Internet Appendices A1, A2, & A3 for "Seasonal Asset Allocation: Evidence from Mutual Fund Flows"

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Appendix A1: Exploring Alternative Capital Gains Overhang Proxies, Alternative Return Chasing Measures, Use of Seasonal Depression Incidence Instead of Onset/Recovery, and Inclusion/Exclusion of Monthly Dummy Variables

In this appendix we provide four sets of robustness checks, exploring alternate capital gains overhang proxies in Section A.1, alternative return chasing measures in Section A.2, use of a seasonal-depression incidence measure in place of the onset/recovery variable in Section A.3, and including or excluding monthly dummy variables in Section A.4. The data, explanatory variables, and table construction are as defined in the text, unless indicated otherwise.

For the robustness checks described in Sections A.1, A.2, and A.3, we use U.S. data as described in Section IV, and we report coefficient estimates from jointly estimating the net flows (or net exchanges) regression model for each of the asset classes in a GMM framework (replacing $R_{i,t}^{CapGains}$ with alternate capital gains overhang measures in Section A.1, replacing $R_{i,t}^{Year}$ with alternate return chasing measures in Section A.2, and replacing OR_t with an alternate seasonal depression measure in Section A.3):

$$\begin{aligned} NetFlow_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R_{i,t}^{Year} + \mu_{i,CapGains}R_{i,t}^{CapGains} \\ +\mu_{i,Nov}Nov_t + \mu_{i,Dec}Dec_t + \mu_{i,Jan}Jan_t + \mu_{i,Feb}Feb_t + \mu_{i,Savings}Savings_{t-1} \\ +\rho_{i,1}NetFlow_{i,t-1} + \rho_{i,3}NetFlow_{i,t-3} + \rho_{i,6}NetFlow_{i,t-6} + \rho_{i,12}NetFlow_{i,t-12} + \epsilon_{i,t} \end{aligned} \quad (1)$$

$$\begin{aligned} NetExchange_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R_{i,t}^{Year} \\ +\mu_{i,CapGains}R_{i,t}^{CapGains} + \rho_{i,1}NetExchange_{i,t-1} + \rho_{i,3}NetExchange_{i,t-3} \\ +\rho_{i,6}NetExchange_{i,t-6} + \rho_{i,12}NetExchange_{i,t-12} + \epsilon_{i,t}. \end{aligned} \quad (2)$$

We postpone discussing which regression models are estimated in Section A.4 until we reach that section. All the Appendix models have additional lags of the dependent variable included as an additional robustness check; results are very similar when using the more parsimonious models for autocorrelation presented in the main text.

A1.1 Alternative Capital Gains Overhang Proxies

Tables A1.1 through A1.20 contain results based on estimating Equations (1) and (2), sequentially replacing $R_{i,t}^{CapGains}$ with each of the ten alternative capital gains overhang proxies defined in

Section VIII. Tables A1.1 through A1.10 employ net flows as the dependent variable and Tables A1.11 through A1.20 employ net exchanges. In all cases, the finding of statistically significant seasonally opposing flows in risky versus safe fund categories remains.

A1.2 Alternative Return Chasing Measures

Tables A1.21 through A1.28 contain results based on different measures for return chasing, including a one month lagged return or a one, two, or three quarter return moving average rather than a one year moving average. (Tables A1.21 through A1.24 correspond to net flows and Tables A1.25 through A1.28 correspond to net exchanges.) In all cases, the findings with respect to seasonal variation in flows are robust to these alternate measures.

A1.3 Use of Incidence Instead of Onset/Recovery

To explore robustness of the results to the way we capture seasonal depression, we estimate the net flow and net exchange models making use of seasonal-depression incidence (i.e. levels) rather than onset/recovery (i.e., flows), with results presented in Tables A1.29 (net flows) and A1.30 (net exchanges). We find qualitatively identical results based on the incidence measures. There is economically large and statistically significant evidence of seasonal flows between safe and risky categories of mutual funds.

A1.4 Inclusion/Exclusion of Monthly Dummy Variables

In this section, we explore robustness of the results to the inclusion/exclusion of monthly dummy variables. In addition to the U.S. data, we also use Canadian and Australian data (as described in Sections VI and VII). Table A1.31 contains results based on estimating the primary U.S. net flows specification (see Equation (1) and Table 4) excluding the dummy variables for November, December, January, and February. Table A1.32 contains results based on estimating the primary U.S. net exchanges specification (see Equation (2) and Table 5) with the addition of the dummy variables for November, December, January, and February. Table A1.33 contains results based on estimating the primary Canadian net exchanges specification (see Equation (3) and Table 8) with the addition of the dummy variables for November, December, January, and February. Table A1.34 contains results based on estimating the primary Australian net flows specification (see Equation (4) and Table 10) excluding the dummy variables for May, June, July, and August. In each and every case, the qualitative result of opposing flows in risky versus safe fund categories due to seasonally varying risk aversion and the statistical significance of the effect remains strong.

Table A1.1
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 1:
Past Realized Capital Gains Plus Predicted Capital Gains for Month t

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.856***	-1.448***	-1.681***	-1.732***	1.660***
	(-6.08)	(-9.09)	(-7.64)	(-10.2)	(3.63)
$\mu_{\hat{OR}}$	-0.196***	-0.186***	-0.374***	0.058	1.147***
	(-4.03)	(-3.95)	(-5.88)	(1.18)	(7.23)
μ_{Ads}	0.266***	0.150***	-0.527***	-0.125**	-0.886***
	(4.04)	(2.97)	(-6.57)	(-2.40)	(-5.15)
$\mu_{R^{Year}}$	0.015**	0.018	0.089***	-0.132***	0.101
	(2.03)	(1.17)	(2.69)	(-4.15)	(1.21)
$\mu_{Savings}$	0.491***	1.018***	1.502***	1.474***	-0.501*
	(6.04)	(10.57)	(11.04)	(13.46)	(-1.90)
$\mu_{CapGainsProxy1}$	-0.025***	-0.066***	0.096***	-1.066***	-171.2**
	(-8.31)	(-12.2)	(2.78)	(-19.9)	(-2.09)
μ_{Nov}	0.198***	0.331***	0.130***	-0.045	0.632***
	(6.17)	(6.59)	(2.66)	(-1.22)	(5.81)
μ_{Dec}	0.173***	-0.394***	-0.233***	-0.162***	0.624***
	(6.09)	(-9.16)	(-5.27)	(-6.15)	(4.23)
μ_{Jan}	0.411***	0.416***	0.628***	0.350***	-0.653***
	(9.86)	(10.63)	(14.27)	(12.16)	(-4.48)
μ_{Feb}	-0.004	-0.142***	0.005	-0.094***	-0.113
	(-0.12)	(-5.18)	(0.10)	(-2.70)	(-1.20)
ρ_1	0.402***	0.488***	0.511***	0.592***	0.070***
	(31.93)	(26.36)	(39.39)	(51.45)	(4.39)
ρ_3	0.313***	0.349***	0.275***	0.253***	0.337***
	(34.49)	(16.87)	(21.81)	(20.76)	(18.06)
ρ_6	-0.007	0.006	0.028**	0.080***	0.112***
	(-0.71)	(0.41)	(2.38)	(7.31)	(7.24)
ρ_{12}	0.044***	-0.030***	-0.136***	-0.011*	0.234***
	(5.44)	(-3.37)	(-13.2)	(-1.70)	(10.97)
R^2	0.5125	0.7321	0.6918	0.906	0.3186
AR(12)	13.60	5.52	14.61	9.00	11.52
ARCH(12)	39.98***	63.03***	50.65***	55.03***	25.16**

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	101.4*** [5]
$\mu_{\hat{OR}}$ equivalent across series	101.3*** [4]
Test of Over-Identifying Restrictions	46.8 [120]

Notes: We estimate Equation (1), using an alternate measure of capital gains overhang. One, two, and three asterisks denote significance at the 10, 5, and 1 percent level respectively, based on two-sided tests. To calculate the standard errors we follow Newey and West (1987, 1994) and use the Bartlett kernel and an automatic bandwidth parameter (autocovariance lags) equal to the integer value of $4(T/100)^{2/9}$. We use the full set of explanatory variables as instruments for the regression.

Table A1.2
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 2:
Predicted Cumulative Returns

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.749***	-1.645***	-1.660***	-1.178***	2.035***
	(-5.24)	(-10.9)	(-7.55)	(-5.76)	(3.61)
$\mu_{\hat{OR}}$	-0.194***	-0.309***	-0.403***	-0.250***	1.216***
	(-3.72)	(-6.32)	(-5.94)	(-4.37)	(6.72)
μ_{Ads}	0.243***	0.226***	-0.492***	-0.149***	-0.915***
	(3.15)	(4.49)	(-5.99)	(-2.78)	(-5.08)
$\mu_{R^{Year}}$	0.058***	-0.106***	0.026	-0.304***	0.336**
	(4.75)	(-5.78)	(0.66)	(-5.73)	(1.98)
$\mu_{Savings}$	0.382***	0.959***	1.483***	0.907***	-0.750**
	(5.04)	(10.16)	(11.27)	(6.85)	(-2.47)
$\mu_{CapGainsProxy2}$	-0.005***	0.017***	0.009**	0.034***	-0.024
	(-4.60)	(7.06)	(2.03)	(6.75)	(-1.27)
μ_{Nov}	0.196***	0.282***	0.109**	-0.174***	0.632***
	(5.59)	(5.80)	(2.26)	(-4.64)	(5.33)
μ_{Dec}	0.163***	-0.439***	-0.246***	-0.319***	0.722***
	(5.23)	(-8.81)	(-5.91)	(-12.1)	(4.27)
μ_{Jan}	0.393***	0.491***	0.628***	0.523***	-0.743***
	(8.44)	(11.47)	(14.22)	(17.87)	(-4.62)
μ_{Feb}	-0.003	-0.119***	0.015	-0.067*	-0.135
	(-0.07)	(-3.92)	(0.29)	(-1.78)	(-1.26)
ρ_1	0.426***	0.503***	0.504***	0.646***	0.073***
	(33.89)	(32.52)	(36.57)	(51.94)	(4.41)
ρ_3	0.324***	0.362***	0.275***	0.267***	0.336***
	(28.83)	(20.58)	(23.67)	(18.55)	(19.22)
ρ_6	-0.027**	0.014	0.039***	0.070***	0.109***
	(-2.27)	(1.15)	(3.26)	(5.40)	(6.85)
ρ_{12}	0.014	-0.034***	-0.120***	-0.084***	0.228***
	(1.56)	(-3.83)	(-11.0)	(-13.5)	(11.18)
R^2	0.5069	0.729	0.6913	0.9012	0.3169
AR(12)	13.14	4.10	12.72	8.88	11.21
ARCH(12)	34.94***	62.77***	46.94***	49.88***	30.05***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	72.7*** [5]
$\mu_{\hat{OR}}$ equivalent across series	64.6*** [4]
Test of Over-Identifying Restrictions	46.3 [120]

Notes: See the notes to Table A1.1

Table A1.3
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 3:
Predicted Cumulative Returns Less Distributions

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.723***	-1.701***	-1.752***	-1.425***	1.506***
	(-4.99)	(-10.9)	(-7.41)	(-7.09)	(2.90)
$\mu_{\hat{OR}}$	-0.201***	-0.274***	-0.359***	-0.099*	1.331***
	(-3.89)	(-6.04)	(-5.34)	(-1.95)	(7.63)
μ_{Ads}	0.241***	0.223***	-0.503***	-0.147***	-1.007***
	(3.18)	(4.66)	(-6.18)	(-2.69)	(-5.74)
$\mu_{R^{Year}}$	0.058***	-0.097***	0.018	-0.311***	0.726***
	(4.74)	(-5.24)	(0.44)	(-6.02)	(5.06)
$\mu_{Savings}$	0.362***	1.027***	1.584***	1.160***	-0.396
	(4.72)	(10.58)	(11.00)	(9.24)	(-1.39)
$\mu_{CapGainsProxy3}$	-0.005***	0.015***	0.009**	0.037***	-0.095***
	(-4.87)	(6.23)	(2.22)	(7.80)	(-5.80)
μ_{Nov}	0.192***	0.302***	0.123**	-0.124***	0.673***
	(5.50)	(6.49)	(2.57)	(-3.53)	(5.79)
μ_{Dec}	0.162***	-0.425***	-0.218***	-0.256***	0.768***
	(5.50)	(-8.92)	(-5.41)	(-10.7)	(4.77)
μ_{Jan}	0.401***	0.467***	0.613***	0.442***	-0.747***
	(9.18)	(11.29)	(15.13)	(14.64)	(-4.74)
μ_{Feb}	-0.005	-0.129***	0.001	-0.103***	-0.113
	(-0.14)	(-4.15)	(0.01)	(-2.75)	(-1.20)
ρ_1	0.427***	0.503***	0.504***	0.638***	0.070***
	(34.93)	(31.12)	(37.78)	(53.93)	(4.10)
ρ_3	0.325***	0.364***	0.277***	0.267***	0.337***
	(31.48)	(21.42)	(23.58)	(18.65)	(19.29)
ρ_6	-0.028**	0.012	0.038***	0.073***	0.104***
	(-2.53)	(0.95)	(3.12)	(6.10)	(6.96)
ρ_{12}	0.016*	-0.035***	-0.122***	-0.086***	0.215***
	(1.69)	(-3.99)	(-11.2)	(-13.9)	(10.68)
R^2	0.5068	0.7286	0.6914	0.9013	0.3249
AR(12)	13.26	4.28	14.09	9.32	11.70
ARCH(12)	34.79***	62.13***	47.14***	50.34***	28.48***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	77.5*** [5]
$\mu_{\hat{OR}}$ equivalent across series	76.7*** [4]
Test of Over-Identifying Restrictions	46.4 [120]

Notes: See the notes to Table A1.1

Table A1.4
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 4:
Two Year Cumulative Returns

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.991***	-1.579***	-1.856***	-1.146***	-0.182
	(-7.84)	(-9.75)	(-8.63)	(-7.28)	(-0.37)
$\mu_{\hat{OR}}$	-0.248***	-0.276***	-0.417***	-0.025	1.142***
	(-5.40)	(-6.17)	(-6.88)	(-0.57)	(8.03)
μ_{Ads}	0.179***	0.111**	-0.606***	-0.300***	-0.925***
	(2.96)	(2.52)	(-8.08)	(-5.13)	(-5.63)
$\mu_{R^{Year}}$	0.047***	0.061***	0.053	0.387***	0.443***
	(4.52)	(3.75)	(1.32)	(9.34)	(2.86)
$\mu_{Savings}$	0.575***	1.046***	1.687***	0.980***	0.799***
	(7.96)	(10.23)	(12.68)	(9.57)	(2.63)
$\mu_{CapGainsProxy4}$	-0.001***	-0.004***	0.002	-0.022***	-0.021***
	(-3.06)	(-4.87)	(1.12)	(-9.02)	(-3.02)
μ_{Nov}	0.164***	0.271***	0.148***	-0.017	0.689***
	(4.56)	(7.40)	(2.62)	(-0.55)	(5.89)
μ_{Dec}	0.154***	-0.392***	-0.225***	-0.146***	0.651***
	(4.97)	(-8.90)	(-5.74)	(-6.14)	(4.09)
μ_{Jan}	0.419***	0.403***	0.631***	0.542***	-0.675***
	(11.91)	(11.57)	(15.63)	(19.24)	(-4.74)
μ_{Feb}	0.031	-0.217***	0.124***	0.103***	0.015
	(0.94)	(-7.06)	(2.94)	(2.94)	(0.18)
μ_{rho_1}	0.433***	0.520***	0.516***	0.647***	0.050**
	(33.33)	(32.72)	(42.56)	(55.22)	(2.56)
μ_{rho_3}	0.291***	0.352***	0.247***	0.168***	0.356***
	(24.99)	(19.14)	(20.58)	(14.42)	(21.92)
μ_{rho_6}	-0.031**	0.003	0.037***	-0.005	0.077***
	(-2.39)	(0.20)	(3.03)	(-0.43)	(4.88)
$\mu_{rho_{12}}$	0.063***	-0.030***	-0.137***	0.031***	0.246***
	(8.16)	(-4.09)	(-14.8)	(4.44)	(12.58)
R^2	0.5217	0.7241	0.6621	0.8297	0.3395
AR(12)	12.62	4.85	12.59	11.73	8.54
ARCH(12)	28.26***	66.32***	45.01***	17.14	29.71***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	248.9*** [5]
$\mu_{\hat{OR}}$ equivalent across series	248.9*** [4]
Test of Over-Identifying Restrictions	46.5 [140]

Notes: See the notes to Table A1.1

Table A1.5
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 5
Three Year Cumulative Returns

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.776***	-1.357***	-1.848***	-1.619***	0.105
	(-6.41)	(-9.05)	(-7.81)	(-8.69)	(0.15)
$\mu_{\hat{OR}}$	-0.160***	-0.212***	-0.444***	-0.055	1.421***
	(-3.78)	(-5.38)	(-7.54)	(-1.26)	(10.18)
μ_{Ads}	0.116**	0.034	-0.705***	-0.356***	-0.975***
	(2.11)	(0.65)	(-10.9)	(-6.41)	(-6.67)
$\mu_{R^{Year}}$	0.024***	-0.020	0.187***	0.327***	0.439***
	(2.67)	(-1.35)	(7.09)	(8.88)	(3.88)
$\mu_{Savings}$	0.476***	0.932***	1.785***	1.419***	0.676
	(6.26)	(9.85)	(12.02)	(11.75)	(1.46)
$\mu_{CapGainsProxy5}$	-0.001***	0.001	-0.001	-0.020***	-0.017***
	(-3.98)	(1.34)	(-0.47)	(-12.3)	(-4.03)
μ_{Nov}	0.179***	0.217***	0.167***	-0.021	0.789***
	(4.12)	(6.86)	(2.85)	(-0.68)	(7.03)
μ_{Dec}	0.156***	-0.302***	-0.232***	-0.179***	0.842***
	(5.34)	(-7.59)	(-5.62)	(-7.11)	(5.30)
μ_{Jan}	0.299***	0.339***	0.556***	0.448***	-0.804***
	(9.42)	(9.68)	(12.46)	(15.71)	(-5.00)
μ_{Feb}	-0.015	-0.191***	0.179***	0.102***	0.093
	(-0.44)	(-5.66)	(3.92)	(2.60)	(1.01)
ρ_1	0.474***	0.513***	0.442***	0.609***	0.047***
	(46.24)	(30.12)	(31.58)	(44.63)	(2.83)
ρ_3	0.324***	0.408***	0.139***	0.100***	0.373***
	(24.80)	(18.72)	(12.26)	(8.95)	(19.66)
ρ_6	-0.050***	-0.025**	-0.013	-0.006	0.075***
	(-4.48)	(-1.99)	(-0.99)	(-0.49)	(4.61)
ρ_{12}	0.049***	-0.059***	-0.147***	-0.005	0.244***
	(5.82)	(-7.91)	(-13.4)	(-0.55)	(13.53)
R^2	0.5929	0.7188	0.4787	0.6771	0.3722
AR(12)	21.78**	2.36	7.86	12.54	9.91
ARCH(12)	20.14*	60.42***	52.71***	10.93	31.21***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	159.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	155.7*** [4]
Test of Over-Identifying Restrictions	52.3 [120]

Notes: See the notes to Table A1.1

Table A1.6
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 6:
Predicted Capital Gains, Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.771***	-1.694***	-1.537***	-1.014***	1.629***
	(-6.35)	(-11.5)	(-7.56)	(-5.86)	(3.62)
$\mu_{\hat{OR}}$	-0.223***	-0.250***	-0.376***	-0.099**	1.160***
	(-4.18)	(-4.70)	(-5.41)	(-1.99)	(6.40)
μ_{Ads}	0.252***	0.147***	-0.563***	-0.139**	-0.896***
	(3.60)	(2.78)	(-7.14)	(-2.54)	(-4.88)
$\mu_{R^{Year}}$	0.016*	0.006	0.115***	-0.017	0.094
	(1.94)	(0.38)	(3.94)	(-0.46)	(0.89)
$\mu_{Savings}$	0.376***	1.076***	1.446***	0.785***	-0.483**
	(5.96)	(11.94)	(11.28)	(7.02)	(-2.01)
$\mu_{CapGainsProxy6}$	-0.025***	-0.054***	0.300***	0.882***	-1338***
	(-4.34)	(-3.68)	(6.94)	(12.25)	(-28.3)
μ_{Nov}	0.315***	0.479***	-0.037	-0.422***	0.797***
	(8.83)	(8.51)	(-0.61)	(-12.8)	(8.06)
μ_{Dec}	0.284***	-0.281***	-0.400***	-0.558***	0.880***
	(7.04)	(-7.36)	(-7.89)	(-15.8)	(7.43)
μ_{Jan}	0.440***	0.438***	0.637***	0.497***	-0.625***
	(10.42)	(11.08)	(14.26)	(12.97)	(-3.93)
μ_{Feb}	0.014	-0.136***	0.013	-0.073**	-0.089
	(0.39)	(-4.71)	(0.28)	(-1.99)	(-0.86)
ρ_1	0.413***	0.505***	0.506***	0.670***	0.067***
	(29.29)	(26.48)	(46.26)	(71.23)	(3.66)
ρ_3	0.325***	0.362***	0.280***	0.270***	0.317***
	(34.73)	(19.99)	(28.20)	(23.45)	(17.66)
ρ_6	-0.015	-0.000	0.033***	0.063***	0.111***
	(-1.37)	(-0.02)	(3.05)	(5.11)	(7.02)
ρ_{12}	0.022**	-0.033***	-0.139***	-0.104***	0.237***
	(2.46)	(-3.89)	(-14.0)	(-16.1)	(11.70)
R^2	0.506	0.7271	0.6931	0.9017	0.3353
AR(12)	14.99	4.60	15.05	12.31	17.02
ARCH(12)	37.03***	58.13***	52.26***	52.19***	27.93***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	57.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	53.6*** [4]
Test of Over-Identifying Restrictions	46.5 [120]

Notes: See the notes to Table A1.1

Table A1.7
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 7:
For Equity/Hybrid Classes: Predicted Capital Gains, Nov/Dec Only;
For Corporate Bond, Government Bond, Money Market Classes:
Cumulative Returns for Past Fiscal Year, Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.796***	-1.697***	-1.558***	-1.318***	2.054***
	(-6.37)	(-11.2)	(-6.56)	(-7.33)	(4.46)
$\mu_{\hat{OR}}$	-0.220***	-0.253***	-0.367***	-0.081*	1.135***
	(-4.26)	(-4.67)	(-5.32)	(-1.68)	(6.34)
μ_{Ads}	0.276***	0.156***	-0.539***	-0.129**	-0.944***
	(4.55)	(3.20)	(-7.51)	(-2.46)	(-5.31)
$\mu_{R^{Year}}$	0.017**	0.007	0.126***	-0.012	0.381***
	(2.13)	(0.51)	(4.00)	(-0.31)	(3.20)
$\mu_{Savings}$	0.373***	1.073***	1.430***	0.975***	-0.822***
	(5.21)	(11.09)	(9.21)	(8.52)	(-3.24)
$\mu_{CapGainsProxy7}$	-0.023***	-0.049***	-0.021***	-0.027***	-0.102***
	(-5.09)	(-3.01)	(-4.44)	(-6.11)	(-7.39)
μ_{Nov}	0.303***	0.452***	0.317***	0.038	1.195***
	(8.20)	(6.51)	(7.00)	(0.99)	(9.14)
μ_{Dec}	0.275***	-0.287***	-0.028	-0.084**	1.264***
	(6.51)	(-6.35)	(-0.61)	(-2.57)	(7.87)
μ_{Jan}	0.436***	0.432***	0.633***	0.492***	-0.635***
	(10.59)	(10.37)	(14.47)	(13.69)	(-3.95)
μ_{Feb}	0.015	-0.135***	0.006	-0.087**	-0.129
	(0.39)	(-4.31)	(0.13)	(-2.38)	(-1.29)
ρ_1	0.417***	0.497***	0.520***	0.672***	0.065***
	(29.05)	(25.90)	(41.38)	(63.41)	(3.42)
ρ_3	0.325***	0.365***	0.280***	0.260***	0.341***
	(33.04)	(20.99)	(25.63)	(19.82)	(18.26)
ρ_6	-0.017	0.002	0.029**	0.055***	0.105***
	(-1.52)	(0.15)	(2.55)	(4.67)	(6.26)
ρ_{12}	0.022**	-0.032***	-0.130***	-0.086***	0.225***
	(2.48)	(-3.36)	(-14.2)	(-13.5)	(11.58)
R^2	0.5061	0.727	0.6924	0.9008	0.3245
AR(12)	14.65	4.68	14.63	9.45	11.65
ARCH(12)	37.05***	58.01***	47.16***	51.20***	31.45***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	56.4*** [5]
$\mu_{\hat{OR}}$ equivalent across series	53.3*** [4]
Test of Over-Identifying Restrictions	46.4 [120]

Notes: See the notes to Table A1.1

Table A1.8
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 8:
For Equity/Hybrid Classes: Predicted Cumulative Returns Less Distributions, Nov/Dec Only;
For Corporate Bond, Government Bond, Money Market Classes: Cumulative Returns for Past Fiscal Year, Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.688***	-1.685***	-1.613***	-1.345***	1.899***
	(-5.64)	(-10.8)	(-6.69)	(-7.43)	(4.31)
$\mu_{\hat{OR}}$	-0.219***	-0.249***	-0.376***	-0.085*	1.150***
	(-4.26)	(-4.79)	(-5.69)	(-1.70)	(6.60)
μ_{Ads}	0.270***	0.171***	-0.541***	-0.127**	-0.912***
	(3.73)	(3.29)	(-7.25)	(-2.29)	(-5.07)
$\mu_{R^{Year}}$	0.013	-0.002	0.118***	-0.003	0.390***
	(1.54)	(-0.14)	(3.65)	(-0.08)	(3.04)
$\mu_{Savings}$	0.310***	1.055***	1.469***	0.986***	-0.753***
	(4.80)	(10.86)	(9.61)	(8.66)	(-3.14)
$\mu_{CapGainsProxy8}$	0.002	0.004	-0.019***	-0.027***	-0.105***
	(1.52)	(1.54)	(-4.67)	(-5.81)	(-7.36)
μ_{Nov}	0.154***	0.292***	0.304***	0.041	1.204***
	(5.65)	(7.59)	(6.16)	(0.92)	(8.82)
μ_{Dec}	0.136***	-0.455***	-0.030	-0.081**	1.322***
	(5.58)	(-9.33)	(-0.62)	(-2.24)	(6.92)
μ_{Jan}	0.434***	0.437***	0.637***	0.498***	-0.628***
	(10.42)	(9.82)	(14.43)	(14.15)	(-4.07)
μ_{Feb}	0.020	-0.135***	0.008	-0.085**	-0.132
	(0.53)	(-4.23)	(0.17)	(-2.32)	(-1.31)
ρ_1	0.427***	0.505***	0.521***	0.673***	0.065***
	(31.35)	(32.12)	(41.00)	(62.66)	(3.41)
ρ_3	0.326***	0.368***	0.281***	0.258***	0.344***
	(32.44)	(21.74)	(25.01)	(20.06)	(19.12)
ρ_6	-0.023**	-0.004	0.025**	0.052***	0.105***
	(-2.11)	(-0.36)	(2.34)	(4.35)	(7.12)
ρ_{12}	0.021**	-0.031***	-0.129***	-0.084***	0.224***
	(2.49)	(-3.46)	(-12.7)	(-13.6)	(11.12)
R^2	0.505	0.7265	0.6924	0.9008	0.3245
AR(12)	13.27	4.21	14.4	9.35	11.63
ARCH(12)	37.49***	59.79***	47.68***	51.18***	31.30***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	63.1*** [5]
$\mu_{\hat{OR}}$ equivalent across series	58.7*** [4]
Test of Over-Identifying Restrictions	46.8 [120]

Notes: See the notes to Table A1.1

Table A1.9
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 9:
Cumulative Equity Returns Used for All Fund Categories,
Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.671***	-1.701***	-1.634***	-1.231***	1.711***
	(-4.08)	(-8.73)	(-6.09)	(-4.94)	(2.73)
$\mu_{\hat{OR}}$	-0.217***	-0.242***	-0.332***	-0.068	1.173***
	(-3.69)	(-4.21)	(-4.11)	(-1.15)	(5.83)
μ_{Ads}	0.254***	0.171***	-0.525***	-0.159**	-0.883***
	(2.96)	(2.59)	(-5.61)	(-2.36)	(-4.23)
$\mu_{R^{Year}}$	0.015	0.025	0.104***	-0.054	0.076
	(1.43)	(1.26)	(2.92)	(-1.15)	(0.64)
$\mu_{Savings}$	0.308***	1.054***	1.486***	0.952***	-0.548
	(3.59)	(8.95)	(9.11)	(6.01)	(-1.55)
$\mu_{CapGainsProxy9}$	0.002	-0.004**	-0.006*	0.001	-0.014**
	(0.97)	(-2.37)	(-1.88)	(0.66)	(-2.47)
μ_{Nov}	0.153**	0.356***	0.245***	-0.127**	0.811***
	(2.54)	(6.87)	(3.55)	(-2.56)	(4.89)
μ_{Dec}	0.128***	-0.327***	-0.124*	-0.260***	1.000***
	(3.14)	(-4.97)	(-1.73)	(-6.73)	(4.63)
μ_{Jan}	0.432***	0.426***	0.623***	0.494***	-0.696***
	(8.88)	(8.79)	(11.82)	(10.87)	(-3.66)
μ_{Feb}	0.002	-0.138***	0.003	-0.077*	-0.105
	(0.04)	(-3.86)	(0.05)	(-1.77)	(-0.88)
ρ_1	0.429***	0.511***	0.517***	0.671***	0.059***
	(28.25)	(21.96)	(32.54)	(50.61)	(2.71)
ρ_3	0.320***	0.363***	0.272***	0.261***	0.331***
	(25.94)	(16.96)	(19.03)	(16.43)	(15.48)
ρ_6	-0.016	-0.004	0.028*	0.051***	0.117***
	(-1.23)	(-0.28)	(1.92)	(3.62)	(5.36)
ρ_{12}	0.024**	-0.029***	-0.123***	-0.083***	0.233***
	(2.31)	(-2.76)	(-9.83)	(-11.7)	(9.13)
R^2	0.5049	0.7264	0.6919	0.9002	0.3174
AR(12)	13.58	5.12	14.07	8.55	10.86
ARCH(12)	37.30***	62.05***	48.67***	51.97***	32.40***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	45.6*** [5]
$\mu_{\hat{OR}}$ equivalent across series	43.4*** [4]
Test of Over-Identifying Restrictions	43.4 [120]

Notes: See the notes to Table A1.1

Table A1.10
Dependent Variable: U.S. Net Flows
Capital Gains Proxy 10:
Multiple Proxies: Past Realized Capital Gains, Cumulative Returns (Nov/Dec Only), and Cumulative Returns Plus Predicted Return for Month t

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.838***	-1.481***	-1.715***	-1.232***	1.973***
	(-9.74)	(-15.6)	(-9.46)	(-9.64)	(6.63)
$\mu_{\hat{OR}}$	-0.147***	-0.279***	-0.518***	0.003	1.088***
	(-4.99)	(-8.36)	(-12.4)	(0.07)	(8.90)
μ_{Ads}	0.270***	0.221***	-0.516***	-0.102***	-0.896***
	(6.88)	(6.31)	(-10.8)	(-2.77)	(-7.54)
$\mu_{CumulativeReturnsNov/Dec}$	0.006***	-0.002	-0.029***	-0.022***	-0.109***
	(4.42)	(-0.90)	(-8.55)	(-5.97)	(-11.4)
$\mu_{CumulativeReturnsPlusPredicted}$	-0.007***	0.014***	0.021***	0.021***	0.014
	(-7.75)	(8.40)	(6.22)	(6.06)	(1.12)
$\mu_{PastRealizedCapitalGains}$	-0.029***	-0.065***	0.084***	-1.545***	31.994
	(-15.3)	(-17.4)	(3.05)	(-35.4)	(0.46)
$\mu_{R^{Year}}$	0.057***	-0.071***	0.014	-0.204***	0.274**
	(6.10)	(-5.78)	(0.49)	(-6.16)	(2.26)
$\mu_{Savings}$	0.513***	0.950***	1.455***	1.185***	-0.809***
	(10.03)	(16.47)	(12.62)	(15.33)	(-4.86)
μ_{Nov}	-0.011	0.189***	0.393***	-0.470***	1.212***
	(-0.42)	(5.82)	(9.54)	(-14.9)	(13.13)
μ_{Dec}	-0.022	-0.570***	0.047	-0.536***	1.244***
	(-0.90)	(-14.4)	(1.08)	(-17.1)	(11.13)
μ_{Jan}	0.372***	0.485***	0.711***	0.333***	-0.584***
	(13.89)	(18.83)	(25.71)	(14.75)	(-6.12)
μ_{Feb}	-0.016	-0.114***	0.047	-0.104***	-0.121
	(-0.64)	(-5.50)	(1.45)	(-3.83)	(-1.64)
ρ_1	0.417***	0.482***	0.501***	0.566***	0.072***
	(56.20)	(48.99)	(55.28)	(64.63)	(6.74)
ρ_3	0.316***	0.361***	0.277***	0.245***	0.343***
	(58.62)	(40.23)	(39.03)	(28.34)	(25.04)
ρ_6	-0.030***	0.014*	0.027***	0.126***	0.106***
	(-4.62)	(1.81)	(3.10)	(14.43)	(9.56)
ρ_{12}	0.041***	-0.036***	-0.124***	-0.028***	0.228***
	(7.06)	(-7.48)	(-15.9)	(-5.87)	(20.09)
R^2	0.5154	0.7334	0.6944	0.9115	0.325
AR(12)	15.79	5.13	14.51	11.64	11.21
ARCH(12)	37.01***	64.28***	41.38***	43.30***	31.72***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	255.3*** [5]
$\mu_{\hat{OR}}$ equivalent across series	234.4*** [4]
Test of Over-Identifying Restrictions	48.7 [160]

Notes: See the notes to Table A1.1

Table A1.11
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 1:
Past Realized Capital Gains Plus Predicted Capital Gains for Month t

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.103***	0.040***	0.264***	0.166***	-0.094***
	(3.71)	(3.03)	(8.87)	(5.69)	(-3.81)
$\mu_{\hat{OR}}$	-0.148***	0.032***	-0.093***	0.155***	0.253***
	(-6.83)	(3.03)	(-2.94)	(6.19)	(8.83)
μ_{Ads}	-0.088***	-0.017	-0.358***	-0.139***	0.166***
	(-3.37)	(-1.32)	(-12.5)	(-5.28)	(6.57)
$\mu_{R^{Year}}$	-0.002	-0.015***	0.096***	0.092***	0.013*
	(-0.83)	(-5.39)	(8.28)	(10.54)	(1.88)
$\mu_{CapGainsProxy1}$	-0.017***	-0.010***	-0.058***	-0.485***	-15.00***
	(-16.7)	(-8.09)	(-5.30)	(-24.9)	(-4.20)
μ_{Nov}	0.096***	0.060***	0.140***	0.028*	-0.119***
	(6.45)	(8.05)	(6.41)	(1.68)	(-6.68)
μ_{Dec}	0.118***	-0.043***	-0.020	-0.009	0.005
	(8.16)	(-6.19)	(-1.26)	(-0.63)	(0.30)
μ_{Jan}	0.127***	0.011	0.171***	0.044***	-0.304***
	(8.21)	(1.08)	(9.28)	(3.49)	(-25.5)
μ_{Feb}	0.039**	0.034***	0.018	-0.020	-0.023
	(2.20)	(4.25)	(0.84)	(-1.15)	(-1.55)
ρ_1	0.013	0.601***	0.214***	0.156***	0.160***
	(1.26)	(48.26)	(16.07)	(9.11)	(11.03)
ρ_3	0.160***	0.169***	0.046***	-0.079***	0.085***
	(17.73)	(12.82)	(3.57)	(-7.70)	(10.48)
ρ_6	0.054***	0.127***	-0.057***	0.079***	0.201***
	(6.78)	(9.20)	(-4.99)	(7.28)	(22.10)
ρ_{12}	-0.001	-0.063***	-0.113***	-0.048***	-0.032***
	(-0.07)	(-5.60)	(-10.0)	(-4.79)	(-4.06)
R^2	0.0964	0.6524	0.1093	0.2297	0.1557
AR(12)	9.77	9.22	17.01	9.16	7.61
ARCH(12)	11.17	13.48	19.80*	25.06**	58.64***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	189.5*** [5]
$\mu_{\hat{OR}}$ equivalent across series	142.8*** [4]
Test of Over-Identifying Restrictions	48.5 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.12
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 2:
Predicted Cumulative Returns

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.059**	0.010	0.224***	0.060**	-0.106***
	(2.22)	(0.80)	(7.11)	(2.36)	(-4.24)
$\mu_{\hat{OR}}$	-0.138***	0.013	-0.142***	0.015	0.217***
	(-5.73)	(1.38)	(-4.43)	(0.55)	(7.69)
μ_{Ads}	-0.103***	-0.015	-0.348***	-0.137***	0.170***
	(-4.03)	(-1.28)	(-12.1)	(-5.70)	(6.78)
$\mu_{R^{Year}}$	0.022***	-0.029***	0.031*	-0.060***	-0.037***
	(5.79)	(-8.43)	(1.90)	(-4.01)	(-3.51)
$\mu_{CapGainsProxy2}$	-0.003***	0.002***	0.008***	0.015***	0.005***
	(-7.46)	(5.35)	(4.12)	(9.29)	(4.79)
μ_{Nov}	0.098***	0.052***	0.114***	-0.022	-0.119***
	(5.64)	(7.39)	(5.76)	(-1.39)	(-6.40)
μ_{Dec}	0.107***	-0.051***	-0.041**	-0.071***	0.010
	(7.64)	(-7.59)	(-2.57)	(-5.57)	(0.50)
μ_{Jan}	0.111***	0.020*	0.195***	0.082***	-0.287***
	(7.66)	(1.81)	(9.32)	(6.40)	(-26.4)
μ_{Feb}	0.031**	0.038***	0.041*	-0.015	-0.023*
	(2.03)	(4.70)	(1.84)	(-0.88)	(-1.66)
ρ_1	0.047***	0.606***	0.205***	0.247***	0.156***
	(4.98)	(43.49)	(17.00)	(17.66)	(13.10)
ρ_3	0.196***	0.174***	0.045***	0.022*	0.089***
	(22.38)	(13.20)	(3.56)	(1.94)	(11.55)
ρ_6	0.055***	0.135***	-0.050***	0.130***	0.207***
	(6.54)	(10.38)	(-3.87)	(12.65)	(19.28)
ρ_{12}	-0.002	-0.044***	-0.097***	-0.057***	-0.031***
	(-0.26)	(-4.26)	(-7.34)	(-6.27)	(-4.06)
R^2	0.0787	0.6492	0.1081	0.157	0.1559
AR(12)	9.73	9.23	17.53	10.32	7.16
ARCH(12)	8.90	15.13	18.05	23.08**	58.99***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	101.5*** [5]
$\mu_{\hat{OR}}$ equivalent across series	67.4*** [4]
Test of Over-Identifying Restrictions	45.3 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.13
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 3:
Predicted Cumulative Returns Less Distributions

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.056**	0.016	0.259***	0.102***	-0.105***
	(2.07)	(1.39)	(8.55)	(3.90)	(-4.39)
$\mu_{\hat{OR}}$	-0.144***	0.019**	-0.106***	0.081***	0.222***
	(-6.24)	(2.00)	(-3.51)	(3.39)	(8.05)
μ_{Ads}	-0.103***	-0.015	-0.353***	-0.134***	0.183***
	(-4.04)	(-1.28)	(-12.4)	(-5.51)	(7.72)
$\mu_{R^{Year}}$	0.018***	-0.027***	0.043***	-0.040***	-0.072***
	(4.39)	(-8.79)	(3.21)	(-2.77)	(-6.81)
$\mu_{CapGainsProxy3}$	-0.003***	0.002***	0.006***	0.014***	0.013***
	(-5.71)	(5.61)	(3.94)	(8.37)	(9.57)
μ_{Nov}	0.099***	0.055***	0.136***	0.003	-0.123***
	(5.89)	(7.96)	(6.96)	(0.17)	(-6.97)
μ_{Dec}	0.102***	-0.050***	-0.023	-0.046***	0.011
	(7.28)	(-7.18)	(-1.48)	(-3.72)	(0.53)
μ_{Jan}	0.113***	0.015	0.174***	0.053***	-0.287***
	(7.68)	(1.49)	(9.36)	(3.99)	(-27.9)
μ_{Feb}	0.033**	0.036***	0.027	-0.034**	-0.028**
	(2.22)	(4.38)	(1.33)	(-2.02)	(-2.17)
ρ_1	0.047***	0.609***	0.207***	0.248***	0.151***
	(5.12)	(40.10)	(17.32)	(18.56)	(12.34)
ρ_3	0.197***	0.174***	0.042***	0.017	0.084***
	(22.51)	(13.29)	(3.11)	(1.43)	(11.36)
ρ_6	0.055***	0.134***	-0.053***	0.125***	0.208***
	(7.18)	(10.08)	(-4.24)	(12.54)	(19.01)
ρ_{12}	-0.001	-0.046***	-0.104***	-0.063***	-0.033***
	(-0.10)	(-4.59)	(-8.58)	(-7.06)	(-4.00)
R^2	0.0769	0.6489	0.1079	0.1555	0.1597
AR(12)	10.49	8.98	17.99	9.85	7.85
ARCH(12)	9.02	15.40	18.78*	23.03**	60.15***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	149.1*** [5]
$\mu_{\hat{OR}}$ equivalent across series	85.5*** [4]
Test of Over-Identifying Restrictions	45.9 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.14
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 4:
Two Year Cumulative Returns

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.056**	0.019*	0.395***	0.133***	-0.102***
	(2.47)	(1.66)	(10.73)	(4.72)	(-4.49)
$\mu_{\hat{OR}}$	-0.157***	0.023**	-0.141***	0.096***	0.259***
	(-6.44)	(2.47)	(-3.95)	(4.44)	(8.67)
μ_{Ads}	-0.093***	-0.018	-0.432***	-0.164***	0.176***
	(-3.97)	(-1.56)	(-12.6)	(-6.21)	(6.99)
$\mu_{R^{Year}}$	0.015***	-0.010***	0.247***	0.159***	0.043***
	(4.36)	(-2.72)	(15.91)	(10.90)	(2.88)
$\mu_{CapGainsProxy4}$	-0.001***	-0.000	-0.011***	-0.009***	-0.002**
	(-5.52)	(-1.25)	(-14.8)	(-13.2)	(-2.38)
μ_{Nov}	0.070***	0.059***	0.134***	0.004	-0.112***
	(4.59)	(8.30)	(6.51)	(0.30)	(-7.62)
μ_{Dec}	0.094***	-0.043***	-0.023	-0.047***	0.015
	(6.53)	(-6.05)	(-1.11)	(-3.94)	(0.99)
μ_{Jan}	0.139***	0.013	0.190***	0.078***	-0.321***
	(10.00)	(1.18)	(11.18)	(5.77)	(-28.0)
μ_{Feb}	0.025	0.034***	0.081***	0.050***	-0.039**
	(1.60)	(4.61)	(3.89)	(2.99)	(-2.56)
μ_{rho_1}	0.033***	0.613***	0.186***	0.295***	0.162***
	(3.61)	(45.23)	(15.34)	(25.56)	(15.24)
μ_{rho_3}	0.211***	0.168***	0.039***	0.050***	0.092***
	(20.48)	(11.99)	(3.19)	(4.57)	(11.60)
μ_{rho_6}	0.031***	0.131***	-0.077***	0.071***	0.207***
	(3.20)	(10.22)	(-6.18)	(7.10)	(19.83)
$\mu_{rho_{12}}$	0.080***	-0.051***	-0.105***	-0.050***	-0.025***
	(8.50)	(-5.89)	(-9.07)	(-5.71)	(-3.84)
R^2	0.0882	0.6492	0.1471	0.2061	0.1656
AR(12)	10.04	11.12	16.03	11.92	8.10
ARCH(12)	63.59***	12.29	16.15	4.57	108.14***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	325.0*** [5]
$\mu_{\hat{OR}}$ equivalent across series	154.0*** [4]
Test of Over-Identifying Restrictions	46.4 [140]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.15
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 5
Three Year Cumulative Returns

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.065**	0.014	0.427***	0.238***	-0.125***
	(2.50)	(0.98)	(11.33)	(8.46)	(-4.54)
$\mu_{\hat{OR}}$	-0.137***	0.020*	-0.139***	0.088***	0.263***
	(-6.24)	(1.88)	(-4.25)	(4.78)	(9.09)
μ_{Ads}	-0.087***	-0.011	-0.419***	-0.176***	0.196***
	(-3.51)	(-0.73)	(-12.1)	(-6.71)	(6.88)
$\mu_{R^{Year}}$	0.015***	-0.014***	0.113***	0.164***	0.020*
	(4.95)	(-4.21)	(10.92)	(11.57)	(1.84)
$\mu_{CapGainsProxy5}$	-0.001***	-0.000	-0.006***	-0.013***	-0.001
	(-6.43)	(-1.16)	(-10.6)	(-22.8)	(-1.46)
μ_{Nov}	0.063***	0.061***	0.149***	-0.010	-0.132***
	(3.58)	(7.51)	(7.98)	(-0.75)	(-7.47)
μ_{Dec}	0.094***	-0.036***	-0.009	-0.041***	0.004
	(7.59)	(-5.06)	(-0.48)	(-2.87)	(0.26)
μ_{Jan}	0.059***	0.034***	0.202***	0.052***	-0.276***
	(4.67)	(3.62)	(10.39)	(3.44)	(-25.2)
μ_{Feb}	-0.006	0.030***	0.083***	0.054***	0.008
	(-0.36)	(3.47)	(4.50)	(3.06)	(0.64)
ρ_1	0.136***	0.619***	0.232***	0.242***	0.254***
	(15.96)	(45.97)	(19.00)	(20.99)	(24.06)
ρ_3	0.141***	0.173***	0.040***	-0.012	0.056***
	(15.60)	(14.40)	(3.53)	(-0.94)	(6.87)
ρ_6	0.092***	0.128***	-0.068***	0.067***	0.211***
	(10.78)	(10.33)	(-5.45)	(6.49)	(19.71)
ρ_{12}	0.028***	-0.059***	-0.121***	-0.084***	-0.045***
	(4.07)	(-6.03)	(-10.5)	(-7.39)	(-6.03)
R^2	0.0907	0.6568	0.1477	0.2581	0.2024
AR(12)	14.19	12.64	11.60	10.55	20.58*
ARCH(12)	60.62***	12.06	10.98	3.28	55.28***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	157.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	83.1*** [4]
Test of Over-Identifying Restrictions	54.1 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.16
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 6:
Predicted Capital Gains, Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.040	0.026**	0.229***	0.051*	-0.096***
	(1.49)	(1.97)	(6.50)	(1.91)	(-4.05)
$\mu_{\hat{OR}}$	-0.169***	0.020*	-0.108***	0.081***	0.252***
	(-6.32)	(1.92)	(-3.41)	(3.23)	(9.40)
μ_{Ads}	-0.096***	-0.024*	-0.350***	-0.135***	0.166***
	(-3.72)	(-1.82)	(-10.6)	(-5.60)	(7.22)
$\mu_{R^{Year}}$	-0.001	-0.016***	0.090***	0.060***	0.007
	(-0.32)	(-5.77)	(7.87)	(5.58)	(1.00)
$\mu_{CapGainsProxy6}$	-0.034***	-0.018***	0.111***	-0.090***	-35.95***
	(-12.3)	(-8.44)	(7.91)	(-4.14)	(-9.18)
μ_{Nov}	0.251***	0.108***	0.079***	0.038***	-0.115***
	(11.38)	(12.11)	(4.36)	(3.07)	(-9.86)
μ_{Dec}	0.268***	0.000	-0.089***	-0.008	0.016
	(12.53)	(0.01)	(-5.37)	(-0.58)	(1.17)
μ_{Jan}	0.135***	0.012	0.175***	0.068***	-0.304***
	(8.25)	(1.11)	(8.68)	(5.54)	(-26.4)
μ_{Feb}	0.039**	0.036***	0.021	-0.022	-0.024*
	(2.49)	(4.40)	(1.08)	(-1.21)	(-1.73)
ρ_1	0.013	0.615***	0.214***	0.264***	0.156***
	(1.50)	(42.71)	(15.83)	(19.25)	(13.07)
ρ_3	0.177***	0.168***	0.054***	0.012	0.085***
	(18.32)	(13.43)	(4.68)	(1.09)	(10.83)
ρ_6	0.072***	0.124***	-0.057***	0.112***	0.204***
	(8.19)	(8.44)	(-4.02)	(10.30)	(19.78)
ρ_{12}	0.000	-0.048***	-0.117***	-0.076***	-0.030***
	(0.03)	(-4.56)	(-9.37)	(-8.03)	(-3.99)
R^2	0.0899	0.6505	0.1093	0.149	0.1555
AR(12)	14.23	16.38	17.45	11.18	7.37
ARCH(12)	9.33	13.72	17.62	26.72***	58.59***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	168.4*** [5]
$\mu_{\hat{OR}}$ equivalent across series	89.0*** [4]
Test of Over-Identifying Restrictions	46.1 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.17
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 7:
For Equity/Hybrid Classes: Predicted Capital Gains, Nov/Dec Only;
For Corporate Bond, Government Bond, Money Market Classes:
Cumulative Returns for Past Fiscal Year, Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.042	0.029**	0.228***	0.073***	-0.104***
	(1.52)	(2.33)	(6.74)	(2.79)	(-4.22)
$\mu_{\hat{OR}}$	-0.173***	0.020*	-0.108***	0.083***	0.254***
	(-6.04)	(1.93)	(-3.16)	(3.46)	(8.87)
μ_{Ads}	-0.098***	-0.025**	-0.356***	-0.144***	0.171***
	(-3.53)	(-1.99)	(-11.1)	(-6.25)	(7.02)
$\mu_{R^{Year}}$	-0.001	-0.017***	0.101***	0.031***	0.013*
	(-0.33)	(-6.27)	(8.60)	(2.82)	(1.75)
$\mu_{CapGainsProxy7}$	-0.034***	-0.018***	-0.007***	0.015***	-0.003**
	(-11.9)	(-7.47)	(-4.56)	(9.96)	(-2.17)
μ_{Nov}	0.245***	0.106***	0.209***	-0.077***	-0.100***
	(9.94)	(9.90)	(9.39)	(-6.34)	(-6.45)
μ_{Dec}	0.267***	0.000	0.047**	-0.119***	0.025
	(11.97)	(0.03)	(2.33)	(-9.51)	(1.49)
μ_{Jan}	0.134***	0.013	0.175***	0.063***	-0.300***
	(8.07)	(1.27)	(8.92)	(4.78)	(-24.4)
μ_{Feb}	0.041**	0.035***	0.021	-0.018	-0.024
	(2.54)	(4.16)	(0.98)	(-0.94)	(-1.60)
ρ_1	0.012	0.613***	0.220***	0.256***	0.159***
	(1.25)	(43.22)	(21.77)	(22.27)	(15.22)
ρ_3	0.176***	0.172***	0.060***	0.018*	0.086***
	(20.07)	(12.55)	(4.69)	(1.67)	(11.81)
ρ_6	0.074***	0.126***	-0.061***	0.122***	0.202***
	(8.37)	(8.35)	(-4.60)	(12.65)	(19.87)
ρ_{12}	-0.000	-0.049***	-0.118***	-0.081***	-0.030***
	(-0.01)	(-4.92)	(-9.46)	(-8.49)	(-3.97)
R^2	0.0899	0.6505	0.1081	0.1557	0.1554
AR(12)	14.28	16.29	17.23	10.39	7.35
ARCH(12)	9.38	13.76	17.89	25.79**	58.48***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	162.5*** [5]
$\mu_{\hat{OR}}$ equivalent across series	80.2*** [4]
Test of Over-Identifying Restrictions	46 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.18
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 8:
For Equity/Hybrid Classes: Predicted Cumulative Returns Less Distributions, Nov/Dec Only;
For Corporate Bond, Government Bond, Money Market Classes: Cumulative Returns for Past Fiscal Year, Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.028	0.022*	0.217***	0.066**	-0.101***
	(1.01)	(1.68)	(5.92)	(2.20)	(-4.04)
$\mu_{\hat{OR}}$	-0.158***	0.024**	-0.107***	0.083***	0.250***
	(-5.69)	(2.35)	(-3.08)	(3.32)	(8.60)
μ_{Ads}	-0.077***	-0.017	-0.347***	-0.137***	0.166***
	(-2.87)	(-1.33)	(-9.97)	(-5.22)	(6.63)
$\mu_{R^{Year}}$	-0.005**	-0.018***	0.104***	0.031***	0.012
	(-2.11)	(-6.09)	(8.16)	(2.60)	(1.58)
$\mu_{CapGainsProxy8}$	0.002***	0.001**	-0.007***	0.014***	-0.003*
	(3.45)	(2.26)	(-5.38)	(9.90)	(-1.87)
μ_{Nov}	0.068***	0.049***	0.209***	-0.075***	-0.098***
	(4.86)	(8.73)	(11.69)	(-5.81)	(-6.81)
μ_{Dec}	0.089***	-0.053***	0.046***	-0.115***	0.025
	(8.07)	(-9.26)	(2.65)	(-7.60)	(1.64)
μ_{Jan}	0.132***	0.014	0.174***	0.063***	-0.300***
	(8.34)	(1.30)	(9.01)	(4.73)	(-25.1)
μ_{Feb}	0.036**	0.034***	0.018	-0.017	-0.024
	(2.22)	(4.14)	(0.88)	(-0.87)	(-1.55)
ρ_1	0.048***	0.610***	0.214***	0.255***	0.157***
	(5.58)	(45.99)	(15.11)	(18.85)	(14.34)
ρ_3	0.193***	0.178***	0.060***	0.020*	0.089***
	(20.88)	(12.33)	(4.95)	(1.81)	(10.55)
ρ_6	0.063***	0.129***	-0.058***	0.121***	0.199***
	(7.43)	(8.59)	(-4.34)	(11.97)	(18.64)
ρ_{12}	0.009	-0.046***	-0.117***	-0.080***	-0.028***
	(0.90)	(-4.55)	(-9.33)	(-8.25)	(-3.61)
R^2	0.0752	0.6474	0.108	0.1556	0.1553
AR(12)	10.47	8.12	17.23	10.47	7.30
ARCH(12)	10.04	15.15	17.70	25.75**	58.00***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	175.5*** [5]
$\mu_{\hat{OR}}$ equivalent across series	77.7*** [4]
Test of Over-Identifying Restrictions	45 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.19
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 9:
Cumulative Equity Returns Used for All Fund Categories,
Nov/Dec Only

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.029	0.018	0.225***	0.042	-0.090***
	(0.95)	(1.24)	(5.53)	(1.23)	(-3.11)
$\mu_{\hat{OR}}$	-0.150***	0.020*	-0.104***	0.087***	0.240***
	(-4.97)	(1.73)	(-2.66)	(2.90)	(7.28)
μ_{Ads}	-0.077***	-0.017	-0.342***	-0.123***	0.157***
	(-2.60)	(-1.16)	(-8.72)	(-3.97)	(5.40)
$\mu_{R^{Year}}$	-0.004	-0.014***	0.088***	0.058***	0.004
	(-1.49)	(-4.10)	(5.92)	(4.15)	(0.59)
$\mu_{CapGainsProxy9}$	0.001	-0.000	-0.002*	0.001**	-0.000
	(1.34)	(-1.23)	(-1.89)	(2.03)	(-0.63)
μ_{Nov}	0.073***	0.061***	0.161***	-0.018	-0.105***
	(2.88)	(6.43)	(4.77)	(-0.82)	(-4.25)
μ_{Dec}	0.084***	-0.040***	0.002	-0.061***	0.027
	(4.53)	(-5.23)	(0.06)	(-3.70)	(1.17)
μ_{Jan}	0.125***	0.011	0.168***	0.065***	-0.295***
	(6.40)	(0.89)	(7.59)	(4.13)	(-19.3)
μ_{Feb}	0.034*	0.034***	0.019	-0.021	-0.022
	(1.82)	(3.80)	(0.89)	(-0.91)	(-1.26)
ρ_1	0.049***	0.609***	0.216***	0.269***	0.158***
	(4.44)	(34.16)	(13.26)	(16.02)	(10.53)
ρ_3	0.195***	0.180***	0.058***	0.023*	0.088***
	(18.34)	(9.86)	(3.96)	(1.83)	(8.90)
ρ_6	0.062***	0.128***	-0.049***	0.117***	0.202***
	(6.37)	(7.32)	(-2.65)	(8.96)	(16.57)
ρ_{12}	0.012	-0.051***	-0.114***	-0.080***	-0.030***
	(0.96)	(-3.86)	(-7.91)	(-7.11)	(-3.25)
R^2	0.075	0.6474	0.1075	0.1486	0.1548
AR(12)	10.83	11.52	17.05	11.02	7.28
ARCH(12)	10.10	14.92	18.84*	25.76**	57.99***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	120.6*** [5]
$\mu_{\hat{OR}}$ equivalent across series	67.3*** [4]
Test of Over-Identifying Restrictions	43.6 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.20
Dependent Variable: U.S. Net Exchanges
Capital Gains Proxy 10:
Multiple Proxies: Past Realized Capital Gains, Cumulative Returns (Nov/Dec Only), and Cumulative Returns Plus Predicted Return for Month t

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.133***	0.023***	0.227***	0.235***	-0.115***
	(7.57)	(2.66)	(12.58)	(12.91)	(-6.87)
$\mu_{\hat{OR}}$	-0.129***	0.022***	-0.131***	0.197***	0.217***
	(-7.48)	(2.85)	(-6.62)	(12.83)	(11.21)
μ_{Ads}	-0.101***	-0.010	-0.347***	-0.152***	0.179***
	(-6.25)	(-1.24)	(-18.6)	(-9.98)	(10.25)
$\mu_{CumulatedReturnsNov/Dec}$	0.004***	0.001*	-0.012***	0.021***	-0.007***
	(12.06)	(1.79)	(-12.0)	(19.89)	(-5.74)
$\mu_{CumulatedReturnsPlusPredicted}$	-0.005***	0.002***	0.009***	-0.004***	0.009***
	(-11.2)	(4.73)	(7.50)	(-3.30)	(11.24)
$\mu_{PastRealizedCapitalGains}$	-0.016***	-0.007***	-0.107***	-0.628***	-16.76***
	(-25.4)	(-9.57)	(-13.2)	(-43.6)	(-5.57)
$\mu_{R^{Year}}$	0.025***	-0.026***	0.072***	0.083***	-0.046***
	(7.29)	(-10.5)	(6.65)	(6.83)	(-6.83)
μ_{Nov}	-0.024***	0.032***	0.178***	-0.292***	-0.094***
	(-2.65)	(5.50)	(13.87)	(-24.6)	(-9.71)
μ_{Dec}	-0.001	-0.071***	0.026*	-0.302***	0.027**
	(-0.21)	(-11.2)	(1.81)	(-26.8)	(2.42)
μ_{Jan}	0.099***	0.018**	0.194***	0.026**	-0.288***
	(9.50)	(2.44)	(12.42)	(2.51)	(-36.1)
μ_{Feb}	0.027**	0.038***	0.033*	-0.028**	-0.020**
	(2.40)	(7.01)	(1.92)	(-2.01)	(-2.23)
ρ_1	0.037***	0.598***	0.183***	0.147***	0.157***
	(6.12)	(69.70)	(21.02)	(15.29)	(21.80)
ρ_3	0.173***	0.172***	0.031***	-0.069***	0.089***
	(29.06)	(20.65)	(3.80)	(-9.30)	(15.67)
ρ_6	0.037***	0.134***	-0.075***	0.093***	0.202***
	(7.88)	(19.23)	(-11.7)	(13.06)	(37.47)
ρ_{12}	-0.012**	-0.053***	-0.104***	-0.062***	-0.032***
	(-2.24)	(-7.98)	(-17.8)	(-10.9)	(-6.79)
R^2	0.0961	0.6513	0.1191	0.247	0.1577
AR(12)	12.17	9.45	17.17	12.57	6.85
ARCH(12)	9.96	14.19	15.44	15.84	59.24***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	488.9*** [5]
$\mu_{\hat{OR}}$ equivalent across series	377.1*** [4]
Test of Over-Identifying Restrictions	49 [160]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate measure of capital gains overhang.

Table A1.21
Dependent Variable: U.S. Net Flows
Return Chasing Proxy: Lagged One Month Return ($R1Month$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.791***	-1.505***	-1.552***	-1.136***	1.758***
	(-6.17)	(-11.1)	(-6.55)	(-5.71)	(4.07)
$\mu_{\hat{OR}}$	-0.180***	-0.164***	-0.385***	0.093*	1.146***
	(-3.69)	(-3.28)	(-5.10)	(1.86)	(7.32)
μ_{Ads}	0.267***	0.212***	-0.527***	-0.098*	-0.918***
	(4.72)	(3.76)	(-7.92)	(-1.86)	(-5.28)
$\mu_{R1Month}$	-0.013***	0.039***	0.013	0.022*	-0.174***
	(-4.95)	(10.40)	(1.21)	(1.88)	(-3.81)
$\mu_{Savings}$	0.466***	1.003***	1.447***	1.107***	-0.472*
	(6.55)	(13.45)	(9.29)	(8.42)	(-1.95)
$\mu_{CapGains}$	-0.028***	-0.065***	0.056	-1.568***	13.550
	(-8.47)	(-10.7)	(1.34)	(-19.0)	(0.15)
μ_{Nov}	0.074*	0.152***	0.171***	-0.556***	0.551***
	(1.82)	(2.99)	(3.44)	(-13.7)	(4.45)
μ_{Dec}	0.061*	-0.549***	-0.196***	-0.615***	0.726***
	(1.66)	(-10.2)	(-4.67)	(-18.0)	(4.41)
μ_{Jan}	0.426***	0.385***	0.645***	0.303***	-0.520***
	(10.47)	(9.53)	(14.58)	(8.46)	(-3.15)
μ_{Feb}	0.010	-0.167***	-0.017	-0.106***	-0.284***
	(0.28)	(-5.83)	(-0.41)	(-2.74)	(-2.71)
ρ_1	0.470***	0.465***	0.518***	0.555***	0.110***
	(36.22)	(22.51)	(32.13)	(39.55)	(6.87)
ρ_3	0.291***	0.378***	0.293***	0.248***	0.348***
	(27.59)	(15.42)	(25.04)	(19.31)	(18.40)
ρ_6	-0.028**	0.004	0.039***	0.114***	0.121***
	(-2.27)	(0.27)	(3.26)	(8.56)	(7.73)
ρ_{12}	0.039***	-0.035***	-0.132***	-0.019***	0.231***
	(4.05)	(-4.26)	(-11.4)	(-2.68)	(11.69)
R^2	0.5148	0.7364	0.6906	0.911	0.3204
AR(12)	15.68	5.43	14.71	10.87	11.08
ARCH(12)	37.32***	71.98***	50.56***	45.48***	30.60***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	85.3*** [5]
$\mu_{\hat{OR}}$ equivalent across series	83.3*** [4]
Test of Over-Identifying Restrictions	46.6 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (1), using an alternate return chasing proxy.

Table A1.22
Dependent Variable: U.S. Net Flows
Return Chasing Proxy: Lagged One Quarter Return ($R1Quarter$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.824***	-1.610***	-1.466***	-1.416***	1.834***
	(-6.52)	(-11.7)	(-6.20)	(-6.63)	(4.15)
$\mu_{\hat{OR}}$	-0.175***	-0.124**	-0.362***	0.186***	1.115***
	(-3.61)	(-2.45)	(-4.27)	(3.35)	(7.53)
μ_{Ads}	0.300***	0.219***	-0.494***	-0.053	-0.914***
	(5.83)	(4.17)	(-7.24)	(-0.98)	(-5.60)
$\mu_{R1Quarter}$	-0.017***	0.071***	-0.089***	-0.151***	-0.024
	(-3.76)	(8.46)	(-5.23)	(-10.7)	(-0.53)
$\mu_{Savings}$	0.472***	1.045***	1.422***	1.332***	-0.570**
	(6.38)	(12.42)	(9.50)	(10.17)	(-2.35)
$\mu_{CapGains}$	-0.028***	-0.063***	0.002	-1.727***	-5.391
	(-8.29)	(-9.38)	(0.05)	(-25.0)	(-0.06)
μ_{Nov}	0.055	0.201***	0.115**	-0.599***	0.593***
	(1.40)	(4.39)	(2.00)	(-16.4)	(4.85)
μ_{Dec}	0.050	-0.509***	-0.221***	-0.659***	0.638***
	(1.21)	(-10.8)	(-4.58)	(-20.3)	(4.19)
μ_{Jan}	0.429***	0.406***	0.645***	0.326***	-0.596***
	(9.36)	(10.61)	(15.23)	(10.01)	(-3.96)
μ_{Feb}	0.007	-0.168***	-0.006	-0.105**	-0.124
	(0.20)	(-6.07)	(-0.13)	(-2.55)	(-1.42)
ρ_1	0.444***	0.452***	0.559***	0.604***	0.080***
	(34.29)	(24.43)	(38.87)	(52.13)	(5.75)
ρ_3	0.323***	0.370***	0.311***	0.233***	0.341***
	(28.72)	(18.71)	(30.95)	(18.07)	(18.25)
ρ_6	-0.036***	0.013	0.016	0.096***	0.118***
	(-2.95)	(0.90)	(1.36)	(6.99)	(7.76)
ρ_{12}	0.041***	-0.029***	-0.134***	-0.014*	0.229***
	(3.97)	(-3.68)	(-12.6)	(-1.91)	(12.00)
R^2	0.5138	0.7368	0.6929	0.9124	0.3165
AR(12)	15.51	4.84	14.23	12.38	10.04
ARCH(12)	39.11***	65.78***	52.72***	42.32***	29.19***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	100.5*** [5]
$\mu_{\hat{OR}}$ equivalent across series	94.2*** [4]
Test of Over-Identifying Restrictions	47.5 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (1), using an alternate return chasing proxy.

Table A1.23
Dependent Variable: U.S. Net Flows
Return Chasing Proxy: Lagged Two Quarter Return ($R2Quarters$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.823***	-1.536***	-1.477***	-1.402***	1.926***
	(-6.48)	(-10.3)	(-6.20)	(-7.21)	(4.51)
$\mu_{\hat{OR}}$	-0.171***	-0.180***	-0.367***	0.117**	1.144***
	(-3.84)	(-3.45)	(-4.92)	(2.17)	(6.88)
μ_{Ads}	0.287***	0.173***	-0.515***	-0.082*	-0.917***
	(5.06)	(3.37)	(-7.45)	(-1.66)	(-5.49)
$\mu_{Savings}$	0.474***	1.021***	1.432***	1.345***	-0.646***
	(6.78)	(12.02)	(9.69)	(10.64)	(-2.62)
$\mu_{R2Quarters}$	-0.010*	0.091***	-0.054**	-0.164***	0.036
	(-1.67)	(7.17)	(-2.28)	(-4.27)	(0.64)
$\mu_{CapGains}$	-0.028***	-0.067***	0.008	-1.719***	15.614
	(-8.51)	(-10.3)	(0.16)	(-25.4)	(0.16)
μ_{Nov}	0.069	0.184***	0.146**	-0.571***	0.599***
	(1.62)	(3.90)	(2.34)	(-13.8)	(5.11)
μ_{Dec}	0.043	-0.514***	-0.215***	-0.641***	0.647***
	(1.18)	(-10.8)	(-4.90)	(-20.5)	(4.27)
μ_{Jan}	0.415***	0.431***	0.625***	0.313***	-0.621***
	(9.00)	(10.68)	(13.90)	(9.77)	(-4.15)
μ_{Feb}	-0.002	-0.124***	-0.025	-0.113***	-0.113
	(-0.05)	(-4.78)	(-0.54)	(-2.92)	(-1.36)
ρ_1	0.430***	0.461***	0.540***	0.585***	0.073***
	(32.18)	(23.42)	(37.71)	(45.66)	(4.89)
ρ_3	0.322***	0.346***	0.297***	0.249***	0.335***
	(29.26)	(16.92)	(30.11)	(21.76)	(17.69)
ρ_6	-0.022*	0.015	0.035***	0.105***	0.115***
	(-1.95)	(0.96)	(3.30)	(8.10)	(6.58)
ρ_{12}	0.040***	-0.024***	-0.132***	-0.019***	0.231***
	(4.10)	(-2.72)	(-12.1)	(-2.62)	(11.78)
R^2	0.5117	0.7349	0.6909	0.9116	0.3165
AR(12)	15.47	5.64	13.71	13.26	10.17
ARCH(12)	38.60***	67.19***	53.08***	46.04***	30.42***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	79.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	77.3*** [4]
Test of Over-Identifying Restrictions	47.3 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (1), using an alternate return chasing proxy.

Table A1.24
Dependent Variable: U.S. Net Flows
Return Chasing Proxy: Three Quarter Return ($R3Quarters$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.860***	-1.509***	-1.488***	-1.248***	1.966***
	(-6.83)	(-10.4)	(-6.59)	(-6.88)	(4.60)
$\mu_{\hat{OR}}$	-0.156***	-0.189***	-0.350***	0.119**	1.151***
	(-3.31)	(-3.75)	(-4.92)	(2.20)	(7.09)
μ_{Ads}	0.299***	0.189***	-0.533***	-0.109**	-0.903***
	(4.99)	(3.67)	(-7.59)	(-2.22)	(-5.01)
$\mu_{Savings}$	0.496***	1.022***	1.411***	1.226***	-0.704***
	(6.77)	(12.58)	(9.93)	(10.33)	(-2.81)
$\mu_{R3Quarters}$	-0.018**	0.047***	0.029	-0.071	0.108
	(-2.42)	(3.67)	(0.96)	(-1.64)	(1.52)
$\mu_{CapGains}$	-0.028***	-0.070***	0.027	-1.627***	28.926
	(-8.24)	(-11.6)	(0.62)	(-23.8)	(0.29)
μ_{Nov}	0.071	0.167***	0.166***	-0.565***	0.629***
	(1.64)	(3.67)	(2.81)	(-13.4)	(5.10)
μ_{Dec}	0.044	-0.538***	-0.195***	-0.635***	0.664***
	(1.14)	(-11.6)	(-5.19)	(-19.4)	(4.26)
μ_{Jan}	0.423***	0.418***	0.630***	0.302***	-0.668***
	(10.41)	(10.10)	(15.36)	(9.00)	(-4.52)
μ_{Feb}	0.001	-0.140***	-0.006	-0.110***	-0.107
	(0.02)	(-4.93)	(-0.13)	(-2.66)	(-1.13)
ρ_1	0.425***	0.477***	0.524***	0.572***	0.068***
	(33.11)	(25.58)	(38.60)	(47.20)	(3.81)
ρ_3	0.326***	0.357***	0.284***	0.244***	0.333***
	(33.41)	(17.38)	(25.26)	(21.26)	(16.33)
ρ_6	-0.018	-0.000	0.035***	0.114***	0.116***
	(-1.47)	(-0.04)	(3.12)	(8.58)	(7.05)
ρ_{12}	0.037***	-0.030***	-0.125***	-0.019***	0.228***
	(3.66)	(-3.69)	(-11.4)	(-2.86)	(11.83)
R^2	0.5121	0.7321	0.6904	0.911	0.3165
AR(12)	15.16	5.89	13.52	11.50	10.59
ARCH(12)	39.02***	63.67***	50.95***	45.68***	31.44***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	94.4*** [5]
$\mu_{\hat{OR}}$ equivalent across series	92.7*** [4]
Test of Over-Identifying Restrictions	47 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (1), using an alternate return chasing proxy.

Table A1.25
Dependent Variable: U.S. Net Exchanges
Return Chasing Proxy: One Month Return ($R1Month$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.099***	0.027*	0.324***	0.215***	-0.104***
	(3.52)	(1.96)	(10.25)	(7.61)	(-4.39)
$\mu_{\hat{OR}}$	-0.145***	0.019	-0.070**	0.172***	0.248***
	(-6.16)	(1.53)	(-2.12)	(7.60)	(7.97)
μ_{Ads}	-0.099***	-0.023*	-0.310***	-0.113***	0.171***
	(-3.65)	(-1.84)	(-10.2)	(-4.87)	(6.99)
$\mu_{R1Month}$	0.001	0.003***	-0.016***	-0.013***	0.017***
	(1.56)	(2.95)	(-3.20)	(-2.68)	(6.31)
$\mu_{CapGains}$	-0.014***	-0.008***	-0.088***	-0.552***	-15.58***
	(-11.6)	(-5.82)	(-6.04)	(-21.7)	(-3.85)
μ_{Nov}	0.031**	0.037***	0.079***	-0.158***	-0.117***
	(2.05)	(4.45)	(3.47)	(-7.64)	(-7.90)
μ_{Dec}	0.048***	-0.062***	-0.063***	-0.175***	0.002
	(3.24)	(-7.41)	(-3.35)	(-10.5)	(0.11)
μ_{Jan}	0.113***	0.010	0.150***	0.033**	-0.311***
	(6.42)	(0.98)	(7.40)	(2.47)	(-23.0)
μ_{Feb}	0.035***	0.033***	0.021	-0.021	-0.008
	(2.59)	(5.07)	(1.06)	(-1.14)	(-0.66)
ρ_1	0.023*	0.579***	0.245***	0.221***	0.157***
	(1.82)	(40.97)	(14.76)	(12.85)	(12.47)
ρ_3	0.172***	0.179***	0.082***	-0.029***	0.083***
	(20.50)	(13.15)	(6.52)	(-3.05)	(10.01)
ρ_6	0.051***	0.124***	-0.029**	0.119***	0.200***
	(5.56)	(8.91)	(-2.42)	(12.44)	(19.05)
ρ_{12}	0.007	-0.052***	-0.067***	-0.040***	-0.034***
	(0.78)	(-4.29)	(-6.66)	(-3.94)	(-3.63)
R^2	0.0871	0.6489	0.1053	0.225	0.1566
AR(12)	11.70	16.79	20.00*	11.36	6.67
ARCH(12)	10.70	14.80	18.25	17.82	58.06***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	167.6*** [5]
$\mu_{\hat{OR}}$ equivalent across series	119.9*** [4]
Test of Over-Identifying Restrictions	45.7 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate return chasing proxy.

Table A1.26
Dependent Variable: U.S. Net Exchanges
Return Chasing Proxy: One Quarter Return ($R1Quarter$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.093***	0.031**	0.334***	0.225***	-0.102***
	(3.33)	(2.43)	(10.01)	(7.82)	(-4.61)
$\mu_{\hat{OR}}$	-0.158***	0.015	-0.101***	0.167***	0.246***
	(-6.40)	(1.38)	(-3.01)	(8.13)	(7.99)
μ_{Ads}	-0.081***	-0.017	-0.283***	-0.104***	0.165***
	(-3.07)	(-1.42)	(-8.86)	(-4.39)	(6.86)
$\mu_{R1Quarter}$	-0.009***	-0.007***	-0.054***	-0.039***	0.028***
	(-6.44)	(-5.03)	(-6.46)	(-5.62)	(6.73)
$\mu_{CapGains}$	-0.014***	-0.009***	-0.092***	-0.568***	-17.05***
	(-11.5)	(-6.45)	(-6.17)	(-22.0)	(-3.83)
μ_{Nov}	0.031*	0.030***	0.074***	-0.163***	-0.121***
	(1.73)	(3.63)	(3.14)	(-8.75)	(-7.49)
μ_{Dec}	0.053***	-0.064***	-0.079***	-0.181***	0.003
	(3.56)	(-7.51)	(-4.14)	(-11.1)	(0.20)
μ_{Jan}	0.122***	0.012	0.136***	0.027**	-0.308***
	(7.14)	(1.33)	(7.48)	(2.04)	(-21.7)
μ_{Feb}	0.040**	0.036***	0.001	-0.024	-0.028*
	(2.41)	(4.51)	(0.06)	(-1.23)	(-1.71)
ρ_1	0.054***	0.612***	0.258***	0.226***	0.162***
	(4.16)	(40.31)	(17.43)	(14.81)	(13.80)
ρ_3	0.188***	0.169***	0.126***	0.002	0.080***
	(18.97)	(12.22)	(8.81)	(0.20)	(9.38)
ρ_6	0.037***	0.109***	-0.029**	0.110***	0.196***
	(4.13)	(8.26)	(-2.49)	(11.75)	(21.49)
ρ_{12}	0.005	-0.055***	-0.062***	-0.037***	-0.030***
	(0.55)	(-4.79)	(-6.61)	(-3.03)	(-3.08)
R^2	0.0901	0.6501	0.1113	0.2291	0.1571
AR(12)	12.21	10.70	21.24 **	10.00	7.29
ARCH(12)	10.54	14.27	18.34	16.75	57.44***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	174.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	133.1*** [4]
Test of Over-Identifying Restrictions	45.7 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate return chasing proxy.

Table A1.27
Dependent Variable: U.S. Net Exchanges
Return Chasing Proxy: Two Quarter Return ($R2Quarters$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.088***	0.025**	0.296***	0.218***	-0.097***
	(3.53)	(2.00)	(9.38)	(8.55)	(-4.06)
$\mu_{\hat{OR}}$	-0.143***	0.024**	-0.073**	0.159***	0.248***
	(-5.57)	(2.52)	(-2.27)	(6.86)	(7.82)
μ_{Ads}	-0.084***	-0.024**	-0.318***	-0.125***	0.160***
	(-3.36)	(-2.00)	(-10.7)	(-5.72)	(6.26)
$\mu_{R2Quarters}$	-0.002	0.003*	0.025**	0.005	0.025***
	(-1.03)	(1.89)	(2.52)	(0.47)	(5.25)
$\mu_{CapGains}$	-0.014***	-0.008***	-0.085***	-0.552***	-16.09***
	(-13.2)	(-5.70)	(-6.02)	(-21.9)	(-3.83)
μ_{Nov}	0.027	0.038***	0.085***	-0.160***	-0.116***
	(1.55)	(4.57)	(3.46)	(-8.83)	(-6.58)
μ_{Dec}	0.053***	-0.059***	-0.059***	-0.171***	0.008
	(3.67)	(-6.87)	(-3.14)	(-9.90)	(0.47)
μ_{Jan}	0.119***	0.013	0.154***	0.025*	-0.301***
	(6.34)	(1.37)	(8.24)	(1.89)	(-20.9)
μ_{Feb}	0.039**	0.036***	0.009	-0.028	-0.024*
	(2.31)	(4.56)	(0.39)	(-1.56)	(-1.77)
ρ_1	0.036***	0.589***	0.214***	0.189***	0.161***
	(3.27)	(37.09)	(17.52)	(12.93)	(13.97)
ρ_3	0.172***	0.166***	0.063***	-0.027**	0.081***
	(19.10)	(12.53)	(5.13)	(-2.56)	(9.79)
ρ_6	0.050***	0.123***	-0.041***	0.116***	0.200***
	(5.94)	(9.21)	(-3.33)	(12.88)	(22.66)
ρ_{12}	0.007	-0.053***	-0.077***	-0.036***	-0.030***
	(0.83)	(-4.29)	(-7.49)	(-3.52)	(-3.82)
R^2	0.0872	0.6483	0.1048	0.2239	0.1561
AR(12)	11.33	9.76	18.00	10.12	7.40
ARCH(12)	10.66	14.09	18.04	17.44	58.21***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	138.8*** [5]
$\mu_{\hat{OR}}$ equivalent across series	96.1*** [4]
Test of Over-Identifying Restrictions	46.5 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate return chasing proxy.

Table A1.28
Dependent Variable: U.S. Net Exchanges
Return Chasing Proxy: Three Quarter Return ($R3Quarters$)

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.098***	0.034***	0.284***	0.196***	-0.110***
	(3.92)	(2.70)	(9.41)	(6.50)	(-4.83)
$\mu_{\hat{OR}}$	-0.127***	0.029***	-0.078**	0.174***	0.245***
	(-5.26)	(3.03)	(-2.34)	(6.59)	(7.98)
μ_{Ads}	-0.071***	-0.018	-0.338***	-0.136***	0.168***
	(-2.95)	(-1.60)	(-11.7)	(-5.14)	(7.04)
$\mu_{R3Quarters}$	-0.018***	-0.010***	0.070***	0.068***	0.035***
	(-6.33)	(-4.08)	(6.07)	(7.82)	(6.28)
$\mu_{CapGains}$	-0.015***	-0.009***	-0.099***	-0.560***	-15.80***
	(-13.4)	(-6.33)	(-8.04)	(-23.6)	(-3.70)
μ_{Nov}	0.015	0.033***	0.083***	-0.158***	-0.112***
	(0.89)	(3.91)	(3.77)	(-9.66)	(-6.34)
μ_{Dec}	0.045***	-0.065***	-0.059***	-0.166***	0.009
	(3.18)	(-7.41)	(-3.12)	(-9.66)	(0.48)
μ_{Jan}	0.122***	0.011	0.162***	0.032**	-0.303***
	(7.12)	(1.10)	(8.41)	(2.26)	(-24.3)
μ_{Feb}	0.036**	0.034***	0.011	-0.028	-0.024*
	(1.98)	(4.57)	(0.51)	(-1.37)	(-1.69)
ρ_1	0.046***	0.603***	0.202***	0.165***	0.161***
	(4.18)	(42.31)	(14.99)	(10.94)	(12.93)
ρ_3	0.184***	0.172***	0.049***	-0.054***	0.084***
	(23.27)	(13.28)	(4.24)	(-4.84)	(10.32)
ρ_6	0.051***	0.123***	-0.054***	0.096***	0.200***
	(6.83)	(8.57)	(-4.25)	(8.31)	(22.58)
ρ_{12}	-0.000	-0.061***	-0.087***	-0.038***	-0.032***
	(-0.01)	(-4.61)	(-9.07)	(-3.42)	(-4.11)
R^2	0.0919	0.6495	0.1105	0.2303	0.1565
AR(12)	12.10	11.43	19.15*	9.93	7.41
ARCH(12)	10.69	14.72	18.93*	15.62	58.31***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	165.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	118.9*** [4]
Test of Over-Identifying Restrictions	47 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate Equation (2), using an alternate return chasing proxy.

Table A1.29
Dependent Variable: U.S. Net Flows
Seasonal Depression Measure: Incidence Rather than Onset/Recovery

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.924***	-1.587***	-1.743***	-1.203***	2.660***
	(-7.53)	(-11.2)	(-7.60)	(-6.78)	(7.44)
$\mu_{Incidence}$	-0.100***	-0.068	-0.217***	0.109**	0.944***
	(-2.74)	(-1.47)	(-3.79)	(2.30)	(7.80)
μ_{Ads}	0.388***	0.290***	-0.324***	-0.212***	-1.708***
	(7.60)	(5.05)	(-3.76)	(-3.76)	(-10.5)
$\mu_{R^{Year}}$	0.009	0.015	0.066**	-0.111***	0.123
	(1.25)	(1.00)	(2.08)	(-2.99)	(1.57)
$\mu_{Savings}$	0.475***	1.030***	1.467***	1.257***	-0.789***
	(6.03)	(12.64)	(10.05)	(10.34)	(-3.62)
$\mu_{CapGains}$	-0.027***	-0.071***	0.021	-1.630***	32.854
	(-7.87)	(-11.5)	(0.44)	(-25.1)	(0.34)
μ_{Nov}	0.135***	0.197***	0.281***	-0.639***	0.021
	(2.98)	(4.50)	(3.53)	(-12.1)	(0.14)
μ_{Dec}	0.135***	-0.514***	-0.048	-0.706***	-0.030
	(3.20)	(-10.5)	(-0.78)	(-15.3)	(-0.18)
μ_{Jan}	0.481***	0.466***	0.780***	0.219***	-1.327***
	(10.64)	(10.13)	(13.72)	(4.81)	(-7.69)
μ_{Feb}	0.072*	-0.080***	0.146***	-0.174***	-0.651***
	(1.86)	(-2.79)	(3.28)	(-4.34)	(-6.65)
ρ_1	0.416***	0.488***	0.525***	0.572***	0.065***
	(32.12)	(27.47)	(40.66)	(48.29)	(3.97)
ρ_3	0.314***	0.358***	0.271***	0.245***	0.318***
	(33.06)	(18.82)	(24.25)	(17.83)	(15.14)
ρ_6	-0.021**	-0.004	0.029***	0.119***	0.129***
	(-2.06)	(-0.34)	(2.61)	(8.42)	(7.86)
ρ_{12}	0.049***	-0.029***	-0.127***	-0.022***	0.238***
	(5.16)	(-3.61)	(-13.3)	(-3.19)	(11.73)
R^2	0.5108	0.731	0.6893	0.9111	0.3167
AR(12)	16.51	5.56	12.97	11.54	12.37
ARCH(12)	39.52***	63.44***	51.04***	45.51***	31.74***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{Incidence}$ jointly equal to 0 across series	97.8*** [5]
$\mu_{Incidence}$ equivalent across series	88.1*** [4]
Test of Over-Identifying Restrictions	47.1 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate a modified version of Equation (1), replacing OR_t with $Incidence_t$ (the instrumented incidence of seasonal depression in the population; see footnote 15 of the main text for details):

$$NetFlow_{i,t} = \mu_i + \mu_{i,Incidence} Incidence_t + \mu_{i,Ads} Ads_t + \mu_{i,R^{Year}} R^{Year}_{i,t} + \mu_{i,CapGains} R^{CapGains}_{i,t}$$
$$+\mu_{i,Nov} Nov_t + \mu_{i,Dec} Dec_t + \mu_{i,Jan} Jan_t + \mu_{i,Feb} Feb_t + \mu_{i,Savings} Savings_{t-1}$$
$$+\rho_{i,1} NetFlow_{i,t-1} + \rho_{i,3} NetFlow_{i,t-3} + \rho_{i,6} NetFlow_{i,t-6} + \rho_{i,12} NetFlow_{i,t-12} + \epsilon_{i,t}. \quad (1')$$

Table A1.30
Dependent Variable: U.S. Net Exchanges
Seasonal Depression Measure: Incidence Rather than Onset/Recovery

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	0.004	0.038***	0.245***	0.277***	0.036*
	(0.19)	(3.02)	(7.31)	(9.89)	(1.80)
$\mu_{Incidence}$	-0.173***	-0.022**	-0.079***	0.142***	0.225***
	(-7.92)	(-2.35)	(-2.86)	(7.85)	(7.90)
μ_{Ads}	0.048**	-0.014	-0.298***	-0.256***	-0.020
	(2.28)	(-1.13)	(-8.83)	(-9.74)	(-0.94)
$\mu_{R^{Year}}$	-0.007***	-0.014***	0.106***	0.088***	0.013**
	(-2.72)	(-5.44)	(8.67)	(9.61)	(2.00)
$\mu_{CapGains}$	-0.015***	-0.008***	-0.118***	-0.585***	-14.87***
	(-14.6)	(-6.67)	(-10.1)	(-28.3)	(-3.87)
μ_{Nov}	0.141***	0.056***	0.119***	-0.259***	-0.263***
	(6.31)	(5.14)	(3.44)	(-11.5)	(-8.99)
μ_{Dec}	0.174***	-0.047***	-0.023	-0.282***	-0.152***
	(7.78)	(-5.25)	(-0.74)	(-13.2)	(-5.03)
μ_{Jan}	0.244***	0.021*	0.212***	-0.067***	-0.459***
	(10.55)	(1.79)	(7.38)	(-3.41)	(-19.6)
μ_{Feb}	0.128***	0.036***	0.054**	-0.115***	-0.148***
	(6.69)	(3.96)	(2.34)	(-6.68)	(-7.19)
ρ_1	0.031***	0.604***	0.200***	0.162***	0.163***
	(3.14)	(44.80)	(15.45)	(10.25)	(12.64)
ρ_3	0.170***	0.179***	0.034***	-0.069***	0.079***
	(19.85)	(12.11)	(2.74)	(-6.52)	(9.09)
ρ_6	0.049***	0.123***	-0.062***	0.090***	0.198***
	(6.09)	(8.72)	(-4.75)	(7.97)	(20.21)
ρ_{12}	-0.001	-0.061***	-0.117***	-0.053***	-0.037***
	(-0.11)	(-5.39)	(-10.3)	(-4.74)	(-4.67)
R^2	0.0948	0.6501	0.1155	0.2329	0.1591
AR(12)	10.62	9.28	17.47	10.38	6.66
ARCH(12)	10.78	14.54	18.97*	15.24	60.26***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{Incidence}$ jointly equal to 0 across series	122.3*** [5]
$\mu_{Incidence}$ equivalent across series	111.4*** [4]
Test of Over-Identifying Restrictions	48.2 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate a modified version of Equation (2), replacing OR_t with $Incidence_t$ (the instrumented incidence of seasonal depression in the population; see footnote 15 of the main text for details):

$$NetExchange_{i,t} = \mu_i + \mu_{i,Incidence} Incidence_t + \mu_{i,Ads} Ads_t + \mu_{i,R^{Year}} R_{i,t}^{Year} + \mu_{i,CapGains} R_{i,t}^{CapGains}$$
$$+\mu_{i,Nov} Nov_t + \mu_{i,Dec} Dec_t + \mu_{i,Jan} Jan_t + \mu_{i,Feb} Feb_t + \rho_{i,1} NetFlow_{i,t-1}$$
$$+\rho_{i,3} NetExchange_{i,t-3} + \rho_{i,6} NetExchange_{i,t-6} + \rho_{i,12} NetExchange_{i,t-12} + \epsilon_{i,t}. \quad (2')$$

Table A1.31
Dependent Variable: U.S. Net Flows
Robustness Check: Exclusion of Dummy Variables for
November, December, January, and February

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter	Equity (t-test)	Hybrid (t-test)	Corp. Bond (t-test)	Gov. Bond (t-test)	MMkt (t-test)
μ	-0.845***	-1.761***	-1.796***	-1.580***	2.241***
	(-7.02)	(-12.4)	(-7.57)	(-8.29)	(5.66)
$\mu_{\hat{OR}}$	-0.201***	-0.156***	-0.405***	-0.021	1.183***
	(-4.40)	(-3.67)	(-6.73)	(-0.43)	(7.66)
μ_{Ads}	0.274***	0.195***	-0.530***	-0.122**	-1.015***
	(4.23)	(3.50)	(-7.12)	(-2.17)	(-5.88)
$\mu_{R^{Year}}$	0.019**	0.038**	0.097***	-0.099**	0.121
	(2.52)	(2.53)	(3.20)	(-2.22)	(1.36)
$\mu_{Savings}$	0.517***	1.153***	1.619***	1.308***	-0.793***
	(7.89)	(13.68)	(11.12)	(10.28)	(-3.48)
$\mu_{CapGains}$	-0.032***	-0.052***	0.025	-0.975***	-34.99
	(-12.4)	(-10.4)	(0.64)	(-16.3)	(-0.44)
ρ_1	0.406***	0.445***	0.484***	0.586***	0.094***
	(32.59)	(22.71)	(32.51)	(45.88)	(6.59)
ρ_3	0.289***	0.378***	0.275***	0.262***	0.323***
	(31.53)	(18.52)	(24.53)	(18.80)	(16.71)
ρ_6	-0.014	-0.006	0.038***	0.101***	0.105***
	(-1.26)	(-0.40)	(3.19)	(6.40)	(6.63)
ρ_{12}	0.071***	-0.007	-0.109***	-0.044***	0.257***
	(7.87)	(-0.90)	(-10.5)	(-4.83)	(12.04)
R^2	0.4946	0.7078	0.6694	0.901	0.2979
AR(12)	18.18	5.51	10.92	23.14**	11.47
ARCH(12)	57.18***	67.40***	44.57***	45.00***	22.27**

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	100.2*** [5]
$\mu_{\hat{OR}}$ equivalent across series	98.5*** [4]
Test of Over-Identifying Restrictions	48.6 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate a modified version of Equation (1), excluding the monthly dummy variables:

$$NetFlow_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R_{i,t}^{Year} + \mu_{i,CapGains}R_{i,t}^{CapGains}$$
$$+\rho_{i,1}NetFlow_{i,t-1} + \rho_{i,3}NetFlow_{i,t-3} + \rho_{i,6}NetFlow_{i,t-6} + \rho_{i,12}NetFlow_{i,t-12} + \epsilon_{i,t} \qquad (1'')$$

Table A1.32
Dependent Variable: U.S. Net Exchanges
Robustness Check: Inclusion of Dummy Variables for
November, December, January, and February

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter or Statistic	Equity	Hybrid	Corporate Fixed Income	Government Fixed Income	Money Market
μ	0.086***	0.031**	0.283***	0.190***	-0.094***
	(3.41)	(2.41)	(9.83)	(6.64)	(-3.95)
$\mu_{\hat{OR}}$	-0.142***	0.029***	-0.075**	0.173***	0.245***
	(-6.31)	(2.93)	(-2.41)	(7.39)	(8.48)
μ_{Ads}	-0.080***	-0.012	-0.357***	-0.134***	0.163***
	(-3.21)	(-1.01)	(-12.4)	(-5.37)	(6.49)
$\mu_{R^{Year}}$	-0.003	-0.014***	0.107***	0.087***	0.013*
	(-1.47)	(-5.42)	(8.42)	(9.34)	(1.94)
$\mu_{CapGains}$	-0.015***	-0.008***	-0.117***	-0.589***	-14.53***
	(-14.5)	(-7.21)	(-9.85)	(-28.7)	(-3.58)
μ_{Nov}	0.026	0.038***	0.070***	-0.167***	-0.117***
	(1.62)	(4.97)	(3.24)	(-10.6)	(-7.12)
μ_{Dec}	0.049***	-0.065***	-0.078***	-0.181***	0.010
	(3.64)	(-8.87)	(-4.53)	(-11.0)	(0.53)
μ_{Jan}	0.127***	0.008	0.160***	0.033**	-0.303***
	(7.79)	(0.85)	(8.33)	(2.30)	(-24.2)
μ_{Feb}	0.040**	0.034***	0.013	-0.030	-0.021
	(2.35)	(4.40)	(0.63)	(-1.56)	(-1.41)
ρ_1	0.036***	0.607***	0.201***	0.165***	0.163***
	(3.81)	(43.27)	(15.87)	(10.40)	(12.80)
ρ_3	0.171***	0.169***	0.035***	-0.064***	0.083***
	(19.87)	(12.24)	(2.78)	(-6.54)	(9.59)
ρ_6	0.049***	0.128***	-0.061***	0.088***	0.203***
	(6.20)	(9.23)	(-5.17)	(8.56)	(23.00)
ρ_{12}	0.004	-0.062***	-0.116***	-0.055***	-0.031***
	(0.47)	(-5.24)	(-11.0)	(-5.39)	(-4.02)
R^2	0.0873	0.65	0.1145	0.2331	0.1555
AR(12)	10.77	10.32	17.63	10.99	7.54
ARCH(12)	10.61	14.34	18.72*	15.46	58.71***

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	167.3*** [5]
$\mu_{\hat{OR}}$ equivalent across series	117.3*** [4]
Test of Over-Identifying Restrictions	48.3 [120]

Notes: See the notes to Table A1.1, with the following exception: We estimate a modified version of Equation (2), including the monthly dummy variables:

$$NetExchange_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R_{i,t}^{Year} + \mu_{i,CapGains}R_{i,t}^{CapGains}$$
$$+\mu_{i,Nov}Nov_t + \mu_{i,Dec}Dec_t + \mu_{i,Jan}Jan_t + \mu_{i,Feb}Feb_t + \rho_{i,1}NetExchange_{i,t-1}$$
$$+\rho_{i,3}NetExchange_{i,t-3} + \rho_{i,6}NetExchange_{i,t-6} + \rho_{i,12}NetExchange_{i,t-12} + \epsilon_{i,t}. \quad (2'')$$

Table A1.33
Dependent Variable: Canadian Net Exchanges
Robustness Check: Inclusion of Dummy Variables for November, December, January, and February

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter or Statistic	Equity	Hybrid	Fixed Income	Global Fixed Income
μ	-0.022**	-0.064***	-0.053	-0.082***
	(-2.15)	(-6.79)	(-1.34)	(-3.32)
$\mu_{\hat{OR}}$	-0.100**	-0.192***	0.259**	0.310***
	(-2.25)	(-4.90)	(2.01)	(3.56)
$\mu_{R^{Year}}$	0.025***	0.044***	-0.222***	0.274***
	(2.90)	(3.14)	(-5.03)	(4.76)
$\mu_{CapGains}$	-0.001	-0.001	0.026***	-0.026***
	(-0.65)	(-0.48)	(4.12)	(-4.96)
$\mu_{November}$	0.203***	0.335***	-0.637***	-0.354***
	(4.58)	(7.18)	(-5.65)	(-4.13)
$\mu_{December}$	-0.031	0.008	-0.712***	0.210***
	(-1.13)	(0.36)	(-5.15)	(3.84)
$\mu_{January}$	0.217***	0.201***	0.485***	-0.532***
	(6.04)	(8.25)	(4.56)	(-9.41)
$\mu_{February}$	0.023	0.057	-0.263**	-0.100
	(0.63)	(1.61)	(-2.40)	(-1.26)
ρ_1	0.229***	0.461***	0.265***	0.308***
	(6.71)	(10.07)	(10.42)	(9.62)
ρ_3	0.068***	0.237***	0.052**	0.087***
	(3.58)	(7.09)	(2.56)	(3.41)
ρ_6	0.033	0.050***	0.055**	0.070***
	(1.60)	(3.35)	(2.29)	(2.64)
R^2	0.1466	0.4466	0.1493	0.223
AR(12)	22.44 **	6.29	7.06	17.81
ARCH(12)	12.68	40.15 ***	29.76 ***	11.27

Panel B: Systems Equations Joint Tests

Joint Tests Across Indices	χ^2 [degrees of freedom]
$\hat{OR}_t$ jointly equal to 0 across series	34 *** [4]
$\hat{OR}_t$ equivalent across series	34 *** [3]
Test of Over-Identifying Restrictions	34.3 [60]

Notes: See the notes to Table A1.1, with the following exception: We estimate a modified version of Equation (3), using net exchange data for Canadian asset classes, and including monthly dummy variables:

$$NetExchange_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,R^{Year}}R_{i,t}^{Year} + \mu_{i,CapGains}R_{i,t}^{CapGains} + \mu_{i,Nov}Nov_t$$
$$+\mu_{i,Dec}Dec_t + \mu_{i,Jan}Jan_t + \mu_{i,Feb}Feb_t + \rho_{i,1}NetExchange_{i,t-1}$$
$$+\rho_{i,3}NetExchange_{i,t-3} + \rho_{i,6}NetExchange_{i,t-6} + \rho_{i,12}NetExchange_{i,t-12} + \epsilon_{i,t} \quad (3')$$

Table A1.34
Dependent Variable: Australian Net Flows
Robustness Check: Exclusion of Dummy Variables for May, June, July, and April

Parameter	Equity (t-test)
μ	-0.140**
	(-2.20)
$\mu_{\hat{OR}_{South}}$	-0.435***
	(-2.82)
$\mu_{R^{Year}}$	0.106**
	(1.99)
$\mu_{CapGains}$	0.005
	(0.78)
μ_{ρ_1}	0.129**
	(2.50)
μ_{ρ_2}	0.272***
	(3.70)
μ_{ρ_3}	0.264***
	(3.81)
μ_{ρ_6}	0.131*
	(1.65)
$\mu_{\rho_{12}}$	0.153**
	(2.55)
R^2	0.5779
AR(12)	13.34
ARCH(12)	12.49

Notes: See the notes to Table A1.1, with the following exception: We estimate a modified version of Equation (4), using net flow data for the Australian equity class, and excluding monthly dummy variables:

$$NetFlow_{i,t} = \mu_i + \mu_{\hat{OR}_{South}} \hat{OR}_{South_t} + \mu_{i,R^{Year}} R^{Year}_{i,t} + \mu_{i,CapGains} R^{CapGains}_{i,t}$$
$$+\rho_1 NetFlow_{t-1} + \rho_2 NetFlow_{t-2} + \rho_3 NetFlow_{t-3} + \rho_{i,6} NetFlow_{i,t-6} + \rho_{i,12} NetFlow_{i,t-12} + \epsilon_{i,t} \qquad (4'')$$

Appendix A2: Alternate Classification of U.S. Funds

As a supplement to studying the five asset classes, we explored a less coarse classification of the ICI fund categories. In Table A2.1 we map the ICI categories into nine asset classes, allowing more variation in risk across the classes. Instead of "equity", we now consider "risky equity" and "safe equity." "Hybrid" remains as previously defined. "Corporate fixed income" is split into "global bond" and "corporate bond". "Government fixed income" is split into "munis," "medium and short-term government," and "general-term government." The "money market" class remains as previously defined. Table A2.2 contains summary statistics on the net flows, excess returns, and other variables for these nine asset classes, as well as correlations between net flows across classes.

In Table A2.3, we present results from estimating the following as a system of nine equations (across the expanded set of nine asset classes) using GMM and HAC standard errors:[62]

$$\begin{aligned} NetFlow_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R_{i,t}^{Year} + \mu_{i,CapGains}R_{i,t}^{CapGains} \\ +\mu_{i,Nov}Nov_t + \mu_{i,Dec}Dec_t + \mu_{i,Jan}Jan_t \\ +\mu_{i,Feb}Feb_t + \mu_{i,Savings}Savings_{t-1} + \epsilon_{i,t}. \end{aligned} \tag{5}$$

Panels A and B contain coefficient estimates and some regression diagnostic statistics, and Panel C contains joint test statistics across the classes. We find the onset/recovery variable coefficient estimates are negative and significant for the risky equity, safe equity, hybrid, and U.S. corporate bond asset classes, with the equity case showing the largest economic magnitude of these four.

We find positive and significant coefficient estimates for the global corporate bond and money market classes. Once again, the money market coefficient estimate is the largest of all considered. Joint tests in Panel C support the notion that the safest and riskiest fund flows exhibit opposing seasonal cycles related to seasonally varying risk aversion and that the onset/recovery estimates are jointly statistically different from zero, again strongly rejecting the null of no seasonal effect.

[62] This is Equation (1) excluding lagged dependent variables (and estimated over nine asset classes instead of five). The results are very similar for a model with sufficient lags to purge autocorrelation. The model is fully detailed in Appendix A3.

Table A2.1: Classification of Funds into Enlarged Set of Nine Asset Classes

In this table we map funds from thirty investment objective categories into a set of nine asset classes, based on characteristics of the individual funds provided in the Investment Company Institute (2003) Mutual Fund Factbook. The asset classes are "Risky Equity," "Safe Equity," "Hybrid," "U.S. Corporate Bond," "Global Corporate Bond," "General-Term Government," "Medium and Short-Term Government," "Munis," and "Money Market."

Number	ICI Fund	Asset Class (Based on Enlarged Set of Nine)
1	Aggressive Growth	Risky Equity
2	Growth	Risky Equity
3	Sector	Risky Equity
4	Emerging Markets	Risky Equity
5	Global Equity	Safe Equity
6	International Equity	Safe Equity
7	Regional Equity	Safe Equity
8	Growth and Income	Safe Equity
9	Income Equity	Safe Equity
10	Asset Allocation	Hybrid
11	Balanced	Hybrid
12	Flexible Portfolio	Hybrid
13	Income Mixed	Hybrid
14	Corporate - General	U.S. Corporate Bond
15	Corporate - Intermediate	U.S. Corporate Bond
16	Corporate - Short Term	U.S. Corporate Bond
17	High Yield	U.S. Corporate Bond
18	Global Bond - General	Global Bond
19	Global Bond - Short Term	Global Bond
20	Other World Bond	Global Bond
21	Government Bond - General	General-Term Government
22	Government Bond - Intermediate	Medium and Short-Term Government
23	Government Bond - Short Term	Medium and Short-Term Government
24	Mortgage Backed	Medium and Short-Term Government
25	Strategic Income	U.S. Corporate Bond
26	State Municipal Bond - General	Munis
27	State Municipal Bond - Short Term	Munis
28	National Municipal Bond - General	Munis
29	National Municipal Bond - Short Term	Munis
30	Taxable Money Market - Government	Money Market

Table A2.2: Summary Statistics on U.S. Monthly Percentage Flows for Nine Asset Classes

This table contains summary statistics on U.S. monthly percentage fund flows, explanatory variables, and returns over February 1985 through December 2006, for a total of 263 months for nine asset classes. Flows data are from the Investment Company Institute, and returns were calculated using fund flow and total net asset changes available from the Investment Company Institute. The returns in Panel C are in excess of the 30-day T-bill rate, with the 30-day T-bill rate available from CRSP. $R^{CapGains}$ is the capital gains measure based on cumulated fund percentage returns for November and December, and R^{Year} is the one moving average of fund percentage returns, to capture return chasing. For each set of fund flows and returns we present the mean monthly values (Mean), standard deviation (Std), minimum (Min), maximum (Max), skewness (Skew) and kurtosis (Kurt). For excess returns we also present the CAPM beta and the coefficient estimate on the onset/recovery variable, each estimated separately of the other. These coefficients are produced in a system-equation estimation using GMM and HAC standard errors. To calculate the standard errors we follow Newey and West (1987, 1994) and use the Bartlett kernel and an automatic bandwidth parameter (autocovariance lags) equal to the integer value of $4(T/100)^{2/9}$. For instruments for the CAPM regression, we use the market return, a constant, and one lag of each excess return. We use the CRSP value-weighted total market return, including dividends for the market return. For instruments for the onset/recovery regression, we use the onset/recovery variable ($\hat{OR}$), a constant, and one lag of each excess return.

Panel A: Asset Class Fund Percentage Net Flows

Index	Mean	Std	Min	Max	Skew	Kurt
Risky Equity	0.561	1.00	-3.87	3.31	-0.538	2.12
Safe Equity	0.620	0.82	-2.55	4.25	0.861	2.99
Hybrid	0.795	1.36	-1.68	6.67	1.157	1.47
U.S. Corporate Bond	0.780	1.26	-2.42	5.84	0.979	1.98
Global Bond	1.917	9.67	-7.05	138.57	11.301	154.18
General-Term Government	0.626	3.58	-3.92	25.94	3.613	15.87
Medium and Short-Term Government	0.624	3.09	-5.00	15.25	2.472	6.74
Munis	0.615	1.47	-3.89	6.02	1.479	3.48
Money Market	0.378	2.01	-5.02	8.50	0.797	2.48

Table A2.2 continues on next page

Table A2.2, Continued

Panel B: Explanatory Variables

Index	Mean	Std	Min	Max	Skew	Kurt
Risky Equity Fund Specific:						
$R^{CapGains}$	4.144	3.57	0.00	14.37	0.827	0.36
R^{Year}	1.173	1.34	-3.70	3.50	-1.079	1.12
Safe Equity Fund Specific:						
$R^{CapGains}$	2.837	2.55	0.00	12.10	1.484	3.18
R^{Year}	1.195	1.18	-2.12	4.76	-0.324	0.86
Hybrid Fund Specific:						
$R^{CapGains}$	1.830	1.62	0.00	6.29	0.854	-0.28
R^{Year}	0.826	0.69	-0.98	2.22	-0.276	-0.49
U.S. Corporate Bond Fund Specific:						
$R^{CapGains}$	0.394	0.40	0.00	1.78	1.317	1.24
R^{Year}	0.775	0.54	-0.45	2.00	-0.164	-0.59
Global Bond Fund Specific:						
$R^{CapGains}$	0.959	1.30	0.00	5.87	2.409	5.97
R^{Year}	1.269	1.65	-0.88	8.50	2.301	6.46
General-Term Government Fund Specific:						
$R^{CapGains}$	0.338	0.32	0.00	1.32	0.929	-0.04
R^{Year}	0.539	0.51	-0.79	2.51	0.746	2.02
Medium and Short-Term Government Fund Specific:						
$R^{CapGains}$	0.122	0.14	0.00	0.58	1.521	1.67
R^{Year}	0.480	0.64	-0.55	3.10	1.391	3.14
Munis Fund Specific:						
$R^{CapGains}$	0.243	0.25	0.00	1.00	1.589	1.99
R^{Year}	0.508	0.44	-0.58	2.04	0.528	1.24
Money Market Fund Specific:						
$R^{CapGains}$	0.000	0.00	0.00	0.00	4.422	18.75
R^{Year}	0.508	0.37	-0.44	1.40	-0.470	0.33

Table A2.2 continues on next page

Table A2.2, Continued

Panel C: Fund Excess Returns

Index	Mean	Std	Min	Max	Skew	Kurt	Beta	$\hat{OR}$
Risky Equity	0.768	4.58	-23.05	11.90	-0.996	3.28	1.026***	-1.532**
Safe Equity	0.806	4.12	-18.91	31.74	0.769	13.70	0.834***	-1.960***
Hybrid	0.434	2.51	-10.80	8.44	-0.767	2.27	0.509***	-.9224**
U.S. Corporate Bond	0.384	1.34	-3.24	7.37	0.340	2.54	0.116***	-.3693*
Global Bond	0.933	4.74	-8.10	60.24	7.632	93.43	0.106***	0.5592
General-Term Government	0.089	1.47	-7.07	6.56	-0.064	3.25	0.005	0.8897***
Medium and Short-Term Government	0.033	1.34	-4.51	9.93	1.313	11.31	0.000	0.7380***
Munis	0.106	1.33	-6.34	4.19	-0.494	2.64	0.048***	0.6850***
Money Market	0.125	0.91	-2.75	5.98	1.317	7.74	-0.004	0.2552**

Panel D: Asset Class Net Flow Correlations

Asset Class	Risky Equity	Safe Equity	Corp. Hybrid	Corp. Bond - U.S.	Bond - Global	Govt. General	Govt. Med., Short	Munis
Safe Equity	0.634***	—	—	—	—	—	—	—
Hybrid	0.437***	0.747***	—	—	—	—	—	—
Corp. Bond - U.S.	0.233***	0.518***	0.525***	—	—	—	—	—
Corp. Bond - Global	0.029	0.214***	0.131**	0.220***	—	—	—	—
Govt. Bond - General	-0.060	0.254***	0.405***	0.579***	0.188***	—	—	—
Govt. Bond - Med., Short	0.015	0.300***	0.446***	0.704***	0.233***	0.895***	—	—
Munis	0.131**	0.453***	0.536***	0.797***	0.341***	0.708***	0.807***	—
Money Market	-0.124**	-0.157**	-0.130**	-0.095	0.046	-0.102*	-0.034	-0.023

Table A2.3: Regression Results for Enlarged Set of Nine Asset Class: Net Flows

In this table we report coefficient estimates from jointly estimating the following regression for each of nine asset classes in a GMM framework:

$$NetFlow_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R^{Year}_{i,t} + \mu_{i,CapGains}R^{CapGains}_{i,t}$$
$$+\mu_{i,Nov}Nov_t + \mu_{i,Dec}Dec_t + \mu_{i,Jan}Jan_t$$
$$+\mu_{i,Feb}Feb_t + \mu_{i,Savings}Savings_{t-1} + \epsilon_{i,t}. \quad (5)$$

The data used to estimate the model span February 1985 through December 2006. The monthly net flows are computed as sales, minus redemptions, plus exchanges in, minus exchanges out, all divided by the previous month's total net assets. The explanatory variables are defined in the text. In Panels A and B we present coefficient estimates with HAC robust t-tests in parentheses. At the bottom of Panels A and B we present the value of adjusted R^2 for each estimation, a Wald χ^2 test statistic for the presence of up to 12 lags of autocorrelation (AR), and a Wald χ^2 test statistic for the presence of up to 12 lags of ARCH (both with 12 degrees of freedom). The test for ARCH is a standard LM test of order 12. See Engle (1982). To perform the test for autocorrelation, we augment the regression with 12 lags of the residuals, estimate MacKinnon and White (1985) bootstrap heteroskedasticity-consistent standard errors with OLS and test for the joint significance of these terms. Panel C contains joint test statistics. The first is a χ^2 statistic (with 10 degrees of freedom) testing the null that the onset/recovery coefficient estimates are jointly zero across the fund asset classes, the second is a χ^2 statistic (with nine degrees of freedom) testing the null that the onset/recovery coefficient estimates are jointly equal to each other across the fund asset classes, and the third is the Hansen (1982) χ^2 goodness-of-fit test of the model based on the optimized value of the objective function produced by GMM. To calculate the standard errors we follow Newey and West (1987, 1994) and use the Bartlett kernel and an automatic bandwidth parameter (autocovariance lags) equal to the integer value of $4(T/100)^{2/9}$. We use the full set of explanatory variables as instruments for the regression. One, two, and three asterisks denote significance at the 10 percent, 5 percent, and 1 percent level respectively, based on two-sided tests.

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter or Statistic	Risky Equity	Safe Equity	Hybrid	Corporate Bond - U.S.	Corporate Bond - Global
μ	-0.403***	-3.032***	-5.259***	-6.279***	-23.99***
	(-2.59)	(-33.8)	(-36.8)	(-40.4)	(-40.8)
$\mu_{\hat{OR}}$	-0.785***	-0.423***	-0.209***	-0.464***	0.609***
	(-13.4)	(-11.0)	(-3.47)	(-6.93)	(3.55)
μ_{Ads}	-0.089	0.279***	-0.053	-0.826***	-1.664***
	(-1.27)	(6.39)	(-0.75)	(-13.4)	(-6.39)
$\mu_{R^{Year}}$	0.174***	0.192***	0.696***	1.053***	-0.047
	(25.14)	(47.78)	(53.77)	(56.75)	(-1.49)
$\mu_{Savings}$	0.520***	2.244***	3.905***	4.477***	16.292***
	(5.99)	(43.88)	(50.05)	(47.41)	(47.05)
$\mu_{CapGains}$	-0.001	-0.089***	-0.215***	0.359***	2.356***
	(-0.23)	(-50.2)	(-56.3)	(13.17)	(30.65)
μ_{Nov}	0.087	-0.373***	-0.179***	0.260***	2.168***
	(1.54)	(-11.7)	(-2.67)	(5.78)	(12.43)
μ_{Dec}	0.096**	-0.365***	-0.781***	-0.062	1.583***
	(2.39)	(-9.87)	(-14.2)	(-1.56)	(10.50)
μ_{Jan}	0.331***	0.219***	0.120***	0.381***	-0.413**
	(8.67)	(6.24)	(2.81)	(10.93)	(-2.54)
μ_{Feb}	0.126**	-0.069**	0.031	0.221***	1.152***
	(2.10)	(-2.16)	(0.55)	(4.46)	(5.46)
R^2	0.101	0.2924	0.3718	0.4866	0.1492
AR(12)	111.03***	134.15***	280.48***	114.51***	6.09
ARCH(12)	29.99***	92.42***	75.23***	49.75***	32.68***

Table A2.3 continues on next page

Table A2.3, Continued

Panel B: Parameter Estimates and Diagnostic Statistics

Parameter or Statistic	Government General	Government Medium-, Short-Term	Munis	Money Market
μ	-17.85***	-7.624***	-5.835***	0.514**
	(-53.7)	(-24.6)	(-31.7)	(2.03)
$\mu_{\hat{OR}}$	0.182	0.127	-0.058	1.384***
	(1.16)	(0.80)	(-0.75)	(11.11)
μ_{Ads}	-0.046	-0.753***	-0.370***	-0.647***
	(-0.29)	(-4.32)	(-3.81)	(-4.95)
$\mu_{R^{Year}}$	4.161***	3.380***	1.751***	0.915***
	(95.13)	(148.2)	(81.63)	(17.38)
$\mu_{Savings}$	10.789***	5.150***	3.985***	-0.112
	(65.42)	(35.65)	(43.61)	(-0.75)
$\mu_{CapGains}$	-0.626***	-3.355***	-0.722***	208.19***
	(-10.4)	(-49.3)	(-20.3)	(3.46)
μ_{Nov}	-0.260***	-0.725***	-0.219***	1.249***
	(-2.76)	(-7.82)	(-4.57)	(13.62)
μ_{Dec}	-0.463***	-0.685***	-0.450***	0.700***
	(-5.45)	(-7.11)	(-10.5)	(5.66)
μ_{Jan}	-0.228**	-0.095	0.422***	-0.063
	(-2.51)	(-1.51)	(12.26)	(-0.49)
μ_{Feb}	0.109	0.200**	0.180***	0.432***
	(0.93)	(2.04)	(3.40)	(6.11)
R^2	0.5895	0.7024	0.5843	0.0974
AR(12)	157.49***	203.97***	103.24***	49.06***
ARCH(12)	52.17***	101.05***	70.75***	56.37***

Panel C: Joint Tests on Onset/Recovery Coefficient Estimates

Joint Test Across Fund Asset Classes	χ^2 [Degrees of Freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	371.3*** [9]
$\mu_{\hat{OR}}$ equivalent across series	287.9*** [8]
Test of Over-Identifying Restrictions	50.8 [144]

Appendix A3: A Model for U.S. Net Flows Excluding Lagged Dependent Variable Terms

We explore the impact of excluding lagged dependent variables and instead adjust for autocorrelation with Hansen's (1982) GMM and Newey and West (1987, 1994) heteroskedasticity and autocorrelation consistent (HAC) standard errors. The regression model we estimate is as follows:

$$\begin{aligned} NetFlow_{i,t} = \mu_i + \mu_{i,\hat{OR}}\hat{OR}_t + \mu_{i,Ads}Ads_t + \mu_{i,R^{Year}}R^{Year}_{i,t} + \mu_{i,CapGains}R^{CapGains}_{i,t} \\ + \mu_{i,Nov}Nov_t + \mu_{i,Dec}Dec_t + \mu_{i,Jan}Jan_t \\ + \mu_{i,Feb}Feb_t + \mu_{i,Savings}Savings_{t-1} + \epsilon_{i,t}, \end{aligned} \tag{5}$$

where i indexes the five U.S. mutual fund asset classes. Variables are defined as in the primary estimation introduced in the main text.

We estimate Equation (5) as a system of equations using Hansen's (1982) GMM and Newey and West (1987, 1994) HAC standard errors. To calculate standard errors, we follow Newey and West (1987, 1994) and use the Bartlett kernel and an automatic bandwidth parameter (autocovariance lags) equal to the integer value of $4(T/100)^{2/9}$. The instruments for the regression are constrained to the full set of explanatory variables. Results from estimating this set of equations are shown in Table A3.1. In Panel A we present coefficient estimates and two-sided t-tests. Our use of HAC standard errors is consistent with the strong statistical evidence of autocorrelation. The bottom of Panel A contains the adjusted R^2 for each asset class model and χ^2 statistics for testing for the presence of up to 12 lags of autocorrelation (AR) or ARCH. The test for ARCH is a standard LM test of order 12. To perform the test for autocorrelation, we augment the regression with 12 lags of the residuals, estimate MacKinnon and White (1985) bootstrap HAC standard errors with OLS, and test for the joint significance of these terms.

Consider first the coefficient estimates on the onset/recovery variable. The equity, hybrid, corporate, and government fixed income asset classes all have negative coefficients on $\hat{OR}_t$, but only equity fund flows display statistically significant negative effects, and equity funds also display the largest economic magnitude effect of these four. Recall that the onset/recovery variable itself is positive in the summer/fall and negative in the winter/spring (see Figure 1). Thus, the implication is that equity fund flows are expected to be below-average in the summer/fall and above-average in the winter/spring, as displayed in the unconditional plot in Figure 2. The onset/recovery variable is positive and statistically significant for the money market asset class, implying money market fund flows are expected to be above average in the summer/fall and below average in the winter/spring, again as we see unconditionally. The impact of advertising is again to divert flows from safe asset classes to risky asset classes, there is strong evidence of return-chasing and capital-gains avoidance. (Recall that average realized capital gains are virtually zero for the money market fund class, and only 24 basis points for the government versus roughly 3.5 percent for the equity fund class, hence

the anomalously large estimate on the capital gains variable for the money market class is not economically meaningful.) The savings variable is strongly significantly positive for all classes of funds except the money market class, consistent with results in the paper.

Panel B contains statistics testing the joint significance of the onset/recovery coefficient estimates across the asset classes, using Wald χ^2 statistics based on the HAC covariance estimates. The first statistic tests whether the onset/recovery estimates are jointly equal to zero across the series. We strongly reject the null of no seasonal effect. The second joint statistic tests whether the onset/recovery coefficient estimates are jointly equal to each other, not necessarily zero. This null is strongly rejected as well, supporting the position that the safe and risky funds do indeed exhibit different seasonal cycles in flows related to the onset/recovery variable. The χ^2 goodness-of-fit test indicates that the over-identifying moment restrictions we use to estimate the model are not rejected.

Table A3.1: Regression Results for U.S. Asset Class Net Flows, No Autocorrelation Controls

Panel A: Parameter Estimates and Diagnostic Statistics

Parameter or Statistic	Equity	Hybrid	Corporate Fixed Income	Government Fixed Income	Money Market
μ	-1.771***	-5.523***	-6.712***	-9.194***	-0.073
	(-3.54)	(-7.38)	(-8.84)	(-6.34)	(-0.07)
$\mu_{\hat{OR}}$	-0.493***	-0.113	-0.379	-0.165	1.385***
	(-2.66)	(-0.34)	(-1.57)	(-0.38)	(4.17)
μ_{Ads}	0.042	-0.109	-0.688***	-0.503	-0.549
	(0.25)	(-0.36)	(-3.08)	(-1.19)	(-1.56)
$\mu_{R^{Year}}$	0.198***	0.607***	0.940***	2.701***	0.809***
	(7.63)	(8.28)	(10.15)	(11.69)	(4.82)
$\mu_{Savings}$	1.422***	4.157***	4.800***	6.214***	0.228
	(5.40)	(10.30)	(9.93)	(6.78)	(0.35)
$\mu_{CapGains}$	-0.033***	-0.212***	0.115	-1.699***	273.39
	(-3.09)	(-10.5)	(0.73)	(-4.60)	(1.35)
μ_{Nov}	-0.114	-0.201	0.103	-0.604**	1.433***
	(-0.89)	(-0.93)	(0.61)	(-2.49)	(5.42)
μ_{Dec}	-0.133	-0.778***	-0.194	-0.747***	0.821**
	(-1.22)	(-4.60)	(-1.37)	(-3.41)	(2.22)
μ_{Jan}	0.258*	0.099	0.280*	-0.004	-0.173
	(1.80)	(0.56)	(1.95)	(-0.02)	(-0.36)
μ_{Feb}	0.009	0.024	0.152	0.095	0.405*
	(0.08)	(0.18)	(1.17)	(0.53)	(1.73)
R^2	0.1964	0.3691	0.4557	0.6195	0.0955
AR(12)	178.35***	275.63***	122.73***	239.74***	49.10***
ARCH(12)	55.27***	75.66***	40.63***	62.98***	57.66***

Panel B: Joint Tests on Onset/Recovery Coefficient Estimates

Joint Test Across Asset Classes	χ^2 [Degrees of Freedom]
$\mu_{\hat{OR}}$ jointly equal to 0 across series	29.9*** [5]
$\mu_{\hat{OR}}$ equivalent across series	29.9*** [4]
Test of Over-Identifying Restrictions	43.6 [40]

Notes: One, two, and three asterisks denote significance at the 10, 5, and 1 percent level respectively, based on two-sided tests.