PREDICTING THE RESULTS OF THE 2010 ELECTIONS FOR THE U.S. HOUSE OF REPRESENTATIVES: JUDGMENT, ECONOMETRICS, AND MARKETS

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In "The Comparative Accuracy of Judgmental and Model Forecasts of American Football Games," Song et al. (2007) compared the accuracy of 70 experts and 32 statistical models in predicting the outcome of two consecutive seasons of American football games, and found that neither method could beat the betting line. Here I compare predictions or projections of the number of House of Representative seats that the incumbent Democrats would lose in this year's midterm elections[1] made by three renowned experts, one econometric model, and the Intrade market. The results of the analysis are not invariably in favor of the market: although traders did better overall, the experts scored partial victories, as well.

The three experts chosen for inclusion in this study are Charlie Cook, Stuart Rothenberg, and Larry Sabato.[2] All three have solid reputations as political analysts and election prognosticators. Indeed, the very last forecast each of them issued a few days before the election missed the actual count only by between three and eight seats.[3] Their projections are built from the ground up, so to speak, with a district-by-district analysis that is then supplemented with observations of national trends, such as presidential approval ratings and the generic congressional ballot. Their judgments, in turn, are incorporated into multivariate models incorporating information on such

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[1] Unless otherwise noted, throughout this paper this is the variable the forecasts for which are being compared. Its value is relative to the 257 seats that the Democrats won in 2008.

[2] Respectively at cookpolitical.com, rothenbergpoliticalreport.com, and centerforpolitics.org/crystalball. It bears noting that these forecasts are not exactly comparable, so no ranking in accuracy is possible among them, for three reasons. First, only Sabato forecast consists of a precise number, whereas Cook and Rothenberg both estimate a ten-seat range within which the actual would fall. In their cases, the median was used. Secondly, only Sabato predicts every contest, whereas Cook and Rothenberg rate each race along a continuum from "safe" or "solid," to "lean" or "likely," "tilt" or "lean," and "toss-up." Finally, they do not all revise their forecasts with the same frequency. Cook and Rothenberg did so five times, but Sabato only three times.

[3] As of the time of this writing, the actual number of seats the Democrats lost relative to the 257 they won in 2008 is estimated as at least 61 seats. Eight other seats have yet to be decided. For the purpose of this paper, it is assumed that the final count will show a loss of 63 seats.

things as trial heat polls or campaign expenditures. See, e.g., Nathan Silver and Scott Elliott.[4]

The econometric or statistical method is represented by Douglas Hibbs' midterm elections model (Hibbs 2010). Estimating the number of House seats going to the incumbents (the president's party) in all off-year House elections held since 1950 (N=16), Hibbs' model consists of three variables. These are the popular vote margin of the incumbent party candidate in the presidential election held two years previously, the number of seats won by the incumbent party in that election, and the weighted average growth rate of real disposable personal income per capita across the seven quarters leading to the midterm election. Hibbs posted his paper on September 22nd, with the disclaimer that "the underlying statistical model is meant to be structural or causal and is not targeted on forecasting accuracy" or "designed to . . . deliver optimal predictions"; he added that his "prediction of the partisan division of seats for the 112th Congress shouldn't be taken too seriously" and that "[t]he best forecasts in 2010, as in earlier elections, will almost surely be turned in by thick markets betting odds data like those generated at Intrade" (Hibbs 2010, 1, 7, 8). Actually, Hibbs' was the best performing of the structural models this year.[5]

The market is represented by the contracts traded at Intrade on the number of seats gained by the Republicans. The contracts come in increments of five seats, e.g., "Republicans to gain 60 or more seats," "Republicans to gain 65 or more seats." The price at which the contracts are traded may be interpreted as the probability that the outcome will occur. As I did with Cook and Rothenberg, whose predictions also consist of a range within which the actual would fall, I took the median of the increment of the contract with the lowest probability above 50%.

Figure 1 displays the forecasts of the number of House seats the Democrats would lose over the period from mid-May until Election Day. Note, first, that as Hibbs anticipated, most of the time the gamblers at Intrade had "the best forecast." The one exception was a month-long period between June 10 and July 11, when Cook did better. During the entire period, Intrade changed its forecast, raising it six times and lowering it once, albeit only for a few days before restoring it to the previous value (from 47 to 42 and back again). At no time did any of the experts lower his forecast. Note, too, that while three times the gamblers raised their forecasts before any of the experts did, each expert beat them to the punch at least once: Sabato in May and then again in September, Cook in June, and Rothenberg in the last week before Election Day.

Table 1 shows the forecast error incurred with these methods during across the entire forecasting period examined, from mid-May through Election Day, and also on

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[4] At fivethirtyeight.com and electionprojection.com, respectively. The forecasts made during the week leading to the election were as follows: Silver, 54; Elliott, 65. These forecasts are comparable to those of our experts. See Table 1.

[5] Others forecasts and their errors (in parentheses), were by Ansolabehere (35), Cuzán (38), Jacobson (20) and Lewis-Beck and Tien (41). See Pollyvote.com.

four different days: September 22nd, when Hibbs posted his paper, and when the final forecast of each method was issued or obtained: Sabato on October 28th, Cook and Rothenberg on October 29th, and Intrade on the day before the election, November 1st. Over the complete forecasting period, the Mean Absolute Error (MAE) was lowest with the market, although its margin over one representative of the judgment method (Cook) was a mere three seats. On September 22nd, when Hibbs posted his forecast, the market also did better but, again, its margin over Hibbs' and that of another representative of the judgment method (Sabato) was trivial, only two seats. By the same small margin, Intrade bested Sabato on October 28th and Cook the next day, but lost to Rothenberg by three seats.

Discussion.

Research on predicting sports events showed that gamblers made better predictions than either experts or statistical models. Yet, the results of the foregoing analysis of the forecasts of the number of seats U.S. House of Representative seats that the Democrats would lose on the midterm elections are inconclusive. Across the period studied, from mid-May through the last five days leading up to Election Day, Intrade did incur the smallest Mean Absolute Error (MAE), although the difference between it and that of a representative of the judgment method (Cook) amounted to only two seats. More than likely, this very modest victory was due not to the greater perspicacity of gamblers, but to the fact that the market made more adjustments throughout the period. On other indicators, such as the timing or direction of adjustments to the forecasts, and the accuracy of the final forecast issued by each method, there either was no difference or the market won or lost by a small margin.

In short, when it comes to predicting the total number of seats that the Democrats would win, there is no knock-out victory—the result of this match between the methods is either a tie or, at best, a split decision on points in favor of the market. But even that is something of a stretch. After all, it would strain credulity to assume that Intrade participants make their calculations independently of what the experts are projecting. It would be far more reasonable to assume that they are poaching or foraging for information, so to speak, in the experts' domain. That they improve on the experts' predictions by so little I interpret to mean that just about all that there is to know about these contests has already been absorbed and distilled into the experts' judgments.

Epilogue.

A limitation of this study is that I am only comparing the total number of seats that the Democrats would lose. But the "stock in trade" of the experts consists in the ratings or predictions at the district level. The next step, then, is to compare the experts and Intrade on their respective predictions of individual races.

REFERENCES

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Table 1. Absolute Error Incurred with Different Methods for Predicting the 2010 Democrat Party Net Loss of House Seats

Time period	Market	Judgment			Econometrics
	Intrade	Cook	Rothenberg	Sabato	Hibbs
5/18 – 11/1*	19 (7)	22 (5)	30 (5)	26 (3)	
9/22	16	25	34	18	18
10/28	6			8	
10/29	6	8	3		
11/1	1				

*Average for the period. Number of revisions of the forecast in parentheses.

Figure 1. Forecasts of Democrat Party Net Loss of House Seats in 2010