

APPENDIX B (CONFIDENTIAL) – FURTHER CONSIDERATIONS

Risk mitigation purpose of the Contract: The link between political polling and economic risk, particularly for equities, is a well-known one. This makes strong theoretical sense. Political polls are projections of the political future; stock prices are expected, and have been documented, to impute expectations of the future.¹ Because equities have political exposure (e.g. the future cash flows of firms are subject to regulations, laws, and more imposed by the executive), political polls can create an important price-basing function for equities. Consequently, there is economic risk embedded in equities (and other assets, services, commodities, and financial contracts) dependent on political polling. This Contract is designed for parties to hedge risks associated with those polls. However, more than theory, there is robust, replicated academic evidence proving as much. This research has been replicated across countries, across political parties, and across elections (i.e. primaries and general elections).

Because markets reflect real-time changes in information, polling directly affects market prices. An increase in the polling of a protectionist candidate winning can reduce the prices of stocks for trade-dependent firms and emerging market equities as soon as a new poll is released. This Contract is specifically about polling numbers and not about who wins a given election cycle. Below, detail is provided of evidence describing how markets reflect and respond to changes in polling.

For example, in 2011, Ejara et al. (“Opinion Polls and the Stock Market: Evidence from the 2008 U.S. Presidential Election”) found a consistent link between election polling and the stock market. They observed data from the 2008 general election, testing the link between polling changes for the major party candidates and major equity indices. They wrote,

Stock markets anticipate the impact of events on future cash flows. Current values depend on future cash flows and risk prospects. We posit that election polls are indications of the political platform that is expected to prevail in presidential elections. Given the traditional philosophical differences between the Republican and the Democratic Parties, and the specific campaign promises of the U.S. presidential candidates in the most recent (2008) election, we hypothesized that stock market reacts negatively to the prospect of Obama winning the election. We test this hypothesis by relating daily stock index returns to a lag value of differences in election polls that show Obama’s advantage over McCain. The results consistently show that when Obama has a poll advantage over McCain, the stock market reaction is more negative than when McCain has a poll advantage over Obama.²

That paper focuses on the market as a whole. However, some equities are undoubtedly more exposed than others. For example, Blau et al. (2019)’s paper, “Information in stock prices: the case of the 2016 U.S. presidential election” details how pharmaceutical company stocks are

¹ <https://www.princeton.edu/~ceps/workingpapers/91malkiel.pdf>

² https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1931742

positively correlated with Donald Trump's odds of victory.³ Pham et al. (2018) found that insurance companies' stock prices were very negatively correlated with positive news for Trump because of his promise to dismantle the Affordable Care Act.⁴ Similarly, in Harold et al.'s 2016 paper, "Do opinion polls move stock prices? Evidence from the US Presidential Election in 2016" the answer was a clear yes. They first found that some firms (representing around 30% of total market capitalization) are especially exposed to electoral outcomes, and constructed a successful trading strategy which achieved above-market returns by investing in firms that benefited from Trump doing better-than-average in pre-election polling.⁵

In fact, America's influence is so great that changes in election polling even affect the stock markets of *other* countries. Kim and Kim's 2021 paper, "U.S. presidential election polls and the economic prospects of China and Mexico", found that unexpected jumps in Trump, "generate significantly negative long-term effects on their [China and Mexico's] home currency and the stock prices, while the default probability responds significantly positively in the long run."⁶ Many American investors have major exposure to the Chinese, Mexican, and other markets, whether through exchange-traded financial instruments (like emerging market exchange-traded funds) or directly through foreign direct investment. Kim and Kim specifically found effects on Mexican and Chinese currency ratios to the U.S. dollar, on credit default swaps for Mexican and Chinese government debt, and the two countries' equity markets. Thus, the Contract could be very helpful for candidates who wish to hedge against a particular candidate that is more likely to produce hostile policy towards other countries. For instance, Donald Trump is running for President again in the 2024 Republican Primary.

There is also extensive evidence specifically regarding polling margins and stock market volatility. Volatility affects and matters to investors—it's also the impetus for less volatile investment vehicles like fund-of-funds (hedge funds that invest in other hedge funds). Other investors own products directly tied to volatility. The VIX index, which is calculated based on the prices of S&P 500 options, has become a major part of U.S. financial markets. Li and Born (2006) found that closer elections – estimated through polling margins – increased stock market volatility and average returns.⁷ Increased certainty and smaller polling margins was also found to be effective on stock markets by both Smales (2015) and Szelim (2023).^{8,9} Leblang and Mukherjee (2017) even found a connection between lower volatility and particular candidates winning, specifically Democratic ones.¹⁰

³ <https://www.tandfonline.com/doi/abs/10.1080/00036846.2019.1591608>

⁴ <https://www.sciencedirect.com/science/article/abs/pii/S0264999318300191>

⁵ <https://www.sciencedirect.com/science/article/abs/pii/S1062976921000582>

⁶ <https://www.tandfonline.com/doi/abs/10.1080/00036846.2021.1937501>

⁷ <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1475-6803.2006.00197.x>

⁸ <https://onlinelibrary.wiley.com/doi/abs/10.1111/acfi.12107>

⁹ <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1766375&dswid=-412>

¹⁰ <https://www.cambridge.org/core/journals/political-analysis/article/abs/presidential-elections-and-the-stock-market-comparing-markovswitching-and-fractionally-integrated-garch-models-of-volatility/2E1DEFE2B86909278B798FF8996AB9F6>

The evidence above – that election polling affects equity prices in real time – has been replicated dozens of times across different elections and countries, including by Mattozzi (2008) in the United States, Ionnadis and Thompson (1986) in the United States and the United Kingdom, Brander (1989), Gwilm and Buckle (2010) in the United Kingdom, Forsythe et al. (1995), and Beaulieu et al. (2006) in Canada, Shawl and Suffian (2004) in Malaysia, Jensen and Schmith (2005) in Brazil, Murekachiro (2016) in Zimbabwe, and Chen (2022) in Taiwan.¹¹¹²¹³¹⁴¹⁵¹⁶¹⁷¹⁸¹⁹

These conclusions are not exclusive to university-sponsored research. Instead, the popular press frequently describes how election polling impacts equities and derivatives products. A sample of financial press pieces include:

1. Yahoo Finance: Stocks fall as Trump's re-election odds drop²⁰
2. CNBC: Biden's big lead in the polls could be partly behind market's drop²¹
3. CBS: As Trump keeps rising in polls, stocks keep falling²²

Much of the research above is tested on polling regarding general elections, not primary elections, as this Contract relates to. However, plenty of evidence on the matter – both from academics and the press – is specific to primaries. For example, Pham et al.'s 2018 paper cited above which documented the effects of Donald Trump's polling successes during his 2016 primary election as having effects on stocks, especially the insurance industry. Moreover, even if the only hard evidence was for general elections, the Contract would still be useful. Primaries are the determinations of who disputes the general election; they patently inform the market and create risk as long as general election polling does.

Polls are not perfect predictors of the future, nor are they perfect estimations of the present. However, polls are nonetheless useful indicators of current public election sentiment (especially in the absence of large, liquid markets for such events). Even as individual polls face issues, the Source Agency – *FiveThirtyEight* – is so widely quoted and read because of their efforts to maximize the value of polls. This is done through strict quality control: understanding particular polling firms' house effects (their natural tendency to support one candidate, or party, more than

¹¹ <https://www.jstor.org/stable/40270850>

¹² <https://onlinelibrary.wiley.com/doi/abs/10.1002/mde.4090070409>

¹³ <https://www.tandfonline.com/doi/abs/10.1080/758536472>

¹⁴ https://www.nber.org/system/files/working_papers/w3073/w3073.pdf

¹⁵ <https://www.jstor.org/stable/135930>

¹⁶ <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0008-4085.2006.00363.x>

¹⁷ <https://ir.uitm.edu.my/id/eprint/44859/>

¹⁸ <https://journals.sagepub.com/doi/10.1177/0010414005279790>

¹⁹ https://www.businessperspectives.org/images/pdf/applications/publishing/templates/article/assets/16867/IMFI_2022_03_Chen.pdf

²⁰ <https://www.yahoo.com/video/stocks-fall-as-trumps-reelection-odds-drop-analyst-194203254.html>

²¹ <https://www.cnbc.com/2020/06/24/bidens-big-lead-in-the-polls-could-be-partly-behind-markets-drop-and-may-lead-to-more-weakness.html>

²² <https://www.cbsnews.com/news/as-trump-keeps-rising-in-polls-stocks-keep-falling/>

others), sample sizes, and methodology. *FiveThirtyEight*'s polling methodology is in full provided in Appendix C. Polling is a science, and one that has improved over the years rather than weakened despite misses.

Independent of the above, there is also a strong use case for the Contract by those who are directly involved with a particular campaign. Many vendors and contractors who have a business relationship with a campaign could use the Contract to hedge against the risk that the candidate falls in polling to levels that might mean they drop out, or lose. This includes: campaign consultants, advertising agencies, public relations firms, printers and promotional goods (e.g. t-shirts and clothing) vendors, security firms, and photographers.

Price basing/price discovery utility of the Contract: The Contract represents a market-based probability that a given candidate for the Republican nomination polls above, below, or between a given threshold. This information would provide significant utility for those trying to price assets, services, and financial contracts. As described above at length, there is a meaningful and statistically significant relationship between election polling and U.S. equity prices and other financial instruments (including foreign equity prices). The Contract could also be useful for pricing services for a campaign – if a campaign is expected to succeed (or fail) in the polls that could be useful information for charging them for goods and services, such as security, promotional goods, or photography services.

As described in detail above, the Contract has important risk mitigation and price basing/price discovery utility. The Contract does not relate to the enumerated categories of contracts listed in Section 5c(c)(i) of the Act. Additionally, the Exchange has not determined such contracts to be contrary to the public interest and there has been no determination by the Commission that such contracts would be contrary to the public interest. The Contract provides a means for managing and assuming price risks, discovering prices, and disseminating price information on the Exchange's fair and financially secure trading facility.

The Contract has bona fide risk mitigation and price basing utility for participants with underlying economic exposure, as described above. The Contract is not merely recreational, as the discussion of risk mitigation and price basing/price discovery utility demonstrates. The outcome of the Contract is not predominantly determined by chance and depends on a variety of economic and political factors. Finally, it is possible for traders to use skill and effort to gain knowledge and information about the likelihood of the event. For example, traders can gain information about the likelihood of the event by following the political news cycle and polling.

APPENDIX C (CONFIDENTIAL) – SOURCE AGENCY

The data which is used to determine the Expiration Value of the Contract is published by *FiveThirtyEight*. The methodology used by the Source Agency to calculate the polling average is described below:

Almost since its founding, FiveThirtyEight has published comprehensive averages of polls for a wide variety of questions related to U.S. politics. In June 2023, we debuted a new set of models for these averages that aims to improve the models' accuracy and how the results are visually conveyed to our readers.

The most important differences from our old polling-average model are:

- **We now use separate models for each type of polling average.** Polling averages need to process information differently in different contexts: For example, presidential approval ratings and horse-race polls can change faster than favorability ratings and generic ballot polls. To account for these variations, we now derive separate sets of parameters to control the aggressiveness of each of our polling averages for presidential and vice-presidential approval, politician favorability and different types of horse-race averages (presidential elections, presidential primaries, senate and gubernatorial general and primary elections, and the generic congressional ballot), using our historical database of polls.
- **House effects can change over time, and have more uncertainty.** We don't want to make unnecessarily large adjustments to a pollster's house effect as a result of a poll conducted when one candidate happened to be surging, so our house effects are now calculated using the value of the polling average on each day of the time series, rather than the average over the entire time period. Our house effects are also now formally Bayesian, which means the value we end up using in our final average is higher when (a) we have more polls for that pollster and (b) the individual differences from the average for each poll are more narrowly distributed.
- **We dynamically adjust our average based on two different aggregation models.** We want to avoid scenarios where there aren't many polls for a while, then a deluge of new data creates a whiplash in the average. To help with that, when we have more data in a recent time period, we rely less on our slow-to-update exponentially weighted moving average and more on our more aggressive polynomial regression trendline. This also has the benefit of giving us averages that are more responsive to quick movement in the data when multiple polls reflect that movement, without reacting too aggressively to any one individual survey showing a big change.
- **We calculate uncertainty for every average.** Previously, we only displayed uncertainty intervals for our presidential approval average. Now, to visualize the noisiness and estimated error across each of our models, we show uncertainty intervals for all the various types of averages we run.

Here are all the steps we take to calculate our averages:

Which polls we include

FiveThirtyEight's philosophy is to collect as many polls as possible for every topic or race we're actively tracking — so long as they are publicly available and meet our basic criteria for inclusion. After determining that a poll meets our standards, we have to answer a few more questions about it before sending it off to the various computer programs that power our models.

- **Which version should we use?** If a pollster releases multiple versions of a survey — say, an estimate of President Biden's approval rating among all adults and registered voters — we choose

the survey that best matches either the breakdown of polls in our historical database or the preferred target population for that type of poll. In practice, that means if historical polls on a particular topic (for example, presidential approval or favorability ratings) were mostly published among all adults, we will prefer polls of all adults to polls of registered voters and polls of registered voters to polls of likely voters. But for polls of a primary or general election, where we are mainly interested in the subpopulation of Americans who are likely to (or at least able to) vote, we prefer polls of likely voters to polls of registered voters and polls of registered voters to polls of all adults.

- **Is it an especially large survey?** When polls are fed into the model, we decrease the effective sample sizes of large surveys. Leaving these large numbers as they are would give those polls too much weight in our average. As a default, we cap sample sizes at 5,000. Then, for all polls conducted for a given context (say, approval ratings), we use a method called winsorizing to limit extreme values.
- **Do we know the sample size?** Some pollsters do not report sample sizes with their surveys, especially for polls released a long time ago. While we can usually obtain this number for recent surveys by calling up the firm, we have to make informed guesses for past data. First we assume that a missing sample size is equal to the median sample size of other polls from that same pollster on the same topic (i.e., favorability, approval or horse race). If there are no other polls conducted by that firm in our database, we use the median sample size of all other polls for that poll type.
- **Does this matchup reflect something that could happen in reality?** For horse-race polls, we exclude polls that ask people how they would vote in hypothetical matchups if those matchups have already been ruled an impossibility, such as after each party has chosen its nominee or if the matchup doesn't include an incumbent who's announced a reelection bid. We also exclude polls that survey head-to-head matchups in races with more than two major candidates or polls that pit members of a ticket against each other (e.g., 2024 Democratic primary polls that include both Biden and Vice President Kamala Harris).
- **Is this a tracking poll?** Some pollsters release daily results of surveys that may overlap with each other. We account for this potential overlap in these "tracking" polls by running through our database every day and dynamically removing polls that have field dates that overlap with each other until none are overlapping and we have retained the greatest number of polls possible for that series and firm, paying special attention to include the most recent poll.
- **Is there any other problem with this survey?** In addition to excluding all polls for all pollsters that don't meet our standards, individual surveys may also be excluded for other methodological reasons, which we explain in detail on our polls policy page.

How we weight and adjust polls

After all this data is in our database, we compute two weights for each survey that control how much influence it has in our average, based on the following factors:

- **Sample size.** We weight polls using a function that involves the square root of its sample size.¹ We want to account for the fact that additional interviews have diminishing returns after a certain point. The statistical formula for a poll's margin of error — a number that pollsters (usually) release that tells us how much their poll could be off due to random sampling error alone — uses a square-root function, so our weighting does, too.
- **Multiple polls in a short window.** We want to avoid a situation where a single pollster "floods" a race with its data, overwhelming the signal from other pollsters. To do that, we decrease the weight of individual surveys from pollsters that release multiple polls in a short time period. If a pollster releases multiple polls within a 14-day window, those polls together receive the weight of one normal poll.² That means if a pollster releases two polls in two weeks, each would receive a weight of 0.5. If it releases three polls, each would receive a weight of 0.33.

Once we have these weights, we calculate a cumulative weight by multiplying the two weights. We then test and adjust for any factors that could be systematically shifting groups of polls in one direction. We consider three main adjustments here.

- **Population adjustments.** For each type of survey, we have a preferred sample universe — for example, likely voters for horse-race polling or all adults for presidential approval. Not every poll will use that preferred sample universe, though, so we adjust to minimize variation between different population groups. These adjustments come from a generalized additive model that predicts poll results using variables for the population of each survey, its methodology (whether people were reached online, by phone via a live interviewer, by phone via automated dialer, etc.) and the end date, which the model transforms using a spline (you may also have heard this referred to as a “piecewise polynomial”). The result is an estimate of how much polls from each population category differ from each other on each of the possible candidates or responses. We use those values to adjust polls from populations we are not interested in to look more like the one we are targeting.
- **House-effect adjustments.** Second, we adjust polls for “house effects,” or the tendency for certain polling firms to produce polls that consistently lean one way or another relative to the average poll conducted around the same time. We estimate house effects using a similar formula to the population adjustment explained above, but we use a statistical technique called Bayesian updating to make sure the adjustments for a given pollster are not sensitive to noise in the data. That’s because what looks like a house effect in an individual poll could just be abnormal amounts of random sampling or other error. This added step shrinks our model’s initial estimate of a pollster’s house effect back toward zero. Our assumption here is that house effects may look large at the beginning of a series but will diminish over time in the absence of other data. Specifically, the regression we run in the adjustment model gives us both an estimated mean and standard deviation for the house effect for each pollster, which we use to update a normal distribution with a mean of 0 and a standard deviation of 3. For national averages, we estimate house effects using only national polls. For state-level averages, we estimate house effects from both national polls and state-level polls, since there typically aren’t enough state-level surveys from an individual pollster to reliably calculate a state-level house effect.
- **Trendline adjustments.** Finally, for averages of state polls, we apply a trendline adjustment to control for movement in the national political environment between the time the poll was taken and whatever day the aggregation model is run on. This adjustment gives us a better estimate of public opinion in states with sparse polling data. Imagine it’s the 2016 election and you only had polls from Pennsylvania up to Oct. 15, but national polls released up until Election Day. An average of national polls would have shown significant tightening in the race over the last three weeks of the campaign, but an unadjusted average of the Pennsylvania polls would have been stuck at the value of polls taken in mid-October. This simple average would thus have been highly misleading if taken at face value.

How we average polls together

Once we have collected our polls and adjusted them, we can finally calculate a polling average. Our final polling average is actually an average of two different methods for calculating a trend over time.

The first is an exponentially weighted moving average, or EWMA (a popular tool in financial analysis). The EWMA calculates an average for any given day by calculating a weight for each poll based on how old it is, multiplying the poll result by that weight, then adding the values together. We select the value for a parameter called decay, which determines the rate at which older data points are phased out of the average according to an exponential function.

The second is a trend through points, calculated using a methodology similar to that of the now-defunct Huffington Post Pollster website and the forecasting methodology used by The Economist. We fit this trend using our custom implementation of a kernel-weighted local polynomial regression, which is just a fancy way to calculate a line through points. The trendline and weight on any given poll in this regression depend on two parameters that we also have to set: the bandwidth of the kernel and the degree of the polynomial.³ Once these two trendlines are calculated, we calculate a mixing parameter to determine how much weight to give each trendline in our final average. This weight depends on the number of polls conducted over the last month. We put more weight on the polynomial regression when there is more data available to estimate it. That has the benefit of giving us less noisy averages, because the local polynomial regression detects movement quicker than the EWMA, which is useful when we have news events that move public opinion and coincide with a big dump of new data.

Finally, we use a technique called optimization to test the calibration of our model by calculating thousands of different averages for each politician and race in our historical database using different values for each of our four hyperparameters (the parameters that govern the behavior of a model): decay, bandwidth, degree and the mixing parameter. For each type of polling average, our model picks the set of parameters that generate the optimal values for two measures of accuracy:

- **The mean absolute error** our polling average has in predicting future real poll results. For every time series in our historical database, we calculate an average on every day in the series and then take the average difference between every poll result and the calculated polling average 28 days earlier.
- **Error autocorrelation**, which captures how well we can predict the differences between polls and the average on a given day based on previous differences between the polls and the average. This ensures that the model strikes the right balance between predicting future poll results and describing past data; a polling average shouldn't bounce around to match the value of every poll on every day, and neither should it be a straight line on a graph. When autocorrelation is too high, a model is not reacting enough to movement in the underlying data. Too low, and it's reacting too much.

In 2023, we started calculating these hyperparameters values separately for each type of polling average (that is, presidential approval ratings, favorability ratings and horse-race polling averages). That means that we are always specifying the type of aggregation model that minimizes these two measures of error for that type of polling average. This results in averages that are more reactive to changes in the horse race, which tend to happen as a result of real campaign events, and less reactive to changes in favorability rating polls, which are due more often to noise.

And that's basically it! FiveThirtyEight's polling averages can really be thought of as two different models: one that measures any biases resulting from the polls' underlying data-generating process, and another to aggregate polls after adjusting for those biases.

There is one last feature of note. As with any model we run, polling averages contain uncertainty. There is error in the individual polls, error in our adjustments and error in selecting the hyperparameters that produce the optimal trendlines. Starting in 2023, all our polling averages⁴ convey this uncertainty by calculating and displaying the 95th-percentile difference between the polling average on every day and the polls published those days. This "error band" represents the uncertainty in that average.²³

²³ <https://fivethirtyeight.com/methodology/how-our-polling-averages-work/>

Additionally, FiveThirtyEight's pollster rankings – part of this process – can be found directly at [this link](#).²⁴

²⁴ <https://projects.fivethirtyeight.com/pollster-ratings/>

APPENDIX D (CONFIDENTIAL) – COMPLIANCE WITH CORE PRINCIPLES

Compliance with Core Principles

The Exchange has conducted a comprehensive analysis of the designated contract market core principles (“Core Principles”) as set forth in Part 38 of the Act. The Core Principles relevant to the Contract are outlined and discussed in further detail below:

Core Principle 2 - Compliance with Rules and Impartial Access: The Exchange has adopted the Rulebook, which provides the requirements for accessing and trading on the Exchange. Pursuant to Chapter 3 of the Rulebook, Members must utilize the Exchange’s services in a responsible manner, comply with the rules of the Rulebook (“Rules”), cooperate with Exchange investigations, inquiries, audits, examinations and proceedings, and observe high standards of integrity, market conduct, commercial honor, fair dealing, and equitable principles of trade. Chapter 3 of the Rulebook also provides clear and transparent access criteria and requirements for Exchange Members. Trading the Contract will be subject to all the rules established in the Rulebook, which are aimed at enforcing market integrity and customer protection.

In particular, Chapter 5 of the Rulebook sets forth the Exchange’s Prohibited Transactions and Activities and specifically prescribes the methods by which Members trade contracts, including the Contract. Pursuant to Rule 3.2, the Exchange has the right to inspect Members and is required to provide information concerning its business, as well as contracts executed on the Exchange and in related markets. Chapter 9 of the Rulebook sets forth the Exchange’s Discipline and Rule Enforcement regime. Pursuant to Rule 9.2, each Member is required to cooperate with an Exchange investigation by making their books and records available to the Exchange. The Exchange’s Market Regulation Department performs trade practice surveillance, market surveillance, and real-time market monitoring to ensure that Members adhere to the Rules of the Exchange. The Market Surveillance Department reserves the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

Core Principle 2 also stipulates that an exchange shall establish means to provide market participants with impartial access to the market. Chapter 3 of the Rulebook, and Rule 3.1 in particular, provides clear and transparent access criteria and requirements for Members. The Exchange will apply access criteria in an impartial manner, including through the application process described in Rule 3.1.

Core Principle 3 - Contract not Readily Subject to Manipulation:

Core Principle 3 and Rule 38.200 provide that a DCM shall not list for trading contracts that are readily susceptible to manipulation. The Exchange’s marketplace and contracts, including this

Contract, have been designed in accordance with this fundamental principle. The Exchange maintains various safeguards against outcome manipulation and other forms of manipulation, including, (i) automatic trade surveillance and suspicious behavior detection, (ii) Rulebook prohibition, Member certification, and notification, (iii) Member monitoring and know-your-customer verification, and (iv) sanctions. These safeguards render the Contract not readily susceptible to manipulation.

(i) Automatic trade surveillance and suspicious behavior detection: The Exchange's trade monitoring and market surveillance systems compute statistics using information from all trades that occur on the Exchange over a range of timeframes, ranging from per trade to the full history of trading activity. These statistics are geared towards identifying unusual trading activity and outlier behaviors. If the trade monitoring and market surveillance system identifies behavior deemed to be unusual, the Exchange's compliance personnel have the ability to investigate and determine applicable sanctions, including limits to or suspension of a Member's access to the Exchange.

(ii) Rulebook prohibition, member certification and notification: The Exchange's Rulebook includes various provisions that prohibit manipulative behaviors. As noted above in the discussion of Core Principle 2, the Exchange's Rulebook gives the Exchange the authority to investigate potential violations of its rules. Pursuant to Rule 3.2, the Exchange has the right to inspect Members' books and records, as well as contracts executed on the Exchange and in related markets. Pursuant to Rule 9.2, each member is required to cooperate with an Exchange investigation by making their books and records available to the Exchange for investigation. The Exchange's Market Regulation Department performs trade practice surveillance, market surveillance, and real-time market monitoring to ensure that Members adhere to the Exchange's rules. The Rulebook also imposes sanctions on Members who break rules. Potential penalties include fines, disgorgement, and revocation of membership in Kalshi. Only Members are allowed to trade on the Exchange, and the Exchange requires its Members to strictly comply with the Rulebook. Members cannot complete the account creation process and trade on the Exchange until they certify that they have read the Exchange's rules and agree to be bound by them.

In addition, the Exchange requires applicants for membership to represent and covenant that the applicant will not trade on any contract where they have access to material non-public information, may exert influence on the market outcome, or are an employee or affiliate of the Source Agency. In order to further reduce the potential for manipulation, the Exchange maintains a dedicated page on the trading portal that lists all the source agencies and their associated contracts, together with a warning that employees of those companies, persons with access to material non-public information, and persons with an ability to exert influence on the underlying of a contract are prohibited from trading on those contracts. This page is intended to serve as an effective means of raising Members' awareness of these rules and prohibitions, further reducing

the potential for manipulation. Similarly, the Exchange places a prominent notice on each contract page that notifies Members of the prohibition on trading the Contract while employed by its Source Agency, trading the Contract on the basis of non-public information, and trading the Contract while having the ability to exert influence on the Contract's Market Outcome.

(iii) **Member monitoring and know-your-customer verification (“KYC”)**: The Exchange has a robust KYC process. The KYC process is an important tool that helps flag and uncover higher risk traders before they become Members of the platform. The Exchange's KYC process leverages technology to develop a clear and proper understanding of its members, and the various risks they may pose with respect to market integrity and fairness, including manipulation. During the application process, applicants are required to share personally identifiable information, such as their full legal name, identification number, date of birth, and address with the Exchange. Additionally, applicants are required to provide a government issued photo ID (passport, drivers license, etc.) that is used to validate the personally identifiable information shared by the applicant during the application process. Applicant information is run through a comprehensive set of databases that are actively compiled and maintained by an independent third party. The databases are utilized by the Exchange to identify applicants that are employees or affiliates of various governments and other agencies. Moreover, the databases can identify known close relatives and associates of such people as well. Applicants that are flagged go through enhanced due diligence, including manual review, as part of the onboarding process.

Additionally, as part of the KYC process, the Exchange runs applicants through adverse media databases. The adverse media dataset is a real-time structured data feed of companies and individuals subject to adverse media. Monitoring thousands of news sources, business and trade journals, in addition to local, regional and national newspapers, the adverse media feed isolates and highlights any entities or individuals subject to a range of adverse media. The Exchange utilizes the database to trigger enhanced due diligence, because applicants with adverse media may be more likely to engage in certain types of unlawful activity including market manipulation.

The Exchange engages in active and continuing KYC checks. The KYC checks are initially performed upon application, and the Exchange then monitors its Members on an ongoing basis by running member information through the KYC databases. If material new information concerning an existing Member is at some point added to a database, the Exchange's system will flag the Member even if the cause for the flag was not extant at the time of the Member's application. That Member will then go through enhanced due diligence.

(iv) **Sanctions**: Exchange Members must agree to the terms and conditions of the Exchange's Rulebook before being allowed to trade. As a result, Members are subject to disciplinary actions

and fines for engaging in improper market conduct that is prohibited by the Exchange's Rulebook. In the event that suspicious trading activity is detected and results in an investigation initiated by the Exchange, market participants are required to provide the Exchange with information relevant to the scope of the investigation under Rule 3.2. Chapter 9 of the Exchange's Rulebook details the process for discipline and rule enforcement. Disciplinary action can range from a letter of warning to fines to referral to governmental authorities that can result in criminal prosecution.

In addition to these global policies and safeguards, there are a number of contract specific attributes and considerations that render the Contract not readily susceptible to manipulation.

FiveThirtyEight employees who work on the polling aggregator would be unable to manipulate the contract. The information used to calculate the polling average is publicly available (i.e. it is the set of polls from a pre-set group of reputable polling companies that are posted on those companies' websites) and the methodology by which the average is calculated is publicly available so no *FiveThirtyEight* employee would have inside information about the results of the average. In addition, any discrepancy between the results of a poll and its value as recorded on *FiveThirtyEight* would be swiftly identified, as these polls are both high-profile (and are reported on by major news outlets and agglomerated by rival aggregators like RealClearPolitics) and explicitly linked in the *FiveThirtyEight* aggregator.

Polling companies whose polls form the basis of the approval ratings cannot meaningfully manipulate the average. As described at length in Appendix C, there is extensive quality control conducted by *FiveThirtyEight* to prevent polling organizations from manipulating the value of the Underlying. This sort of edge is how and why the publication has succeeded and is the basis upon which it has differentiated itself; dedication to high-quality data-based journalism is the core of the publication's reputation. One of the strengths of the *FiveThirtyEight* model is that it is an aggregate--indeed, it has dozens of pollsters whom they include in their aggregate. In addition, it phases out polls by the previous pollster when newer polls are released. Therefore, on expectation, the timing of a poll's release should not affect the aggregate (i.e. a polling firm cannot skew the average by publishing several times in the period before Expiration). This approach also helps reduce any "house effects" (e.g. some pollsters have consistently more Democratic or Republican-leaning results) since a) one poll has only a slight effect on the average and b) any new poll from a firm just replaces the firm's old polls so the net change of adding a new poll would not affect the overall skew of the numbers. Thus having advance knowledge of the poll's results--considering how many polls are factored into the average--would not be sufficient information to affect the market. The most important pollsters also have codes of conduct that prohibit their employees from trading on their material non-public information. For example, the Washington Post has their code of conduct below:

This news organization is pledged to avoid conflicts of interest or the appearance of conflict of interest wherever and whenever possible. We have adopted stringent policies on these issues, conscious that they may be more restrictive than is customary in the world of private business.²⁵

Individual poll respondents also could not meaningfully manipulate the market. Polls have thousands of responses and *FiveThirtyEight* includes a large number of polls so one individual could not meaningfully affect any poll, let alone the polling aggregate. The aggregate also only includes the most accurate polls so polls that matter most are the polls least likely to be manipulated.

Political campaigns themselves will not behave differently because of the Contract. Their incentive is always to maximize their polling numbers in order to win the election. Campaigns have little ability to directly influence their poll numbers, moreover – but to the extent they do, they are already maximizing those channels. Finally, employees from *FiveThirtyEight* and the polling organizations cited by them (available on their website) are prohibited from trading on the Contract.

Further, as part of the Exchange’s KYC verification and monitoring system, the Exchange also cross-checks applicants against comprehensive databases. In particular, the Exchange will check whether any Members trading on this Contract are on databases of Politically Engaged Persons. The Exchange further cross checks applicants against databases of family members and close associates of Politically Engaged Persons. These checks help to further reduce the potential for trading violations and further increase the integrity of this Contract.

Core Principle 4 - Prevention of Market Disruption: Trading in the Contracts will be subject to the Rules of the Exchange, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. Trading activity in the Contract will be subject to monitoring and surveillance by the Exchange’s Market Surveillance Department. In particular, the Exchange’s trade surveillance system monitors the trading on the Exchange to detect and prevent activities that threaten market integrity and market fairness including manipulation, price distortion, and disruptions of the settlement process. The Exchange also performs real-time market surveillance. The Exchange sets position limits, maintains both a trade practice and market surveillance program to monitor for market abuses, including manipulation, and has disciplinary procedures for violations of the Rulebook.

Core Principles 7 and 8 - Availability of General Information and Daily Publication of Trading Information: Core Principles 7 and 8, implemented by Regulations Sections Subsections 38.400, 38.401, 38.450, and 38.451, require a DCM to make available to the public accurate information regarding the contract terms and conditions, daily information on contracts

²⁵ <https://www.washingtonpost.com/policies-and-standards/>

such as settlement price, volume, open interest, and opening and closing ranges, the rules, regulations, and mechanisms for executing transactions on or through the facilities of the contract market, and the rules and specifications describing the operation of the contract market's electronic matching platform.

Rule 2.17 of the Rulebook sets forth the rules for publicizing information. The Rulebook and the specifications of each contract are made public on the Exchange website and remain accessible via the platform. The Exchange will post non-confidential materials associated with regulatory filings, including the Rulebook, at the time the Exchange submits such filings to the Commission. Consistent with Rule 2.17 of the Rulebook, the Exchange website will publish contract specifications, terms, and conditions, as well as daily trading volume and open interest for the Contract. Each contract has a dedicated “Market Page” on the Kalshi Exchange platform, which will contain the information described above as well as a link to the Underlying used to determine the Expiration Value of the Contract. Chapter 5 sets forth the rules, regulations and mechanisms for executing transactions, and the rules and specifications for Kalshi’s trading systems.

Core Principle 11 - Financial Integrity of Transactions: Each Member must be in good standing and in compliance with the Member eligibility standards set forth in Chapter 3 of the Rulebook. All contracts offered by the Exchange, including the Contract, are cleared through the Clearinghouse, a Derivatives Clearing Organization (“DCO”) registered with the CFTC and subject to all CFTC Regulations related thereto. The Exchange requires that all trading be fully cash collateralized. As a result, no margin or leverage is permitted, and accounts must be pre-funded. The protection of customer funds is monitored by the Exchange and ensured by the Clearinghouse as “Member Property.”

All Remaining Requirements: All remaining Core Principles are satisfied through operation of the Exchange’s Rules, processes, and policies applicable to the other contracts traded thereon. Nothing in this contract requires any change from current rules, policies, or operational processes.