Additional tables: Cumulative impact of the trades.

This table reports estimates of market depth. λ_{GH} is the estimate of market depth from Glosten and Harris specification,

$$\Delta p_{i,t} = (\lambda_{i,0}+\lambda_{i,1}DUMMY1+\lambda_{i,2}DUMMY2)q_{i,t}+ \psi(D_{i,t} - D_{i,t-1})+\varepsilon_{i,t};$$

λ_{MS} is the estimate of market depth from Madhavan and Smidt specification:

$$\Delta p_{i,t} = (\lambda_{i,0}+\lambda_{i,1}DUMMY1+\lambda_{i,2}DUMMY2)q_{i,t} + (\psi/\pi)D_{i,t} - \psi D_{i,t-1}+ (\gamma/\pi)I_{i,t} - \gamma I_{i,t-1}+\eta_{i,t}.$$

Here $\Delta p_{i,t}$ is the price change at transaction originated by a dealer belonging to the *ith* class at time *t*, and $q_{i,t}$ is the signed order flow at time *t* of the trade originated by such a dealer, $D_{i,t}$ denotes the sign of the order placed by the dealer belonging to the *i-th* class at time *t* (+1 for a buyer-initiated trade and -1 for a seller-initiated trade), $D_{i,t-1}$ is the sign of the order immediately preceding the order placed by the dealer belonging to the *ith* class at time *t*, and $\pi=1/(1+\alpha\lambda)$. I_t represents market maker's inventory at time *t*. $DUMMY_1$ takes value 1 if there was at least one transaction intermediated by the same market maker in the same bond within the previous minute. $DUMMY_2$ takes value 1 if there were at least two transactions intermediated by the same market maker in the same bond within the previous minute. There is no serial correlation for ε_t, in the Glosten-Harris specification, while we use a MA(1) for η_t in the Madhavan-Smidt specification. The subscript *i* refers to the category considered within each classification. Both specifications are estimated by pooling all the observations and using dummies to differentiate on the basis of the dealers originating them. We consider also an alternative specification ("Spec 2"), where $\lambda_{i,1}=\lambda_{j,1}$ for each i≠j. We also report the result of Wald tests of the difference between λ's for different classes of dealers. 246,233 observations are used. Estimates of γ are multiplied by 1,000,000. All other estimates, except α, are multiplied by 1,000.

Reaction-based classification 1

	Glosten-Harris				Madhavan-Smidt			
	Spec 1		Spec 2		Spec 1		Spec 2	
Variable	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**
$\lambda_{CONFIDENT}$	0.446	(81.01)	0.446	(82.32)	0.912	(194.28)	0.915	(198.49)
$\lambda_{CONFIDENT} \times DUMMY_1$	0.553	(17.88)			0.260	(13.30)		
$\lambda_{CONFIDENT} \times DUMMY_2$	0.569	(17.19)			0.393	(17.60)		
$\lambda_{AVERAGE}$	0.531	(89.57)	0.532	(91.17)	1.012	(203.31)	1.012	(207.07)
$\lambda_{AVERAGE} \times DUMMY_1$	0.509	(15.88)			0.283	(14.51)		
$\lambda_{AVERAGE} \times DUMMY_2$	0.599	(14.68)			0.425	(16.50)		
λ_{SCARED}	0.643	(109.13)	0.641	(110.56)	1.103	(219.85)	1.101	(223.03)
$\lambda_{SCARED} \times DUMMY_1$	0.547	(17.08)			0.331	(17.63)		
$\lambda_{SCARED} \times DUMMY_2$	0.672	(14.95)			0.462	(17.60)		
$\lambda \times DUMMY_1$			0.537	(29.36)			0.292	(26.09)
$\lambda \times DUMMY_2$			0.603	(27.03)			0.423	(29.54)
ψ	-5.410	(-236.90)	-5.400	(-236.92)	-2.425	(-110.36)	-2.420	(-110.37)
α					1214.05	(130.21)	1214.47	(130.20)
γ					0.534	(8.61)	0.538	(8.68)
Adjusted R^2	0.888		0.888		0.684		0.0684	
Hypothesis	χ^2	**p-value**	χ^2	**p-value**	χ^2	**p-value**	χ^2	**p-value**
$\lambda_{CONFIDENT}=\lambda_{AVERAGE}=\lambda_{SCARED}$, $\lambda_{CONFIDENT} \times DUMMY_1=\lambda_{AVERAGE} \times DUMMY_1=\lambda_{SCARED} \times DUMMY_1$, $\lambda_{CONFIDENT} \times DUMMY_2=\lambda_{AVERAGE} \times DUMMY_2=\lambda_{SCARED} \times DUMMY_2$	669.12	<0.0001	664.58	<0.0001	1121.90	<0.0001	1111.2	<0.0001
$\lambda_{CONFIDENT}=\lambda_{AVERAGE}$, $\lambda_{CONFIDENT} \times DUMMY_1=\lambda_{AVERAGE} \times DUMMY_1$, $\lambda_{CONFIDENT} \times DUMMY_2=\lambda_{AVERAGE} \times DUMMY_2$	127.72	<0.0001	126.01	<0.0001	301.32	<0.0001	299.29	<0.0001
$\lambda_{CONFIDENT}=\lambda_{SCARED}$, $\lambda_{CONFIDENT} \times DUMMY_1=\lambda_{SCARED} \times DUMMY_1$, $\lambda_{CONFIDENT} \times DUMMY_2=\lambda_{SCARED} \times DUMMY_2$	666.86	<0.0001	663.67	<0.0001	1121.20	<0.0001	1110.8	<0.0001
$\lambda_{AVERAGE}=\lambda_{SCARED}$, $\lambda_{AVERAGE} \times DUMMY_1=\lambda_{SCARED} \times DUMMY_1$, $\lambda_{AVERAGE} \times DUMMY_2=\lambda_{SCARED} \times DUMMY_2$	198.09	<0.0001	196.38	<0.0001	255.50	<0.0001	251.61	<0.0001
$\lambda_{CONFIDENT}+\lambda_{CONFIDENT}xDUMMY_1+\lambda_{CONFIDENT}xDUMMY_2=\lambda_{AVERAGE}+\lambda_{AVERAGE} \times DUMMY_1+\lambda_{AVERAGE} \times DUMMY_2=\lambda_{SCARED}+\lambda_{SCARED} \times DUMMY_1+\lambda_{SCARED} \times DUMMY_2$	326.30	<0.0001			279.00	<0.0001		
$\lambda_{CONFIDENT}+\lambda_{CONFIDENT}xDUMMY_1+\lambda_{CONFIDENT}xDUMMY_2=\lambda_{AVERAGE}+\lambda_{AVERAGE} \times DUMMY_1+\lambda_{AVERAGE} \times DUMMY_2$	258.85	<0.0001			238.57	<0.0001		
$\lambda_{CONFIDENT}+\lambda_{CONFIDENT}xDUMMY_1+\lambda_{CONFIDENT}xDUMMY_2=\lambda_{SCARED}+\lambda_{SCARED} \times DUMMY_1+\lambda_{SCARED} \times DUMMY_2$	209.95	<0.0001			173.41	<0.0001		
$\lambda_{AVERAGE}+\lambda_{AVERAGE}xDUMMY_1+\lambda_{AVERAGE} \times DUMMY_2=\lambda_{SCARED}+\lambda_{SCARED} \times DUMMY_1+\lambda_{SCARED} \times DUMMY_2$	340.30	<0.0001			480.46	<0.0001		
$DUMMY_1=DUMMY_2=0$	1559.20	<0.0001	1554.60	<0.0001	1486.30	<0.0001	1476.90	<0.0001
$\lambda_{CONFIDENT} \times DUMMY_1=\lambda_{CONFIDENT} \times DUMMY_2=0$	598.63	<0.0001			468.81	<0.0001		
$\lambda_{AVERAGE} \times DUMMY_1=\lambda_{AVERAGE} \times DUMMY_2=0$	456.21	<0.0001			466.30	<0.0001		
$\lambda_{SCARED} \times DUMMY_1=\lambda_{SCARED} \times DUMMY_2=0$	504.36	<0.0001			598.81	<0.0001		

Reaction-based classification 2

	Glosten-Harris				Madhavan-Smidt			
	Spec 1		Spec 2		Spec 1		Spec 2	
Variable	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**
λ_{DUMB}	0.537	(102.29)	0.534	(103.21)	1.022	(234.51)	1.020	(237.42)
λ_{DUMB} x $DUMMY_1$	0.610	(21.56)			0.262	(16.36)		
λ_{DUMB} x $DUMMY_2$	0.653	(18.99)			0.411	(19.67)		
$\lambda_{AVERAGE}$	0.548	(91.04)	0.549	(92.82)	1.034	(215.40)	1.034	(219.39)
$\lambda_{AVERAGE}$ x $DUMMY_1$	0.504	(15.08)			0.239	(13.53)		
$\lambda_{AVERAGE}$ x $DUMMY_2$	0.617	(15.12)			0.359	(15.82)		
λ_{SMART}	0.557	(92.89)	0.559	(94.83)	1.038	(217.06)	1.040	(221.34)
λ_{SMART} x $DUMMY_1$	0.491	(14.99)			0.228	(13.63)		
λ_{SMART} x $DUMMY_2$	0.609	(15.35)			0.333	(15.57)		
λx $DUMMY_1$			0.543	(30.11)			0.244	(25.00)
λx $DUMMY_2$			0.629	(28.70)			0.369	(29.26)
ψ	-5.360	(-234.75)	-5.361	(-234.74)	-2.979	(-128.43)	-2.981	(-128.41)
α					1216.78	(149.54)	1216.92	(149.55)
γ					1.409	(19.74)	1.410	(19.72)
Adjusted R^2	0.0892		0.0892		0.0725		0.0725	
Hypothesis	χ^2	**p-value**	χ^2	**p-value**	χ^2	**p-value**	χ^2	**p-value**
λ_{DUMB} =$\lambda_{AVERAGE}$=λ_{SMART} , λ_{DUMB} x $DUMMY_1$=$\lambda_{AVERAGE}$ x $DUMMY_1$=λ_{SMART} x $DUMMY_1$, λ_{DUMB} x $DUMMY_2$ =$\lambda_{AVERAGE}$ x $DUMMY_2$=λ_{SMART} x $DUMMY_2$	21.59	0.0014	11.38	0.0034	28.58	<0.0001	19.69	<0.0001
λ_{DUMB} =$\lambda_{AVERAGE}$, λ_{DUMB} x $DUMMY_1$=$\lambda_{AVERAGE}$ x $DUMMY_1$, λ_{DUMB} x $DUMMY_2$ =$\lambda_{AVERAGE}$ x $DUMMY_2$	10.39	0.0155	4.13	0.0421	12.45	0.0060	8.76	0.0031
λ_{DUMB} =λ_{SMART} , λ_{DUMB} x $DUMMY_1$=λ_{SMART} x $DUMMY_1$, λ_{DUMB} x $DUMMY_2$ =λ_{SMART} x $DUMMY_2$	19.06	0.0003	10.90	0.0010	26.74	<0.0001	18.13	<0.0001
$\lambda_{AVERAGE}$=λ_{SMART} , $\lambda_{AVERAGE}$ x $DUMMY_1$=λ_{SMART} x $DUMMY_1$, $\lambda_{AVERAGE}$ x $DUMMY_2$=λ_{SMART} x $DUMMY_2$	1.46	0.6923	1.38	0.2405	2.23	0.526	1.42	0.2333
λ_{DUMB}+λ_{DUMB}x$DUMMY_1$+ λ_{DUMB}x$DUMMY_2$=$\lambda_{AVERAGE}$+ $\lambda_{AVERAGE}$ x $DUMMY_1$+$\lambda_{AVERAGE}$ x $DUMMY_2$=λ_{SMART} +λ_{SMART} x $DUMMY_1$+λ_{SMART} x $DUMMY_2$	531.24	<0.0001			510.29	<0.0001		
λ_{DUMB}+λ_{DUMB}x$DUMMY_1$+ λ_{DUMB}x$DUMMY_2$=$\lambda_{AVERAGE}$+ $\lambda_{AVERAGE}$ x $DUMMY_1$+$\lambda_{AVERAGE}$ x $DUMMY_2$	379.98	<0.0001			382.55	<0.0001		
λ_{DUMB}+λ_{DUMB}x$DUMMY_1$+ λ_{DUMB}x$DUMMY_2$ =λ_{SMART} +λ_{SMART} x $DUMMY_1$+λ_{SMART} x $DUMMY_2$	388.30	<0.0001			384.56	<0.0001		
$\lambda_{AVERAGE}$+ $\lambda_{AVERAGE}$x$DUMMY_1$+$\lambda_{AVERAGE}$ x $DUMMY_2$=λ_{SMART} +λ_{SMART} x $DUMMY_1$+λ_{SMART} x $DUMMY_2$	265.32	<0.0001			283.72	<0.0001		
$DUMMY_1$=$DUMMY_2$ =0	1698.70	<0.0001	1688.40	<0.0001	1412.40	<0.0001	1404.50	<0.0001
λ_{DUMB} x $DUMMY_1$=λ_{DUMB} x $DUMMY_2$=0	804.90	<0.0001			632.26	<0.0001		
$\lambda_{AVERAGE}$ x $DUMMY_1$=$\lambda_{AVERAGE}$ x $DUMMY_2$=0	444.92	<0.0001			417.47	<0.0001		
λ_{SMART} x $DUMMY_1$=λ_{SMART} x $DUMMY_2$=0	448.83	<0.0001			410.83	<0.0001		

Strategy-based classification

	Glosten-Harris				Madhavan-Smidt			
	Spec 1		Spec 2		Spec 1		Spec 2	
Variable	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**
λ_{SNEAKY}	0.492	(76.67)	0.494	(78.59)	0.987	(196.51)	0.991	(201.83)
$\lambda_{SNEAKY} \times DUMMY_1$	0.491	(14.58)			0.203	(11.68)		
$\lambda_{SNEAKY} \times DUMMY_2$	0.598	(16.78)			0.293	(15.44)		
$\lambda_{AVERAGE}$	0.543	(128.83)	0.541	(129.45)	1.034	(266.39)	1.032	(267.88)
$\lambda_{AVERAGE} \times DUMMY_1$	0.578	(25.59)			0.248	(20.16)		
$\lambda_{AVERAGE} \times DUMMY_2$	0.631	(21.13)			0.391	(21.63)		
$\lambda_{SKEPTIC}$	0.780	(65.58)	0.786	(67.41)	1.161	(142.43)	1.161	(145.86)
$\lambda_{SKEPTIC} \times DUMMY_1$	0.361	(5.33)			0.223	(6.47)		
$\lambda_{SKEPTIC} \times DUMMY_2$	0.590	(5.89)			0.383	(6.65)		
$\lambda \times DUMMY_1$			0.538	(29.78)			0.233	(23.97)
$\lambda \times DUMMY_2$			0.615	(27.62)			0.346	(26.97)
ψ	-5.370	(-235.24)	-5.363	(-235.22)	-3.081	(-133.44)	-3.080	(-133.41)
α					1212.94	(147.85)	1213.63	(147.86)
γ					1.310	(18.28)	1.300	(18.25)
Adjusted R^2	0.0895		0.0895		0.0669		0.0669	
Hypothesis	χ^2	**p-value**	χ^2	**p-value**	χ^2	**p-value**	χ^2	**p-value**
$\lambda_{SNEAKY} = \lambda_{AVERAGE} = \lambda_{SKEPTIC}$, $\lambda_{SNEAKY} \times DUMMY_1 = \lambda_{AVERAGE} \times DUMMY_1 = \lambda_{SKEPTIC} \times DUMMY_1$, $\lambda_{SNEAKY} \times DUMMY_2 = \lambda_{AVERAGE} \times DUMMY_2 = \lambda_{SKEPTIC} \times DUMMY_2$	518.89	<0.0001	506.54	<0.0001	437.53	<0.0001	419.09	<0.0001
$\lambda_{SNEAKY} = \lambda_{AVERAGE}$, $\lambda_{SNEAKY} \times DUMMY_1 = \lambda_{AVERAGE} \times DUMMY_1$, $\lambda_{SNEAKY} \times DUMMY_2 = \lambda_{AVERAGE} \times DUMMY_2$	48.46	<0.0001	43.59	<0.0001	89.50	<0.0001	71.32	<0.0001
$\lambda_{SNEAKY} = \lambda_{SKEPTIC}$, $\lambda_{SNEAKY} \times DUMMY_1 = \lambda_{SKEPTIC} \times DUMMY_1$, $\lambda_{SNEAKY} \times DUMMY_2 = \lambda_{SKEPTIC} \times DUMMY_2$	414.18	<0.0001	500.76	<0.0001	429.22	<0.0001	418.98	<0.0001
$\lambda_{AVERAGE} = \lambda_{SKEPTIC}$, $\lambda_{AVERAGE} \times DUMMY_1 = \lambda_{SKEPTIC} \times DUMMY_1$, $\lambda_{AVERAGE} \times DUMMY_2 = \lambda_{SKEPTIC} \times DUMMY_2$	505.11	<0.0001	404.94	<0.0001	290.08	<0.0001	290.07	<0.0001
$\lambda_{SNEAKY} + \lambda_{SNEAKY} \times DUMMY_1 + \lambda_{SNEAKY} \times DUMMY_2 = \lambda_{AVERAGE} + \lambda_{AVERAGE} \times DUMMY_1 + \lambda_{AVERAGE} \times DUMMY_2 = \lambda_{SKEPTIC} + \lambda_{SKEPTIC} \times DUMMY_1 + \lambda_{SKEPTIC} \times DUMMY_2$	298.29	<0.0001			279.98	<0.0001		
$\lambda_{SNEAKY} + \lambda_{SNEAKY} \times DUMMY_1 + \lambda_{SNEAKY} \times DUMMY_2 = \lambda_{AVERAGE} + \lambda_{AVERAGE} \times DUMMY_1 + \lambda_{AVERAGE} \times DUMMY_2$	291.94	<0.0001			277.49	<0.0001		
$\lambda_{SNEAKY} + \lambda_{SNEAKY} \times DUMMY_1 + \lambda_{SNEAKY} \times DUMMY_2 = \lambda_{SKEPTIC} + \lambda_{SKEPTIC} \times DUMMY_1 + \lambda_{SKEPTIC} \times DUMMY_2$	89.84	<0.0001			44.36	<0.0001		
$\lambda_{AVERAGE} + \lambda_{AVERAGE} \times DUMMY_1 + \lambda_{AVERAGE} \times DUMMY_2 = \lambda_{SKEPTIC} + \lambda_{SKEPTIC} \times DUMMY_1 + \lambda_{SKEPTIC} \times DUMMY_2$	61.70	<0.0001			90.72	<0.0001		
$DUMMY_1 = DUMMY_2 = 0$	1618.40	<0.0001	1606.10	<0.0001	1243.40	<0.0001	1224.90	<0.0001
$\lambda_{SNEAKY} \times DUMMY_1 = \lambda_{SNEAKY} \times DUMMY_2 = 0$	478.74	<0.0001			352.89	<0.0001		
$\lambda_{AVERAGE} \times DUMMY_1 = \lambda_{AVERAGE} \times DUMMY_2 = 0$	1077.70	<0.0001			837.48	<0.0001		
$\lambda_{SKEPTIC} \times DUMMY_1 = \lambda_{SKEPTIC} \times DUMMY_2 = 0$	61.90	<0.0001			83.82	<0.0001		

Additional tables: Classifications based on sums of absolute values of γ.

In the main body of the paper, the results for reaction based-classifications are based on sum of squares of γ's. Here we report the results that are based on sum of absolute values of γ's.

Table 3, Panel D: Linear regression of volatility

Panel D reports the result of WLS estimate of the regression $\sigma_j=\alpha_0+\alpha_H H_{it}+\beta C$, where H_{it} is given either by Eq. (2) for classification 1or by Eq. (3) for classification 2. C represents lagged control variables (volatility over past 10 minutes, σ_{-10M}, and 1 hour, σ_{-1H}). T-statistics is reported in parenthesis. Estimates are multiplied by 10,000.

	σ_{10}						σ_{20}					
Variable	**Value**	**t-stat.**	**Value**	**t-stat.**	**Value**	**t-stat.**	**Value**	**t-stat.**	**Value**	**t-stat.**	**Value**	**t-stat.**
						Reaction-based classification 1						
INTERCEPT	0.52	(3.65)	0.41	(3.17)	0.41	(3.15)	0.28	(2.56)	0.21	(2.05)	0.21	(2.04)
α_h	39.08	(18.12)	27.72	(18.22)	27.89	(17.07)	26.15	(19.50)	18.92	(16.70)	18.95	(16.62)
σ_{-10M}	0.22	(7.02)			0.08	(2.68)	0.10	(6.73)			0.01	(0.98)
σ_{-1H}			0.12	(25.78)	0.10	(17.15)			0.07	(24.15)	0.06	(19.73)
Adjusted R^2	0.0663		0.0934		0.0986		0.0238		0.0442		0.0445	
						Reaction-based classification 2						
INTERCEPT	2.11	(13.90)	1.52	(12.41)	1.53	(12.29)	1.31	(13.98)	0.94	(11.43)	0.94	(11.46)
α_h	32.34	(14.25)	22.95	(12.87)	22.94	(12.18)	22.06	(16.15)	16.01	(13.94)	16.01	(13.79)
σ_{-10M}	0.22	(7.04)			0.08	(2.66)	0.10	(6.77)			0.01	(0.96)
σ_{-1H}			0.12	(25.99)	0.10	(17.23)			0.07	(24.47)	0.06	(19.93)
Adjusted R^2	0.0642		0.0923		0.0975		0.0224		0.0435		0.0437	

Table 4: Market Depth and type of market makers

This table reports estimates of market depth. λ_{GH} is the estimate of market depth from Glosten and Harris specification, $\Delta p_{i,t} = \lambda_i q_{i,t} + \psi(D_{i,t} - D_{i,t-1}) + \varepsilon_{i,t}$; λ_{MS} is the estimate of market depth from Madhavan and Smidt specification: $\Delta p_{i,t} = \lambda_i q_{i,t} + (\psi/\pi) D_{i,t} - \psi D_{i,t-1} + (\gamma/\pi) I_{i,t} - \gamma I_{i,t-1} + \eta_{i,t}$. Here $\Delta p_{i,t}$ is the price change at transaction originated by a dealer belonging to the *ith* class at time *t*, and $q_{i,t}$ is the signed order flow at time *t* of the trade originated by such a dealer, $D_{i,t}$ denotes the sign of the order placed by the dealer belonging to the *i-th* class at time *t* (+1 for a buyer-initiated trade and -1 for a seller-initiated trade), $D_{i,t-1}$ is the sign of the order immediately preceding the order placed by the dealer belonging to the *ith* class at time *t*, and $\pi = 1/(1+\alpha\lambda)$. DUMMY takes the value 1 if transaction is originated by ordinary market maker and 0 ottherwise. I_t represents market maker's inventory at time *t*. There is no serial correlation for ε_t, in the Glosten-Harris specification, while we use a MA(1) for η_t in the Madhavan-Smidt specification. The subscript *i* refers to the category considered within each classification. Both specifications are estimated by pooling all the observations and using dummies to differentiate on the basis of the dealers originating them. We also report the result of Wald tests of the difference between λ's for different classes of dealers. 246,233 observations are used. Estimates of γ are multiplied by 1,000,000. All other estimates, except α, are multiplied by 1,000.

Reaction-based classification 1

	Glosten-Harris Specification		Madhavan-Smidt Specification		Madhavan-Smidt Specification w/o inventory	
Variable	**Value**	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**
$\lambda_{CONFIDENT}$	0.289	(29.55)	0.741	(92.41)	0.732	(89.92)
$\lambda_{CONFIDENT} \times DUMMY_{OMM}$	0.220	(18.42)	0.250	(26.33)	0.265	(27.77)
$\lambda_{AVERAGE}$	0.444	(57.62)	0.942	(154.16)	0.941	(175.09)
$\lambda_{AVERAGE} \times DUMMY_{OMM}$	0.068	(6.20)	0.062	(7.74)	0.070	(8.57)
λ_{SCARED}	0.607	(96.87)	1.072	(206.59)	1.076	(205.82)
$\lambda_{SCARED} \times DUMMY_{OMM}$	-0.029	(-2.43)	0.016	(2.04)	0.021	(2.62)
ψ	-5.377	(-235.82)	-2.488	(-112.79)	-2.487	(-112.97)
α			1178.76	(130.53)	1144.08	(148.28)
γ			0.494	(8.19)		
Adjusted R^2	0.0879		0.0677		0.0677	
Hypothesis	χ^2	p-value	χ^2	p-value	χ^2	p-value
$\lambda_{CONFIDENT}=\lambda_{AVERAGE}=\lambda_{SCARED}$	895.06	<0.0001	1601.6	<0.0001	16165	<0.0001
$\lambda_{CONFIDENT}=\lambda_{AVERAGE}$	158.97	<0.0001	439.09	<0.0001	5619.4	<0.0001
$\lambda_{CONFIDENT}=\lambda_{SCARED}$	801.21	<0.0001	1466.9	<0.0001	4513.5	<0.0001
$\lambda_{AVERAGE}=\lambda_{SCARED}$	308.76	<0.0001	429.48	<0.0001	8407.8	<0.0001

Reaction-based classification 2

	Value	**t-stat**	**Value**	**t-stat**	**Value**	**t-stat**
λ_{DUMB}	0.446	(55.43)	0.948	(160.31)	0.946	(151.86)
$\lambda_{DUMB} \times DUMMY_{OMM}$	0.122	(11.72)	0.114	(16.29)	0.142	(19.15)
$\lambda_{AVERAGE}$	0.537	(70.31)	1.027	(182.81)	1.032	(175.09)
$\lambda_{AVERAGE} \times DUMMY_{OMM}$	-0.041	(-3.86)	-0.031	(-4.26)	-0.020	(-2.21)
λ_{SMART}	0.522	(76.53)	1.028	(200.24)	1.030	(192.33)
$\lambda_{SMART} \times DUMMY_{OMM}$	-0.009	(-0.80)	-0.030	(-4.64)	-0.009	(-1.67)
ψ	-5.341	(-233.77)	-3.050	(-130.98)	-3.020	(-129.88)
α			1206.81	(149.23)	1118.71	(169.25)
γ			-0.154	(-20.82)		
Adjusted R^2	0.0882		0.0717		0.0714	
Hypothesis	χ^2	p-value	χ^2	p-value	χ^2	p-value
$\lambda_{DUMB}=\lambda_{AVERAGE}=\lambda_{SMART}$	153	<0.0001	310.26	<0.0001	18500	<0.0001
$\lambda_{DUMB}=\lambda_{AVERAGE}$	46.15	<0.0001	207.18	<0.0001	4095.6	<0.0001
$\lambda_{DUMB}=\lambda_{SMART}$	24.19	<0.0001	224.49	<0.0001	7231.4	<0.0001
$\lambda_{AVERAGE}=\lambda_{SMART}$	2.77	0.0962	0.02	0.988	8487.9	<0.0001

Spectral decomposition of profits

We follow methodology developed by Hashbrouck and Sofianos (1993) and report mean and median values of profits along with standard deviations and inter-quartile range (I.Q.R.). The spectrum is divided into short-term (less than 10 transactions), medium-term, and long term (more than 100 transactions). Thinly traded bonds (less than 25 transactions per day and inactive market makers (less than 10 transactions per day) were removed from the dataset.

	MEDIAN	I.Q.R.	MEAN	STD.DEV.
Strategy-based Classification				
SNEAKY				
All Spectrum	0.0023	0.9951	-0.0003	3.7889
Long-Term Profits	0.0000	0.4542	-0.0068	1.3162
Medium-term Profits	0.0275	0.5792	0.0292	2.7796
Short-Term Profits	-0.0594	0.5051	-0.0222	1.6206
AVERAGE				
All Spectrum	0.0000	0.8564	-0.0453	3.7363
Long-Term Profits	-0.0009	0.4675	0.0043	2.5311
Medium-term Profits	0.0070	0.3845	0.0158	1.1273
Short-Term Profits	-0.0224	0.4524	-0.0654	2.3475
SKEPTIC				
All Spectrum	0.0087	0.9838	0.0618	5.5128
Long-Term Profits	0.0046	0.5658	0.0228	4.5317
Medium-term Profits	0.0147	0.4551	0.0696	1.3386
Short-Term Profits	-0.0024	0.4327	-0.0305	1.6630
Official Classification				
Specialist				
All Spectrum	0.0000	0.9959	-0.0349	4.0745
Long-Term Profits	0.0021	0.5695	0.0147	3.2977
Medium-term Profits	0.0085	0.4509	0.0252	1.2667
Short-Term Profits	-0.0258	0.4932	-0.0749	1.9002
Ordinary Market Maker				
All Spectrum	-0.0090	0.7700	-0.0888	3.7690
Long-Term Profits	0.0000	0.4190	-0.0026	2.0054
Medium-term Profits	0.0033	0.3537	0.0018	1.0855
Short-Term Profits	-0.0324	0.4276	-0.0880	2.4382
Reaction-based Classification 1				
CONFIDENT				
All Spectrum	-0.0166	0.8322	-0.1146	2.4240
Long-Term Profits	0.0000	0.4728	0.0190	1.7694
Medium-term Profits	0.0012	0.3737	-0.0116	1.0376
Short-Term Profits	-0.0336	0.4397	-0.1220	1.1915
AVERAGE				
All Spectrum	0.0000	0.9888	-0.0897	4.8781
Long-Term Profits	0.0000	0.5596	-0.0276	3.3000
Medium-term Profits	0.0088	0.4423	0.0211	1.3524
Short-Term Profits	-0.0295	0.4773	-0.0831	2.9368
SCARED				
All Spectrum	0.0023	0.8509	0.0187	3.6359
Long-Term Profits	0.0049	0.4540	0.0389	2.8829
Medium-term Profits	0.0067	0.3889	0.0282	1.1085
Short-Term Profits	-0.0237	0.4610	-0.0484	1.4909

Reaction-based Classification 2

DUMB				
All Spectrum	0.0000	0.7127	-0.1079	3.3186
Long-Term Profits	0.0000	0.3861	0.0016	1.7695
Medium-term Profits	0.0039	0.3200	-0.0141	1.0986
Short-Term Profits	-0.0132	0.3859	-0.0954	1.8697
AVERAGE				
All Spectrum	0.0000	0.9531	-0.0481	4.2550
Long-Term Profits	0.0000	0.5197	0.0048	3.3462
Medium-term Profits	0.0091	0.4367	0.0238	1.0842
Short-Term Profits	-0.0337	0.4815	-0.0768	1.6652
SMART				
All Spectrum	0.0181	1.0987	0.0023	4.2756
Long-Term Profits	0.0069	0.6529	-0.0098	3.2285
Medium-term Profits	0.0077	0.4895	0.0201	1.3958
Short-Term Profits	-0.0440	0.5441	-0.0080	2.7672