

CVRs for Hall County, 2020 Election

Analysis by Precinct

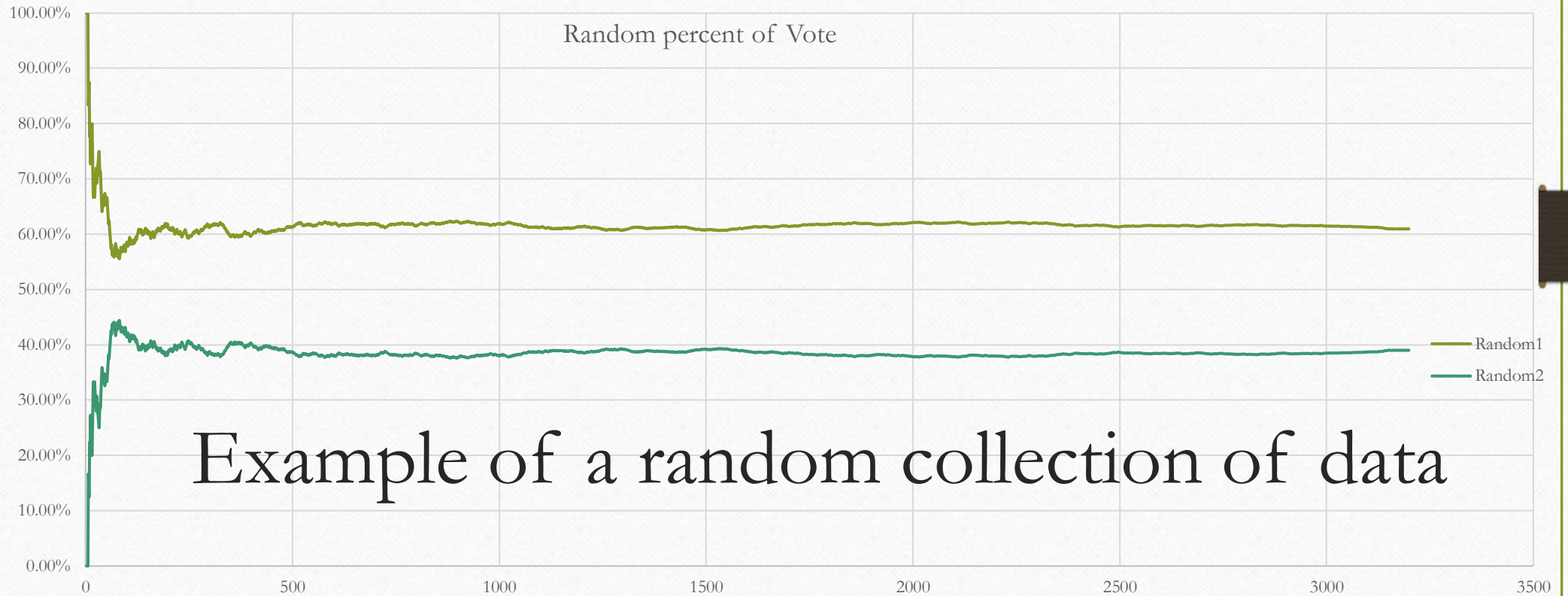
My gratitude to Jeff O'Donald who taught me, RAITBA

Using the Excel function and Excel's internal random generator this function: $=\text{ROUND}(\text{RAND}()*1.3,0)$

Produces the following graph. It is weighted by 1.3 to get a separation in final values

Notice the values approach steady state rather quickly and doesn't change very much at higher data counts.

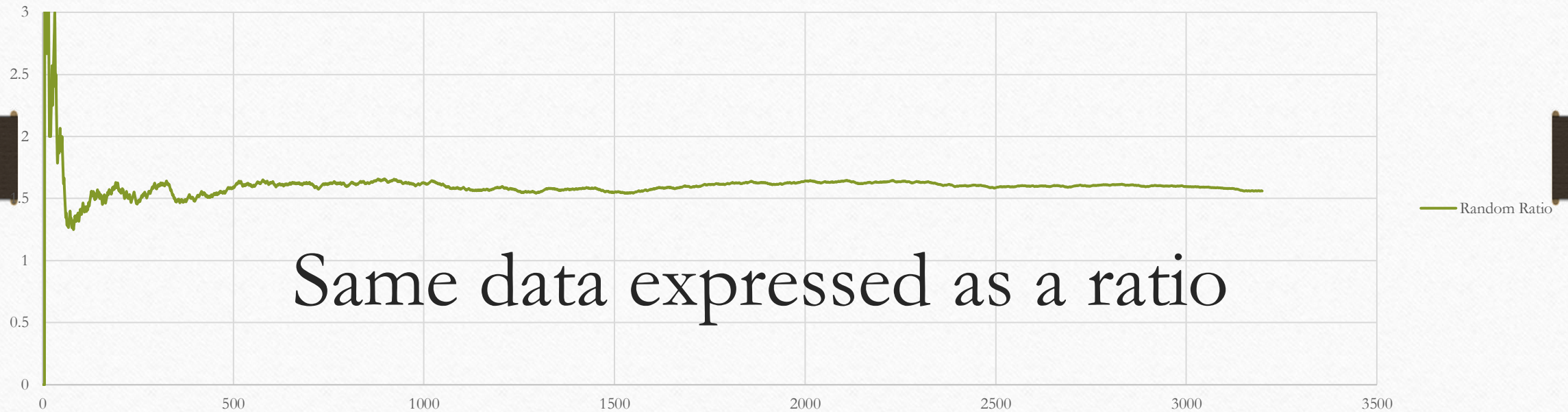
Note: there is no computer generated perfect random generator.



Example of a random collection of data

The First 500 data points should be ignored on both graphs as the initial data could swing wildly before it settles down. In the case of the ratio graph there could be initially division by zero which is undefined and shows on the graph as a very large number. Once there is a vote for both candidates the undefined is cured.

Random Ratio



Same data expressed as a ratio

Is the vote a random set of data?

When an election by a group of people is not coordinated the following are assumptions:

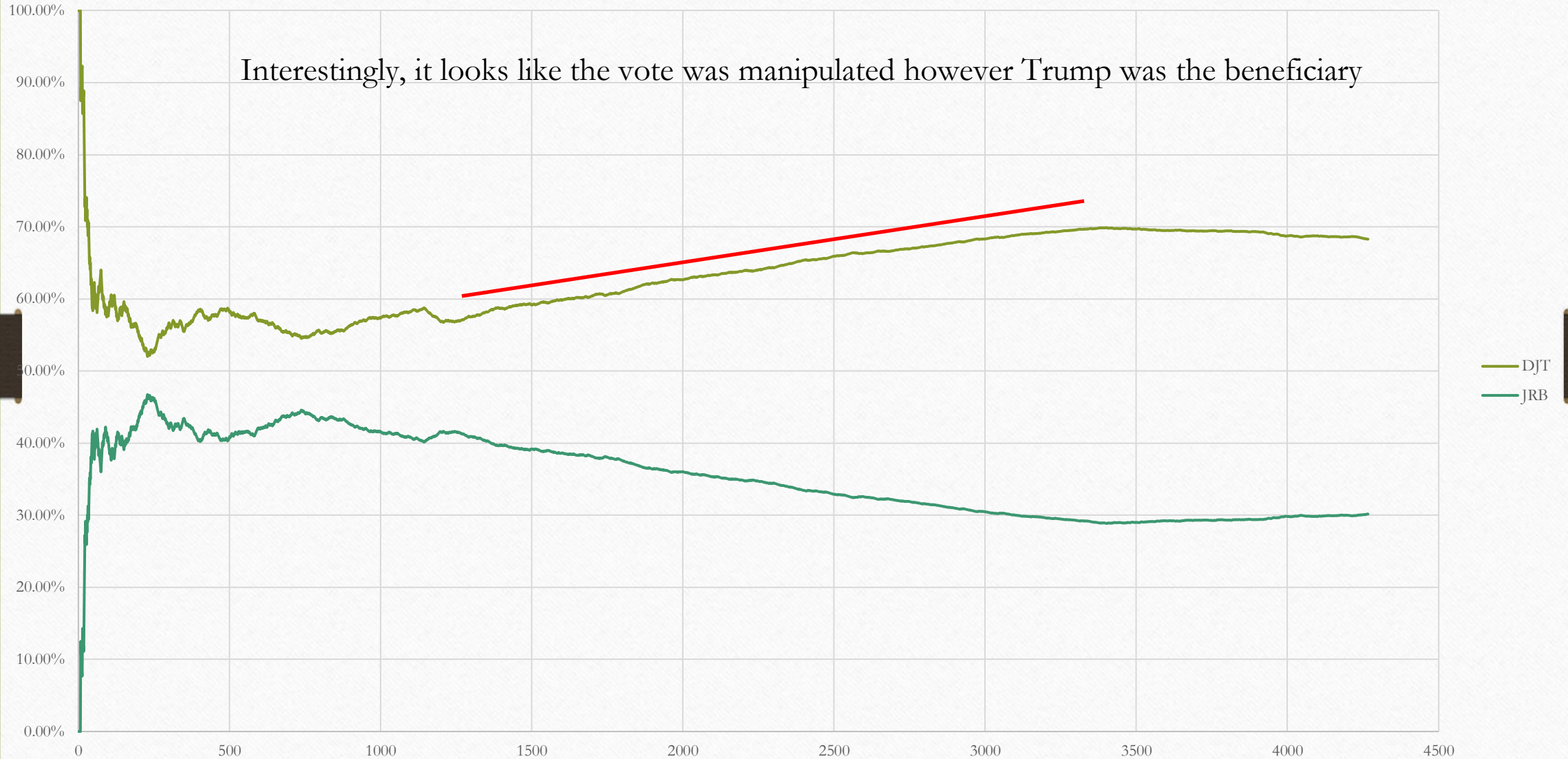
1. Request for ballots are sent in randomly
2. Mail back of the Ballots are sent in randomly
3. Advance voting is based on an individual decision and therefore they will vote randomly
4. During election day there is a random time when each person votes

However, there could be factors that affect randomness

- Democrats tend to vote by mail and early and republicans tend to vote on election day

Initial expectation is if the voting is not manipulated then the data should look similar to the random graphs

1-WILSON - % of Votes

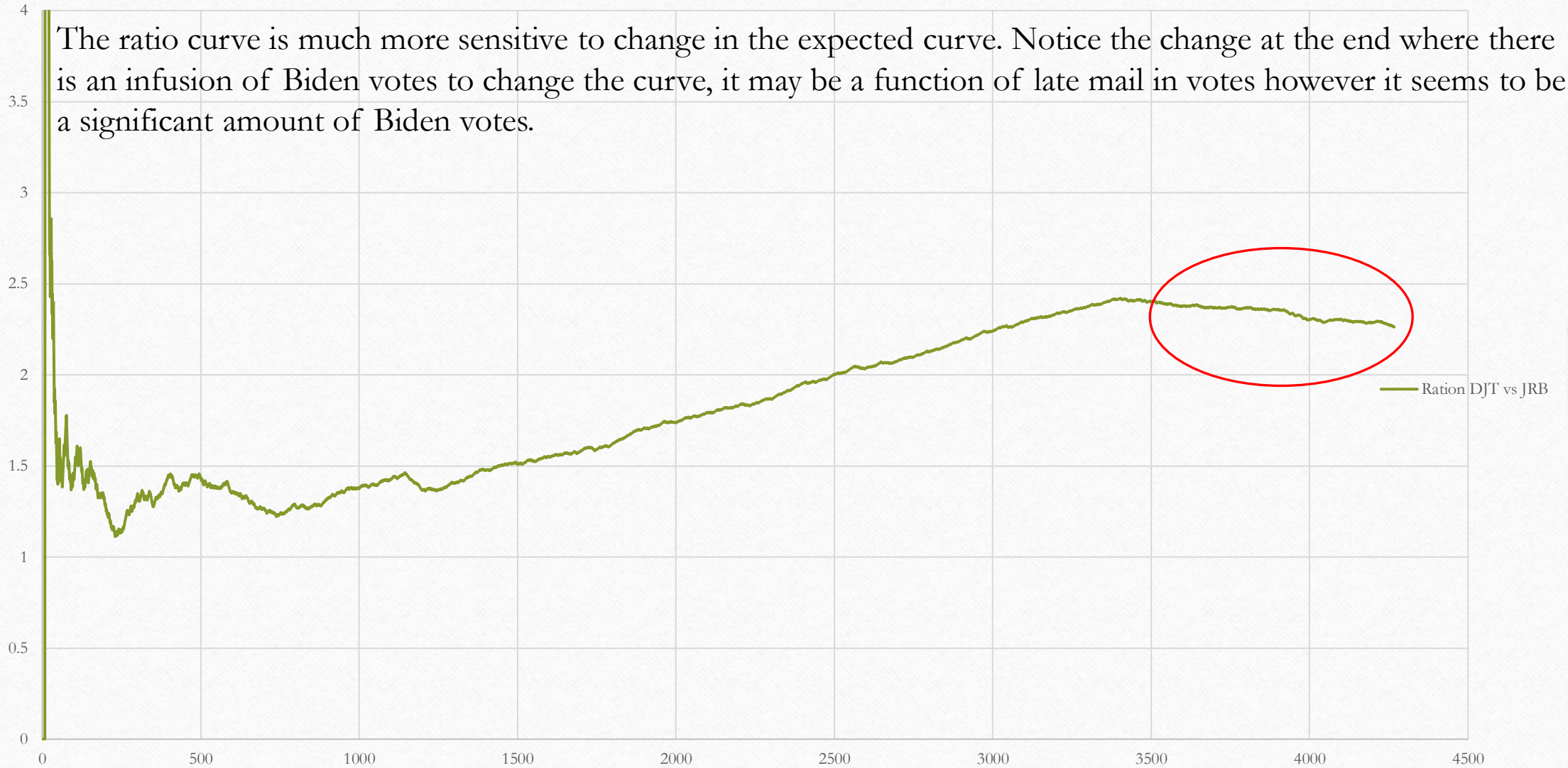


Interestingly, it looks like the vote was manipulated however Trump was the beneficiary

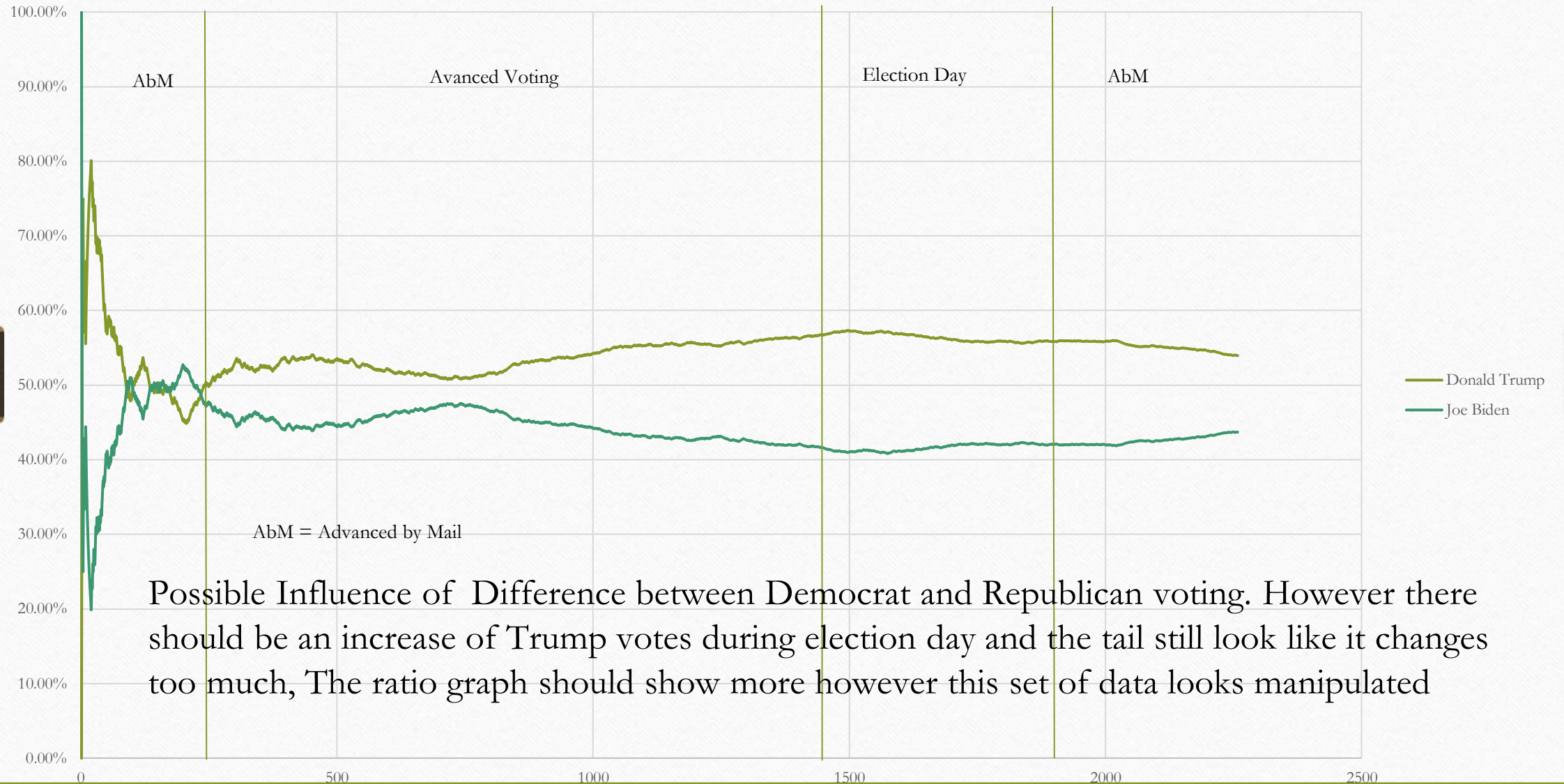
DJT
JRB

1-WILSON - Ratio DJT/JRB

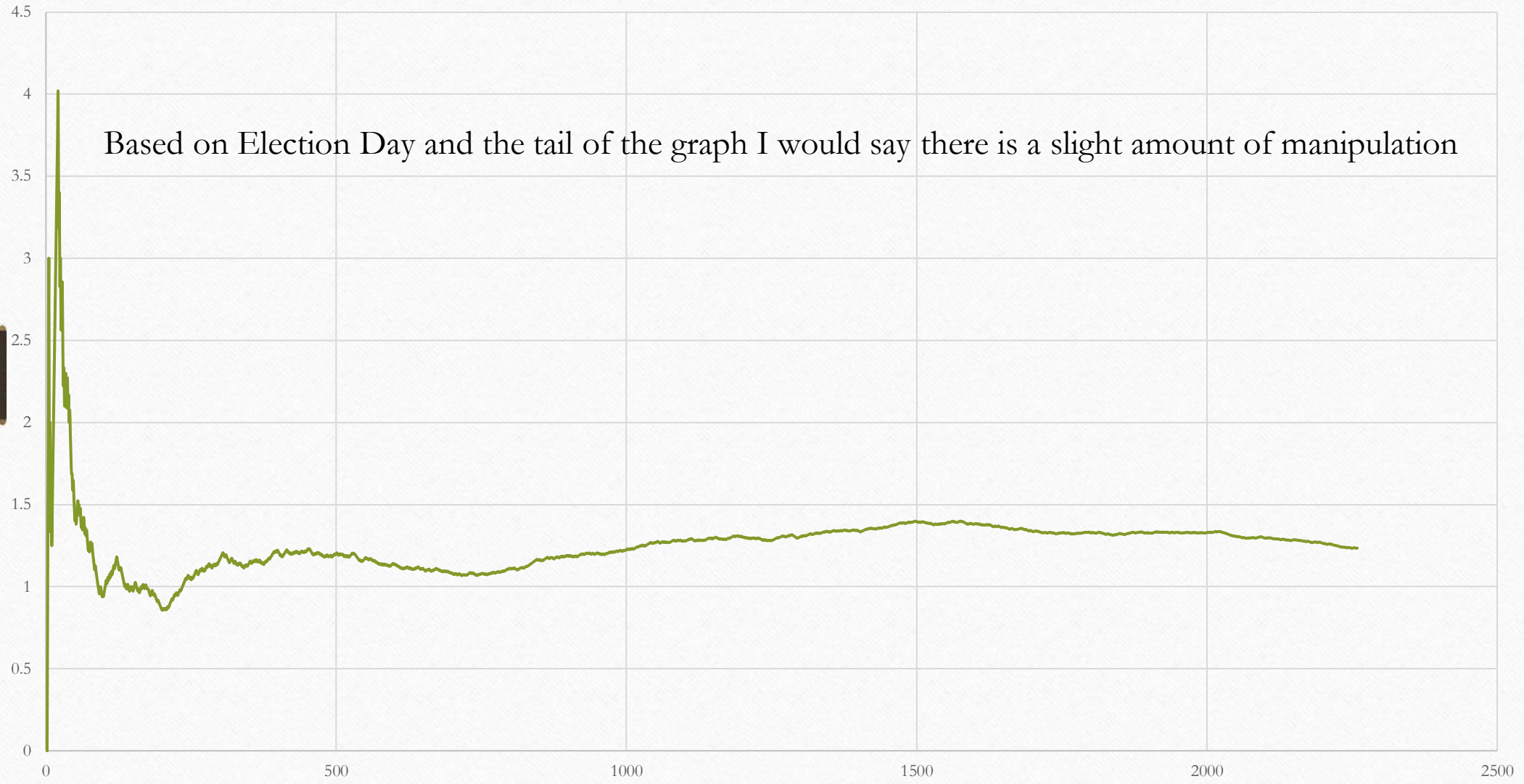
The ratio curve is much more sensitive to change in the expected curve. Notice the change at the end where there is an infusion of Biden votes to change the curve, it may be a function of late mail in votes however it seems to be a significant amount of Biden votes.



2-CHICOPEE - % Vote



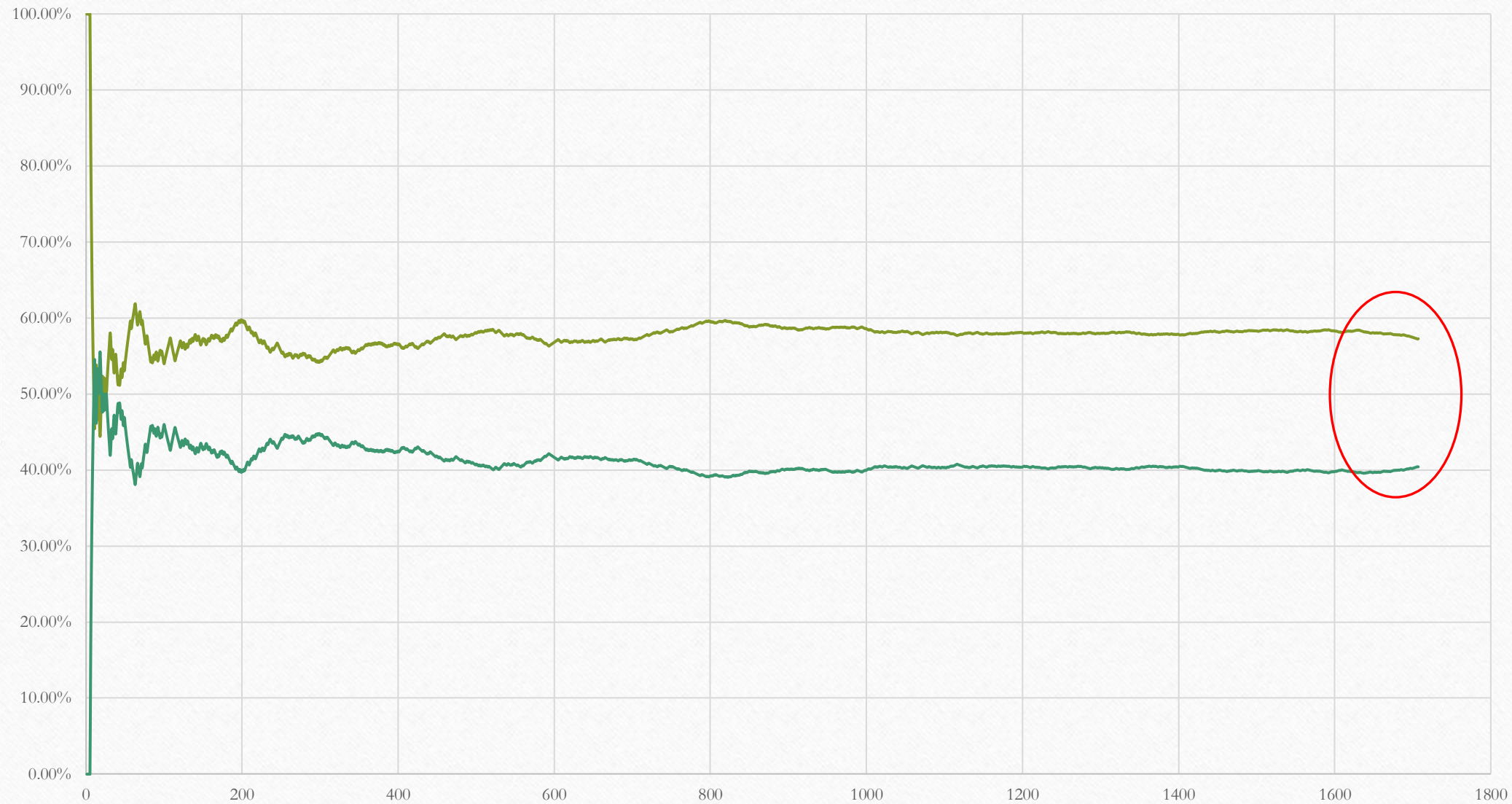
2-CHICOPEE - Ratio DJT/JRB



Based on Election Day and the tail of the graph I would say there is a slight amount of manipulation

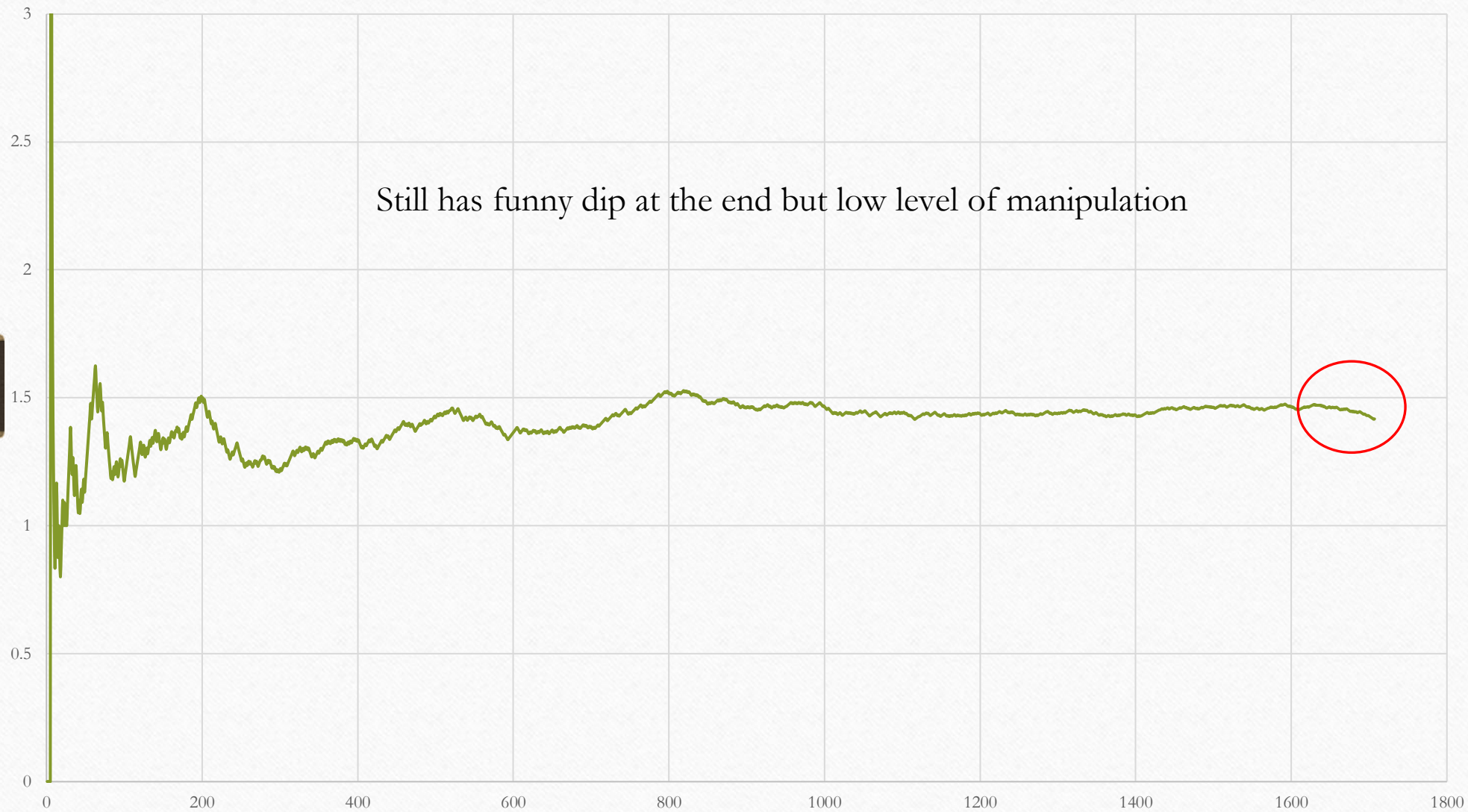
Election

3-Oakwood 1 - % of Vote



DJT
JRB

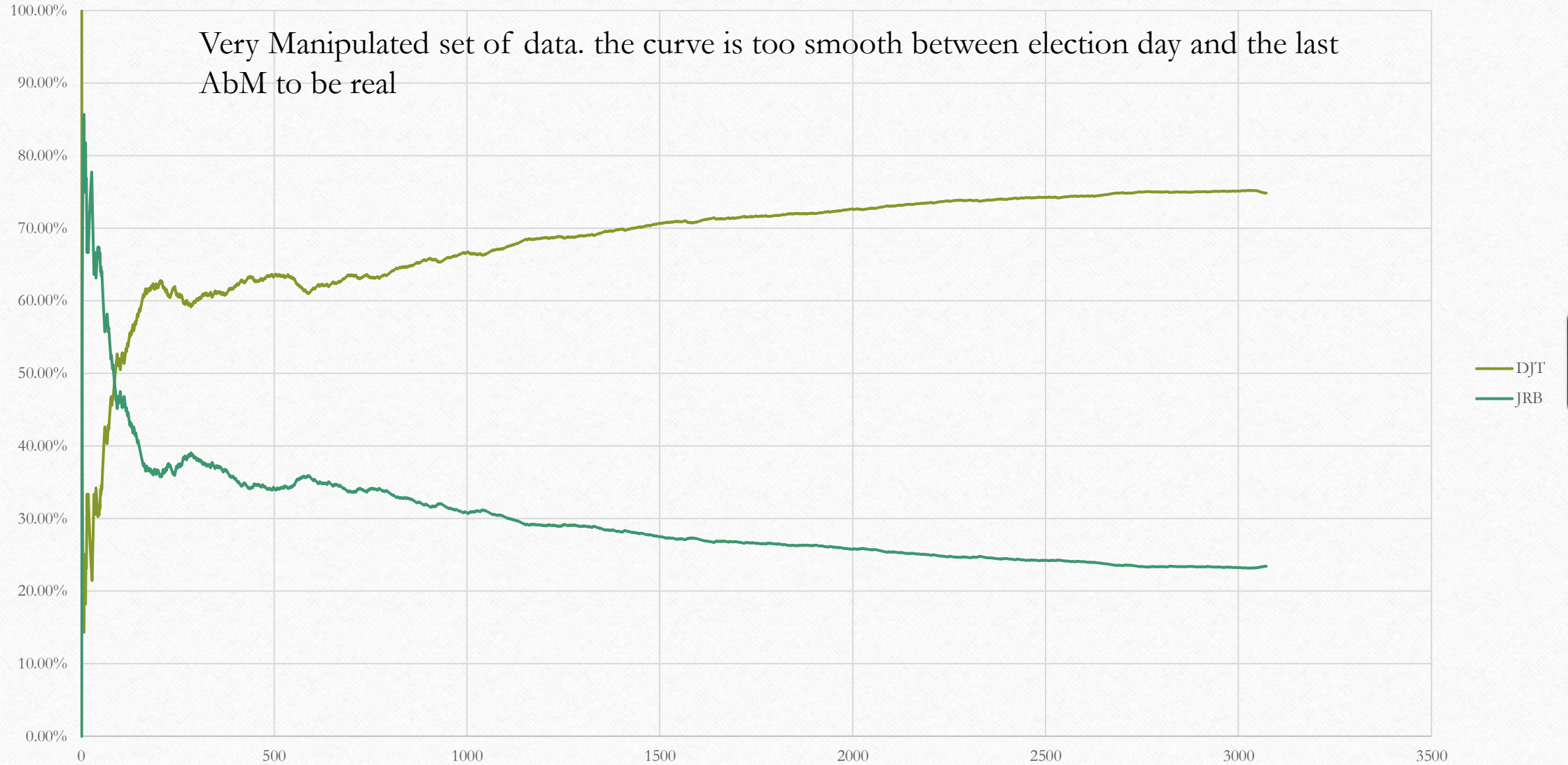
3-OAKWOOD 1 - Ratio DJT/JRB



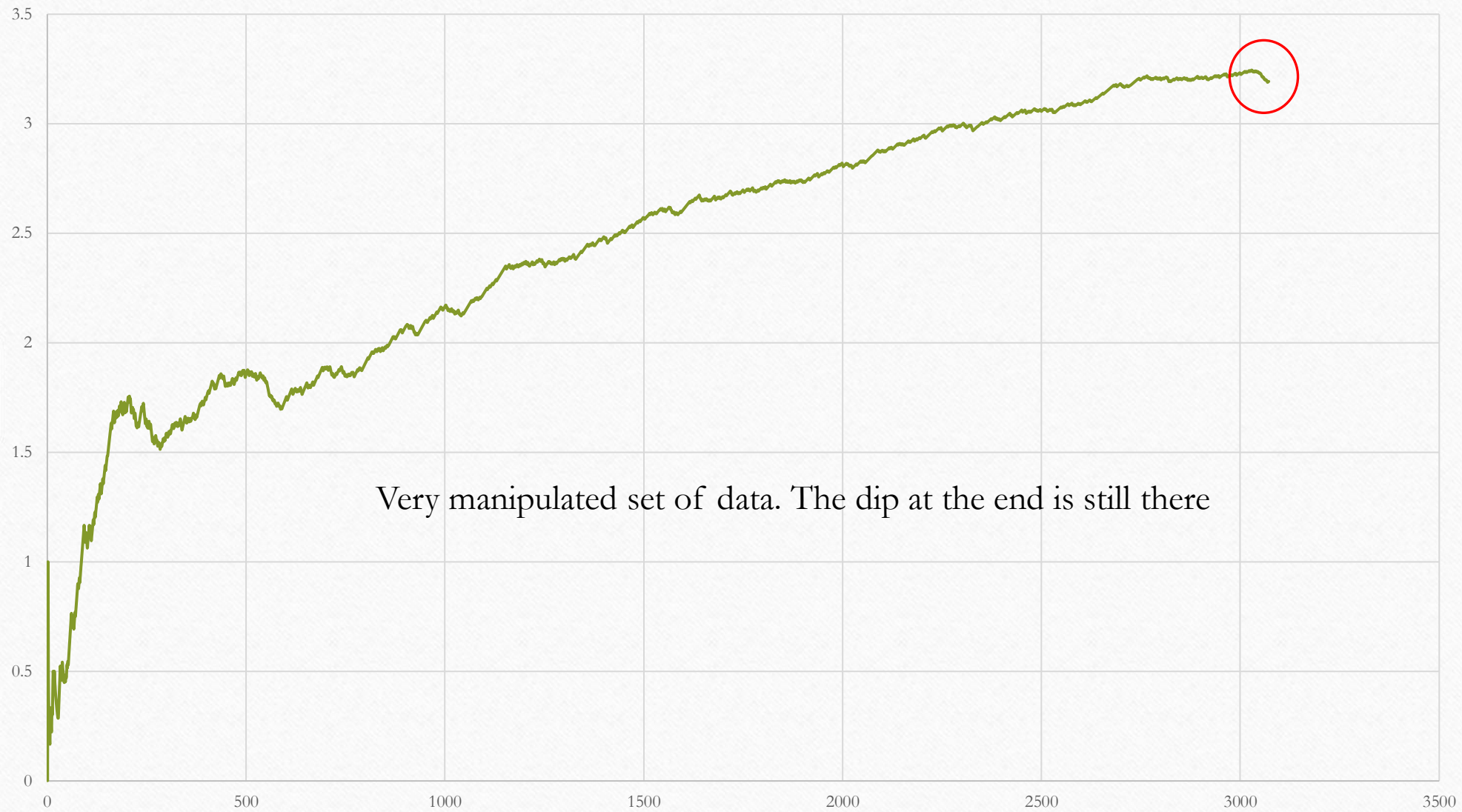
Still has funny dip at the end but low level of manipulation

Ratio DJT vs JRB

4-Oakwood 2 - % of Vote



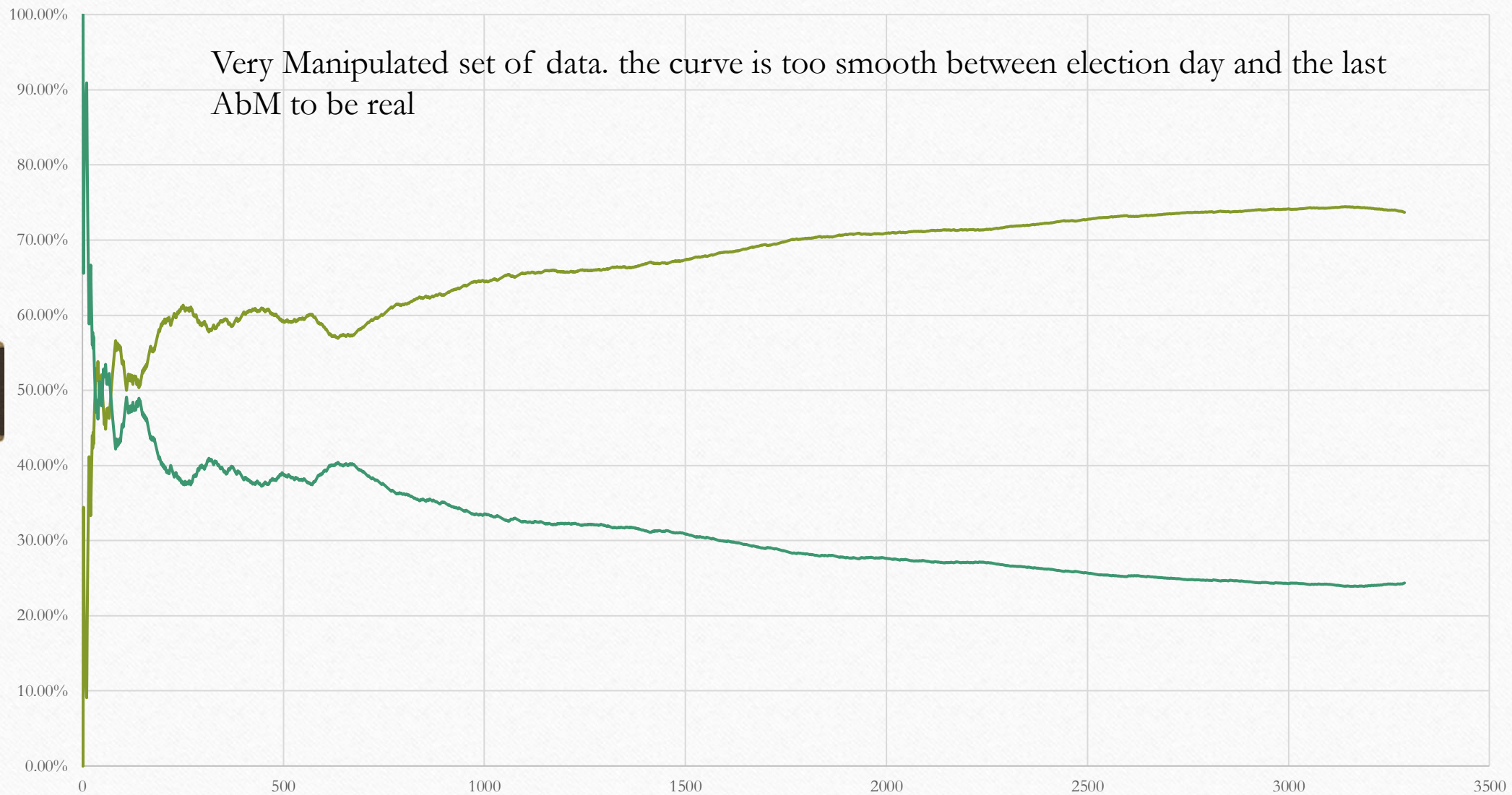
4-OAKWOOD 2 - Ratio DJT/JRB



Ratio DJTvsJRB

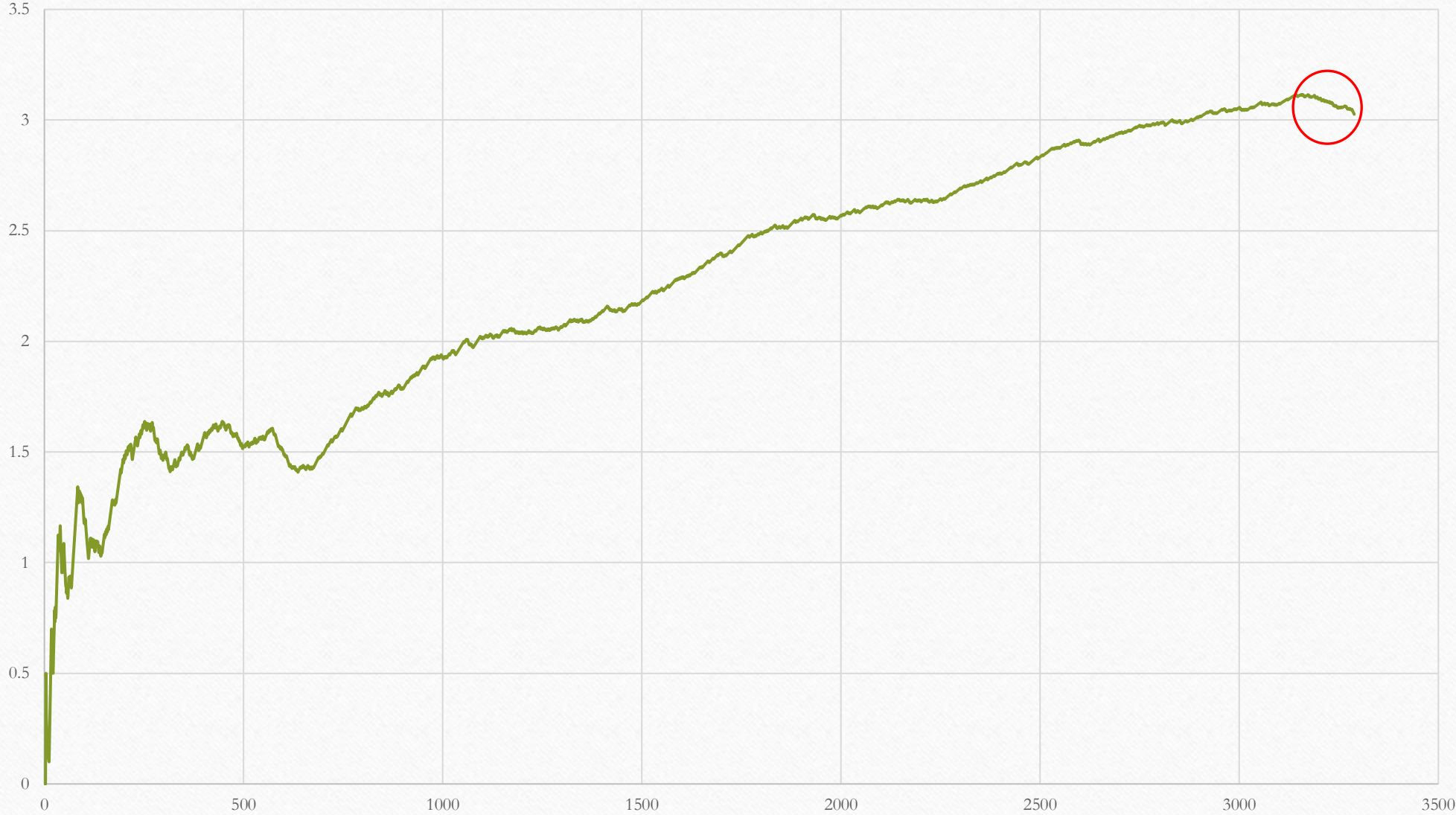
Very manipulated set of data. The dip at the end is still there

5-FLOWERY BRANCH 1 - % of Votes



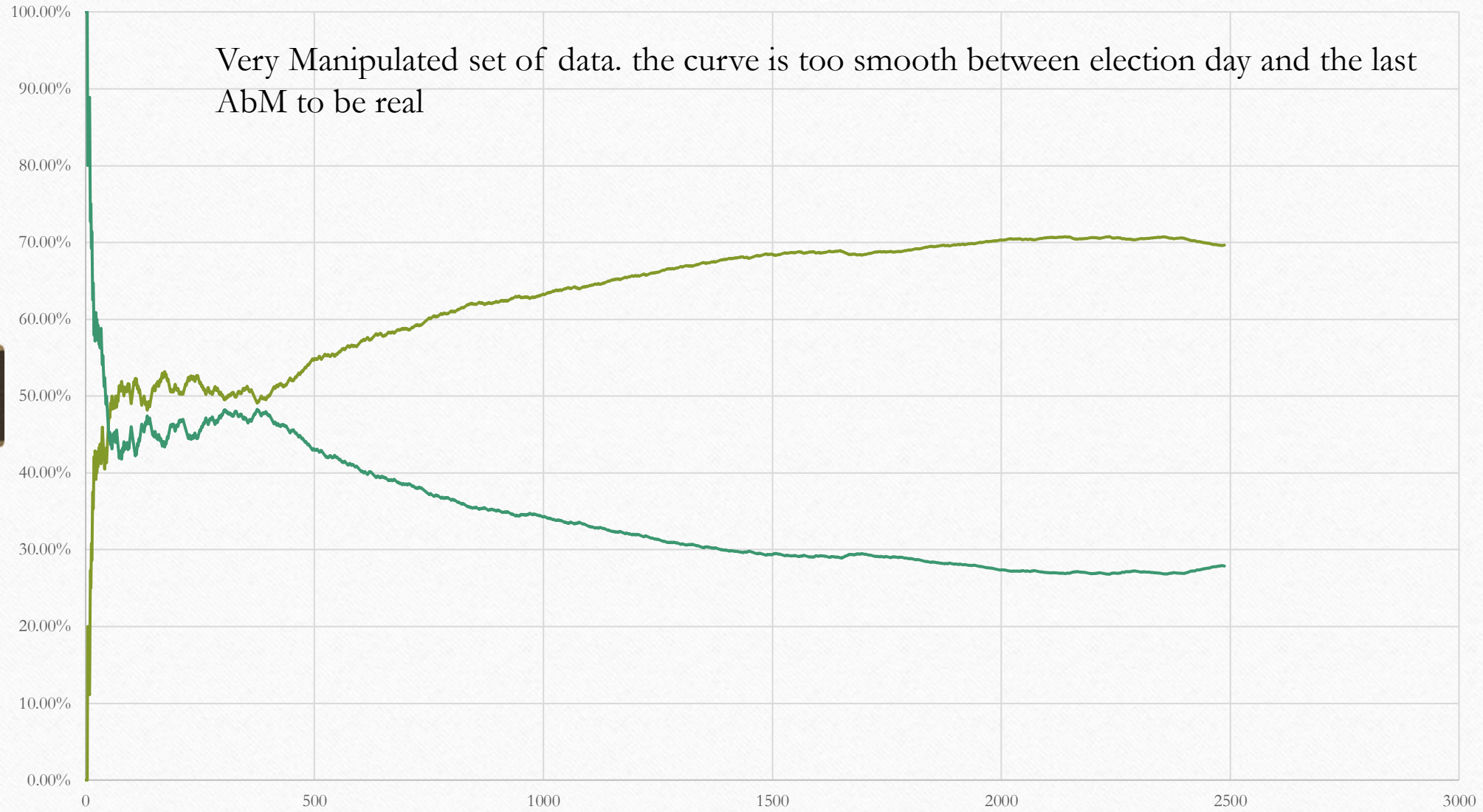
DJT
JRB

5-FLOWERY BRANCH 1 - Ratio DJT/JRB



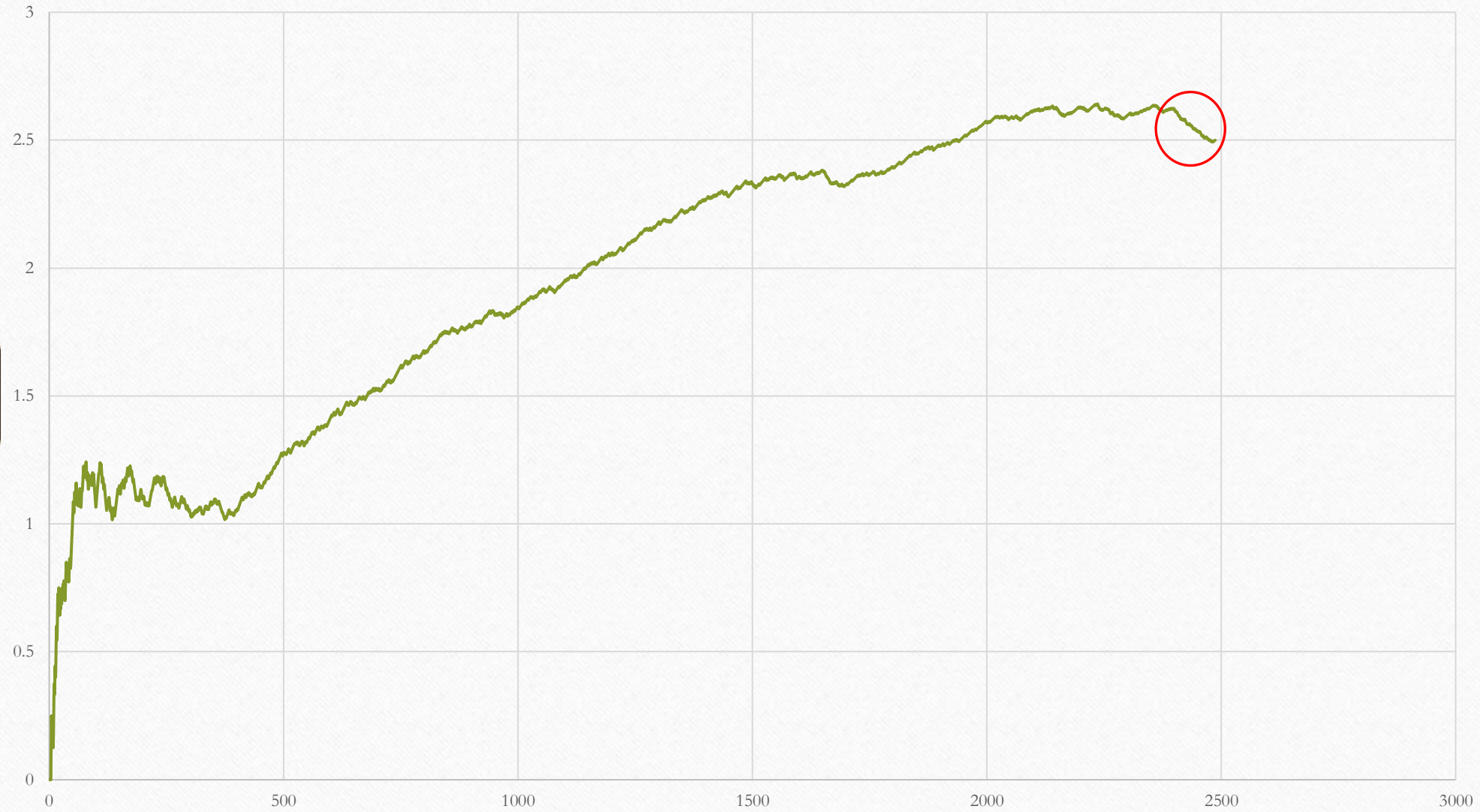
Ratio DJTvsJRB

6-FLOWERY BRANCH 2 - % Vote



DJT % Vote
JRB % Vote

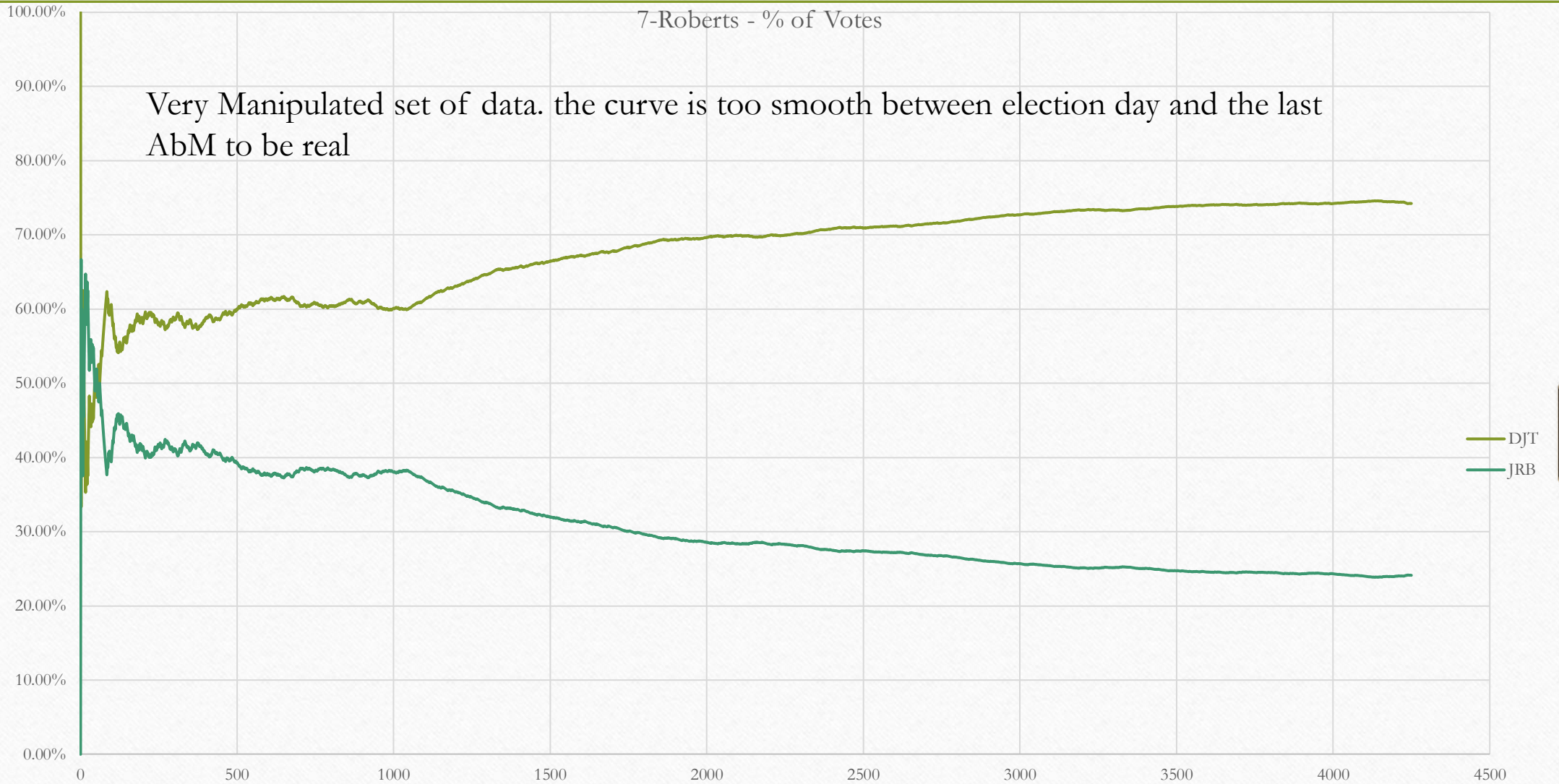
6-FLOWERY BRANCH 2 - Ratio DJT/JRB



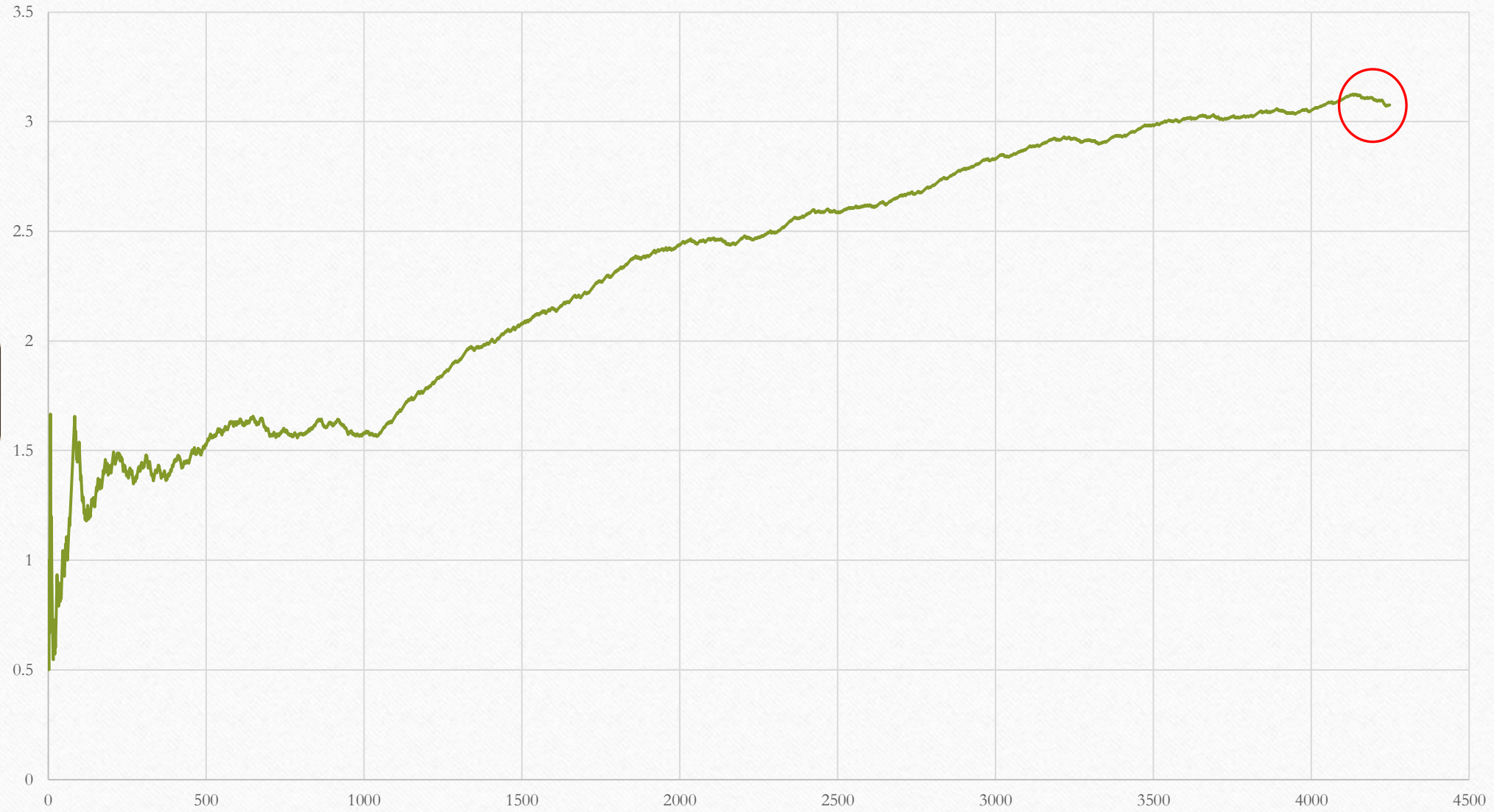
Ratio DJT/JRB

7-Roberts - % of Votes

Very Manipulated set of data. the curve is too smooth between election day and the last AbM to be real

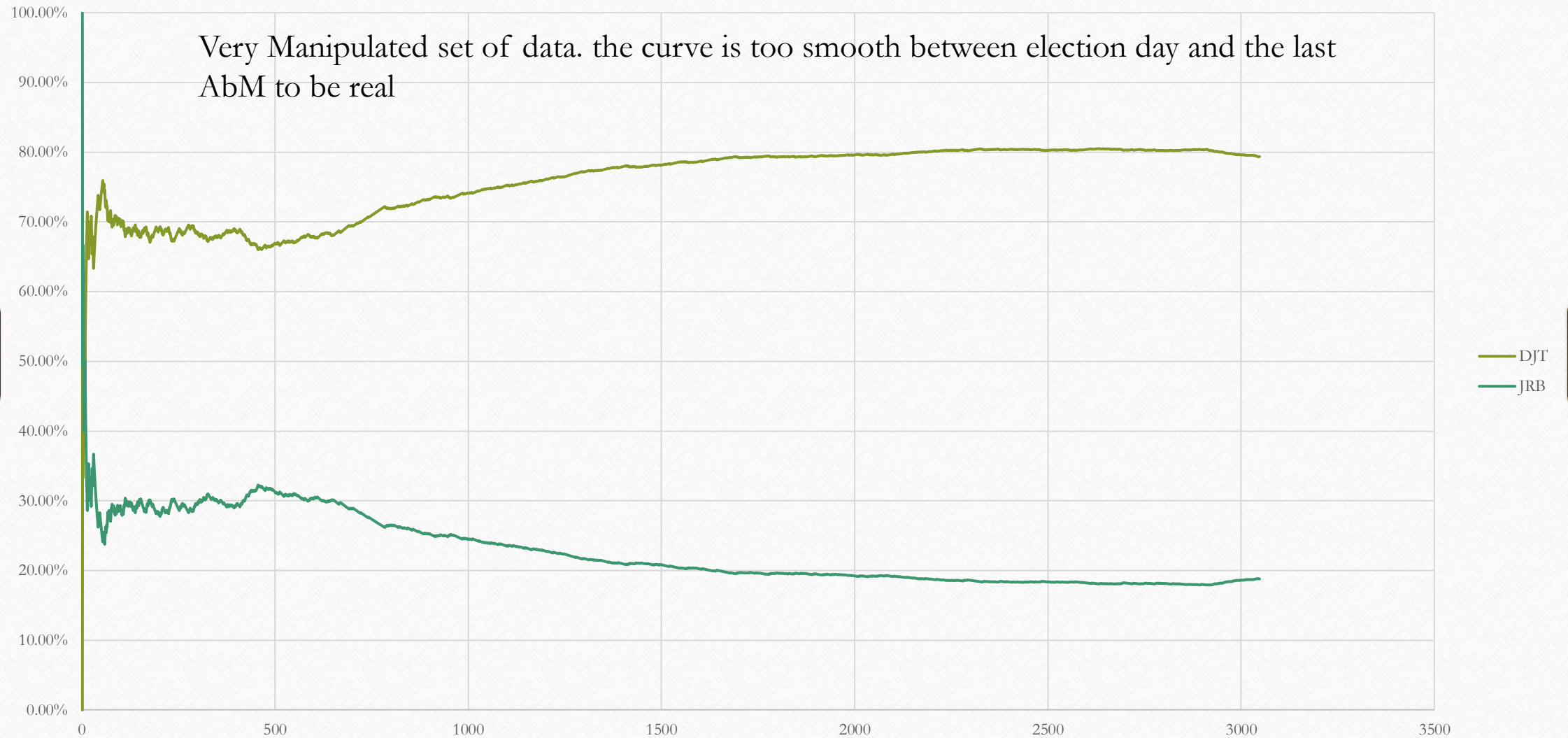


7-Roberts - Ratio DJT/JRB

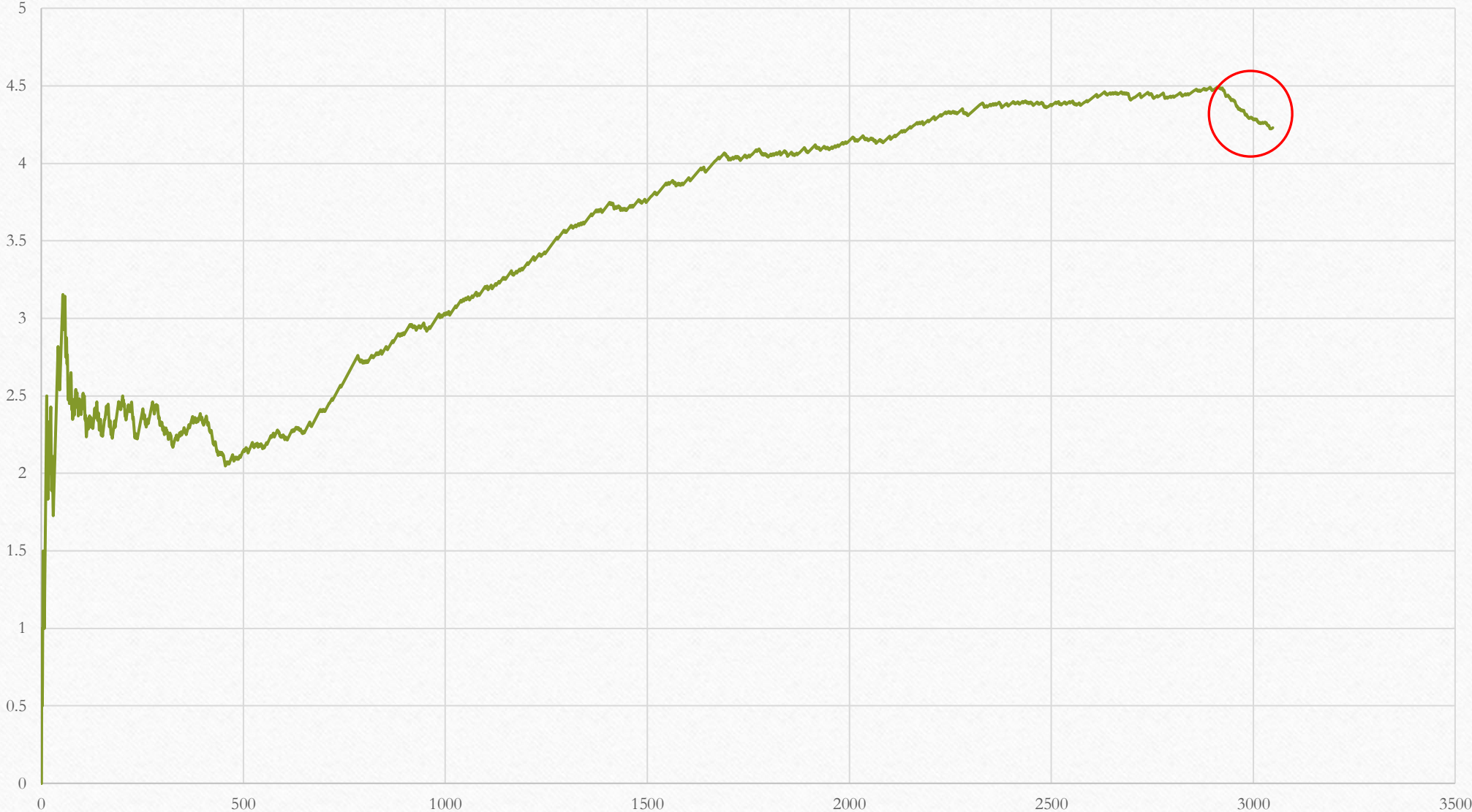


DJT/JRB

8-Morgan 1 - % of vote

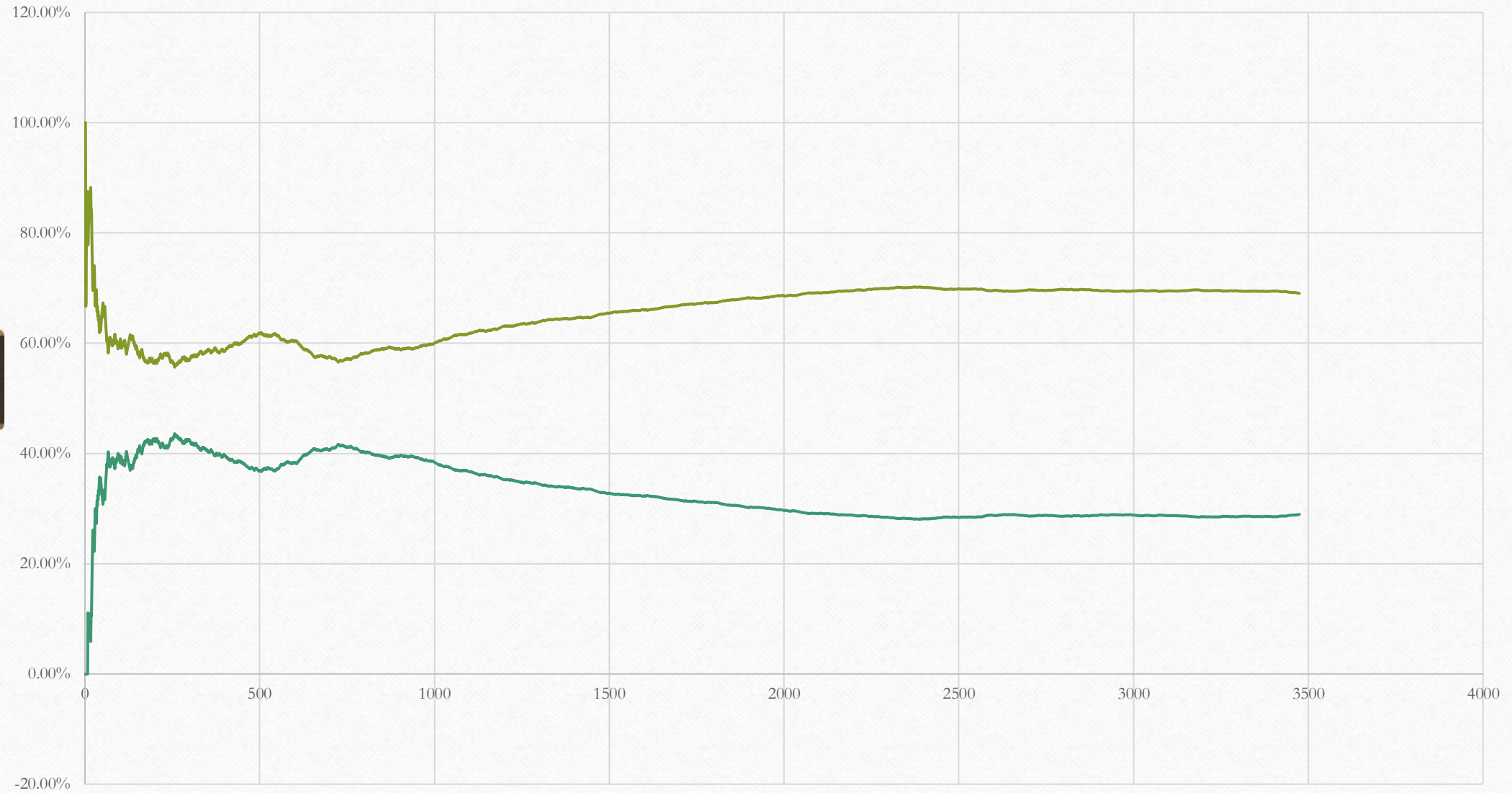


8-Morgan 1 - DJT/JRB



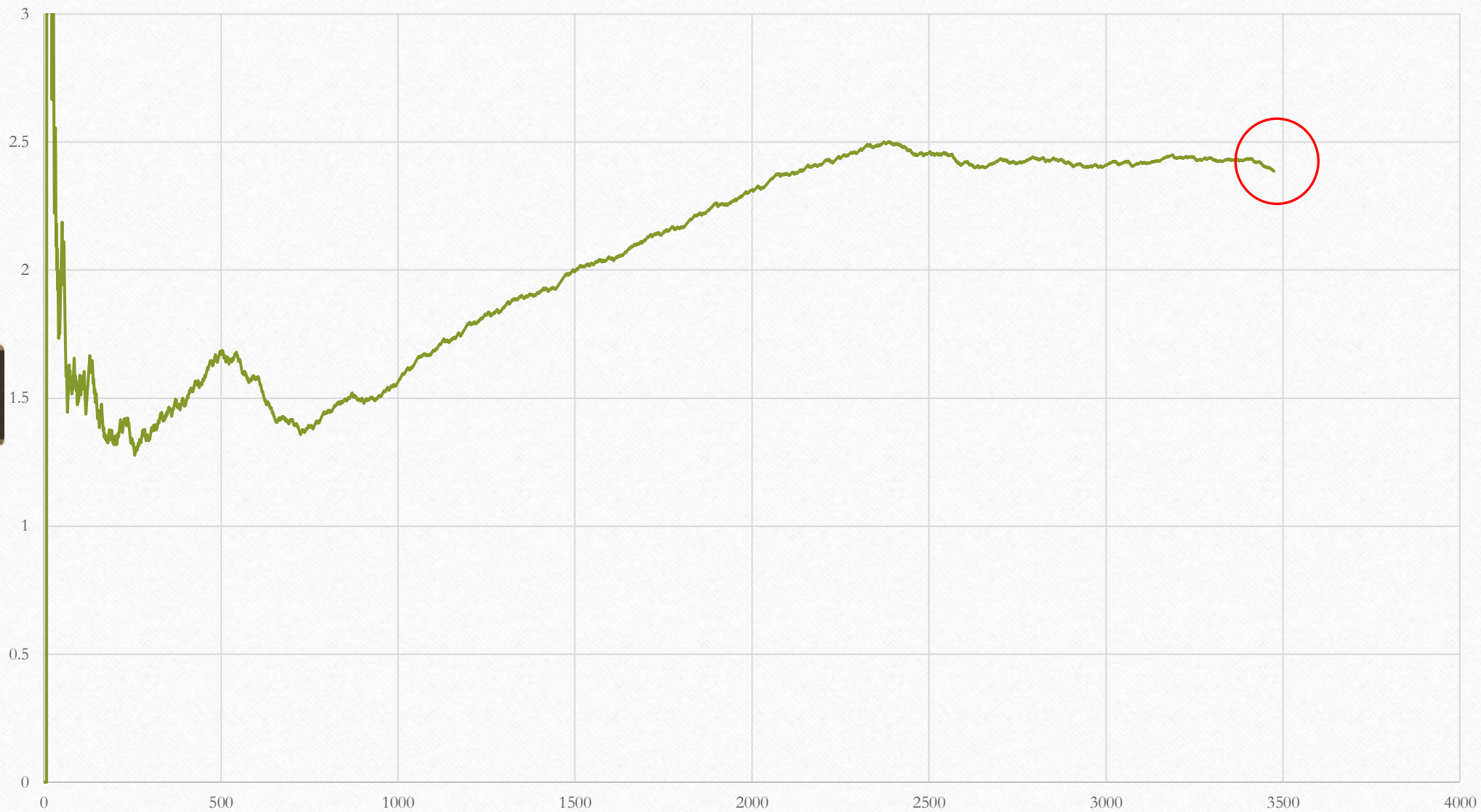
DJT/JRB

9-MORGAN 2 -% Vote



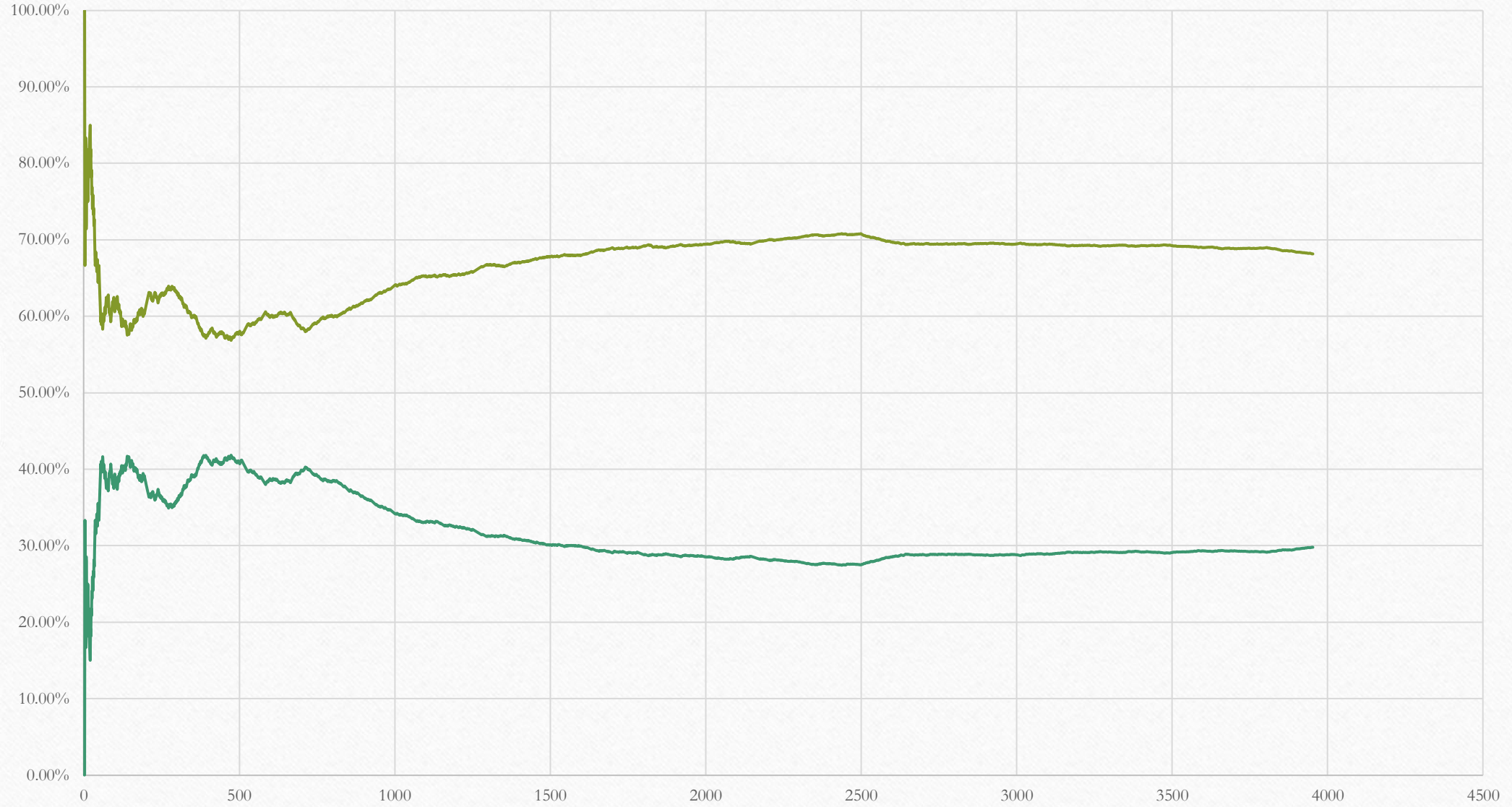
DJT
JRB

MORGAN 2 - DJT/JRB



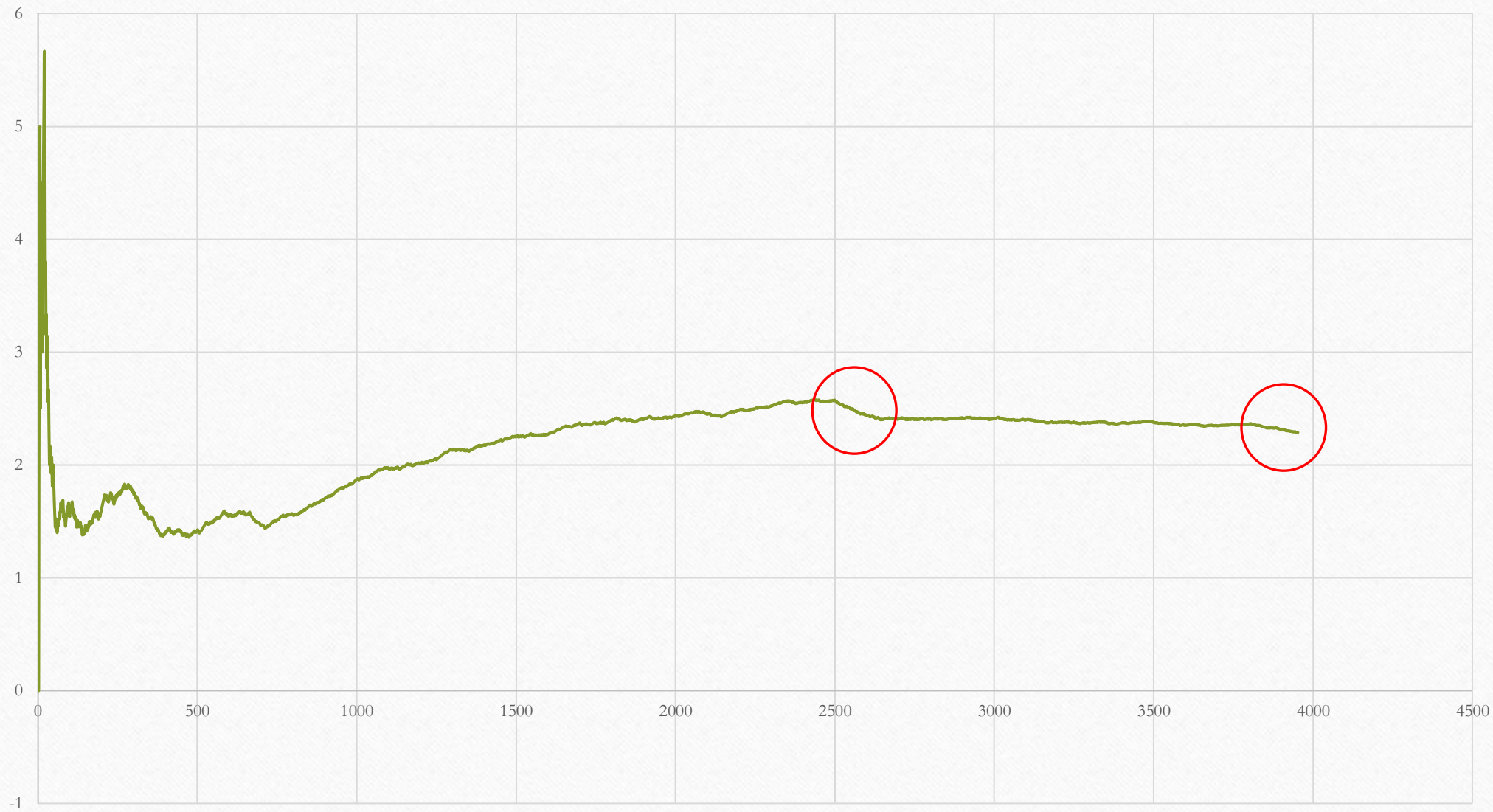
DJT/JRB

10-Candler - %vote



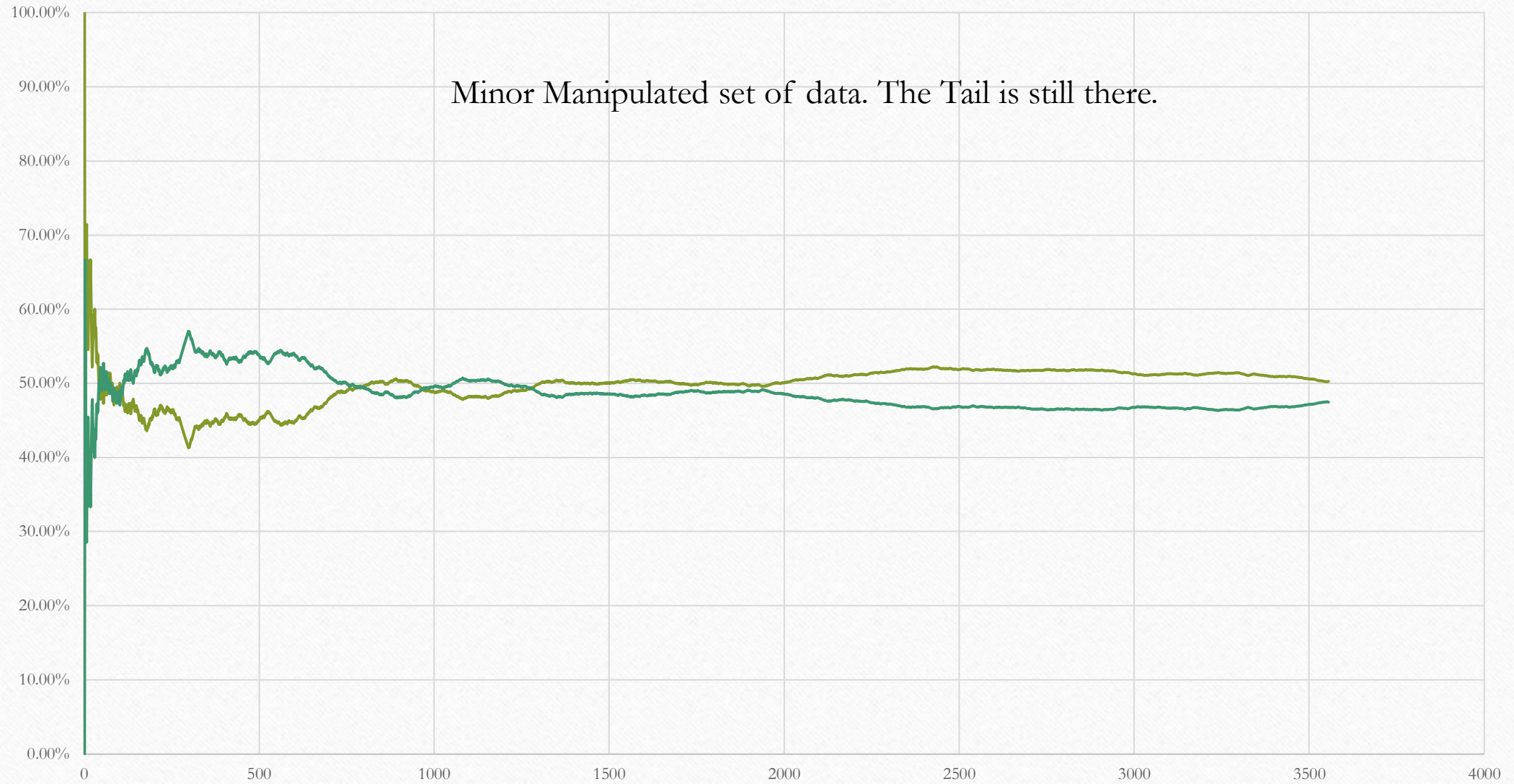
DJT
JRB

10- Candler DJT/JRB



DJT/JRB

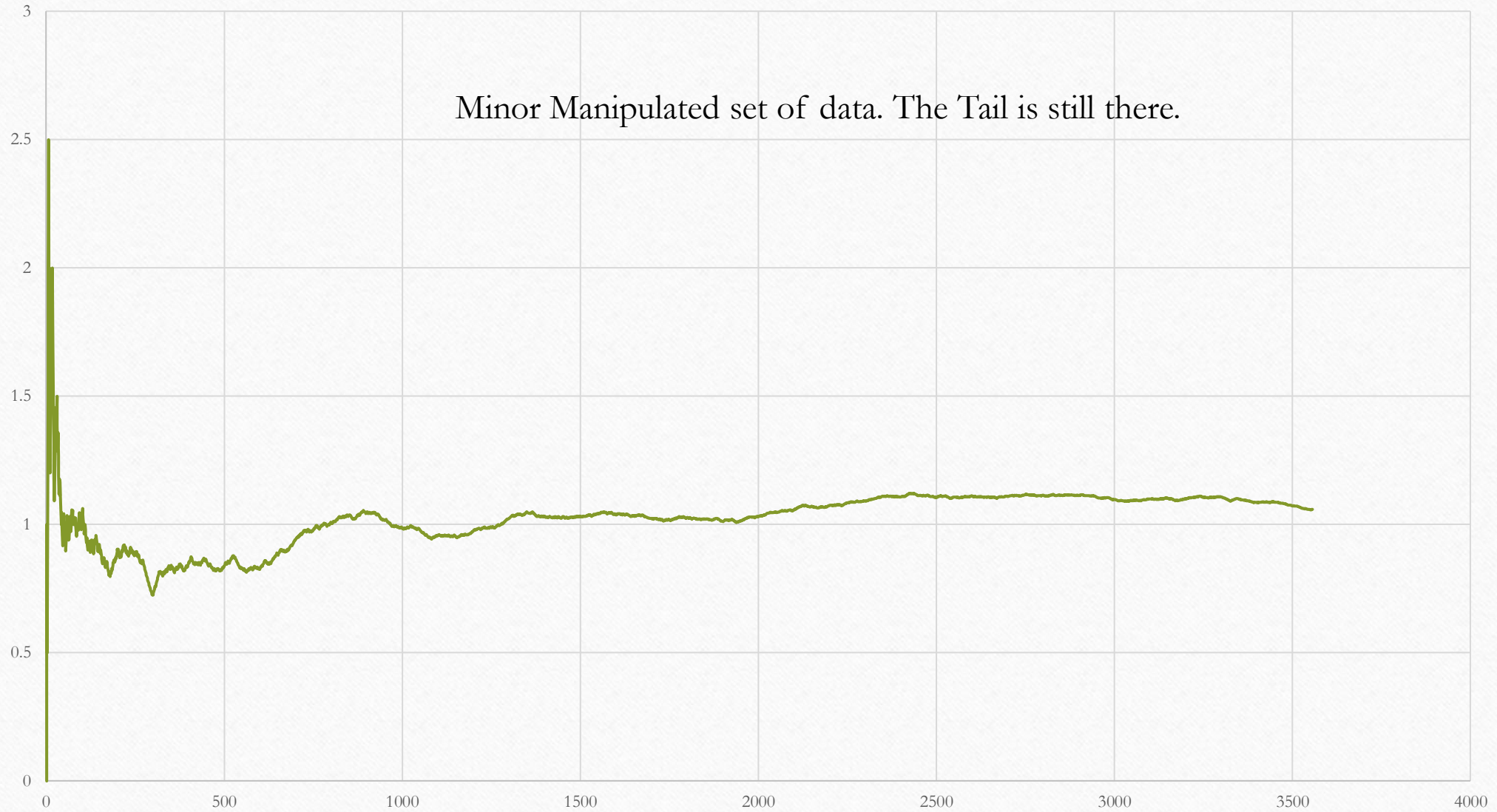
11-TADMORE - %Vote



DJT
JRB

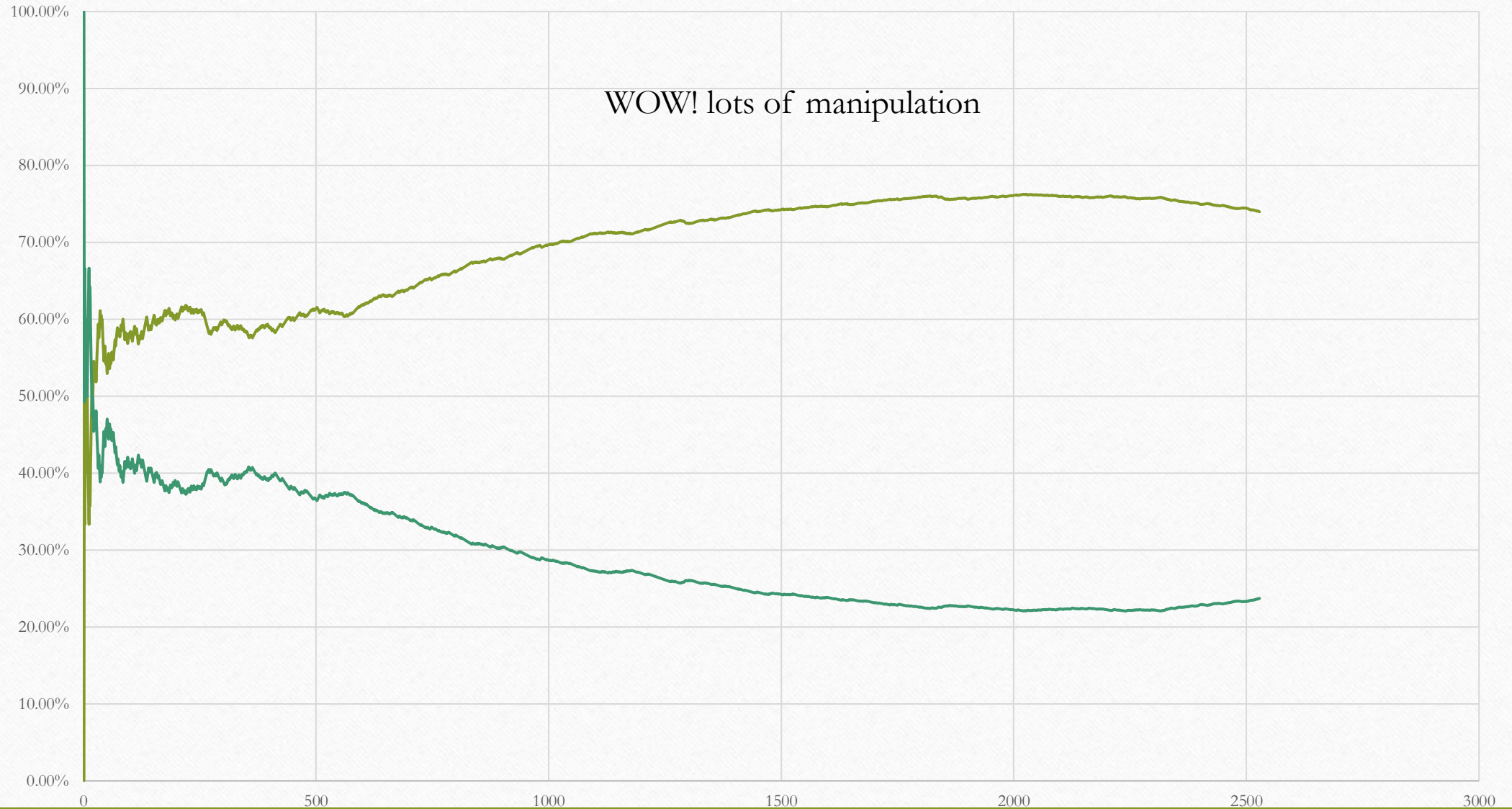
11-TADMORE - DJT/JRB

Minor Manipulated set of data. The Tail is still there.



DJT/JRB

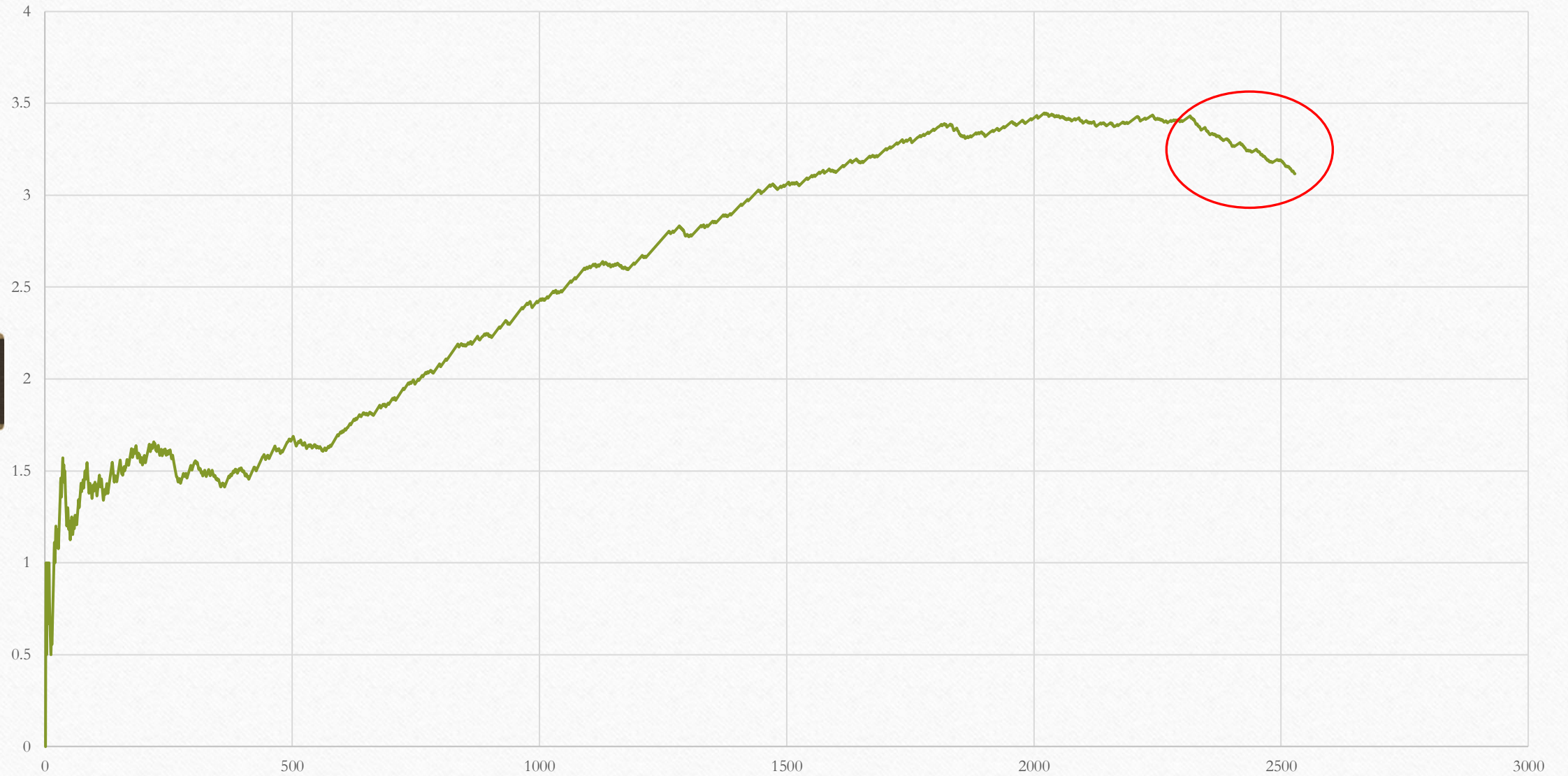
12- GLADE - %Vote



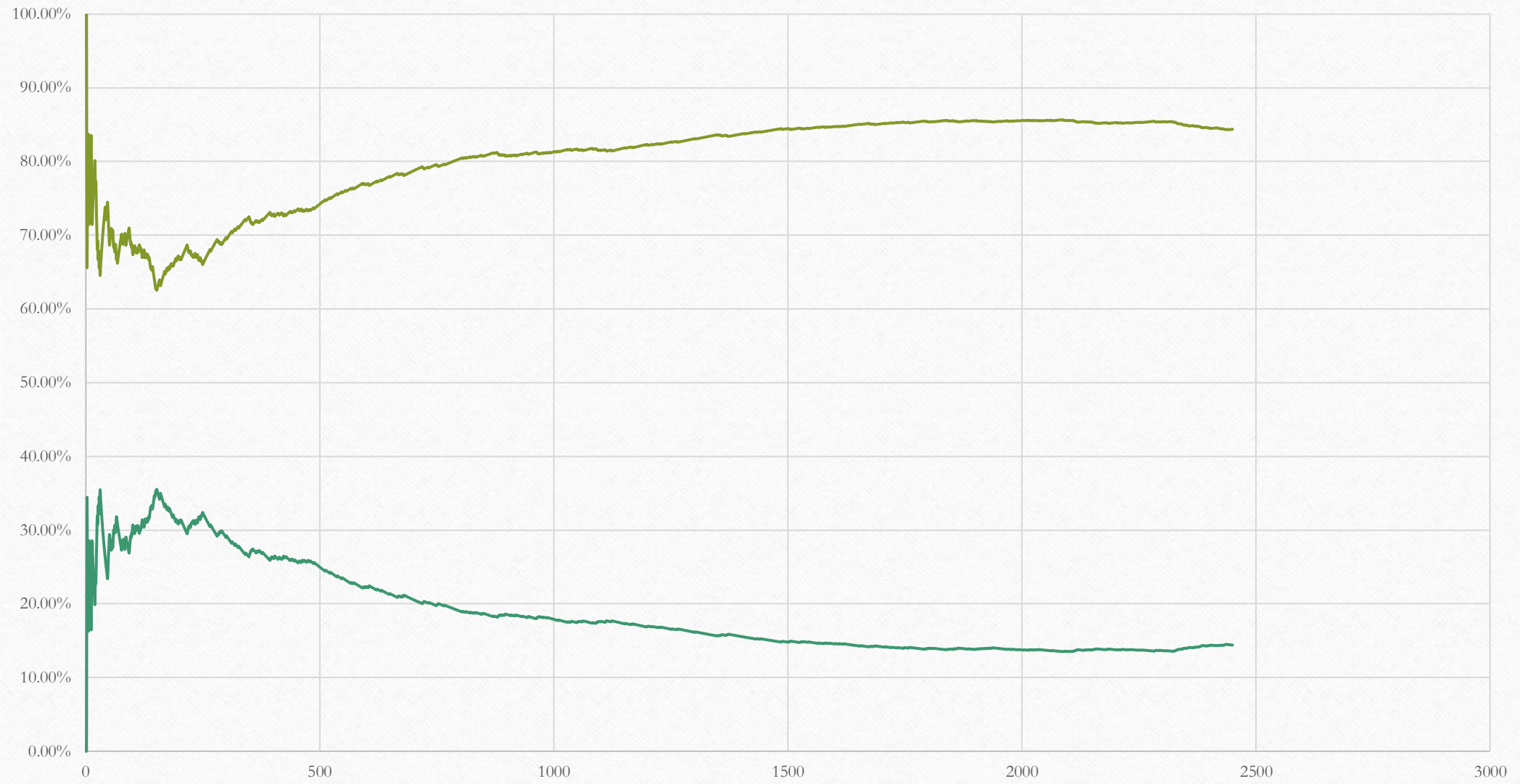
WOW! lots of manipulation

DJT
JRB

12-GLADE - Ratio DJT/JRB

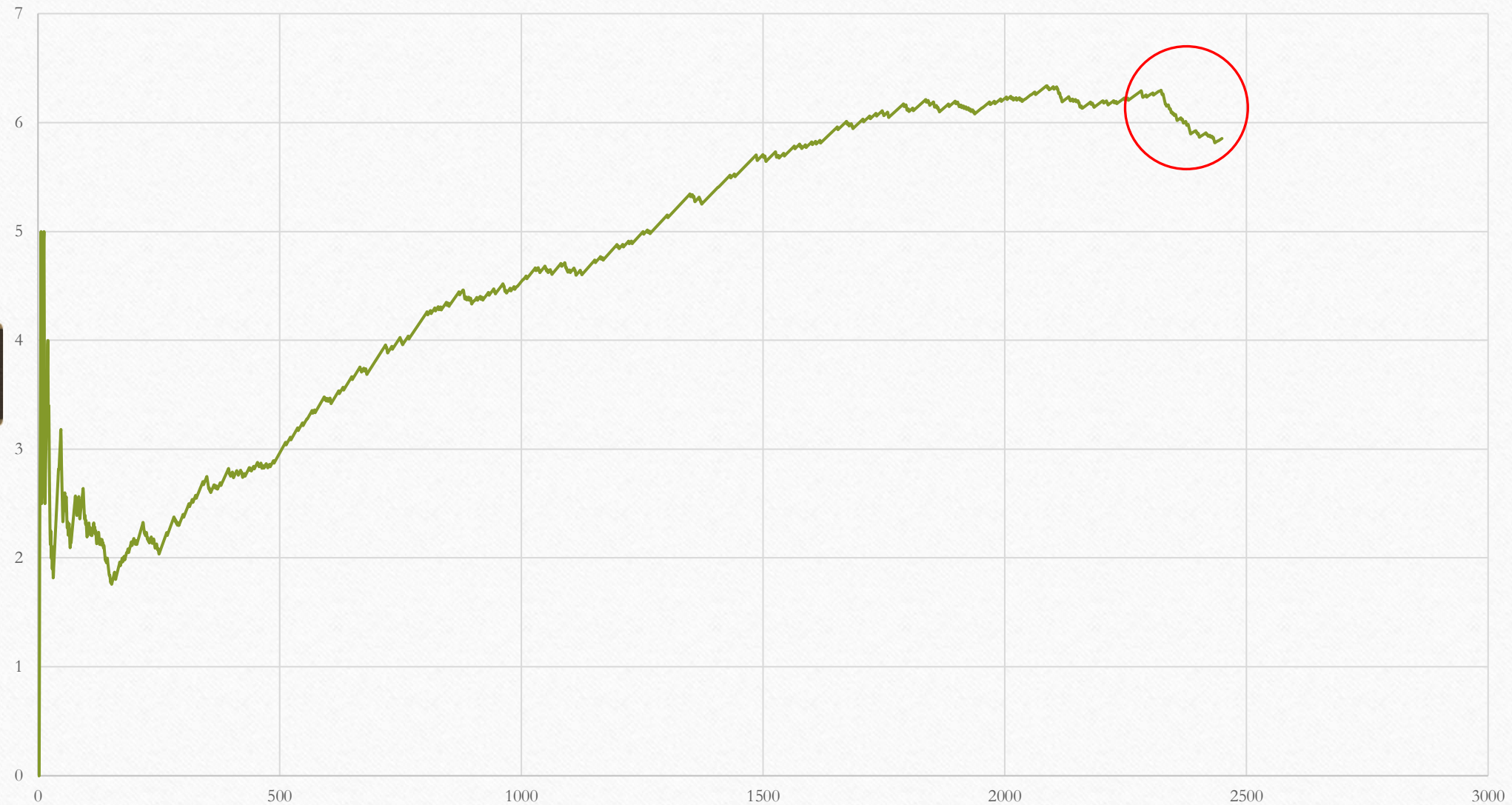


13-LULA - %Vote



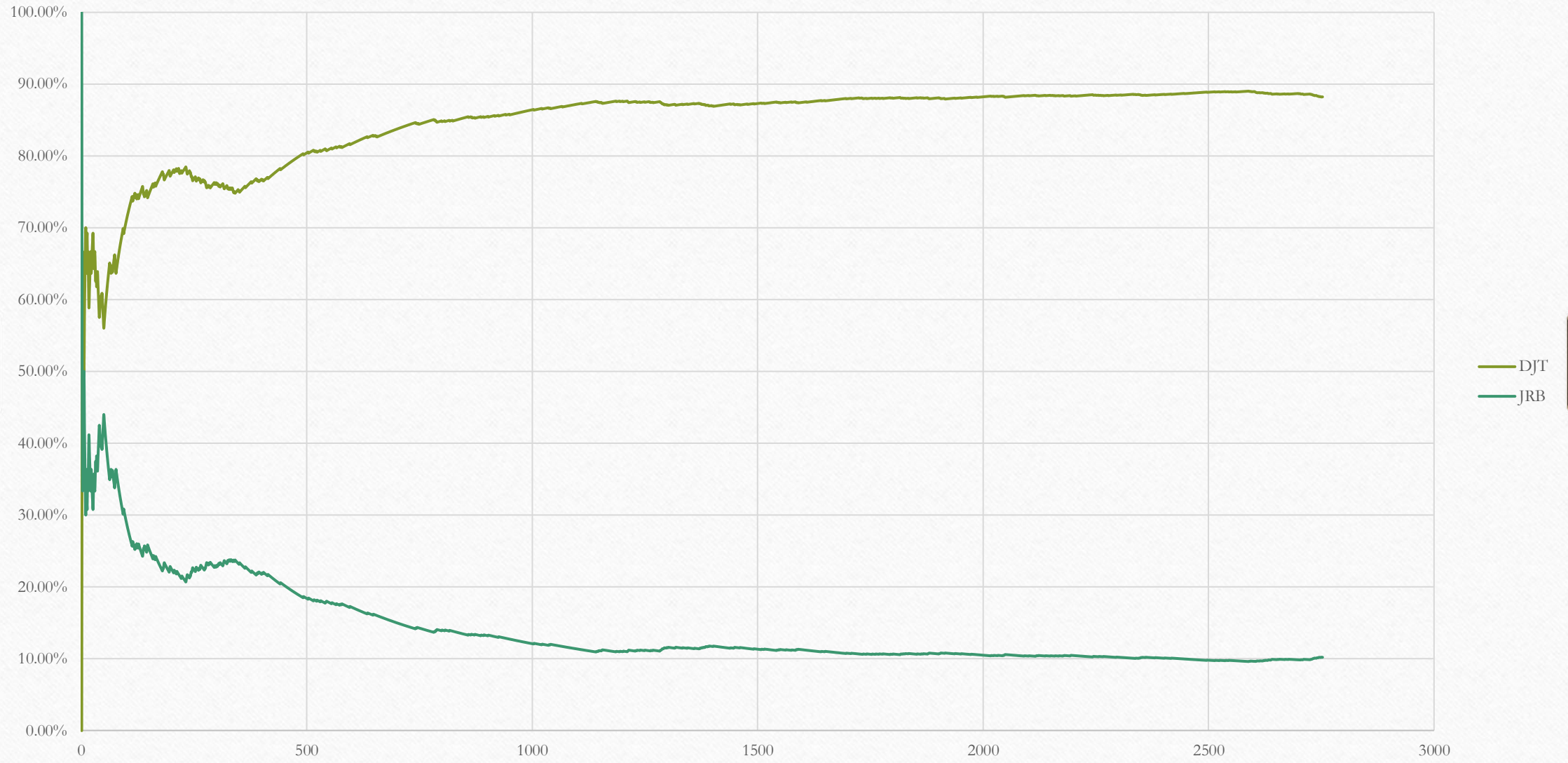
DJT
JRB

13-LULA - Ratio DJT/JRB

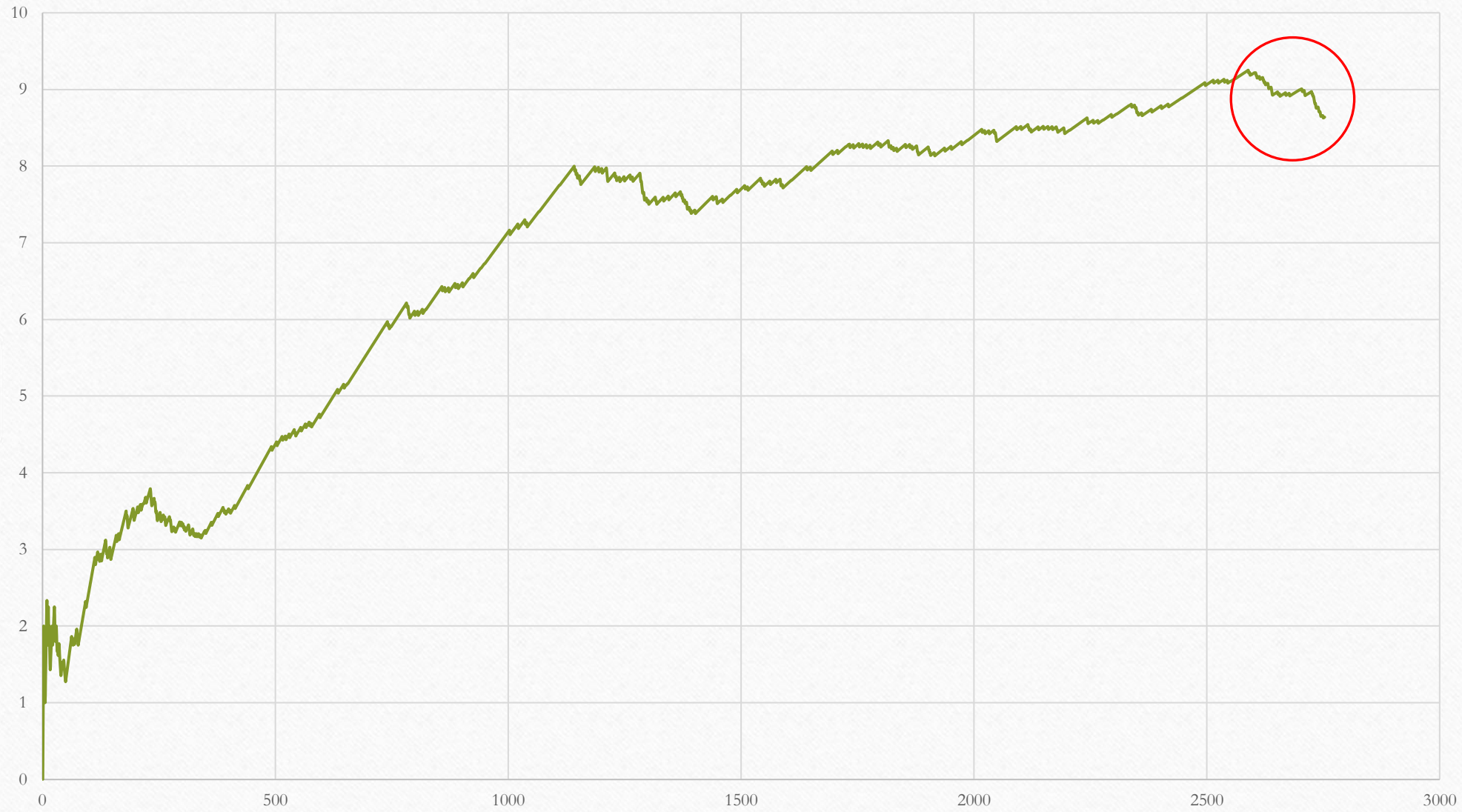


— DJT/JRB

14-CLERMONT - %Vote

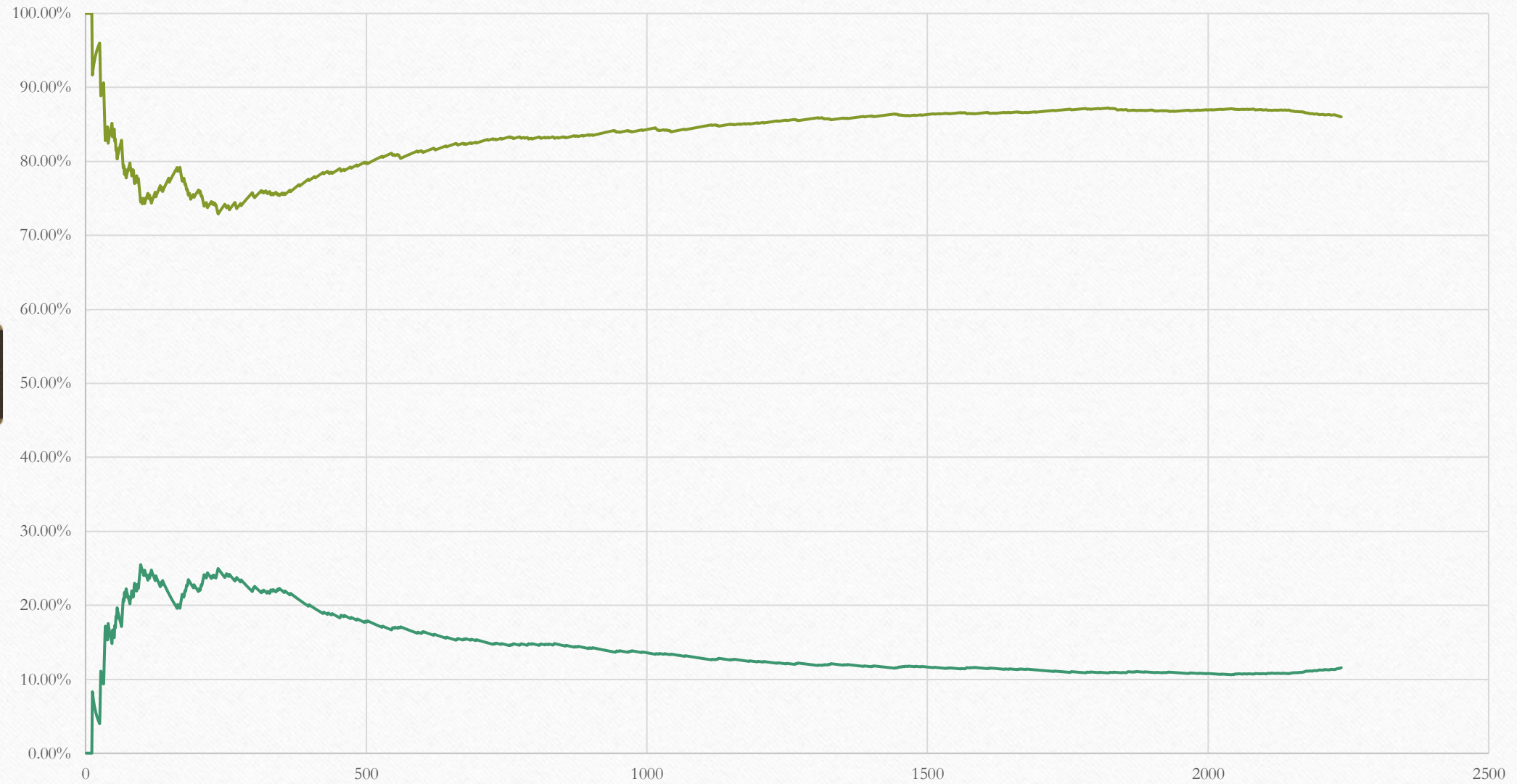


14-CLERMONT - Ratio DJT/JRB



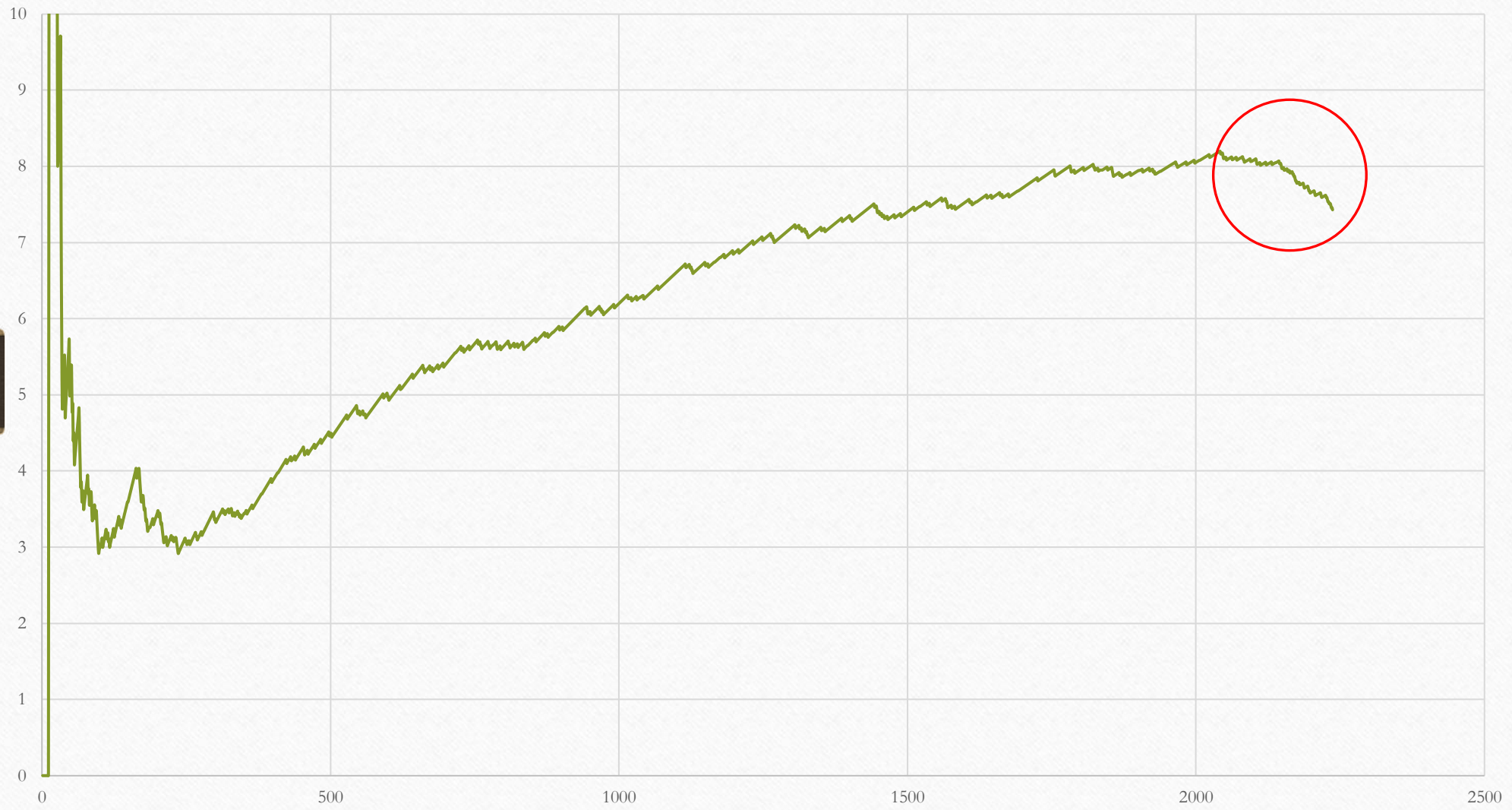
Ratio DJT/JRB

15-QUILLIANS - % of Vote



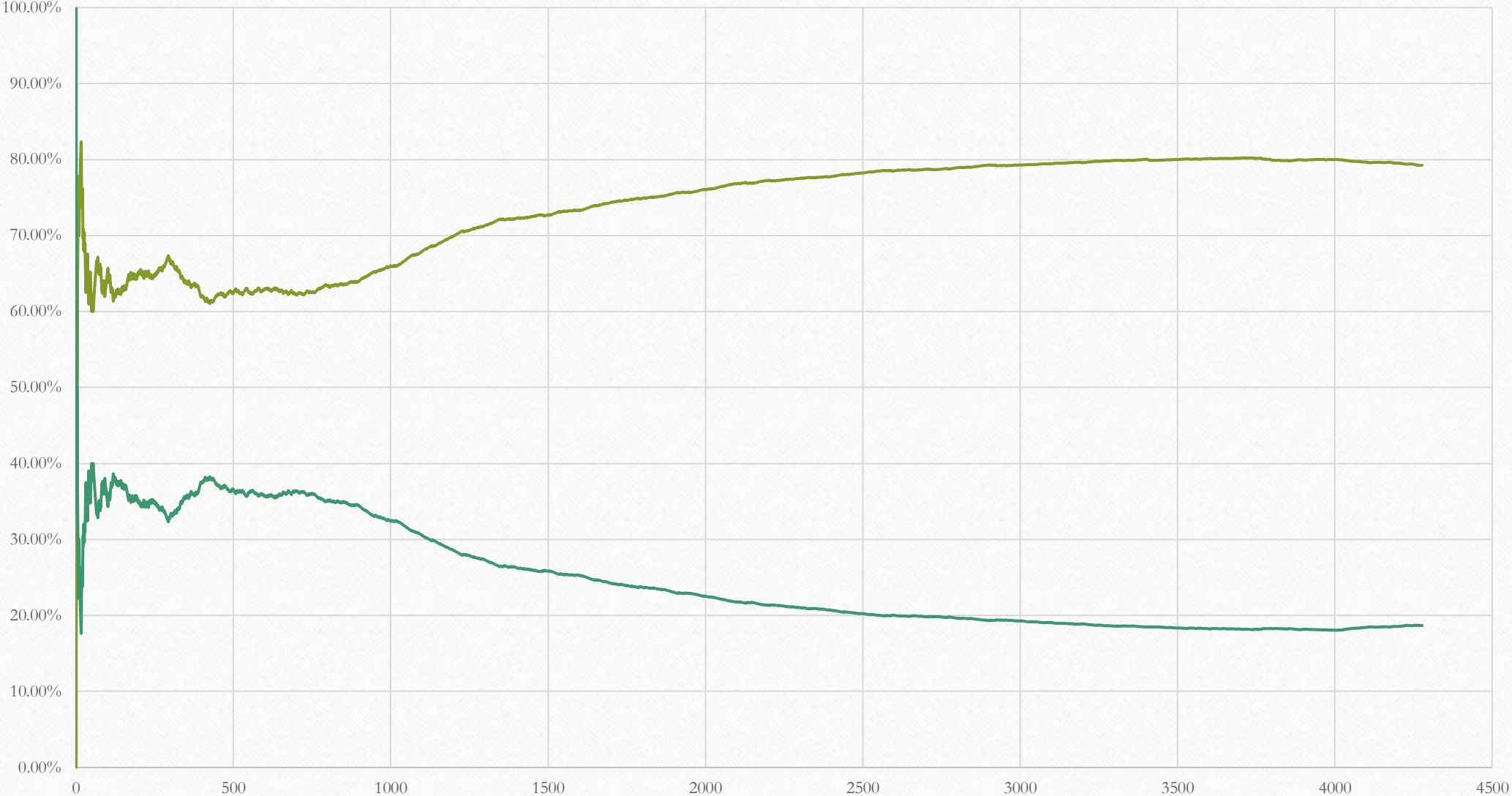
DJT
JRB

15-QUILLIANS - Ratio DJT/JRB



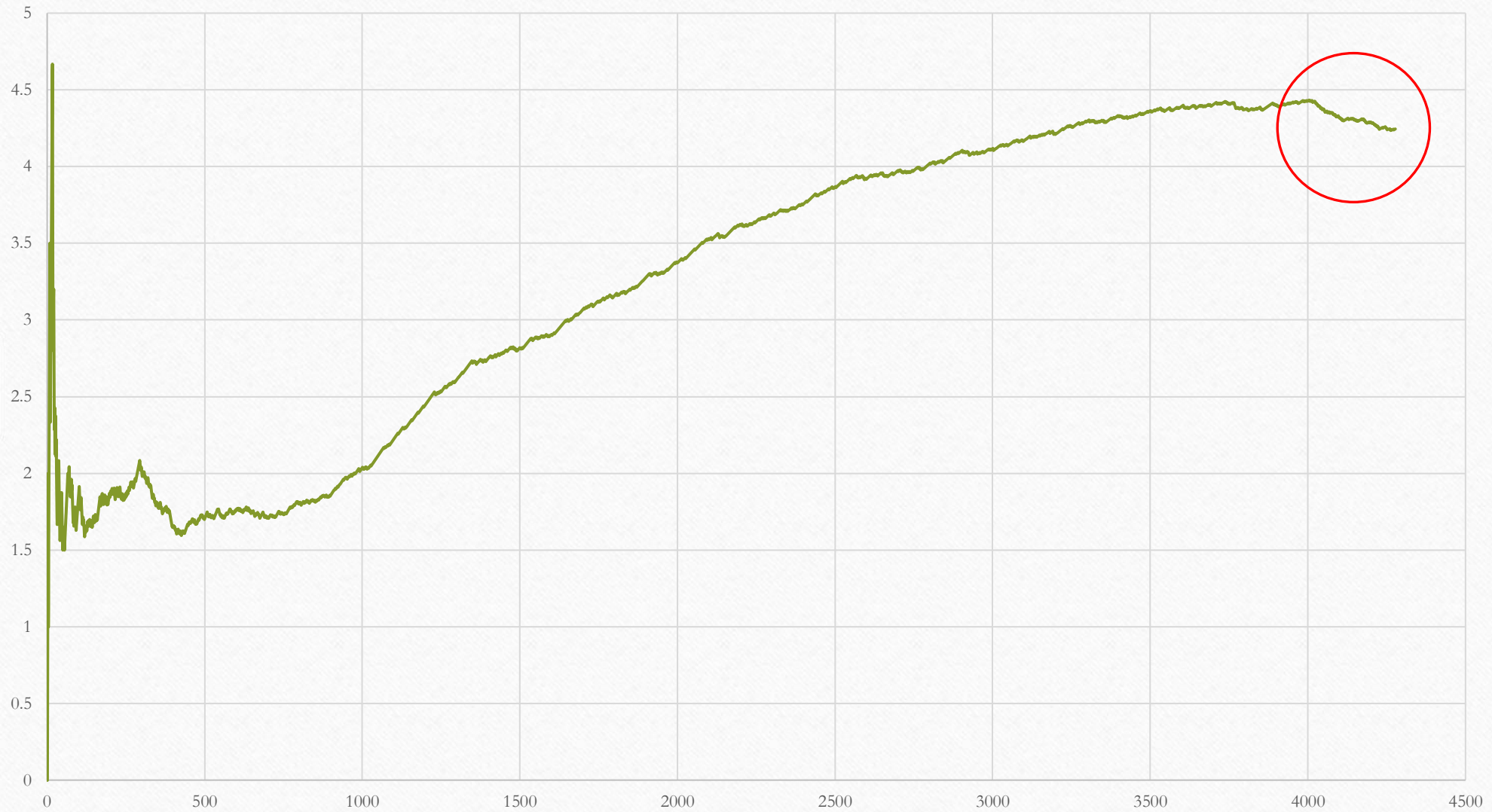
Ratio DJT/JRB

16-BARK CAMP - % of Vote



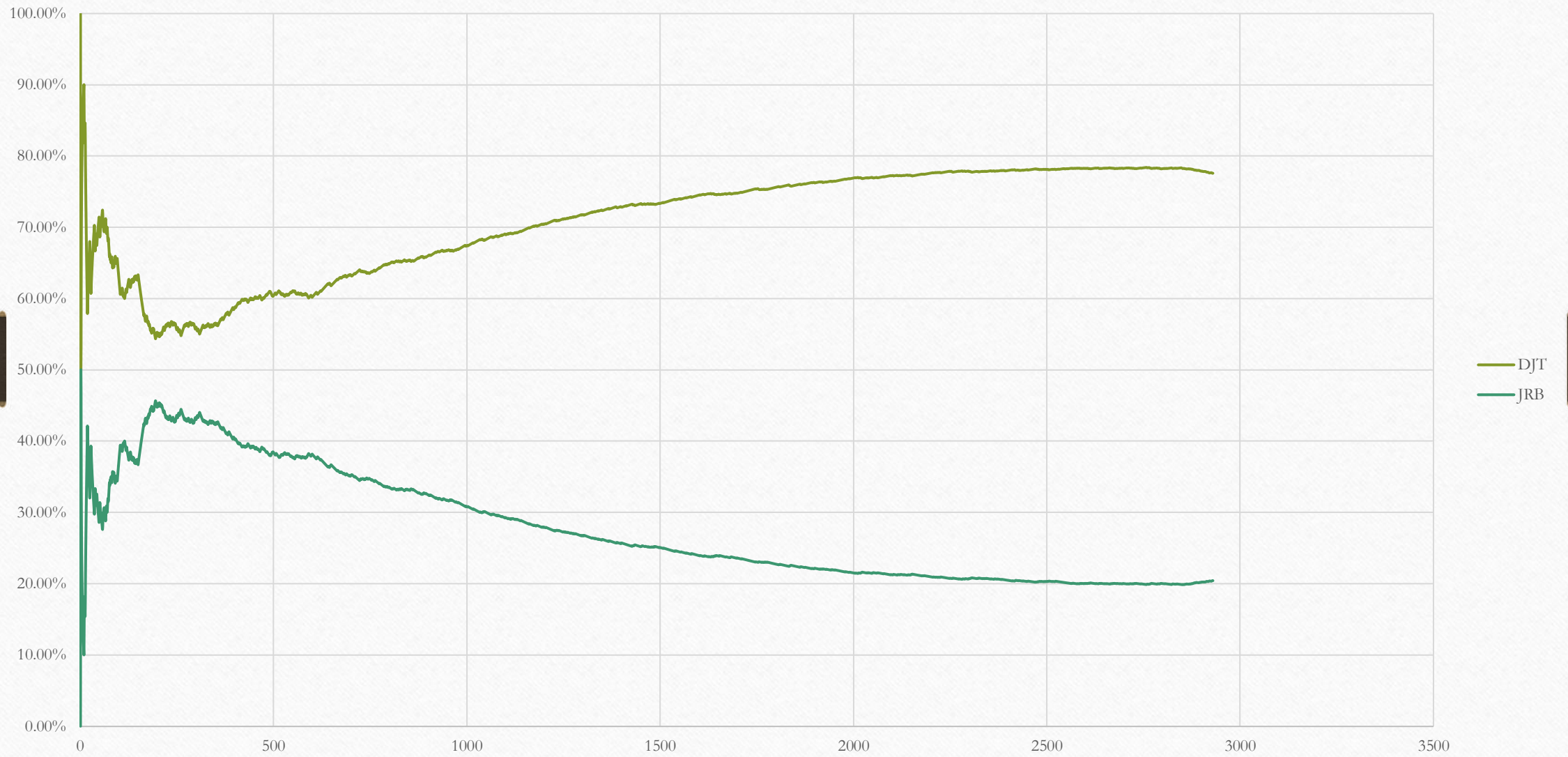
DJT
JRB

16-BARK CAMP - Ratio DJT/JRB

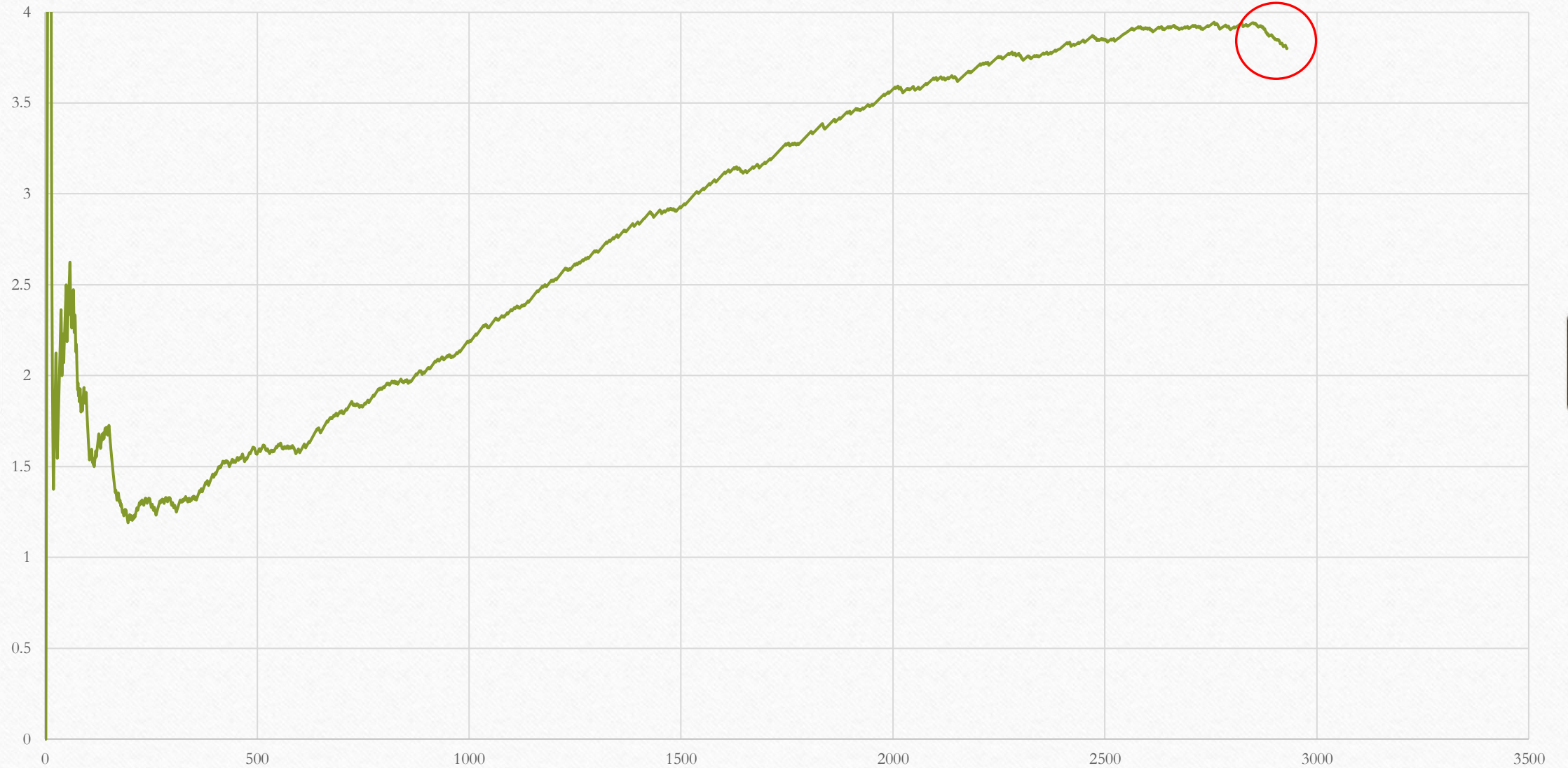


Ratio DJT/JRB

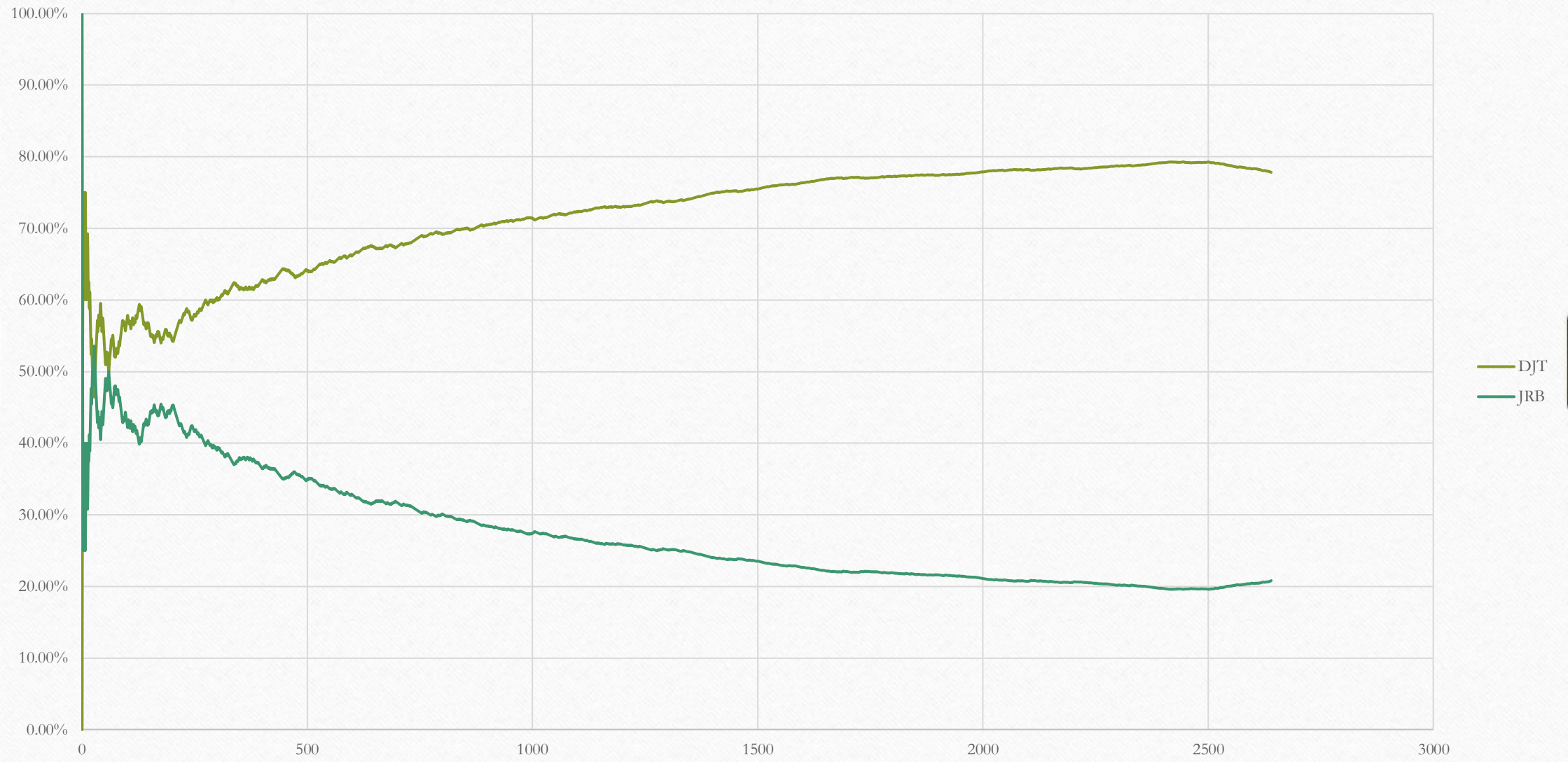
17-Chestatee % of the Vote



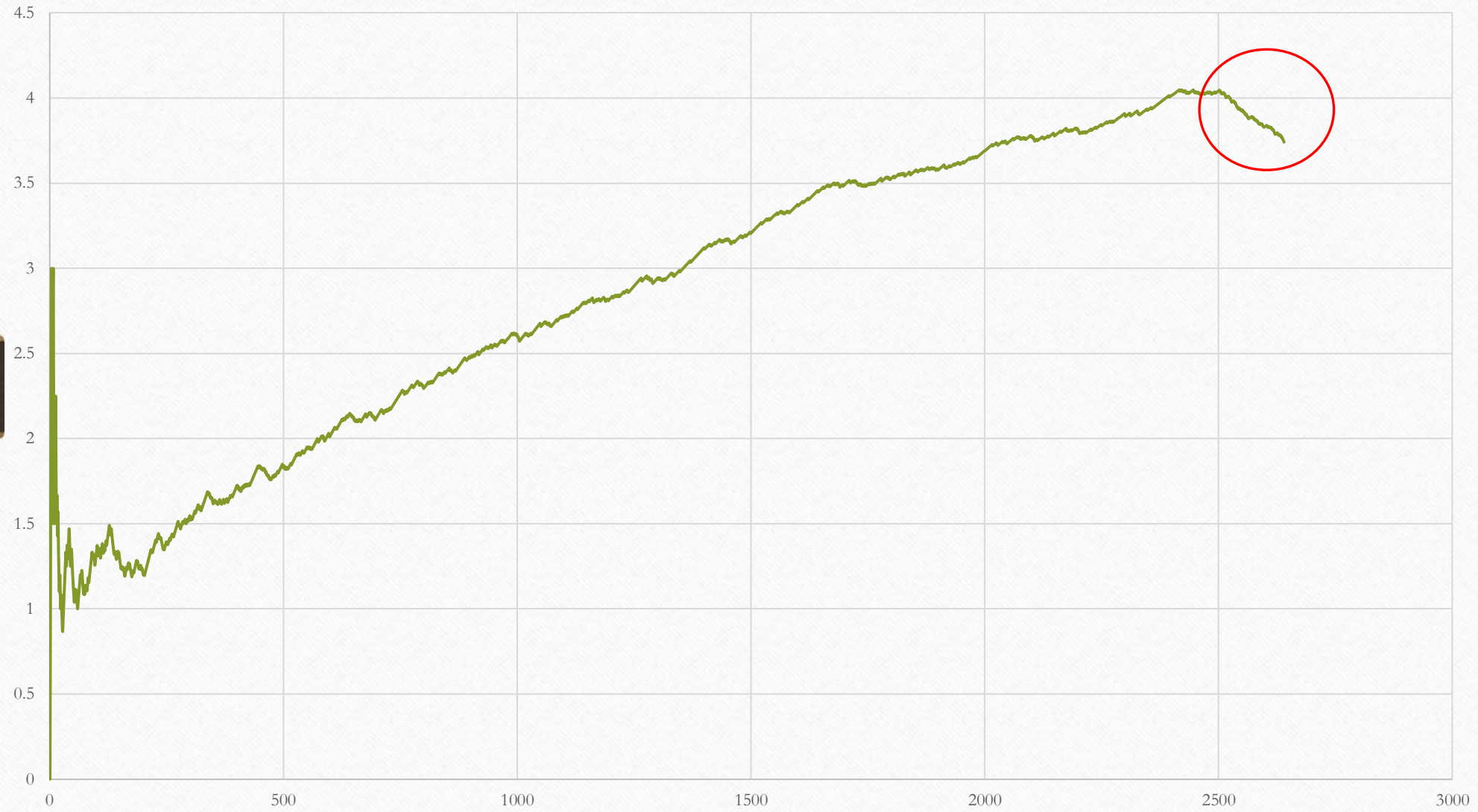
17-Chestatee Ratio DJT/JRB



18-FORK - % of Vote

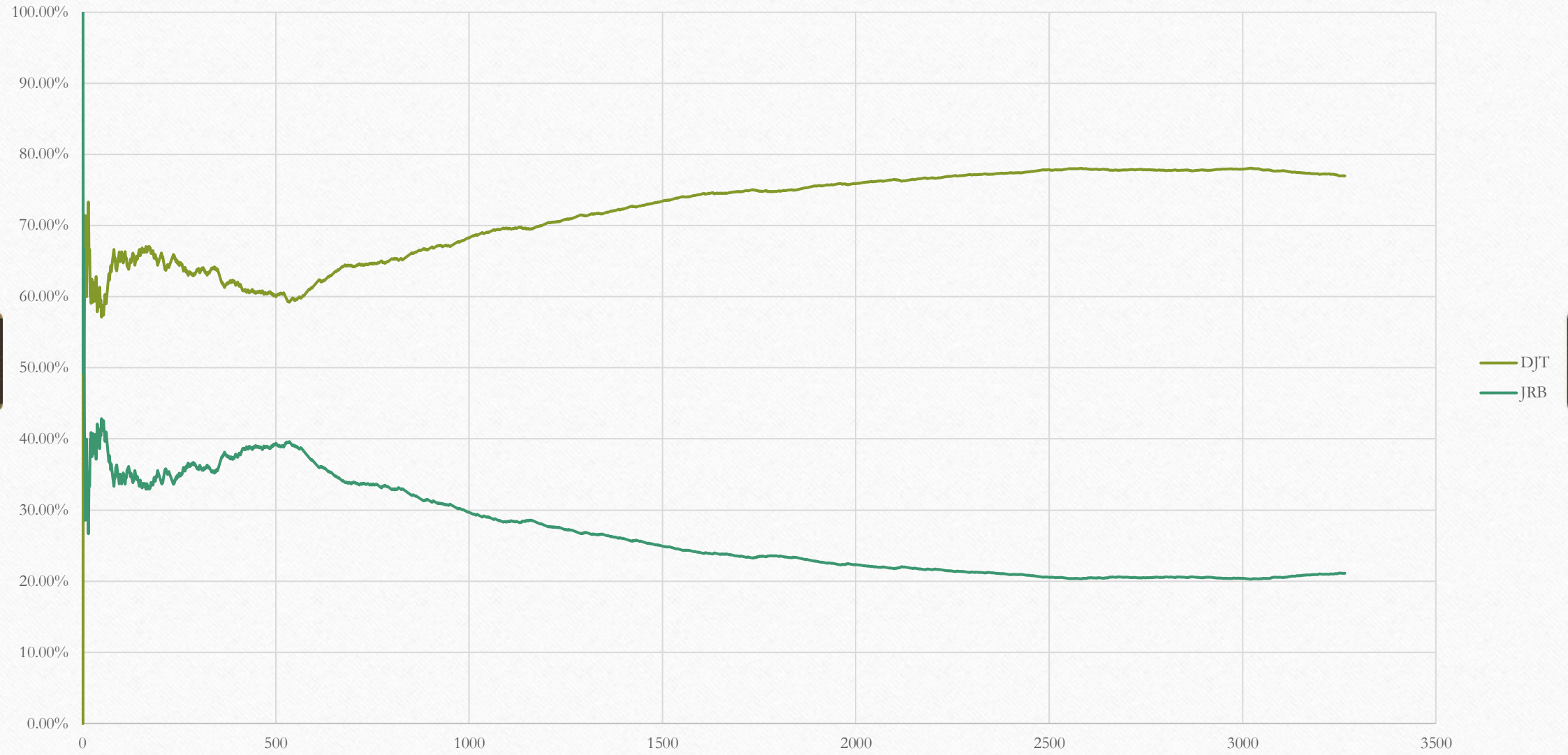


18-FORK - Ratio DJT/JRB

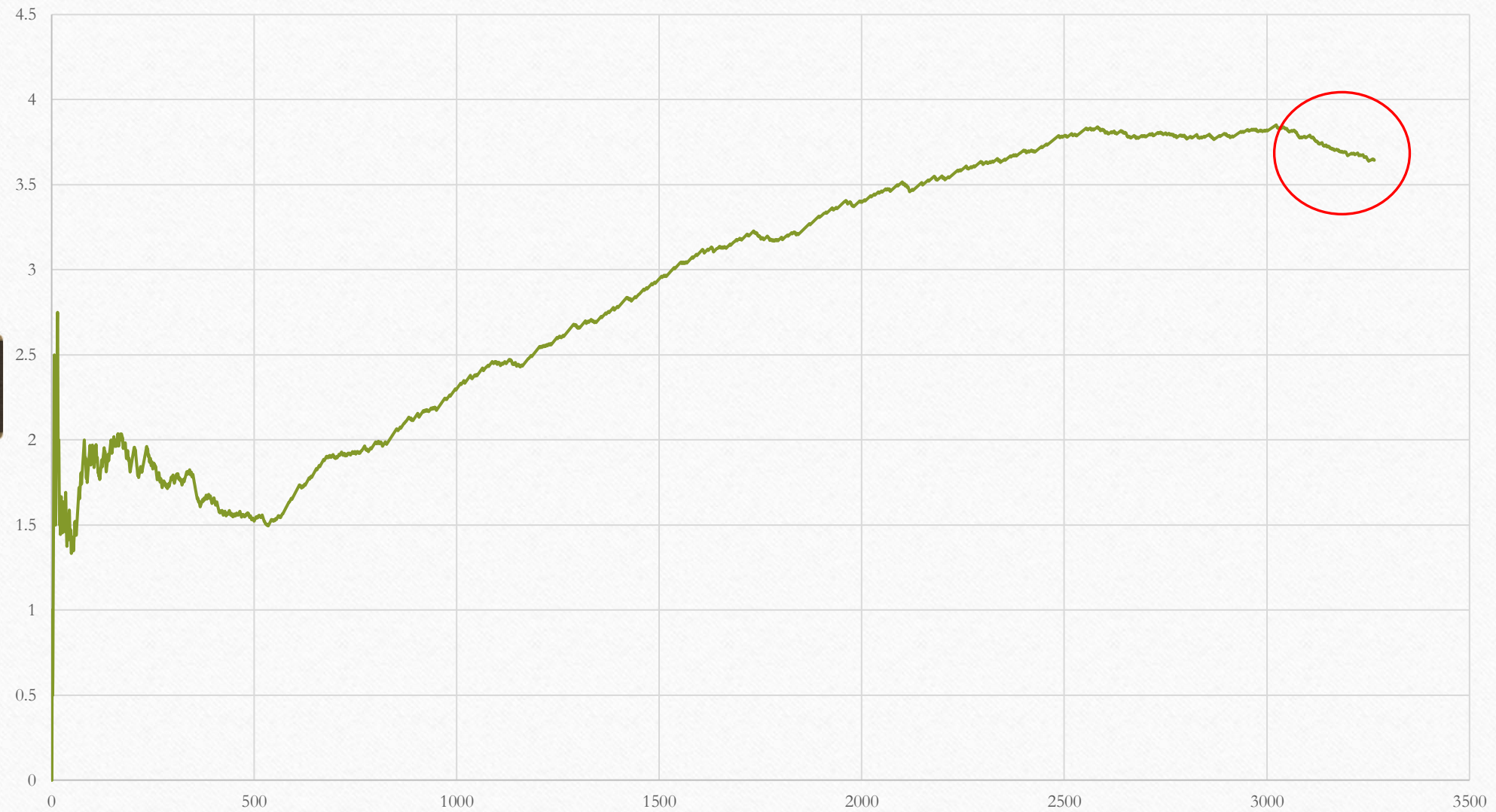


Ratio DJT/JRB

19-WELCHEL - % of Vote

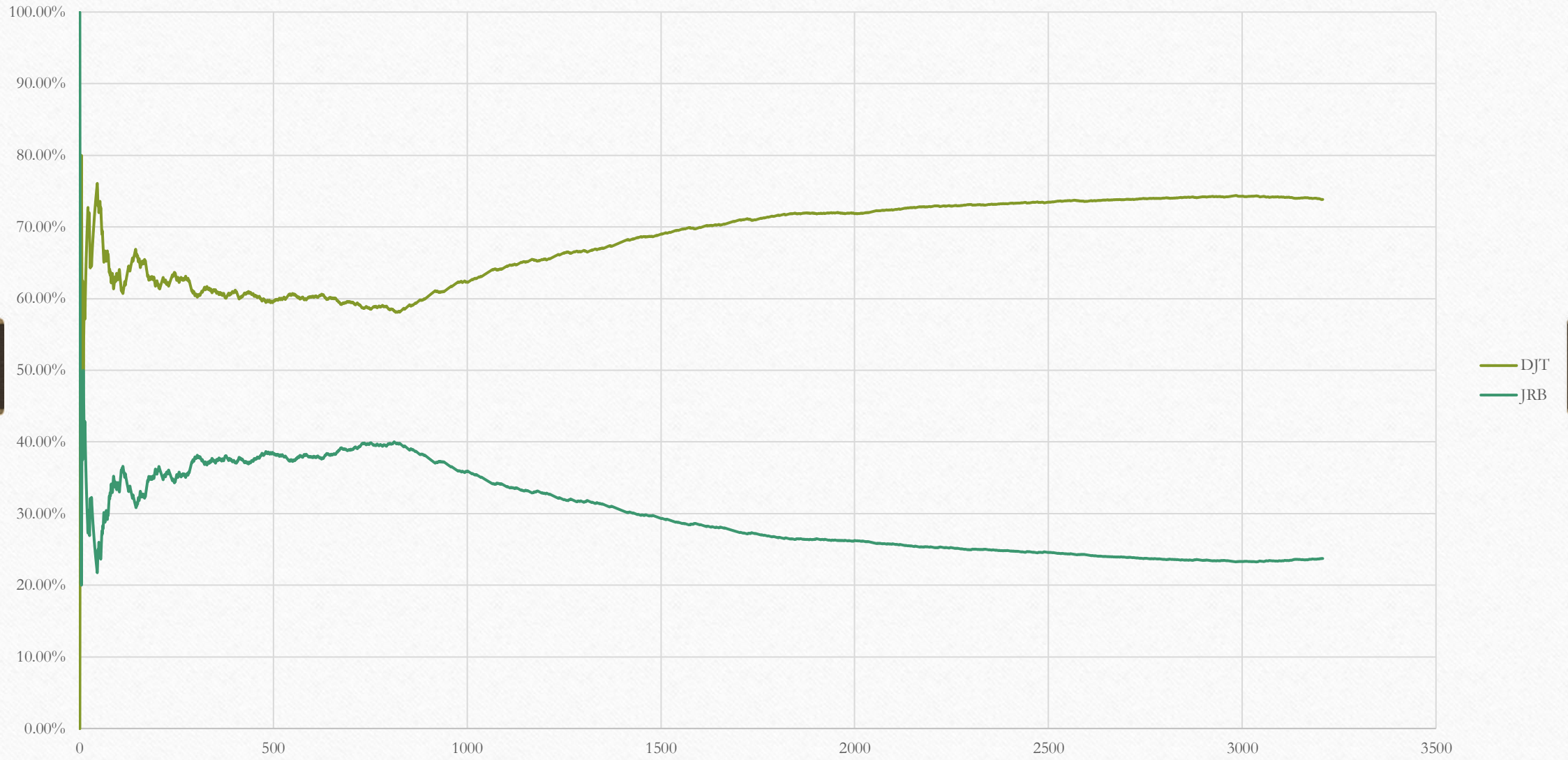


19-WELCHEL - Ratio DJT/JRB

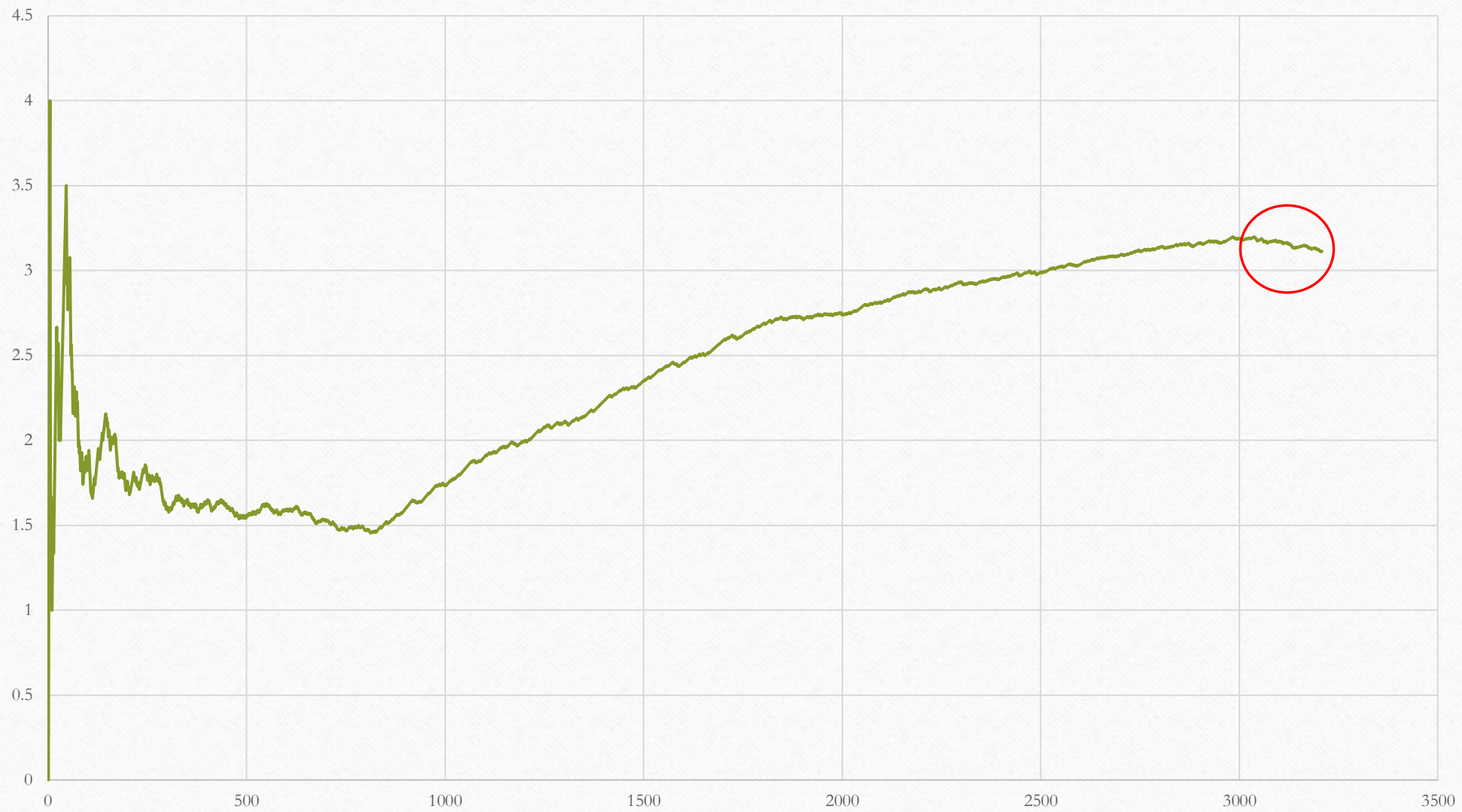


Ratio DJT/JRB

20-WEST WELCHEL - % of Vote

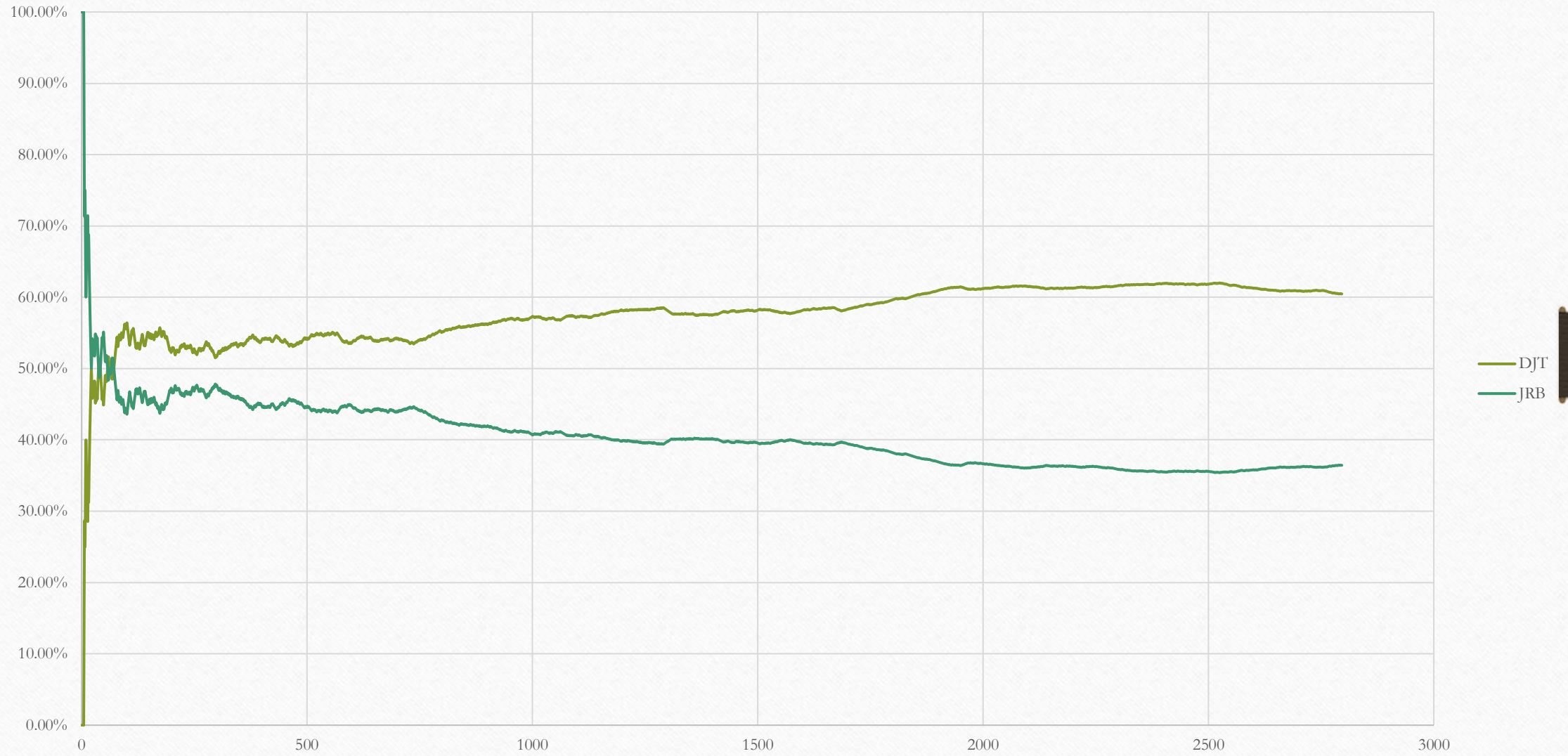


20-WEST WELCHEL - Ratio DJT/JRB

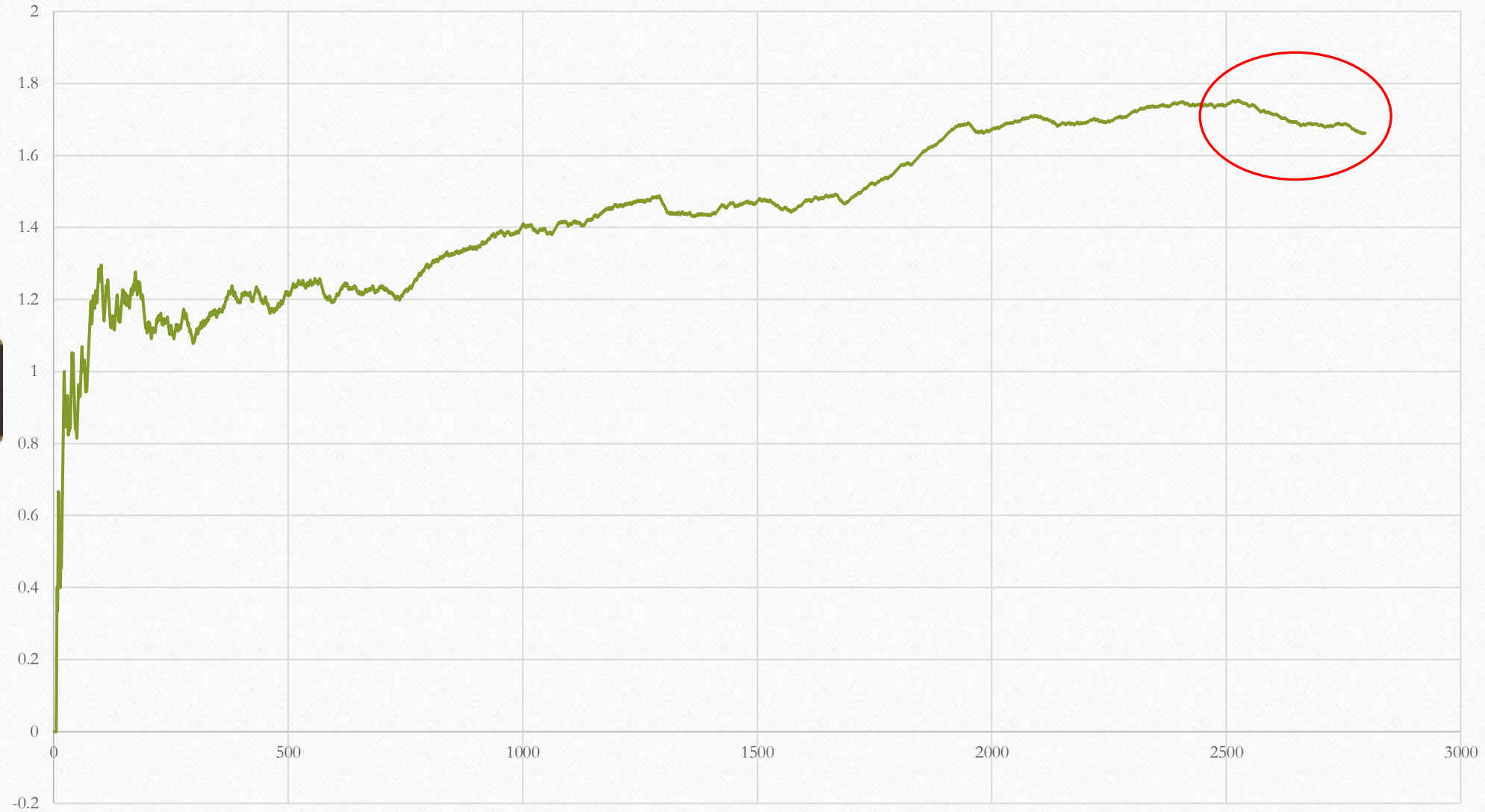


Ratio DJT/JRB

21-GAINESVILLE 1 - % of Vote

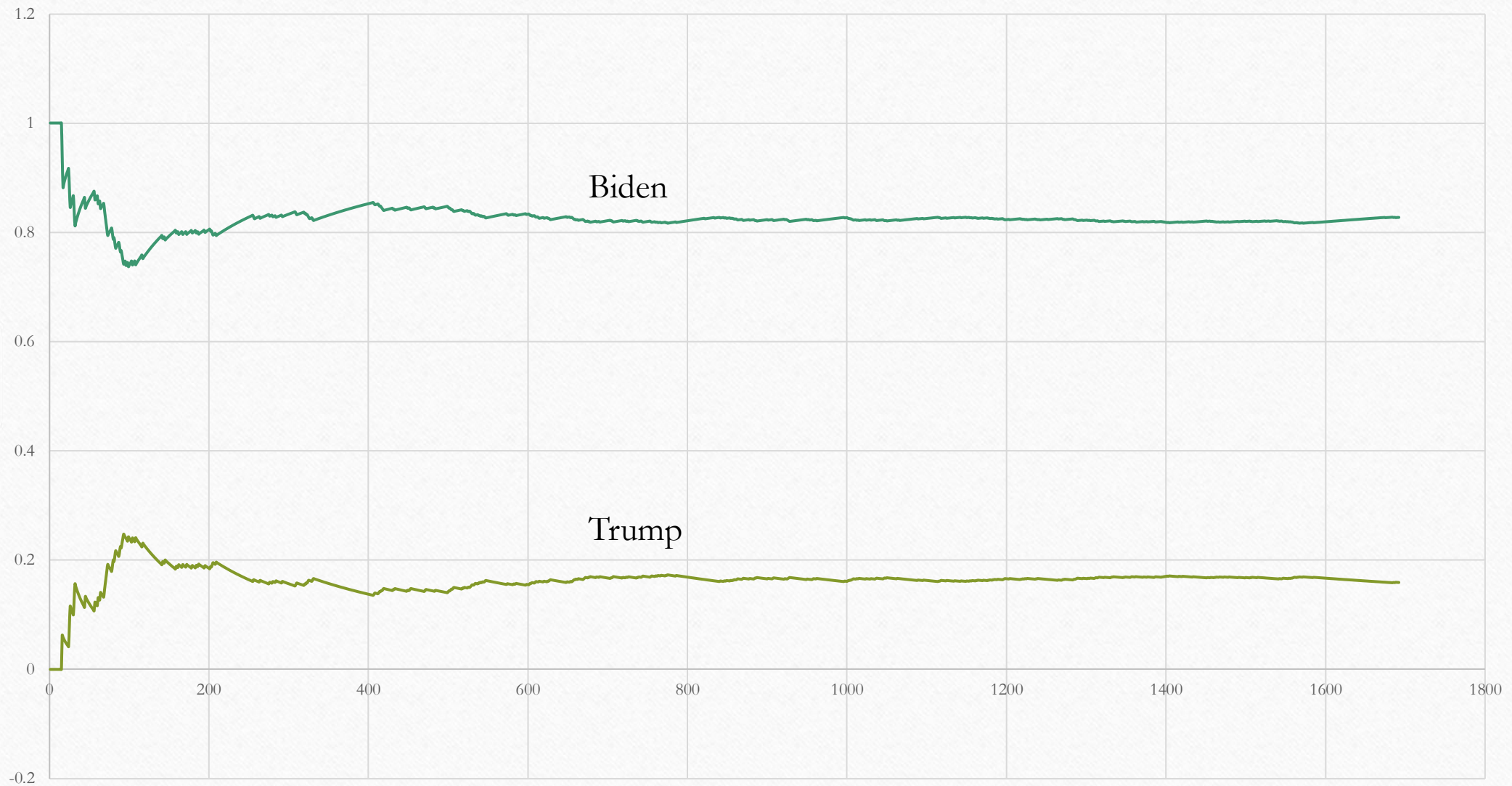


21-GAINESVILLE 1 - Ratio DJT/JRB



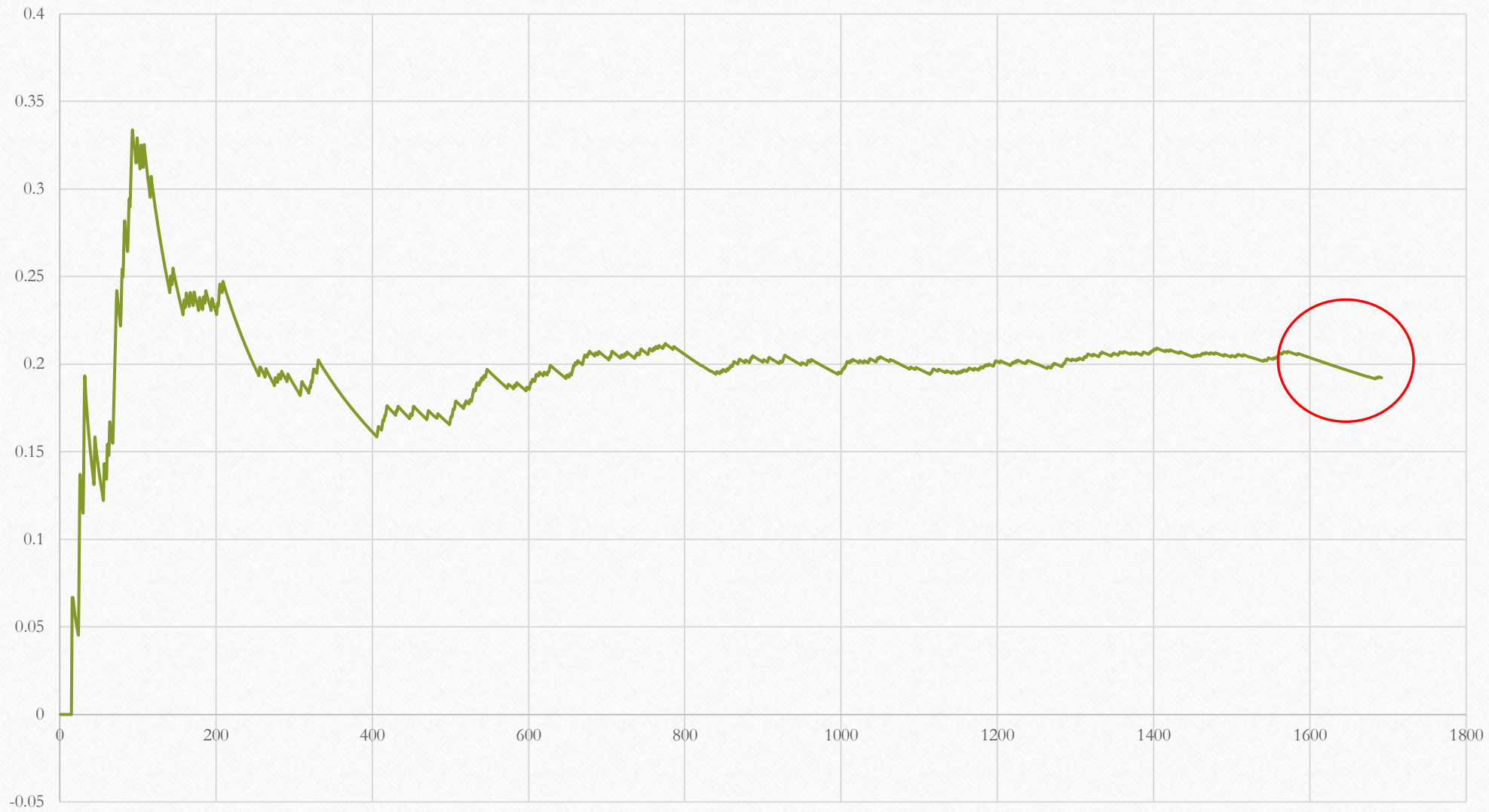
Ratio DJT/JRB

22-GAINESVILLE 2 - % of Vote



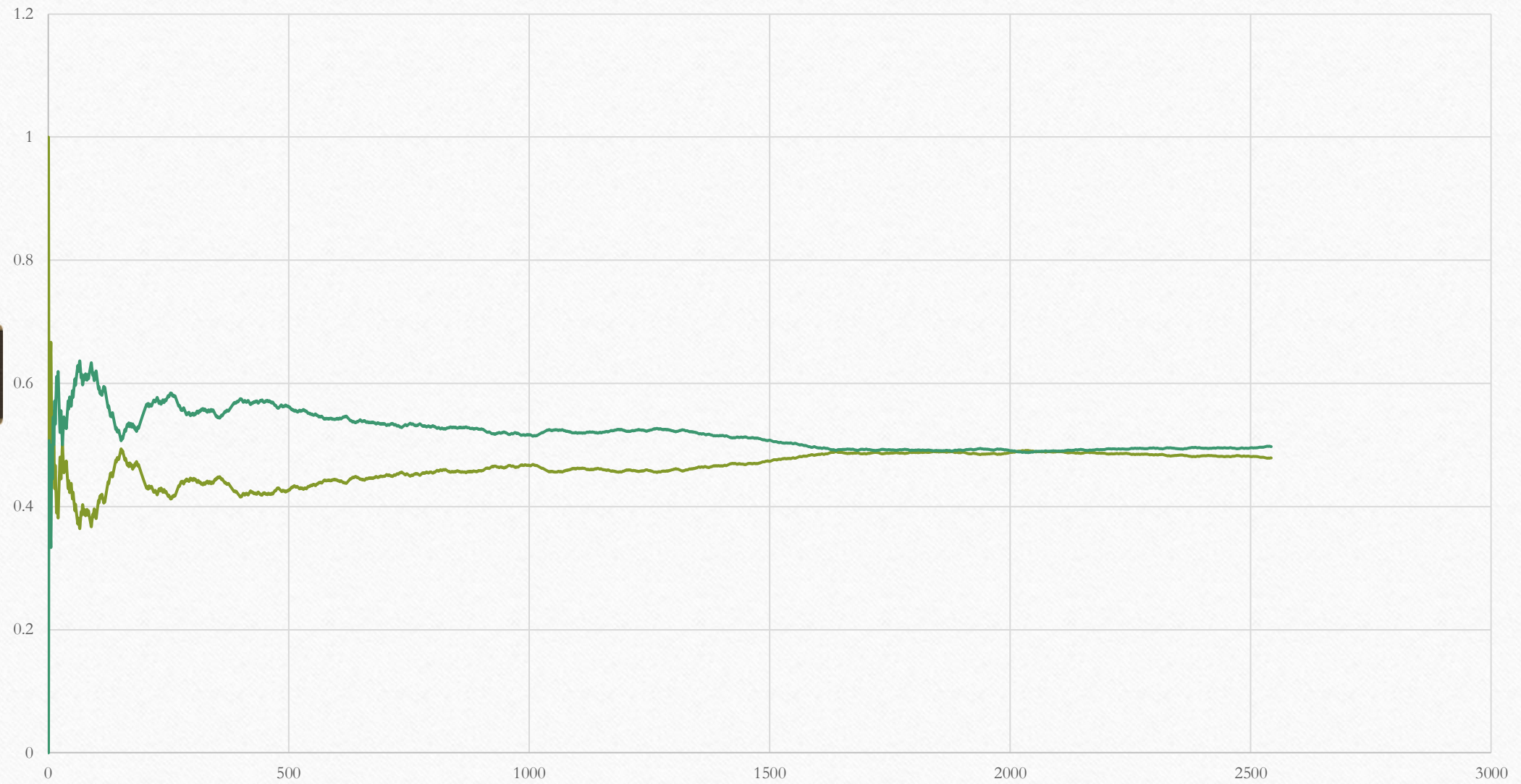
DJT
JRB

22-GAINESVILLE 2 - Ratio DJT/JRB



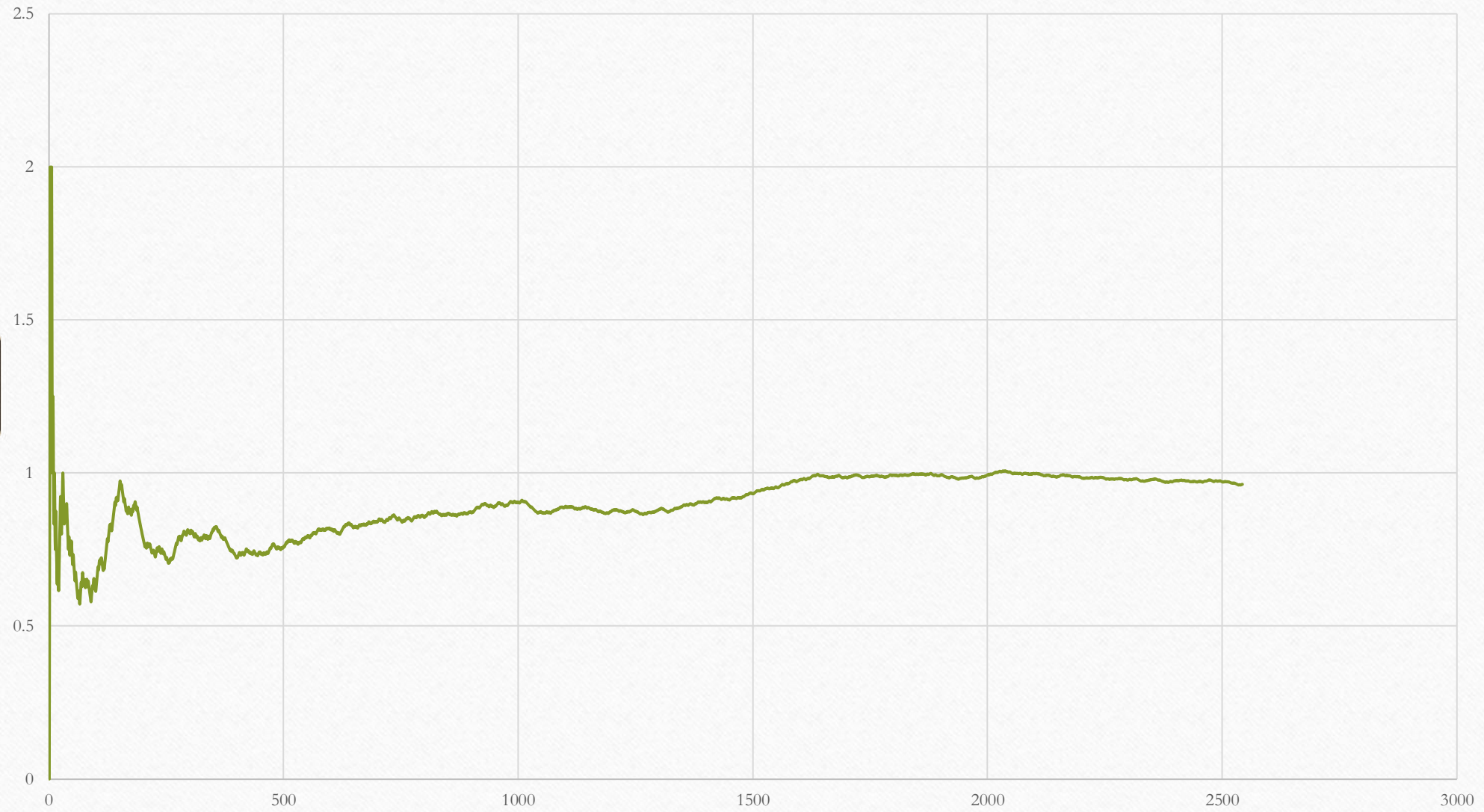
Ratio DJT/JRB

23-GAINESVILLE 3 - % of Vote



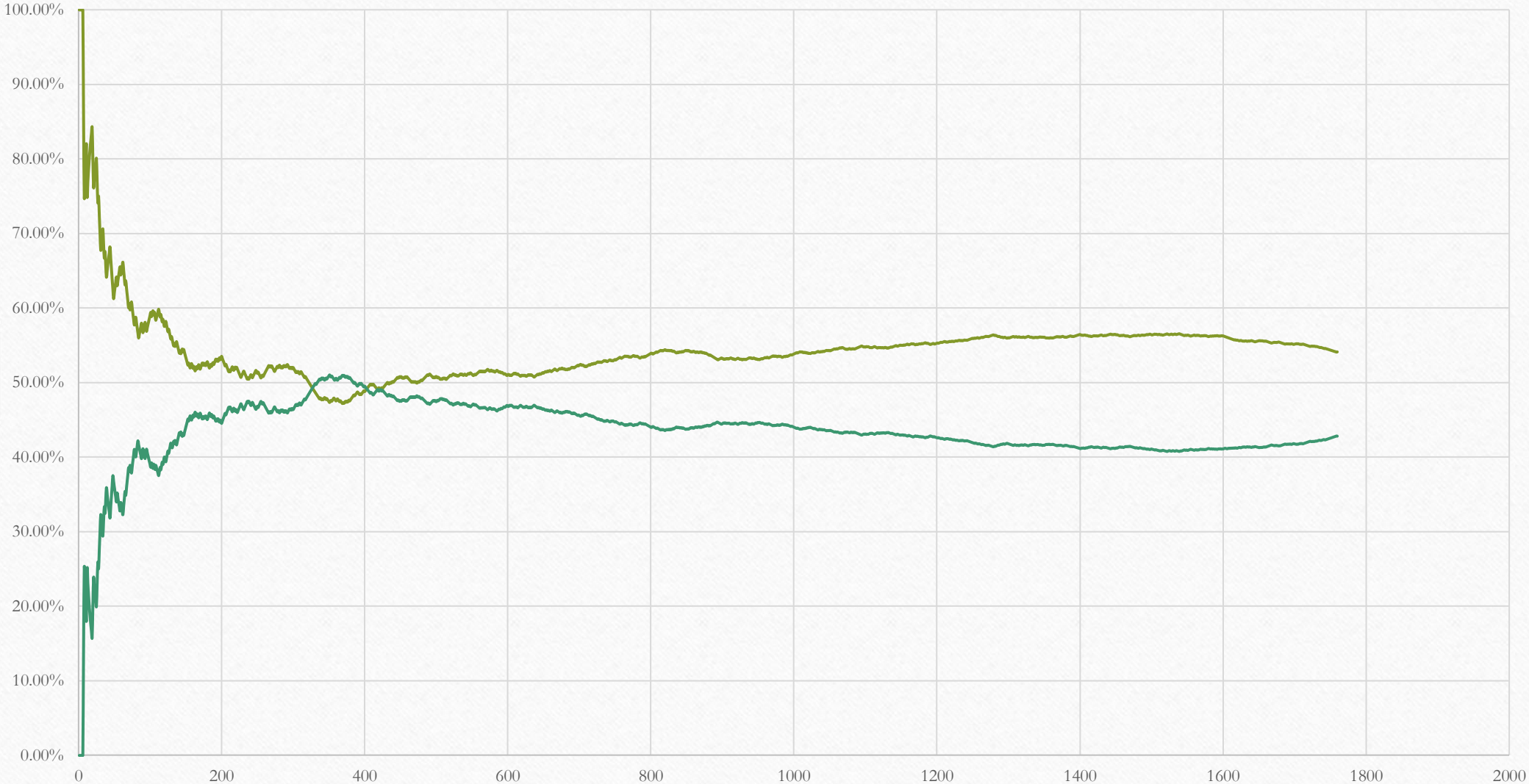
DJT
JRB

23-GAINESVILLE 3 - Ratio DJT/JRB



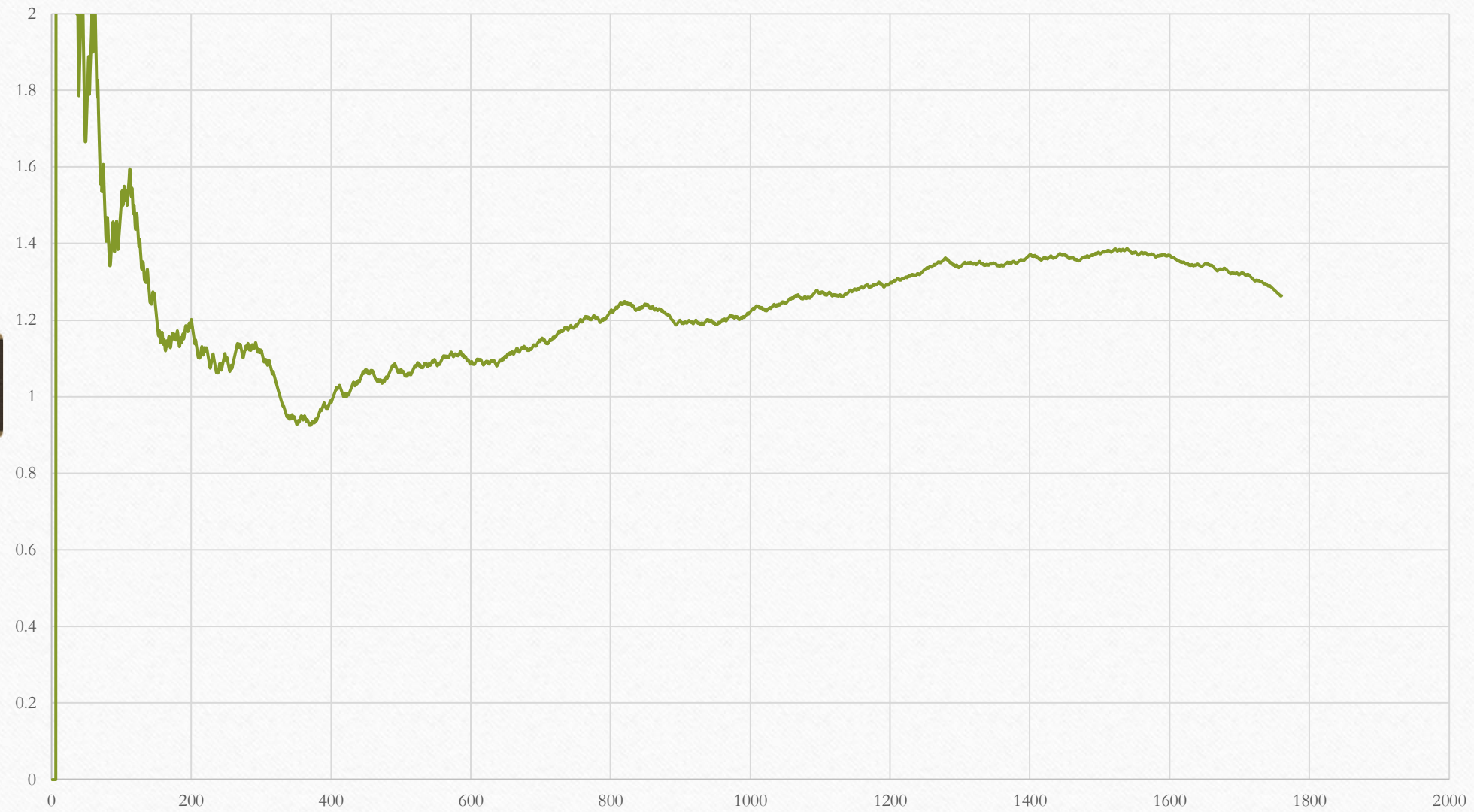
Ratio DJT/JRB

24-GAINESVILLE 4 - %of Vote



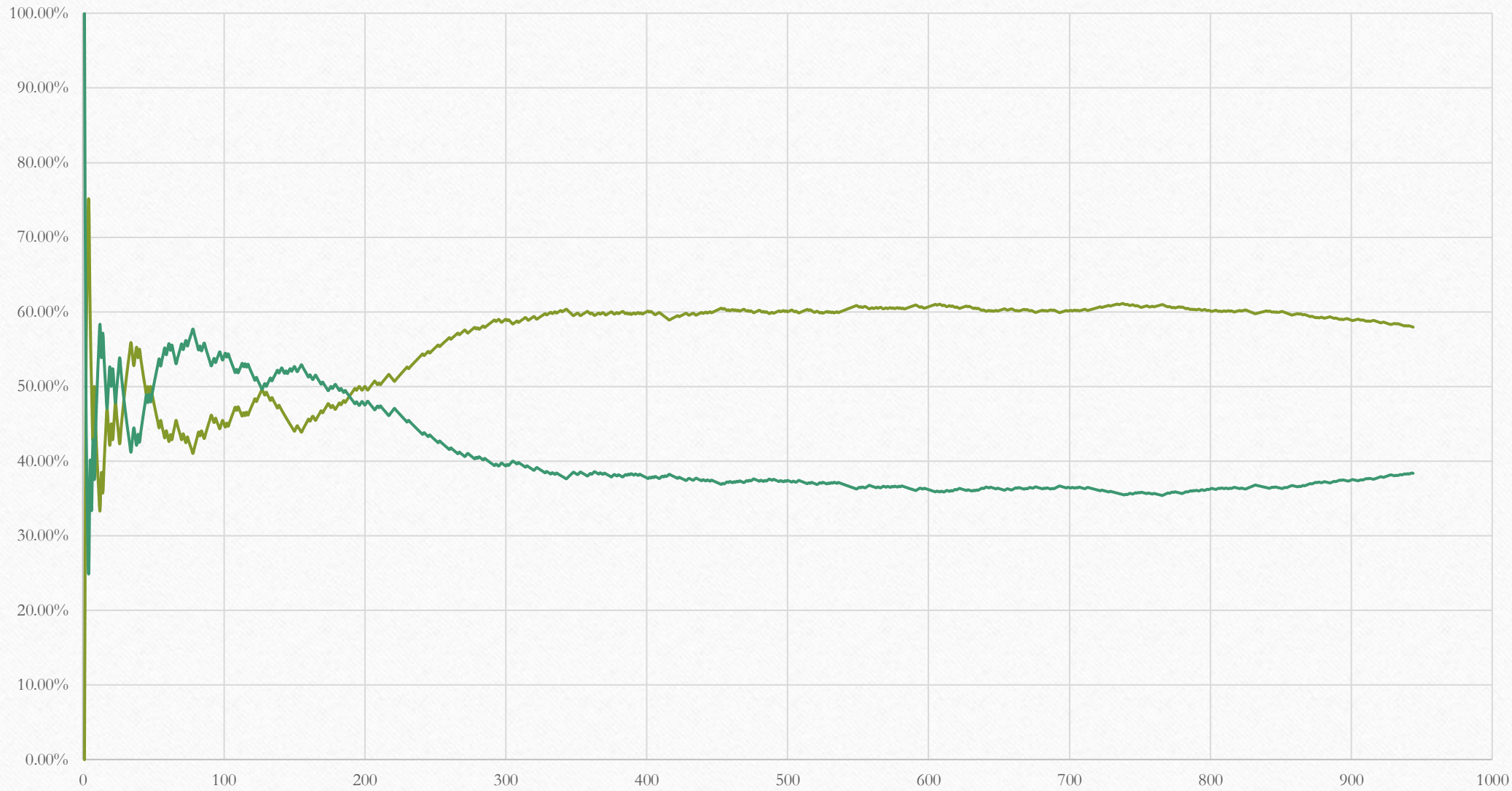
DJT
JRB

24-GAINESVILLE 4 - RATIO DJT/JRB



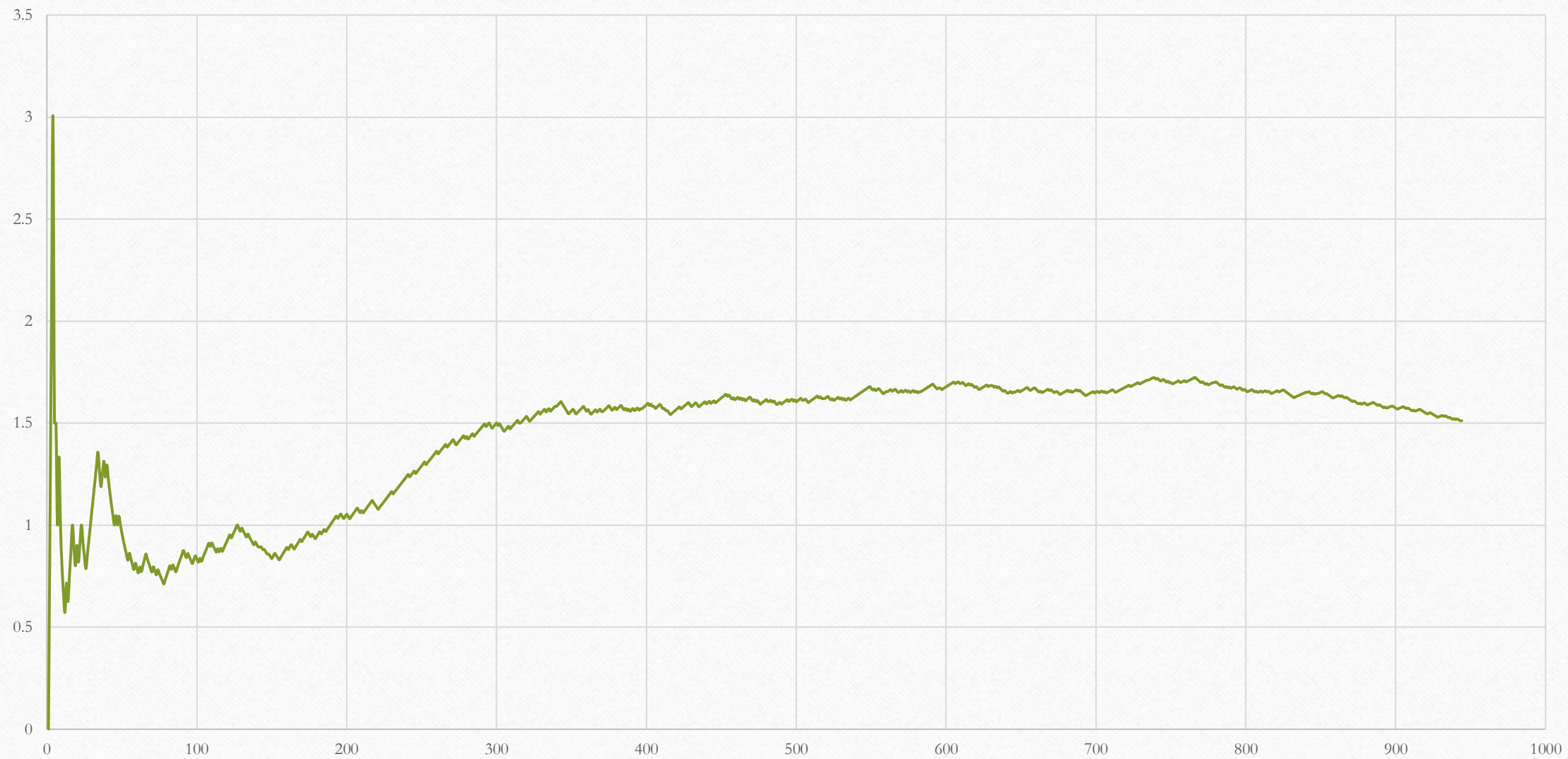
— RATIO DJT/JRB

25-GAINESVILLE 5 - % of Vote

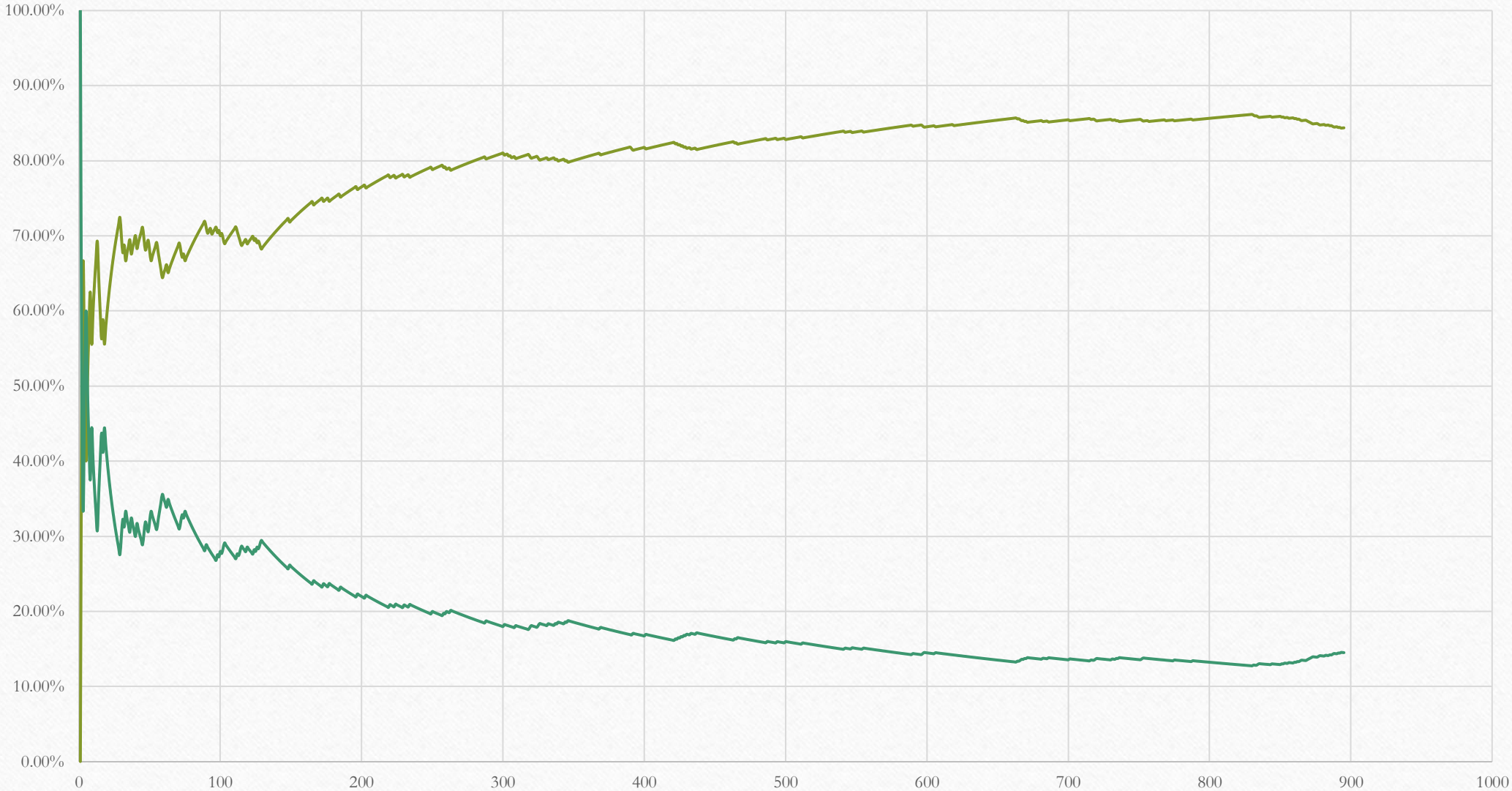


DJT
JRB

25-GAINESVILLE 5 - Ratio DJT/JRB

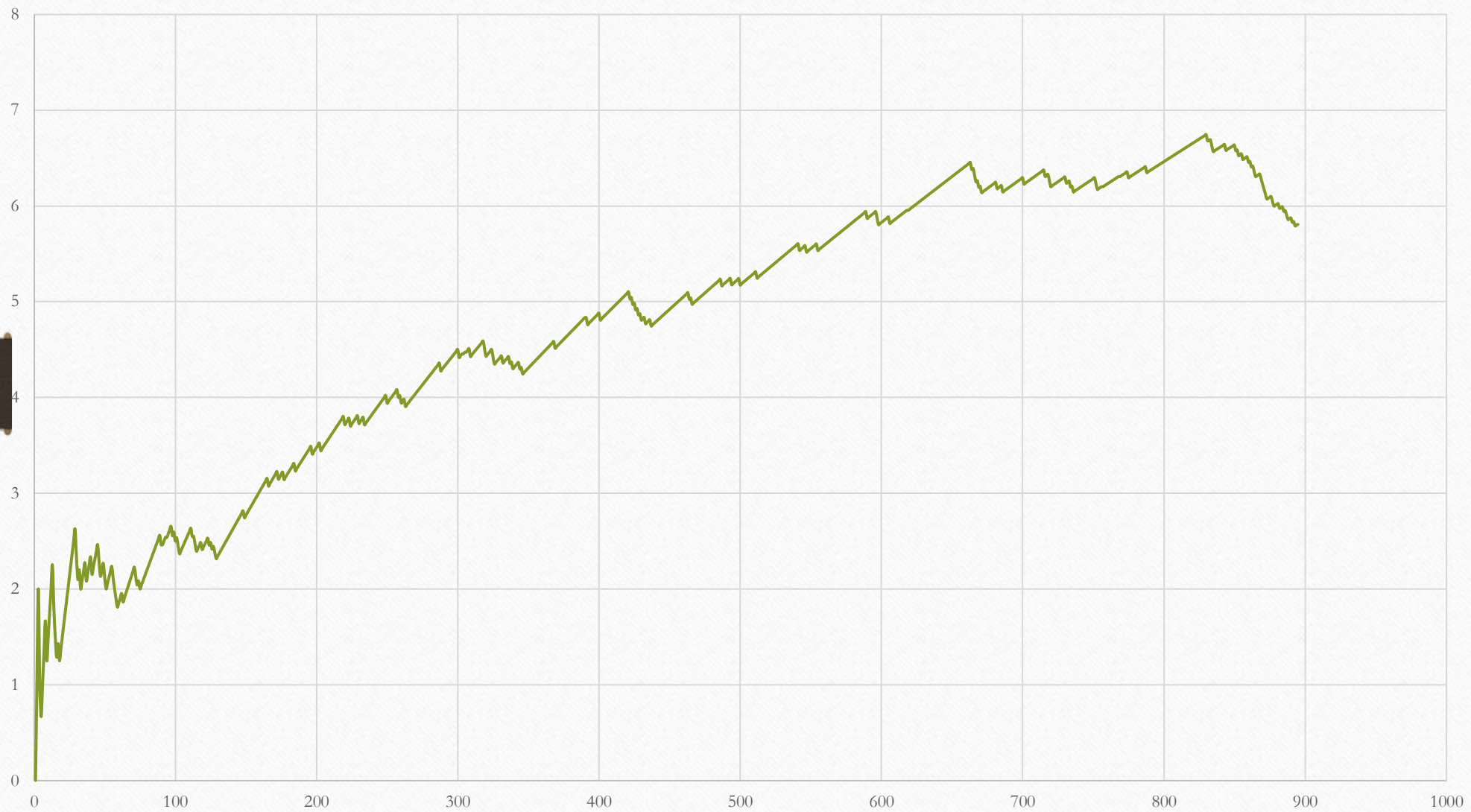


26-GILLSVILLE - % of Vote



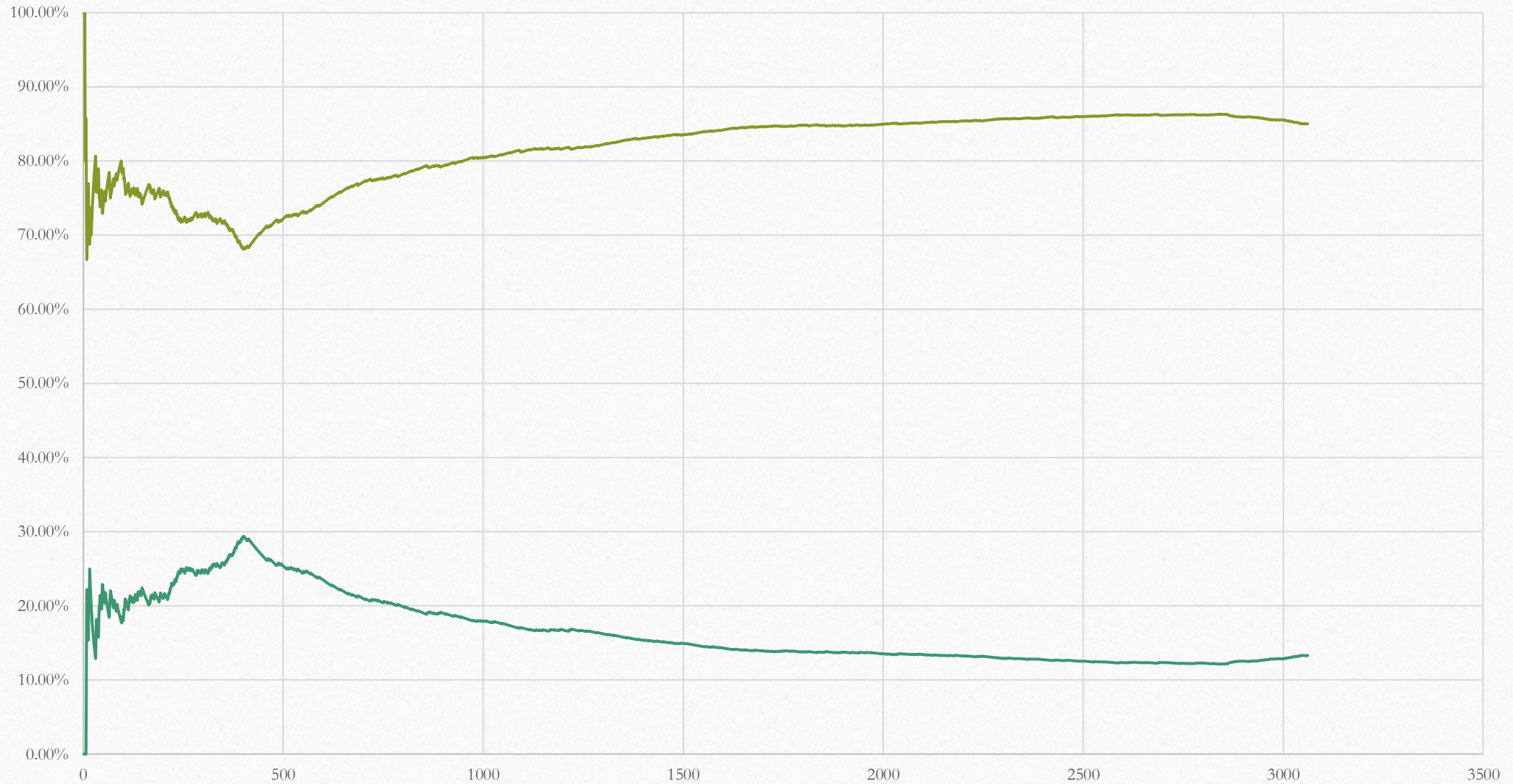
DJT
JRB

26-GILLSVILLE - RATIO DJT/JRB



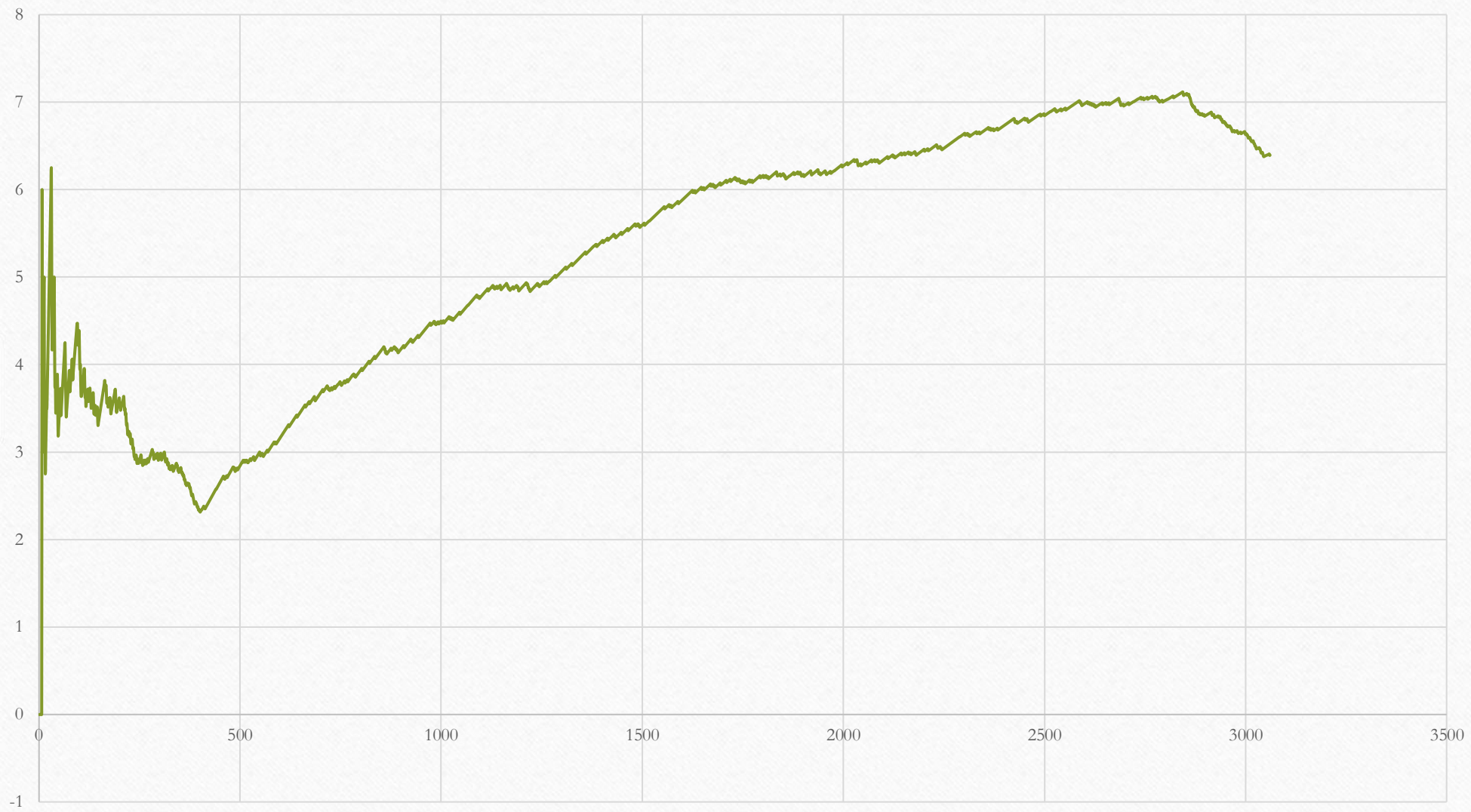
— RATIO DJT/JRB

27-BIG HICKORY - % of Vote



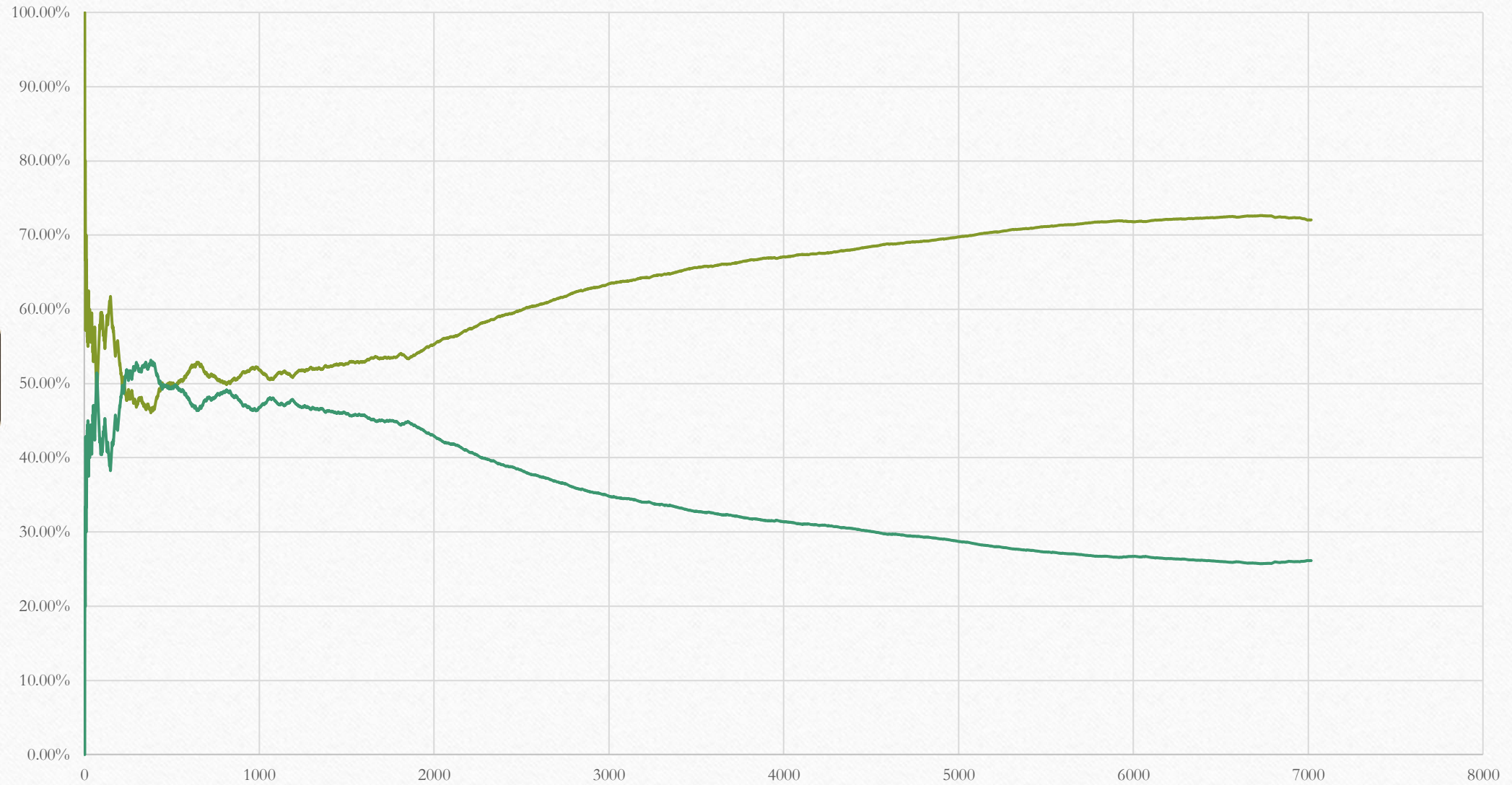
DJT
JRB

27-BIG HICKORY - RATIO DJT/JRB



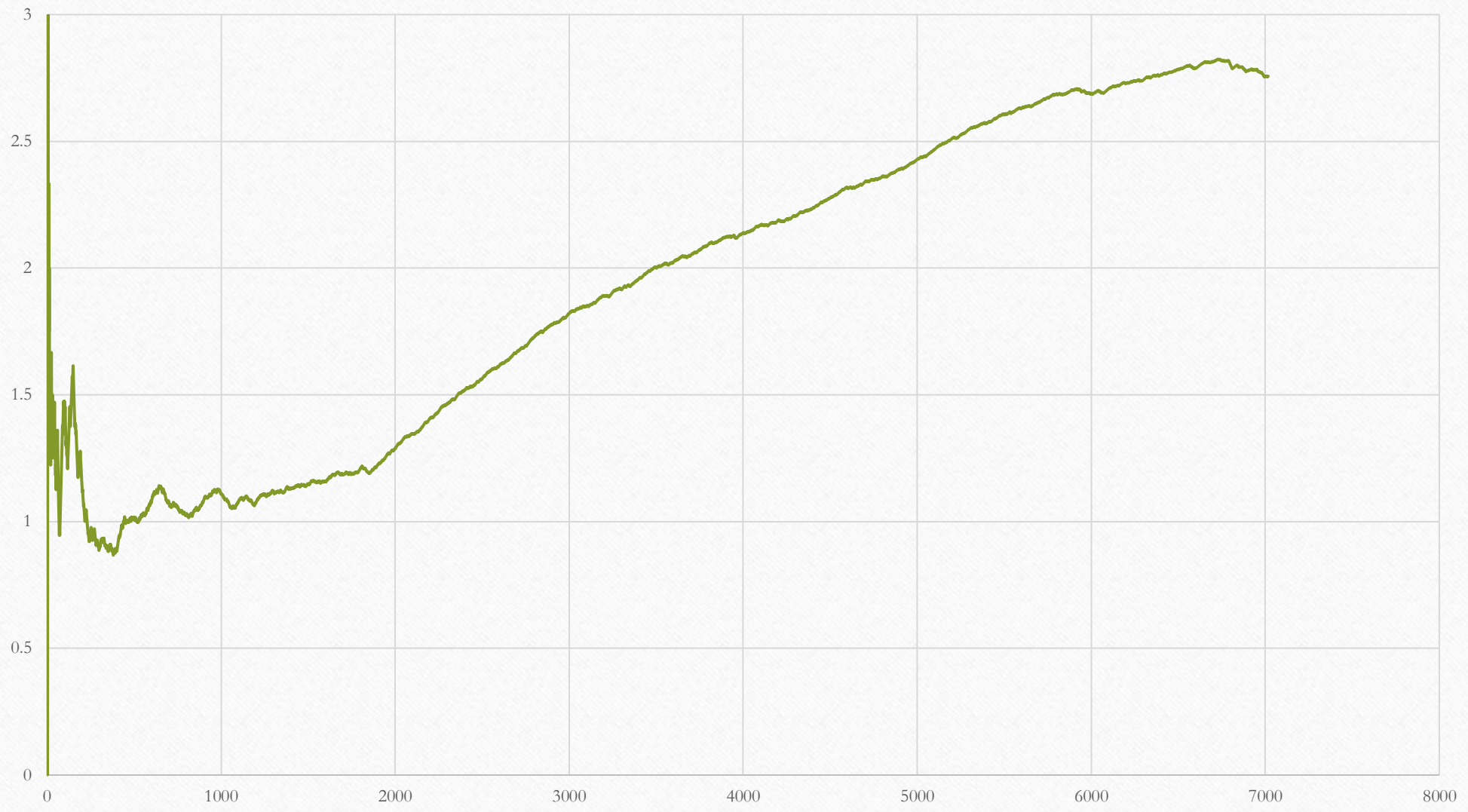
— RATIO DJT/JRB

28-FRIENDSHIP 1 - % of Vote



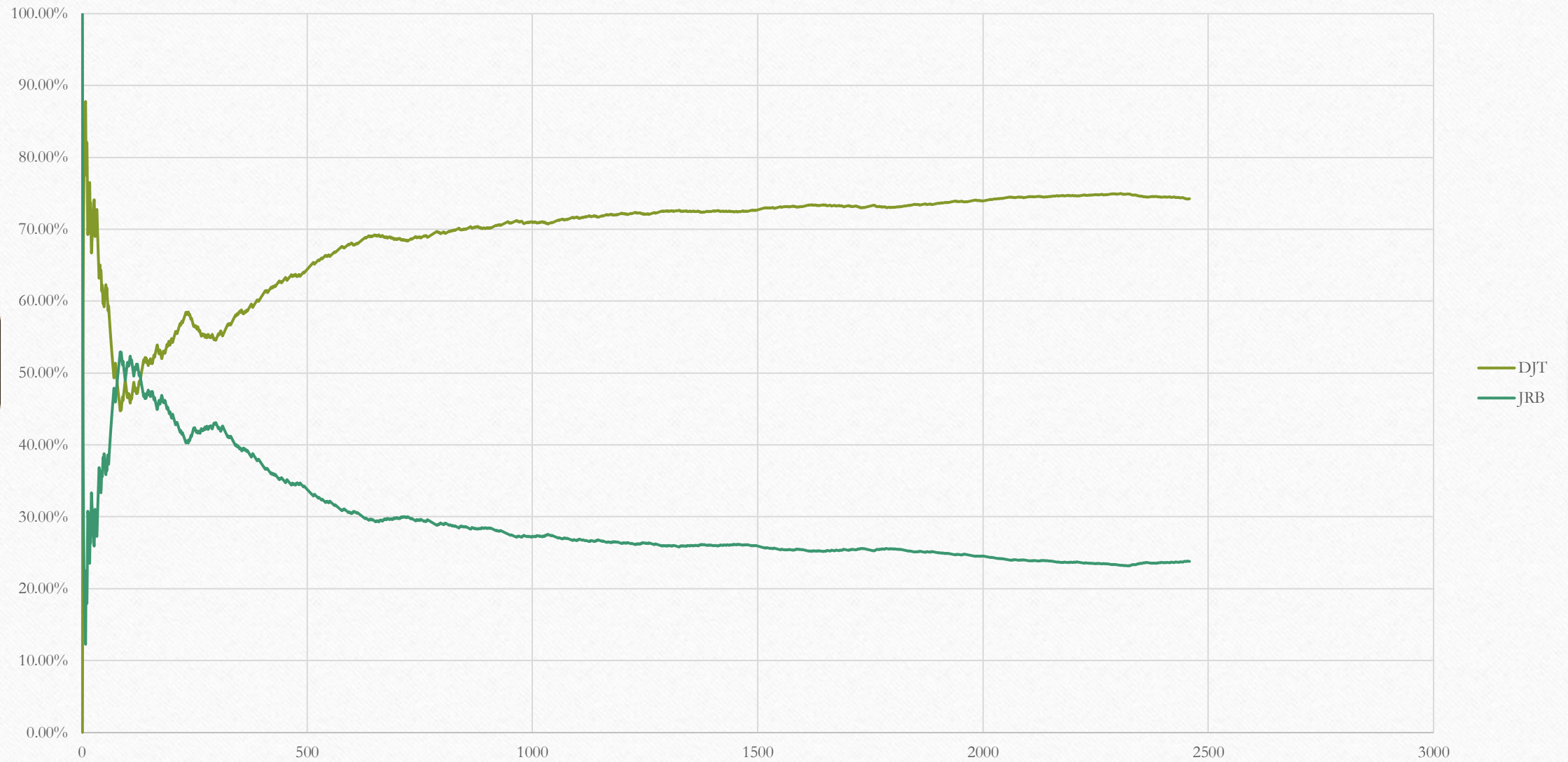
DJT
JRB

FRIENDSHIP 1 - RATIO DJT/JRB

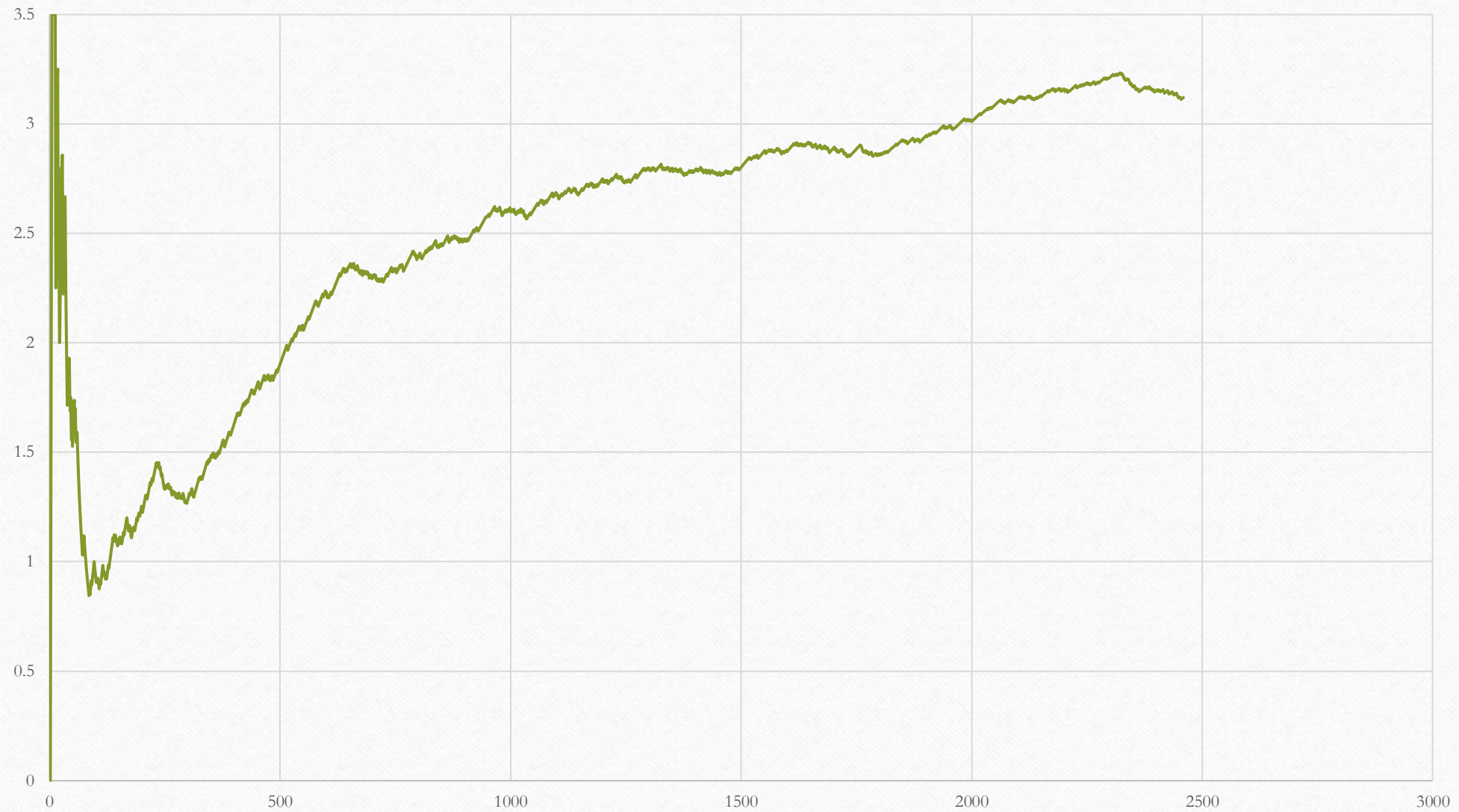


— RATIO DJT/JRB

29-FRIENDSHIP 2 - % of Vote

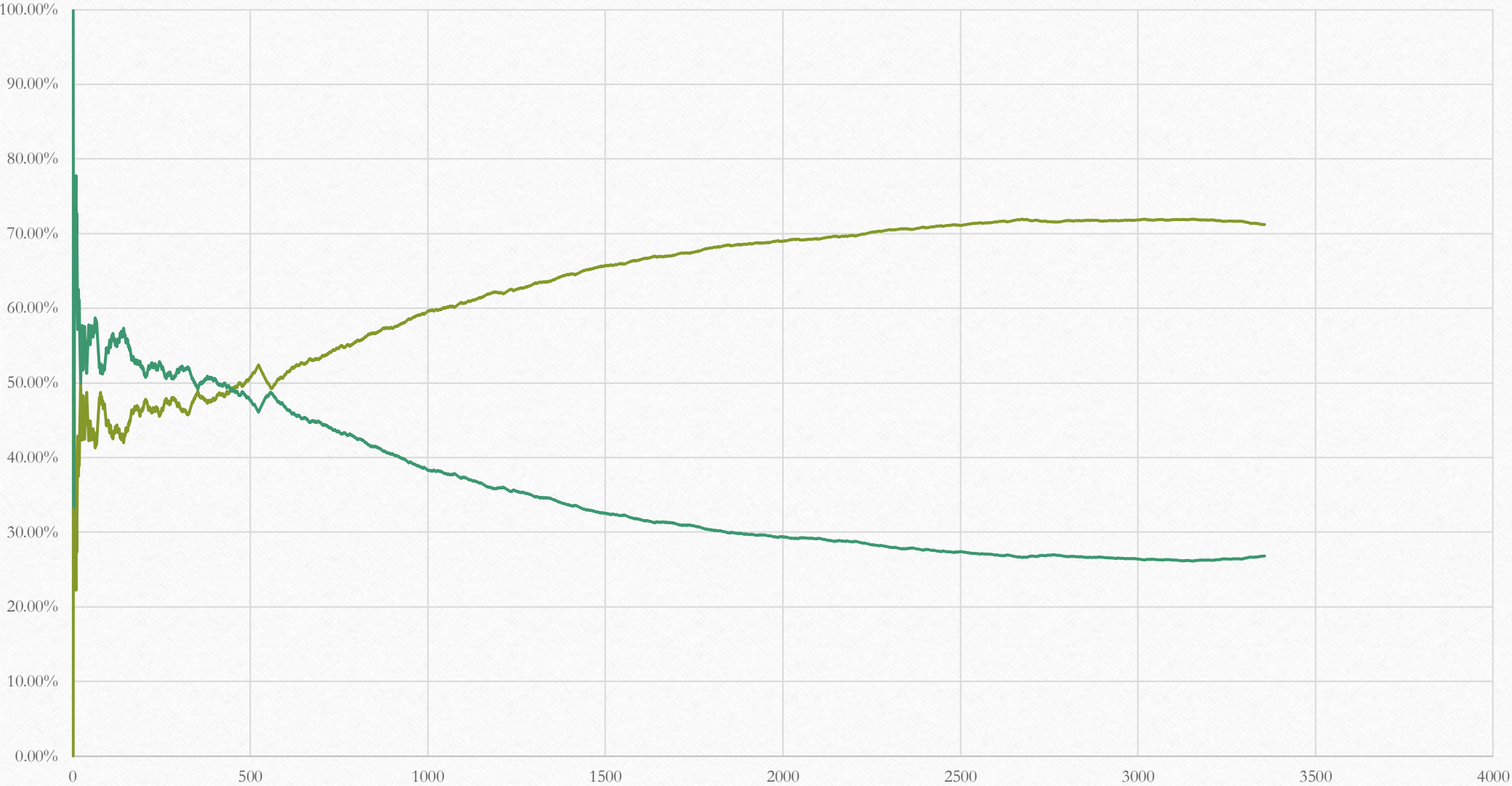


29-FRIENDSHIP 2 - RATIO DJT/JRB



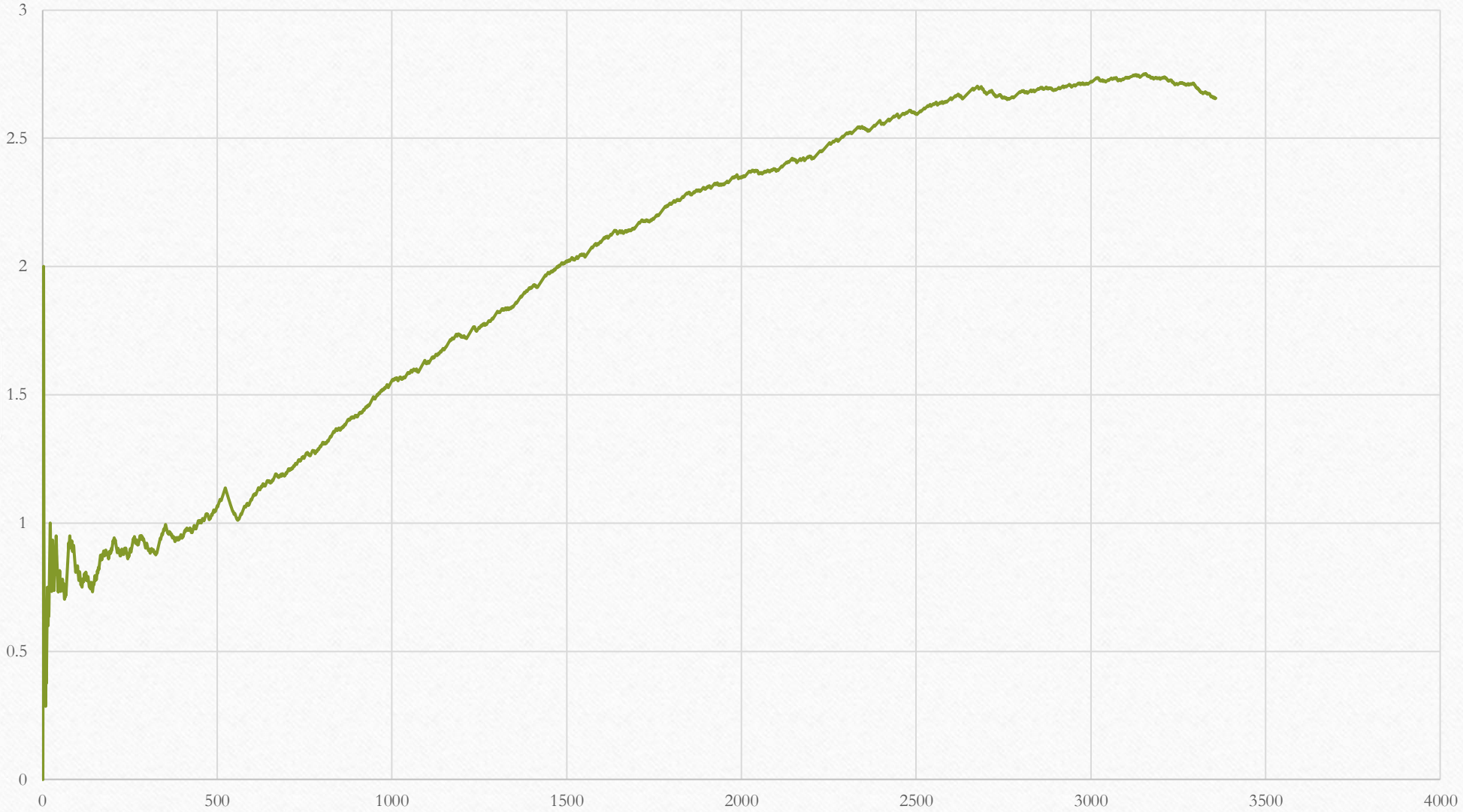
— RATIO DJT/JRB

30-FRIENDSHIP 3 - % of Vote



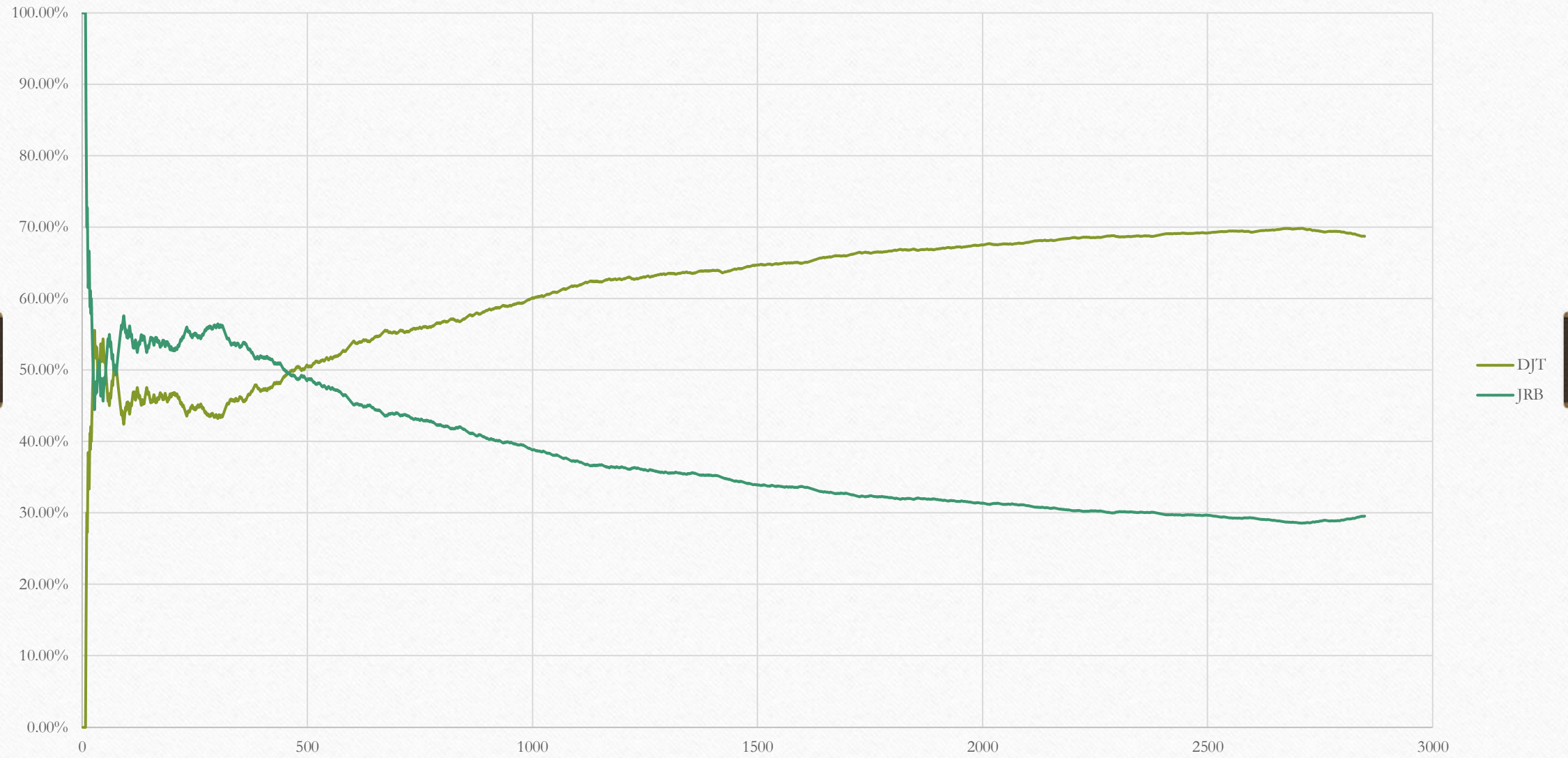
DJT
JRB

30-FRIENDSHIP 3 - RATIO DJT/JRB

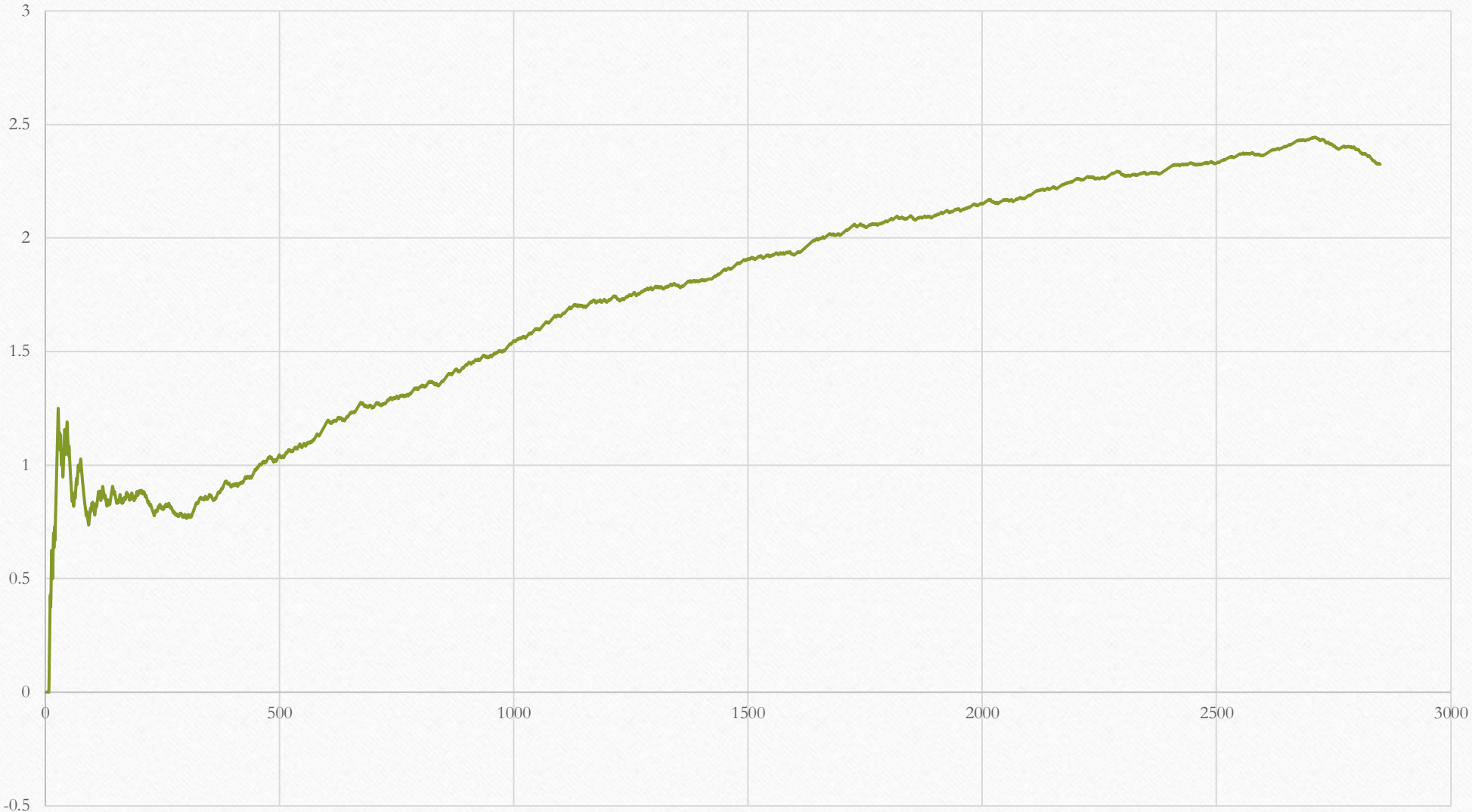


— RATIO DJT/JRB

31-FRIENDSHIP 4 - % of Vote



31-FRIENDSHIP 4 - RATIO DJT/JRB



— RATIO DJT/JRB