

Internet Appendices for
Conditional Volatility Persistence: Further Evidence

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Appendix A: Summary Statistics of Individual Indices

Panel A: Before the GFC (2000-2007)

	Average	Median	St Dev	AC(1)	$\sum_{k=1}^{10} AC(k)$
Developed					
Amsterdam AEX	1.233	0.588	2.01	0.486***	0.91***
Australia AORD	0.299	0.185	0.523	0.267***	0.704***
Brussels BFX	0.818	0.432	1.187	0.369***	0.886***
Canada GSPTSE	0.438	0.267	0.636	0.329***	0.708***
Denmark OMXC20	0.857	0.51	1.23	0.195***	0.666***
Euro STOXX50E	1.578	0.796	2.489	0.483***	0.913***
Finland OMXHPI	0.766	0.415	1.053	0.185***	0.656***
France FCHI	1.323	0.753	1.993	0.463***	0.896***
Germany DAX	2.004	0.998	3.094	0.397***	0.914***
HK HSI	1.006	0.693	1.147	0.205***	0.872***
Japan N225	1.085	0.854	0.961	0.315***	0.842***
Norway OSEAX	1.027	0.657	1.252	0.239***	0.784***
Spanish IBEX	1.081	0.656	1.353	0.4***	0.913***
Spanish SMSI	0.408	0.261	0.482	0.316***	0.763***
Sweden OMXSPI	0.799	0.42	1.08	0.268***	0.72***
Switzerland SSMI	0.821	0.415	1.362	0.467***	0.905***
UK FTSE	1.028	0.557	1.806	0.23***	0.821***
US DJI	0.969	0.582	1.311	0.345***	0.864***
US NASDAQ	1.629	0.818	2.508	0.425***	0.898***
US Russell	0.421	0.289	0.542	0.261***	0.775***
US SP500	0.928	0.558	1.169	0.402***	0.885***
Emerging					
Brazil BVSP	1.553	1.168	1.439	0.322***	0.74***
China SSEC	1.483	0.77	2.306	0.544***	0.823***
Indian BSESN	1.953	1.095	4.45	0.355***	0.61***
Indian NIFTY50	1.366	0.744	4.256	0.333***	0.594***
Korea KS11	1.783	1.209	1.933	0.37***	0.861***
Mexico MXX	0.728	0.366	1.308	0.216***	0.682***
Pakistan KSE	1.407	0.75	2.027	0.392***	0.806***

Panel B: During the GFC (2008-2009)

	Average	Median	St Dev	AC(1)	$\sum_{k=1}^{10} AC(k)$
Developed					
Amsterdam AEX	2.753	1.638	3.621	0.462***	0.891***
Australia AORD	1.381	0.853	1.671	0.321***	0.827***
Brussels BFX	2.008	1.274	2.83	0.333***	0.823***
Canada GSPTSE	3.99	1.511	14.276	0.23***	0.646***
Denmark OMXC20	3.655	1.762	6.407	0.327***	0.842***
Euro STOXX50E	3.501	1.721	7.106	0.247***	0.818***
Finland OMXHPI	3.705	1.852	6.338	0.318***	0.813***
France FCHI	3.005	1.777	4.627	0.341***	0.857***
Germany DAX	3.306	1.769	5.422	0.438***	0.851***
HK HSI	2.779	1.721	4.014	0.446***	0.851***
Japan N225	2.277	1.25	3.451	0.495***	0.929***
Norway OSEAX	3.882	1.901	6.214	0.274***	0.851***
Spanish IBEX	2.419	1.508	3.205	0.456***	0.844***
Spanish SMSI	2.028	1.278	2.719	0.516***	0.834***
Sweden OMXSPI	3.068	1.61	5.036	0.275***	0.836***
Switzerland SSMI	2.128	1.31	2.771	0.453***	0.862***
UK FTSE	3.377	1.788	6.42	0.259***	0.809***
US DJI	3.409	1.373	6.356	0.354***	0.9***
US NASDAQ	2.513	1.348	3.661	0.39***	0.889***
US Russell	2.209	1.113	3.474	0.364***	0.87***
US SP500	3.496	1.427	6.012	0.339***	0.9***
Emerging					
Brazil BVSP	3.994	1.709	6.543	0.402***	0.911***
China SSEC	3.929	3.036	3.394	0.372***	0.743***
Indian BSESN	3.781	2.5	6.668	0.329***	0.608***
Indian NIFTY50	4.134	2.542	8.915	0.321***	0.542***
Korea KS11	2.542	1.241	4.733	0.402***	0.894***
Mexico MXX	2.164	1.164	3.581	0.284***	0.831***
Pakistan KSE	2.199	1.314	2.599	0.236***	0.803***

Panel C: After the GFC (2010-2018)

	Average	Median	St Dev	AC(1)	$\sum_{k=1}^{10} AC(k)$
Developed					
Amsterdam AEX	0.784	0.491	1.147	0.386***	0.815***
Australia AORD	0.426	0.276	0.559	0.287***	0.746***
Brussels BFX	0.703	0.46	0.917	0.45***	0.826***
Canada GSPTSE	0.496	0.276	1.031	0.202***	0.661***
Denmark OMXC20	0.891	0.497	3.38	0.046**	0.284***
Euro STOXX50E	1.26	0.792	1.962	0.297***	0.772***
Finland OMXHPI	0.809	0.405	5.092	0.03	0.19***
France FCHI	1.068	0.693	1.42	0.459***	0.848***
Germany DAX	1.068	0.66	1.5	0.475***	0.866***
HK HSI	0.58	0.411	0.737	0.302***	0.714***
Japan N225	0.768	0.435	1.507	0.386***	0.691***
Norway OSEAX	0.905	0.502	1.517	0.262***	0.782***
Spanish IBEX	1.645	1.127	2.341	0.428***	0.764***
Spanish SMSI	1.506	0.959	2.676	0.274***	0.674***
Sweden OMXSPI	0.692	0.334	2.682	0.076***	0.556***
Switzerland SSMI	0.588	0.363	1.292	0.257***	0.711***
UK FTSE	0.859	0.5	1.728	0.166***	0.682***
US DJI	0.688	0.323	1.75	0.235***	0.667***
US NASDAQ	0.569	0.339	1.007	0.442***	0.762***
US Russell	0.683	0.394	1.226	0.438***	0.815***
US SP500	0.686	0.321	1.445	0.334***	0.772***
Emerging					
Brazil BVSP	1.037	0.772	1.158	0.317***	0.689***
China SSEC	1.444	0.683	2.951	0.384***	0.852***
Indian BSESN	0.646	0.474	0.632	0.271***	0.758***
Indian NIFTY50	0.639	0.452	0.696	0.21***	0.723***
Korea KS11	0.456	0.285	0.845	0.547***	0.783***
Mexico MXX	0.639	0.368	1.456	0.118***	0.467***
Pakistan KSE	0.506	0.341	0.579	0.294***	0.675***

Appendix B: HAR-CVP Estimation Results for Individual Indices

Panel A: Full sample

	β_0	$\beta_{ r }$	β_r	β_{RV}	β_W	β_M	θ_D	θ_W	θ_M	\bar{R}^2
Developed Markets										
Amsterdam AEX										
LAD	0.363***	0.069***	-0.018***	-0.015***	0.282***	0.13***	-0.041***	-0.076***	-0.043	57.30%
t stats	17.84	22.61	-6.96	-16.1	19.1	9.45	-3.02	-3.52	-0.89	
OLS	0.657***	0.05**	-0.004	-0.023***	0.199***	0.098**	-0.134***	-0.183***	-0.352***	64%
t stats	5.56	2.47	-0.33	-4.88	3.63	2.55	-4.31	-4.06	-2.72	
shapleyR2	17.50%	8.40%	1.90%	6.30%	13.50%	9.10%	1.70%	2.00%	3.60%	64.10%
Australia AORD										
LAD	0.113***	0.01*	-0.045***	0.004*	0.263***	0.28***	-0.026***	-0.077***	-0.025	42.50%
t stats	5.28	1.67	-13.52	1.89	16.12	15.58	-2.81	-4.87	-0.73	
OLS	0.149***	0.021	-0.042***	-0.005	0.364***	0.263***	-0.086***	-0.237***	-0.171***	49.30%
t stats	2.76	0.61	-5.35	-0.5	7.2	6.47	-3.89	-4.89	-2.94	
shapleyR2	8.40%	5.70%	3.40%	3.60%	12.30%	8.70%	2.10%	2.80%	2.50%	49.40%
Brussels BFX										
LAD	0.369***	0.04***	-0.009***	-0.016***	0.264***	0.16***	-0.037***	-0.063***	-0.002	52.20%
t stats	19.65	11.11	-3.14	-18.38	17.9	11.1	-3.26	-3.59	-0.04	
OLS	0.465***	0.053***	0.011	-0.02***	0.284***	0.114***	-0.132***	-0.208***	-0.208***	54%
t stats	4.58	3.98	1.02	-7.91	2.86	2.83	-5.43	-4.04	-3.34	
shapleyR2	13.70%	7.10%	1.10%	4.10%	13.20%	7.20%	1.40%	2.80%	3.30%	54.10%
Canada GSPTSE										
LAD	0.262***	0.024***	-0.037***	0***	0.128***	0.176***	-0.043**	-0.111***	-0.106	48.10%
t stats	18.08	8.24	-21.08	-4.65	21.77	21.2	-2.29	-3.14	-1.3	
OLS	1.136**	-0.081	-0.16	0.002	0.077	0.03	0.535	-0.712**	-0.458*	43.50%
t stats	2.16	-0.72	-1.47	0.94	0.85	0.26	0.99	-2.33	-1.66	
shapleyR2	12.40%	5.20%	11.40%	5.20%	2.70%	2.70%	1.10%	1.60%	1.20%	43.70%

Denmark										
OMXC20										
LAD	0.247***	0.036***	0.004**	-0.002***	0.19***	0.142***	-0.066***	-0.081**	-0.015	44.40%
t stats	11.02	13.78	2.24	-10.43	14.8	9.4	-2.95	-2	-0.16	
OLS	0.38**	0.01	-0.005	-0.003**	0.294**	0.157*	-0.186***	-0.495**	-0.594**	28%
t stats	2.51	0.79	-0.85	-2.34	2.42	1.86	-3.42	-2.17	-2.26	
shapleyR2	5.03%	4.13%	0.30%	1.78%	8.04%	4.80%	0.56%	1.68%	1.91%	28.20%
Euro										
STOXX50E										
LAD	0.347***	0.018***	-0.024***	-0.006***	0.278***	0.166***	-0.061***	-0.156***	-0.061	50.90%
t stats	20.89	5.99	-11.76	-19.36	21.65	12.53	-3.41	-4.85	-0.82	
OLS	0.49***	0.002	-0.032***	-0.007***	0.337***	0.136***	-0.139***	-0.462***	-0.489***	45.90%
t stats	6.36	0.09	-2.71	-3.98	3.39	2.72	-3.1	-3.67	-3	
shapleyR2	12.20%	3.80%	1.50%	3.00%	12.20%	7.10%	1.50%	2.20%	2.60%	46.10%
Finland										
OMXHPI										
LAD	0.42***	-0.003	-0.023***	-0.002***	0.177***	0.115***	-0.039**	-0.073**	-0.075	48.40%
t stats	18.25	-0.75	-10.76	-20.16	18.76	8.98	-1.97	-1.99	-0.9	
OLS	0.704***	-0.052	-0.017	-0.003***	0.152	0.153***	-0.251**	-0.392***	-0.775***	16.70%
t stats	3.34	-1.35	-1.43	-3.79	1.17	3.51	-2.18	-3.27	-3.08	
shapleyR2	3.03%	2.36%	0.59%	1.97%	3.12%	2.85%	0.79%	0.90%	1.30%	16.90%
France FCHI										
LAD	0.392***	0.046***	-0.031***	-0.013***	0.294***	0.131***	-0.027*	-0.105***	-0.033	53.70%
t stats	21.09	13.41	-11.39	-21.19	20.74	9.49	-1.86	-4.14	-0.56	
OLS	0.71***	0.021	-0.049***	-0.02***	0.3***	0.044	-0.031	-0.21***	-0.207**	58.50%
t stats	4.78	0.87	-3.1	-4.74	3.42	0.73	-0.91	-4.16	-2.05	
shapleyR2	16.60%	6.20%	2.60%	5.50%	13.60%	7.80%	1.60%	2.00%	2.80%	58.60%
Germany DAX										
LAD	0.312***	0.041***	-0.008***	-0.005***	0.244***	0.211***	-0.08***	-0.133***	-0.08	55.80%
t stats	16.68	15.76	-5.37	-8.43	17.4	14.8	-4.97	-4.44	-1.22	
OLS	0.492***	0.036***	-0.001	-0.009***	0.181**	0.208***	-0.218***	-0.437***	-0.568***	58.30%

t stats	4.18	2.63	-0.13	-3.52	2.53	4.05	-3.7	-3.63	-2.79	
shapleyR2	16.30%	6.50%	0.50%	5.20%	12.30%	10.30%	1.50%	2.60%	3.10%	58.40%
HK HSI										
LAD	0.223***	0.056***	-0.018***	-0.011***	0.255***	0.233***	0	-0.025	0.019	49.50%
t stats	13.21	28.95	-17.86	-14.29	17.65	16.02	-0.02	-1.49	0.52	
OLS	0.263***	0.055***	-0.014*	-0.013**	0.313***	0.231***	-0.042	-0.157**	-0.113	58.10%
t stats	3.18	3.7	-1.81	-2.38	4.98	4.63	-1.34	-2.41	-1.37	
shapleyR2	13.00%	10.20%	1.40%	6.30%	13.80%	10.50%	0.60%	1.20%	1.30%	58.20%
Japan N225										
LAD	0.356***	0.023***	0.002	-0.01***	0.227***	0.183***	-0.048***	-0.058***	0.004	45.10%
t stats	17.69	7.57	1.06	-8.32	14.29	11.57	-4.4	-2.99	0.09	
OLS	0.441***	0.019	-0.002	-0.01	0.223***	0.195***	-0.114***	-0.169**	-0.218*	48.80%
t stats	4.2	0.76	-0.38	-1.27	3.25	3.4	-3.52	-2.08	-1.71	
shapleyR2	13.50%	6.40%	1.20%	5.40%	10.20%	7.30%	1.40%	1.50%	1.90%	48.90%
Norway OSEAX										
LAD	0.259***	0.019***	-0.022***	-0.005***	0.273***	0.213***	-0.055***	-0.134***	0.064	49.20%
t stats	13.48	6.68	-13.44	-13.92	19.13	14.75	-3.39	-4.59	1	
OLS	0.367***	0.008	-0.023***	-0.007***	0.446***	0.134***	-0.196***	-0.443***	-0.203*	55%
t stats	3.39	0.44	-3.99	-5.39	5.94	2.6	-4.52	-3.27	-1.65	
shapleyR2	11.20%	6.00%	1.80%	3.60%	15.60%	9.10%	2.00%	2.80%	2.90%	55.10%
Spanish IBEX										
LAD	0.385***	0.051***	-0.021***	-0.018***	0.258***	0.15***	-0.042***	-0.1***	-0.048	48.80%
t stats	20.22	15.69	-14.98	-17.65	17.32	9.43	-3.14	-3.96	-0.85	
OLS	0.669***	0.035***	-0.022***	-0.02***	0.193***	0.07**	-0.083**	-0.11	-0.23**	48.10%
t stats	7.07	2.69	-6.05	-5.24	2.9	1.96	-2.49	-1.51	-2.55	
shapleyR2	16.90%	3.40%	2.10%	3.90%	10.30%	6.00%	1.80%	1.50%	2.20%	48.20%
Spanish SMSI										
LAD	0.443***	0	-0.005***	-0.007***	0.217***	0.146***	-0.063***	-0.102***	-0.016	44.10%
t stats	20.31	0.09	-3.13	-14.05	13.46	7.69	-3.79	-3.25	-0.23	
OLS	0.799***	-0.001	-0.01***	-0.013***	0.097	0.065	-0.149***	-0.067	-0.339***	34.60%
t stats	6.22	-0.27	-3.63	-6.61	1.6	1.43	-3.28	-0.68	-2.86	

shapleyR2	13.30%	1.60%	0.60%	4.20%	5.90%	3.70%	2.10%	1.30%	2.10%	34.80%
Sweden										
OMXSPI										
LAD	0.294***	0.014***	-0.019***	-0.002***	0.253***	0.172***	-0.057***	-0.085***	-0.063	50.10%
t stats	16.43	4.14	-13.18	-6.8	20.17	11.93	-3.52	-2.59	-0.83	
OLS	0.274***	0.015	-0.011*	-0.003*	0.264*	0.238***	-0.276***	-0.552***	-0.719**	29.90%
t stats	4.54	0.66	-1.92	-1.75	1.89	3.51	-3.77	-2.81	-2.43	
shapleyR2	5.85%	1.81%	1.18%	1.45%	8.16%	5.86%	1.64%	2.02%	2.19%	30.20%
Switzerland										
SSMI										
LAD	0.455***	0.057***	-0.027***	-0.026***	0.234***	0.143***	-0.019*	-0.056***	-0.03	57.40%
t stats	26.34	19.61	-12.75	-28.46	18.32	11.59	-1.83	-3.07	-0.7	
OLS	0.748***	0.041***	-0.035***	-0.033***	0.229***	0.047	-0.088***	-0.153**	-0.25***	56.20%
t stats	6.56	3.59	-2.97	-6.21	2.76	0.92	-3.1	-2	-2.6	
shapleyR2	16.80%	4.80%	1.40%	4.80%	13.20%	7.90%	2.00%	2.00%	3.20%	56.30%
UK FTSE										
LAD	0.294***	0.012***	-0.034***	-0.005***	0.223***	0.203***	-0.065***	-0.159***	-0.134*	49.10%
t stats	20.6	3.88	-16.07	-15.35	18.98	16.07	-3.71	-4.88	-1.81	
OLS	0.354***	-0.004	-0.044***	-0.005***	0.385***	0.174***	-0.176***	-0.627***	-0.649***	38.70%
t stats	5.94	-0.14	-5.1	-2.99	3.19	4.17	-3.72	-3.07	-3.39	
shapleyR2	8.00%	2.90%	1.80%	2.30%	11.60%	6.30%	1.50%	2.30%	2.20%	38.90%
US DJI										
LAD	0.202***	0.02***	-0.01***	0	0.268***	0.206***	-0.1***	-0.191***	-0.148**	50.50%
t stats	11.2	7.25	-5.15	-0.97	22.14	17.05	-5.75	-5.88	-2.06	
OLS	0.205*	0.064**	-0.025	-0.003***	0.267***	0.215***	-0.257**	-0.714***	-0.603***	53.90%
t stats	1.73	2.18	-1.24	-3.85	4.39	4.76	-2.56	-3.03	-3.38	
shapleyR2	11.30%	11.00%	1.10%	3.30%	11.80%	8.60%	1.80%	3.00%	2.30%	54%
US NASDAQ										
LAD	0.442***	0.045***	-0.031***	-0.012***	0.234***	0.131***	-0.036***	-0.065***	-0.02	59.70%
t stats	23.67	24.34	-21.61	-21.03	17.53	9.56	-3.24	-3.09	-0.44	
OLS	0.429***	0.058***	-0.038***	-0.013***	0.222***	0.159***	-0.107***	-0.232***	-0.268**	65.30%

t stats	6.69	5.53	-5.01	-5.89	2.64	2.8	-2.85	-3.86	-2.34	
shapleyR2	14.80%	9.90%	4.20%	5.00%	12.90%	10.20%	2.70%	2.40%	3.30%	65.30%
US Russell										
LAD	0.266***	0.065***	-0.04***	-0.01***	0.232***	0.155***	-0.021***	-0.056***	-0.02	51.10%
t stats	14.05	25.12	-25.92	-11.68	17.93	11.93	-2.74	-3.86	-0.63	
OLS	0.15*	0.105***	-0.035***	-0.014***	0.281***	0.159***	-0.079***	-0.224***	-0.202**	66.70%
t stats	1.91	4.54	-2.67	-5.58	3.68	2.61	-2.63	-3.61	-2.39	
shapleyR2	12.20%	15.70%	4.00%	5.90%	13.60%	8.90%	2.10%	2.00%	2.30%	66.80%
US SP500										
LAD	0.223***	0.039***	-0.021***	-0.003***	0.286***	0.186***	-0.093***	-0.177***	-0.097	54.20%
t stats	13.16	16.97	-12.19	-9.97	22.91	15.5	-6.19	-6.12	-1.48	
OLS	0.224**	0.066***	-0.03**	-0.004***	0.301***	0.179***	-0.209***	-0.602***	-0.499***	63.40%
t stats	2.55	3.33	-2.07	-6.14	4.59	4.06	-3.46	-3.19	-3.03	
shapleyR2	12.90%	13.60%	1.90%	3.40%	14.00%	9.60%	2.00%	3.10%	2.90%	63.40%
Emerging Markets										
Brazil BVSP										
LAD	0.259***	0.052***	-0.032***	-0.006***	0.28***	0.171***	-0.01	-0.055**	0.039	43.50%
t stats	13.13	21.01	-20.65	-13.24	17.3	10.77	-0.78	-2.35	0.81	
OLS	0.299***	0.045***	-0.032***	-0.007***	0.342***	0.226***	-0.035*	-0.156***	-0.057	62.90%
t stats	5.52	3.04	-5.82	-3.56	6.32	6.17	-1.87	-2.7	-0.6	
shapleyR2	13.80%	10.70%	3.10%	6.20%	15.10%	11.40%	0.90%	0.90%	0.80%	62.90%
China SSEC										
LAD	0.295***	0.079***	-0.038***	-0.006***	0.212***	0.162***	-0.005	0.038	0.098*	53.50%
t stats	14.14	23.36	-14.51	-9.85	14.41	10.25	-0.27	1.35	1.81	
OLS	0.269***	0.093***	-0.046***	-0.007***	0.278***	0.175***	0.039	0.029	0.251***	63%
t stats	6.93	8.46	-3.8	-4.18	6.23	5.49	0.89	0.48	2.93	
shapleyR2	13.40%	16.20%	5.20%	5.70%	12.60%	8.20%	1.20%	0.30%	0.10%	63%
Indian BSESN										
LAD	0.407***	0.056***	-0.053***	-0.01***	0.118***	0.178***	0.029*	-0.039	0.073	49.10%
t stats	29.63	31.76	-34.76	-52.29	12.21	13.74	1.74	-1.37	1.24	

OLS	0.75***	0.063***	-0.072***	-0.014***	0.038	0.059	0.067	-0.15***	0.154	40.30%
t stats	3.21	5.67	-5.12	-4.62	0.51	0.68	1.15	-2.76	1.08	
shapleyR2	11.50%	5.40%	4.50%	8.50%	3.60%	3.20%	2.20%	1.10%	0.40%	40.50%
Indian NIFTY50										
LAD	0.362***	0.023***	-0.029***	-0.006***	0.191***	0.162***	-0.006	-0.014	0.088	47.60%
t stats	26.84	13.57	-17.97	-56.54	22.66	14.26	-0.42	-0.52	1.62	
OLS	0.908**	0.022	-0.049***	-0.009***	0.033	0.027	-0.096	-0.108**	0.161	38.90%
t stats	2.37	1.07	-5.62	-6.44	0.32	0.24	-1.1	-2.18	1.01	
shapleyR2	11.00%	4.80%	4.00%	10.50%	3.10%	2.60%	2.20%	0.70%	0.20%	39%
Korea KOSPI										
LAD	0.276***	0.092***	-0.006***	-0.007***	0.262***	0.167***	-0.033***	-0.019	0.101**	58.20%
t stats	17.28	43.97	-3.03	-18.42	19.43	13.41	-2.95	-1.01	2.41	
OLS	0.334***	0.082***	0.027*	-0.006***	0.306***	0.103**	-0.166***	-0.215*	-0.028	67.70%
t stats	7.36	3.34	1.65	-5.27	4.13	2.11	-3.13	-1.75	-0.37	
shapleyR2	16.40%	16.10%	1.10%	5.10%	16.20%	8.80%	0.90%	1.80%	1.40%	67.70%
Mexico MXX										
LAD	0.197***	0.016***	-0.025***	-0.004***	0.2***	0.201***	-0.008	-0.061***	-0.004	38.90%
t stats	10.35	4.9	-10.58	-8.08	14.35	12.54	-0.62	-2.98	-0.08	
OLS	0.206***	0.043**	-0.019	-0.006***	0.292***	0.23***	-0.061	-0.306***	-0.213**	29.80%
t stats	3.18	2.17	-1.47	-3.03	3.96	4.32	-1.23	-2.95	-2.34	
shapleyR2	5.37%	5.02%	0.50%	1.75%	8.19%	5.63%	0.43%	1.89%	1.12%	29.90%
Pakistan KSE										
LAD	0.363***	0.089***	-0.011***	-0.031***	0.25***	0.069***	-0.004	0.022	0.036	43.70%
t stats	13.39	17.95	-3.23	-14.26	13.45	3.68	-0.26	1	0.91	
OLS	0.445***	0.09***	-0.007	-0.036***	0.275***	0.165***	-0.048	-0.006	0.062	44.90%
t stats	7.2	8.47	-0.51	-7.2	6.63	3.88	-1.5	-0.11	0.56	
shapleyR2	10.80%	8.90%	0.80%	5.20%	11.10%	6.70%	0.70%	0.50%	0.30%	45%

Panel B: Before GFC

	β_0	$\beta_{ r }$	β_r	β_{RV}	β_W	β_M	θ_D	θ_W	θ_M	\bar{R}^2
Developed Markets										
Amsterdam AEX										
LAD	0.263***	0.075***	-0.025***	-0.008***	0.308***	0.141***	-0.024	-0.064**	-0.068	60.20%
t stats	7.91	17.14	-6.45	-5	13.61	6.55	-1.21	-2.06	-0.96	
									-	
OLS	0.429***	0.093***	-0.03	-0.02**	0.259***	0.109**	-0.065	-0.246***	0.275***	70.50%
t stats	3.34	6.67	-1.55	-2.2	4.96	1.97	-1.55	-3.26	-3.12	
shapleyR2	15.90%	15.60%	2.20%	7.10%	14.30%	9.20%	1.30%	1.90%	3.20%	70.70%
Australia AORD										
LAD	0.069**	0.038**	-0.046***	-0.013**	0.307***	0.137***	-0.019	-0.051**	-0.032	28.80%
t stats	2.14	2.51	-6.27	-2.13	12.51	4.53	-1.64	-2.53	-0.76	
									-	
OLS	0.163	-0.022	-0.057***	-0.001	0.288***	0.272***	-0.055***	-0.167***	0.151***	23%
t stats	1.32	-0.4	-3.34	-0.07	3.86	3.16	-2.58	-3	-2.59	
shapleyR2	3.87%	2.23%	2.29%	1.92%	5.46%	3.33%	1.36%	1.80%	1.07%	23.30%
Brussels BFX										
LAD	0.287***	0.088***	-0.043***	-0.021***	0.217***	0.236***	-0.003	-0.048**	-0.022	55.20%
t stats	7.58	16.11	-8.82	-6.44	8.59	9.21	-0.17	-1.99	-0.37	
OLS	0.313***	0.104***	-0.016	-0.029***	0.283***	0.189***	-0.083**	-0.166***	-0.3***	62.30%
t stats	3.31	10.88	-1.33	-2.61	4.44	3.11	-2.12	-3	-3.13	
shapleyR2	13.30%	13.10%	0.40%	5.70%	13.80%	9.70%	1.00%	1.70%	3.80%	62.40%
Canada GSPTSE										
LAD	0.206***	0.073***	0.043***	-0.031***	0.202***	0.132***	-0.064***	-0.088***	-0.042	30.50%
t stats	3.97	3.82	3.86	-3.93	6.11	3.29	-3.4	-2.86	-0.6	
OLS	0.249**	0.063	0.026	-0.02	0.232***	0.142***	-0.113**	-0.207***	-0.244**	28.30%
t stats	2.56	1.59	0.49	-0.91	4.19	3.16	-2.34	-3.84	-2.42	
shapleyR2	6.67%	4.48%	0.21%	3.12%	5.82%	1.99%	1.58%	2.72%	2.17%	28.80%

Denmark										
OMXC20										
LAD	0.131	0.037	0.021	-0.007	0.095	0.098	-0.108**	-0.123	-0.176	28.40%
t stats	1.45	1.17	1.04	-1.26	1.5	1.24	-2.12	-1.38	-0.75	
									-	
OLS	-0.013	0.133	0.019	-0.017	0.032	0.202	-0.208***	-0.451***	0.984***	18.60%
t stats	-0.11	1.61	0.87	-1.33	0.28	1.23	-3.18	-3.38	-2.62	
shapleyR2	2.01%	2.87%	1.08%	1.36%	2.14%	2.06%	2.34%	3.05%	3.03%	19.90%
Euro STOXX50E										
LAD	0.2***	0.046***	-0.036***	0.001	0.315***	0.2***	-0.025	-0.122***	-0.126	55.20%
t stats	5.55	8.25	-8.57	0.72	12.74	8.02	-0.93	-2.68	-1.17	
									-	
OLS	0.184*	0.066***	-0.028	-0.002	0.29***	0.241***	-0.101**	-0.408***	0.577***	64.30%
t stats	1.7	2.83	-1.39	-0.64	4.93	2.92	-2.16	-3.25	-2.78	
shapleyR2	14.20%	11.80%	2.10%	7.00%	13.60%	10.20%	1.00%	1.70%	2.80%	64.40%
Finland OMXHPI										
LAD	0.071	0.118***	-0.028	-0.016	0.209***	0.074	-0.061	-0.161**	-0.129	31.40%
t stats	0.67	3.81	-1.29	-1.61	3.16	0.89	-1.23	-2.13	-0.65	
OLS	0.172	0.063	-0.017	-0.026***	0.221**	0.088	-0.103	-0.353***	-0.379*	20%
t stats	1.61	1.49	-0.59	-3.02	2.56	1.39	-1.22	-4.67	-1.71	
shapleyR2	2.82%	3.06%	1.36%	1.34%	4.22%	1.26%	1.27%	4.07%	1.90%	21.30%
France FCHI										
LAD	0.268***	0.086***	-0.043***	-0.011***	0.358***	0.118***	0.003	-0.074**	-0.01	57.30%
t stats	8.05	16.58	-9.35	-8.65	15.39	5.41	0.14	-2.17	-0.12	
OLS	0.439***	0.073***	-0.056***	-0.016***	0.317***	0.086*	0.007	-0.243***	-0.263**	68.20%
t stats	3.7	3.6	-2.98	-2.95	5.95	1.87	0.24	-3.58	-2.04	
shapleyR2	15.00%	14.30%	4.80%	5.70%	14.40%	8.30%	1.20%	1.70%	2.90%	68.40%
Germany DAX										
LAD	0.29***	0.045***	-0.015***	-0.005***	0.302***	0.181***	-0.045	-0.108**	-0.131	58.60%
t stats	8.23	8.88	-3.44	-4.15	12.29	7.28	-1.41	-2.23	-1.25	
OLS	0.299**	0.06***	-0.014	-0.009**	0.298***	0.219***	-0.148**	-0.426***	-0.559**	62.10%

t stats	2.56	4.7	-0.97	-2.3	4.9	2.66	-2.46	-2.75	-2.55	
shapleyR2	13.70%	9.10%	1.90%	5.60%	14.50%	11.20%	1.10%	1.90%	3.30%	62.20%
HK HSI										
LAD	0.28***	0.01	0.008	-0.019***	0.224***	0.347***	-0.018	-0.022	-0.016	42.50%
t stats	5.54	1.14	0.93	-3.05	6.34	8.7	-0.94	-0.89	-0.32	
OLS	0.294***	0.047**	0.047	-0.023	0.338***	0.313***	-0.111**	-0.023	0.012	47.10%
t stats	2.99	2.53	1.49	-1.18	4.95	4.53	-2.26	-0.51	0.17	
shapleyR2	10.50%	2.70%	1.10%	3.30%	14.70%	13.90%	0.70%	0.30%	0.20%	47.40%
Japan N225										
LAD	0.346***	0.028***	0.003	-0.017***	0.289***	0.181***	-0.059***	-0.056**	0.037	40.30%
t stats	7.94	2.88	0.34	-4.03	8.17	4.95	-2.77	-2.08	0.63	
OLS	0.383***	0.028**	-0.002	-0.023***	0.384***	0.122***	-0.075***	-0.091***	-0.022	45.90%
t stats	7.43	2.21	-0.22	-7.88	5.88	3.36	-3.47	-2.93	-0.33	
shapleyR2	12.40%	4.80%	0.70%	3.10%	14.30%	7.10%	1.30%	1.50%	1.10%	46.20%
Norway OSEAX										
LAD	0.185***	0.042***	-0.008	-0.017***	0.284***	0.176***	-0.048*	-0.083**	-0.021	33.80%
t stats	3.71	3.29	-1.17	-3.44	8.01	4.37	-1.87	-1.99	-0.23	
OLS	0.211***	0.056	-0.022	-0.023***	0.334***	0.169***	-0.121***	-0.24***	-0.196*	34.20%
t stats	2.6	1.5	-1.4	-3.58	4.64	3.37	-2.95	-3.85	-1.83	
shapleyR2	5.59%	3.84%	2.44%	2.40%	8.88%	3.99%	2.34%	2.75%	2.37%	34.60%
Spanish IBEX										
LAD	0.29***	0.069***	-0.031***	-0.014***	0.352***	0.153***	-0.026	-0.064**	-0.031	56.40%
t stats	8.07	10.07	-4.76	-5.94	12.82	5.48	-1.34	-2.21	-0.49	
OLS	0.318***	0.082***	-0.057***	-0.018***	0.349***	0.156***	0.013	-0.149***	-0.053	65.90%
t stats	4.39	4.05	-2.9	-3.63	7.91	2.99	0.43	-2.6	-0.78	
shapleyR2	14.20%	12.90%	3.40%	5.10%	15.30%	11.00%	1.00%	1.40%	1.80%	66%
Spanish SMSI										
LAD	0.293***	0.116***	-0.101***	-0.105***	0.257***	0.098	-0.005	-0.048	-0.021	33.60%
t stats	3.33	3.26	-3.95	-4.57	4.55	1.53	-0.17	-1.23	-0.24	
OLS	0.572**	0.072	-0.127***	-0.156***	0.288***	0.068	-0.013	-0.049	-0.045	35.70%
t stats	2.45	0.94	-3.83	-3.86	4.69	0.98	-0.45	-1.12	-0.45	

shapleyR2	9.48%	4.79%	3.76%	4.40%	7.23%	2.04%	2.41%	1.67%	0.84%	36.60%
Sweden OMXSPI										
LAD	0.262***	0.038*	-0.028*	-0.038***	0.136**	0.08	-0.06	-0.168**	-0.39**	40%
t stats	2.77	1.78	-1.66	-3.46	2.14	1.13	-1.36	-2.18	-1.97	
										-
OLS	0.442***	0.018	-0.031	-0.053***	0.158**	0.014	-0.174***	-0.265***	0.749***	34.30%
t stats	2.67	0.67	-1.57	-2.72	2.13	0.14	-2.75	-3.61	-2.9	
shapleyR2	6.15%	2.75%	2.30%	2.93%	5.92%	1.89%	4.79%	3.80%	4.89%	35.40%
Switzerland SSMI										
LAD	0.256***	0.083***	-0.034***	-0.017***	0.373***	0.105***	-0.015	-0.076***	-0.024	58.90%
t stats	8.01	19.35	-11.54	-7.5	17.04	5.38	-1.09	-3.2	-0.41	
OLS	0.501**	0.051	-0.026**	-0.026	0.376***	0.069	-0.082**	-0.281***	-0.146	67.90%
t stats	2.34	1.6	-2.4	-0.88	7.26	0.79	-2	-2.71	-1.21	
shapleyR2	17.10%	9.30%	1.40%	7.60%	16.60%	8.70%	1.30%	2.50%	3.50%	68.10%
UK FTSE										
LAD	0.163***	0.039***	-0.034***	-0.003***	0.218***	0.274***	-0.043*	-0.163***	-0.22**	47.40%
t stats	4.93	5.46	-6.33	-3.48	9.46	10.8	-1.81	-3.73	-2.19	
										-
OLS	0.237**	0.036	-0.033	-0.005**	0.2***	0.32***	-0.155**	-0.563***	0.791***	38.40%
t stats	2.21	1.46	-1.24	-2.57	3.51	4.31	-2.09	-3.77	-3.02	
shapleyR2	7.02%	5.95%	1.64%	1.85%	8.37%	7.19%	1.28%	2.66%	2.71%	38.70%
US DJI										
LAD	0.154***	0.033***	-0.02***	-0.007**	0.335***	0.215***	-0.086***	-0.189***	-0.123	44.90%
t stats	3.83	4.81	-3.47	-1.96	11.64	7.09	-3.72	-4.85	-1.45	
										-
OLS	0.242***	0.032	-0.011	-0.009*	0.383***	0.221***	-0.174***	-0.402***	0.339***	53.60%
t stats	2.8	1.05	-0.78	-1.68	4.96	4.53	-4.3	-3.39	-2.89	
shapleyR2	11.60%	5.80%	0.80%	5.40%	14.60%	8.40%	1.80%	3.00%	2.40%	53.80%
US NASDAQ										
LAD	0.408***	0.048***	-0.033***	-0.012***	0.234***	0.155***	-0.03*	-0.062*	-0.026	58.20%
t stats	13.6	16.89	-15.59	-12.8	10.61	6.49	-1.69	-1.83	-0.36	

OLS	0.46***	0.049***	-0.039***	-0.011***	0.139**	0.208***	-0.09*	-0.152***	-0.247*	63.30%
t stats	6.29	5.02	-4.76	-4.72	2.28	3.35	-1.74	-2.86	-1.69	
shapleyR2	15.40%	8.60%	5.80%	4.80%	10.60%	10.60%	3.10%	1.90%	2.70%	63.50%
US Russell										
LAD	0.246***	0.062***	-0.042***	-0.028***	0.257***	0.1***	-0.01	-0.029**	-0.015	31.50%
t stats	6.69	6.31	-5.58	-6.11	8.75	3.03	-1.22	-2.12	-0.5	
OLS	0.281***	0.061***	-0.04**	-0.03***	0.314***	0.145**	-0.041**	-0.071***	-0.041	34%
t stats	5.03	2.59	-2.42	-4.59	4.01	2.46	-2.05	-3.24	-1.33	
shapleyR2	6.86%	5.29%	1.94%	2.15%	8.82%	3.75%	2.09%	2.06%	1.37%	34.30%
US SP500										
LAD	0.176***	0.038***	-0.022***	0.003	0.298***	0.205***	-0.087***	-0.168***	-0.145*	48.30%
t stats	4.34	4.97	-3.73	0.68	10.21	6.72	-4.39	-4.77	-1.86	
OLS	0.241***	0.056*	-0.011	-0.011**	0.313***	0.246***	-0.181***	-0.344***	-0.299**	58.20%
t stats	3.01	1.92	-1.03	-2.03	5.57	5.11	-5.31	-4.62	-2.41	
shapleyR2	12.90%	7.80%	1.00%	6.10%	13.40%	9.10%	2.50%	3.10%	2.50%	58.40%
Emerging Markets										
Brazil BVSP										
LAD	0.399***	0.049***	-0.028***	-0.033***	0.258***	0.132***	-0.023	-0.027	0.084	29.60%
t stats	8.2	5.6	-3.14	-7.82	7.06	3.05	-0.93	-0.85	1.28	
OLS	0.461***	0.032***	-0.017	-0.032***	0.282***	0.128***	-0.062**	-0.092**	0.107**	32.10%
t stats	8.42	2.64	-1.29	-7.19	4.86	2.89	-2.01	-2.32	1.97	
shapleyR2	9.40%	4.35%	1.41%	3.05%	8.23%	2.78%	1.60%	1.46%	0.15%	32.40%
China SSEC										
LAD	0.293***	0.096***	-0.035***	-0.006***	0.172***	0.146***	-0.015	0.008	0.141*	48.60%
t stats	9.4	14.71	-6.71	-5.9	7.54	5.5	-0.53	0.19	1.8	
OLS	0.229***	0.105***	-0.033**	-0.005***	0.189***	0.217***	0.066	0.061	0.325***	61.30%
t stats	4.23	9.19	-2.08	-3.41	2.95	5.39	1.25	0.93	2.76	
shapleyR2	14.20%	18.30%	5.20%	5.60%	8.80%	7.40%	0.60%	0.10%	1.30%	61.50%
Indian BSESN										
LAD	0.381***	0.077***	-0.048***	-0.011***	0.075***	0.148***	0.026	-0.023	0.167	42.70%

t stats	15.99	12.89	-10.68	-21.5	4.61	6.35	0.76	-0.43	1.46	
OLS	0.625***	0.079	-0.076*	-0.015	0.038	0.052	0.036	-0.264**	0.036	29.60%
t stats	3.55	1.18	-1.66	-1.6	0.57	0.47	0.24	-2.42	0.14	
shapleyR2	9.94%	4.23%	2.68%	5.75%	2.12%	1.22%	2.29%	1.51%	0.22%	30%
Indian NIFTY50										
LAD	0.363***	0.108***	-0.062***	-0.016***	0.116***	0.117***	0.035	0.026	0.198**	42.20%
t stats	17.5	18.5	-15.25	-27.56	8.3	6.49	1.47	0.62	2.46	
OLS	0.507**	0.322**	-0.187**	-0.045**	0.037	-0.029	0.336*	0.125	0.285	53.10%
t stats	2.15	2.18	-2.37	-2.31	0.54	-0.26	1.71	1.17	1.49	
shapleyR2	9.20%	12.30%	7.00%	19.00%	2.30%	1.00%	2.00%	0.50%	0.10%	53.30%
Korea KOSPI										
LAD	0.379***	0.08***	-0.008*	-0.027***	0.298***	0.15***	-0.016	-0.024	0.057	47.20%
t stats	9.22	14.84	-1.77	-9.84	9.67	4.99	-0.73	-0.74	0.8	
OLS	0.615***	0.064***	0.01	-0.036***	0.266***	0.128***	-0.106**	-0.068	-0.042	54.10%
t stats	6.73	3.6	0.79	-3.42	4.27	2.6	-2.2	-1.07	-0.45	
shapleyR2	15.10%	6.30%	1.00%	5.60%	14.10%	9.00%	1.30%	0.90%	1.10%	54.30%
Mexico MXX										
LAD	0.262***	0.045***	-0.006	-0.025***	0.157***	0.175***	-0.016	-0.03	-0.028	37.40%
t stats	7.41	6.89	-1.45	-7.38	6.38	5.51	-1.08	-1.27	-0.55	
OLS	0.46***	0.031	-0.007	-0.032***	0.172***	0.244***	-0.052*	-0.046	-0.167	22.50%
t stats	5.97	1.45	-0.63	-3.39	3.64	3.56	-1.66	-0.76	-1.52	
shapleyR2	6.21%	1.62%	0.87%	2.08%	5.03%	4.86%	0.60%	0.44%	1.15%	22.90%
Pakistan KSE										
LAD	0.35***	0.1***	-0.003	-0.033***	0.23***	0.045	-0.017	0.054	0.047	40%
t stats	6.88	12.52	-0.51	-7.79	7.52	1.43	-0.6	1.38	0.66	
OLS	0.461***	0.092***	0.001	-0.039***	0.272***	0.127***	-0.075	0.004	0.099	40%
t stats	5.1	6.43	0.04	-4.67	4.98	2.94	-1.21	0.04	0.71	
shapleyR2	9.55%	9.46%	0.89%	5.31%	9.15%	4.15%	0.90%	0.65%	0.24%	40.30%

Panel C: During GFC

	β_0	$\beta_{ r }$	β_r	β_{RV}	β_W	β_M	θ_D	θ_W	θ_M	\bar{R}^2	AIC
Developed Markets											
Amsterdam											
AEX											
LAD	0.62***	0.057***	-0.016	-0.026***	0.234***	0.067	-0.038	-0.019	-0.05	54.10%	-24
t stats	7.27	5.33	-1.34	-7.22	4.06	1.33	-0.56	-0.19	-0.24		
OLS	0.915***	0.017	-0.025	-0.028***	0.243***	-0.018	-0.047	-0.026	-0.589	61.70%	775
t stats	3.91	0.64	-1.26	-4.75	2.79	-0.19	-0.65	-0.18	-1.46		
shapleyR2	17.20%	4.90%	2.30%	6.30%	13.80%	7.60%	1.80%	2.10%	6.40%	62.40%	
Australia											
AORD											
LAD	0.106	0.006	-0.059***	0.006	0.114*	0.351***	0	-0.124*	-0.082	39.80%	-270
t stats	1.06	0.32	-4.84	0.6	1.69	4.65	0	-1.7	-0.48		
OLS	0.086	-0.039	-0.051***	0.023*	0.396***	0.21**	-0.056	-0.317***	-0.241*	52.30%	74
t stats	0.89	-1	-4.72	1.82	4.42	2.54	-1.29	-2.74	-1.93		
shapleyR2	7.60%	4.90%	3.50%	5.70%	13.20%	7.50%	2.50%	4.40%	3.80%	53.20%	
Brussels BFX											
LAD	0.502***	-0.013	-0.037**	-0.017***	0.327***	0.041	0.03	-0.077	-0.08	44.70%	-150
t stats	6.05	-0.86	-2.53	-5.7	5.61	0.77	0.52	-0.93	-0.49		
OLS	0.522***	0.024	-0.012	-0.023***	0.518***	-0.036	-0.027	-0.126	-0.188	47.20%	651
t stats	2.62	0.6	-0.3	-5.39	3.61	-0.48	-0.4	-1.3	-1.08		
shapleyR2	8.70%	4.80%	1.70%	4.30%	15.80%	4.60%	0.80%	4.00%	3.50%	48.20%	
Canada											
GSPTSE											
LAD	0.231***	0.033**	-0.037***	-0.001	0.094***	0.132***	-0.045	-0.421	-0.26	43.30%	422
t stats	3.01	2.45	-4.07	-1.21	3.41	3.22	-0.32	-1.64	-0.42		
OLS	1.374*	-0.131	-0.201	0.004	0.003	0.007	1.273	-1.878**	-1.216	46.50%	2283
t stats	1.73	-0.81	-1.48	1.39	0.03	0.07	1.09	-2.25	-1.12		
shapleyR2	13.10%	5.40%	13.00%	5.80%	1.60%	1.40%	2.20%	3.00%	2.10%	47.50%	

Denmark											
OMXC20											
LAD	0.081	0.042***	0.003	-0.002**	0.454***	0.062	-0.175*	-0.281*	0.054	48%	248
t stats	1.01	5.46	0.61	-2.19	9.04	1.31	-1.83	-1.85	0.15		
OLS	0.441	0.012	-0.019***	-0.007***	0.527***	-0.05	-0.141	-1.081**	-0.555	55%	1392
t stats	1.64	0.55	-3.45	-2.64	5.69	-0.44	-1.36	-2.41	-1.34		
shapleyR2	11.20%	6.10%	0.90%	4.60%	17.30%	5.30%	0.90%	5.50%	4.00%	55.80%	
Euro											
STOXX50E											
LAD	0.38***	0.017*	-0.031***	-0.006***	0.272***	0.091**	-0.035	-0.186	-0.146	48.50%	210
t stats	5.68	1.66	-4.94	-6.4	6.91	2.19	-0.39	-1.19	-0.41		
OLS	0.628***	-0.019	-0.043***	-0.008**	0.413**	0.025	-0.214	-1.156*	-0.996	40.20%	1664
t stats	4.46	-0.44	-4.01	-2.55	2	0.19	-0.89	-1.73	-1.36		
shapleyR2	8.67%	2.87%	1.90%	3.15%	11.78%	4.36%	1.85%	3.56%	3.18%	41.30%	
Finland											
OMXHPI											
LAD	0.5***	-0.013	-0.031***	-0.005***	0.177***	0.08	-0.013	-0.156	-0.059	42.80%	269
t stats	5.42	-0.87	-3.67	-3.19	3.46	1.56	-0.14	-0.94	-0.16		
OLS	0.692**	-0.05	-0.033***	-0.007***	0.463**	0.011	-0.15	-0.587**	-0.787*	45.60%	1462
t stats	2.28	-1.06	-2.98	-3.02	2.49	0.1	-1.21	-2	-1.75		
shapleyR2	10.00%	4.00%	2.10%	3.50%	14.60%	5.20%	1.40%	2.20%	3.80%	46.60%	
France FCHI											
LAD	0.496***	0.051***	-0.047***	-0.017***	0.243***	0.073	0.057	-0.113	-0.168	51.20%	43
t stats	6.15	4.16	-5.26	-6.78	5.13	1.57	0.8	-0.95	-0.63		
OLS	1.091**	-0.019	-0.063***	-0.025***	0.446***	-0.147	0.019	-0.2	-0.136	53.50%	1120
t stats	2.37	-0.35	-3.02	-3.17	3.39	-0.83	0.35	-0.69	-0.41		
shapleyR2	14.80%	3.80%	2.80%	5.50%	14.10%	5.90%	1.90%	2.20%	3.20%	54.30%	
Germany											
DAX											
LAD	0.552***	0.031***	0.015***	-0.009***	0.1**	0.182***	-0.188***	-0.195	-0.092	54.20%	94
t stats	7.41	4.05	4.28	-5.39	2.43	4.29	-2.96	-1.56	-0.34		

OLS	0.947***	-0.012	0.022***	-0.01***	0.086	0.088	-0.424**	-0.951**	-1.052	56.10%	1235
t stats	4.15	-0.98	3.46	-2.75	0.52	0.58	-2.47	-2.08	-1.35		
shapleyR2	18.00%	5.00%	0.80%	6.00%	8.80%	7.30%	1.80%	5.20%	4.00%	56.90%	
HK HSI											
LAD	0.314***	0.042***	-0.019***	-0.009***	0.313***	0.088*	0.029	-0.024	0.045	49.80%	-1
t stats	4.18	7.41	-6.46	-3.11	6.42	1.93	0.68	-0.31	0.25		
OLS	0.438	0.06***	-0.018***	-0.019	0.257**	0.125	-0.137	-0.319**	-0.368	61.70%	839
t stats	1.47	2.89	-3.21	-1.62	2.5	1.29	-1.49	-2.04	-1.42		
shapleyR2	13.10%	12.60%	2.90%	8.40%	11.00%	6.80%	2.00%	2.30%	3.40%	62.40%	
Japan N225											
LAD	0.488***	0.035***	0.005	0.007**	0.247***	0.136***	-0.057	-0.109	-0.119	51.90%	-53
t stats	5.22	-4.52	0.96	2.27	4.32	2.71	-1.15	-1.31	-0.6		
OLS	0.651**	-0.019	-0.001	-0.006	0.25	0.093	-0.191**	-0.463*	-0.924*	63.60%	709
t stats	2.14	-0.41	-0.15	-1.01	1.29	0.5	-2.18	-1.7	-1.81		
shapleyR2	16.40%	7.80%	1.00%	8.20%	11.90%	8.00%	1.50%	3.30%	6.20%	64.30%	
Norway OSEAX											
LAD	0.348***	0.034***	-0.027***	-0.008***	0.296***	0.128***	-0.057	-0.18	0.136	54.30%	190
t stats	3.75	3.84	-5.04	-6.5	6.26	2.64	-0.76	-1.42	0.49		
OLS	0.706*	-0.017	-0.03***	-0.01***	0.469***	-0.039	-0.165*	-0.538	-0.577	58.30%	1333
t stats	1.93	-0.45	-3.55	-4.06	5.62	-0.35	-1.83	-1.53	-1.64		
shapleyR2	11.90%	5.70%	2.30%	4.80%	16.30%	7.70%	2.20%	3.50%	4.60%	59.10%	
Spanish IBEX											
LAD	0.683***	0.055***	-0.048***	-0.042***	0.243***	0	0.018	-0.091	-0.05	48.10%	-91
t stats	8.15	4.57	-5.07	-7.9	4.73	0	0.3	-1.06	-0.24		
OLS	1.158***	0.04*	-0.076***	-0.058***	0.33***	-0.092	0.095	-0.041	0.194	56.80%	664
t stats	4.22	1.74	-3.11	-3.26	3.01	-0.98	1.48	-0.28	0.75		
shapleyR2	17.30%	3.90%	3.40%	6.20%	13.90%	5.80%	2.60%	2.00%	2.50%	57.60%	

Spanish											
SMSI											
LAD	0.482***	0.04***	-0.07***	-0.033***	0.268***	0.088	0.054	-0.105	-0.012	42.30%	-123
t stats	5.08	2.8	-4.51	-6.1	4.33	1.62	0.91	-1.29	-0.06		
OLS	0.844***	-0.03	-0.033	-0.023***	0.285*	0.057	-0.058	-0.071	-0.053	51.40%	532
t stats	3.08	-0.75	-1.54	-2.72	1.71	0.87	-1.31	-0.74	-0.29		
shapleyR2	16.20%	4.70%	3.00%	6.00%	10.80%	5.30%	1.90%	1.70%	2.60%	52.30%	
Sweden											
OMXSPI											
LAD	0.339***	0	-0.029***	-0.004*	0.41***	0.066	-0.035	-0.14	-0.024	44.40%	159
t stats	3.97	0	-4.03	-1.96	7.66	1.26	-0.44	-1.04	-0.07		
OLS	0.295**	0.008	-0.029***	-0.008***	0.535***	0.059	-0.208*	-0.93**	-0.844	48%	1228
t stats	2.32	0.36	-4.42	-4.21	4.77	1.25	-1.75	-1.99	-1.63		
shapleyR2	8.30%	3.40%	1.50%	3.30%	16.10%	5.90%	1.80%	4.20%	4.40%	48.90%	
Switzerland											
SSMI											
LAD	0.616***	0.06***	-0.057***	-0.039***	0.23***	0.114**	0.005	-0.073	-0.122	54.20%	-178
t stats	7.81	5.29	-4.73	-7.06	4.35	2.3	0.07	-0.84	-0.57		
OLS	1.1***	0.067***	-0.124***	-0.075***	0.474***	-0.192	0.121	-0.094	-0.213	65.20%	457
t stats	3.06	3.05	-2.92	-2.99	3.72	-1.04	1.19	-0.83	-0.76		
shapleyR2	17.40%	5.50%	4.10%	7.70%	15.00%	7.10%	3.10%	1.90%	4.00%	65.80%	
UK FTSE											
LAD	0.421***	0.011	-0.039***	-0.006***	0.205***	0.121***	-0.032	-0.247	-0.249	47.70%	168
t stats	5.65	0.9	-4.64	-5.16	5	2.78	-0.33	-1.45	-0.67		
OLS	0.446***	-0.045	-0.052***	-0.004	0.495***	0.059	-0.11	-1.208*	-1.341*	38.90%	1564
t stats	3.97	-0.93	-4.42	-1.59	2.98	0.77	-0.82	-1.73	-1.74		
shapleyR2	7.30%	3.00%	2.10%	2.00%	12.70%	4.10%	1.60%	3.80%	3.50%	40.10%	
US DJI											
LAD	0.177**	0.062***	-0.03***	-0.001	0.276***	0.096**	-0.013	-0.333*	-0.041	56.20%	189
t stats	2.22	6.66	-3.97	-1.28	6.06	2.29	-0.13	-1.88	-0.1		
OLS	0.258	0.078*	-0.044	-0.003	0.212	0.131***	-0.241	-1.446**	-1.327*	61.70%	1346

t stats	0.92	1.71	-1.21	-1.46	1.63	2.59	-0.88	-2.07	-1.85		
shapleyR2	12.00%	14.10%	2.00%	4.20%	11.30%	7.00%	2.20%	5.60%	3.90%	62.40%	
US NASDAQ											
LAD	0.514***	0.052***	-0.027***	-0.014***	0.178***	0.07	-0.028	-0.142	-0.198	58.40%	-64
t stats	6.06	6.32	-3.9	-5.92	3.66	1.62	-0.53	-1.51	-0.85		
OLS	0.266**	0.077***	-0.029	-0.012***	0.398***	0	-0.15	-0.698**	-0.714	71%	686
t stats	2.38	3.3	-1.21	-4.18	3.08	0	-1.22	-2.28	-1.53		
shapleyR2	11.20%	15.90%	2.70%	4.90%	15.70%	6.80%	2.30%	5.30%	6.60%	71.50%	
US Russell											
LAD	0.332***	0.078***	-0.032***	-0.015***	0.26***	0.054	-0.02	-0.12*	-0.107	57.20%	-78
t stats	3.83	9.9	-5.68	-4.94	5.31	1.2	-0.49	-1.66	-0.6		
OLS	0.031	0.108***	-0.031*	-0.013***	0.345***	0.086	-0.11	-0.508**	-0.618*	70.80%	637
t stats	0.22	4.34	-1.65	-4.23	4.67	0.87	-1.06	-2.56	-1.67		
shapleyR2	10.60%	16.80%	4.10%	5.70%	14.40%	7.30%	2.90%	3.90%	5.70%	71.40%	
US SP500											
LAD	0.31***	0.079***	-0.033***	-0.004***	0.253***	0.067	-0.043	-0.205	-0.053	59.20%	161
t stats	4.18	10.36	-4.87	-4.49	5.4	1.61	-0.48	-1.33	-0.14		
OLS	0.283	0.072***	-0.04**	-0.005***	0.286**	0.072	-0.193	-1.263**	-1.197*	67.40%	1215
t stats	1.54	2.94	-2.04	-2.92	2.27	1.31	-1.34	-2.21	-1.77		
shapleyR2	12.00%	15.30%	2.70%	4.00%	13.30%	7.40%	2.50%	5.50%	5.20%	68%	
Emerging Markets											
Brazil BVSP											
LAD	0.269***	0.07***	-0.049***	-0.006***	0.518***	0.005	0.042	-0.059	-0.089	59.30%	212
t stats	3.34	10.59	-10.05	-3.82	9.34	0.1	0.57	-0.45	-0.28		
OLS	0.465***	0.051***	-0.036***	-0.011***	0.305***	0.147**	-0.045	-0.32	-0.885	72.30%	1165
t stats	3.56	3	-4.52	-3.04	3.04	2.18	-0.56	-1.05	-1.47		
shapleyR2	14.50%	11.70%	3.60%	7.20%	15.80%	11.20%	2.00%	1.60%	5.20%	72.80%	
China SSEC											
LAD	0.392***	0.073***	-0.047***	-0.012*	0.166**	0.203**	0.046	0.088	0.026	37.60%	166
t stats	2.87	5.48	-3.37	-1.89	2.39	2.46	0.48	0.8	0.11		

OLS	0.602***	0.068***	-0.027	-0.027***	0.212***	0.063	-0.094	-0.087	-0.152	43.50%	861
t stats	4.12	4.85	-1.64	-4.36	2.99	0.78	-0.81	-0.64	-0.73		
shapleyR2	10.60%	11.10%	2.30%	5.10%	7.00%	3.20%	2.80%	0.90%	1.50%	44.60%	
Indian BSESN											
LAD	0.402***	0.073***	-0.064***	-0.013***	0.21***	0.088*	0.099	-0.065	-0.024	43%	120
t stats	4.77	11.22	-11.45	-8.27	3.85	1.77	1.55	-0.69	-0.12		
OLS	0.293	0.075**	-0.063**	-0.012***	0.297***	0.088	0.097	-0.049	-0.297	53.30%	1004
t stats	1.52	2.44	-2.48	-6.79	3.64	1.36	0.79	-0.47	-1.15		
shapleyR2	9.13%	10.06%	8.64%	4.65%	10.10%	5.01%	2.94%	0.42%	3.23%	54.20%	
Indian NIFTY50											
LAD	0.266***	0.078***	-0.076***	-0.011***	0.367***	0.037	0.087	-0.095	0.089	43.90%	154
t stats	3.4	12.09	-12.09	-8.54	6.78	0.88	1.16	-0.9	0.38		
OLS	0.229	0.074***	-0.076***	-0.01***	0.424***	0.03	0.162*	-0.173*	-0.225	66.30%	930
t stats	1.53	4.21	-4.26	-5.67	6.02	0.62	1.88	-1.76	-1.02		
shapleyR2	8.50%	15.80%	12.80%	5.00%	12.80%	3.90%	3.60%	1.10%	3.70%	67%	
Korea KOSPI											
LAD	0.37***	0.11***	0.011**	-0.007***	0.134***	0.113***	-0.081*	-0.118	0.117	64.40%	-93
t stats	6.6	20.59	2.35	-7.4	3.51	3.73	-1.7	-1.52	0.64		
OLS	0.448***	0.107***	0.026**	-0.009***	0.225***	0.008	-0.22**	-0.68*	0.009	80.50%	737
t stats	3.76	14.37	1.98	-5.09	3.92	0.12	-2.06	-1.69	0.04		
shapleyR2	15.90%	26.30%	1.10%	7.10%	15.00%	5.50%	0.60%	5.70%	3.60%	80.90%	
Mexico MXX											
LAD	0.304***	0.013	-0.021**	-0.006***	0.232***	0.145***	0.018	-0.131	0.008	38.80%	27
t stats	3.66	1.24	-2.33	-2.65	4.27	2.72	0.26	-1.36	0.03		
OLS	0.294*	0.066***	-0.031	-0.014***	0.336**	0.096	-0.053	-0.74***	-0.286	44.40%	960
t stats	1.95	3.22	-0.89	-3.17	2.07	1.11	-0.29	-2.87	-1.08		
shapleyR2	7.27%	9.22%	0.69%	3.79%	10.28%	4.85%	0.47%	6.40%	2.44%	45.40%	
Pakistan KSE											
LAD	0.682***	0.102***	-0.01	-0.052***	0.201**	-0.008	0.107	0.042	0.003	39.40%	35

t stats	5.43	5.11	-0.46	-5.19	2.52	-0.1	1.18	0.46	0.02		
OLS	0.606***	0.101***	-0.008	-0.048***	0.271***	0.109	0.017	-0.022	-0.014	36.80%	616
t stats	4.31	3.45	-0.27	-4.72	2.95	0.99	0.17	-0.22	-0.07		
shapleyR2	9.40%	6.60%	1.10%	4.40%	10.80%	5.00%	0.40%	0.20%	0.20%	38.20%	

Panel D: After GFC

	β_0	$\beta_{ r }$	β_r	β_{RV}	β_W	β_M	θ_D	θ_W	θ_M	\bar{R}^2	AIC
Developed Markets											
Amsterdam											
AEX											
LAD	0.351***	0.034***	0.003	-0.018***	0.296***	0.132***	-0.073***	-0.081***	-0.038	46.70%	-2389
t stats	9.8	3.64	0.44	-9.16	12.63	5.22	-4.22	-2.89	-0.6		
OLS	0.592***	0.028	0.014	-0.022***	0.179**	0.114	-0.15***	-0.151*	-0.195*	44%	-590
t stats	3.76	0.74	0.38	-3.36	2.33	1.64	-2.75	-1.85	-1.66		
shapleyR2	13.80%	4.60%	1.60%	3.90%	8.90%	5.00%	2.50%	2.20%	1.70%	44.30%	
Australia											
AORD											
LAD	0.139***	0.014	-0.013	0	0.227***	0.21***	-0.044***	-0.099***	-0.085*	32%	-3242
t stats	2.97	0.92	-1.22	0.1	7.84	6.22	-3.03	-4.37	-1.66		
OLS	0.094	0.072	-0.017	-0.008	0.293***	0.224***	-0.092**	-0.22***	-0.23***	32.40%	-3088
t stats	0.92	1.51	-0.54	-1.09	5.56	4.57	-2.48	-3.13	-3.63		
shapleyR2	6.12%	4.93%	1.93%	1.93%	7.25%	3.48%	1.84%	3.22%	2.05%	32.70%	
Brussels BFX											
LAD	0.322***	0.036***	-0.006	-0.015***	0.314***	0.137***	-0.058***	-0.084***	0.011	44.50%	-2704
t stats	8.98	4.15	-1.04	-4.72	12.77	5.34	-4.08	-3.4	0.18		
OLS	0.584***	-0.006	-0.002	-0.014	0.215***	0.095	-0.104***	-0.153*	-0.219**	48.20%	-1652
t stats	2.98	-0.14	-0.06	-1.2	3.12	1.23	-3	-1.74	-2.53		
shapleyR2	16.10%	5.00%	1.10%	4.80%	9.70%	4.80%	2.00%	2.60%	2.40%	48.40%	
Canada											
GSPTSE											
LAD	0.186***	0.031**	-0.058***	-0.013***	0.182***	0.202***	-0.036**	-0.112***	-0.136*	36.90%	-2736
t stats	5.89	2.57	-6.73	-10.54	8.8	7.58	-1.97	-3.7	-1.88		
OLS	0.307**	0.034	-0.05*	-0.017***	0.196***	0.226***	-0.172**	-0.321***	-0.329**	22.40%	-356
t stats	2.16	1.05	-1.69	-4.79	2.8	3.17	-2.09	-2.72	-2.08		
shapleyR2	4.34%	2.07%	1.04%	2.47%	4.03%	3.00%	2.53%	2.27%	1.02%	22.80%	

Denmark											
OMXC20											
LAD	0.462***	-0.045***	0.012***	-0.004***	0.104***	0.06***	-0.038*	-0.058	-0.064	31.50%	-1441
t stats	11.45	-6.29	3.6	-11.19	8.35	2.7	-1.83	-1.45	-0.75		
OLS	0.76***	-0.096***	0	-0.006***	0.041	0.115	-0.064*	0.057	-0.412*	2.78%	4760
t stats	5.32	-3.64	0	-5.49	1.37	1.64	-1.69	0.2	-1.84		
shapleyR2	0.85%	0.44%	0.03%	0.72%	0.28%	0.45%	0.12%	0.04%	0.30%	3.22%	
Euro											
STOXX50E											
LAD	0.323***	0.015**	-0.008	-0.009***	0.237***	0.173***	-0.102***	-0.152***	-0.083	43.80%	-1317
t stats	10.74	2.41	-1.49	-7.55	10.53	6.64	-4.01	-3.67	-0.87		
OLS	0.65***	-0.006	-0.031	-0.015***	0.194***	0.093	-0.079	-0.127	-0.342**	35.10%	1885
t stats	3.19	-0.31	-1.44	-3.28	2.87	1.01	-1.14	-0.76	-2.03		
shapleyR2	12.60%	2.10%	1.00%	2.50%	7.40%	4.40%	1.70%	1.70%	2.10%	35.40%	
Finland											
OMXHPI											
LAD	0.53***	0.076***	-0.033***	-0.003***	0.017**	0.027**	-0.007	-0.018	-0.083	41.50%	-1754
t stats	15.15	7.2	-4.29	-19.51	2.41	1.97	-0.33	-0.56	-1.12		
OLS	0.827**	0.011	-0.046	-0.004**	0.006	0.031	-0.126	-0.086	-0.086	2.98%	6443
t stats	2.39	0.22	-0.73	-2.54	0.26	0.66	-1.05	-1.14	-0.26		
shapleyR2	0.78%	0.73%	0.13%	0.96%	0.08%	0.15%	0.30%	0.16%	0.14%	3.42%	
France FCHI											
LAD	0.277***	0.012*	-0.021***	0.002	0.272***	0.182***	-0.067***	-0.138***	-0.099	45.80%	-1792
t stats	7.27	1.9	-4.07	1.17	11.14	6.85	-3.44	-4.16	-1.26		
OLS	0.442***	0.011	-0.023	-0.009	0.259***	0.155***	-0.111**	-0.24***	-0.23*	52.60%	-65
t stats	4.46	0.58	-0.75	-1.11	4.39	2.65	-1.96	-3.25	-1.85		
shapleyR2	14.60%	6.70%	2.10%	5.70%	10.60%	6.20%	1.90%	2.60%	2.30%	52.80%	
Germany											
DAX											
LAD	0.177***	0.002	-0.025***	0.012***	0.297***	0.254***	-0.063***	-0.149***	-0.005	45.90%	-1703
t stats	4.58	0.26	-4.36	6.25	11.92	9.06	-2.98	-4.37	-0.07		

OLS	0.199***	-0.001	-0.029	0.011***	0.283***	0.27***	-0.108***	-0.236***	-0.142	55.80%	18
t stats	2.68	-0.07	-1.54	4.39	3.46	4.33	-3.92	-2.78	-1.18		
shapleyR2	13.40%	7.00%	2.60%	8.10%	11.40%	7.90%	1.50%	2.20%	2.00%	56%	
HK HSI											
LAD	0.226***	0.073***	0.013**	-0.031***	0.181***	0.189***	-0.039***	-0.037*	-0.018	31.30%	-2820
t stats	5.87	6.46	2.11	-6.08	6.99	5.87	-3.37	-1.87	-0.44		
OLS	0.363***	0.087***	-0.006	-0.045**	0.192***	0.146***	-0.04	-0.113**	-0.119**	28.20%	-1813
t stats	2.72	3.14	-0.25	-2.28	3.38	2.91	-1.34	-2.48	-2.52		
shapleyR2	6.72%	4.66%	1.42%	3.18%	5.66%	3.09%	0.78%	1.76%	1.23%	28.50%	
Japan N225											
LAD	0.397***	0.052***	-0.024***	-0.031***	0.105***	0.143***	-0.017	-0.05*	-0.003	39.30%	-1936
t stats	13.3	8.9	-5.31	-12.96	5.39	5.59	-1.08	-1.81	-0.05		
OLS	0.71***	0.08**	-0.033***	-0.055***	0.092	0.077	-0.038	-0.025	0.02	31.40%	888
t stats	3.76	2.09	-2.58	-2.77	1.34	1.1	-1.42	-0.52	0.14		
shapleyR2	10.40%	5.30%	2.60%	5.40%	3.50%	2.00%	1.50%	0.80%	0.30%	31.80%	
Norway											
OSEAX											
LAD	0.299***	-0.003	-0.038***	-0.011***	0.209***	0.224***	-0.055**	-0.177***	-0.106	42.30%	-1707
t stats	8.03	-0.33	-6.52	-8.05	8.82	8.25	-2.46	-4.59	-1.19		
OLS	0.547***	-0.027	-0.028*	-0.016***	0.234***	0.157***	-0.15***	-0.341***	-0.37**	34.40%	844
t stats	4.06	-1.11	-1.81	-4.31	3.35	2.72	-3.32	-2.58	-2.49		
shapleyR2	9.04%	3.18%	1.04%	2.48%	7.85%	4.56%	1.69%	2.94%	1.88%	34.60%	
Spanish											
IBEX											
LAD	0.346***	0.044***	-0.019***	-0.015***	0.242***	0.141***	-0.068***	-0.136***	-0.084	41.90%	-882
t stats	11.52	7.45	-9.56	-8.42	10.95	5.55	-2.92	-3.2	-0.85		
OLS	0.698***	0.03	-0.022***	-0.018**	0.164*	0.043	-0.084*	-0.098	-0.359**	39.20%	2467
t stats	4.28	1.32	-6.52	-2.5	1.92	0.81	-1.74	-0.66	-2.14		
shapleyR2	15.50%	2.80%	2.10%	3.60%	7.20%	3.10%	1.80%	1.10%	2.20%	39.50%	
Spanish											
SMSI											

LAD	0.413***	0.001	-0.004**	-0.006***	0.217***	0.125***	-0.073***	-0.111***	-0.022	39.20%	-850
t stats	14.29	0.28	-2.4	-10.62	10.83	4.92	-3.18	-2.61	-0.22		
OLS	0.841***	-0.004	-0.008***	-0.013***	0.082	0.031	-0.162**	-0.046	-0.378**	27.60%	3362
t stats	4.64	-1.27	-2.85	-4.77	1.2	0.54	-2.5	-0.31	-2.3		
shapleyR2	11.20%	1.10%	0.40%	4.30%	4.30%	2.20%	1.80%	0.90%	1.70%	27.90%	
Sweden											
OMXSPI											
LAD	0.29***	0.12***	-0.039***	-0.01***	0.131***	0.135***	-0.028	-0.048	-0.106	43.70%	-2113
t stats	14.29	19.62	-5.71	-11.78	11.46	8.04	-1.6	-1.56	-1.49		
OLS	0.291***	0.163***	-0.094*	-0.009*	0.036	0.199**	-0.042	-0.24***	-0.393**	11%	3722
t stats	3.03	4.57	-1.81	-1.95	0.54	1.96	-0.52	-2.74	-2.49		
shapleyR2	1.83%	2.19%	1.79%	1.14%	0.96%	1.51%	0.67%	0.68%	0.62%	11.40%	
Switzerland											
SSMI											
LAD	0.445***	-0.032***	-0.033***	-0.008***	0.219***	0.108***	-0.019	-0.057**	-0.034	46.10%	-2946
t stats	17.42	-6.36	-9.04	-6.97	13.7	5.94	-1.41	-2.37	-0.61		
OLS	0.812***	0.021*	-0.034*	-0.029***	0.13	0.021	-0.072**	-0.013	-0.27**	29.50%	355
t stats	3.02	1.83	-1.79	-3.02	1.52	0.21	-2.13	-0.1	-2.22		
shapleyR2	10.28%	1.98%	1.05%	3.20%	5.95%	2.52%	1.83%	1.20%	1.80%	29.80%	
UK FTSE											
LAD	0.252***	-0.003	-0.026***	-0.005***	0.263***	0.163***	-0.091***	-0.152***	-0.149	40.10%	-1816
t stats	6.95	-0.28	-3.43	-8.4	12.92	6.32	-3.63	-3.58	-1.58		
OLS	0.449**	-0.026	-0.039**	-0.008***	0.258***	0.172**	-0.189***	-0.195	0.454***	21.40%	1733
t stats	2.5	-0.8	-2.06	-3.18	3.09	2.01	-2.9	-0.75	-3.21		
shapleyR2	4.33%	1.99%	0.76%	2.23%	5.52%	3.27%	1.63%	0.92%	1.15%	21.80%	
US DJI											
LAD	0.257***	-0.028***	-0.034***	-0.002***	0.202***	0.204***	-0.089***	-0.15***	-0.081	40.30%	-1945
t stats	7.08	-2.76	-5.9	-4.12	11.42	8.6	-3.52	-3.29	-0.8		
OLS	0.382***	0.006	-0.018	-0.006***	0.15*	0.181**	-0.326**	-0.445***	-0.504	22.30%	1756
t stats	2.81	0.15	-0.52	-2.96	1.94	2.41	-2.19	-2.6	-1.59		

shapleyR2	5.06%	2.80%	1.03%	1.90%	3.52%	2.40%	2.86%	2.01%	1.08%	22.70%	
US NASDAQ											
LAD	0.408***	0.042***	-0.037***	-0.015***	0.093***	0.211***	-0.036***	-0.072***	-0.02	44.20%	-2834
t stats	11.74	5.99	-9.09	-7.25	4.56	8.66	-2.7	-2.82	-0.37		
OLS	0.636***	0.109***	-0.03***	-0.04***	-0.026	0.135**	-0.078***	-0.133***	-0.141*	43.70%	-1089
t stats	4.73	6.77	-3.31	-3.43	-0.4	2.32	-2.94	-4.07	-1.78		
shapleyR2	12.30%	8.70%	2.10%	5.60%	4.50%	3.50%	3.30%	2.70%	1.20%	44%	
US Russell											
LAD	0.205***	0.02***	-0.034***	0.012***	0.136***	0.294***	-0.053***	-0.126***	-0.052	43.50%	-2348
t stats	6.33	3.44	-12.15	6.58	6.8	12.31	-4.07	-4.95	-0.93		
OLS	0.092	0.121***	-0.04**	-0.011	0.154*	0.273***	-0.111***	-0.212***	-0.199*	55.80%	-776
t stats	1.16	4.99	-2.41	-1.17	1.84	5.06	-3.28	-4.17	-1.94		
shapleyR2	11.60%	13.80%	4.10%	6.10%	7.60%	6.20%	3.20%	2.10%	1.30%	56%	
US SP500											
LAD	0.294***	-0.033***	-0.035***	-0.004***	0.251***	0.187***	-0.092***	-0.149***	-0.019	44.90%	-2119
t stats	8.94	-4.11	-7.16	-3.26	12.75	7.77	-4.22	-3.69	-0.21		
OLS	0.318**	0.051	0.003	-0.01***	0.158*	0.246***	-0.305***	-0.384***	-0.351	36.80%	582
t stats	2.57	1.53	0.11	-2.68	1.86	3.76	-3.05	-3.78	-1.64		
shapleyR2	9.02%	5.51%	1.23%	2.76%	6.08%	4.99%	3.47%	2.56%	1.41%	37%	
Emerging Markets											
Brazil BVSP											
LAD	0.32***	0.046***	-0.001	-0.018***	0.149***	0.174***	-0.025	-0.065**	-0.029	31.20%	-1762
t stats	8.65	6.42	-0.11	-8.49	5.4	4.91	-1.52	-2.46	-0.52		
OLS	0.56***	0.03	-0.002	-0.027***	0.126**	0.173***	-0.055*	-0.111*	-0.05	27.30%	-37
t stats	5.53	1.3	-0.1	-4.29	2.15	3.29	-1.76	-1.75	-0.77		
shapleyR2	10.10%	3.81%	0.67%	3.49%	4.45%	3.23%	0.71%	0.94%	0.26%	27.70%	
China SSEC											
LAD	0.212***	0.072***	-0.047***	-0.004***	0.264***	0.15***	0.007	0.047	0.07	53.70%	-951
t stats	7.28	16.27	-15.29	-4.39	13.82	7.85	0.27	1.14	0.89		
OLS	0.252***	0.12***	-0.067***	-0.009***	0.275***	0.129***	0.11*	0.137	0.354***	68.60%	1962

t stats	3.46	6.76	-4.88	-3.28	5.53	2.96	1.86	1.2	2.62		
shapleyR2	12.00%	18.60%	8.10%	6.40%	13.70%	7.20%	1.90%	0.60%	0.20%	68.80%	
Indian BSESN											
LAD	0.228***	0.128***	0.004	-0.03***	0.229***	0.19***	-0.046**	-0.043*	-0.023	35.30%	-2740
t stats	5.12	7.56	0.21	-4.99	6.81	4.78	-2.39	-1.8	-0.46		
OLS	0.271***	0.143***	0.011	-0.037***	0.211***	0.22***	-0.056***	-0.089*	-0.06	33%	-2586
t stats	4.62	6.86	0.45	-7.02	4.76	3.97	-2.58	-1.76	-1.19		
shapleyR2	6.67%	7.84%	1.40%	2.02%	6.94%	5.14%	0.84%	1.45%	0.98%	33.30%	
Indian NIFTY50											
LAD	0.205***	0.159***	-0.007	-0.035***	0.213***	0.178***	-0.04**	-0.046*	0	35.10%	-2683
t stats	4.94	8.98	-0.4	-8.55	6.72	4.56	-2.09	-1.92	0.01		
OLS	0.216***	0.16***	-0.021	-0.029***	0.192***	0.239***	-0.021	-0.091**	-0.027	27%	-2037
t stats	4.06	6.98	-0.93	-6.12	4.43	4.84	-0.77	-2.13	-0.43		
shapleyR2	4.57%	7.16%	1.07%	1.83%	5.59%	4.55%	0.60%	1.25%	0.73%	27.30%	
Korea KOSPI											
LAD	0.234***	0.097***	-0.033***	-0.016***	0.136***	0.221***	-0.028**	-0.023	0.021	41.50%	-3314
t stats	8.21	7.4	-2.7	-10.01	7.38	10.04	-2.28	-1.11	0.5		
OLS	0.31	0.146***	-0.034	-0.025	0.146*	0.149	-0.033	-0.156**	-0.028	48.50%	-1930
t stats	1.06	3.42	-0.65	-1.15	1.67	1.01	-0.7	-2.02	-0.61		
shapleyR2	11.60%	11.30%	7.30%	5.90%	4.60%	3.80%	1.50%	2.10%	0.60%	48.70%	
Mexico MXX											
LAD	0.16***	0.007	-0.027***	-0.003***	0.141***	0.182***	-0.026	-0.076**	-0.053	28.20%	-2124
t stats	4.24	0.56	-3.18	-4.68	7.25	6.13	-1.21	-2.12	-0.62		
OLS	0.228**	-0.005	-0.013	-0.003**	0.152*	0.194***	-0.126	-0.283***	-0.381*	6.78%	1385
t stats	2.32	-0.13	-0.62	-2.26	1.93	2.61	-1.42	-2.95	-1.66		
shapleyR2	1.19%	0.79%	0.30%	0.52%	1.60%	0.96%	0.59%	0.83%	0.43%	7.20%	
Pakistan KSE											

LAD	0.304***	0.134***	-0.022**	-0.071***	0.139***	0.156***	-0.01	-0.025	-0.044	29.90%	-2823
t stats	7.44	8.96	-2.18	-8.39	4.22	3.55	-0.65	-1.12	-0.95		
OLS	0.307***	0.17***	0.004	-0.093***	0.168***	0.166***	-0.057**	-0.066**	-0.081	27.10%	-2744
t stats	5.41	6.66	0.39	-7.28	3.51	3.53	-2.45	-2.04	-1.58		
shapleyR2	5.80%	6.70%	1.20%	3.38%	3.93%	2.43%	1.57%	1.36%	1.03%	27.40%	

Appendix C: Structural Breaks of the HAR-CVP Model

We date the structural changes according to the Bai and Perron (2003) test and estimate the breakpoints with a trimming of $h=0.1$ and a maximum of $m = 5$ breaks. The HAR-CVP model can be written as

$$y_i = x_i^T \beta_i + \mu_i \quad (i = i_{j-1} + 1, \dots, i_j, \dots, j = 1, \dots, m + 1)$$

There are $m + 1$ segments in which the regression coefficients are constant with j as the segment index. $\mathcal{J}_{m,n} = \{i_1, \dots, i_m\}$ is the set of the breakpoints with $i_0 = 0$ and $i_{m+1} = n$. The residual sum of squares is given by

$$RSS(i_1, \dots, i_m) = \sum_{j=1}^{m+1} rss(i_{j-1}, i_j)$$

where $rss(i_{j-1}, i_j)$ is the residual sum of squares in the j th segment. The breakpoints $\hat{i}_1, \hat{i}_2, \dots, \hat{i}_m$ the solution of the objective function

$$(\hat{i}_1, \dots, \hat{i}_m) = \operatorname{argmin}_{(i_1, \dots, i_m)} RSS(\hat{i}_1, \dots, \hat{i}_m)$$

$(\hat{i}_1, \dots, \hat{i}_m)$ with $i_j - i_{j-1} \geq n_h \geq k$.

The optimal segmentation satisfies the recursion

$$RSS(\mathcal{J}_{m,n}) = \min_{n_h \leq i \leq n - n_h} [RSS(\mathcal{J}_{m-1,i}) + rss(i + 1, n)].$$

See Bai and Perron (2003) and Zeileis et al. (2003) for details.

Panel A reports the dates of structural changes in each index. All indices except China's Shanghai Composite Index have a break during the global financial crisis (GFC) in 2008. Panel B summarizes CVP coefficients across indices and subperiods. The signs of average and median coefficients are the same as reported in Tables 3 and 4 of Chen and Wang (2019). ($\%t > 1.96$) and ($\%t < -1.96$) report the percentage of coefficients across indices and subperiods that are significant at 5%. For both developed and emerging markets, significant coefficients with the correct signs dominate those with the wrong signs. For example, across all developed markets and all subperiods, 48% of $\beta_{|r|}$ are positive and significant and only 2% negative and significant. The results are stronger for emerging markets as in Chen and Wang (2019).

Reference

- Bai J, Perron P. Computation and analysis of multiple structural change models. *Journal of applied econometrics*, 2003, 18(1): 1-22.
- Chen, S. and J. Wang (2019), Conditional Volatility Persistence: Further Evidence.
- Zeileis A, Kleiber C, Krämer W, et al. (2003), Testing and dating of structural changes in practice. *Computational Statistics & Data Analysis*, 44(1-2): 109-123.

Panel A: Break dates of each market index (month/day)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Developed markets																	
Amsterdam AEX			09/23					01/11	10/23		09/30					08/21	
Australia AORD							04/13		01/29								
Brussels BFX				03/13			12/18		10/07		09/30					08/21	
Canada GSPTSE								03/26	10/10		05/21						
Denmark OMXC20									10/13								
Euro STOXX50E							12/21		10/09			08/11					
Finland OMXHPI									10/17								
France FCHI								01/10	10/23			09/23					
Germany DAX			09/27					01/12	10/27								
HK HSI							04/04		01/23	11/09							
Japan N225								01/11	10/16		12/10			05/23			
Norway OSEAX								03/01	10/13								
Spanish IBEX						07/07			01/22		04/28		01/30				03/23
Spanish SMSI									11/06		05/07	08/16			03/28	06/29	
Sweden OMXSPI									10/13		02/05						
Switzerland SSMI			07/22						07/22		05/07					01/12	
UK FTSE							12/28		10/09								
US DJI								01/12	10/23					11/07		08/21	
US NASDAQ							12/29		10/13								
US Russell								01/26	11/13			08/03					
US SP500							12/29		10/13			08/09		11/08		08/24	
Emerging markets																	
Indian BSESEN					05/13		02/28		01/29								
Indian NIFTY50					05/13		04/13		01/21								
Brazil BVSP							12/13		09/29			08/08					
Korea KS11		12/12					10/02		10/28			08/08					
Pakistan KSE					02/17		03/07		08/13								
Mexico MXX								01/11	10/24								
China SSEC							01/19	11/05						02/28	12/09		

Panel B: Cross-sectional Average of all sub-periods according to Panel A

	β_0	$\beta_{ r }$	β_r	β_{RV}	R^2
Developed Markets					
coeff (Ave)	0.462	0.06	-0.041	-0.02	52%
coeff (Med)	0.403	0.05	-0.034	-0.01	
t stats (Ave)	2.75	1.77	-1.91	-1.93	
t stats (Med)	2.62	1.89	-1.79	-2.08	
(%t < -1.96)	1%	2%	45%	50%	
(%t > 1.96)	66%	48%	1%	6%	
Emerging Markets					
coeff (Ave)	0.403	0.1	-0.025	-0.03	49%
coeff (Med)	0.4	0.08	-0.022	-0.03	
t stats (Ave)	3.63	3.35	-1.73	-4.71	
t stats (Med)	3.35	3.31	-1.4	-4.41	
(%t < -1.96)	0%	0%	38%	83%	
(%t > 1.96)	83%	72%	7%	0%	

Appendix D: Global Impact of Local CVP

Panel A: Full sample

	β_0	$\beta_{ r }$	β_r	β_{RV}	$\lambda_{ r }$	λ_r	λ_{RV}	\bar{R}^2	AIC
Developed Markets									
Amsterdam AEX									
OLS	0.406***	0.009	0.034	-0.004	0.104***	-0.093**	-0.022**	70.70%	952
t stats	4.08	0.55	1.55	-0.38	4.03	-2.49	-2.06		
shapleyR2	12.30%	5.10%	1.60%	3.90%	9.30%	2.90%	3.90%	70.80%	
LAD	0.303***	0.025***	0.032***	-0.005***	0.098***	0.098***	-0.016***	59.60%	-3932
t stats	13.4	7.26	7.93	-3.8	16.64	-16.01	-11.14		
Australia AORD									
OLS	0.041	0.008	-0.052***	0.002	0.071	0.032	-0.014*	55.20%	-5344
t stats	0.8	0.26	-4.25	0.21	1.5	1.14	-1.9		
shapleyR2	5.60%	3.53%	2.22%	2.36%	6.68%	0.57%	3.39%	55.30%	
LAD	0.075***	0.033***	-0.016***	0.012***	0.138***	-0.03***	-0.013***	44.70%	-6892
t stats	3.44	-5.73	-4.13	4.47	30.35	-7.11	-9.11		
Brussels BFX									
OLS	0.095	-0.024	0.037	0.026***	0.156***	-0.087**	-0.039***	61.80%	-1106
t stats	0.85	-1.11	1.51	3.94	3.54	-2.16	-4.69		
shapleyR2	8.52%	4.23%	1.19%	2.38%	10.49%	1.72%	3.65%	62%	
LAD	0.24***	-0.008*	0.012**	0.014***	0.108***	0.068***	-0.025***	54.70%	-5150
t stats	11.47	-1.94	2.2	6.99	15.33	-8.42	-13.96		
Canada GSPTSE									
OLS	1.033***	-0.02	-0.381***	0.002	0.356***	0.392***	0.208***	64.30%	9023
t stats	3.38	-0.42	-3.24	1.54	-3.87	3.92	3.24		

shapleyR2	6.00%	3.00%	11.80%	4.30%	6.90%	6.30%	14.50%	64.50%	
LAD					-				
t stats	0.259***	0.061***	-0.061***	-0.001***	0.087***	0.031***	0.02***	49.10%	-2596
	11.85	17.46	-19.46	-8.22	-18.61	7.09	12.01		
Denmark OMXC20									
OLS	0.126	-0.023	0.012	-0.001	0.108*	-0.043	-0.016***	33.20%	7102
t stats	0.66	-0.68	0.71	-0.64	1.8	-0.9	-3.6		
shapleyR2	2.59%	2.40%	0.30%	0.84%	4.61%	0.45%	2.64%	33.50%	
LAD									
t stats	0.09***	-0.007*	0.007*	-0.001***	0.117***	0.026***	-0.013***	48.10%	-1270
	3.85	-1.72	1.86	-2.78	21.97	-4.9	-14.55		
Euro STOXX50E									
OLS	0.209	-0.053	0.036	0.002	0.093	-0.12**	-0.01	54.20%	7201
t stats	1.49	-1.27	1.28	0.19	1.63	-2.13	-0.45		
shapleyR2	7.10%	2.66%	1.39%	2.01%	5.42%	2.96%	2.21%	54.30%	
LAD									
t stats	0.298***	0.028***	0.031***	-0.001	0.08***	0.112***	-0.004**	53.10%	-1916
	15.94	-6.98	7.04	-0.79	14.53	-17.36	-2.38		
Finland OMXHPI									
OLS	0.327*	-0.097	-0.008	-0.001	0.184***	-0.061	-0.022***	22.20%	9078
t stats	1.86	-1.64	-0.19	-1.54	2.96	-1.03	-5.53		
shapleyR2	1.37%	1.65%	0.32%	0.70%	3.33%	0.64%	1.79%	22.60%	
LAD									
t stats	0.253***	0.052***	-0.013***	-0.001***	0.149***	0.036***	-0.012***	51.70%	-1465
	9.54	-10.76	-2.79	-9.14	23.29	-5.41	-15.65		
France FCHI									
OLS									
t stats	0.478***	-0.048	0.007	-0.012*	0.146***	0.105***	-0.006	68.80%	2396
	5.14	-1.53	0.34	-1.67	4.21	-3.36	-0.5		
shapleyR2	10.47%	4.08%	1.83%	3.08%	10.10%	4.59%	3.03%	68.90%	

LAD						-			
	0.33***	0.001	0.026***	-0.011***	0.09***	0.102***	-0.003	56.60%	-3284
t stats	15.29	0.3	5.59	-10.09	14.21	-14.69	-1.61		
Germany DAX									
OLS	0.422***	-0.024	0.054*	-0.002	0.063**	-0.119**	-0.006	63.70%	5404
t stats	4.55	-0.78	1.89	-0.39	2.21	-2.39	-0.75		
shapleyR2	12.10%	4.00%	1.10%	3.20%	5.60%	2.20%	2.80%	63.90%	
LAD						-			
	0.289***	0.018***	0.028***	-0.003***	0.031***	0.064***	-0.006***	57.50%	-2068
t stats	13.89	5.42	9.68	-3.06	6.79	-11.87	-4.13		
HK HSI									
OLS						-			
	0.183**	0.042***	0.004	-0.001	0.015	0.065***	-0.016	62.70%	448
t stats	2.28	4.2	0.45	-0.15	0.89	-3.25	-1.07		
shapleyR2	8.70%	6.20%	0.70%	3.90%	5.90%	2.10%	5.40%	62.80%	
LAD						-			
	0.192***	0.042***	0.005***	0	0.008*	0.056***	-0.009***	50.40%	-4193
t stats	10.92	19.13	3.18	0.31	1.69	-13.25	-5.44		
Japan N225									
OLS	0.381***	0.008	0.011	-0.009	0.117**	-0.036	-0.016	54.20%	1283
t stats	3.92	0.36	0.79	-1.06	1.96	-1.04	-1.52		
shapleyR2	10.33%	4.06%	0.81%	3.71%	6.75%	1.07%	3.46%	54.30%	
LAD						-			
	0.316***	0.008***	0.009***	-0.007***	0.11***	0.041***	-0.016***	47.20%	-3688
t stats	14.99	2.67	3.5	-4.71	16.15	-7.69	-11.56		
Norway OSEAX									
OLS	0.133	-0.021	0.003	-0.008**	0.122**	-0.069	-0.003	61.10%	4318
t stats	0.87	-0.66	0.13	-1.96	2.18	-1.2	-0.38		
shapleyR2	6.90%	3.80%	1.00%	3.10%	6.50%	1.60%	3.40%	61.30%	
LAD						-			
	0.175***	-0.01***	-0.009***	-0.008***	0.07***	0.014***	0.009***	51.40%	-2367

t stats	8.38	-3.14	-3.07	-13.64	14.8	-3.14	6.91		
Spanish IBEX									
OLS	0.479***	-0.003	-0.012	-0.01*	0.112***	-0.06*	-0.016***	53.90%	3429
t stats	5.16	-0.15	-1.45	-1.66	4.09	-1.85	-4.49		
shapleyR2	11.10%	2.20%	1.20%	2.50%	7.50%	3.40%	2.70%	54.10%	
LAD						-			
	0.315***	0.018***	-0.006**	-0.011***	0.096***	0.074***	-0.012***	51%	-2858
t stats	15.46	5.38	-2.4	-10.77	14.16	-11.45	-11		
Spanish SMSI									
OLS						-			
	0.675***	-0.02*	0.004	-0.011***	0.147***	0.096***	-0.024***	40.30%	4113
t stats	4.72	-1.92	0.48	-4.97	3.91	-3.09	-3.69		
shapleyR2	8.51%	1.60%	0.70%	3.01%	5.62%	2.39%	2.46%	40.60%	
LAD		-				-			
	0.37***	0.014***	0.015***	-0.006***	0.11***	0.108***	-0.011***	46.80%	-1802
t stats	15.34	-4.95	5.39	-12.35	11.24	-13.7	-7.06		
Sweden OMXSPI									
OLS	-0.241*	-0.104	0.002	0.014**	0.207**	-0.058	-0.029***	39.20%	5487
t stats	-1.95	-1.42	0.05	2.2	2.3	-0.97	-4.19		
shapleyR2	3.10%	1.40%	0.80%	1.10%	4.90%	1.00%	2.50%	39.40%	
LAD						-			
	0.021	-0.008*	-0.005	0.002*	0.08***	0.037***	-0.009***	53.20%	-2062
t stats	0.94	-1.66	-0.96	1.91	11.15	-5.04	-6.42		
Switzerland SSMI									
OLS						-			
	0.305***	-0.025*	0.023*	0.006	0.169***	0.123***	-0.024***	63.50%	-142
t stats	3.45	-1.86	1.81	1.02	7.21	-5.19	-9.08		
shapleyR2	10.10%	2.90%	0.90%	2.30%	11.10%	3.40%	3.90%	63.60%	
LAD						-			
	0.298***	0.003	0.004	-0.004***	0.114***	0.077***	-0.013***	59.80%	-5453
t stats	15	1.01	1.2	-3.32	23.69	-15.64	-16.67		

UK FTSE									
OLS	-0.111	-0.046	-0.051**	0.003	0.086	0.008	-0.017	45%	6706
t stats	-0.64	-1.12	-2.28	0.51	1.58	0.22	-1.52		
shapleyR2	4.30%	1.80%	1.00%	1.40%	4.10%	1.30%	1.90%	45.20%	
LAD		-							
OLS	0.144***	0.028***	-0.04***	0	0.069***	0.004	-0.008***	51%	-2899
t stats	7.48	-6.76	-9.92	-0.24	15.69	0.78	-5.88		
US DJI									
OLS	0.124	0.052	-0.015	-0.003*	0.033	-0.03	-0.022*	55.50%	5340
t stats	1.09	1.51	-0.56	-1.66	1.3	-1.25	-1.82		
shapleyR2	7.57%	7.41%	0.50%	2.22%	5.24%	1.34%	2.95%	55.70%	
LAD					-	-			
OLS	0.166***	0.038***	0	0.001***	0.016***	0.019***	-0.014***	51.10%	-2973
t stats	8.93	12.08	0.15	3.17	-3.76	-5.88	-7.56		
US NASDAQ									
OLS	0.397***	0.058***	-0.039***	-0.011***	-0.007	-0.005	-0.015	65.70%	2584
t stats	4.76	9.13	-4.41	-4.22	-0.25	-0.23	-1.07		
shapleyR2	11.90%	8.00%	3.20%	3.50%	4.30%	1.50%	2.30%	65.80%	
LAD						-			
OLS	0.412***	0.049***	-0.033***	-0.012***	0.01**	0.022***	-0.018***	59.90%	-3455
t stats	21.62	24.91	-19.26	-17.98	2.11	-5.17	-5.49		
US Russell									
OLS	0.118	0.103***	-0.03**	-0.016***	0.007	-0.012	0	67.30%	-968
t stats	1.55	4.67	-2.23	-3.74	0.38	-1.4	0		
shapleyR2	8.70%	12.50%	3.10%	4.10%	5.40%	1.40%	3.80%	67.40%	
LAD					-				
OLS	0.261***	0.065***	-0.034***	-0.008***	0.019***	0.002	0	51.30%	-5126
t stats	12.98	24.94	-18.97	-7.25	-4.18	0.72	-0.08		
US SP500									
OLS	0.183*	0.066***	-0.026*	-0.003***	-0.013	-0.018	-0.009	64.20%	3685
t stats	1.91	3.14	-1.72	-2.63	-0.8	-1.27	-1.05		

shapleyR2	9.00%	9.94%	1.09%	2.42%	5.23%	1.34%	3.36%	64.40%	
LAD					-				
t stats	0.208***	0.071***	-0.027***	-0.001**	0.046***	-0.001	-0.005**	54.80%	-3363
	11.72	28.66	-13.19	-1.98	-11.33	-0.21	-2.53		
Emerging									
Brazil BVSP									
OLS	0.222***	0.052**	-0.029*	-0.004	-0.017	-0.007	-0.014	63.40%	4140
t stats	3.33	2.26	-1.82	-0.64	-0.56	-0.3	-0.53		
shapleyR2	10.00%	7.60%	1.70%	3.80%	5.10%	1.40%	3.70%	63.60%	
LAD	0.239***	0.052***	-0.018***	-0.01***	0.005	-0.011*	0.004	43.70%	-1989
t stats	10.79	16.9	-5.62	-9.87	0.82	-1.76	1.06		
China SSEC									
OLS	0.244***	0.093***	-0.048***	-0.006***	0.064**	-0.031	-0.019**	64%	4611
t stats	4.89	8.63	-5.31	-3.72	2.3	-1.29	-2.56		
shapleyR2	11.70%	14.90%	5.00%	4.90%	4.20%	0.70%	1.60%	64.10%	
LAD					-				
t stats	0.259***	0.079***	-0.041***	-0.005***	0.028***	0.021***	-0.011***	53.70%	-1375
	11.6	23.31	-15.21	-7.21	3.99	-3.34	-4.73		
Indian BSESN									
OLS	0.616***	0.082***	-0.079***	-0.016***	0.002	-0.011	0.015	41.30%	9610
t stats	2.92	2.7	-2.91	-3.1	0.03	-0.2	1.04		
shapleyR2	7.70%	4.10%	3.28%	6.99%	5.27%	2.65%	1.30%	41.40%	
LAD	0.379***	0.059***	-0.057***	-0.01***	-0.006	0.014**	0.013***	50.10%	-1738
t stats	22.83	26.6	-30.32	-42.41	-0.93	2.48	15.3		
Indian NIFTY50									
OLS	0.627*	0.106***	-0.105***	-0.02***	-0.079	0.048	0.063**	47.60%	9993
t stats	1.93	2.83	-3.47	-2.87	-0.69	0.91	2.01		
shapleyR2	6.20%	4.70%	3.75%	9.37%	7.19%	4.11%	3.87%	47.80%	
LAD	0.329***	0.037***	-0.042***	-0.008***	-0.008	0.012**	0.028***	49%	-2034
t stats	19.63	17.29	-20.7	-37.57	-1.28	2.38	28.75		
Korea KOSPI									

OLS	0.312***	0.066***	0.03**	-0.012*	0.089***	-0.004	0.008	70.50%	1764
t stats	6.17	3.8	2.32	-1.88	2.82	-0.14	0.52		
shapleyR2	12.20%	11.60%	1.20%	4.20%	8.00%	0.40%	5.10%	70.60%	
LAD	0.255***	0.077***	0.004**	-0.005***	0.023***	0.031***	0.001	58.80%	-3487
t stats	15.4	35.29	2.25	-7.13	4.11	-8.69	0.76		
Mexico MXX									
OLS	0.089	0.028	-0.013	-0.006*	0.027	0.011	-0.007	32.60%	3671
t stats	0.98	1.42	-0.53	-1.89	1.03	0.33	-0.81		
shapleyR2	3.20%	3.01%	0.21%	1.53%	2.48%	0.35%	1.63%	32.80%	
LAD	0.195***	0.008*	-0.01**	-0.009***	0	-0.006	0.013***	40.10%	-3697
t stats	9.92	1.95	-2.31	-11.31	0.02	-1.04	6.33		
Pakistan KSE									
OLS	0.473***	0.086***	0	-0.038***	-0.032	-0.044	0.018	44.60%	1805
t stats	7.16	6.39	0	-8.65	-0.8	-1.64	0.65		
shapleyR2	9.16%	6.94%	0.58%	4.19%	2.57%	0.26%	3.39%	44.80%	
LAD	0.349***	0.094***	-0.006*	-0.034***	-0.005	0.034***	0.015	43.70%	-2838
t stats	11.72	18.89	-1.83	-15.09	-0.4	-3.51	1.61		

Panel B: Before GFC

	β_0	$\beta_{ r }$	β_r	β_{RV}	$\lambda_{ r }$	λ_r	λ_{RV}	\bar{R}^2	AIC
Developed Markets									
Amsterdam AEX									
OLS	0.31*	0.073***	-0.003	0.02	0.074**	-0.067**	-0.099***	72.90%	211
t stats	1.92	2.94	-0.13	1.17	2.36	-2.07	-3.99		
shapleyR2	12.20%	10.50%	1.10%	4.40%	7.70%	1.90%	5.00%	73.10%	
LAD	0.222***	0.06***	-0.004	0.031***	0.06***	0.051***	-0.089***	61.40%	-1708
t stats	6.33	10.19	-0.73	9.7	5.05	-4.04	-11.88		
Australia AORD									
OLS	-0.072	-0.054	-0.093***	-0.006	0.328***	0.061	-0.033	30.50%	-3343
t stats	-0.79	-0.84	-2.62	-0.35	4.38	0.78	-0.93		
shapleyR2	2.23%	1.53%	1.31%	1.30%	6.00%	1.11%	2.16%	31%	
LAD	0.011	0.009	-0.065***	-0.013*	0.157***	0.033*	-0.019***	30.40%	-3780
t stats	0.31	0.58	-5.32	-1.8	7.44	1.65	-2.79		
Brussels BFX									
OLS	0.186**	0.052**	0.009	-0.002	0.098***	-0.062	-0.025	64.30%	-1367
t stats	2.42	2.44	0.4	-0.13	2.65	-1.43	-0.99		
shapleyR2	9.40%	8.00%	0.30%	3.50%	8.30%	0.90%	3.60%	64.50%	
LAD	0.197***	0.038***	-0.014*	0.01*	0.079***	0.051***	-0.031***	56.40%	-2444
t stats	5.04	5.12	-1.75	1.88	6.46	-3.61	-4.65		
Canada GSPTSE									
OLS	0.088	0.033	0.089***	-0.025	0.124***	0.135***	0.078	34%	-1799
t stats	0.95	1.04	2.73	-1.06	2.59	-2.61	0.75		
shapleyR2	4.04%	2.83%	0.62%	2.35%	4.65%	1.69%	5.09%	34.60%	
LAD	0.162***	0.045**	0.056***	-0.023**	-0.001	0.057***	0.071*	31.50%	-2087

t stats	3.06	2.13	3.82	-2.08	-0.04	-2.59	1.92		
Denmark OMXC20									
OLS	-0.095	-0.059	-0.041	-0.001	0.463***	-0.142	-0.095*	29.60%	68
t stats	-0.68	-1.28	-1.31	-0.12	4.19	-1.36	-1.88		
shapleyR2	1.25%	1.47%	0.92%	0.69%	5.73%	2.46%	2.50%	31.50%	
LAD	0.158*	-0.096**	-0.031	-0.005	0.44***	-0.11**	-0.105***	33.70%	-468
t stats	1.76	-2.37	-0.81	-0.9	7.23	-2.51	-3.56		
Euro STOXX50E									
OLS	0.14	0.04	-0.037	0.011	0.054*	0.019	-0.041	65.80%	1545
t stats	1.2	1.26	-0.77	0.85	1.77	0.35	-0.95		
shapleyR2	10.50%	7.70%	1.00%	4.30%	5.10%	1.50%	4.50%	66%	
LAD	0.256***	0.004	0	0.009**	0.061***	0.043***	-0.043***	56.50%	-1011
t stats	6.48	0.57	-0.06	2.41	4.85	-3.16	-3.67		
Finland OMXHPI									
OLS	0.051	-0.011	-0.039	-0.013	0.29***	-0.046	-0.154***	30.90%	-111
t stats	0.37	-0.27	-0.89	-1.07	3.43	-0.4	-3.04		
shapleyR2	1.39%	1.46%	0.67%	0.88%	4.36%	1.58%	2.76%	32.70%	
LAD	-0.005	0.04	-0.025	-0.006	0.193***	-0.094*	-0.083***	36.40%	-490
t stats	-0.04	1.19	-0.76	-0.63	3.62	-1.65	-2.61		
France FCHI									
OLS	0.421***	0.04*	0.019	0.031**	0.113**	0.138***	-0.145***	71.50%	279
t stats	3.27	1.76	1.11	2.31	2.48	-3.84	-3.18		
shapleyR2	11.10%	8.30%	2.10%	3.50%	7.90%	3.80%	4.80%	71.70%	
LAD	0.301***	0.027***	0.016*	0.003	0.098***	0.094***	-0.049***	59%	-1634
t stats	8.58	3.3	1.75	0.73	7.44	-5.73	-4.03		
Germany DAX									
OLS	0.34**	0.04***	-0.023	-0.034*	0.039	0.017	0.095	63.70%	2521

t stats	2.51	3.21	-0.95	-1.92	1.04	0.46	1.33		
shapleyR2	10.60%	6.00%	1.00%	3.80%	4.10%	1.20%	3.90%	64%	
LAD	0.31***	0.028***	0	-0.01**	0.055***	-0.023*	0	59.50%	-683
t stats	8.01	4.19	0	-2.46	4.95	-1.79	-0.01		
HK HSI									
OLS	0.226**	0.02	0.055	-0.004	0.059	-0.135**	-0.025	50.90%	-1231
t stats	2.43	0.92	1.6	-0.25	0.95	-2.53	-1		
shapleyR2	8.60%	1.60%	1.70%	2.40%	3.80%	1.50%	1.60%	51.30%	
LAD						-			
LAD	0.294***	0.015	0.009	-0.017**	0.006	0.067***	-0.018*	42.80%	-1958
t stats	5.62	1.54	0.87	-2.37	0.25	-2.89	-1.67		
Japan N225									
OLS	0.337***	0.027**	-0.025**	-0.022	0.065***	0.027	-0.033**	54.40%	-1907
t stats	5	2.16	-2.38	-1.13	2.69	1.2	-2		
shapleyR2	10.10%	3.60%	0.50%	4.60%	4.40%	0.90%	3.30%	54.70%	
LAD	0.284***	0.039***	-0.025**	-0.011	0.064***	0.019	-0.04***	41.80%	-1886
t stats	4.72	3.66	-2.34	-0.8	3.45	0.92	-2.85		
Norway OSEAX									
OLS	0.117	0.035	-0.029	-0.029	0.042	0.038	0.036	37.80%	-63
t stats	1.44	1.56	-1.44	-1.37	1.06	1.09	0.82		
shapleyR2	3.37%	2.33%	1.82%	2.00%	2.87%	0.49%	3.67%	38.40%	
LAD	0.073	0.032**	-0.008	-0.025***	0.072***	-0.004	0.027**	35.60%	-1256
t stats	1.33	2.45	-0.96	-4.19	3.33	-0.18	2.54		
Spanish IBEX									
OLS	0.309***	0.018	-0.014	-0.016	0.136***	-0.028	-0.018	70.50%	-1197
t stats	5.08	0.91	-0.48	-0.96	4.23	-0.93	-0.53		
shapleyR2	10.50%	7.50%	1.40%	3.30%	8.70%	3.00%	4.00%	70.70%	
LAD	0.253***	0.018**	-0.014	-0.019***	0.107***	-0.018	0.01	58.30%	-2064
t stats	6.75	2.01	-1.53	-3.2	8.68	-1.22	0.98		
Spanish SMSI									

OLS						-			
	0.275*	-0.028	-0.026	-0.079	0.23*	0.234***	0.022	43%	-1268
t stats	1.79	-0.33	-0.73	-1.23	1.88	-2.77	0.25		
shapleyR2	5.44%	2.82%	2.29%	2.22%	5.75%	5.84%	2.93%	44.30%	
LAD	0.184**	0.022	-0.071	-0.034	0.152***	-0.071	-0.035	36.60%	-1064
t stats	2	0.55	-1.56	-1.03	2.92	-1.24	-0.91		
Sweden OMXSPI									
OLS	0.214*	-0.057**	-0.036	0.008	0.321***	-0.1	-0.186***	44.10%	-197
t stats	1.73	-2.18	-1.13	0.55	3.17	-1.46	-3.41		
shapleyR2	3.02%	1.67%	1.16%	1.68%	5.86%	2.98%	3.13%	45.50%	
LAD									
LAD	0.101	-0.015	-0.027	-0.017	0.326***	0.156***	-0.08**	45.10%	-554
t stats	1.06	-0.68	-1.03	-1.3	6.69	-3.27	-2.02		
Switzerland SSMI									
OLS						-			
	0.265**	-0.038	0.044***	-0.002	0.178***	0.116***	-0.006	72.80%	-1317
t stats	2.01	-1.55	2.94	-0.1	4.18	-2.67	-0.12		
shapleyR2	12.00%	5.50%	0.80%	4.70%	10.10%	2.70%	4.90%	73%	
LAD									
LAD	0.26***	0.026***	0.02***	-0.011**	0.099***	0.098***	-0.009	60.20%	-2532
t stats	7.42	4.45	4.36	-2.23	9.2	-9.53	-1.26		
UK FTSE									
OLS	0.246*	0.01	-0.023	-0.003	0.079	-0.01	-0.022	40.40%	1354
t stats	1.81	0.29	-0.72	-1.27	1.52	-0.19	-0.79		
shapleyR2	4.52%	3.33%	0.68%	1.09%	3.90%	1.17%	2.46%	40.80%	
LAD	0.088**	0.033***	0.008	-0.001	0.099***	-0.021	-0.027***	48.90%	-1666
t stats	2.33	3.51	1.04	-0.89	7.17	-1.56	-6.25		
US DJI									
OLS						-			
	0.326***	0.045***	0.01	-0.012***	0.01	0.113***	-0.167**	57.20%	-570
t stats	3.63	2.82	0.9	-2.64	0.25	-5.21	-2.34		

shapleyR2	9.80%	4.50%	0.40%	4.00%	5.10%	3.40%	2.30%	57.50%	
LAD						-			
t stats	0.2***	0.037***	0.016**	0.004	0.007	0.082***	-0.156***	46.10%	-1809
	4.53	4.83	2.36	1.2	0.52	-7.69	-5.61		
US NASDAQ									
OLS	0.516***	0.081***	-0.068***	-0.007*	-0.12**	0.011	-0.169*	65.50%	1545
t stats	6.29	4.74	-3.69	-1.95	-2.49	0.18	-1.66		
shapleyR2	13.50%	7.30%	5.10%	3.20%	4.40%	2.20%	3.40%	65.70%	
LAD	0.434***	0.054***	-0.031***	-0.011***	-0.024	-0.037**	-0.108***	58.40%	-1070
t stats	14.12	13.75	-9.14	-7.95	-1.59	-2.2	-4.02		
US Russell									
OLS						-			
t stats	0.253***	0.061***	-0.034**	-0.031**	-0.004	0.065***	-0.013	35.40%	-3227
	3.8	2.59	-2.06	-2.22	-0.16	-2.97	-0.3		
shapleyR2	4.97%	3.66%	1.57%	1.58%	2.72%	1.64%	1.70%	35.90%	
LAD						-			
t stats	0.205***	0.07***	-0.048***	-0.031***	0.012	0.058***	0.022	32.50%	-3304
	5.25	6.24	-5.85	-4.6	0.55	-3.09	0.76		
US SP500									
OLS						-			
t stats	0.354***	0.054**	0.006	-0.009	-0.022	0.099***	-0.169*	60.20%	-1176
	3.71	2.3	0.38	-1.16	-0.61	-3.55	-1.93		
shapleyR2	11.10%	5.80%	0.60%	4.50%	5.00%	2.80%	2.60%	60.50%	
LAD						-			
t stats	0.221***	0.052***	0.019**	0.006	-0.018	0.078***	-0.131***	49%	-2029
	5	5.53	2.32	1.39	-1.24	-6	-4.64		
Emerging Brazil BVSP									
OLS	0.466***	0.032***	-0.02	-0.03***	-0.007	-0.001	-0.038	32.40%	374
t stats	8.26	2.96	-1.22	-5.91	-0.25	-0.02	-1.36		
shapleyR2	7.70%	3.15%	0.94%	2.43%	1.58%	0.49%	2.14%	32.90%	

LAD	0.41***	0.052***	-0.025**	-0.032***	-0.013	-0.027	-0.036	29.60%	-969
t stats	7.66	5.6	-2.41	-7.46	-0.69	-1.2	-1.31		
China SSEC									
OLS	0.328***	0.103***	-0.035**	-0.007***	-0.002	0.03	-0.058**	61.60%	1296
t stats	5.44	9.26	-2.38	-4.53	-0.04	0.47	-2.23		
shapleyR2	12.60%	16.70%	5.00%	4.90%	3.20%	0.10%	3.00%	61.90%	
LAD	0.338***	0.095***	-0.035***	-0.007***	0.013	0.068***	-0.038**	48.80%	-802
t stats	8.46	14.43	-6.75	-6.17	0.52	-3.86	-2.3		
Indian BSESN									
OLS	0.853***	0.108	-0.075	-0.018	-0.046	-0.14	-0.133	30.70%	5156
t stats	2.58	1.3	-1.57	-1.61	-0.37	-0.99	-1.29		
shapleyR2	8.10%	3.34%	2.09%	5.25%	1.82%	0.94%	3.33%	31.20%	
LAD	0.323***	0.054***	-0.035***	-0.009***	0.019	0.055***	0.055***	43.30%	-254
t stats	9.53	8.18	-7.62	-15.19	0.95	-3.48	4.48		
Indian NIFTY50									
OLS	1.086**	0.327**	-0.172**	-0.045**	-0.225	-0.201	-0.267	54.90%	4152
t stats	2.48	2.2	-2.36	-2.37	-1.11	-0.91	-1.17		
shapleyR2	8.90%	10.60%	5.60%	16.80%	2.90%	1.50%	3.90%	55.20%	
LAD	0.284***	0.12***	-0.065***	-0.017***	0.014	-0.005	0.043*	42.30%	-726
t stats	7.34	19.55	-13.94	-28.02	0.54	-0.28	1.74		
Korea KOSPI									
OLS	0.562***	0.073***	0.002	-0.015	-0.029	-0.094	-0.086*	57.40%	859
t stats	6.76	4.48	0.14	-1.29	-0.75	-1.61	-1.83		
shapleyR2	13.30%	5.40%	0.70%	3.60%	2.90%	0.90%	2.80%	57.70%	
LAD	0.422***	0.076***	-0.009	-0.016***	-0.023	-0.038**	-0.057***	47.90%	-938
t stats	9.99	13.48	-1.45	-4.6	-1.25	-2.18	-5.45		
Mexico MXX									
OLS	0.403***	0.026	0.043**	-0.04***	0.026	-0.095**	0.037	23.80%	509
t stats	4.81	1.31	2.28	-5.28	0.72	-2.49	0.76		

shapleyR2	4.13%	0.96%	0.45%	1.80%	1.64%	0.93%	1.87%	24.30%	
LAD	0.238***	0.033***	0.032***	-0.03***	-0.003	-0.07***	0.083***	38.20%	-1934
t stats	6.24	4.39	4.16	-8.09	-0.19	-4.99	4.75		
Pakistan KSE									
OLS	0.534***	0.106***	0.002	-0.042***	-0.07	-0.088**	-0.039	40.10%	1505
t stats	6.26	5.74	0.1	-5.44	-1.38	-2.53	-1.14		
shapleyR2	8.27%	8.55%	0.72%	4.46%	1.99%	0.45%	2.58%	40.60%	
LAD	0.404***	0.112***	0.001	-0.037***	-0.051**	0.058***	-0.027	39.90%	-756
t stats	6.97	13.54	0.15	-8.5	-2.02	-2.89	-1.46		

Panel C: During GFC

	β_0	$\beta_{ r }$	β_r	β_{RV}	$\lambda_{ r }$	λ_r	λ_{RV}	\bar{R}^2	AIC
Developed Markets									
Amsterdam AEX									
OLS	0.624***	-0.001	0.045	-0.004	0.075*	0.169***	-0.034***	78.40%	497
t stats	4.68	-0.05	1.61	-0.74	1.94	-4.17	-2.82		
shapleyR2	11.30%	3.50%	2.60%	4.00%	11.70%	6.70%	5.20%	79%	
LAD	0.52***	0.002	0.056***	-0.01*	0.092***	0.153***	-0.018***	60.40%	-93
t stats	5.91	0.12	3.24	-1.95	4.85	-7.12	-3.53		
Australia AORD									
OLS	-0.239*	-0.018	-0.056***	0.069*	0.106***	-0.006	-0.039***	64%	-56
t stats	-1.72	-0.87	-3.18	1.94	5.97	-0.22	-3		
shapleyR2	5.20%	3.20%	2.50%	4.10%	13.00%	0.80%	4.40%	65.10%	
LAD	-0.027	-0.015	-0.029*	0.037	0.136***	-0.024	-0.029***	45.40%	-310
t stats	-0.21	-0.85	-1.88	1.51	9.41	-1.48	-3.25		
Brussels BFX									
OLS	0.036	-0.071	0.001	0.04***	0.174*	-0.089*	-0.058***	60.40%	516
t stats	0.13	-1.59	0.02	3.43	1.91	-1.72	-3.98		
shapleyR2	5.40%	3.40%	1.60%	2.60%	11.50%	2.40%	5.30%	61.50%	
LAD	0.243***	-0.07***	-0.021	0.02***	0.105***	0.075***	-0.032***	51.10%	-205
t stats	2.75	-4.04	-0.92	3.32	4.12	-2.62	-6.24		
Canada GSPTSE									
OLS	0.818***	0.015	-0.337***	0.002	0.308***	0.36***	0.16**	68.80%	2096
t stats	2.61	0.32	-2.63	0.9	-3.7	2.95	2.01		
shapleyR2	5.60%	2.90%	13.40%	4.70%	6.80%	6.90%	13.50%	69.70%	

LAD					-				
t stats	0.247*	0.042**	-0.069***	0	0.065***	0.032	0.002	44.80%	414
	1.86	2.49	-4.23	-0.08	-3	1.35	0.23		
Denmark OMXC20									
OLS	0.376	-0.1***	0.029	-0.016	0.296***	-0.13*	0.003	68.30%	1235
t stats	1.08	-2.79	0.96	-1.59	3.25	-1.73	0.23		
shapleyR2	6.90%	5.50%	1.20%	4.50%	11.70%	2.40%	4.40%	69.20%	
LAD									
t stats	0.118	-0.029**	0.029**	-0.013***	0.183***	0.085***	0.01**	52.40%	211
	1.36	-2.19	2.2	-6.37	8.95	-4.32	2.03		
Euro STOXX50E									
OLS	-0.188	-0.104*	0.048	0.026**	0.222**	-0.219**	-0.076**	57.40%	1505
t stats	-0.82	-1.66	1.09	2.02	2.32	-2.14	-2		
shapleyR2	4.40%	3.10%	2.00%	3.00%	6.90%	4.50%	3.50%	58.60%	
LAD									
t stats	0.134	0.055***	0.053***	0.009***	0.1***	0.158***	-0.024***	54.70%	153
	1.54	-4.33	3.32	3.74	5.81	-6.6	-3.68		
Finland OMXHPI									
OLS	-0.027	-0.181**	0.023	0.036**	0.223***	-0.11	-0.086***	64.10%	1270
t stats	-0.22	-2.57	0.36	2.56	3.59	-1.14	-3.12		
shapleyR2	5.70%	5.30%	1.10%	3.70%	9.60%	1.90%	5.20%	65.20%	
LAD									
t stats	0.185*	0.083***	0.008	0.016***	0.114***	0.072***	-0.039***	47.70%	231
	1.75	-4.95	0.46	3.41	6.51	-2.86	-4.62		
France FCHI									
OLS	0.875*	-0.021	-0.022	-0.014	0.127**	0.133***	-0.022	71.10%	904
t stats	1.91	-0.56	-0.82	-0.79	2.25	-3.03	-1.15		
shapleyR2	8.41%	3.10%	2.31%	4.25%	10.19%	7.26%	3.90%	71.90%	

LAD	0.434***	0.007	-0.004	-0.009**	0.067***	0.088***	-0.014***	57.20%	-16
t stats	4.6	0.52	-0.31	-2.5	3.68	-4.02	-3.01		
Germany DAX									
OLS	0.728**	0.114***	0.096***	0.012***	0.08	0.241***	-0.019**	71.30%	1033
t stats	2.33	-3.75	7.06	2.9	1.14	-5.13	-2.54		
shapleyR2	11.40%	4.90%	3.70%	3.70%	6.00%	5.50%	4.60%	72.10%	
LAD	0.428***	0.026***	0.034***	0.009***	0.058***	0.134***	-0.024***	59.40%	41
t stats	4.35	-3.06	3.7	2.61	4.67	-9.4	-3.67		
HK HSI									
OLS	0.332*	0.053***	-0.015*	-0.005	0.017	-0.02	-0.027	65.20%	800
t stats	1.85	5.76	-1.9	-0.37	0.73	-0.73	-0.87		
shapleyR2	7.99%	7.66%	1.30%	5.09%	7.09%	1.79%	7.42%	66.20%	
LAD	0.256***	0.043***	-0.015***	-0.002	-0.036**	-0.008	-0.009	51.50%	-12
t stats	2.89	6.1	-2.82	-0.42	-2.34	-0.48	-1.45		
Japan N225									
OLS	0.452**	-0.025	0.041***	0.01**	0.209***	0.116***	-0.045***	79%	461
t stats	1.96	-0.88	4.32	2.35	4.26	-3.59	-3.26		
shapleyR2	10.90%	5.40%	1.60%	5.80%	13.60%	2.80%	6.50%	79.60%	
LAD	0.233**	0.006	0.044***	0.022***	0.173***	0.145***	-0.05***	59.90%	-128
t stats	2.47	0.69	6.97	4.02	11.01	-10.4	-8.82		
Norway OSEAX									
OLS	0.698*	-0.067	0.023	-0.018**	0.183***	-0.141**	0.011	67.30%	1221
t stats	1.74	-1.35	0.73	-2.34	3.02	-2.33	0.62		
shapleyR2	7.90%	4.20%	1.40%	4.40%	8.30%	3.20%	3.90%	68.30%	
LAD	0.184*	-0.007	-0.009	-0.009***	0.088***	-0.031**	0.004	57.20%	163
t stats	1.88	-0.72	-0.92	-4.3	6.16	-2.02	0.86		

Spanish IBEX

OLS						-			
	0.101	-0.025	-0.047**	0.058**	0.114***	0.103***	-0.082***	68.70%	510
t stats	0.59	-0.85	-2.1	2.42	4.19	-3.33	-3.95		
shapleyR2	8.53%	2.82%	2.53%	3.48%	9.91%	6.54%	4.67%	69.60%	
LAD	0.302**	0.013	-0.037**	0.001	0.067***	-0.06***	-0.029***	53.40%	-138
t stats	2.56	0.94	-2.37	0.04	3.75	-2.75	-2.95		

Spanish SMSI

OLS						-			
	0.707***	-0.039	-0.019	-0.033	0.118***	0.174***	-0.018	74%	234
t stats	2.58	-1.41	-0.57	-0.87	3.17	-3.79	-0.61		
shapleyR2	10.20%	3.30%	2.50%	4.60%	11.70%	9.40%	4.60%	74.80%	
LAD						-			
	0.334***	0.006	-0.034*	-0.005	0.088***	0.086***	-0.03***	50.40%	-191
t stats	3.38	0.41	-1.78	-0.45	4.64	-3.7	-3.56		

Sweden OMXSPI

OLS	-0.551**	-0.15	0.009	0.05**	0.228*	-0.099	-0.084***	62.80%	1075
t stats	-2.55	-1.42	0.12	2.26	1.83	-0.78	-3.34		
shapleyR2	5.60%	4.60%	0.90%	3.50%	8.00%	1.10%	4.40%	63.90%	
LAD	-0.182*	-0.035**	-0.038**	0.012**	0.068***	0.055**	-0.02**	50.50%	108
t stats	-1.75	-2.02	-2.06	2.11	3.16	2.03	-2.4		

Switzerland SSMI

OLS						-			
	0.351*	0.003	-0.07***	0	0.16***	0.104***	-0.047***	75.60%	292
t stats	1.7	0.1	-2.84	0	6.08	-3.7	-3.67		
shapleyR2	9.40%	3.80%	2.50%	4.00%	13.50%	5.20%	5.00%	76.30%	
LAD						-			
	0.121	0.004	-0.027*	0.02*	0.111***	0.063***	-0.038***	58.50%	-220
t stats	1.12	0.3	-1.74	1.76	7.6	-3.27	-4.55		

UK FTSE

OLS		-							
	-0.412*	0.172***	0.049	0.041***	0.281***	-0.222**	-0.097***	57.90%	1390
t stats	-1.85	-2.73	0.96	2.66	3.83	-2.49	-3		
shapleyR2	4.21%	3.36%	1.64%	3.91%	7.09%	3.22%	4.51%	59.10%	
LAD		-							
	0.027	0.062***	-0.031*	0.009***	0.116***	-0.025	-0.027***	52.70%	124
t stats	0.28	-4.32	-1.66	3.46	7.29	-0.97	-4.56		
US DJI									
OLS	0.219	0.07	-0.034	-0.001	0.015	-0.034	-0.054**	63.30%	1327
t stats	0.78	1.28	-0.89	-0.33	0.4	-1.11	-2.41		
shapleyR2	7.97%	9.83%	1.19%	2.67%	5.80%	1.65%	4.52%	64.40%	
LAD		-							
	0.174**	0.09***	-0.048***	0.002	0.039***	0	-0.031***	57.40%	182
t stats	2.01	8.71	-5.13	1.6	-2.99	0.04	-3.64		
US NASDAQ									
OLS	0.237**	0.077***	-0.033	-0.006	0.013	-0.012	-0.051***	72.30%	671
t stats	2.06	3.37	-1.25	-1.23	0.42	-0.96	-2.69		
shapleyR2	7.80%	11.80%	1.70%	3.60%	5.00%	1.90%	4.40%	73.10%	
LAD	0.455***	0.059***	-0.04***	-0.011***	0.015	-0.022*	-0.038***	59%	-65
t stats	5.26	7.09	-5.08	-2.75	1.24	-1.94	-2.59		
US Russell									
OLS	-0.012	0.102***	-0.034*	-0.008	0.004	-0.004	-0.029	71.30%	634
t stats	-0.07	3.84	-1.67	-1.03	0.15	-0.44	-1.37		
shapleyR2	7.30%	13.40%	3.10%	3.90%	4.50%	1.40%	4.40%	72.10%	
LAD		-							
	0.328***	0.072***	-0.031***	-0.004	0.033***	0.008	-0.025	57.30%	-73
t stats	3.61	8.91	-4.38	-0.73	-2.58	0.69	-1.34		
US SP500									
OLS		-							
	0.224	0.069**	-0.033*	-0.003	-0.013	0.036***	-0.041**	68.20%	1206
t stats	1.07	2.5	-1.92	-1.07	-0.5	-2.64	-1.99		

shapleyR2	8.04%	11.27%	1.61%	2.72%	4.93%	1.56%	4.34%	69.10%	
LAD					-				
t stats	0.263***	0.082***	-0.033***	-0.001	0.042***	-0.005	-0.018*	59.90%	158
	3.28	10.51	-4.15	-0.76	-3.39	-0.44	-1.66		
Emerging									
Brazil BVSP									
OLS	0.112	0.084***	-0.076***	0.017	-0.097	0.051*	-0.096**	75.80%	1108
t stats	0.83	2.82	-3.02	1.35	-1.6	1.73	-2.07		
shapleyR2	10.80%	9.50%	2.90%	4.60%	5.60%	1.60%	4.90%	76.50%	
LAD					-				
t stats	0.244**	0.105***	-0.037***	0	0.077***	-0.019	-0.05***	60%	208
	2.43	12.48	-3.53	-0.11	-4.78	-1	-3.5		
China SSEC									
OLS	0.508***	0.059***	-0.033*	-0.02***	0.04	-0.053**	-0.001	45.70%	843
t stats	4.19	4.34	-1.79	-2.95	1.6	-2.19	-0.11		
shapleyR2	9.14%	9.67%	2.26%	4.18%	2.58%	1.86%	1.76%	47.30%	
LAD	0.304**	0.082***	-0.046***	-0.01	0.021	-0.034	0.002	36.90%	175
t stats	2.17	5.95	-3.15	-1.38	0.98	-1.56	0.17		
Indian BSESN									
OLS	0.225	0.07**	-0.064*	-0.01***	0.054	0.012	-0.012	54.10%	997
t stats	0.87	2.11	-1.73	-2.81	1.6	0.24	-0.65		
shapleyR2	5.44%	7.88%	5.17%	3.96%	4.74%	1.85%	3.37%	55.50%	
LAD	0.311***	0.056***	-0.041***	-0.015***	0.023	0.01	0.01*	44.60%	113
t stats	3.54	8.42	-4.76	-6.5	1.2	0.49	1.75		
Indian NIFTY50									
OLS	0.089	0.071***	-0.076***	-0.011***	0.057***	0.036	0.006	67.30%	917
t stats	0.41	3.91	-3.03	-5.34	2.82	1.01	0.46		
shapleyR2	4.90%	12.20%	8.40%	5.40%	5.30%	2.00%	3.90%	68.30%	
LAD	0.107	0.07***	-0.065***	-0.011***	0.064***	0.026	0.002	45.60%	144
t stats	1.28	10.72	-7.58	-5.43	3.39	1.31	0.36		
Korea KOSPI									

OLS	0.395***	0.096***	0.033***	-0.014	0.085***	0.008	0.009	82.40%	692
t stats	3.29	4.98	3.13	-1.41	2.69	0.21	0.37		
shapleyR2	10.40%	19.10%	1.70%	5.90%	10.40%	0.50%	7.50%	82.90%	
LAD	0.343***	0.081***	0.032***	-0.009***	0.048***	-0.018**	0.011***	65.60%	-105
t stats	5.7	14.55	6.53	-5.69	3.84	-2.32	2.78		
Mexico MXX									
OLS	-0.035	0.068*	-0.118	-0.043***	0.076	0.128*	0.071***	51.80%	895
t stats	-0.29	1.83	-1.55	-3.61	1.34	1.72	2.63		
shapleyR2	4.40%	6.40%	1.00%	4.50%	4.40%	1.00%	3.90%	53.20%	
LAD	0.149	0.018	-0.025	-0.012*	0.008	0.005	0.015	40.80%	16
t stats	1.6	1.17	-1.19	-1.79	0.35	0.22	0.95		
Pakistan KSE									
OLS	0.641***	0.088**	-0.023	-0.042***	-0.026	-0.004	0.011	36.70%	620
t stats	4.03	2.56	-0.77	-4.45	-0.61	-0.12	0.25		
shapleyR2	8.04%	4.86%	1.24%	3.77%	2.30%	0.20%	4.34%	38.80%	
LAD	0.705***	0.098***	0.001	-0.054***	-0.071	-0.024	0.048	39.40%	41
t stats	4.7	4.91	0.05	-5.25	-1.61	-0.77	1.22		

Panel D: After GFC

	β_0	$\beta_{ r }$	β_r	β_{RV}	$\lambda_{ r }$	λ_r	λ_{RV}	\bar{R}^2	AIC
Developed Markets									
Amsterdam AEX									
OLS	0.236***	-0.152*	0.161**	0.032	0.323**	-0.292***	-0.083**	57.40%	-1133
t stats	3.03	-1.75	2.09	1.38	2.3	-2.94	-2.42		
shapleyR2	8.28%	3.78%	2.45%	2.66%	7.62%	2.93%	3.21%	57.70%	
LAD	0.167***	-0.047***	0.121***	0.03***	0.133***	-0.193***	-0.062***	50.30%	-2525
t stats	3.94	-3.52	6.42	4.18	6.5	-7.95	-5.78		
Australia AORD									
OLS	-0.054	-0.034	-0.014	0.107	0.169**	-0.052	-0.104	41.90%	-3372
t stats	-0.35	-0.7	-0.37	1.07	2.12	-0.53	-1.42		

shapleyR2	3.96%	2.67%	0.86%	1.73%	4.59%	1.34%	2.54%	42.30%	
LAD	0.032	-0.046***	0.01	0.068***	0.219***	-0.075***	-0.062***	34.40%	-3297
t stats	0.64	-2.79	0.73	4.52	12.31	-4.19	-5.67		
Brussels BFX									
OLS	0.138	-0.095	0.16***	0.062**	0.171**	-0.281***	-0.079*	59.50%	-2145
t stats	0.98	-1.34	3.3	2.02	2.39	-3.88	-1.92		
shapleyR2	9.38%	3.93%	2.50%	3.08%	7.27%	3.33%	3.31%	59.80%	
LAD	0.123***	-0.012	0.124***	0.058***	0.107***	-0.201***	-0.08***	48.10%	-2835
t stats	2.85	-0.96	8.45	5.88	5.64	-9.26	-7.06		
Canada GSPTSE									
OLS	0.182	0.046	-0.075	-0.016	-0.066	0.038	0.013	27.30%	-477
t stats	0.69	1	-1.17	-0.49	-1.28	0.7	0.1		
shapleyR2	2.83%	1.28%	0.53%	1.70%	1.13%	0.61%	1.33%	27.80%	
LAD	0.248***	0.037**	-0.016	-0.047***	-0.049***	-0.024	0.141***	38.20%	-2770
t stats	6.19	2.15	-0.85	-7.54	-3.06	-1.47	5.7		
Denmark OMXC20									
OLS	0.578***	-0.066***	0.005	-0.004***	0.104	-0.063	-0.054***	3.49%	4749
t stats	3.3	-2.71	0.56	-2.95	1.23	-1.42	-3.5		
shapleyR2	0.46%	0.24%	0.03%	0.36%	0.27%	0.08%	0.27%	4.18%	
LAD	0.271***	-0.035***	-0.001	-0.002***	0.114***	0.017	-0.03***	34.60%	-1525
t stats	5.67	-4.75	-0.39	-4.99	5.6	1.21	-5.56		
Euro STOXX50E									
OLS	0.252*	-0.078***	-0.013	0.001	0.169**	-0.04	-0.039	41.90%	1665
t stats	1.7	-2.86	-0.36	0.06	2.03	-0.92	-0.76		
shapleyR2	6.44%	1.77%	0.97%	1.80%	3.52%	1.09%	2.14%	42.30%	
LAD	0.186***	-0.101***	0.092***	-0.001	0.179***	-0.206***	0.014*	47.10%	-1433
t stats	4.75	-11.88	7.13	-0.48	9.38	-10.02	1.93		
Finland OMXHPI									
OLS	0.707**	0.141	0.225***	0	-0.155	-0.381***	-0.078*	3.45%	6436
t stats	2.19	1.58	2.71	0	-0.67	-3.33	-1.73		
shapleyR2	0.43%	0.38%	0.13%	0.37%	0.37%	0.31%	0.23%	4.13%	

LAD	0.452***	0.061***	0.179***	0*	0.1***	-0.278***	-0.035***	45%	-1868
t stats	11.29	3.52	8.52	-1.77	3.66	-9.26	-5.92		
France FCHI									
OLS	0.014	-0.046	0.018	0.053***	0.177*	-0.133*	-0.11***	61.50%	-482
t stats	0.14	-0.97	0.46	3.64	1.92	-1.89	-3.41		
shapleyR2	9.29%	4.24%	1.48%	4.10%	6.89%	2.41%	4.27%	61.80%	
LAD	0.087*	-0.016	0.137***	0.03***	0.1***	-0.276***	-0.048***	49.40%	-1927
t stats	1.9	-1.5	9.99	5.08	4.87	-12.65	-5.14		
Germany DAX									
OLS	-0.013	-0.132***	0.051*	0.037***	0.289***	-0.164**	-0.056*	63.60%	-358
t stats	-0.16	-2.81	1.89	2.87	2.79	-2.21	-1.93		
shapleyR2	8.53%	5.30%	1.51%	5.29%	9.43%	1.50%	4.78%	63.90%	
LAD	0.11**	-0.046***	0.046***	0.034***	0.102***	-0.127***	-0.043***	48%	-1779
t stats	2.57	-4.62	3.51	8.45	5.5	-5.86	-5.96		
HK HSI									
OLS	0.205**	0.04	-0.049***	-0.009	0.133*	0.011	-0.062***	35.10%	-2005
t stats	2.21	1.3	-3.6	-0.69	1.77	0.28	-4.71		
shapleyR2	4.88%	3.56%	1.25%	2.05%	3.11%	0.70%	3.22%	35.50%	
LAD	0.171***	0.062***	-0.038***	-0.01*	0.042**	-0.016	-0.045***	33.10%	-2866
t stats	4.25	5.44	-5.16	-1.85	2.36	-1.34	-10.54		
Japan N225									
OLS	0.788***	0.078**	-0.036***	-0.054**	0.001	-0.07**	-0.047**	33.80%	836
t stats	3.04	2.09	-2.61	-2.5	0.01	-2.08	-2.53		
shapleyR2	10.30%	5.00%	2.20%	4.60%	1.30%	0.60%	1.30%	34.30%	
LAD	0.396***	0.047***	-0.023***	-0.029***	0.046***	-0.026**	-0.033***	40.50%	-1936
t stats	12.59	7.98	-5.04	-12.11	2.67	-2.2	-6.43		
Norway OSEAX									
OLS	0.355***	-0.063	-0.013	-0.005	0.089	-0.022	-0.047	40.20%	664
t stats	2.6	-1.34	-0.32	-0.4	0.95	-0.43	-1.3		
shapleyR2	6.16%	2.06%	0.50%	1.86%	2.04%	0.54%	1.93%	40.70%	
LAD	0.195***	-0.011	-0.036***	-0.006*	0.033*	0.01	-0.015**	43.30%	-1734

t stats	4.76	-1	-3.28	-1.84	1.86	0.67	-2.17		
Spanish IBEX									
OLS	0.514***	0.013	0.006	-0.013	0.031	-0.09	0.004	41.70%	2386
t stats	3.87	0.35	0.2	-0.96	0.4	-0.93	0.09		
shapleyR2	9.58%	1.74%	1.04%	2.25%	3.83%	2.23%	2.68%	42.10%	
LAD	0.298***	0.009	0.014**	-0.018***	0.1***	-0.095***	0.044***	43.90%	-947
t stats	8.55	1.38	2.49	-7.96	5.18	-6.15	5.62		
Spanish SMSI									
OLS	0.633***	-0.008	0.022	-0.01***	0.053	-0.12	-0.008	30.20%	3293
t stats	4.43	-0.33	0.58	-3.97	0.66	-1.09	-0.16		
shapleyR2	6.40%	1.17%	0.59%	2.68%	2.67%	1.14%	1.43%	30.60%	
LAD	0.32***	-0.014***	0.02***	-0.005***	0.096***	-0.112***	-0.005	41.10%	-910
t stats	9.54	-3.01	3.52	-8.09	4.72	-6.84	-0.67		
Sweden OMXSPI									
OLS	0.158	0.079*	0.017	-0.009*	0.124	-0.143***	-0.022	12.20%	3700
t stats	0.77	1.8	0.28	-1.68	1.35	-2.8	-1.46		
shapleyR2	0.74%	0.81%	0.75%	0.59%	2.28%	1.11%	0.45%	12.80%	
LAD	0.176***	0.076***	0.01	-0.009***	0.112***	-0.097***	-0.005	46.40%	-2206
t stats	4.73	9.5	0.93	-6.8	6.47	-7.6	-1.29		
Switzerland SSMI									
OLS	0.235	-0.046	0.042	0.017	0.242***	-0.183**	-0.042	34.50%	215
t stats	0.9	-1.27	1.58	1.41	4.07	-2.35	-1.19		
shapleyR2	4.22%	1.21%	0.76%	1.32%	7.83%	2.62%	3.40%	35%	
LAD	0.178***	-0.035***	-0.005	0.005	0.16***	-0.125***	-0.005	48.80%	-3040
t stats	4.54	-4.87	-0.62	1.6	11.65	-8.52	-1.09		
UK FTSE									
OLS	0.134	-0.119**	0.043	-0.009	0.142	-0.088	-0.01	27.90%	1567
t stats	1	-2	0.8	-0.8	1.48	-1.09	-0.3		
shapleyR2	2.57%	1.40%	0.45%	1.71%	1.33%	0.57%	1.14%	28.40%	
LAD	0.089**	-0.036**	0.023	-0.015***	0.031	-0.062**	0.036***	42.50%	-1890
t stats	2.28	-2.26	1.17	-7.95	1.48	-2.57	6.01		

US DJI									
OLS	0.24	-0.009	0.028	-0.035***	-0.011	-0.011	0.349***	27%	1638
t stats	1.1	-0.25	0.77	-4.5	-0.11	-0.26	4.84		
shapleyR2	3.33%	1.62%	0.50%	2.23%	1.39%	0.55%	1.84%	27.50%	
LAD	0.253***	0	-0.045***	-0.037***	-0.049***	0.03**	0.38***	42%	-1995
t stats	6.42	-0.03	-4.56	-13.72	-3.51	2.34	12.81		
US NASDAQ									
OLS	0.401***	0.091***	-0.023	-0.026***	0.152	0.003	-0.127**	46.10%	-1165
t stats	4.25	6.54	-0.88	-5.66	1.3	0.07	-2.03		
shapleyR2	8.08%	5.89%	1.10%	3.34%	5.47%	1.80%	3.23%	46.40%	
LAD	0.363***	0.05***	-0.037***	-0.011***	0.015	-0.009	-0.073***	44.60%	-2840
t stats	9.24	6.52	-5.05	-4.82	0.76	-0.54	-6.82		
US Russell									
OLS	0.173***	0.128***	-0.045*	-0.02	-0.101**	0.017	0.115	57.20%	-836
t stats	2.84	5.81	-1.9	-1.59	-2.57	0.45	0.58		
shapleyR2	7.45%	9.30%	2.22%	3.99%	6.00%	2.11%	5.51%	57.50%	
LAD	0.244***	0.055***	-0.033***	-0.002	-0.111***	0.006	0.141***	44%	-2357
t stats	6.47	8.05	-7.18	-0.99	-7.56	0.53	6.53		
US SP500									
OLS	0.415**	0.08***	0.029	-0.036***	-0.103	-0.051	0.16**	40.80%	457
t stats	2.5	2.63	0.61	-3.54	-1.25	-0.87	2.48		
shapleyR2	6.94%	3.96%	0.68%	2.07%	2.86%	0.95%	1.56%	41.20%	
LAD	0.34***	0.053***	-0.056***	-0.042***	-0.077***	0.016	0.222***	45.80%	-2145
t stats	8.37	5.99	-6.71	-11.68	-5.54	1.23	9.82		
Emerging									
Brazil BVSP									
OLS	0.434***	0.042*	0.02	-0.025***	0.015	-0.079	0.01	29%	-74
t stats	4.77	1.93	0.66	-4.44	0.29	-1.33	0.2		
shapleyR2	6.32%	2.51%	0.54%	2.37%	3.69%	1.52%	2.21%	29.60%	
LAD	0.341***	0.046***	-0.01	-0.02***	-0.044**	-0.022	0.037**	31.60%	-1764
t stats	8.27	5.23	-1.02	-8.71	-2.23	-1.05	2.02		

China SSEC									
OLS	0.161*	0.111***	-0.07***	-0.008***	0.08	0.011	0.025	69%	1939
t stats	1.75	5.52	-5.93	-2.75	1.22	0.27	1.42		
shapleyR2	9.60%	15.90%	7.30%	4.90%	6.20%	0.90%	3.20%	69.30%	
LAD	0.204***	0.073***	-0.041***	-0.003***	0.028**	-0.013	-0.02***	53.80%	-934
t stats	6.33	15.72	-12.21	-3.08	2	-1.07	-2.59		
Indian BSESN									
OLS	0.311***	0.136***	0.007	-0.037***	0	-0.01	-0.015**	33.90%	-2589
t stats	5.08	5.72	0.29	-6.89	0	-0.29	-2.07		
shapleyR2	5.92%	6.50%	0.96%	1.76%	2.70%	0.43%	1.01%	34.30%	
LAD	0.252***	0.139***	-0.006	-0.029***	-0.029	-0.011	-0.019**	36.30%	-2748
t stats	5.28	7.87	-0.29	-4.74	-1.28	-0.46	-1.99		
Indian NIFTY50									
OLS	0.263***	0.154***	-0.037*	-0.033***	0.025	0.023	-0.024***	27.80%	-2036
t stats	4.6	6.08	-1.74	-6.23	0.81	0.75	-3.12		
shapleyR2	4.06%	6.10%	0.78%	1.74%	1.89%	0.42%	0.80%	28.30%	
LAD	0.226***	0.135***	-0.003	-0.023***	-0.002	-0.021	-0.015	36.10%	-2689
t stats	5.09	7.49	-0.18	-5.17	-0.08	-0.9	-1.56		
Korea KOSPI									
OLS	-0.017	0.134***	0.097**	0.072***	0.111***	-0.194***	-0.102***	64.10%	-2610
t stats	-0.14	3.25	2.55	2.95	3.35	-7.28	-2.8		
shapleyR2	7.68%	7.87%	4.84%	4.85%	10.31%	8.07%	5.43%	64.40%	
LAD	0.176***	0.08***	0.066***	0.033***	0.08***	-0.149***	-0.041***	44.80%	-3401
t stats	5.79	6.28	5.13	10.17	6.64	-17.09	-9.35		
Mexico MXX									
OLS	-0.012	0.058*	0.042*	0.018	-0.065*	-0.025*	-0.128	13.40%	1245
t stats	-0.06	1.81	1.77	1.06	-1.65	-1.67	-1.14		
shapleyR2	0.76%	0.51%	0.18%	0.58%	0.42%	0.21%	0.55%	14%	
LAD	0.19***	0.036*	-0.029*	-0.015***	-0.053***	0.009	0.096***	29.70%	-2155
t stats	4.42	1.93	-1.86	-4.53	-2.99	0.7	4.45		
Pakistan KSE									

OLS	0.327***	0.174***	-0.002	-0.09***	-0.004	-0.064***	-0.034**	27.50%	-2721
t stats	4.87	6.41	-0.18	-6.63	-0.13	-3.23	-2.07		
shapleyR2	5.04%	6.28%	1.03%	2.92%	1.30%	0.42%	0.91%	28%	
LAD	0.305***	0.142***	-0.009	-0.079***	0.032	-0.044**	-0.024	30.10%	-2798
t stats	6.86	9.41	-0.91	-8.98	1.33	-2.13	-1.59		