NOWCASTING THE OBAMA VOTE: PROXY MODELS FOR 2012

Michael S. Lewis-Beck
University of Iowa

Charles Tien
Hunter College, CUNY
IF THE US PRESIDENTIAL ELECTION WERE HELD NOW, OBAMA WOULD WIN. THE CURRENT (JANUARY) NOWCAST = 51.1% FOR OBAMA. *

* (For this updated Nowcast, read the bold italics below. For the back story, read the whole article.)

In contrast to the usual election forecasting approaches, we offer “nowcasting.” An election “nowcast” predicts what would happen if the election were held “now” (Lewis-Beck, Nadeau, Bélanger, 2011). Thus, the nowcast acts as an invaluable early warning device, signaling what will come to pass unless things change. The nowcast comes from a relevant statistical model, whose parameter estimates are held valid across current moments. That is, the model (with its fixed constant and slope values) predicts the election outcome based on current (changing) X values, as the final contest approaches. Nowcasting, then, is dynamic, and election predictions may be issued on a quarterly, monthly, or even daily basis, with updates until the actual election occurs. For example, a nowcast of the November 2012 US presidential election can be issued “now” (November 2011) twelve months before the actual election, in December 2011 (eleven months before), or in January 2012 (ten months before), and so on to the eve of the actual contest itself.

To illustrate, our contemporary nowcasts predict a narrow victory for Obama: the November 2011 nowcast = 51.0 percent for Obama, the December 2011 nowcast = 51.9 percent for Obama; the January 2012 nowcast = 51.1 percent for Obama. We will continue to issue further monthly nowcasts until the election has past, to signal the increasing (or decreasing) likelihood of an Obama victory. Below, we explicate the theory and data behind our nowcast equation, which we label a proxy model.

THEORY
US presidential election forecasting models abound (see the recent review in Lewis-Beck and Tien, 2011). Virtually without exception these models base themselves on substantive explanations of the presidential vote. Our nowcasting approach, however, does not depend on a substantive model. Instead, it rests on identification of a variable that proxies the presidential vote share. Through location of such a proxy, precise prediction of that vote share becomes possible. Proxy variables are standard econometric fare. If a variable is unobservable, as is a future election outcome, then a proxy for it may be sought. For the proxy to be a good one, it must correlate highly with the unobserved variable. In a forecasting context, that means the proxy must approach empirical redundancy with the variable proxied. One successful example of a proxy model in presidential forecasting comes from the French case (Nadeau, Lewis-Beck, and Bélanger, 2011). Here we use a proxy model as the basis for our nowcasts of the US presidential election outcome.

PRACTICE

Our proxy notion expresses itself in the following equation,

\[ \text{Vote} = f(\text{Vote Proxy}). \]  \hspace{1cm} (eq. 1)

where \( \text{Vote} \) = the two-party popular presidential vote share; \( \text{Vote Proxy} \) = an observed indicator of the unobserved vote. We offer as a proxy the National Business Index (NBI), yielding

\[ \text{Vote} = f(\text{NBI}) \]  \hspace{1cm} (eq.2)

where \( \text{NBI} \) = the percentage of respondents who say “business conditions are better” minus the percentage of respondents who say “business conditions are worse,” as measured in the national
University of Michigan Survey of Consumers. This variable shows itself to be quite sensitive to actual US business conditions. For example, in the Great Recession year of 2008, it achieves its maximum negative value, at -81 (meaning overwhelmingly see worse business conditions). At the other extreme is its maximum positive value, at +47, registering the prosperous year of 1984.

This NBI, measured in April six months before the November election, correlates highly with incumbent vote share, r = .83. Figure 1 shows this strong link, in a scatterplot over the election sample, 1980-2008. From a forecasting perspective, the six-month lead time offers considerable advantage. Firstly, its high accuracy comes at an impressive distance from the election itself, far from the trivialities day-before (or month-before) forecasts offer. Moreover, this longer lead performs better empirically than the commonly used three-month lag (r = .70). The strength of the six month lead comes as no surprise. Other forecasting work, in the US, UK, and France suggests it is in fact optimal; Lewis-Beck and Rice, 1992; Nadeau, Lewis-Beck, and Bélanger, 2010; Gibson and Lewis-Beck, 2011).

[FIGURE 1 ABOUT HERE]

The regression estimation (ordinary least squares) of this Proxy Model yields the following:

\[ \text{Vote} = 51.67* + .09* \text{NBI}_t - 6 + e \]  
(eq.3)

(48.23) (3.69)

\( R\text{-sq.} = .69, \text{ Adj.} R\text{-sq.} = .64, \text{ SEE} = 2.96, \text{ D-W} = 2.45, \text{ n} = 8, \)

where the variables are defined as with eq. 2; the asterisk indicates statistical significance at .05, two-tail; the figures in parentheses are t-ratios; the R-squared = the coefficient of multiple determination; the Adj. R-squared = the R-squared adjusted for degrees of freedom; SEE = the

The Proxy Model of eq.3 has promising properties. In addition to the fit statistics (of the R-squared, the Adjusted R-squared, and the SEE), it is worth examining the error produced from predicting the individual elections under study. Here are these within sample errors: 1980 = -1.06, 1984 = 3.49, 1988 = 1.33, 1992 = -1.61, 1996 = 2.39; 2000 = -5.08; 2004 = -1.02; 2008 = 1.56. Note that the most extreme NBI year, 2008 = -81, is still predicted with little error (under 2 points). Further, we see that, with the exception of 2000, the winning party is correctly predicted, though one could argue that the 2000 popular vote winner was correctly predicted. Moreover, the exceptional case itself encourages acceptance of the model, since virtually all forecasting efforts for the Gore-Bush contest were well off, (Lewis-Beck and Tien, 2001). In addition, a healthy distribution of residuals can be observed, with four positive and four negative signs. Overall, we see the mean absolute error (MAE) is only about 2.19 points. And, if the series is trimmed, by removing the curious 2000 case, the MAE falls to 1.78 points. These results suggest that the model can pick the winner in all but the closest races.

A final diagnostic is that its fit could not be improved, despite the addition of other obvious variables, i.e. incumbency and presidential popularity, at different lags. In particular, it should be noted that presidential popularity fails to add significantly to the model, due to its high collinearity with NBI e.g., r = .85 in October. The interesting implication is that the effects of popularity are absorbed by NBI. As well, the effects of the macro-economy appear transmitted by NBI, e.g., for the correlation of NBI and GNP growth, r = .68 in October. (Nadeau and Lewis-Beck, 2001, show that NBI outperforms standard macro-economic measures in predicting presidential vote support). One implication is that the strong correlation between presidential
vote share and NBI is far from spurious. Instead, NBI succeeds in empirically capturing fundamentals that operate on voters, such as presidential popularity and the macro-economy.

NOWCASTS FROM THE PROXY MODEL

The Proxy Model has several desirable properties as a forecasting equation: complete parsimony, long lead time, ease of replication and good model fit (Lewis-Beck, 2005). In the nowcasting context, we simply apply the proxy model as if the election were upon us – this month, or next month, or the month after – so generating a series of nowcasts stretching to the election itself. To begin, let us employ it to generate a current month nowcast, assuming the current month is November 2011. Then, the equation estimates the (November 2011) election outcome from the NBI six months before (April 2011), as follows:

\[
\text{Vote}_{\text{nov 2011}} = 51.67 + .09 (-8) \quad (\text{eq.4}) \\
= 50.95 \text{ Nov 2011 nowcast}
\]

where the prediction equation is as with eq.3, and \(-8\) is the NBI for April 2011 (where 40% thought the economy was “better now” minus 48% who thought it was “worse now”). As a further example, consider the nowcast for the subsequent month of December 2011 from the May 2011 NBI (where 48% thought the economy was “better now” minus 46% who thought it was “worse now” = +2):

\[
\text{Vote}_{\text{dec 2011}} = 51.67 + .09 (2) \\
= 51.85 \text{ Dec 2011 nowcast.}
\]
For the most current example, consider the nowcast for the month of January 2012
(from the June 2011 NBI, where 42% thought the economy was “better now” minus 48 percent who thought it was “worse now” = -6):

\[ \text{Vote}_{\text{jan 2011}} = 51.67 + .09(-6) \]

\[ = 51.13 \] January 2012 nowcast.

CONCLUSION

On the basis of current nowcast under one year away from the actual election, President Obama looks like a winner, although the margin of victory will be quite small. Over these initial three months of nowcasting (November, December, and January) we see that opinion is changing little, with Americans almost evenly divided on whether the economy is getting worse or better. This close division mirrors itself in Obama support so far. To this point, the economy appears “just good enough” to put Obama back in office. These results provide an early warning signal to Republicans, implying that unless things change they will not occupy the White House this coming fall. Of course, things can still change, and those changes will be tracked in our subsequent nowcasts as the months pass, and we move closer to the actual November 2012 election. We plan to offer monthly, up-to-date nowcasts on these pages, until the election arrives. Of course, as we approach April 2012, which affords the NBI data for our “final” prediction, confidence in these nowcasts will increase. Will Obama hold his lead? As the months unfold, we shall see.
REFERENCES


