Figure 1: Distribution of Democracy Collapse

The mean likelihood of a democratic collapse was 0.06889. The distribution plot and mean above show that, overall, democracies are unlikely to collapse.

Model 1: All variables

Model 2: GDP per capita, Prior military rule, Presidential democracy, Initial democracy level when leader came to power, Party system institutionalization when leader came to power

Model 3: Ruling party seat share, Ruling party clientelism, Ruling party personalism, Ruling party religiosity, Ruling party left-right ideology

Model 4: Democracy level in 1990, Democracy duration, Liberal democracy index when leader came to power, Judicial independence when leader came to power

Model 5: Growth prior two years, Ruling party illiberalism, Ruling party populism, Social polarization when leader came to power

Model Type	PR-AUC
All Predictor Variables (model1.f)	0.3500014
Political Variables (model2.f)	0.3729926
Ruling Party Characteristics (model3.f)	0.3687282
Historical and Institutional Variables (model4.f)	0.3747103
Population and Growth Variables (model5.f)	0.3688704

All variables that were not binary were skewed using the "transformTukey" function. I use the population (log) as a control variable in all models and avoid using Oil and gas rents (% GDP) as it is missing many rows of data. My first model uses all the variables as a point of comparison for the other models. My second model focuses on variables that measure the political aspects of a country, such as whether the government had prior military rule and initial democracy levels when a leader came into power. Based on the PR-AUC, model 2 was the second best in performance. Model 3 focuses on variables that measure the ruling party's characteristics, such as the clientism or religiosity of the ruling party. Model 4, the best model based on the PR-AUC values, focuses on variables that measure a country's historical and institutional factors, such as judicial independence when the leader came into power. Lastly, model 5 focuses on variables that measure the population and growth of a country.

Overall, the PR-AUC values shows a clear trend, where historical variables were a good indicator of whether or not a country was going to have a democratic collapse. This means that if a country had lose levels of democracy, a low democracy duration, or previously low levels of freedom, the country is likely to have a democratic collapse.

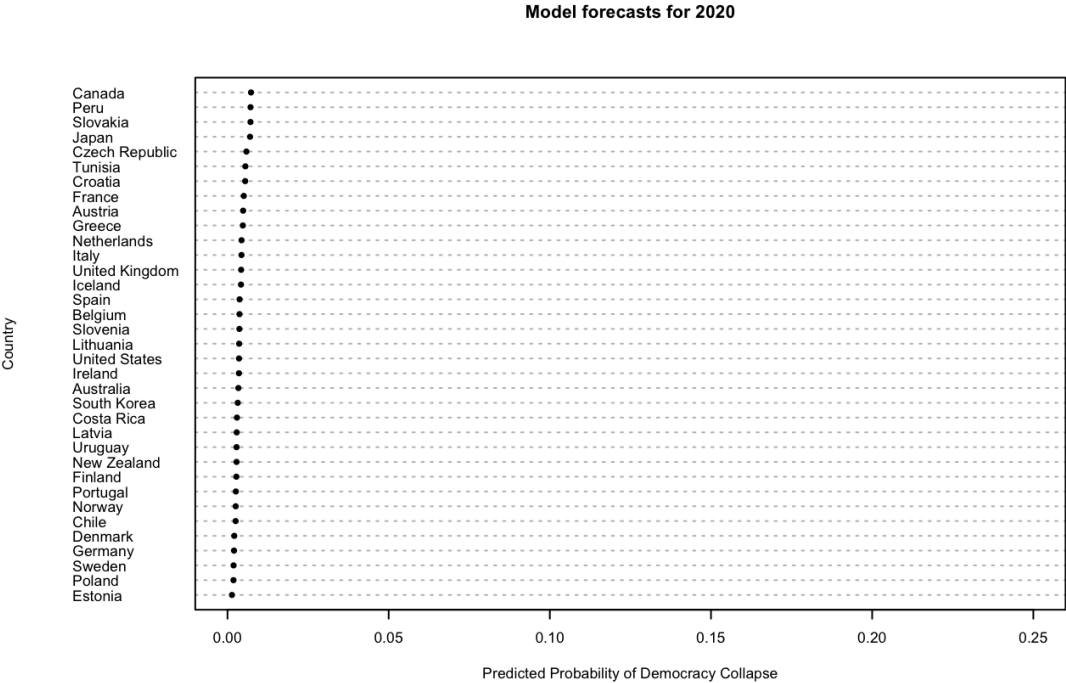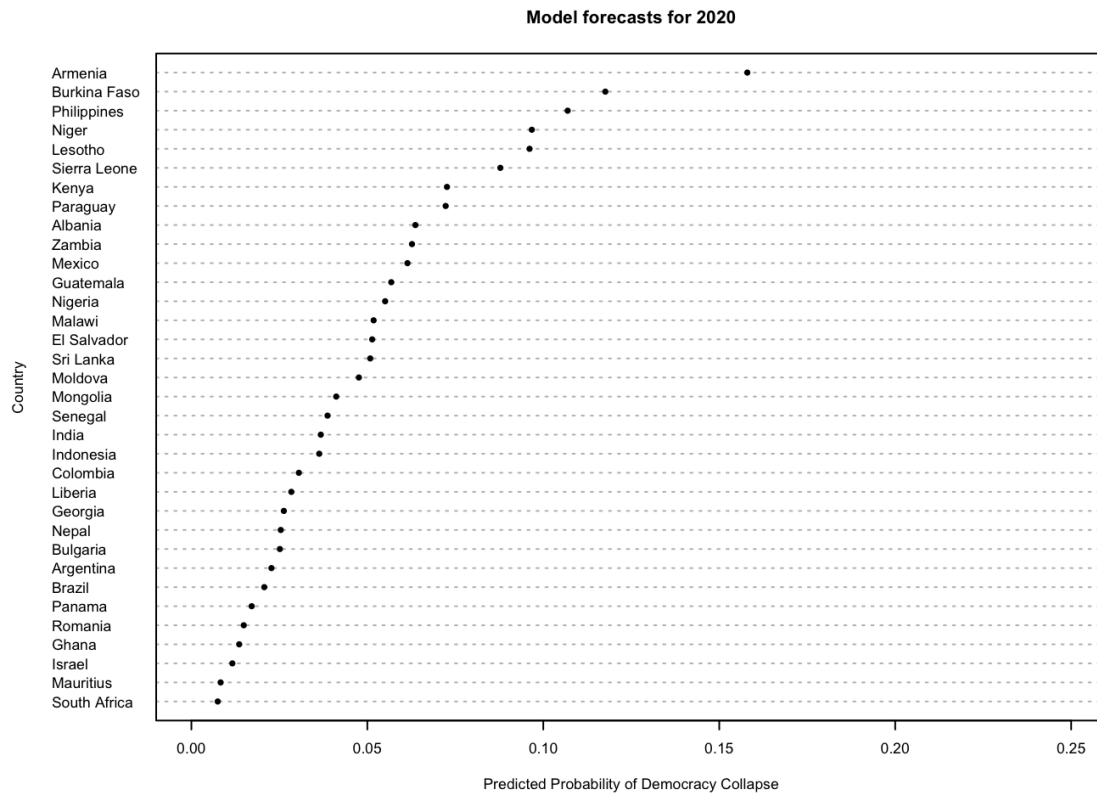The sample forecasts for the year 2020 below shown in the graphs below.

Figure 2: Sample Forecast

Figure 3: Sample Forecast