Internet Appendix for "Behavioral Home Bias in a Real Market Setting: Evidence from Online Sports Betting"

Angie Andrikogiannopoulou and Filippos Papakonstantinou*

^{*}Both authors are at King's College London.

In this appendix, we present some additional tables to support the baseline results in the paper.

Table IA.1 is similar to Table 4 in the paper, with the difference that it presents estimated results from regression models that exclude observations with extreme returns, specifically observations with returns in the top 1% of the distribution. We observe that the adjusted R^2 of the models increases from less than 0.1% to about 2% in most models, but the estimation coefficients of interest (on the home dummies, the measures of home bias, and their interactions) are qualitatively unchanged and remain statistically insignificant.

Table IA.2 is also similar to Table 4 in the paper, with the difference that (i) it presents estimated results from regression models where the dependent variable is not a wager's return but a dummy indicating whether the wager's selected outcome was realized, and (ii) the wager's implied win probability replaces the wagers price as a control. Similar to our observation above, we see that the adjusted R^2 of the models increases from less than 0.1% to about 9% in most models, but the estimation coefficients of interest (on the home dummies, the measures of home bias, and their interactions) are qualitatively unchanged and remain statistically insignificant.

Table IA.3 is also similar to Table IA.2, with the difference that (i) it presents estimated coefficients from logit instead of OLS regression models, and (ii) it does not contain any fixed effects. We see that the pseudo R^2 of the models is high at between 6% and 12% across models, but the estimation coefficients of interest (on the home dummies, the measures of home bias, and their interactions) are qualitatively unchanged and remain statistically insignificant.

Table IA.1: Individuals' Returns — Excluding Extreme Returns

This table presents results from OLS regressions in which the dependent variable is the return realized by individual *i* on the wager backing team *j* in match *m* in week *t*. Panel A presents results from specifications in which the explanatory variables include home-team dummies, individual-specific measures of the preference for home teams, interaction terms, and controls, as well as season fixed effects. Panel B is identical to Panel A, except that the season fixed effects and the individual-specific measures of the preference for home teams are replaced with individual fixed effects. *Local (Domestic)* is a dummy indicating bets in which an individual backs a local (domestic) team, and *Domestic Player* is a dummy indicating bets in which an individual backs a team with at least one player whose country of origin is the same as the individual's country of residence. *Local Bias, Domestic Bias*, and *Domestic-player Bias* are individual-specific measures of the preference toward local, domestic, and domestic-player teams measured as the mean difference between the individual and market portfolio weights allocated to the respective team group. *Price* is the decimal odds of a wager backing team *j* in match *m*. *Home Field* is a dummy indicating the selected team has home-field advantage. *Visible Team* is a dummy indicating bets that back teams that are highly ranked according to the previous season's annual rankings. *Streak* is the duration of the active winning/losing streak of the backed team. The regression includes all wagers in our sample, except the ones with extreme returns (i.e., in the top 1%). In column 5 (6), the sample is limited to matches between domestic teams (foreign teams), and in column 7 to international matches. *t*-statistics using standard errors clustered at the match level are reported below the coefficients. * /** /*** indicate significance at the 10% /5% /1% levels.

Panel A: With Season Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Local	Domestic	Domestic Player	All	Domestic vs. Domestic	Foreign vs. Foreign	Domestic vs. Foreign
Price	-0.115 ***	-0.115 ***	-0.115 ***	-0.115 ***	-0.146 ***	-0.110 ***	-0.117 ***
	-12.843	-12.823	-12.830	-12.796	-13.340	-10.572	-3.449
Home Field	-0.010	-0.010	-0.010	-0.010	-0.046	-0.005	-0.065
	-0.564	-0.572	-0.566	-0.563	-0.686	-0.279	-0.348
Streak	-0.002	-0.002	-0.002	-0.002	-0.014	-0.002	0.035
	-0.894	-0.921	-0.907	-0.933	-1.521	-0.679	1.081
Visible Team	-0.010	-0.012	-0.011	-0.012	-0.351	-0.007	-0.471 **
	-0.483	-0.606	-0.553	-0.596	-1.376	-0.325	-2.331
Local	-0.014			0.012	-0.017		
	-0.399			0.362	-0.541		
Domestic		-0.022		-0.046			-0.258
		-0.802		-0.839			-1.530
Domestic Player			-0.009	0.021		0.021	
			-0.361	0.434		0.436	
Local Bias	0.024			0.081	-0.058		
	0.358			0.899	-0.315		
Domestic Bias		0.008		-0.057			-0.043
		0.207		-0.301			-0.175
Domestic-player Bias			0.007	0.032		0.000	
			0.183	0.172		0.004	
Local × Local Bias	-0.063			-0.044	0.134		
	-0.401			-0.236	0.553		
Domestic × Domestic Bias		-0.045		-0.077			-0.108
		-0.587		-0.315			-0.363
Domestic Player × Domestic-player Bias			-0.065	0.041		0.058	
			-0.832	0.173		0.227	
Season FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-square	0.019	0.019	0.019	0.019	0.050	0.016	0.081
Observations	79,665	79,665	79,665	79,665	6,870	71,157	1,638

Panel B: With Individual Fixed Effects

	(1)	(2)	(3) Domestic	(4)	(5) Domestic	(6) Foreign	(7) Domestic
	Local	Domestic	Player	All	vs. Domestic	vs. Foreign	vs. Foreign
Price	-0.110 ***	-0.110 ***	-0.110 ***	-0.110 ***	-0.143 ***	-0.104 ***	-0.108 ***
	-12.225	-12.222	-12.224	-12.213	-12.493	-9.979	-3.558
Home Field	-0.012	-0.012	-0.012	-0.012	-0.053	-0.007	-0.059
	-0.665	-0.679	-0.670	-0.673	-0.799	-0.367	-0.333
Streak	-0.002	-0.002	-0.002	-0.002	-0.015 *	-0.002	0.042
	-0.955	-0.990	-0.975	-1.000	-1.659	-0.707	1.317
Visible Team	-0.009	-0.012	-0.011	-0.012	-0.098	-0.006	-0.507 ***
	-0.457	-0.611	-0.550	-0.594	-0.325	-0.279	-2.662
Local	-0.018			0.008	-0.019		
	-0.522			0.241	-0.478		
Domestic		-0.025		-0.049			-0.268
		-0.879		-0.888			-1.562
Domestic Player			-0.010	0.023		0.022	
			-0.395	0.469		0.455	
Local × Local Bias	-0.032			-0.012	0.066		
	-0.175			-0.058	0.243		
Domestic × Domestic Bias		-0.039		-0.060			-0.035
		-0.430		-0.235			-0.074
Domestic Player × Domestic-player Bias			-0.067	0.023		0.066	
			-0.744	0.093		0.255	
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-square	0.021	0.021	0.021	0.021	0.048	0.018	0.063
Observations	79,665	79,665	79,665	79,665	6,837	71,157	1,534

Table IA.2: Individuals' Wins

This table presents results from OLS regressions in which the dependent variable is a dummy indicating a win by individual *i* on the wager backing team *j* in match *m* in week *t*. Panel A presents results from specifications in which the explanatory variables include home-team dummies, individual-specific measures of the preference for home teams, interaction terms, and controls, as well as season fixed effects. Panel B is identical to Panel A, except that the season fixed effects and the individual-specific measures of the preference for home teams are replaced with individual fixed effects. *Local (Domestic)* is a dummy indicating bets in which an individual backs a local (domestic) team, and *Domestic Player* is a dummy indicating bets in which an individual backs a team with at least one player whose country of origin is the same as the individual's country of residence. *Local Bias, Domestic Bias*, and *Domestic-player Bias* are individual-specific measures of the preference toward local, domestic, and domestic-player teams measured as the mean difference between the individual and market portfolio weights allocated to the respective team group. *Implied Win Probability* is the win probability implied by the quoted odds of a wager backing team *j* in match *m*. *Home Field* is a dummy indicating the selected team has home-field advantage. *Visible Team* is a dummy indicating bets that back teams that are highly ranked according to the previous season's annual rankings. *Streak* is the duration of the active winning/losing streak of the backed team. The regression includes all wagers in our sample. In column 5 (6), the sample is limited to matches between domestic teams (foreign teams), and in column 7 to international matches. *t*-statistics using standard errors clustered at the match level are reported below the coefficients. * /** /*** indicate significance at the 10% /5% /1% levels.

Panel A: With Season Fixed Effects

Panel A: With Season Fixed Effects								
	(1) Local	(2) Domestic	(3) Domestic Player	(4) All	(5) Domestic vs. Domestic	(6) Foreign vs. Foreign	(7) Domestic vs. Foreign	
Implied Win Probability	1.011 ***	1.012 ***	1.012 ***	1.011 ***	1.232 ***	0.985 ***	1.072 ***	
•	36.367	36.357	36.364	36.294	15.568	33.221	4.734	
Home Field	0.001	0.001	0.001	0.001	-0.018	0.004	-0.047	
	0.112	0.102	0.104	0.118	-0.509	0.392	-0.479	
Streak	-0.000	-0.000	-0.000	-0.000	-0.006	0.000	0.019	
	-0.029	-0.012	-0.019	-0.018	-1.163	0.146	1.273	
Visible Team	0.004	0.005	0.005	0.005	-0.145	0.009	-0.222*	
	0.363	0.406	0.407	0.414	-0.988	0.727	-1.791	
Local	0.017			0.009	-0.005			
	0.960			0.518	-0.305			
Domestic		0.013		0.005			-0.066	
		0.854		0.168			-0.776	
Domestic Player			0.011	0.005		0.004		
•			0.858	0.198		0.166		
Local Bias	0.035			0.031	0.010			
	1.027			0.673	0.110			
Domestic Bias		0.016		-0.031			-0.036	
		0.755		-0.315			-0.285	
Domestic-player Bias			0.016	0.034		0.013		
			0.771	0.355		0.616		
Local × Local Bias	-0.043			-0.016	-0.000			
	-0.496			-0.162	-0.001			
Domestic × Domestic Bias		-0.024		-0.039			-0.060	
		-0.614		-0.323			-0.396	
Domestic Player × Domestic-player Bias			-0.019	0.018		0.039		
			-0.469	0.150		0.305		
Season FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-square	0.089	0.089	0.089	0.089	0.154	0.082	0.159	
Observations	80,468	80,468	80,468	80,468	6,960	71,795	1,713	

Panel B: With Individual Fixed Effects

	(1) Local	(2) Domestic	(3) Domestic Player	(4) All	(5) Domestic vs. Domestic	(6) Foreign vs. Foreign	(7) Domestic
Implied Win Probability	0.986 ***	0.987 ***	0.987 ***	0.987 ***	1.228 ***	0.955 ***	vs. Foreign
implied will I loodolitty	33.646	33.659	33.666	33.635	15.189	30.432	4.508
Home Field	0.001	0.001	0.001	0.001	-0.020	0.004	-0.043
Trome Field	0.121	0.120	0.123	0.128	-0.569	0.400	-0.446
Streak	-0.000	-0.000	-0.000	-0.000	-0.006	0.000	0.022
Stream	-0.055	-0.038	-0.043	-0.046	-1.245	0.137	1.468
Visible Team	0.005	0.005	0.005	0.006	-0.002	0.010	-0.240 **
Visitore realit	0.416	0.457	0.461	0.468	-0.013	0.812	-2.050
Local	0.017	0	01.01	0.009	-0.006	0.012	2.000
Local	0.894			0.512	-0.277		
Domestic	0.05	0.012		0.004	0.277		-0.070
2011-011-01		0.782		0.121			-0.795
Domestic Player		0.7.02	0.011	0.006		0.004	0.7,50
			0.793	0.225		0.162	
Local × Local Bias	-0.047			-0.021	-0.038		
	-0.484			-0.187	-0.275		
Domestic × Domestic Bias	0	-0.027		-0.039	0.270		-0.086
Boniesae A Boniesae Blas		-0.590		-0.303			-0.366
Domestic Player × Domestic-player Bias			-0.020	0.014		0.052	
			-0.436	0.118		0.408	
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-square	0.091	0.091	0.091	0.091	0.151	0.084	0.139
Observations	80,468	80,468	80,468	80,468	6,929	71,795	1,616

Table IA.3: Individuals' Wins — Logit Estimation

This table presents coefficient estimates from logit regressions in which the dependent variable is a dummy indicating a win by individual *i* on the wager backing team *j* in match *m* in week *t*. The explanatory variables are home-team dummies, individual-specific measures of the preference for home teams, interaction terms, and controls. *Local (Domestic)* is a dummy indicating bets in which an individual backs a local (domestic) team, and *Domestic Player* is a dummy indicating bets in which an individual backs a team with at least one player whose country of origin is the same as the individual's country of residence. *Local Bias, Domestic Bias*, and *Domestic-player Bias* are individual-specific measures of the preference toward local, domestic, and domestic-player teams measured as the mean difference between the individual and market portfolio weights allocated to the respective team group. *Implied Win Probability* is the win probability implied by the quoted odds of a wager backing team *j* in match *m*. *Home Field* is a dummy indicating the selected team has home-field advantage. *Visible Team* is a dummy indicating bets that back teams that are highly ranked according to the previous season's annual rankings. *Streak* is the duration of the active winning/losing streak of the backed team. The regression includes all wagers in our sample. In column 5 (6), the sample is limited to matches between domestic teams (foreign teams), and in column 7 to international matches. *t*-statistics using standard errors clustered at the match level are reported below the coefficients. * /** /*** indicate significance at the 10% /5% /1% levels.

	(1) Local	(2) Domestic	(3) Domestic Player	(4) All	(5) Domestic vs. Domestic	(6) Foreign vs. Foreign	(7) Domestic vs. Foreign
Implied Win Probability	4.464 ***	4.469 ***	4.468 ***	4.463 ***	5.730 ***	4.313 ***	5.013 ***
	31.450	31.445	31.449	31.384	12.428	28.981	3.777
Home Field	0.000	-0.000	-0.000	0.001	-0.085	0.014	-0.277
	0.010	-0.004	-0.001	0.014	-0.514	0.327	-0.587
Streak	-0.001	-0.001	-0.001	-0.001	-0.025	0.000	0.093
	-0.134	-0.115	-0.121	-0.122	-1.098	0.035	1.315
Visible Team	0.019	0.021	0.021	0.022	0.296	0.041	-1.051 *
	0.361	0.394	0.394	0.403	0.400	0.757	-1.867
Local	0.074			0.038	-0.016		
	0.907			0.492	-0.193		
Domestic		0.054		0.021			-0.256
		0.817		0.161			-0.644
Domestic Player			0.049	0.021		0.022	
·			0.832	0.188		0.195	
Local Bias	0.171			0.127	0.097		
	1.110			0.597	0.226		
Domestic Bias		0.086		-0.272			-0.158
		0.921		-0.615			-0.270
Domestic-player Bias			0.091	0.308		0.081	
			0.982	0.715		0.876	
Local × Local Bias	-0.145			-0.022	-0.027		
	-0.351			-0.047	-0.044		
Domestic × Domestic Bias		-0.101		-0.228			-0.236
		-0.557		-0.407			-0.334
Domestic Player × Domestic-player Bias			-0.076	0.134		0.235	
			-0.418	0.245		0.404	
Constant	-2.115 ***	-2.120 ***	-2.122 ***	-2.122 ***	-2.611 ***	-2.059 ***	-1.904 ***
	-35.972	-35.736	-35.792	-35.784	-14.061	-33.266	-3.584
Pseudo R-square	0.067	0.067	0.067	0.067	0.119	0.062	0.125
Observations	80,468	80,468	80,468	80,468	6,960	71,795	1,713