

1. Appendix

1.1. Data

1.2. Simulation Study

Table 1: Top Models by MAE in Simulation Study

Corr	model	Test MAE		
		g1	g2	g3
0.01	ELN.MAE	0.034579	0.036195	0.035334
	RF.MAE	0.035459	0.03542	0.03554
	NN2.MAE	0.03596	0.036921	0.036305
	NN1.MAE	0.035894	0.036834	0.036335
	NN3.MAE	0.035816	0.036934	0.036471
1	ELN.MSE	0.034614	0.036276	0.035444
	RF.MAE	0.035916	0.035643	0.036053
	NN5.MAE	0.037009	0.03727	0.037413
	NN4.MSE	0.037382	0.036897	0.037354
	NN3.MAE	0.037285	0.037038	0.037193

Table 2: Top Models by MSE in Simulation Study

Corr	model	Test MSE		
		g1	g2	g3
0.01	ELN.MAE	0.002565	0.002688	0.002621
	RF.MAE	0.002643	0.00263	0.002645
	NN2.MAE	0.002679	0.002747	0.0027
	NN1.MAE	0.002672	0.00274	0.002703
	NN3.MAE	0.00267	0.002749	0.002718
1	ELN.MSE	0.002568	0.002698	0.00263
	RF.MAE	0.002675	0.002644	0.002679
	NN5.MAE	0.002774	0.002783	0.002792
	NN3.MAE	0.002805	0.002751	0.002797
	NN4.MSE	0.002794	0.002765	0.002775

Table 3: Simulation Study Loss Statistics

model	Corr	g1			g2			g3		
		Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
LM.MSE	0.01	0.0366775	0.0027400	0.0082732	0.0382548	0.0028801	-0.1117880	0.0373098	0.0027954	-0.0320680
	0.10	0.0369652	0.0027653	-0.0110198	0.0385796	0.0029144	-0.1429443	0.0375694	0.0028168	-0.0549404
	1.00	0.0429486	0.0034141	-0.4387965	0.0453765	0.0037172	-0.7809535	0.0434339	0.0034688	-0.4887785
LM.MAE	0.01	0.0366417	0.0027373	0.0090496	0.0383478	0.0028862	-0.1163694	0.0373235	0.0027967	-0.0351619
	0.10	0.0368113	0.0027555	0.0029188	0.0387449	0.0029275	-0.1525797	0.0374894	0.0028098	-0.0476746
	1.00	0.0423399	0.0033445	-0.3930442	0.0453420	0.0036847	-0.7699555	0.0435349	0.0034682	-0.5445237
ELN.MSE	0.01	0.0345878	0.0025663	0.1403351	0.0362229	0.0026898	0.0368766	0.0353534	0.0026227	0.0991416
	0.10	0.0345630	0.0025643	0.1442376	0.0361830	0.0026860	0.0372585	0.0352923	0.0026167	0.1002410
	1.00	0.0346142	0.0025676	0.1671841	0.0362761	0.0026980	0.0378391	0.0354437	0.0026300	0.1198755
ELN.MAE	0.01	0.0345786	0.0025652	0.1409821	0.0361950	0.0026882	0.0391694	0.0353345	0.0026210	0.1004424
	0.10	0.0345582	0.0025637	0.1446272	0.0361730	0.0026877	0.0388747	0.0352851	0.0026167	0.1009186
	1.00	0.0345989	0.0025667	0.1677712	0.0363047	0.0027028	0.0365834	0.0354652	0.0026310	0.1180225
RF.MSE	0.01	0.0357752	0.0026710	0.0634257	0.0357179	0.0026571	0.0676147	0.0358032	0.0026613	0.0702977
	0.10	0.0357695	0.0026649	0.0667382	0.0356845	0.0026525	0.0691389	0.0358666	0.0026704	0.0628386
	1.00	0.0362325	0.0026977	0.0687741	0.0359893	0.0026833	0.0571035	0.0362129	0.0026952	0.0698868
RF.MAE	0.01	0.0354594	0.0026434	0.0833385	0.0354204	0.0026305	0.0876529	0.0355399	0.0026446	0.0865291
	0.10	0.0355153	0.0026489	0.0814253	0.0354894	0.0026345	0.0834048	0.0355688	0.0026438	0.0816426
	1.00	0.0359158	0.0026747	0.0870806	0.0356434	0.0026445	0.0809651	0.0360529	0.0026786	0.0753573
NN1.MSE	0.01	0.0364516	0.0027219	0.0163443	0.0367677	0.0027319	-0.0039174	0.0366874	0.0027384	0.0093355
	0.10	0.0364624	0.0027191	0.0204223	0.0367762	0.0027345	-0.0072588	0.0367326	0.0027372	0.0029550
	1.00	0.0375452	0.0028206	-0.0144520	0.0370492	0.0027638	-0.0146973	0.0374589	0.0027975	-0.0124689
NN1.MAE	0.01	0.0359604	0.0026786	0.0558139	0.0369206	0.0027474	-0.0151053	0.0363047	0.0026996	0.0393707
	0.10	0.0360823	0.0026866	0.0506976	0.0370100	0.0027503	-0.0205616	0.0363220	0.0027022	0.0323034
	1.00	0.0378894	0.0028338	-0.0431818	0.0379790	0.0028445	-0.0840747	0.0373056	0.0027926	0.0021783
NN2.MSE	0.01	0.0370187	0.0027850	-0.0217869	0.0373197	0.0027752	-0.0433537	0.0370890	0.0027745	-0.0173037
	0.10	0.0369775	0.0027651	-0.0212763	0.0370088	0.0027478	-0.0275384	0.0369898	0.0027584	-0.0206446
	1.00	0.0375360	0.0028138	-0.0139783	0.0369035	0.0027518	-0.0058664	0.0375157	0.0028087	-0.0169336
	0.01	0.0358939	0.0026718	0.0577427	0.0368335	0.0027396	-0.0071579	0.0363352	0.0027028	0.0363052
	0.10	0.0358898	0.0026681	0.0603096	0.0369367	0.0027503	-0.0170774	0.0362701	0.0026960	0.0371567

Table 3: Simulation Study Loss Statistics

model	Corr	g1			g2			g3		
		Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
NN2.MAE	1.00	0.0374795	0.0028142	-0.0095290	0.0377146	0.0028226	-0.0653904	0.0374711	0.0028038	-0.0101183
NN3.MSE	0.01	0.0367827	0.0027568	-0.0067616	0.0368397	0.0027379	-0.0075249	0.0370360	0.0027644	-0.0200783
	0.10	0.0369384	0.0027613	-0.0153994	0.0368517	0.0027384	-0.0151060	0.0368743	0.0027573	-0.0044063
	1.00	0.0374242	0.0028081	-0.0129638	0.0369376	0.0027543	-0.0063529	0.0374202	0.0027991	-0.0103479
NN3.MAE	0.01	0.0358164	0.0026697	0.0654321	0.0369345	0.0027491	-0.0163983	0.0364712	0.0027181	0.0299484
	0.10	0.0358935	0.0026771	0.0620017	0.0368590	0.0027406	-0.0118497	0.0362000	0.0026932	0.0406114
	1.00	0.0370087	0.0027744	0.0213288	0.0372705	0.0027832	-0.0296437	0.0374132	0.0027916	-0.0083067
NN4.MSE	0.01	0.0368808	0.0027586	-0.0206197	0.0368555	0.0027423	-0.0077152	0.0371255	0.0027752	-0.0265634
	0.10	0.0368772	0.0027610	-0.0145791	0.0372207	0.0027615	-0.0487112	0.0368718	0.0027480	-0.0088940
	1.00	0.0373820	0.0028051	-0.0064811	0.0368966	0.0027505	-0.0053689	0.0373542	0.0027970	-0.0077389
NN4.MAE	0.01	0.0359348	0.0026782	0.0577196	0.0368974	0.0027487	-0.0109166	0.0367079	0.0027376	0.0070464
	0.10	0.0358281	0.0026651	0.0650415	0.0369333	0.0027494	-0.0191117	0.0362730	0.0026954	0.0377039
	1.00	0.0370948	0.0027786	0.0198663	0.0373230	0.0027947	-0.0293767	0.0373013	0.0027871	-0.0018876
NN5.MSE	0.01	0.0372306	0.0027846	-0.0499701	0.0369309	0.0027474	-0.0170017	0.0371140	0.0027720	-0.0218954
	0.10	0.0370264	0.0027669	-0.0321897	0.0371758	0.0027623	-0.0394362	0.0369093	0.0027565	-0.0113522
	1.00	0.0373642	0.0027949	-0.0104952	0.0369277	0.0027552	-0.0053762	0.0374751	0.0028071	-0.0149737
NN5.MAE	0.01	0.0358880	0.0026693	0.0585792	0.0368354	0.0027380	-0.0086455	0.0366851	0.0027371	0.0046430
	0.10	0.0360381	0.0026803	0.0509764	0.0367451	0.0027273	-0.0049349	0.0364843	0.0027103	0.0181920
	1.00	0.0372849	0.0027940	0.0025412	0.0370382	0.0027652	-0.0127290	0.0371925	0.0027753	0.0025723
LSTM.MSE	0.01	0.0372963	0.0027982	-0.0432886	0.0372268	0.0027764	-0.0447640	0.0375909	0.0028180	-0.0625164
	0.10	0.0372369	0.0027946	-0.0319550	0.0371342	0.0027674	-0.0382547	0.0371984	0.0027845	-0.0303936
	1.00	0.0381282	0.0028506	-0.0820266	0.0373821	0.0027921	-0.0442426	0.0377803	0.0028300	-0.0443304
LSTM.MAE	0.01	0.0374310	0.0028046	-0.0564056	0.0373372	0.0027801	-0.0518537	0.0376270	0.0028169	-0.0674327
	0.10	0.0374461	0.0028036	-0.0629523	0.0371178	0.0027679	-0.0325442	0.0372409	0.0027931	-0.0333196
	1.00	0.0380266	0.0028456	-0.0614833	0.0374152	0.0027902	-0.0455057	0.0377435	0.0028252	-0.0458837
FFORMA.MSE	0.01	0.0382767	0.0028820	-0.1326717	0.0384600	0.0028893	-0.1473902	0.0424656	0.0033108	-0.4861451
	0.10	0.0383581	0.0028947	-0.1407652	0.0384795	0.0028912	-0.1600616	0.0423231	0.0032914	-0.4739906
	1.00	0.0388747	0.0029647	-0.1312392	0.0388080	0.0029331	-0.1659900	0.0430130	0.0033713	-0.4709541
FFORMA.MAE	0.01	0.0387548	0.0029387	-0.1797483	0.0387472	0.0029178	-0.1740938	0.0429893	0.0033651	-0.5279094
	0.10	0.0389359	0.0029511	-0.1927930	0.0387959	0.0029457	-0.1759939	0.0430966	0.0034057	-0.5863752
	1.00	0.0392468	0.0029721	-0.1636559	0.0393873	0.0029960	-0.2116186	0.0437090	0.0034483	-0.5260813
DeepAR	0.01	0.0382993	0.0029000	-0.1289295	0.0384895	0.0029121	-0.1325183	0.0393898	0.0030161	-0.2049803
	0.10	0.0388318	0.0029353	-0.1816633	0.0384345	0.0029045	-0.1318744	0.0391770	0.0029932	-0.1905583
	1.00	0.0405348	0.0031590	-0.2391417	0.0387870	0.0029524	-0.1440285	0.0396918	0.0030422	-0.1823646

Figure 1. Simulation g1 Variable Importance

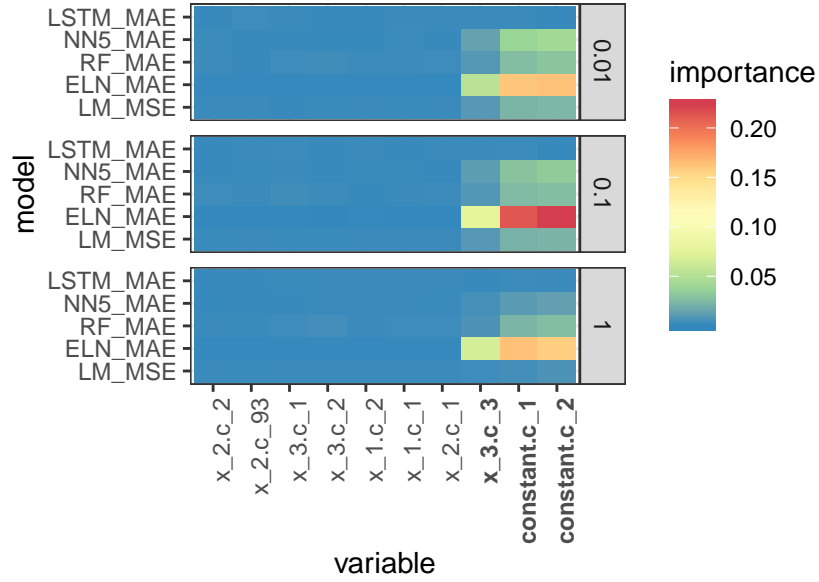


Figure 2. Simulation g2 Variable Importance

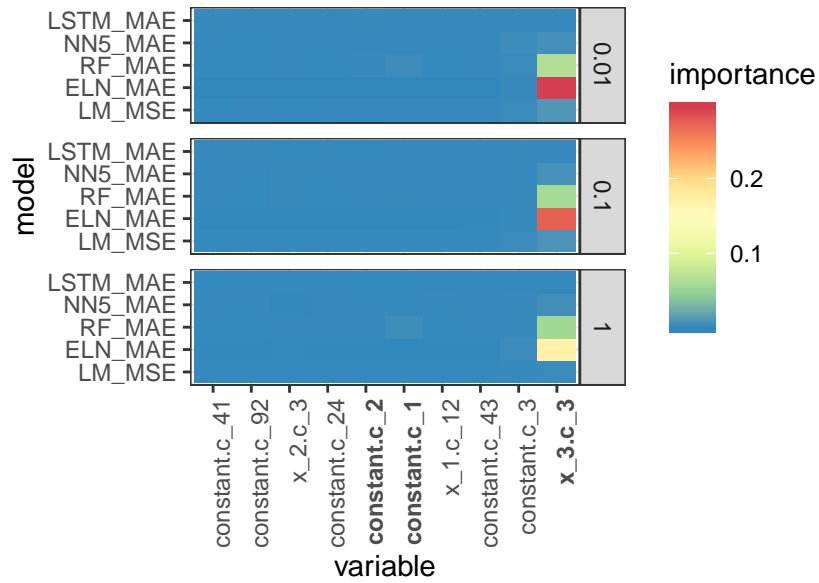


Figure 3. Simulation g3 Variable Importance

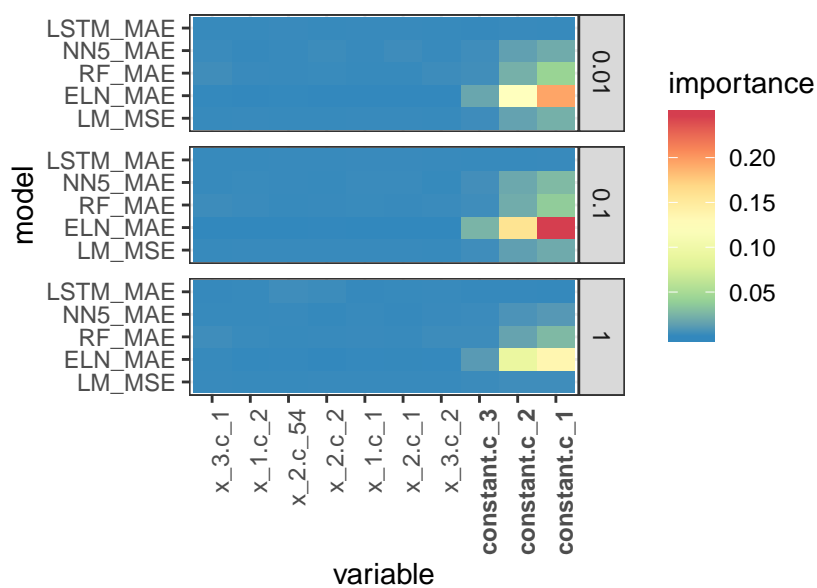


Figure 4. g1 BC VIMP

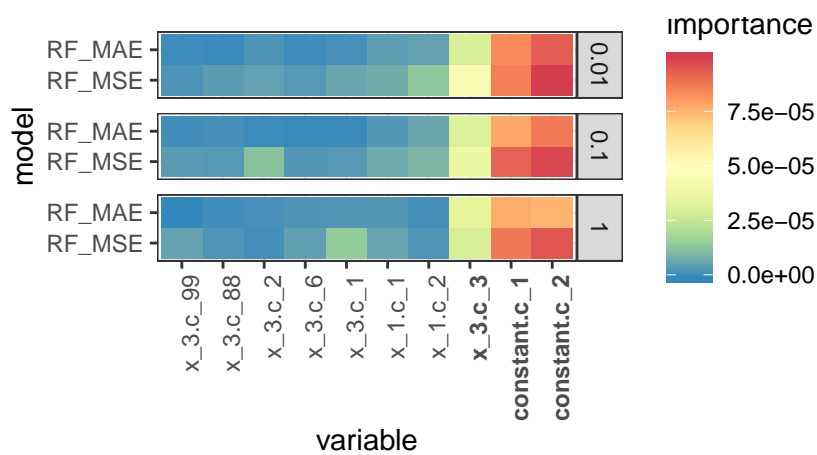


Figure 5. g2 BC VIMP

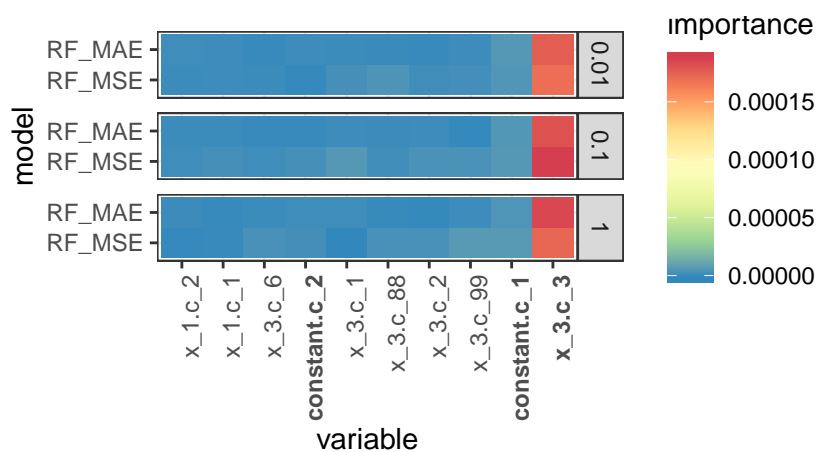


Figure 6. g3 BC VIMP

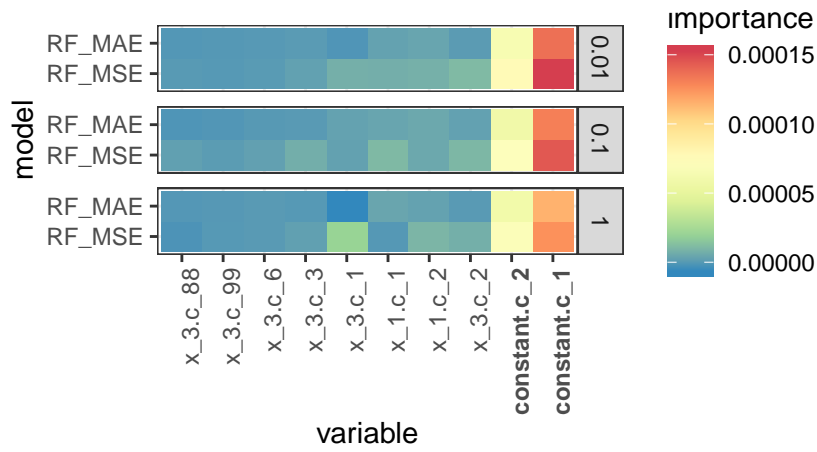


Figure 7. g1 IK VIMP

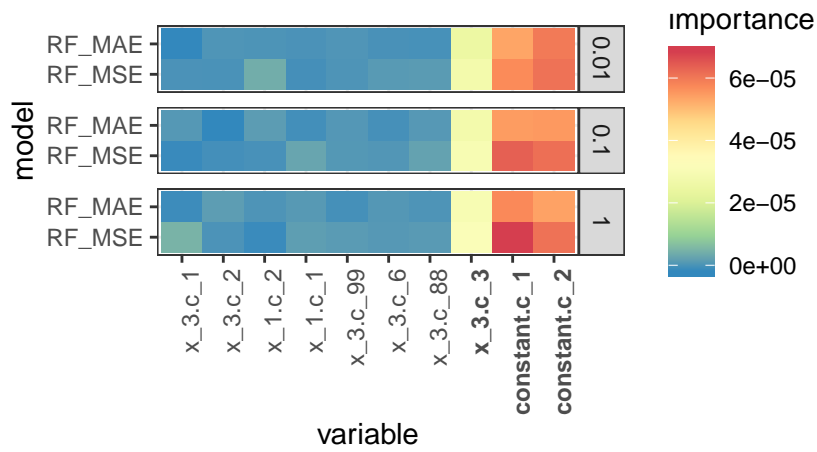


Figure 8. g2 IK VIMP

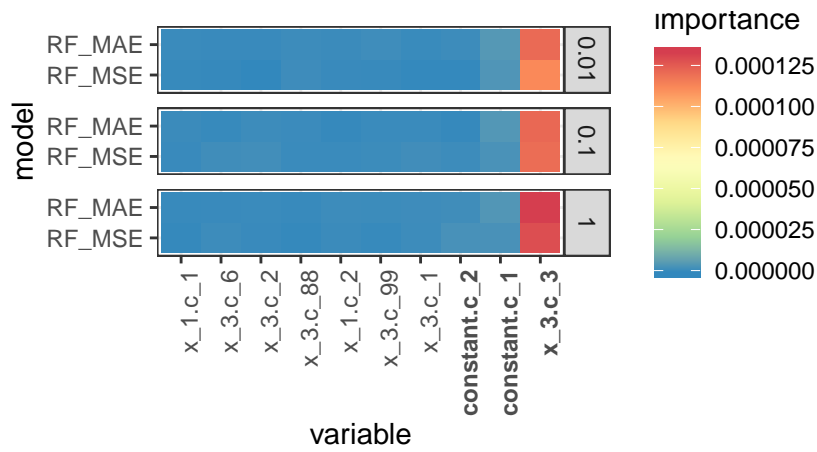
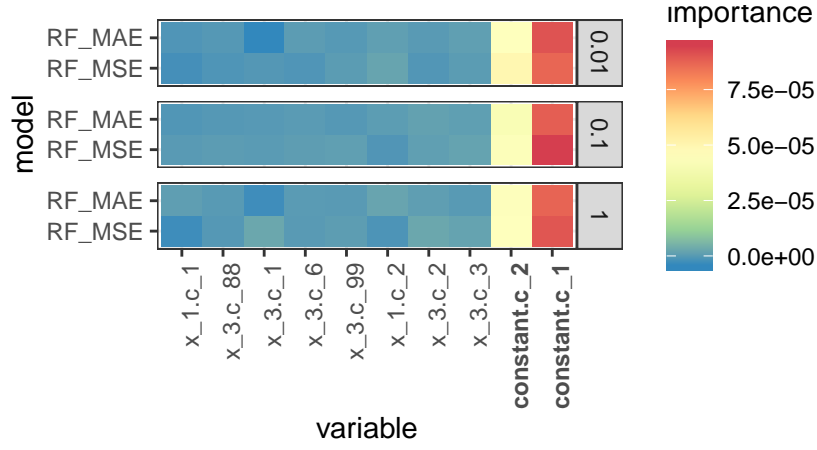


Figure 9. g3 IK VIMP



1.2.1. Empirical Study

Table 4: Empirical Study Loss Statistics

model	Sample 1			Sample 2			Sample 3		
	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
LM.MSE	0.229034	0.116015	-1.808481	0.397573	0.312653	-6.329935	0.566307	0.83804	-17.522476
LM.MAE	0.273452	0.15894	-2.8476	0.555673	0.742223	-16.400898	0.651614	1.225121	-26.077774
ELN.MSE	0.133887	0.039947	0.032956	0.140402	0.04277	-0.002712	0.14433	0.043761	0.032789
ELN.MAE	0.131369	0.040718	0.014306	0.137092	0.041892	0.017875	0.146251	0.045207	0.000835
RF.MSE	0.130366	0.036629	0.113289	0.195817	0.070642	-0.656158	0.157934	0.05122	-0.132066
RF.MAE	0.126703	0.036785	0.109505	0.173721	0.057546	-0.349132	0.14692	0.046037	-0.01752
NN1.MSE	0.169127	0.057044	-0.380909	0.207662	0.074751	-0.752494	0.192125	0.069738	-0.541369
NN1.MAE	0.157324	0.050418	-0.22052	0.191762	0.066746	-0.564818	0.18547	0.063053	-0.393606
NN2.MSE	0.168773	0.059436	-0.43883	0.181808	0.063232	-0.482433	0.180584	0.062745	-0.386797
NN2.MAE	0.162667	0.055447	-0.342256	0.194277	0.069386	-0.626702	0.185173	0.065186	-0.440746
NN3.MSE	0.154784	0.050152	-0.21408	0.180103	0.060193	-0.411175	0.177604	0.060404	-0.335065
NN3.MAE	0.146411	0.044901	-0.086967	0.18499	0.06461	-0.514744	0.184986	0.063861	-0.411475
NN4.MSE	0.153802	0.048641	-0.177503	0.193066	0.067515	-0.582833	0.172707	0.057774	-0.276929
NN4.MAE	0.157301	0.050286	-0.217308	0.168815	0.055711	-0.306102	0.167998	0.055129	-0.218463
NN5.MSE	0.149436	0.047279	-0.14452	0.183584	0.064137	-0.503653	0.170238	0.056992	-0.259652
NN5.MAE	0.140781	0.042832	-0.036882	0.181096	0.06216	-0.4573	0.164896	0.053458	-0.181528

Figure 10. Individual Factor Importance

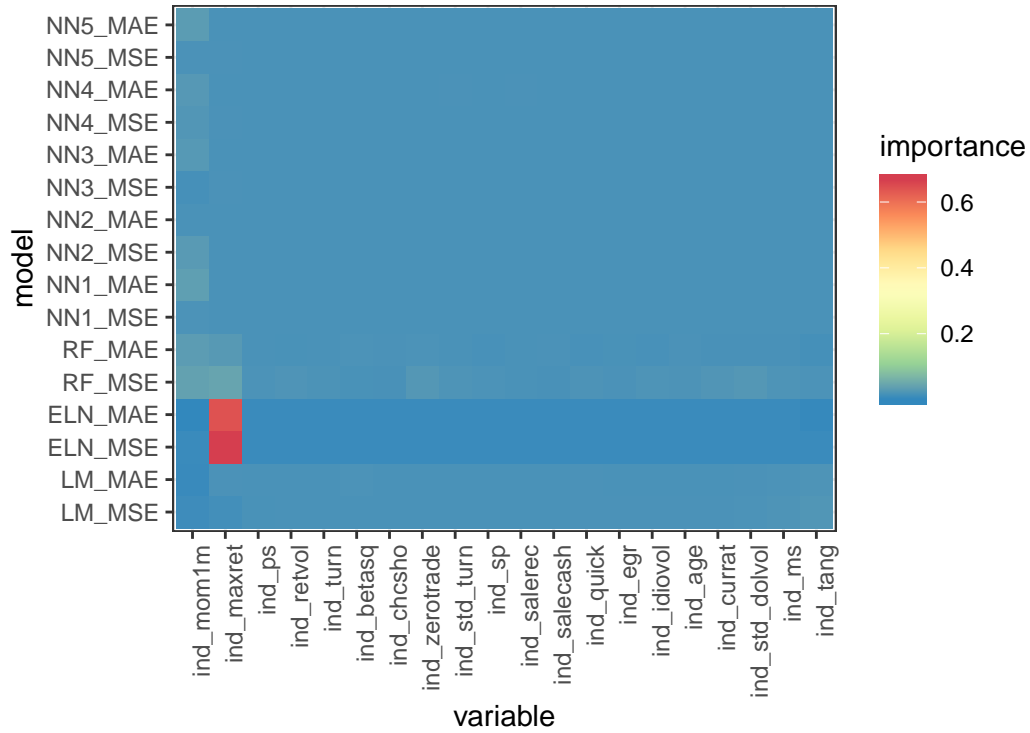


Figure 11. Macroeconomic Factor Importance

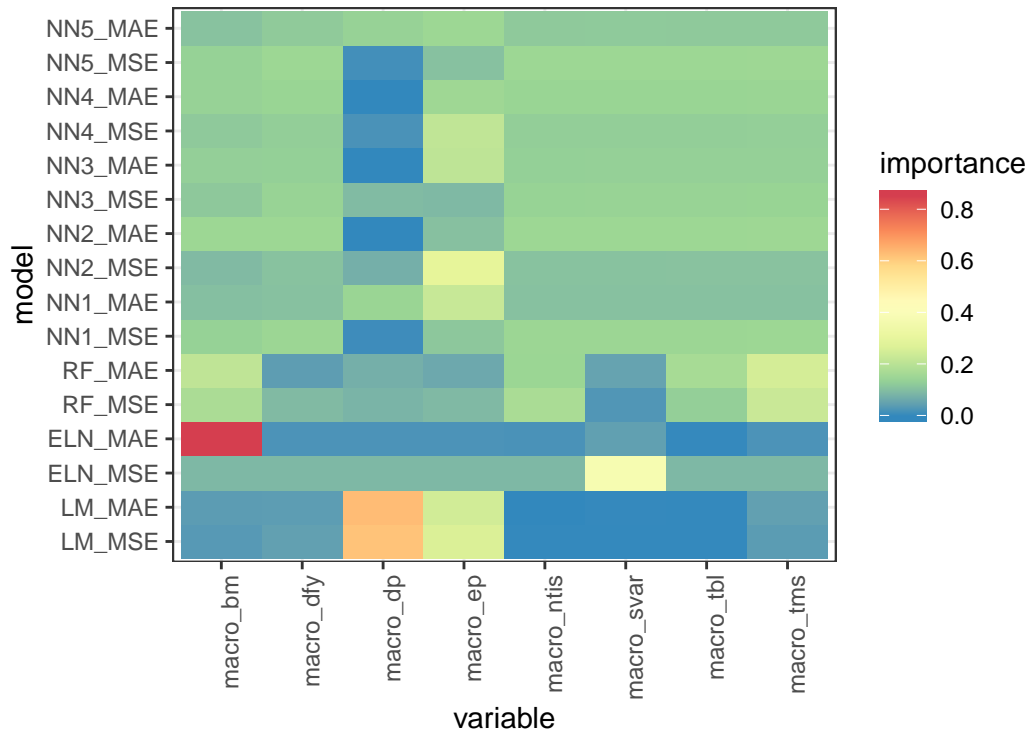
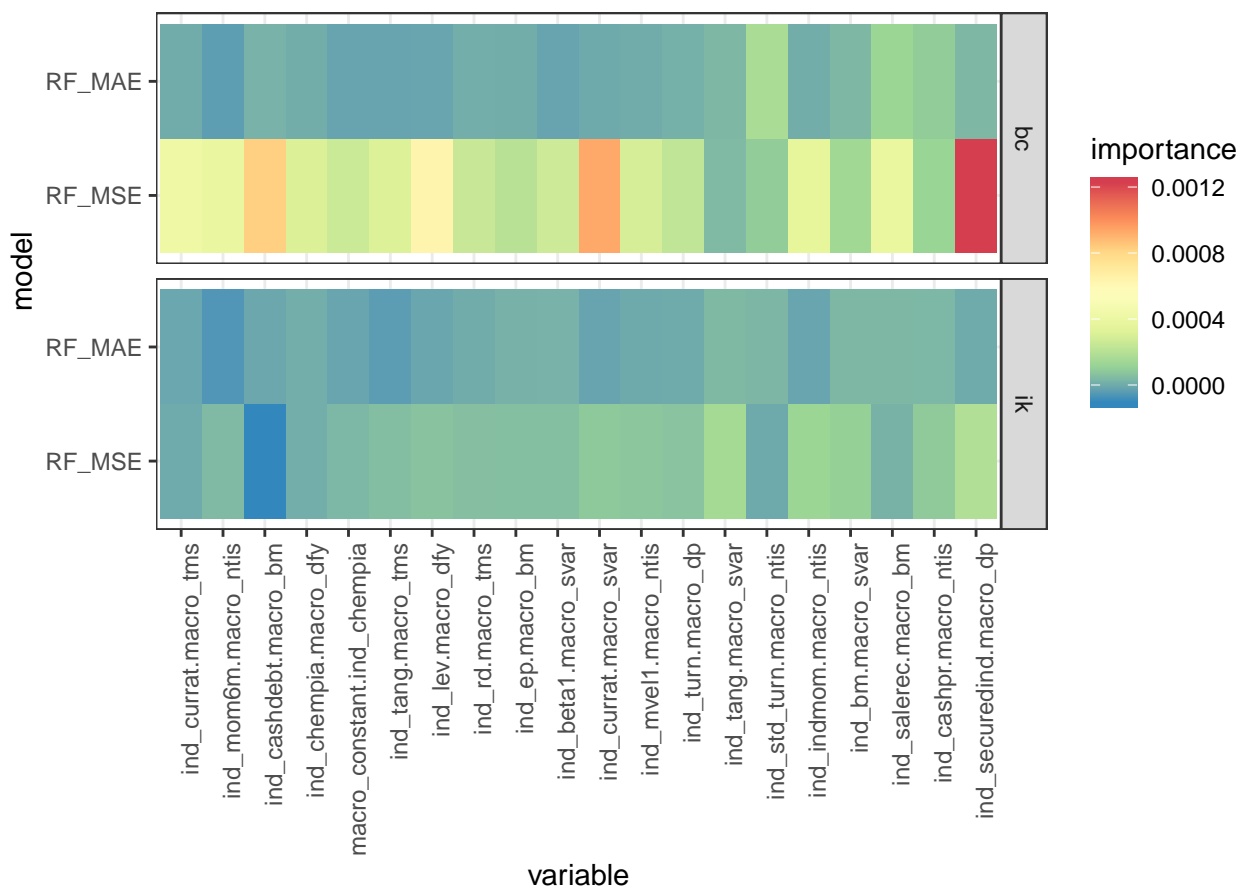


Figure 12. Robustness Check RF VIMP



1.3. Empirical Robustness Checks

1.3.1. Missing Data Threshold Robustness Check

Table 5: Missing Data Threshold Robustness Check Loss Statistics

model	Sample 1			Sample 2			Sample 3		
	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
LM.MSE	0.247457	0.130166	-2.151058	0.541089	0.700574	-15.424468	0.615714	1.188991	-25.279238
LM.MAE	0.214055	0.102848	-1.489727	0.372683	0.259976	-5.094954	0.507397	0.766373	-15.93847
ELN.MSE	0.133887	0.039947	0.032956	0.140402	0.04277	-0.002712	0.14433	0.043761	0.032789
ELN.MAE	0.131338	0.040465	0.020421	0.137083	0.041804	0.019938	0.146589	0.045362	-0.002596
RF.MSE	0.129226	0.035869	0.131692	0.198914	0.072749	-0.705542	0.168068	0.05777	-0.276838
RF.MAE	0.124319	0.035103	0.150229	0.167845	0.053578	-0.256106	0.15463	0.051594	-0.140342
NN1.MSE	0.153785	0.048726	-0.179553	0.221019	0.084867	-0.98964	0.172557	0.058354	-0.289742
NN1.MAE	0.154534	0.048854	-0.18266	0.199647	0.073699	-0.727823	0.176348	0.061359	-0.356155
NN2.MSE	0.158513	0.057061	-0.381324	0.233631	0.095004	-1.227299	0.154083	0.048353	-0.068708
NN2.MAE	0.138489	0.043364	-0.049759	0.215253	0.078792	-0.847234	0.164459	0.055049	-0.216706
NN3.MSE	0.167392	0.058508	-0.416345	0.19754	0.071293	-0.671422	0.156873	0.049602	-0.096299
NN3.MAE	0.144457	0.045293	-0.096445	0.210372	0.077747	-0.822723	0.159841	0.05152	-0.138704
NN4.MSE	0.147989	0.047211	-0.142888	0.184277	0.064247	-0.506225	0.152214	0.048185	-0.064987
NN4.MAE	0.15851	0.052021	-0.259326	0.18643	0.063032	-0.477746	0.177651	0.064046	-0.415562
NN5.MSE	0.153187	0.050053	-0.211683	0.181622	0.060313	-0.413989	0.161028	0.051221	-0.132095
NN5.MAE	0.149496	0.050779	-0.229251	0.165726	0.053988	-0.265712	0.156151	0.049772	-0.100061

Figure 13. Missing Data Threshold Robustness Check Individual Factor Importance

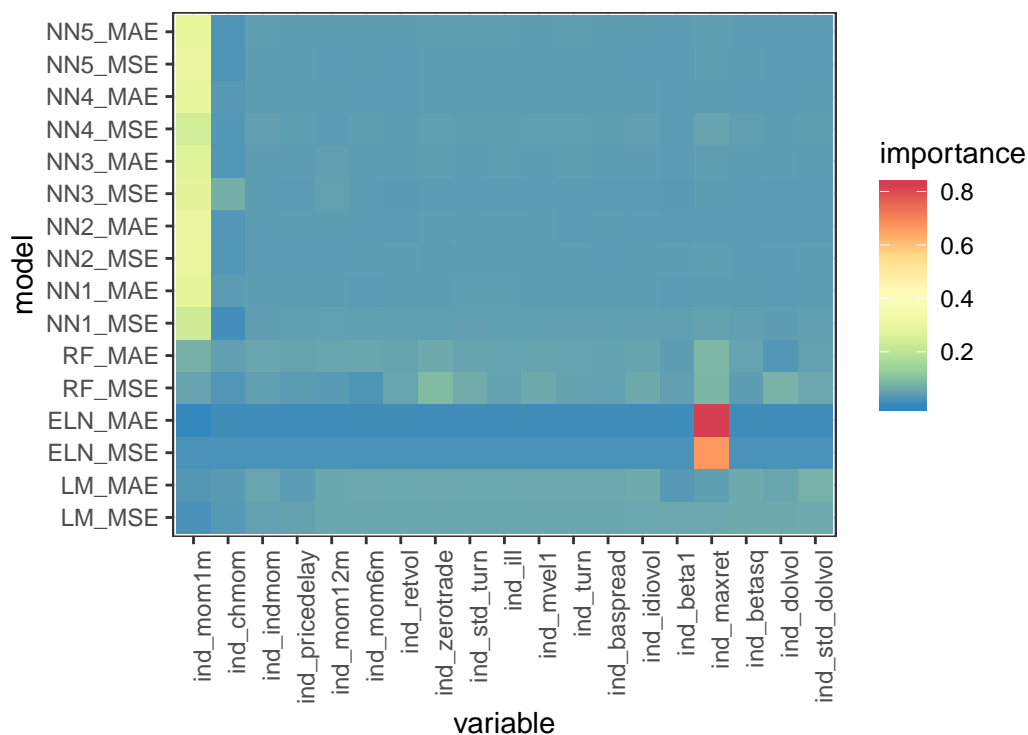


Figure 14. Missing Data Threshold Robustness Check Macroeconomic Factor Importance

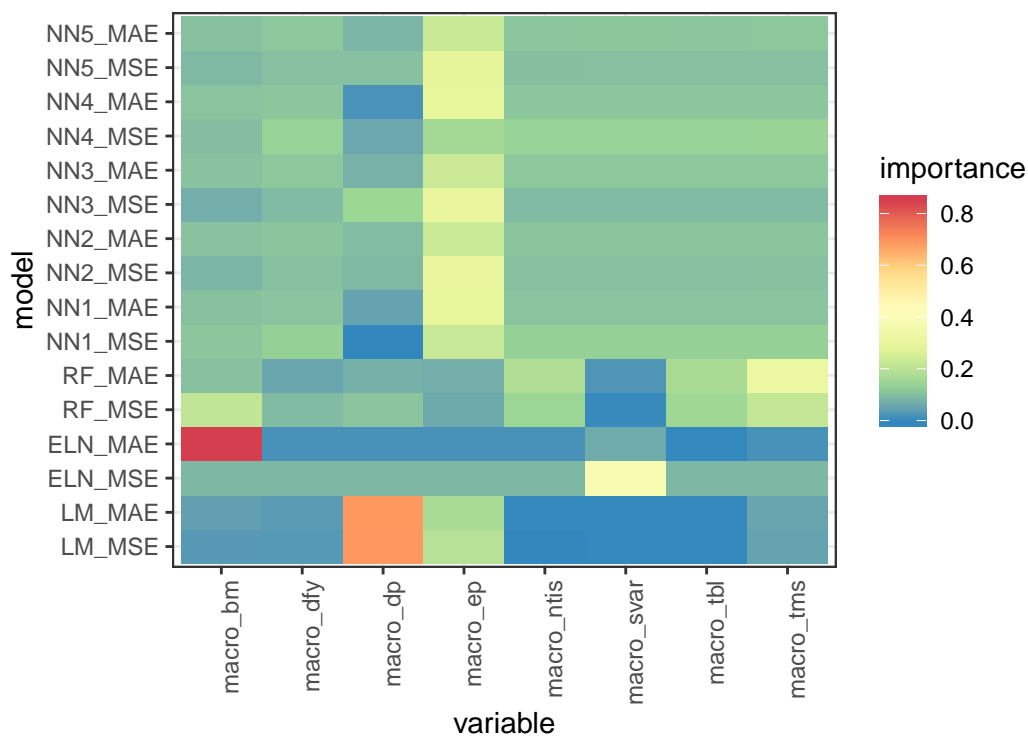
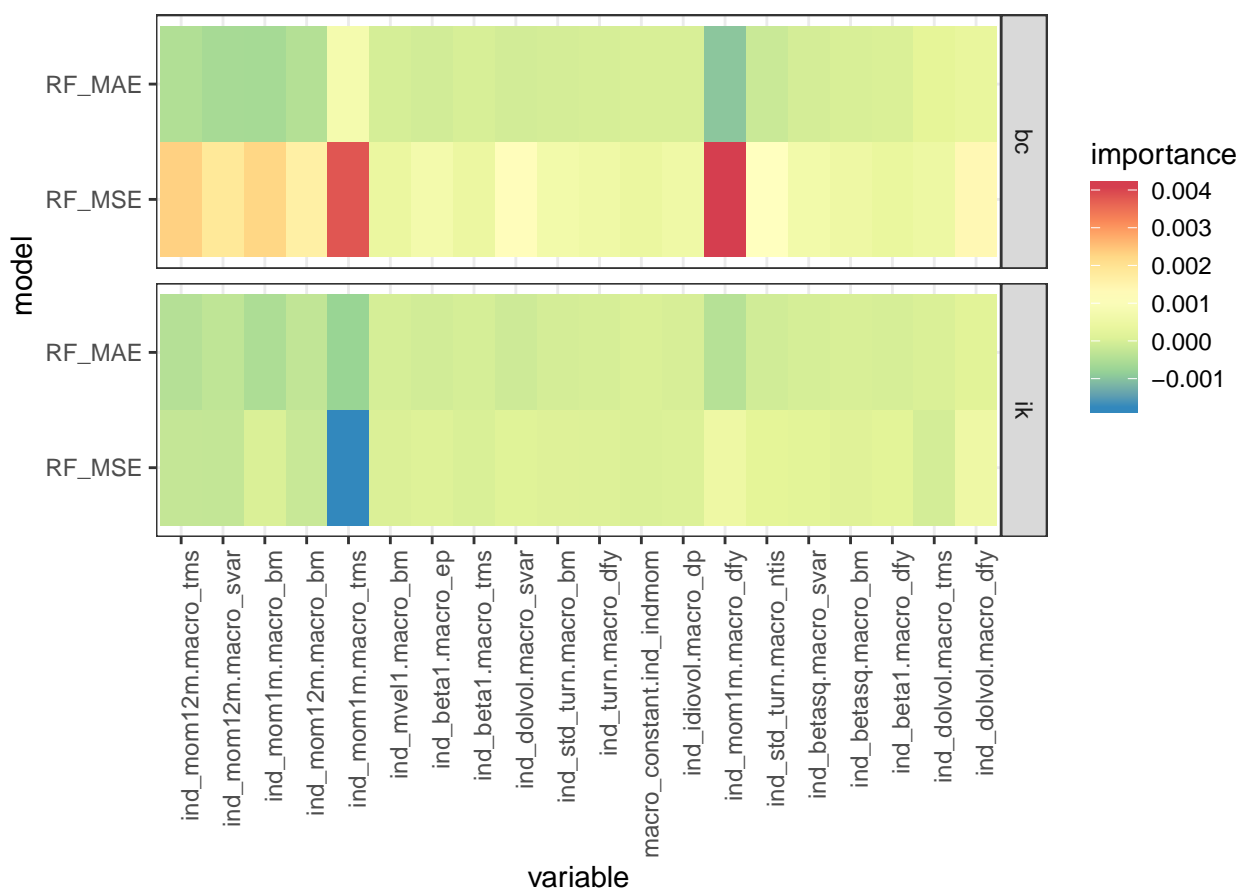


Figure 15. Missing Data Threshold Robustness Check RF VIMP



1.3.2. Train:Validation = 1:1 Robustness Check

Table 6: Train:Validation 1:1 Robustness Check Loss Statistics

model	Sample 1			Sample 2			Sample 3		
	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
LM.MSE	0.915703	2.495094	-59.401029	0.717	1.553454	-35.419641	0.451206	0.375505	-7.299459
LM.MAE	0.751551	1.583265	-37.32754	0.469831	0.524686	-11.300895	0.675112	1.105759	-23.43964
ELN.MSE	0.134609	0.040072	0.029933	0.141434	0.043169	-0.012055	0.144375	0.043705	0.034019
ELN.MAE	0.131668	0.040748	0.013583	0.137494	0.042135	0.012178	0.146776	0.045753	-0.01123
RF.MSE	0.155282	0.046655	-0.129427	0.210936	0.078006	-0.828784	0.229147	0.092622	-1.047155
RF.MAE	0.13882	0.04016	0.027805	0.185338	0.063217	-0.482087	0.182753	0.063873	-0.411736
NN1.MSE	0.218129	0.087699	-1.123002	0.238606	0.110201	-1.583582	0.260721	0.120908	-1.672321
NN1.MAE	0.202259	0.072844	-0.763409	0.205092	0.073567	-0.724721	0.239051	0.096477	-1.132346
NN2.MSE	0.239446	0.101312	-1.452556	0.206109	0.078412	-0.838305	0.228591	0.095126	-1.102488
NN2.MAE	0.19141	0.068261	-0.652455	0.184095	0.062366	-0.462125	0.220087	0.086888	-0.920403
NN3.MSE	0.193117	0.069206	-0.675336	0.193859	0.070747	-0.658609	0.205093	0.076497	-0.690745
NN3.MAE	0.191596	0.066926	-0.620138	0.176555	0.060022	-0.407183	0.234768	0.091003	-1.011359
NN4.MSE	0.191361	0.07068	-0.71101	0.175311	0.059253	-0.389136	0.18148	0.061718	-0.364096
NN4.MAE	0.139659	0.041096	0.005158	0.179318	0.05976	-0.401027	0.188921	0.066144	-0.461932
NN5.MSE	0.17209	0.056982	-0.379418	0.164756	0.054398	-0.275325	0.202012	0.074051	-0.636691
NN5.MAE	0.170945	0.056029	-0.356356	0.180669	0.059697	-0.399552	0.189149	0.065921	-0.456988

Figure 16. Train:Validation = 1:1 Robustness Check Individual Factor Importance

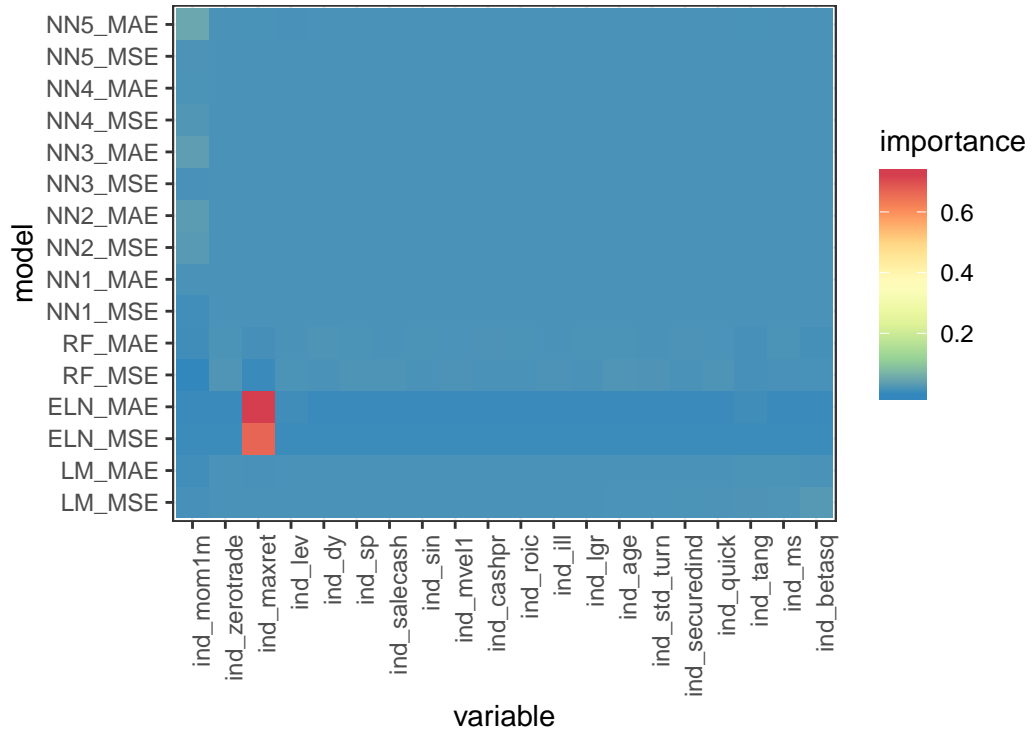


Figure 17. Train:Validation = 1:1 Robustness Check Macroeconomic Factor Importance

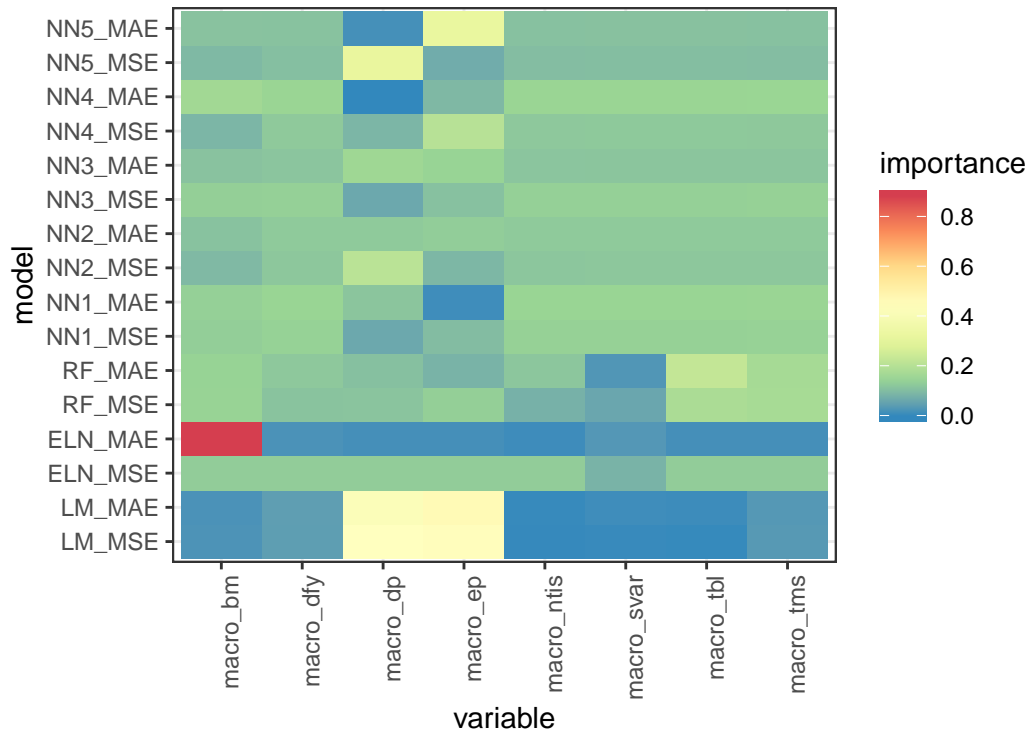
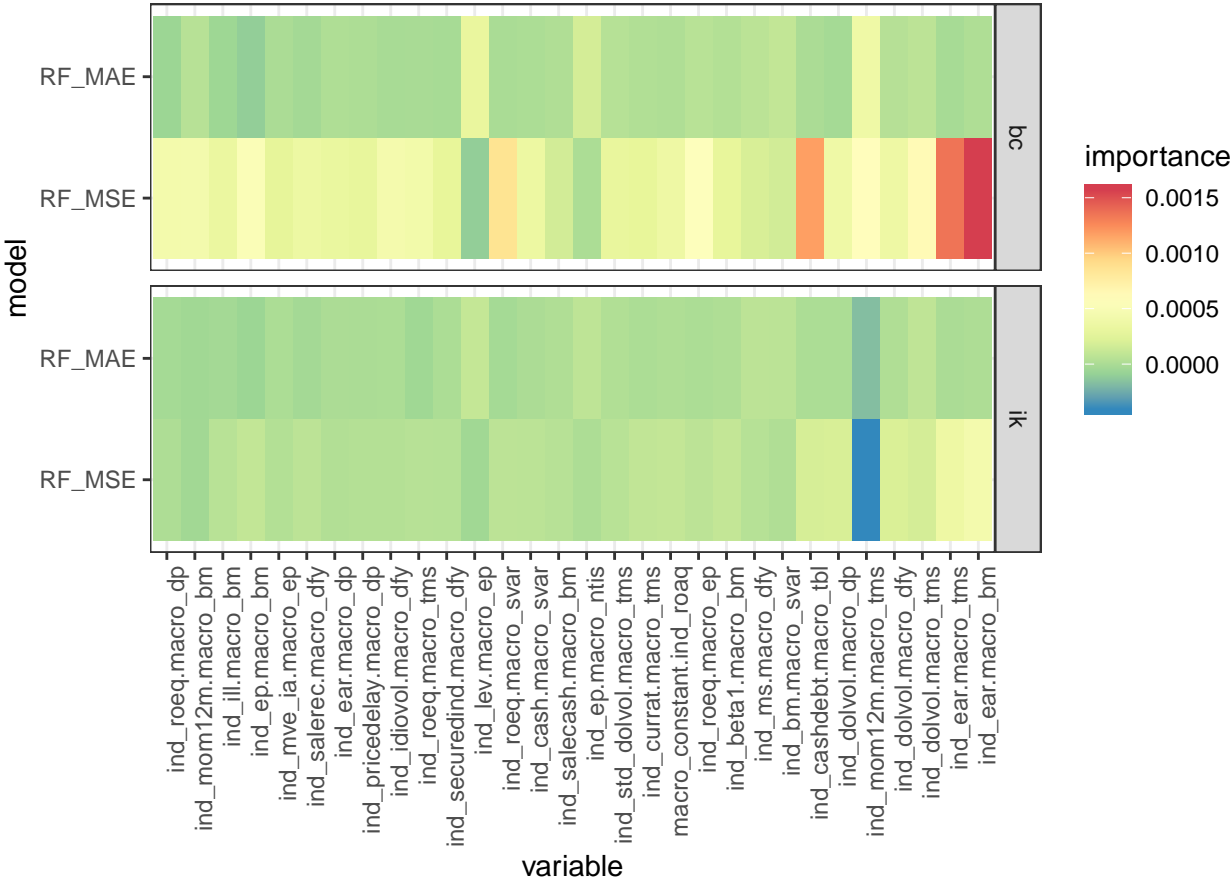


Figure 18. Train:Validation = 1:1 Robustness Check RF VIMP



1.3.3. Train:Validation = 2:1 Robustness Check

Table 7: Train:Validation 2:1 Robustness Check Loss Statistics

model	Sample 1			Sample 2			Sample 3		
	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
LM.MSE	0.277087	0.164599	-2.98459	0.383421	0.31299	-6.337839	0.523418	0.740288	-15.361936
LM.MAE	0.246936	0.147979	-2.582262	0.277044	0.161215	-2.779579	0.487285	0.631575	-12.95915
ELN.MSE	0.133715	0.039919	0.033647	0.139723	0.042525	0.003028	0.145034	0.044306	0.020752
ELN.MAE	0.131237	0.040361	0.022952	0.137205	0.041858	0.018674	0.174408	0.064513	-0.425873
RF.MSE	0.130808	0.036982	0.104754	0.162762	0.051118	-0.198417	0.155264	0.048661	-0.075516
RF.MAE	0.127013	0.036722	0.111033	0.146758	0.043961	-0.030633	0.168905	0.055983	-0.237348
NN1.MSE	0.155088	0.050284	-0.217281	0.165871	0.053459	-0.253309	0.181984	0.064621	-0.428262
NN1.MAE	0.159797	0.050566	-0.224107	0.163397	0.052329	-0.226828	0.181636	0.062407	-0.379326
NN2.MSE	0.155815	0.050954	-0.233492	0.168576	0.055738	-0.306745	0.170991	0.057453	-0.269824
NN2.MAE	0.148149	0.047617	-0.152709	0.166334	0.054058	-0.26734	0.163141	0.052639	-0.163436
NN3.MSE	0.154141	0.04976	-0.204586	0.166218	0.053402	-0.251967	0.169539	0.05661	-0.251204
NN3.MAE	0.142464	0.043771	-0.059594	0.154233	0.048682	-0.141321	0.184217	0.064175	-0.418401
NN4.MSE	0.166547	0.056184	-0.360092	0.150748	0.047566	-0.115162	0.168447	0.056575	-0.250437
NN4.MAE	0.150167	0.046919	-0.135802	0.16197	0.05226	-0.225199	0.171676	0.057352	-0.267598
NN5.MSE	0.155784	0.052258	-0.265047	0.139699	0.043082	-0.010018	0.166166	0.055027	-0.216219
NN5.MAE	0.161161	0.053216	-0.28825	0.149207	0.046344	-0.086511	0.149424	0.047544	-0.050824

Figure 19. Train:Validation = 2:1 Robustness Check Individual Factor Importance

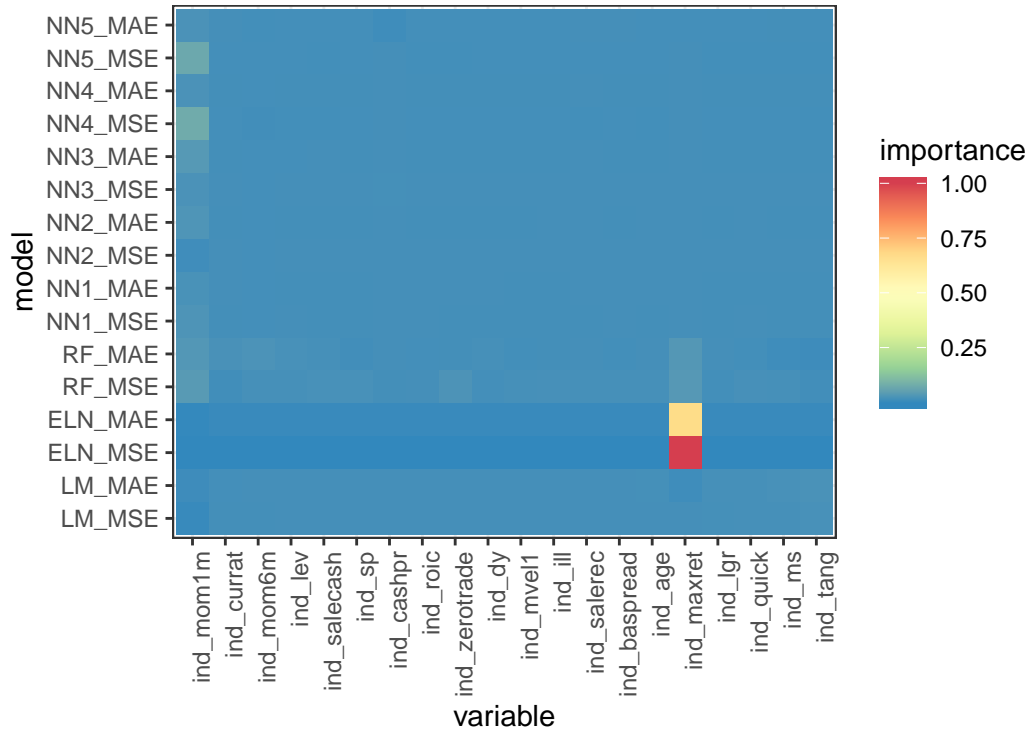


Figure 20. Train:Validation = 2:1 Robustness Check Macroeconomic Factor Importance

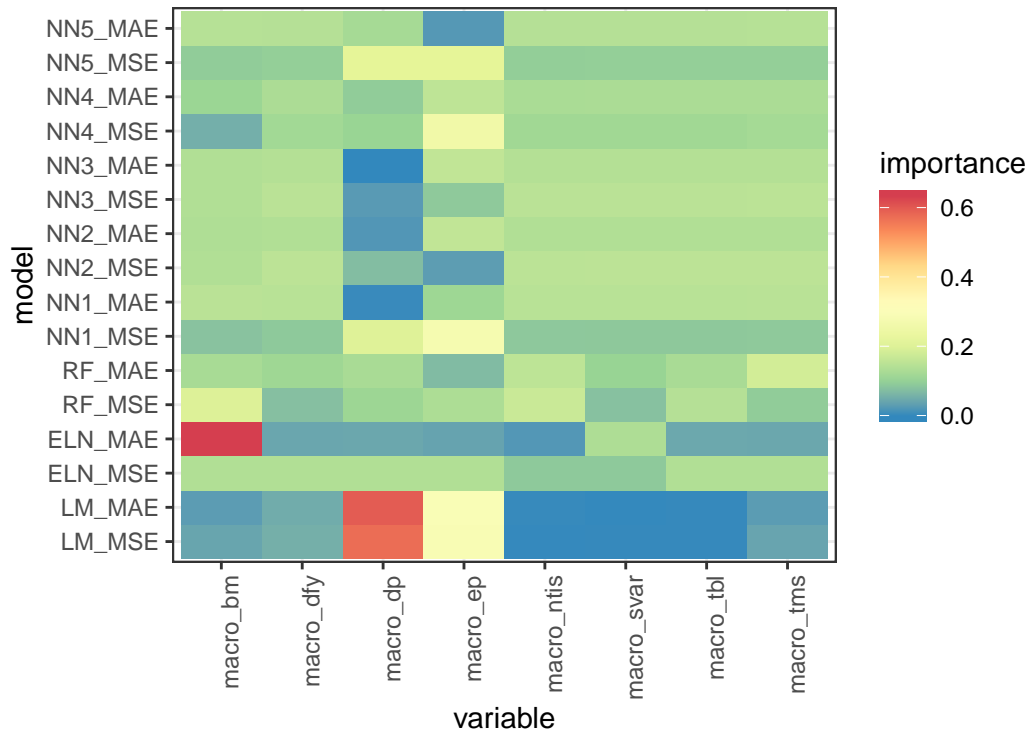
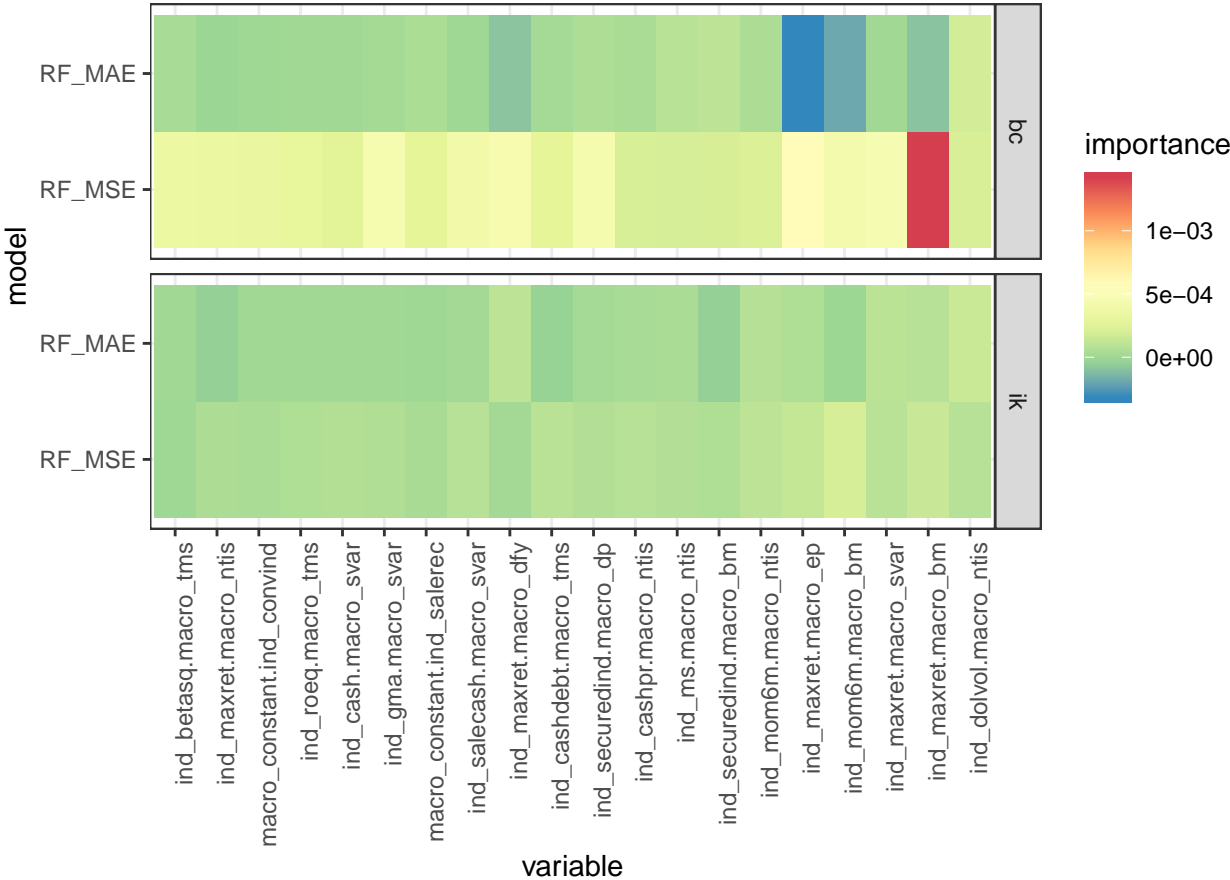


Figure 21. Train:Validation = 2:1 Robustness Check RF VIMP



1.3.4. Fama French Factors Robustness Check

Table 8: Fama French Factor Robustness Check Loss Statistics

model	Sample 1			Sample 2			Sample 3		
	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2	Test MAE	Test MSE	Test R^2
LM.MSE	0.288636	0.182966	-3.42923	0.367636	0.264918	-5.210825	1.101604	5.012469	-109.78624
LM.MAE	0.280535	0.179777	-3.352038	0.376163	0.279476	-5.552114	1.25341	7.06036	-155.048996
ELN.MSE	0.13383	0.039956	0.032746	0.14022	0.0427	-0.00107	0.144472	0.043852	0.030769
ELN.MAE	0.128936	0.039665	0.039798	0.13716	0.042144	0.011965	0.172148	0.063154	-0.395841
RF.MSE	0.146318	0.042607	-0.031434	0.151137	0.047091	-0.104011	0.177125	0.064664	-0.429221
RF.MAE	0.138266	0.04005	0.030475	0.138714	0.042246	0.009583	0.152068	0.048488	-0.071698
NN1.MSE	0.168063	0.055354	-0.340017	0.192143	0.068904	-0.61541	0.275195	0.138165	-2.053731
NN1.MAE	0.161596	0.051507	-0.246873	0.199416	0.068181	-0.598444	0.23054	0.093434	-1.065082
NN2.MSE	0.169842	0.056899	-0.377415	0.179733	0.058966	-0.382416	0.252929	0.117102	-1.588199
NN2.MAE	0.155816	0.046809	-0.133147	0.185008	0.060854	-0.426679	0.219342	0.085115	-0.881213
NN3.MSE	0.1621	0.053165	-0.287008	0.182996	0.059643	-0.398278	0.232226	0.099353	-1.195903
NN3.MAE	0.161255	0.050737	-0.228237	0.191625	0.064676	-0.516291	0.218355	0.085297	-0.885238
NN4.MSE	0.166036	0.055575	-0.345349	0.191589	0.066207	-0.552182	0.23417	0.097348	-1.151607
NN4.MAE	0.148375	0.045227	-0.094843	0.168623	0.054176	-0.270114	0.20837	0.077667	-0.7166
NN5.MSE	0.147379	0.044503	-0.077315	0.166006	0.054935	-0.287914	0.20667	0.077866	-0.721013
NN5.MAE	0.150541	0.045723	-0.106868	0.172466	0.055402	-0.298865	0.218796	0.084938	-0.877301

Figure 22. Fama French Factors Robustness Check Individual Factor Importance

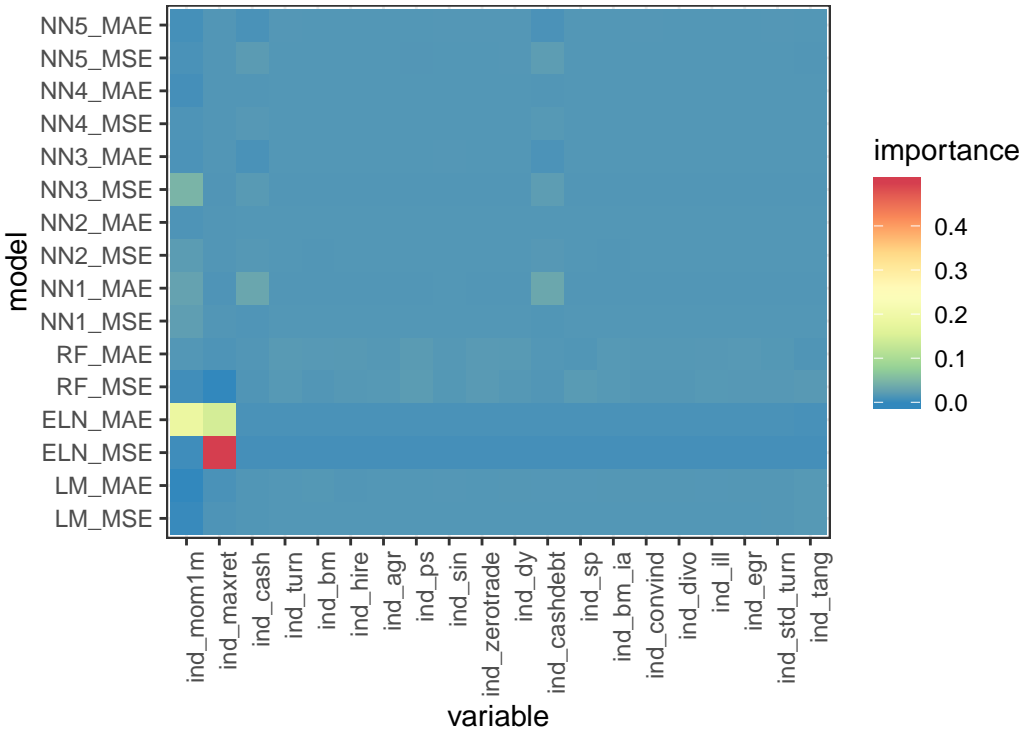


Figure 23. Fama French Factors Robustness Check Macroeconomic Factor Importance

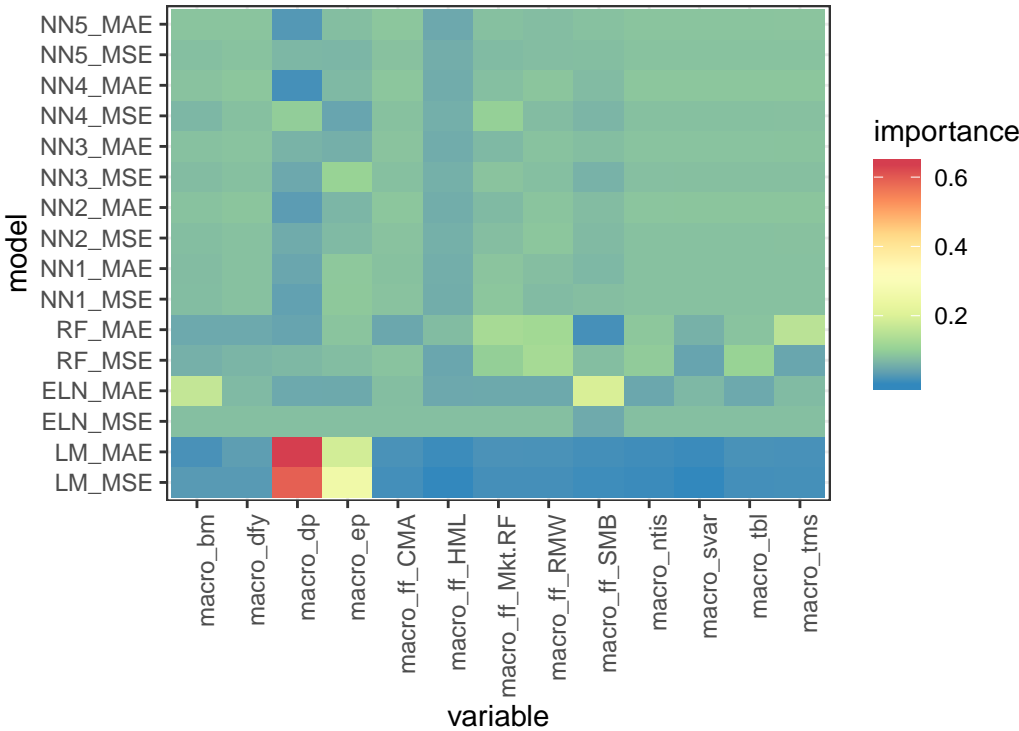
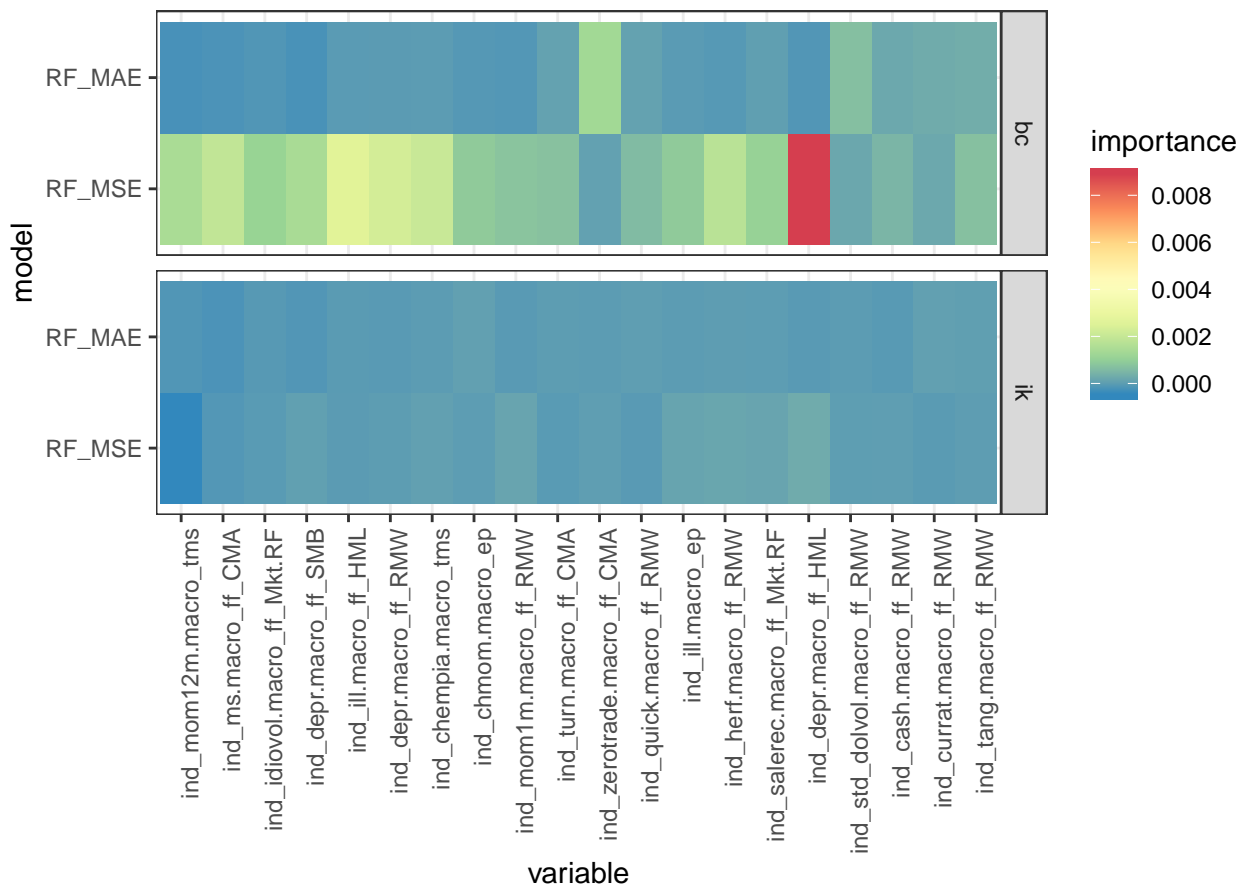


Figure 24. Fama French Factors Robustness Check RF VIMP



References