Table 1 :

Table 1: Out-of-sample R-squared (%) by model type

	OLS3H	PLS	ENet	RF
All	-15.836289	-0.800220	-9.910757	0.544254
Top 1,000	-306.306336	-4.927021	-32.484073	1.141781
Bottom 1,000	0.037578	0.583492	-3.336121	0.738013

Table 2 :

Table 2: Sharpe Ratios of RF Portfolios

	SR (VW)	SR (EW)
1	0.204842	
2	0.143844	0.155259
3	0.165032	0.153687
4	0.183052	0.175989
5	0.203320	0.177744
6	0.208564	0.198344
7	0.199617	0.191566
8	0.210808	0.190100
9	0.185363	0.222235
10	0.153965	0.254399
Mkt	0.204842	

Table 3 :

Table 3: Out-of-sample R-squared (%) Predicting CRSP Portfolios

	Value-Weighted	Equal-Weighted
Benchmark=Forward Mean	2.14	3.63
Benchmark= 10% annually	2.18	3.79
Benchmark= 5% annually	3.31	4.96
Benchmark=0	5.94	7.19

Figure 1 :

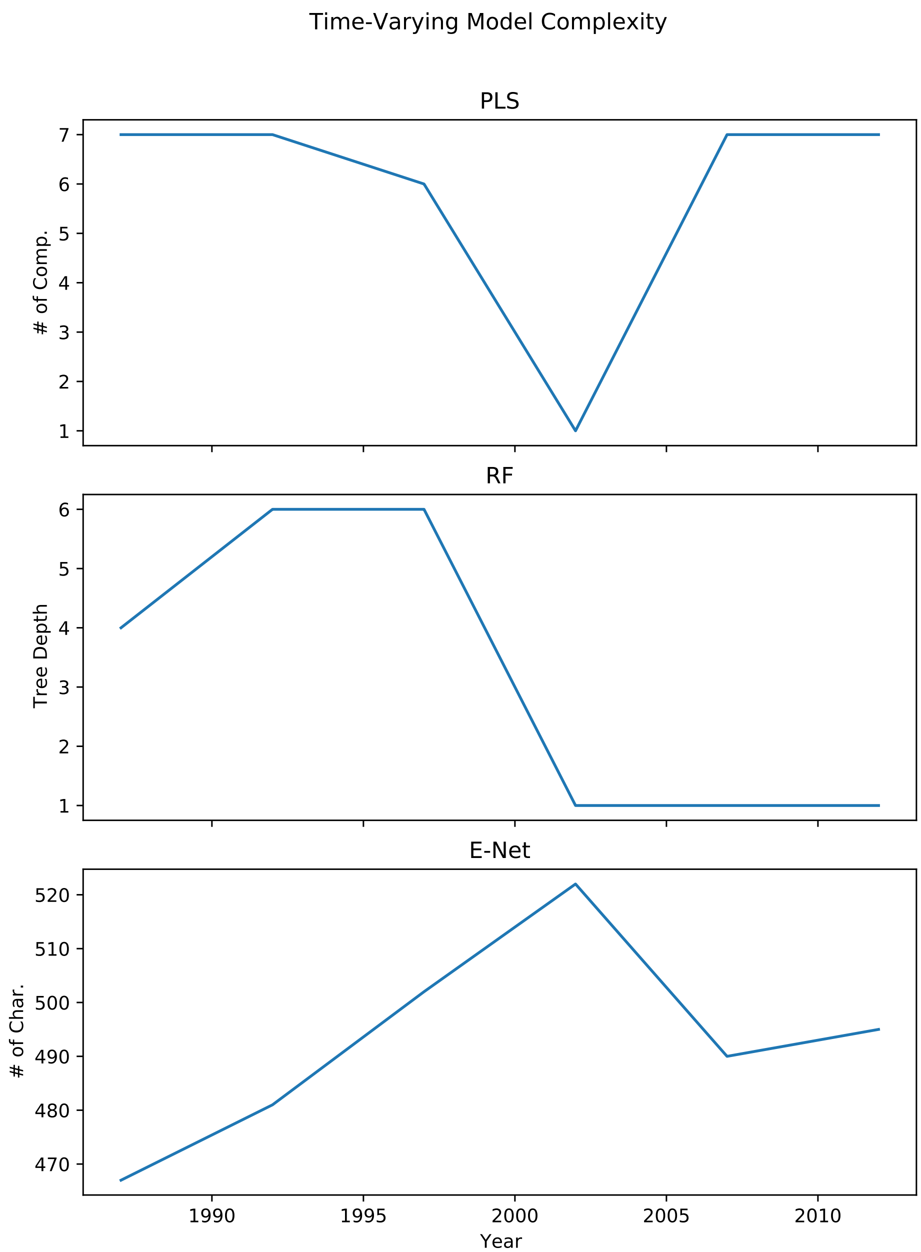
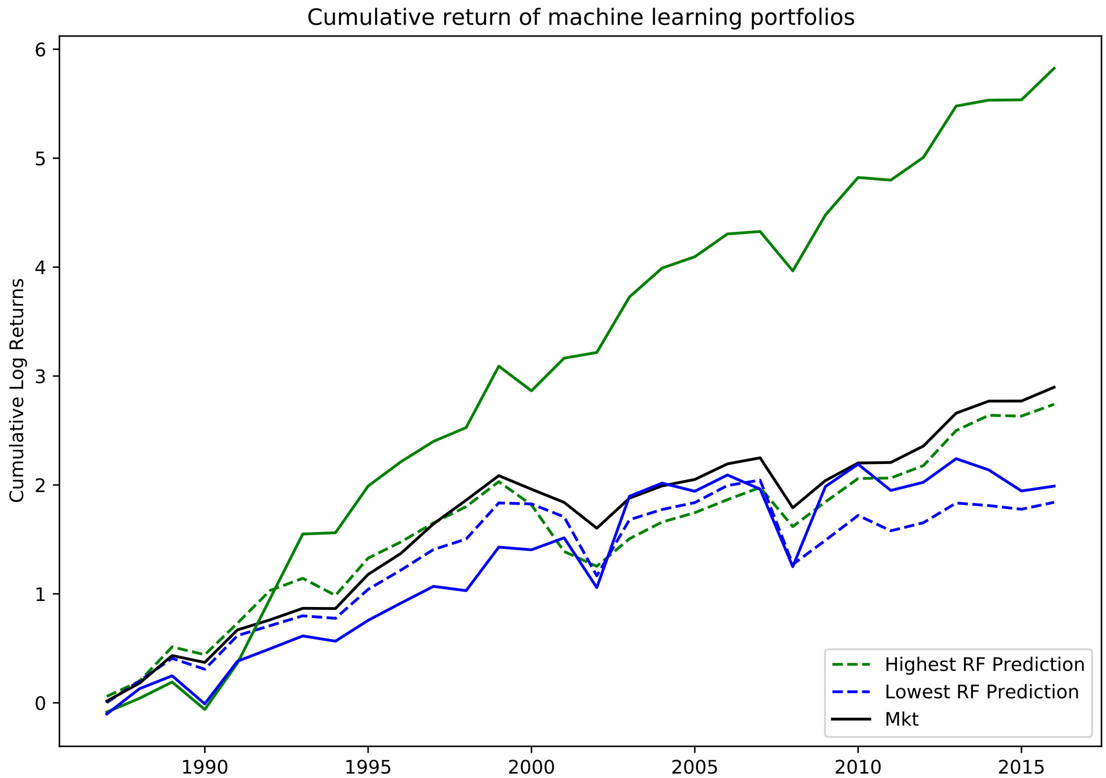

Time-Varying Model Complexity
PLS
# of Comp.
RF
Tree Depth
E-Net
# of Char.
1990
1995
2000
2005
2010
Year

Figure 2 :


Cumulative return of machine learning portfolios
Cumulative Log Returns
6
5
4
3
2
1
0
1990
1995
2000
2005
2010
2015
Highest RF Prediction
Lowest RF Prediction
Mkt