## **APPENDIX A - REGIONAL RESULTS**

Table 1 - Statistics on the predictive power for the real housing returns - Midwest (YM)

h	=	1

			h = 1			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.5174	0.3953			1	1
Model 2	0.5850	0.4489	0.0002*	0.0002*	Е	Е
Model 3	0.5964	0.4585	0.0509	0.0512*	Е	Е
Model 4	0.6279	0.4806	0.1273	0.1270	E	Е
Model 5	0.6583	0.5099	0.0351*	0.0353*	E	Е
Model 6	0.6661	0.5165	0.0129*	0.0130*	E	Е
			h = 3			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.7393	0.5705			1	1
Model 2	0.8321	0.6420	0.0017*	0.0017*	Е	Е
Model 3	0.8509	0.6683	0.1342	0.1377	E	Е
Model 4	0.8828	0.6974	0.2853	0.2869	Е	Е
Model 5	0.9600	0.7717	0.1481	0.1480	E	Е
Model 6	1.0380	0.8244	0.1179	0.1194	E	Е
			h = 6			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.9348	0.7428			1	1
Model 2	1.0095	0.8007	0.0014*	0.0015*	Е	Е
Model 3	1.0293	0.8177	0.0145*	0.0155*	E	Е
Model 4	1.0626	0.8354	0.0194*	0.0203*	E	Е
Model 5	1.1345	0.9115	0.0206*	0.0214*	E	Е
Model 6	1.2329	0.9773	0.0412*	0.0437*	E	E
			h = 12			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	1.1144	0.8298			1	1
Model 2	1.2120	0.9297	0.1065	0.1140	E	E
Model 3	1.2290	0.9434	0.4062	0.4412	Е	E

Model 4	1.2745	0.9785	0.0558	0.0599	Е	E
Model 5	1.4100	1.0855	0.0043*	0.0046*	E	Е
Model 6	1.4437	1.1188	0.1966	0.2069	E	E

Model 1

Model 2

1.2368

1.2373

0.9591

0.9503

0.0498\*

0.0506

Notes: \* Statistical difference at 5%

Table 2 - Statistics on the predictive power for the real housing returns - Northeast (YN)

h	=	1
	_	

			h = 1			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.6947	0.5038			1	1
Model 2	0.7189	0.5286	0.0352*	0.0339*	2	2
Model 3	0.7557	0.5494	0.0013*	0.0013*	4	4
Model 4	0.7856	0.5615	0.1344	0.1261	5	5
Model 5	0.7728	0.5466	0.2729	0.2633	3	3
Model 6	0.8154	0.5772	0.6171	0.6080	6	6
			h = 3			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.9493	0.7030			1	1
Model 2	0.9598	0.7228	0.0134*	0.013*	2	2
Model 3	1.0002	0.7499	0.0013*	0.0012*	3	3
Model 4	1.0465	0.7645	0.0221*	0.019*	Е	Е
Model 5	1.1157	0.8236	0.1042	0.0931	Е	Е
Model 6	1.2765	0.9341	0.3917	0.3695	Е	Е
			h = 6			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	1.0997	0.8368			1	1
Model 2	1.1739	0.8965	0.3012	0.2912	2	2
Model 3	1.2279	0.9262	0.028*	0.0247*	4	3
Model 4	1.2872	0.9548	0.2138	0.1796	6	4
Model 5	1.2342	0.9204	0.9377	0.9122	3	5
Model 6	1.2851	0.9661	0.4999	0.4821	5	6
			h = 12			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R

2

1

2

Model 3	1.2829	0.9865	0.0122*	0.013*	3	3
Model 4	1.2964	0.9962	0.1821	0.1517	4	4
Model 5	1.3187	1.0404	0.2999	0.2900	E	E
Model 6	1.3426	1.0646	0.0954	0.1030	E	E

Notes: \* Statistical difference at 5%

7	Γable 3 - Statistics	on the predictive	e power for t	he real housing r	eturns - South	(YS)
			h = 1			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.5055	0.3898			2	1
Model 2	0.5431	0.4016	0.8982	0.8901	1	2
Model 3	0.5628	0.4114	0.0336*	0.0326*	3	4
Model 4	0.6067	0.4327	0.0660	0.0628	4	3
Model 5	0.6142	0.4341	0.0123*	0.0118*	Е	Е
Model 6	0.6227	0.4381	0.0258*	0.0251*	E	Е
			h = 3			
			GW Test			
Model	RMSE	MAE	MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.6319	0.5009			1	1
Model 2	0.7307	0.5534	0.8841	0.9058	E	Е
Model 3	0.7448	0.5720	0.0294*	0.0274*	Е	Е
Model 4	0.7995	0.6020	0.0249*	0.0214*	E	Е
Model 5	0.8175	0.6262	0.0043*	0.0037*	Е	Е
Model 6	0.8408	0.6295	0.0019*	0.0017*	Е	Е
			h = 6			
			GW Test			
Model	RMSE	MAE	MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.8035	0.6486			1	1
Model 2	0.9407	0.7275	0.7062	0.7422	Е	Е
Model 3	0.9625	0.7423	0.0354*	0.0315*	Е	Е
Model 4	1.0394	0.7718	0.0929	0.0773	Е	Е
Model 5	1.0501	0.8020	0.0407*	0.0344*	Е	E
Model 6	1.0909	0.8311	0.2263	0.2055	E	Е
			h = 12			

Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.9605	0.7547			1	1
Model 2	1.0433	0.8205	0.7404	0.7621	2	2
Model 3	1.0587	0.8394	0.0796	0.0735	4	3
Model 4	1.1341	0.8848	0.0689	0.0578	Е	E
Model 5	1.0830	0.8479	0.0189*	0.0154*	3	4
Model 6	1.0902	0.8649	0.0354*	0.0302*	E	Е

Notes: \* Statistical difference at 5%

Table 4 - Statistics on the predictive power for the real housing returns - West (YW)

	Table 4 - Statistics		•	J	,	,
			h = 1			
			GW Test			
Model	RMSE	MAE	MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	1.9742	1.5002			5	4
Model 2	1.8697	1.3172	0.8355	0.8077	2	1
Model 3	1.8691	1.3250	0.6815	0.6502	1	2
Model 4	2.0024	1.3743	0.9015	0.9473	3	3
Model 5	2.0360	1.4357	0.8275	0.8664	4	5
Model 6	2.0851	1.5205	0.5948	0.6153	Е	E
			h = 3			
			GW Test			
Model	RMSE	MAE	MSE	GW Test Mae	MCS Rank M	MCS Rank R
NA 1 1 4	0.0400	0.7000				
Model 1	0.9493	0.7030			1	1
Model 1 Model 2	0.9 <b>493</b> 0.9598	<b>0.7030</b> 0.7228	0.0134*	0.013*	1 2	1 2
			0.0134* 0.0013*	0.013* 0.0012*	-	-
Model 2	0.9598	0.7228			2	2
Model 2 Model 3	0.9598 1.0002	0.7228 0.7499	0.0013*	0.0012*	2	2
Model 2 Model 3 Model 4	0.9598 1.0002 1.0465	0.7228 0.7499 0.7645	0.0013* 0.0221*	0.0012* 0.019*	2 3 E	2 3 E
Model 2 Model 3 Model 4 Model 5	0.9598 1.0002 1.0465 1.1157	0.7228 0.7499 0.7645 0.8236	0.0013* 0.0221* 0.1042	0.0012* 0.019* 0.0931	2 3 E E	2 3 E E
Model 2 Model 3 Model 4 Model 5	0.9598 1.0002 1.0465 1.1157	0.7228 0.7499 0.7645 0.8236	0.0013* 0.0221* 0.1042 0.3917	0.0012* 0.019* 0.0931	2 3 E E	2 3 E E
Model 2 Model 3 Model 4 Model 5	0.9598 1.0002 1.0465 1.1157	0.7228 0.7499 0.7645 0.8236	0.0013* 0.0221* 0.1042 0.3917 h = 6	0.0012* 0.019* 0.0931 0.3695	2 3 E E	2 3 E E E
Model 2 Model 3 Model 4 Model 5 Model 6	0.9598 1.0002 1.0465 1.1157 1.2765	0.7228 0.7499 0.7645 0.8236 0.9341	0.0013* 0.0221* 0.1042 0.3917 <b>h = 6</b> GW Test	0.0012* 0.019* 0.0931 0.3695	2 3 E E E	2 3 E E E
Model 2 Model 3 Model 4 Model 5 Model 6	0.9598 1.0002 1.0465 1.1157 1.2765	0.7228 0.7499 0.7645 0.8236 0.9341	0.0013* 0.0221* 0.1042 0.3917 <b>h = 6</b> GW Test	0.0012* 0.019* 0.0931 0.3695	2 3 E E E	2 3 E E E

Model 4	1.2872	0.9548	0.2138	0.1796	6	4
Model 5	1.2342	0.9204	0.9377	0.9122	3	5
Model 6	1.2851	0.9661	0.4999	0.4821	5	6

			<b>GW Test</b>			
Model	RMSE	MAE	MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	3.5085	2.7329			Е	E
Model 2	2.9756	2.2056	0.1591	0.1744	2	2
Model 3	2.9306	2.2041	0.0419*	0.0526	1	1
Model 4	3.0387	2.2526	0.1849	0.2991	3	3
Model 5	3.0976	2.3876	0.2268	0.3338	4	4
Model 6	3.1078	2.3996	0.1885	0.2719	5	5

Source: own elaboration

Notes: \* Statistical difference at 5%

Table 5 - Statistics on the predictive power for the real housing returns - Aggregate (YA)

## h = 1

Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	0.9064	0.6730			E	E
Model 2	0.6571	0.4380	0.8519	0.8679	2	2
Model 3	0.6638	0.4357	0.8233	0.8402	1	1
Model 4	0.7145	0.4485	0.9420	0.9643	5	4
Model 5	0.6981	0.4440	0.8627	0.8821	3	3
Model 6	0.6805	0.4455	0.9897	0.9728	4	5
			h = 3			
Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R

Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	1.0986	0.8608			E	E
Model 2	0.8498	0.6354	0.8740	0.8554	4	4
Model 3	0.8547	0.6342	0.5518	0.5696	3	3
Model 4	0.8723	0.6295	0.7125	0.7587	1	1
Model 5	0.8692	0.6362	0.7237	0.7679	5	5
Model 6	0.8718	0.6316	0.8940	0.9342	2	2

Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	1.1682	0.8918			Е	E
Model 2	0.8910	0.6894	0.8023	0.7989	1	1
Model 3	0.8798	0.6935	0.3748	0.3706	2	2

·	•	•		•	•	·
Model 6	1.0459	0.7826	0.5748	0.5190	Е	Е
Model 5	0.9993	0.7522	0.7361	0.7950	Е	Е
Model 4	0.9899	0.7117	0.8936	0.9697	3	3

h	=	1	2

Model	RMSE	MAE	GW Test MSE	GW Test Mae	MCS Rank M	MCS Rank R
Model 1	1.3685	1.0059			Е	E
Model 2	1.1445	0.8390	0.8003	0.8257	3	3
Model 3	1.0956	0.8076	0.2964	0.3215	1	1
Model 4	1.1721	0.8349	0.8897	0.7484	2	2
Model 5	1.1821	0.8614	0.9200	0.7834	4	4
Model 6	1.2138	0.8780	0.6368	0.5052	5	5

Notes: \* Statistical difference at 5%

Table 6 - Stepwise boosting variable selection rate for the real housing returns - Midwest (YM)

h = 1

Mod	Model 2		Model 3		lel 4	Mod	el 5	Mod	el 6
YM_L1	100.00%	YM_L1	100.00%	YM_L1	100.00%	YM_L1	100.00%	YM_L1	100.00%
YM_L2	100.00%	YM_L2	100.00%	YM_L2	100.00%	YM_L2	100.00%	YM_L2	100.00%
YM_L3	100.00%	YM_L3	100.00%	YM_L3	100.00%	YM_L3	100.00%	YM_L3	98.90%
YM_L7	100.00%	F8_L2	98.53%	YM_L5	98.53%	YM_L9	87.87%	YM_L7	94.49%
F8_L2	97.79%	YM_L5	98.53%	F8_L2	97.06%	YM_L5	86.76%	YM_L9	87.50%
YM_L5	97.43%	YM_L7	91.18%	YM_L7	90.81%	YM_L7	85.66%	F3	84.19%
YM_L6	94.85%	F7_L9	90.81%	YM_L9	88.60%	F8_L2	84.93%	F8_L2	80.88%
YM_L9	93.38%	YM_L9	88.60%	F7_L9	87.13%	F3	84.56%	YM_L5	74.63%
YM_L4	93.01%	F4_L6	85.29%	F3	85.29%	F8_L7	70.96%	F8_L7	68.38%
F7_L9	91.18%	F3	84.56%	F2_L11	78.31%	YM_L10	66.91%	YM_L10	67.28%
F4_L4	90.07%	F7_L1	82.35%	F8_L7	77.94%	CC7_L5	66.18%	CC5_L5	58.46%
F2_L3	88.60%	F2_L3	80.88%	F7_L1	77.57%	CC5_L5	65.81%	YM_L4	56.99%
F7_L1	87.87%	YM_L4	80.51%	F2_L3	76.47%	CC5_L6	64.34%	CC5_L6	53.68%
F2_L11	86.03%	YM_L6	79.41%	F4_L4	75.37%	CC5_L9	64.34%	CC7_L5	52.57%

	Mod	del 2	Mod	lel 3	Mod	lel 4	Mod	lel 5	Mod	lel 6
	YM_L1	100.00%								
	YM_L2	100.00%								
	YM_L3	100.00%	YM_L3	100.00%	YM_L3	100.00%	YM_L4	100.00%	YM_L4	100.00%
	YM_L4	100.00%	YM_L4	100.00%	YM_L4	100.00%	YM_L5	100.00%	YM_L8	98.89%
	YM_L5	100.00%	YM_L5	100.00%	YM_L5	100.00%	YM_L8	98.52%	YM_L5	97.79%
	YM_L7	100.00%	YM_L7	100.00%	YM_L7	100.00%	YM_L9	98.15%	YM_L9	85.61%
	YM_L9	100.00%	YM_L9	100.00%	YM_L9	100.00%	YM_L3	97.05%	F8	72.69%
	YM_L8	98.89%	F8	98.52%	YM_L8	98.89%	YM_L7	96.31%	CC5_L6	70.85%
	F8	98.52%	YM_L8	97.79%	F8	98.15%	CC5_L6	86.72%	F8_L8	70.85%
	F5	89.30%	F5	90.04%	F5	90.04%	YM_L6	86.35%	CC4_L9	70.11%
	F3_L10	87.82%	YM_L6	89.67%	YM_L6	90.04%	CC4_L9	84.87%	CC7_L5	66.05%
	F8_L8	87.45%	F3_L10	88.19%	F3_L10	88.19%	CC7_L5	84.87%	F3_L1	63.84%
	F4	86.72%	F8_L8	85.24%	F4	82.29%	F8	81.18%	YM_L6	63.84%
	F4_L4	86.35%	F4	81.55%	F8_L8	82.29%	F8_L8	77.86%	YM_L3	60.89%
	F8_L5	78.60%	F8_L5	78.97%	F8_L5	78.60%	CC5_L5	76.38%	F5	60.15%
-					h =	= 6				
	Mod	del 2	Mod	lel 3	Mod	lel 4	Mod	lel 5	Mod	lel 6
	YM_L1	100.00%								
	YM_L2	100.00%	YM_L2	100.00%	YM_L2	100.00%	YM_L4	100.00%	YM_L4	100.00%
	YM_L3	100.00%	YM_L3	100.00%	YM_L3	100.00%	YM_L6	100.00%	YM_L8	100.00%
	YM_L4	100.00%	YM_L4	100.00%	YM_L4	100.00%	YM_L8	100.00%	YM_L6	99.26%
	YM_L5	100.00%	YM_L5	100.00%	YM_L5	100.00%	YM_L2	99.63%	YM_L2	95.56%
	YM_L8	100.00%	YM_L8	100.00%	YM_L8	100.00%	YM_L5	84.44%	F5	75.19%
	YM_L6	98.15%	YM_L6	99.63%	YM_L6	99.26%	F5	83.70%	F8_L3	73.70%
	F5	93.33%	F5	94.07%	F5	94.07%	YM_L3	82.59%	F8_L5	72.59%
						,		ı		

YM\_L4 75.37%

h = 3

CC4\_L8 63.97%

CC4\_L8 50.74%

F7\_L7

84.56%

78.68%

F4\_L4

YM_L7	92.59%	YM_L7	91.85%	YM_L7	87.41%	F8_L5	80.74%	F8_L10	71.11%
F2_L4	88.89%	F3_L2	85.19%	F1_L3	82.96%	CC5_L9	78.52%	F8_L11	71.11%
F8_L3	86.67%	F1_L3	84.44%	F8_L5	82.96%	F8_L3	76.67%	F3	67.41%
F3_L2	85.93%	F8_L3	83.70%	F8_L3	81.11%	F8_L10	74.07%	F3_L1	60.00%
F8_L5	84.44%	F2_L4	83.33%	F3_L2	80.00%	CC5_L10	73.70%	CC4_L3	59.63%
F8_L10	82.22%	F8_L5	83.33%	F3_L4	79.26%	F3	72.96%	F8_L8	58.89%
F8_L2	81.48%	F8_L8	78.52%	F4_L10	77.41%	F8_L11	72.22%	CCV10_L2	57.04%

Mod	lel 2	Mod	el 3	Mod	el 4	Mod	el 5	Mode	el 6
YM_L1	100.00%	YM_L1	100.00%	YM_L1	100.00%	YM_L1	100.00%	YM_L1	100.00%
YM_L11	100.00%	YM_L11	100.00%	YM_L11	100.00%	YM_L4	100.00%	YM_L4	100.00%
YM_L2	100.00%	YM_L2	100.00%	YM_L2	100.00%	F3	82.40%	F3	76.40%
YM_L4	100.00%	YM_L4	100.00%	YM_L4	100.00%	YM_L11	82.40%	F8_L3	75.66%
F8_L2	95.88%	F8_L8	94.76%	F8_L8	90.26%	YM_L2	81.65%	YM_L11	71.54%
F8_L8	95.51%	F8_L2	92.51%	YM_L9	87.64%	F8_L3	74.91%	F8_L2	65.92%
F7_L9	88.01%	F7_L9	89.51%	F8_L2	86.89%	F6_L7	70.79%	CC6_L10	65.54%
YM_L9	86.14%	F4	89.14%	F5	85.39%	F8_L2	70.79%	CCV7	64.42%
F3	83.52%	F4_L10	87.64%	F3	84.27%	CC2_L6	70.04%	F6_L7	59.55%
F5	83.15%	F5	86.52%	F7_L9	82.77%	CC6_L10	67.79%	F5	57.68%
F4_L10	82.40%	YM_L9	85.39%	F4_L10	81.65%	F7_L10	67.79%	F8_L8	56.18%
F7_L10	81.65%	F3	83.52%	F8_L3	76.78%	F8_L8	64.42%	CC4_L3	53.93%
F2_L3	79.78%	F7_L10	81.27%	F8_L5	74.53%	CC2_L7	62.92%	CCV3_L10	53.93%
F4	77.90%	F2_L3	78.65%	F4	73.78%	F7_L9	62.92%	CC4_L7	51.69%
F7_L8	77.90%	F8_L3	74.91%	F3_L1	72.66%	CC5_L7	62.55%	F8_L7	50.94%

Source: own elaboration

Table 7 - Stepwise boosting variable selection rate for the real housing returns - Northeast (YN)

Model 2	Model 3	Model 4	Model 5	Model 6

F3	100.00%	F2	100.00%	F2	100.00%	F2	100.00%	YN_L1	100.00%
YN_L1	100.00%	F3	100.00%	F3	100.00%	YN_L1	100.00%	YN_L4	100.00%
YN_L2	100.00%	YN_L1	100.00%	YN_L1	100.00%	YN_L4	100.00%	YN_L6	100.00%
YN_L4	100.00%	YN_L2	100.00%	YN_L2	100.00%	YN_L6	100.00%	F3	98.16%
YN_L6	100.00%	YN_L4	100.00%	YN_L4	100.00%	F3	99.63%	F2	97.43%
YN_L9	100.00%	YN_L6	100.00%	YN_L6	100.00%	YN_L2	93.38%	F3_L2	94.12%
YN_L3	98.90%	YN_L9	98.90%	F3_L2	97.06%	F3_L2	91.91%	YN_L9	83.82%
F2	98.53%	YN_L3	97.06%	YN_L9	95.96%	YN_L9	91.18%	YN_L2	61.76%
F3_L2	97.79%	F3_L2	96.32%	YN_L3	95.22%	F8_L9	72.06%	F4_L4	56.25%
F8_L9	95.59%	F8_L9	94.49%	F8_L2	83.82%	YN_L3	70.59%	CCV8	55.88%
F8_L2	88.24%	F8_L2	86.40%	F8_L9	83.09%	CC6_L1	68.01%	CC4_L2	54.04%
F7_L7	81.99%	F7_L7	81.99%	F7_L7	75.37%	F2_L2	67.28%	YN_L10	51.10%
F3_L1	80.51%	F8_L1	77.21%	F8_L1	73.16%	F8_L2	65.07%	F3_L1	44.49%
F8_L1	76.10%	F4_L1	73.90%	F8_L7	69.49%	F7_L7	62.13%	F2_L1	43.01%
F4_L1	73.53%	F8_L7	71.69%	F4_L4	65.44%	CC4_L2	61.40%	F8_L9	43.01%

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50%
44%
86%
86%
54%

F8_L1	79.70%	F2	81.18%	F8_L8	80.44%	CC4	78.97%	CCV6_L11	73.06%
F2	77.86%	F8_L1	78.23%	F3_L1	76.01%	F8_L3	78.97%	CC5_L9	72.32%
F4_L8	76.75%	F8_L3	77.12%	F2	75.65%	YN_L4	77.49%	F8_L2	72.32%
F3_L1	74.54%	F3_L1	76.38%	F8_L9	71.59%	CC5_L9	74.17%	CC10_L2	70.85%

Mod	del 2	Mod	del 3	Mod	el 4	Mod	lel 5	Mod	el 6
YN_L1	100.00%	F8_L11	100.00%	YN_L1	100.00%	YN_L1	100.00%	YN_L1	100.00%
F8_L11	99.63%	YN_L1	100.00%	F8_L11	99.26%	F3_L5	97.41%	F8_L11	96.30%
F3_L5	98.89%	F3_L5	98.89%	F3_L5	98.15%	F8_L11	95.93%	F2_L1	89.63%
F2_L1	88.15%	F2_L1	89.26%	F2_L1	87.78%	F2_L7	79.63%	F3_L5	89.63%
F2_L7	80.74%	F2_L7	85.93%	F2_L7	85.19%	F2_L1	77.41%	CC10_L8	74.44%
F8_L10	79.26%	F8_L10	80.37%	F3_L4	73.33%	CC10_L8	73.70%	CCV8	73.33%
F3_L4	78.89%	F3_L4	76.67%	F6	69.63%	F4_L8	68.15%	F2_L7	71.85%
								CCV10_L1	
F6	73.33%	F2	75.19%	F2	65.19%	F3_L4	59.26%	1	61.85%
F6_L1	72.96%	F6	73.33%	F4_L8	65.19%	CC6_L2	58.15%	CC6_L2	61.48%
F2_L6	71.48%	F8_L2	70.37%	F6_L1	61.85%	F6	57.78%	F8	54.44%
F8_L2	71.48%	F4_L8	67.04%	F8	61.11%	CC5_L10	53.70%	F4_L8	53.70%
F2	68.52%	F6_L1	64.81%	F6_L11	60.00%	F8	52.22%	F6	53.70%
F6_L11	65.56%	F6_L11	63.33%	F8_L10	60.00%	F6_L1	51.85%	F8_L10	53.33%
F4_L8	62.59%	F2_L6	62.59%	F8_L2	58.52%	F8_L10	51.85%	CCV8_L11	51.48%
				NMEU1_L					
F8	58.52%	F8	60.74%	10	54.44%	F4_L7	50.00%	F3_L4	48.52%

Mod	del 2	Mod	lel 3	Mod	del 4	Model 5		Model 6	
YN_L1	100.00%	YN_L1	100.00%	YN_L1	100.00%	YN_L1	100.00%	YN_L1	100.00%
YN_L11	90.26%	F3_L11	88.76%	F3_L11	88.39%	F3_L11	90.26%	CCV8	95.13%
F8_L2	88.01%	YN_L11	86.89%	F6_L11	85.39%	F6_L11	83.52%	F3_L11	90.26%
F6_L11	86.89%	F6_L6	85.39%	YN_L11	83.90%	CC10_L2	81.27%	CCV10	85.77%

F6_L6	84.27%	F6_L7	85.02%	F3_L1	80.52%	F6_L7	79.03%	F6_L11	79.03%
F6_L7	82.40%	F6_L11	83.52%	F6_L7	79.78%	F3_L1	78.65%	F3_L1	77.15%
F3_L11	81.65%	F8_L2	83.15%	F6_L6	78.65%	F6_L6	78.28%	F6_L7	73.03%
F3_L1	80.52%	F7_L7	82.02%	F8_L2	78.28%	FEU12	69.66%	CCV6_L10	71.54%
F7_L7	71.54%	F3_L1	80.52%	F7_L7	73.03%	CC4	67.79%	FEU12	68.91%
F3	65.17%	F3_L10	70.04%	FEU12	69.29%	F7_L7	65.92%	CC4	67.79%
F8_L8	64.79%	FEU12	69.29%	F3_L10	67.04%	F8_L2	64.79%	CC5_L9	66.67%
F6_L10	58.05%	F3	64.42%	F3	65.17%	CC5_L9	62.17%	CC10_L2	66.29%
F8_L10	58.05%	F4_L4	54.31%	F4_L4	53.93%	YN_L11	61.80%	F6_L6	65.92%
F8_L1	57.68%	F2	52.81%	F6_L10	53.93%	CC2_L3	60.67%	CCV7_L7	62.17%
F3_L10	57.30%	F8_L10	52.81%	F8_L7	49.44%	F3	58.80%	F7_L7	61.42%

Table 8 - Stepwise boosting variable selection rate for the real housing returns - South (YS)

h = 1

Mod	del 2	Mod	del 3	Mod	del 4	Mod	lel 5	Mod	el 6
F3	100.00%	F3	100.00%	F3	100.00%	F8	100.00%	YS_L1	100.00%
F4_L6	100.00%	F4_L6	100.00%	F4_L6	100.00%	YS_L1	100.00%	YS_L2	100.00%
F6_L11	100.00%	F8	100.00%	F8	100.00%	YS_L2	100.00%	YS_L3	100.00%
F8	100.00%	YS_L1	100.00%	YS_L1	100.00%	YS_L3	100.00%	F3	99.63%
YS_L1	100.00%	YS_L2	100.00%	YS_L2	100.00%	F3	99.63%	F8	99.63%
YS_L2	100.00%	YS_L3	100.00%	YS_L3	100.00%	YS_L6	98.53%	F2	97.79%
YS_L3	100.00%	YS_L4	100.00%	YS_L6	100.00%	F2	98.16%	YS_L6	96.32%
YS_L4	100.00%	YS_L6	100.00%	F2	98.53%	YS_L4	96.32%	YS_L4	94.12%
YS_L6	100.00%	F2	99.63%	F7	98.53%	F4_L6	91.18%	F7	79.41%
F2	99.63%	F7	98.90%	YS_L4	98.53%	F7	82.35%	F4_L1	72.06%
F7	99.26%	YS_L11	95.96%	YS_L11	94.12%	CC10_L6	78.31%	CCV7_L11	70.59%
F2_L7	97.43%	F2_L5	95.59%	F7_L8	93.01%	F6_L11	77.94%	F4_L6	62.13%
YS_L11	96.69%	F6_L11	94.85%	F6_L11	88.24%	F7_L8	77.21%	F5_L8	61.03%
		I		I		I .		1	

F7_L8	94.85%	F7_L8	93.38%	F7_L3	84.56%	F4_L1	75.00%	F6_L11	61.03%
F2_L5	91.91%	F2_L7	92.28%	F2_L7	84.19%	F7_L3	75.00%	F5_L5	60.66%

h = 3

Mod	del 2	Mod	del 3	Мо	del 4	Mod	lel 5	Mod	lel 6
F3_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%	F8	100.00%	YS_L1	100.00%
F8	100.00%	F8	100.00%	F8	100.00%	YS_L1	100.00%	YS_L2	100.00%
YS_L1	100.00%	YS_L1	100.00%	YS_L1	100.00%	YS_L2	100.00%	YS_L4	100.00%
YS_L2	100.00%	YS_L2	100.00%	YS_L2	100.00%	YS_L4	100.00%	F8	99.26%
YS_L3	100.00%	YS_L3	100.00%	YS_L4	100.00%	F3_L1	99.63%	F3_L1	98.52%
YS_L4	100.00%	YS_L4	100.00%	YS_L3	99.63%	CC10_L7	97.05%	F8_L1	90.41%
YS_L5	100.00%	YS_L5	100.00%	YS_L5	99.63%	F8_L1	91.14%	CC10_L7	85.24%
F3	92.99%	F8_L1	95.94%	F8_L1	92.99%	F3_L2	87.82%	F3_L2	83.76%
F7	92.99%	F2_L1	89.67%	F3_L2	86.35%	F4_L2	84.13%	F2_L2	75.28%
F8_L1	87.45%	F3	88.93%	F3	85.98%	F3	79.34%	F3	75.28%
F2_L2	85.24%	F2_L2	84.13%	F2_L5	83.03%	F2_L2	78.60%	F4_L2	74.54%
F6_L10	83.76%	F7_L11	83.76%	YS_L7	83.03%	F2_L5	75.28%	NFEU1	68.63%
YS_L7	83.39%	F4_L1	81.55%	F2_L2	80.07%	F2_L1	70.11%	F2_L1	67.53%
F3_L2	82.66%	YS_L7	81.55%	F4_L1	79.34%	F7_L9	67.53%	F5_L10	67.53%
								CCV10_L1	
F2_L1	81.92%	F3_L2	81.18%	F2_L1	77.86%	F5_L10	66.79%	0	65.68%

h = 6

Mod	del 2	Mod	del 3	Мо	del 4	Mod	del 5	Mod	del 6
F3_L1	100.00%	YS_L1	100.00%	YS_L1	100.00%	YS_L1	100.00%	YS_L1	100.00%
YS_L1	100.00%	YS_L3	100.00%	YS_L3	100.00%	YS_L3	99.63%	YS_L3	99.26%
YS_L2	100.00%	YS_L4	100.00%	F3_L1	99.63%	F3_L1	97.04%	F8	98.89%
YS_L3	100.00%	F3_L1	99.63%	YS_L4	99.63%	F2_L5	96.67%	F3_L1	98.52%
YS_L4	100.00%	F8	99.63%	F8	98.89%	F8	96.67%	F2_L5	95.93%
YS_L5	100.00%	YS_L2	98.89%	F8_L6	98.15%	F8_L1	96.30%	F3_L5	80.74%
YS_L8	100.00%	YS_L5	98.89%	F8_L1	97.41%	F3_L5	93.70%	F8_L1	76.67%

F8	99.63%	F8_L1	97.78%	F2_L5	97.04%	F3	83.33%	F8_L6	73.33%
F8_L1	98.89%	F2_L5	97.04%	F3	91.48%	F3_L4	82.59%	F2_L1	67.04%
F3_L4	97.78%	F3_L4	95.56%	F3_L4	91.48%	F8_L6	80.74%	F3	63.70%
F3_L5	97.41%	F3_L5	94.44%	YS_L5	91.11%	YS_L6	80.37%	YS_L8	61.48%
F2_L5	97.04%	F8_L6	94.44%	F8_L9	90.37%	YS_L4	79.63%	F7_L9	55.93%
F8_L6	96.30%	F3	92.96%	YS_L2	90.37%	F8_L9	72.96%	CCV4_L5	55.19%
F3	94.44%	F2_L1	91.11%	F3_L5	89.63%	CC3_L9	71.85%	F3_L4	55.19%
F7_L4	89.26%	F8_L9	88.15%	YS_L6	88.52%	F5_L10	68.52%	CCV7_L11	54.44%

h = 12

Mod	del 2	Mod	del 3	Mod	del 4	Mod	lel 5	Mod	el 6
F2	100.00%	F2	100.00%	YS_L1	100.00%	YS_L1	100.00%	YS_L1	100.00%
YS_L1	100.00%	YS_L1	100.00%	F2	99.63%	F3_L11	94.38%	F3_L11	92.88%
F2_L10	99.63%	F2_L10	98.88%	F2_L10	99.25%	F2_L10	93.26%	F3_L1	91.39%
F3_L11	99.25%	F8	98.88%	F2_L11	98.50%	F3_L1	92.51%	F3	90.64%
F8	98.88%	F3_L11	97.75%	F3_L1	95.51%	F3	89.89%	CC5_L11	83.52%
F3_L1	97.00%	F3_L1	96.63%	F3_L11	95.51%	CC5_L11	89.51%	F8	83.52%
F2_L11	95.51%	F3	94.01%	F3	94.01%	F8	85.39%	F2_L10	79.03%
F3	94.76%	F2_L11	90.26%	F8	93.63%	CC10_L6	78.28%	CC10_L6	71.16%
F5_L9	92.13%	F8_L6	80.15%	F8_L6	76.03%	CC5	77.53%	F2	64.04%
F8_L5	80.52%	F8_L5	76.40%	F6_L7	70.79%	F2	70.41%	F2_L11	64.04%
F8_L6	79.78%	F7	73.03%	F8_L5	70.41%	F2_L11	69.29%	NFEU1	63.30%
YS_L11	79.40%	YS_L11	72.28%	F5_L9	69.66%	NFEU1	64.79%	F5_L9	60.67%
F7	77.53%	F5_L9	70.79%	YS_L11	69.29%	F5_L9	63.67%	F6	60.67%
F3_L10	75.28%	F6_L7	70.79%	YS_L4	69.29%	F6_L9	63.30%	YS_L11	55.81%
F6_L9	74.53%	F8_L4	67.42%	F7	68.16%	CC6_L1	62.17%	CC6_L1	55.43%

Table 9 - Stepwise boosting variable selection rate for the real housing returns - West (YW)

Mod	del 2	Мо	del 3	Mod	del 4	Mod	del 5	Mod	lel 6
F2	100.00%	F2	100.00%	F2	100.00%	F2	100.00%	F2	100.00%
F2_L3	100.00%	F3	100.00%	F3	100.00%	F3	100.00%	F3	100.00%
F3	100.00%	F3_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%	YW_L1	100.00%
F3_L1	100.00%	F4_L1	100.00%	F6_L11	100.00%	YW_L1	100.00%	YW_L2	100.00%
F3_L2	100.00%	F6_L11	100.00%	YW_L1	100.00%	YW_L2	100.00%	YW_L3	100.00%
F4_L1	100.00%	YW_L1	100.00%	YW_L2	100.00%	YW_L3	100.00%	YW_L4	100.00%
F6_L11	100.00%	YW_L2	100.00%	YW_L3	100.00%	YW_L4	100.00%	F3_L1	95.59%
F7_L5	100.00%	YW_L3	100.00%	YW_L4	100.00%	F2_L3	99.63%	F2_L3	92.28%
YW_L1	100.00%	YW_L4	100.00%	F2_L3	99.63%	F6_L11	97.79%	F4_L1	91.91%
YW_L2	100.00%	F2_L3	99.63%	F3_L1	99.63%	F3_L1	97.43%	F7_L5	88.97%
YW_L3	100.00%	F7_L5	99.63%	F7_L5	99.63%	F3_L4	93.01%	CCV2_L8	75.37%
YW_L4	100.00%	F3_L2	99.26%	F8_L2	99.63%	F8_L2	93.01%	F6_L5	74.26%
F8_L2	99.63%	F8_L2	98.53%	F3_L2	97.79%	F3_L2	91.54%	F7_L7	72.79%
F6_L5	95.22%	F6_L5	97.06%	F6_L5	94.12%	F7_L5	91.54%	F6_L11	71.32%
F2_L2	94.49%	F2_L2	94.12%	F2_L2	92.65%	F6_L5	86.40%	YW_L6	69.85%

h = 3

Mod	del 2	Mod	del 3	Mod	del 4	Mod	del 5	Mod	lel 6
F2	100.00%	F2	100.00%	F2_L1	100.00%	F2_L1	100.00%	F2_L1	100.00%
F2_L1	100.00%	F2_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%
F3	100.00%	F3	100.00%	F3_L2	100.00%	F3_L2	100.00%	F3_L2	100.00%
F3_L1	100.00%	F3_L1	100.00%	YW_L1	100.00%	YW_L1	100.00%	YW_L1	100.00%
F3_L2	100.00%	F3_L2	100.00%	YW_L2	100.00%	YW_L4	100.00%	YW_L4	100.00%
YW_L1	100.00%	YW_L1	100.00%	YW_L3	100.00%	F3	98.52%	F2_L2	96.31%
YW_L2	100.00%	YW_L2	100.00%	YW_L4	100.00%	YW_L2	97.42%	CCV2_L9	84.50%
YW_L3	100.00%	YW_L4	100.00%	F2	99.63%	F2_L2	96.68%	YW_L2	81.55%
YW_L4	100.00%	YW_L3	99.63%	F3	99.63%	CC6	95.20%	F3	78.23%
YW_L5	100.00%	F7_L5	98.52%	F7_L5	99.63%	F2_L11	91.88%	CC6	77.86%
						I		l	

								CCV10_L	
F7_L5	98.15%	YW_L5	97.42%	F2_L2	96.68%	F7_L5	86.72%	9	77.12%
F2_L2	96.31%	F8_L3	97.05%	F2_L4	95.57%	F2	83.03%	CC5_L6	70.85%
								CCV10_L	
F6_L5	95.94%	F2_L2	96.68%	F2_L5	95.57%	F4_L3	79.34%	10	70.11%
F8_L3	95.57%	F2_L11	95.57%	YW_L5	93.73%	F8_L3	73.43%	F6	66.42%
F8_L7	93.36%	F2_L5	94.83%	F2_L11	91.88%	CC5_L6	71.96%	CCV8_L5	64.21%

Mod	del 2	Mod	del 3	Мос	del 4	Мо	del 5	Mod	lel 6
F2	100.00%	F2	100.00%	F2	100.00%	F2_L1	100.00%	F2_L4	100.00%
F2_L1	100.00%	F2_L1	100.00%	F2_L1	100.00%	F2_L4	100.00%	F3_L1	100.00%
F2_L4	100.00%	F2_L4	100.00%	F2_L4	100.00%	F3	100.00%	F3_L5	100.00%
F3	100.00%	F3	100.00%	F2_L5	100.00%	F3_L1	100.00%	YW_L1	100.00%
F3_L1	100.00%	F3_L1	100.00%	F3	100.00%	F3_L5	100.00%	YW_L3	100.00%
F3_L2	100.00%	F3_L2	100.00%	F3_L1	100.00%	YW_L1	100.00%	F2_L5	98.52%
F3_L5	100.00%	F3_L5	100.00%	F3_L2	100.00%	YW_L3	100.00%	F2_L1	95.56%
F8_L3	100.00%	F8_L3	100.00%	F3_L5	100.00%	F2_L5	99.63%	F3	95.19%
YW_L1	100.00%	YW_L1	100.00%	F8_L3	100.00%	F8_L3	97.04%	F3_L4	92.22%
YW_L3	100.00%	YW_L3	100.00%	YW_L1	100.00%	F2	96.30%	F3_L11	77.41%
YW_L5	100.00%	YW_L5	100.00%	YW_L3	100.00%	F2_L7	96.30%	CCV2_L6	74.81%
YW_L2	98.89%	YW_L2	98.52%	YW_L5	99.26%	F3_L4	91.85%	F2_L7	74.81%
F6_L5	98.52%	F2_L5	98.15%	YW_L2	96.67%	F3_L11	89.63%	F8_L3	72.22%
F2_L5	97.78%	F8_L10	96.30%	F3_L11	94.44%	F3_L2	86.67%	F2	71.11%
F4_L1	96.67%	F3_L11	94.81%	F2_L7	92.22%	YW_L4	80.74%	F7_L9	65.93%

Mod	del 2	Mod	del 3	Мос	del 4	Mod	del 5	Mod	del 6	
F2	100.00%									
F2_L10	100.00%									
F2_L11	100.00%	F2_L11	100.00%	F2_L11	100.00%	F3	100.00%	F3	100.00%	

F3	100.00%	F3	100.00%	F3	100.00%	F3_L1	100.00%	F3_L1	100.00%
F3_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%	F3_L11	100.00%	F3_L11	100.00%
F3_L11	100.00%	F3_L11	100.00%	F3_L11	100.00%	YW_L1	100.00%	YW_L1	100.00%
F8_L3	100.00%	YW_L1	100.00%	YW_L1	100.00%	YW_L3	100.00%	YW_L3	100.00%
YW_L1	100.00%	YW_L3	100.00%	YW_L3	100.00%	F3_L10	89.14%	F3_L10	90.64%
YW_L3	100.00%	F8_L3	99.25%	F8_L3	95.51%	F8_L3	84.64%	F2_L9	88.76%
F6_L9	98.88%	F2_L1	97.00%	F2_L1	94.76%	CC5_L4	84.27%	F8_L3	83.90%
YW_L11	97.38%	YW_L11	96.63%	F3_L9	90.64%	F2_L1	83.15%	CC6_L1	81.65%
F2_L1	96.25%	F6_L9	95.88%	YW_L11	88.01%	F2_L11	81.65%	F6_L7	75.28%
F7_L1	92.88%	F3_L9	89.89%	F6_L9	86.14%	CC6_L1	80.90%	F3_L7	74.91%
F8_L8	88.39%	F4_L10	88.01%	F4_L10	85.02%	F2_L9	78.65%	F2_L11	72.66%
F3_L7	87.27%	F3_L7	85.02%	F2_L9	83.52%	F6_L9	77.90%	CCV8_L5	71.54%

Table 5 - Variable selection for the real housing returns - Aggregate (YA)

				•••	•				
Mod	del 2	Мо	del 3	Mod	del 4	Mod	el 5	Mod	lel 6
F2	100.00%	F2	100.00%	F2	100.00%	F2	100.00%	F2	100.00%
F3	100.00%	F3	100.00%	F3	100.00%	F3	100.00%	F3	100.00%
F4_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%
F4_L2	100.00%	F4_L2	100.00%	YA_L1	100.00%	YA_L1	100.00%	YA_L1	100.00%
YA_L1	100.00%	YA_L1	100.00%	YA_L9	100.00%	YA_L9	100.00%	YA_L9	100.00%
YA_L9	100.00%	YA_L9	100.00%	F4_L2	99.26%	F4_L2	93.01%	CCV7_L9	88.97%
F3_L2	98.53%	F3_L2	94.12%	F3_L1	94.12%	F3_L1	86.76%	F6_L1	83.09%
								CCV10_L	
F3_L1	92.28%	F3_L1	93.01%	F3_L2	89.71%	F6_L1	80.88%	6	82.35%
F6_L1	84.93%	F6_L1	84.93%	F6_L1	84.19%	YA_L6	76.84%	YA_L6	81.99%
YA_L2	78.68%	F3_L11	77.21%	F5	79.41%	F4	72.06%	F3_L1	72.06%
YA_L6	77.94%	YA_L6	77.21%	YA_L6	76.84%	YA_L2	70.96%	YA_L2	70.96%
F4	72.43%	F4	74.63%	F3_L11	76.10%	CC4_L5	68.38%	F4	67.65%
F3_L11	70.59%	F5	74.63%	F4	73.90%	CC6_L10	66.18%	F8_L3	65.07%
F5	70.59%	F8_L3	73.53%	F8_L3	72.06%	F5	65.81%	F4_L2	61.40%
F8_L3	70.59%	YA_L2	71.32%	YA_L2	69.85%	F8_L3	64.34%	F3_L11	55.51%
				L	_ ^				

Mod	del 2	Mod	del 3	Mod	lel 4	Mod	el 5	Mod	lel 6
F2	100.00%	F2	100.00%	F2	100.00%	F2	100.00%	F2	100.00%
F2_L1	100.00%	F2_L1	100.00%	F2_L1	100.00%	F2_L1	100.00%	F2_L1	100.00%
F2_L2	100.00%	F2_L2	100.00%	F2_L2	100.00%	F2_L2	100.00%	F2_L2	100.00%
F3	100.00%	F3	100.00%	F3	100.00%	F3	100.00%	F3	100.00%
F3_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%	F3_L1	100.00%
F3_L2	100.00%	F3_L2	100.00%	F3_L2	100.00%	F3_L2	100.00%	F3_L2	100.00%
F4_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%	F4_L1	100.00%
F4_L2	100.00%	F4_L2	100.00%	F4_L2	100.00%	YA_L1	100.00%	F4_L2	100.00%
YA_L1	100.00%	YA_L1	100.00%	YA_L1	100.00%	F4_L2	99.63%	YA_L1	100.00%
YA_L6	97.05%	YA_L3	97.79%	F3_L11	98.52%	F3_L11	89.67%	F3_L11	96.68%
								CCV7_L1	
F4	96.68%	F3_L11	96.68%	YA_L3	93.36%	F4	69.74%	0	72.69%
F3_L11	95.94%	YA_L6	91.51%	YA_L6	92.62%	CC10_L1	69.00%	F4	71.22%
YA_L3	95.20%	F4_L4	90.77%	F4_L4	88.19%	F4_L4	65.31%	CC10_L1	70.85%
				NFEU1_L					
F3_L3	91.88%	F3_L3	86.35%	6	87.08%	YA_L7	63.10%	CC10_L2	67.53%
F1_L3	87.08%	F5_L3	85.61%	F5_L3	83.76%	CC10_L8	61.25%	CCV2_L9	64.21%

Mod	del 2	Mod	del 3	Mod	del 4	Mod	lel 5	Mode	el 6
F2_L5	100.00%	F2_L6	100.00%	F2_L4	100.00%	F2_L4	100.00%	CCV9_L10	100.00%
F2_L6	100.00%	F3	100.00%	F2_L5	100.00%	F2_L5	100.00%	F2_L6	100.00%
F3	100.00%	F3_L1	100.00%	F2_L6	100.00%	F2_L6	100.00%	F3	100.00%
F3_L1	100.00%	F3_L2	100.00%	F3	100.00%	F3	100.00%	F3_L1	100.00%
F3_L2	100.00%	F3_L5	100.00%	F3_L1	100.00%	F3_L1	100.00%	F3_L5	100.00%
F3_L5	100.00%	F3_L6	100.00%	F3_L5	100.00%	F3_L5	100.00%	YA_L1	100.00%
F3_L6	100.00%	YA_L1	100.00%	YA_L1	100.00%	YA_L1	100.00%	F2_L5	99.26%
F3_L7	100.00%	F2_L4	99.63%	F3_L2	99.63%	F3_L6	99.26%	F3_L2	93.70%
F4_L2	100.00%	F2_L5	99.63%	F2_L7	99.26%	F3_L2	98.15%	F2_L7	91.48%
YA_L1	100.00%	F3_L7	99.63%	F3_L6	99.26%	F2_L7	97.78%	F3_L11	90.37%
F2_L4	99.63%	F4_L1	99.63%	F3_L7	98.52%	F2_L3	95.56%	F3_L6	83.70%
F4_L1	99.63%	YA_L4	99.63%	F2_L3	97.41%	F4_L2	95.56%	F2_L4	82.96%
YA_L4	99.63%	F3_L8	98.89%	F4	95.93%	F3_L8	93.70%	F4	78.89%
F2_L3	99.26%	F4	98.52%	F3_L8	95.56%	F3_L7	90.37%	F4_L2	71.48%
F4_L3	99.26%	F4_L2	98.15%	YA_L4	95.19%	F4_L4	90.00%	F6	69.63%

Model 2 Model 3 Model 4 Model 5 Model	l 6
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F2	100.00%	F2_L10	100.00%	F2_L10	100.00%	F2_L11	100.00%	F2_L11	100.00%
F2_L10	100.00%	F2_L11	100.00%	F2_L11	100.00%	F3	100.00%	F3	100.00%
F2_L11	100.00%	F3	100.00%	F3	100.00%	F3_L1	100.00%	F3_L1	100.00%
F3	100.00%	F3_L1	100.00%	F3_L1	100.00%	F3_L11	100.00%	F3_L11	100.00%
F3_L1	100.00%	F3_L11	100.00%	F3_L11	100.00%	F3_L2	100.00%	F3_L2	100.00%
F3_L11	100.00%	F3_L2	100.00%	F3_L2	100.00%	YA_L1	100.00%	YA_L1	100.00%
F3_L2	100.00%	F3_L9	100.00%	YA_L1	100.00%	F2_L10	99.63%	F3_L10	99.63%
YA_L1	100.00%	YA_L1	100.00%	F3_L10	98.88%	F3_L10	99.25%	F2_L10	94.76%
YA_L11	100.00%	F4_L1	98.88%	F3_L9	97.38%	F3_L9	94.38%	F3_L9	90.26%
F4_L1	99.25%	F3_L10	98.50%	F2	96.63%	F4_L1	91.76%	F8	89.51%
F4_L2	99.25%	YA_L11	98.13%	F4	96.63%	F4	87.64%	F4_L1	86.89%
F3_L10	98.50%	F2	97.38%	F8_L11	95.13%	F8_L6	87.64%	F8_L6	86.89%
F3_L9	98.50%	F4_L2	97.38%	F4_L1	94.38%	F8	86.14%	CC6_L1	81.27%
F4	97.75%	F4	96.63%	F8	92.13%	CC6_L1	84.64%	F4	79.03%
F8	96.63%	F8	94.38%	F8_L6	89.89%	F2	82.77%	F8_L3	77.15%