02***	-0.02***	-0.01	0.00	-0.01*	-0.01	-0.01**
	(-3.95)	*(-2.86)*	*(-2.65)*	*(-1.18)*	*(-0.53)*	*(-1.80)*	*(-0.93)*	*(-2.07)*
Prime Broker Index	0.02	0.05**	0.01	0.02	0.02	0.01	0.04	0.02
	(0.83)	*(2.27)*	*(0.76)*	*(0.83)*	*(1.56)*	*(0.46)*	*(1.11)*	*(0.93)*
Bank Index	-0.02	-0.03	-0.01	-0.13***	-0.04**	0.02	-0.05	-0.01
	(-1.30)	*(-1.31)*	*(-0.60)*	*(-5.10)*	*(-2.28)*	*(0.77)*	*(-1.66)*	*(-0.58)*
CSS Liquidity Measure	-0.21***	-0.06	-0.16	-0.12	-0.16	-0.19***	-0.07	-0.18
	(-2.72)	*(-0.53)*	*(-1.33)*	*(-0.72)*	*(-1.51)*	*(-2.35)*	*(-0.36)*	*(-1.52)*
Contemp. Hedge Fund Flows	-0.04	-0.05*	-0.02	-0.01	0.01	-0.03	-0.01	0.00
	(-1.10)	*(-1.67)*	*(-0.54)*	*(-0.38)*	*(0.50)*	*(-0.79)*	*(-0.18)*	*(-0.07)*
Adjusted R^2	74.6	73.5	79.4	78.9	25.0	47.1	37.5	58.7

Table IA.XII
Omitted Factor Tests: Baseline Logit Model Using Liquidity Filtered Returns

The event of a worst return in each hedge fund style is separately modeled as the outcome of a binary variable and estimated as a logit regression. The only independent variable is *COUNT*, which takes a value from zero to seven and is the number of other hedge fund indices that also have worst returns for the month. Below the coefficients are the I-values in parentheses. R^2 MAX is the scaled coefficient of determination suggested by Nagelkerke (1991). Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

	Convertible Arbitrage	Distressed Securities	Event Driven	Equity Hedge	Equity Market Neutral	Merger Arbitrage	Global Macro	Relative Value
Constant	-2.51***	-2.98***	-3.60***	-2.64***	-2.52***	-2.86***	-2.43***	-2.72***
	(-5.85)	*(-5.87)*	*(-4.52)*	*(-6.02)*	*(-9.12)*	*(-4.78)*	*(-5.44)*	*(-4.77)*
Other Hedge Fund Index Indicator Variable								
COUNT	0.38	0.77***	1.23***	0.49**	0.38***	0.68**	0.30	0.56*
	(1.57)	*(2.75)*	*(2.85)*	*(2.06)*	*(2.46)*	*(2.05)*	*(1.14)*	*(1.78)*
R^2 MAX	3.9	14.2	26.5	6.8	4.8	11.2	2.3	8.1

Table IA.XIII
Omitted Factor Multinomial Test Using Liquidity Filtered Returns
Contemporaneous Contagion Dummies

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*) and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include indicator variables corresponding to contemporaneous quartile realizations of the contagion channel variables. The contagion channel variables include: the Baa-10-year CMT Credit Spread (*CRSPRD*), the Treasury-Eurodollar spread (*TEDSPRD*), the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the Datastream Bank Index (*BANK)*, and the Prime Broker Index (*PBI*). *t*-values are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$

	Channel Variable = *CRSPRD*	**Channel Variable = *TEDSPRD***	**Channel Variable = *STKLIQ***	**Channel Variable = *REPO***	**Channel Variable = *FLOW***	**Channel Variable = *BANK***	**Channel Variable = *PBI***
Constant *(LOW)*	-1.53***	-1.59***	-1.39***	-1.58***	-1.57***	-1.52***	-1.60***
	(-7.47)	*(-7.55)*	*(-7.06)*	*(-6.60)*	*(-8.48)*	*(-7.39)*	*(-7.59)*
Constant *(HIGH)*	-3.29***	-2.81***	-2.91***	-3.02***	-3.93***	-2.94***	-2.95***
	(-7.22)	*(-7.72)*	*(-7.51)*	*(-6.58)*	*(-7.89)*	*(-7.57)*	*(-7.61)*
Indicator Variables							
$Indicator_{t+1}$ (*LOW*)					0.15		
					(0.42)		
$Indicator_{t+1}$ (*HIGH*)					1.33**		
					(2.30)		
$Indicator_t$ (*LOW*)	0.12	0.34	-0.49	0.28	0.15	0.06	0.37
	(0.29)	*(0.88)*	*(-1.08)*	*(0.63)*	*(0.42)*	*(0.14)*	*(0.96)*
$Indicator_t$ (*HIGH*)	1.18*	-0.23	0.18	-0.48	1.33**	0.27	0.34
	(1.80)	*(-0.29)*	*(0.26)*	*(-0.43)*	*(2.30)*	*(0.39)*	*(0.47)*
Pseudo R^2	1.9	1.0	1.0	0.6	7.3	1.0	1.0

Table IA.XIV
Omitted Factor Multinomial Test Using Liquidity Filtered Returns
Lagged Contagion Dummies

The co-occurrence of extreme monthly negative returns in hedge fund style indices is modeled as the outcome of a variable ($OCCUR_t$) that takes the value of zero if zero or one hedge fund indices have a worst return during a given month (*base case*), one if two or three hedge fund indices have a worst return during a given month (*low*), and two if four or more hedge fund indices have a worst return in a given month (*high*), and is estimated as a multinomial logistic regression. A monthly return is classified as a "worst return" if it belongs to the bottom 10% of all returns of that style. The regressions also include indicator variables corresponding to lagged quartile realizations of the contagion channel variables. The contagion channel variables include: the Baa-10-year CMT Credit Spread (*CRSPRD*), the Treasury-Eurodollar spread (*TEDSPRD*), the Chordia, Sarkar, and Subramanyam (2005) Liquidity Measure (*STKLIQ)*, changes in Repo Volume *(REPO)*, flows from other hedge funds, both contemporaneous and one month in the future (*FLOW*), the Datastream Bank Index (*BANK)*, and the Prime Broker Index (*PBI*). *t*-values are shown below the coefficients in parentheses. The pseudo R^2 is McFadden's likelihood ratio index. Coefficients with ***, **, and * are statistically significant at the 1%, 5%, and 10% levels, respectively.

Dependent Variable: $OCCUR_t$

	Channel Variable = *CRSPRD*	Channel Variable = *TEDSPRD*	Channel Variable = *STKLIQ*	Channel Variable = *REPO*	Channel Variable = *FLOW*	Channel Variable = *BANK*	Channel Variable = *PBI*
Constant *(LOW)*	-1.34***	-1.66***	-1.45***	-1.60***	-1.62***	-1.66***	-1.74***
	(-6.85)	*(-7.77)*	*(-7.26)*	*(-6.69)*	*(-7.40)*	*(-7.77)*	*(-7.87)*
Constant *(HIGH)*	-2.64***	-3.31***	-3.27***	-3.55***	-3.51***	-3.31***	-2.97***
	(-7.65)	*(-7.27)*	*(-7.18)*	*(-6.05)*	*(-6.90)*	*(-7.27)*	*(-7.68)*
Indicator Variables							
Indicator$_t$ (*LOW*)					0.09		
					(0.21)		
Indicator$_t$ (*HIGH*)					1.66***		
					(2.48)		
Indicator$_{t-1}$ (*LOW*)	-0.74	0.62	-0.21	0.25	0.38	0.62	0.84**
	(-1.56)	*(1.59)*	*(-0.48)*	*(0.53)*	*(0.97)*	*(1.59)*	*(2.22)*
Indicator$_{t-1}$ (*HIGH*)	-1.23	1.31**	1.15*	1.21	-0.07	1.31**	0.46
	(-1.15)	*(1.99)*	*(1.74)*	*(1.44)*	*(-0.09)*	*(1.99)*	*(0.65)*
Pseudo R^2	2.6	3.4	2.1	1.8	4.4	3.4	3.0

References

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