OUTPUT

Decision Support System for CDX Trading

CDX Historical Data:

☐ Display Historical Data Table?

View Historical Indices

CDX_HY ✕   CDX_IG ✕

Predictions and Forecasts

Model recommends taking **SHORT** position on CDX HY, based on our predicted price DECREASE in longer term

Model recommends taking **SHORT** position on CDX IG, based on our predicted price DECREASE in longer term

	CDX_HY	CDX_IG	CDX_HY_Pred_1D	CDX_IG_Pred_1D	CDX_HY_Pred_7D	CDX_IG_Pred_7D	CDX_HY_Pred_30D
2020-07-30	102.847000	69.949000					
2020-07-29	102.720000	69.649000					
2020-07-28	101.920000	71.763000					
2020-07-27	102.096000	70.286000					
2020-07-24	101.625000	70.400000					
2020-07-23	101.663000	69.485000					
2020-07-22	101.974000	69.169000					
2020-07-21	101.780000	70.125000					
2020-07-20	101.568000	70.063000					
2020-07-17	101.191000	71.459000					

Decision Support System for CDX Trading

CDX Historical Data:

☑ Display Historical Data Table?

	10YR_UST	10_2_Curve	10_30_Curve	10_5_Curve	1YR_SWAP	2YR_UST	30YR_UST	5YR_UST	CDX_HY	CDX_HY_10D_AVG	CDX_HY_30D_AVG	CDX_HY_5D_AVG	CDX
2020-07-30	0.5460	0.4290	0.6610	0.3150	0.0340	0.1170	1.2070	0.2310	102.8470	101.9384	100.5904	102.2416	
2020-07-29	0.5740	0.4430	0.6620	0.3220	0.0390	0.1310	1.2360	0.2520	102.7200	101.7268	100.5384	102.0048	
2020-07-28	0.5790	0.4400	0.6380	0.3150	0.0360	0.1390	1.2170	0.2640	101.9200	101.5529	100.5019	101.8556	
2020-07-27	0.6150	0.4640	0.6450	0.3300	0.0370	0.1510	1.2600	0.2850	102.0960	101.3399	100.4954	101.8276	
2020-07-24	0.5890	0.4420	0.6400	0.3130	0.0360	0.1470	1.2290	0.2760	101.6250	101.1016	100.4455	101.7220	
2020-07-23	0.5770	0.4260	0.6540	0.3060	0.0350	0.1510	1.2310	0.2710	101.6630	100.9404	100.3843	101.6352	
2020-07-22	0.5970	0.4480	0.6960	0.3230	0.0366	0.1490	1.2930	0.2740	101.9740	100.7541	100.3991	101.4488	
2020-07-21	0.6000	0.4590	0.7090	0.3360	0.0360	0.1410	1.3090	0.2640	101.7800	100.6357	100.3872	101.2502	
2020-07-20	0.6100	0.4630	0.7020	0.3310	0.0360	0.1470	1.3120	0.2790	101.5680	100.4148	100.4382	100.8522	
2020-07-17	0.6270	0.4820	0.7020	0.3440	0.0334	0.1450	1.3290	0.2830	101.1910	100.3113	100.5116	100.4812	
2020-07-16	0.6170	0.4720	0.6910	0.3420	0.0320	0.1460	1.3080	0.2750	100.7310	100.1723	100.5257	100.2456	

View Historical Indices

CDX_HY ✕   CDX_IG ✕

CDX_HY ✕   CDX_IG ✕   CITI_SUPRISE ✕

1 Day Forecast:

Decision Support System for CDX Trading
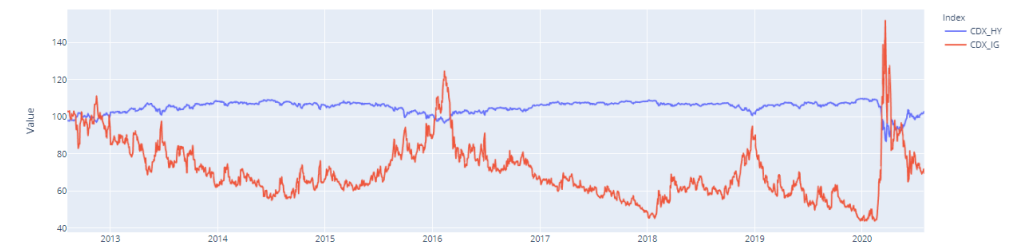
COMS 4995 ML Applications in Finance
[Final Project]

To Begin:

Upload new Excel file

Economic_data_clean_20200801.xlsx
browse files
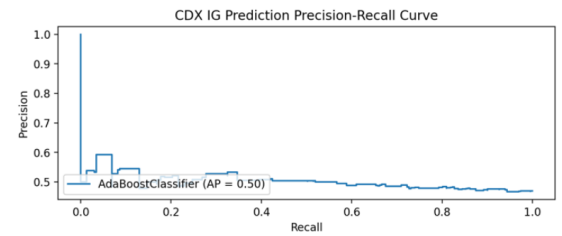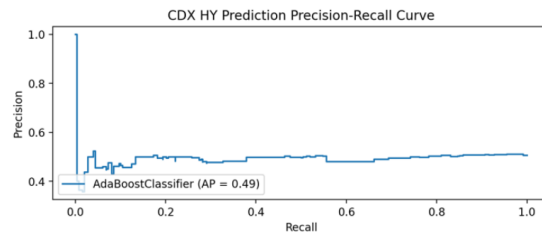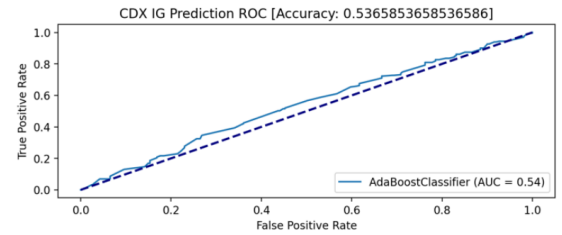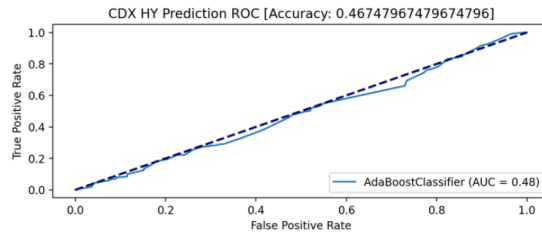
Select a date range

2012/08/01 – 2020/07/30

Train Model

Page
- Main
- Feature Importance
- Model Performance

Which Model?

1

CDX HY Prediction ROC [Accuracy: 0.46747967479674796]

CDX IG Prediction ROC [Accuracy: 0.5365853658536586]

CDX HY Prediction Precision-Recall Curve

CDX IG Prediction Precision-Recall Curve

7 Day Forecast:

Decision Support System for CDX Trading

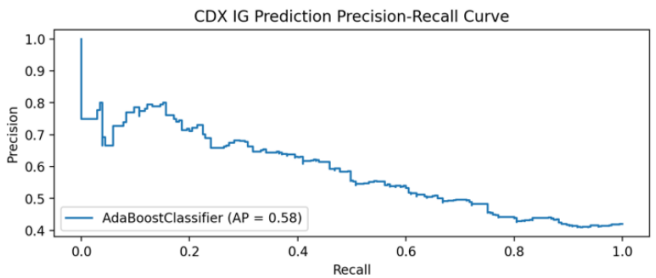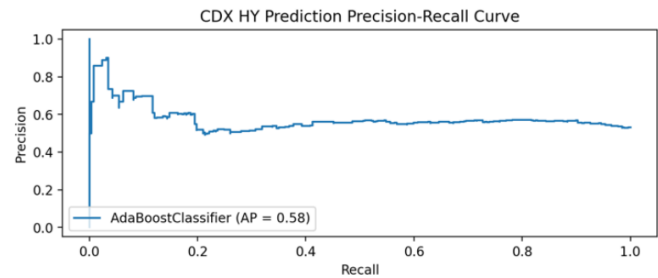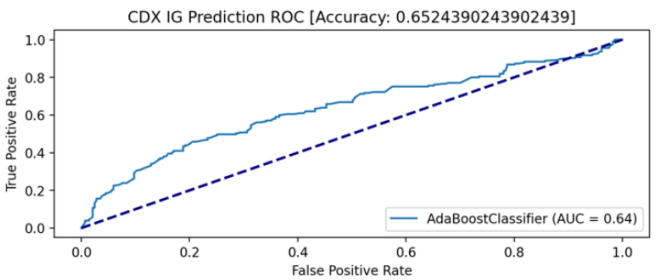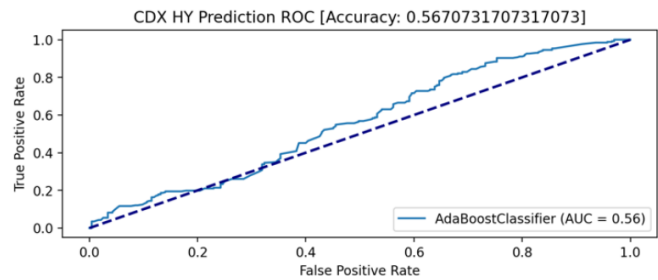|	Feature	Description
0	10_2_Curve	10/2 Curve
1	10_5_Curve	10/5 Curve
2	10_30_Curve	10/30 Curve
3	1YR_SWAP	Overnight Indexed Swap (OIS) is a fixed/float interest rate swap
4	2YR_UST	2-Year Treasury Rate
5	5YR_UST	5-Year Treasury Rate
6	10YR_UST	10-Year Treasury Rate
7	30YR_UST	30-Year Treasury Rate
8	CDX_HY	Markit CDX North America High Yield Index is composed of 100 non-investment grade entities TARGET
9	CDX_HY_momentum	Price momentum of CDX_HY
10	CDX_HY_10D_AVG	10D_AVG

Which Model?

7

Decision Support System for CDX Trading

Which Model?

7

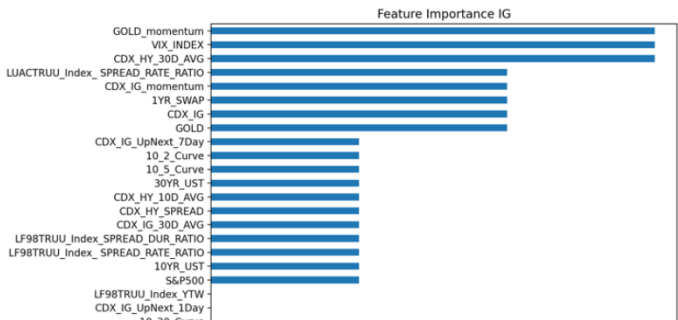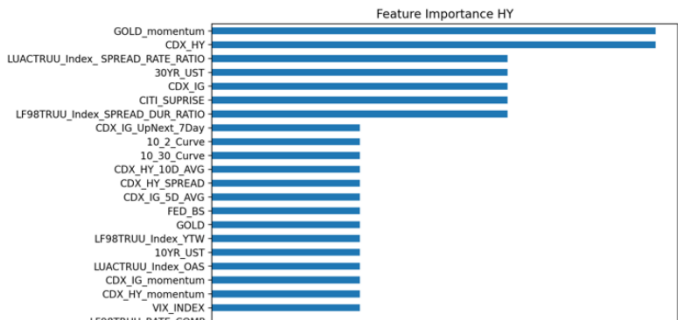# 30 Day Forecast:

Decision Support System for CDX Trading

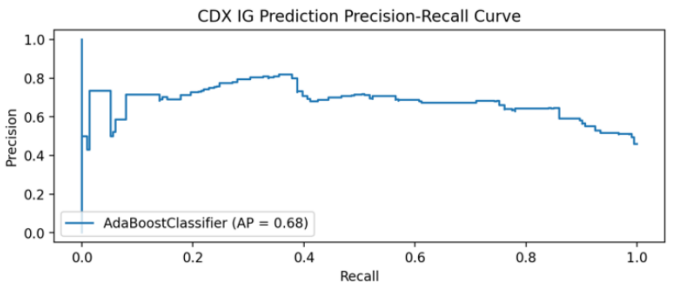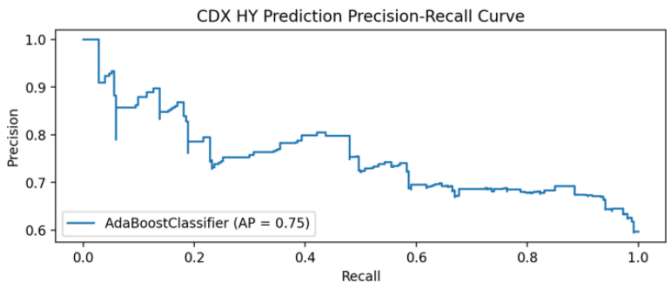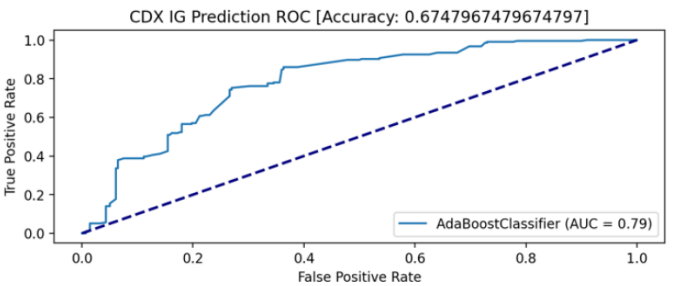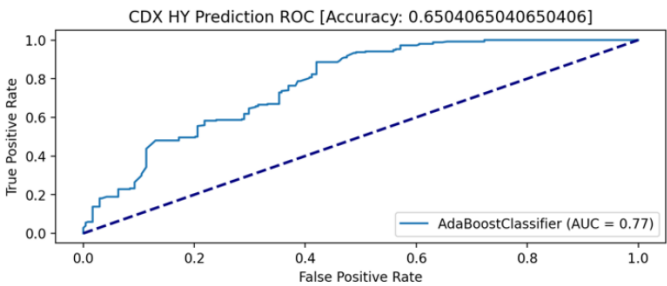|	Feature	Description
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8	CDX_HY	Markit CDX North America High Yield Index is composed of 100 non-investment grade entities TARGET
9	CDX_HY_momentum	Price momentum of CDX_HY
10	CDX_HY_10D_AVG	10D_AVG

Which Model?

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Decision Support System for CDX Trading

Which Model?
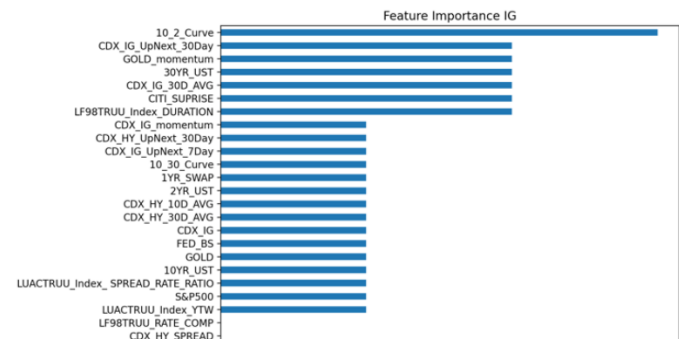
30

60 Day Forecast:

Decision Support System for CDX Trading

	Feature	Description
0	10_2_Curve	10/2 Curve
1	10_5_Curve	10/5 Curve
2	10_30_Curve	10/30 Curve
3	1YR_SWAP	Overnight Indexed Swap (OIS) is a fixed/float interest rate swap
4	2YR_UST	2-Year Treasury Rate
5	5YR_UST	5-Year Treasury Rate
6	10YR_UST	10-Year Treasury Rate
7	30YR_UST	30-Year Treasury Rate
8	CDX_HY	Markit CDX North America High Yield Index is composed of 100 non-investment grade entities TARGET
9	CDX_HY_momentum	Price momentum of CDX_HY
10	CDX_HY_10D_AVG	10D_AVG

Which Model?

60

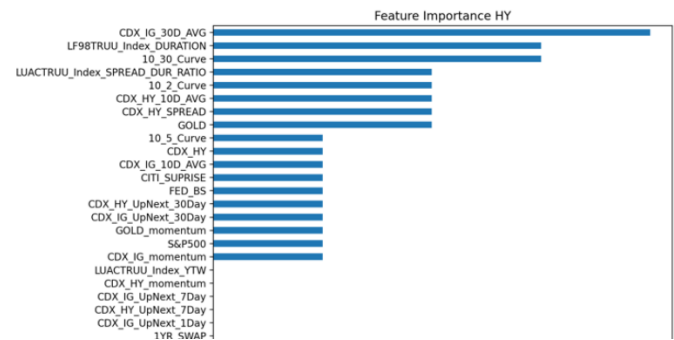## Decision Support System for CDX Trading

Which Model?

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