US 2020 Election Forecasting: A Blue Wave

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Incumbent Share of Two-Party Vote

1948-2016

Year

1940 1960 1980 2000 2020

Inc. Party Share of Two-Party Vote

Bivariate Economic Forecasting Models

• Dependent variable = incumbent party’s percent share of the two-party vote
• Independent variable is measured change in GNP over the first two quarters of the election year
  • * = significance at .05, one-tail
  • Figures in parentheses are t-scores.
• N = 17, 1948-2016.
• 2020 Forecast based on available data as of 7/27/2020.

<table>
<thead>
<tr>
<th>GNP % change</th>
<th>constant</th>
<th>Coefficient</th>
<th>R2</th>
<th>Root MSE</th>
<th>2020 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47.95*</td>
<td>2.34*</td>
<td>.41</td>
<td>4.20</td>
<td>38.26</td>
</tr>
<tr>
<td></td>
<td>(30.46)</td>
<td>(3.30)</td>
<td></td>
<td></td>
<td>GNP = -4.14</td>
</tr>
</tbody>
</table>
Presidential Approval Models

- Dependent variable = incumbent party’s percent share of the two-party vote.
- Independent variables are Gallup presidential approval ratings.
- * = significance at .05, one-tail
- Figures in parentheses are t-scores.
- N = 18, 1948-2016.
- 2020 Forecast based on available data as of ?/??/20.

<table>
<thead>
<tr>
<th></th>
<th>Const.</th>
<th>Coeff.</th>
<th>R², adj R²</th>
<th>Root MSE</th>
<th>2020 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>July Approval</strong></td>
<td>36.77*</td>
<td>0.32*</td>
<td>.68 .66</td>
<td>3.08</td>
<td>49.89 Pop=41</td>
</tr>
<tr>
<td>(13.58)</td>
<td>(5.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>May Approval</strong></td>
<td>36.61*</td>
<td>0.31*</td>
<td>.52</td>
<td>3.79</td>
<td>51.8 Pop=49</td>
</tr>
<tr>
<td>(9.55)</td>
<td>(4.13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2020 Political Economy Forecasting Model

- Popular Vote = 37.50 + .26*PresApproval + 1.18*GNP
  \[ (15.37) \quad (4.73) \quad (2.25) \]
  \[ R^2 = .76 \quad \text{adj. R}^2 = .73 \quad \text{Root MSE} = 2.75 \quad \text{D-W} = 2.39 \quad N = 18 \]
- PresApproval = Gallup approval measured in July of election year.
- GNP = change over the first two quarters of the election year.
- * = significance at .05, one-tail
- Figures in parentheses are t-scores.
- 2016 Forecast = 51.0
- 2020 Forecast = 43.3
- Forecast based on available data as of 7/27/20:
  - PresApproval (July) = 41, GNP = -4.14
- Jan. approval: 44%, Feb: 49%, Mar: 44%, Apr: 43%, May: 49%, Jun: 38%
• Out-of-sample errors.
  • Dropping each year, one at a time;
  • re-estimating the model each time;
  • then making a forecast for each year.

• For example, drop 1948; estimate the coefficients, make the forecast for 1948, calculate the error for 1948. Then do the same for 1952, and then 1956, until each year to 2016 has been forecast.

• There were zero years where the error was greater than 6.7. Our forecast for 2020 is 43.3.

• We construct a 95 percent confidence interval (two-tail) around our point estimate of 43.3, utilizing the RMSE= 2.75 and degrees of freedom = 15: [37.41, 49.6]. This result suggests a 95 percent probability that Trump will lose the popular vote.
Political Economy Forecasting Model Accuracy

Correct 15/18 years, or 83% of the time.
Correct for the last ten elections since 1980.

<table>
<thead>
<tr>
<th>Year</th>
<th>Two-party vote</th>
<th>Out-of-sample forecasts</th>
<th>Correct?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>52.4</td>
<td>50.4</td>
<td>Yes</td>
</tr>
<tr>
<td>1952</td>
<td>44.6</td>
<td>46.3</td>
<td>Yes</td>
</tr>
<tr>
<td>1956</td>
<td>57.8</td>
<td>54.2</td>
<td>Yes</td>
</tr>
<tr>
<td>1960</td>
<td>49.9</td>
<td>52.3</td>
<td>No</td>
</tr>
<tr>
<td>1964</td>
<td>61.3</td>
<td>60.4</td>
<td>Yes</td>
</tr>
<tr>
<td>1968</td>
<td>49.6</td>
<td>51.8</td>
<td>No</td>
</tr>
<tr>
<td>1972</td>
<td>61.8</td>
<td>55.8</td>
<td>Yes</td>
</tr>
<tr>
<td>1976</td>
<td>49.0</td>
<td>52.4</td>
<td>No</td>
</tr>
<tr>
<td>1980</td>
<td>44.7</td>
<td>39.1</td>
<td>Yes</td>
</tr>
<tr>
<td>1984</td>
<td>59.2</td>
<td>55.0</td>
<td>Yes</td>
</tr>
<tr>
<td>1988</td>
<td>53.9</td>
<td>53.2</td>
<td>Yes</td>
</tr>
<tr>
<td>1992</td>
<td>46.6</td>
<td>47.8</td>
<td>Yes</td>
</tr>
<tr>
<td>1996</td>
<td>54.7</td>
<td>54.7</td>
<td>Yes</td>
</tr>
<tr>
<td>2000</td>
<td>50.0</td>
<td>56.8</td>
<td>Yes</td>
</tr>
<tr>
<td>2004</td>
<td>51.2</td>
<td>52.9</td>
<td>Yes</td>
</tr>
<tr>
<td>2008</td>
<td>46.3</td>
<td>46.7</td>
<td>Yes</td>
</tr>
<tr>
<td>2012</td>
<td>52.0</td>
<td>50.0</td>
<td>Yes</td>
</tr>
<tr>
<td>2016</td>
<td>51.1</td>
<td>51.0</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Predicting the Electoral College Vote from the Popular Vote

• EC Vote = -199.42 + 4.90*PopVote
  (-11.64) (14.94) = t-score
• R²=.93  adj R²=.93  N=18  RMSE = 7.14
• EC Vote = percent of Electoral College Vote for incumbent party.
• PopVote = Percent of two-party popular vote for incumbent party
• 2020 ECVote forecast = 86. Popular vote of 43.3% gives EC vote forecast of 68 electoral votes for Donald Trump.
House Political Economy Forecasting Model

• Seat Change = -45.53 + .83*PresApproval + 4.89*Income -29.1*Midterm
  (-3.55) (3.47) (2.95) (-4.81)
R-squared = .60, adj. R-squared = .57, Root MSE = 17.85, D-W 1.87, N = 36
• PresApproval = Gallup approval measured in June of election year.
• Income = change Real Disposable Income over the first two quarters of the election year.
• Midterm = 0 for presidential election years, and =1 for Midterm election years
• * = significance at .05, one-tail
• Figures in parentheses are t-scores.
• 2020 Forecast = 32 seat gain for Democrats
• Forecast made on 7/27/20:
  PresApproval = 38, Income = -3.77, Midterm = 0
Senate Political Economy Forecasting Model

- Seat Change = 2.79 + .13*Pres + .91*Income -2.37*Midterm -.70*SeatsUp
  (1.05) (3.46) (3.35) (-2.44) (-6.42)
  R-squared = .69, adj. R-squared = .65, Root MSE = 2.84, D-W 1.86, N = 36
- PresApproval = Gallup approval measured in June of election year.
- Income = change Real Disposable Income over the first two quarters of the election year.
- Midterm = 0 for presidential election years, and =1 for Midterm election years
- SeatsUp = number of seats the president’s party has up for reelection.
- * = significance at .05, one-tail.
- Figures in parentheses are t-scores.
- **2020 Forecast = 12 seat gain for Democrats**
- Forecast made on 7/27/16:
  PresApproval = 38, Income = -3.77, Midterm = 0, SeatsUp = 23