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Volatility risk and the U.S. Presidential election

Could the polls be 'wrong' again? (maybe, but it's much less likely to matter)

- As evidence continues to accrue of a widening Biden polling lead, questions remain whether these estimates could be 'wrong' again
- Uncertainty, correlated error, and some degree of mean reversion are already incorporated into quantitative election models, which point to 85-90% likelihood of a Biden win in November
- We unpack the empirical results that inform those topline estimates a bit
- The 2016 polls had larger error and bias than other recent cycles, but were not completely out of line in terms of magnitude ...
- ... and given the lowest rate of undecided and third party support since FDR, the potential for a similar outcome is likely lesser as well
- We should see a big pick-up in early and absentee ballots, but history suggests
  polling of states with higher rates of mail-in voting tend to outperform those with
  lower rates across both parties
- Uncertainty cuts both ways; estimate suggest the chances double-digit Biden victory were always comparable to a Trump win, and more recently the former appears much more likely

## **US Fixed Income Strategy**

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# Could the polls be 'wrong' again? (maybe, but it's much less likely to matter)

Note: This is the fifth in a series on the impact of the U.S. Presidential Election on volatility markets. Prior installments include A global cross-asset perspective (9/8/20), Volfefe, revisited (9/23/20), The debates as a potential catalyst (9/25/20) and Revisiting the risk of contested or delayed results (10/8/20). For views on interest rates see The Final Countdown (9/18/20), for FX see US Elections and FX (8/28/20), and for a cross-asset perspective see Geopolitical Flashpoints (9/24/20).

Since our last publication on the topic, national and state level polling points to continued narrowing in the set of plausible outcomes for the U.S. Presidential Election. The fivethirtyeight.com, Economist, and Princeton Election Consortium models, for example, are currently showing roughly 87%, 91%, and 99% likelihood of a Biden win, respectively—all around the highs of this cycle. Prediction markets, for their part, still exhibit a higher degree of skepticism: roughly 2:1 in Biden's favor, which is not much higher than where they ended September. That said, these transactional measures are admittedly based on relatively small volumes.

Though options markets appear to have significantly reduced the premium they had previously priced into the weeks immediately after Election Day, the day itself still caries significant event risk. Interestingly, this is more pronounced in some asset classes than others (Exhibit 1). Though, as we have noted previous, the risk of an extended period of post-election volatility has come down quite a bit, the day itself is still valued rather highly in rates markets. Equities, by contrast, have priced out much more of this event risk, especially over the past few days.

Exhibit 1: Event risk focused on Election Day itself has oscillated somewhat in rates markets, while equities have priced out this premium more consistently in recent days

Implied daily volatility from 11/3 to 11/6/20 from ATM(F) straddle prices in 10-year rates (LHS; bp) and SPX (RHS; %)

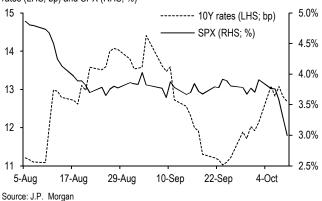
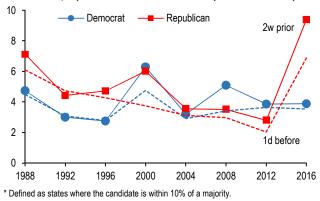


Exhibit 2: Polling errors were clearly elevated in 2016, but not completely out of line with prior cycles ...

RMSE of popular vote versus polling averages across competitive\* states by cycle and candidate party affiliation, as of 2-weeks and 1-day before Election Day; %



This raises the question: what if the polls are "wrong" again? To be more precise, what if there is a combination of error and bias that, mixed with some mean reversion, leads to yet another corner case of the Electoral College in which a modest popular vote deficit still leads to a Trump victory? There are, of course, many differences this time around, not least among them a much more stable and larger

polling gap than was the case in 2016—or many other prior cycles for that matter

Source: J.P. Morgan, fivethirtyeight.com, Dave Leip



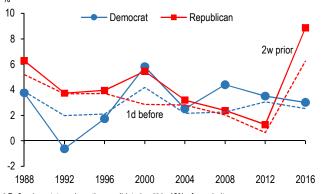
(see Revisiting the risk of contested or delayed results, J. Younger et al., 10/8/20).

Perhaps more importantly, there is significant uncertainty, some narrowing in the polls, and the potential for correlated polling errors already incorporated into the quantitative election forecast models quoted above. In other words, these models do not assume the polls are "correct," but rather that their potential for error can be inferred from recent history, including 2016. Along these lines, given a 10+ point gap in national polling and comparably good state polling results, the only reason Trump is assigned a more than 10% likelihood in models like fivethirtyeight.com is precisely because of this assumed uncertainty.

That said, there is value, in our view, to unpacking the empirical results and assumptions that are used to generate topline likelihoods from these and other models. Thankfully, the rise of mainstream quantitative election forecasting has made extensive polling data more freely available. Aggregators like Real Clear Politics and fivethirtyeight.com produce averages, with the latter going back to 1972 at the state level. We can compare these data to the popular vote to get a cross-sectional view of error and bias over time, focusing on states where the race was reasonably competitive and therefore high-quality polling likely available in the weeks before Election Day.

Exhibit 3: ... and similarly showed a somewhat but not massively higher level of bias

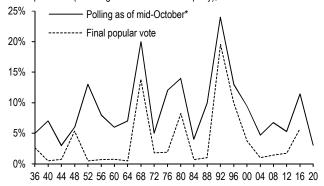
Average of popular vote versus polling averages across competitive\* states by cycle and candidate party affiliation, as of 2-weeks and 1-day before Election Day;



\* Defined as states where the candidate is within 10% of a majority. Source: J.P. Morgan, fivethirtyeight.com, Dave Leip

Exhibit 4: Recent polls suggest the lowest level of undecided and third party voters at this point in the cycle since FDR, in sharp contrast to 2016

Mid-October polling\* versus final popular vote for candidates other than Democrats and Republicans (including undecided and third party); %



\* For 2000 to 2020 we show a simple average of likely voter polls ending 2- to 3-weeks before Election Day from pollsters rated B or better by fivethirtyeight.com. Prior to 2000 we use <u>Gallup</u> polling

Source: J.P. Morgan, fivethirtyeight.com, Gallup, various pollsters

The results suggest that while 2016 was a clear outlier by both measures, particularly on the Republican side, the magnitude of these jumps was not completely out of line with prior cycles, especially the day before the election (e.g.,  $1988^1$ ; Exhibits 2 & 3). It is also worth noting that polling results for both major party candidates in that race were biased somewhat lower on average than their actual popular vote. This likely had something to do with much higher levels of undecided and third party support in the later stages of the 2016 cycle ( $\sim$ 12%) than any election since 1996 ( $\sim$ 13%). This time around the opposite is true: recent high-quality polling suggests roughly 3% of the national electorate does not yet support Biden or Trump, which would by some estimates be the lowest such

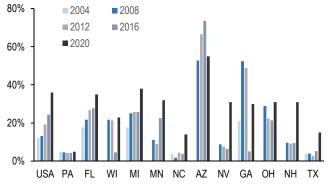
<sup>&</sup>lt;sup>1</sup> There were also more significant rates of error and bias in 1980 and 1984, but we exclude those years since margins were so large that this was not material to the results.



**level since FDR (Exhibit 4)**. With much less of the vote yet to be allocated, the uncertainty around the end result is presumably lower.

There is of course one potential new source of uncertainty this year: much more pervasive early voting. As of this writing, the U.S. Elections Project reports at least 17 million early ballots have already been cast. As a point of comparison, this is ~12% of 2016 total turnout and more than 10x larger than at a comparable point in that cycle. Recent polling data suggest that roughly 55-60% of ballots in 2020 will likely be cast early, including 30-35% by mail. This would represent a big jump at the national level, but these increases are likely to be even more dramatic among some states, including a number of potential tipping points (Exhibit 5). Given this shift in the method of voting, it is natural to wonder whether the demographic and turnout models embedded in polling results are up to the challenge.

Exhibit 5: Polling suggests a big increase in mail-in voting both at the national level and among many potential tipping point states Mail-in ballots relative to turnout at the national ("USA") and state level among the twelve most likely to be the tipping point, historical data\* as well as 2020 estimates from recent polls† including questions on intended voting method; %

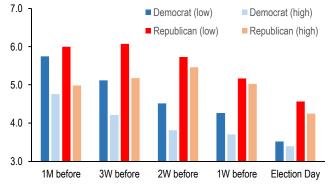


<sup>\*</sup> Historical data for 2004-12 from EAC as available. This excludes unsolicited mail-in ballots prior to 2008, but they were likely less than 1-2% of the total. 2004 data in those reports is incomplete.

† National <u>estimates</u> are an average of responses to <u>Fox News</u> and YouGov polls covering the first and second week of October. State level data taken from a mix of polls conducted by Monmouth University, NYT/Siena, Quinnipiac University, and Suffolk University, all retrieved from the fivethirtyeight.com website.

Source: J.P. Morgan, fivethirtyeight.com, various pollsters

Exhibit 6: Cross-sectional evidence from prior cycles suggest lower polling error when early and mail-in voting rates .are high ... RMSE of popular vote versus polling averages across competitive\* states from 2004-16 split by candidate party affiliation, rate of mail-in voting†, and time before Election Day; %



<sup>\*</sup> Defined as states where the candidate is within 10% of a majority.

Though it is difficult to have high conviction around any answer to that question, history is somewhat instructive. For example, we can consider polling errors among states with higher and lower levels of mail-in voting (relative to the median for that cycle) from the four cycles spanning 2004-16<sup>2</sup>. The results suggest higher levels of absentee voting tend to reduce polling error, not just in days before the election but at least a month prior as well (Exhibit 6). This is furthermore true of both major party candidates over that period. Though imperfect as a laboratory for the unique aspects of this particular race, the implication of these

<sup>†</sup> Above or below median mail-in voting rates for that cycle by state. Source: J.P. Morgan, fivethirtyeight.com, Dave Leip, EAC

<sup>&</sup>lt;sup>2</sup> Comprehensive data on voting methods and other statistics are provided by the U.S. Election Assistance Commission, which was established by the Help America Vote Act of 2002 as a bipartisan observer and advisor of the administration of federal elections across states in the wake of the contested 2000 Presidential Election. As a results these data are only easily accessible from 2004 onwards.

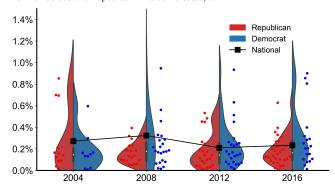


data is that, if anything, polls do a better job of capturing voting behavior when absentee and mail-in ballots are more widespread.

What about ballot spoilage? In our previous publication, we noted that the rate of rejected absentee votes in 2016 among potential tipping points states was, with some exceptions (e.g., OH, GA), much less than the likely margin of victory in 2020. That said, there is value in getting a bit more historical perspective. Measured as a fraction of all votes cast, the rate of rejected absentee ballots has been declining since 2004, and currently represents roughly 0.3% of the national popular vote. There is, of course, considerable variation among states, but that distribution has been narrowing as well (Exhibit 7). Admittedly, a much higher rate of mail-in voting coupled with higher rejection rates increases this risk, but given recent polling on the topic and even assuming a multiple of the 2016 rejection rate, unless the race tightens rather dramatically, mail-in ballot spoilage is unlikely to affect the outcome.

Exhibit 7: ... and absentee ballot rejection rates have been coming down in aggregate, and generally represent less than 0.5 of turnout across states

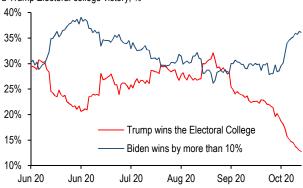
Absentee ballot rejection rates as a fraction of total turnout across states and cycles with Democratic and Republican wins as indicated; %



Source: J.P. Morgan, EAC

Exhibit 8: Uncertainty cuts both ways, with quantitative forecast models consistently showing comparable if not greater likelihood of a double-digit Biden victory than a Trump win

Probability of a Biden victory with more than 10% margin in the popular vote versus a Trump Electoral college victory; %



Source: J.P. Morgan, fivethirtyeight.com

Finally, and perhaps more importantly, uncertainty cuts both ways. Even if 2016-style bias repeats on average, there is some chance that Biden outperforms exante polling in some states. Quantitative election forecasting models take this into account, and suggest that the chances of a double-digit Democratic popular vote margin has been at least comparable to a Trump Electoral College win for some time, and is now considerably more likely (Exhibit 8). Many things can happen of course—rolling an 8-sided die and hoping for a 5 is not, after all, a completely hopeless exercise. But to close we come back to these topline forecasts, which as noted above incorporate the risk of polling error and bias, and still come to the conclusion that the range of plausible outcomes this time around is much narrower than prior cycles.

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