

APPENDIX B (CONFIDENTIAL) – FURTHER CONSIDERATIONS

Note that much of the material here was included in the original formal preview of the contract that was provided to DMO on March 28, 2022, and also provided to the Commissioners' offices after that.

Hedging and Price Basing Utility

The U.S. Constitution granted Congress extensive powers to influence the economy, including the powers to impose and collect taxes, regulate interstate and international commerce, to create money, to borrow money with American credit, and to appropriate tax revenue. Consequently, shifts in which political parties control government can portend dramatic changes in policy and personnel that could swing the fortunes of entire sectors of the economy. The resulting volatility creates substantial and well-established demand for firms to insure themselves against outcomes contrary to their interests. Unfortunately, the status quo forces these firms to choose between inefficient and indirect forms of hedging this risk and not hedging at all. This section will advance three main areas of analysis:

1. First, political control has predictable and foreseeable impacts on the macro-economy writ large and specific sectors more powerfully.
2. Second, firms already engage in behavior to hedge against such risks, indicating that the need for these hedging products exists.
3. Third, existing hedging options are inferior to being able to trade directly on political control with a CFTC-regulated product.

1. **The partisan makeup of government has substantial and predictable economic impact.**

The preponderance of the political science literature suggests that changes in political control have consequences. Even if reality complicates the ability to enact every aspect of a given party's agenda, a review of the literature suggests that politicians make a good faith effort to enact roughly two-thirds of their campaign agendas.³ They not only have the ability to shape ambitious pieces of legislation that can affect the disbursement of trillions of dollars, but they possess broad regulatory authority to affect the outcomes of myriad industries. As a consequence, academic studies find that financial markets expect policy changes following elections but before policies are actually enacted. The remainder of this subsection will highlight the evidence provided by private research firms and investors, academic researchers, politically vulnerable firms themselves, and economic policymakers that political control risk is real and hedges are sought.

³ Timothy Hill. 2016. "Trust us: Politicians keep most of their promises". *FiveThirtyEight*.

Private research firms

In 2020, investment bank research divisions offered projections about the economic and financial impacts of various political outcomes. For example,

- **Goldman Sachs**'s chief economist stated publicly that full Democratic control of government would cause the bank to upgrade their earnings forecast by sharply increasing the probability that a large fiscal stimulus bill would become law.⁴ Full Democratic control would also, according to the bank's insights, "likely include a stimulus package in Q1, followed by infrastructure and climate legislation. In this scenario, we would expect legislation expanding health and other benefits, financed by tax increases, to pass."⁵
- **Morgan Stanley** also cited the chance of stimulus along with infrastructure spending and corporate tax changes as a vehicle for a "blue wave" leading to a weaker dollar, lower interest rates, stronger GDP growth and lower bond prices.⁶⁷
- **JP Morgan Chase** projected that a Democratic victory would lead to a rally in 'left-behind' equities, such as "European cyclicals, value, China-exposed stocks and renewables."⁸
- **Bank of America** provided roadmaps for each type of partisan outcome (e.g. one party controls all of government, divided government, et cetera). There, they wrote that full Democratic control of government would lead to \$2-2.5 trillion in stimulus compared to a Biden win with a divided Congress (\$0.5-1 trillion) or a Trump win with a divided Congress (\$1.5-2 trillion). They also detailed impacts to specific sectors, like businesses exposed to Chinese trade, in each scenario.⁹
- **UBS** published a report noting partisan outcomes for policy and the economy, and recommended investors specifically focus on candidates' policy commitments with regards to politically-sensitive industries like energy, health care, financials, and the environment. They noted that their investors should consider how the S&P 500 has performed best in environments where Republicans win, and their clients should make portfolio appropriate adjustments.
- **Moody Analytics**—not an investment bank, but a credit rating agency with a market research division—explicitly estimated that Democratic control of government would result in 4.2% growth between 2020-2024, compared to 3.1% under a Republican control

⁴ Matthew Fox. 2020. "Goldman's chief economist breaks down why a Biden-led blue wave would prompt an upgrade in growth forecasts". *Business Insider*.

⁵ Thomas Franck. 2020. "Goldman Sachs says Democratic sweep would unleash 'substantially' more stimulus." CNBC.

⁶ Morgan Stanley. 2020. "A Revised Guide to Economic Policy Paths & Market Impacts".

⁷ Morgan Stanley. 2020. "2020 US Election Preview: 5 Themes to Watch for Investors."

⁸ Ksenia Galouchko. 2020. "JPMorgan Says Biden Victory Could Mark a Stock Market Shift." Bloomberg.

⁹ Bérengère Sim. 2020. "Bank of America wrote a massive 92-page report on election's impact — here's what investors need to know." Financial News.

scenario.¹⁰ They similarly projected a one percentage point lower unemployment rate and a 0.6 percentage point higher S&P 500 under a Democratic sweep.

The above research is provided to institutions, who pay for the firms' expertise on the status and future of the economy at great expense. These clients are predominantly money managers, such as hedge funds, pension funds, and other kinds of investment pools. If they did not agree that there are predictable specific economic consequences stemming from the partisan makeup of Congress, they would not pay for this research, nor would they act on it by changing their investment portfolios or hedging the risks from political control. The results of these research firms' research are often reported in the press. Both the fact that trillion-dollar investment funds pay handsomely for this information, and that the press routinely reports on this research suggest that political control has enormous economic impact.

Academic research

University-backed research confirms that the marketplace considers these risks in its operations. Researchers Erik Snowberg, Justin Wolfers, and Eric Zitzewitz used a variety of prediction markets to establish a relationship between the odds of a given party's success in Congressional midterms and financial markets and indicators.¹¹ They found that there was a consistent link between changes in expectations of who would control Congress and the prices of equities, government bonds, and the exchange rates between the U.S. dollar and foreign currencies. The fact that financial markets utilize political control as a pricing factor demonstrates that market participants understand that there are predictable, specific economic consequences to political control. That same team looked at high-frequency trading data immediately following the release of (what turned out to be inaccurate) exit poll data which briefly caused a major change in the odds of a Democratic victory in 2004. Such a sudden spike during what is normally a quiet trading period allowed the researchers to isolate the effects of the changes in political expectations from other economic events during the same period. They concluded that markets expected a Republican victory to result in higher equity prices, interest rates, oil prices, and a stronger dollar than a Democratic one.¹² They reperformed that analysis in 2016, where they found that markets anticipated that a Republican victory would reduce the value of the S&P 500, foreign stock markets, reduce oil prices, and lead to a significant decline in the Mexican Peso, while also increasing future market volatility compared to a Democratic win.¹³ A similar study in 2008 found that Democratic politicians polling higher than Republican ones was better for equity markets.¹⁴

¹⁰ Moody's Analytics. 2020. "The Macroeconomic Consequences: Trump vs. Biden".

¹¹ Erik Snowberg, Justin Wolfers and Eric Zitzewitz. "Party Influence in Congress and the Economy." 2007.

¹² Erik Snowberg, Justin Wolfers and Eric Zitzewitz. "Partisan Impact on the Economy". *Journal of Economic Perspectives*. 2004.

¹³ Justin Wolfers and Eric Zitzewitz. 2016. "What do financial markets think of the 2016 election?"

¹⁴ Demissew Diro Ejara, Raja Nag, and Kamal P. Upadhyaya, 2012. "Opinion polls and the stock market: evidence from the 2008 US presidential election." *Applied Financial Economics*.

Similarly, Northwestern professor Seema Jayachandran used a natural experiment to study the effects of partisan control of Congress.¹⁵ In 2001, Vermont Senator James Jeffords switched parties from Republican to Democrat, shifting control of the Senate. In what she called “the Jeffords effect”, the equity valuations of firms that donated to Republicans decreased by 0.4%, while the equity valuations of firms that donated to Democrats increased by 0.1%, again indicating the marketplace’s belief that Congressional control has real, predictable consequences. Similarly, Brown University economist Brian Knight found that “under a Bush administration, relative to a counterfactual Gore administration, Bush-favored firms are worth 3% more and Gore-favored firms are worth 6% less, implying a statistically significant differential return of 9%”.¹⁶ Economist Andrea Mattozzi found by regressing Bush- or Gore-affiliated portfolios against surprising poll results, “an increase in the probability of a Bush victory from 50 to 51 percent, increases the annual expected excess return of the Bush portfolio by 25 percent and decrease[s] the annual expected excess return of the Gore portfolio by 35 percent”.¹⁷ These findings—that changes in the expectations or outcomes of partisan political control affect financial markets—have been consistently replicated.¹⁸¹⁹²⁰²¹²²²³²⁴²⁵

Firm-level testimony

Firms themselves discuss this risk often. In Q3 2020, more than one-third of company quarterly earnings conference calls used the term ‘election’.²⁶ On these calls, concerns were most frequently raised regarding tax reform, additional potential fiscal stimulus, and regulatory changes. In these

¹⁵ Seema Jayachandran. 2006. “The Jeffords Effect”. *Journal of Law and Economics*.

¹⁶ Brian Knight. 2006. “Are policy platforms capitalized into equity prices? Evidence from the Bush/Gore 2000 Presidential Election” *Journal of Public Economics*.

¹⁷ Andrea Mattozzi. 2005. “Can we insure against political uncertainty? Evidence from the U.S. stock market”.

¹⁸ Frederico Belo, Vito D. Gala, and Jun Li. 2013. “Government spending, political cycles, and the cross section of stock returns.” *Journal of Financial Economics*.

¹⁹ Francois Gourio, Michael Siemer, and Adrien Verdelhan. 2015. “Uncertainty and international capital flows.” *Working paper, Federal Reserve Bank of Chicago, MIT*.

²⁰ Kyle Handley and Nuno Limao. 2015. “Trade and investment under policy uncertainty: theory and firm evidence.” *American Economic Journal: Economic Policy*

²¹ Bryan Kelly, Lubos Pastor, and Pietro Veronesi. 2016. “The price of political uncertainty: Theory and evidence from the option market.” *The Journal of Finance*

²² Ralph S. J. Koijen, Tomas J. Philipson, and Harald Uhlig. 2016. “Financial health economics.” *Econometrica*.

²³ Timothy Besley and Hannes Mueller. 2017. “Institutions, volatility, and investment.” *Journal of the European Economic Association*.

²⁴ Philippe Mueller, Alireza Tahbaz-Salehi, and Andrea Vedolin. 2017. “Exchange rates and monetary policy uncertainty.” *The Journal of Finance*.

²⁵ Michael Herron. 2000. “Estimating the Economic Impact of Political Party Competition in the 1992 British Election.” *American Journal of Political Science*.

²⁶ John Butters. 2020. “More than one third of S&P 500 companies are discussing the election on Q3 earnings calls.” Factset.

conversations, investors frequently ask company executives what the impact of a specific partisan outcome will be (e.g. a “blue wave”, divided government, et cetera) on the company’s bottom line. Consider a few examples, beginning with Raymond W. McDaniel, CEO of Moody’s Corporation, a major credit ratings agency:

...as a starting point, we recognize that there are not going to be identical policies and priorities depending on whether there's a blue wave or whether the Republicans win, hold the Senate, win the Presidency. It's a number of combinations, none of which will produce exactly the same set of priorities and policy elements that will have to address just as our business as well.²⁷

Thomas A. Fanning, CEO of Southern Company, an energy company:

Coal depends on what happens with environmental. And that really depends a lot to a large extent on the elections going forward. If you have a blue wave, it may be that we would see perhaps tighter regulation and co-waning importance, but we'll see.²⁸

Jeffrey Solomon, CEO of Cowen Inc., an investment bank:

So, we're presuming there's a Blue Wave coming. And I would say, we'll take a step back for a second and say, regardless of what the election outcome is, there's some real underpinnings that will ignite growth. First of all, the Fed stays accommodative, regardless of who's in control. I also think there'll be a significant fiscal spending package that happens regardless of who's in control. The difference will be where the money is and the size of the money. I think from a Blue Wave standpoint, if that actually occurs, I think it's fantastic for the market to be clear. Because there will be a much bigger spending package that occurs that will more than offset any drag from tax -- from a tax increase.

So, people tend to pick and choose what they want to focus on. A tax increase could impair valuations or reverse some of the gains that we saw from the last tax cuts. But effectively, we're going to go back to where we were a few years ago. That's really what we're talking about here from a tax standpoint on capital gains, at least anyway. And I think that will be more than offset by the amount of fiscal spend that's going to happen in areas like sustainability.²⁹

Ken Moelis, CEO of Moelis & Company, a boutique investment bank:

²⁷ The Motley Fool. “Moody's Corp (MCO) Q3 2020 Earnings Call Transcript.”

²⁸ The Motley Fool. “Southern Company (SO) Q3 2020 Earnings Call Transcript.”

²⁹ Seeking Alpha. “Cowen Inc. (COWN) CEO Jeffrey Solomon on Q3 2020 Results - Earnings Call Transcript.”

I think our M&A pace -- feels as high as it's ever been. Our backlog is as strong totally -- as it's ever been. I think it was our second earnings quarter was in late July, we said we started -- we really felt it. And it may be -- that it's -- we deal with a little bit of a growth here -- middle -- a lot of what we do is in the sponsor community and possibly they responded quicker.

I think the larger transactions are a little more affected by -- maybe by the election and tax policy and what happens globally.³⁰

Thomas Peterffy, Chairman of Interactive Brokers, a brokerage firm:

Well, in the last couple of weeks, we do notice some moderation in activity, and -- which would be expected as we come up to the election. And then, of course, I think it will pick up when the results come out, especially if the Senate goes Democratic, I expect that people will start taking the long-term gains because of the expected 43% long-term capital gains tax rate. And then of course, we are looking further down the road, more and more spending that will result in asset inflation, including higher and higher stock prices.

As the New York Times's Conor Dougherty reported in 2016,

Executives at Jack in the Box said uncertainty over the election could be affecting consumers' willingness to buy Jumbo Jacks and cheeseburgers. Commercial real estate brokers said the election was causing businesses to hold off on new office leases. Auto dealers said the results could determine how many people buy cars.

From banking to oil to pharmaceutical companies, to real estate agents and even cruise ship operators, everyone seems to think wariness ahead of the election is affecting their business. Sometimes for the better, mostly for the worse.³¹

Policymakers

The Federal Reserve Board frequently discusses the impact changes in political expectations are having on asset markets in the context of the Board's monetary policy stance. Consider the following from the November 2020 meeting minutes:

Yields on two-year nominal Treasury securities were little changed over the intermeeting period, while longer term yields increased modestly, on net, reportedly reflecting market

³⁰ Seeking Alpha. "Moelis & Company (MC) CEO Ken Moelis on Q3 2020 Results - Earnings Call Transcript."

³¹ Conor Dougherty. 2016. "The Election's Effect on the Economy? Doughnut Sales Are Probably Safe." *The New York Times*.

participants' reassessments of the election outcome and the outlook for fiscal policy...Broad stock price indexes increased, on balance, over the intermeeting period amid volatility associated with market participants' reactions to news on the U.S. election, the pandemic's trajectory, and the fiscal policy outlook...Uncertainty about additional U.S. fiscal stimulus and the outcome of the U.S. presidential election also caused some asset price volatility abroad.³²

In the December 2016 meeting, the Board discussed the impact of the previous month's electoral outcome on a variety of assets, including Treasury yields, the equity market, overnight index swaps, and corporate bond yields.

Surveys of market participants indicated that revised expectations for government spending and tax policy following the U.S. elections in early November were seen as the most important reasons, among several factors, for the increase in longer-term Treasury yields, the climb in equity valuations, and the rise in the dollar...Asset price movements as well as changes in the expected path for U.S. monetary policy beyond December appeared to be driven largely by expectations of more expansionary fiscal policy in the aftermath of U.S. elections...In addition, the expected federal funds rate path over the next few years implied by quotes on overnight index swap (OIS) rates steepened. Most of the steepening of the expected policy path occurred following the U.S. elections, reportedly in part reflecting investors' perception that the incoming Congress and Administration would enact significant fiscal stimulus measures...Broad U.S. equity price indexes rose over the intermeeting period, apparently boosted by investors' expectations of stronger earnings growth and improved risk sentiment, with much of the rally coming after the U.S. elections...Although gross issuance of corporate bonds slowed notably in October and November from the brisk pace in the third quarter, the decrease in corporate bond spreads after the U.S. elections suggests that the lower issuance did not reflect a tightening of financial conditions.³³

During the December 2012 meeting, Simon Potter, the Federal Reserve's Head of Economic Research said:

The outcome of the election reinforced investors' expectations for a continuation of highly accommodative monetary policy...Some market participants also believe that there is an increased chance of housing policy changes following the election, which would increase refinance activity and origination volumes associated with credit-constrained borrowers.³⁴

³² Minutes of the Federal Open Market Committee. November 4–5, 2020.

³³ Minutes of the Federal Open Market Committee. December 13–14, 2016.

³⁴ Meeting of the Federal Open Market Committee. December 11–12, 2012.

The Federal Reserve's October 2016 Beige Book (which is the routine survey of various corporations' estimates of their economic outlook) cites electoral risk no fewer than eight times, particularly in construction, auto sales, and commercial real estate.³⁵ This is not a new phenomenon. The Federal Reserve's Beige Book reported in 2012,

Leasing activity is said to be down in Boston as firms say political uncertainty makes them reluctant to make leasing commitments in advance of the national election... A few builders said that they would like to hire more workers but are hesitant to do so because of uncertainty surrounding the upcoming election and the fiscal cliff... Across the board [in the manufacturing sector], contacts noted uncertainty in their outlooks due to the upcoming election.³⁶

The marketplace's expectations of the impacts of changes in political control are so credible that the Federal Reserve uses them when making monetary policy decisions. This provides evidence that such outcomes are a sufficient risk to be hedged.

The necessity of hedging political control itself, not merely policy outcomes

If the mechanism by which politicians affect the economy is through policy change, it might stand to reason that contracts on the outcomes of policy changes are sufficient to provide for full hedging, and there is no need for political control contracts. However, this analysis is incomplete. There are two core reasons why political control contracts add hedging utility above and beyond specific policy contracts.

First is the uncertainty surrounding specific policy outcomes. For example, immediately after the Republican party assumed control of government in 2016, there was widespread sentiment that trade tensions with China would increase. However, little was known about the form that trade tensions with China would take, such as which restrictions might be enacted (tariffs, World Trade Organization lawsuits, sanctions, withdrawal from global free trade agreements, and many more), when those would happen, in what context, and so on. Nonetheless, without any specific policy, market participants were confident that the change in political control implied an increase in trade tensions, prompting recommendations by financial institutions to sell Asian currency, Asian equities, and the Mexican peso.³⁷ Enough was known to change asset prices and investor behavior based on public information. However, because the policy particulars were unknown, there was practically no way for a DCM to provide a market for its Members that would hedge such a risk in advance of policy enactment. Because of its obligations to be specific about resolution mechanisms for manipulation and anti-fraud purposes, a DCM cannot, and should not, propose

³⁵ Summary of Commentary on Current Economic Conditions by Federal Reserve Districts. October 2016.

³⁶ Summary of Commentary on Current Economic Conditions by Federal Reserve Districts. September 2012.

³⁷ Goldman Sachs. "Beyond 2020: Post-election policies."

vague markets like, “Will the U.S. start a ‘trade war’ somewhere?” or “Will trade tensions increase?” However, a political control event contract would capture this event risk. In this regard, it is precisely because the *particular* economic outcomes of political control are sometimes unclear that the market needs such contracts. Firms need to hedge against parties’ policy stances, e.g. hostile to trade, pro-tax increases, supportive of stringent environmental regulation, etc., *because* the precise implementation of those stances is not identifiable ahead of time.

The second is the breadth of changes political control of government can portend. The impact of congress is much broader and reaches much further than legislation. Consider a firm in the energy sector which is exposed to political risk. It is concerned that a new Congress will increase subsidies for their competitors and there will be new regulations and new procedures imposed on the business. These risks are affected by potential legislation from congress, and also from non-legislative elements like budgets for regulators and signaling to regulatory agencies. There are many subtle and nuanced ways that political control impacts this that it might not even be possible to list contracts on them all, and certainly not feasible. Even events that could be defined might not have widespread enough interest to create a liquid market useful for hedgers to price-take, and many events will not be defined to even have a market on them. Because political control creates so many changes across government, it is easier for firms and exchanges to hedge using the catalyst of policy change itself (the change in political control) rather than all of the many particular policy and personnel outcomes that could come.

Market participants could use political control contracts to hedge the direct and linear change to the risks the political system poses to them, which is similar to how market participants use other, existing contracts to hedge such as hurricane contracts and economic indicator contracts.

Political control contracts could be used by all segments of market participants—retail, small businesses, and enterprise—to hedge their risk exposure to political control.³⁸ Various policy outcomes directly result in economic consequences to which market participants may be vulnerable. Political candidates consistently and vocally signal their competing policy intentions. While the policy might not end up being implemented, the likelihood of such a policy being implemented is greater if the party in favor of that policy has political control, and less if the party in favor of that policy does not have political control. As such, there is a connection between political control and the market participant’s exposure to unfavorable outcomes, and that risk can be hedged like any other. A market participant negatively exposed to a party’s platform would hedge that risk by buying political control contracts that the party in favor of that policy would have political control. Conversely, a market participant who stands to gain from a party’s platform

³⁸ Kalshi currently has a \$25,000 position limit on all of its contracts. This position limit might limit the efficacy of the contract for the largest enterprises, although the market is open to all eligible participants. This position limit is 1/10th the size of Nadex’s position limit on its presidential election contracts. It is sufficient for the needs of many individual participants and some small businesses, and can be used by all market participants to hedge at least a portion of risk.

would hedge the risk that a policy is not implemented by buying political control contracts that the party in favor of that policy would not have political control.

Even though there is no guarantee or certainty that a party's platform will or will not be implemented to completion regardless of control, the likelihood of the party's platform being implemented will change based on whether the party has political control, and therefore the risk associated with that platform will change too. That change in risk is what political control contracts hedge. Put another way, an outcome does not have to be certain in order to be hedged.

Hedging political control is like hedging any other risk exposure to events: firms and individuals hedge likelihoods, not absolutes. Market participants seeking to hedge risks associated with rising inflation do not know whether the price increases will be concentrated in the exact sector to which they are most exposed or how inflation will actually affect their bottom lines. Yet, because an increase in the broad measure of inflation substantially increases the likelihood that they will be exposed to impacts from inflation, firms hedge accordingly. Individuals in a recession do not know with certainty whether they will lose their job (indeed, most people retain their jobs during recessions). Yet, because a recession substantially increases the probability of losing their job, that change to the risk is hedged. There is a direct, linear connection between the underlying event and a financial risk, regardless of potential uncertainty through intermediate channels.

Consider a contract on whether a hurricane will occur. There is no certainty regarding the impact that a storm will inflict, such as the amount of damage, the type of damage, whether there will be flooding, electrical outages, and so on. There is no guarantee or certainty that a hurricane will cause any damage to any market participant, and there is no guarantee or certainty that a hurricane will make landfall. Yet, market participants hedge the *risk* – the increased likelihood – that they will suffer economic harm because of the hurricane. Hurricane contracts are a staple in OTC markets and on CFTC regulated exchanges like Cantor Fitzgerald and the Chicago Mercantile Exchange because market participants hedge the risk of a hurricane, not just the certainty.³⁹⁴⁰⁴¹

The same is true for a political control contract. Political control changes the likelihood of the economic risks market participants are exposed to. Those changes can be hedged, just like a market participant using a hurricane contract hedges changes to her economic risks from the weather or

³⁹ CX Markets. <https://weather.cxmarkets.com/>

⁴⁰ CME Hurricane Index Futures and Options.
https://www.cmegroup.com/trading/weather/files/WT106_NEWHurricaneFC.pdf

⁴¹ See also *MANAGING CLIMATE RISK IN THE U.S. FINANCIAL SYSTEM*, Report of the Climate-Related Market Risk Subcommittee, Market Risk Advisory Committee of the U.S. Commodity Futures Trading Commission (noting, in Chapter 3 that while the specific impacts of climate change are far from known, nonetheless, firms hedge climate change risk. And also discussing, in Chapter 6, “scenario analysis” and “scenario planning”, which it describes as “less about forecasting the most probable outcomes than it is a “what-if” analysis of different potential projections of the future,” and stating that climate-related scenario analysis are being used “by banks and other financial institutions to assess individual investments and overall portfolios.”).

one using economic indicator contracts hedges the change in her risks from changes to the indicator. Accordingly, if the economic consequences of changes in macroeconomic conditions or weather conditions can be hedged with such contracts, then hedging should also be allowed to mitigate the risk of direct economic consequences from changes in macro-political conditions (i.e., changes to political control) via a political control contract.

Here are several examples of how this would work:

- A firm supplies parts to hydrogen fuel cell companies. One party's platform includes new policies that will disfavor the firm's main clientele. These policies are broad and could end up being reduced subsidies, relaxed requirements to be carbon neutral, the removal of tax breaks, subsidies going to competitors in traditional fossil fuel industries, and others. Any one of these would impact the supply firm's bottom line because there would be less demand for its parts. The likelihood of one of these policies being implemented is greatest if the party proposing these policies is in control, is less if neither party is in control, and is least if the other party, the one who does not have these policies in its platform, is in control. The firm can use political control contracts to hedge the greater risk, whatever its risk management strategy is.
- A firm is a qualified opportunity zone fund under I.R.C. section 1400Z-2. The fund is exposed to changes in the tax laws that relate to it. The likelihood (not the certainty) of an unfavorable tax law being passed is greater if a particular party has political control, less if no party has political control, and even less if another party has political control. As noted above, the market factors political control into investment decisions. Potential investors in the fund might be reluctant to invest because of the risk level of an unfavorable tax policy being implemented. The firm can use the political control contract to hedge that risk according to its risk management strategy to address investors' concerns.
- A small online business imports its inputs from China. The business is exposed to the risk of increased trade tensions. One party's platform includes policies that increase the likelihood of trade tensions. Trade tensions could result in new tariffs (possibly on their inputs, possibly not), changes to existing trade agreements, or threats of such changes that cause market uncertainty, and could result in higher costs. The likelihood of one of these policies being implemented is greatest if the party proposing these policies is in control, is less if neither party is in control, and is least if the other party, the one who does not have these policies in its platform, is in control. The firm can use political control contracts to hedge the greater risk, whatever its risk management strategy is.
- A household is dependent on a new suite of policies enacted in order to maintain their current lifestyle as they raise a new set of children. This includes a newly legislated Child Tax Credit, paid parental leave, and regular stimulus payments. However, these policies are sunsetted, and should a different party take over, they will not be extended. The likelihood of these policies being extended is greatest if the party proposing these policies is in control, is less if neither party is in control, and is least if the other party, the one who

does not have these policies in its platform, is in control. This household could use a political control contract to hedge the risk that a new party enters government that will be less friendly to a big-government, subsidy-heavy, welfare-state aligned policy agenda.

- An individual is returning to school; however, they are financially constrained. They would be significantly less burdened if a party came into government that has credibly committed to a moratorium on student loan payments, forgiving student debt, making community college free for individuals under a certain income threshold, and expanding the suite of persons eligible for federal grants and subsidized loans. In addition, family members tell them they would be more likely to financially support their return to school under such circumstances. The likelihood of one of these policies being implemented is greatest if the party proposing these policies is in control, is less if neither party is in control, and is least if the other party, the one who does not have these policies in its platform, is in control. Thus, this individual can mitigate the risk associated with tuition and investment in schooling by using a contract on partisan political outcomes to hedge the risk such a party does not enter office.

There is also an economy that is built around Congress and political control. Participants who have economic exposure to the government relations field can use the contract to hedge. The value government relations professionals deliver to their clients is largely dependent on their connections and relationships – if the party the government relations professional is affiliated with does not control Congress, the value to clients is reduced. After all, having relationships with those who control key committees can be more useful than being close with the minority party.⁴² There is a direct linear connection between the party in control of Congress and the likelihood of a decrease in potential value to clients from individual government relations professionals. According to an analysis by OpenSecrets.org based on data from the Senate Office of Public Records, in 2020-2021, over \$7 billion in industry spending was reported.^{43,44} That substantial amount of money is just one facet of the broader government relations economy. Many government relations professionals work for firms that also employ researchers, planners, managers, secretaries, and others. These firms rent offices, hire cleaning crews, and buy insurance policies. They also go to lunch and dinner, travel, and host events that are economically significant to the local hospitality and entertainment industries. All of the individuals and firms that are tied to government relations have economic exposure to the success of government relations firms which have exposure to which party has control over Congress.

⁴² One well known relations firm brags in their marketing materials “Our access to decision makers on Capitol Hill allows us to develop and execute strategic advocacy roadmaps that pair priority needs with concrete methods to achieve them.” [Advocacy - FS Vector](#). Several firms, accordingly, are careful to bill themselves as bi-partisan. For example, one firm displays the following quote on their website: No policy battle is too challenging for this bipartisan firm, which is packed with Republican and Democratic power players. [Capitol Counsel LLC](#). This further indicates that the success of government relations firms is affected by political control.

⁴³ [Data Summary • OpenSecrets](#)

⁴⁴ [Total spending U.S. 2021 | Statista](#)

In-house government relations professionals, and the firms that employ them, can also use the contract to hedge their risks. Take, for example, a pharmaceutical company that is looking to expand its government relations team. It has one opening that it intends to fill shortly after the elections in November. The company identifies two equally qualified candidates who both have extensive Hill experience, one that is credentialed with one political party and the second with the other. The company might base its hiring decision on member affiliations on the candidates' resumes, assuming that the candidate that is better connected will be more effective. Thus, the two candidates both have significant exposure to political control and can use the contract to hedge their risk exposures. Similarly, a consulting firm that provides government relations services and has strong connections to party Y determines that party Y will have political control over Congress in an upcoming election. Because of their connections to party Y, the firm expects to see an increase in demand for its services. In order to stay ahead of demand, the firm plans to hire two new IT professionals and a new secretary. The firm might identify that it is at risk of party Y not having political control, in which case the anticipated increase in demand is less likely to materialize. The firm can hedge that risk by utilizing the contract. The applicants to the firm for those jobs can also hedge the risk that party Y does not have political control, and the firm might pull the offers or institute layoffs.

Political control in Congress can have an impact on non-partisan issues as well, such as the design and architecture of how legislation is implemented, and the particular priorities of various committees that impact Congress's business as a whole. These can have significant economic impacts on market participants that can be hedged by using the contract. To illustrate, consider a firm that provides advocacy, government relations, or advisory services. The firm has expertise in a specific field or issue. They can expect to see an increase in demand for its services if there is an increase in government focus on that particular issue. Political parties often differ on key priorities outside of partisan issues, and market participants, through their own thorough research, may determine that there is a likelihood of an increase or decrease in activity based on which political party is in control. Additionally, the impact of political control is not limited to just the potential partisan priorities and political viewpoints of that party. Certain members of a particular party may champion different causes, even if those causes are not necessarily partisan in nature. A given member might also have a familiarity or connection to a particular agency or style of regulating. These differences between members can have significant impacts on industries. Whether that member is in position to advance her agenda may depend on her committee assignment and placement within that committee, for example, a given member might either be the chairwoman of a committee or its ranking member, depending on whether her party has control over the chamber. As chairwoman, she will be in position to shape policy in a manner that is very different than she could as a ranking member. Those differences aren't necessarily partisan in nature, and can range from the nature of the regulatory regime imposed on a nascent industry to which regulatory agency is given jurisdiction over the industry. Market participants, through their own

thorough research, may determine that there is a greater likelihood of a certain issue coming to the fore if a certain member is in a position of power, which depends on which party has political control.

To give a hypothetical example of how this would work, consider if there was an emerging issue and there was discussion whether to assign jurisdiction over the issue to two hypothetical agencies, one called the QFPB and the other the FTQ. Both agencies are regulated by the same committee of jurisdiction in the Senate. The chair of the committee has close ties to the QFPB and the ranking member's chief of staff worked at FTQ for many years. A policy advocate who used to be the Deputy Director of the FTQ might determine, through her own research, that if the Ranking Member becomes the Chair, it is likely that the issue will be legislated into FTQ's jurisdiction. In addition to the foundational issue of jurisdiction, the ensuing legislation will have many and varied policy points, each one of which will be impactful and provide the policy advocate with work to do advocating on behalf of her clients. That policy advocate might have significant upside if the ranking member becomes the Chair of the committee. Conversely, if the current Chair retains her seat, the policy advocate determines that there is an increased likelihood that the issue is given to the jurisdiction of the QFPB. If that happens, the policy advocate may lose out on that upside, and may even become less relevant. Of course, the policy advocate understands that nothing is guaranteed. These are risks and likelihoods. There is a greater likelihood that she will see increased demand for her services if the ranking member ascends to the chair, and a greater likelihood that she will not if the current chair remains. These likelihoods are risk exposure. The policy advocate can hedge her risk exposure using the contract.

Similarly, demand for think tank services varies based on political control. While some political think tanks, particularly those focused on opposition research and government accountability, thrive when the party they are associated with loses, this is not the case for the most powerful among them. Think tanks like the Center for American Progress and the Heritage Foundation, for instance, are well-known for their associations to Democratic Party and the Republican Party politics respectively. Many staffers at these organizations use their credentials and connections from their time in the think tank space as a launchpad into getting more powerful government roles. Moreover, the appeal of working for these organizations depends on their influence, and the writings of the Heritage Foundation are far more influential when the Republicans are in power than when the Democrats are. As a result, it may be easier to raise money from donors or recruit high-end talent when the think tank can faithfully say "our ideas are constantly influencing important legislation on the issues that matter most to you". As a result, independent of the particular policy outcomes that a Congress may enact, the identity of the party that is in control has a predictable financial impact on thousands of individuals in these industries.

2. **Firms already hedge against political control.**

The first section established that despite the uncertainty inherent in the political process, political control has foreseeable impacts on the macroeconomy and specific sectors of the economy. If firms actually believe that these risks need hedging, then they would want to *de facto* insure themselves against the possibility of negative policy change even without CFTC-regulated products that do so. We find that this is the case. Firms and individuals do seek out hedging products to mitigate their own financial exposure to partisan political outcomes.

As noted earlier, private research firms provide analysis on political outcomes for their clients. However, this guidance does not merely discuss the economic impact of certain political outcomes—it also discusses how clients can hedge and avoid the risks associated with a given outcome. In 2020, Goldman Sachs provided a report on how to trade on a clear election outcome; Jefferies created a list of European stocks well-positioned for either a Trump or Biden victory; and Stifel broke down the impacts of many different scenarios, such as “blue sweep” or “Biden stalemate” on major assets and sectors.⁴⁵ Consider this chart from Morgan Stanley, as reported by CNBC:

How to trade the 2020 election

| Scenario | Buy | Sell |
|--|---|---|
| Democratic President, split Congress | Emerging Markets Alternative Energy | U.S. Energy Big Banks Tech Drugmakers |
| Republican President, split Congress | Big Banks U.S. Energy Telecom | U.S. Dollar |
| Democratic President, Democratic Congress | U.S. Dollar Transportation Alternative Energy | U.S. Treasuries Drugmakers Big Banks Tech U.S. Energy |
| Republican President, Republican Congress | U.S. Dollar Big Banks U.S. Energy | Emerging Markets U.S. Treasuries |

SOURCE: Morgan Stanley

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Or consider this sector-specific example from Stifel, as reported by the Financial Times:

A Blue Wave would suggest a unified federal government more amenable to cannabis reform. We believe a Blue Wave is likely to include numerous headlines promoting the prospect of wholesale federal change, including the descheduling of cannabis (as included in the MORE Act, which was scheduled for a vote in the U.S. House of Representatives) by removing cannabis from the purview of the Controlled Substances Act. Given the heavy

⁴⁵ Jamie Powell. 2020. “How to trade the US election.” *Financial Times*.

⁴⁶ Thomas Franck. 2020. “Morgan Stanley has a simple guide for investors on how to trade the 2020 election.” *CNBC*.

retail exposure and likely promotion of the potential for federal change, we believe a Blue Wave would bring broad undifferentiated favor to cannabis equities.

This research and analysis is provided by investment banks to institutional investors, such as pension funds, sovereign wealth funds, hedge funds, and even other investment banks. Some of these actors manage trillions of dollars in assets for clients who bear large exposure to predictable political control risk. From the *Financial Times*:

“There absolutely has been a big uptick in election hedging activity,” said Pravit Chintawongvanich at Macro Risk Advisors. “I think that is what is driving volatility. We have seen the Vix rising while the market is relatively quiet. Investors are very specifically targeting the election with expiry a few days or a week after it.”⁴⁷

In addition to providing guidance through their research, a core practice of investment banks is to create specific products to manage risks for clients. In this context, this could take the form of over-the-counter products on political outcomes or a specific portfolio of complex financial assets narrowly tailored to target political control risk. For example, suppose a hedge fund with exposure to for-profit higher education firms wants to hedge against the risk that President Biden will be re-elected, which may enhance the prospects of a regulatory crackdown. It may then seek to purchase other assets that would likely rise if Biden wins, such as green energy stocks or short-sales on particular currencies.

The existence of costly information on how to hedge political control risk, as well as the existence of products targeting it, thus suggests the need for a CFTC-regulated product to mitigate the risk.

3. **Existing hedging mechanisms are exclusive and inefficient.**

Existing mechanisms for hedging political control are inferior to being able to trade directly on the event. Assembling a bespoke portfolio of equities to reduce electoral exposure requires paying substantial fees to investment banks and other dealers to assemble the portfolios. This is unfair and gives an advantage to large, established financial firms over more specialized ones. In addition, it is unavailable to the retail investor and small businesses. This creates an imbalance between the hedging capabilities of retail and institutions, even though retail and small businesses are subject to identical risks. Being able to trade directly would have fewer frictions and fewer costs.

As a result of the high cost of those products, fewer firms choose to try and hedge political risk and instead have to hedge risk themselves. These decisions are opaque, and the public cannot benefit from price discovery since the values of these portfolios are not publicly available. These

⁴⁷ Joe Rennison. 2016. “Hedging activity rises as odds on Donald Trump win fall.” *Financial Times*. <https://www.ft.com/content/ea338340-a3ce-11e6-8b69-02899e8bd9d1>

hedges are also not able to perfectly isolate political control risk, and end up forcing firms to take on more risk than they would like. This is because the value of these assets (like foreign currencies and politically-sensitive equities) is determined by factors unrelated to the risk, even if political risk is incorporated into its value. Although foreign currencies, major equities, Treasuries, and corporate bonds all are impacted by political control, their values are mostly determined by other fundamentals.

The status quo incentivizes firms to turn to high-cost, exclusive investment banks to create imperfect political control hedge baskets or risk the tides of the market. Yet, the demand for such flawed tools underscores how great the demand for electoral hedging is. Being able to trade directly would thus allow these firms to achieve their same goals but at lower costs, greater transparency and greater certainty.

2. Price Basing Utility

As noted above, political control has predictable economic impact. This impact is felt in many sectors of the economy, and affects individuals, small businesses, and large enterprises. Many of the affected firms themselves support a large ecosystem of economies and the economic risks faced by participants in these economies have direct exposure to the outcome of political control. Accordingly, predictive data on the outcome of political control is very valuable as a tool in economic decision making. For example, if a firm that believes that if a certain party is in control of Congress, its business will benefit and necessitate the hiring of ten new employees and retaining three new service providers would be able to use the data from the contract to determine the probability that the party is in control. That data could be used by the firm to determine how many new employees to hire, if any at all. That data could be used by the firm to determine whether to enter into the new service agreements. It is no wonder that financial news sites such as CNBC have dedicated election channels and regularly feature polls during election cycles. The price embedded in the Contract impacts the pricing of commercial transactions involving physical commodities, financial assets and services. The discussion above regarding hedging policy outcomes makes this point, and in the interests of avoiding duplication it will not be repeated here.

Additionally, there are other contracts, such as MIAx's corporate tax futures, that regard corporate tax rates. Naturally, the probability and potential intensity of tax increases changes with political control, and thus the Contract could be used to price those contracts. Of course, Kalshi and other DCMs have many contracts (such as those on economic indicators, taxes, student debt forgiveness, and more) that are in part dependent on political control.

Moreover, political control can be factored into the price of many physical commodities. For example, a study by economists Erik Snowberg, Justin Wolfers, and Eric Zitzewitz studied the 2004 election and concluded that changes in the probability of Republican political control had

statistically significant and strong effects on the price of a barrel of oil (among other financial assets, such as the US dollar).⁴⁸

Reuters reported in November 2020 that tighter-than-expected election results were raising S&P futures prices on the expectation that narrow Congressional majorities would limit Congressional Democrats' regulatory ambitions.⁴⁹ *MarketWatch* reported that the election was roiling oil futures markets due to the candidates' differing views on energy policy and environmental regulation.⁵⁰ Agricultural economists even reported that wheat futures rebounded in November 2020 on expectations of changes in US trade policy stemming from President Trump's defeat.⁵¹

Disrupting Misinformation

The preponderance of the academic literature suggests that existing media has misaligned incentives when it comes to reporting on a given party's chances of political control. These incentives tend to come from three sources: first, pundits may want to hype up a preferred candidate's chances in order to flatter the sensibilities of their audience. Second, pundits may want to directly contradict a so-called "mainstream" line about a candidate winning in order to gin up controversy and draw more clicks or viewership. As a result, they may claim an underdog is actually the true favorite and, to further court controversy and viewership, claim that evidence to the contrary is a function of fraud and deception. Third, even when pundits attempt to be honest, viewers themselves may seek out information that confirms their own biases, thus rewarding a subset of biased commentators with greater advertising revenue from the increased viewership or readership. In fact, we have empirical evidence of the poor performance of media figures in the science of prediction. For example, University of Pennsylvania professor Philip Tetlock evaluated the statements made by pundits and found that 15 percent of statements claimed to be "impossible" did indeed occur and 27 percent of statements claimed to be a "sure thing" did not.⁵²

By providing an instant check against pundits, a market-based price created by the Contract can aid information aggregation for the public. For the numerically-inclined or the financially-minded, a viewer can see that one commentator is asserting that candidate X is a "sure thing" but the Kalshi Contract gives them only (e.g.) a 20% chance of winning. They now have a competing alternative to that pundit's information.

⁴⁸ Erik Snowberg, Justin Wolfers and Eric Zitzewitz. "Partisan Impact on the Economy". *Journal of Economic Perspectives*. 2004.

⁴⁹ Noel Randewich. 2020. "S&P 500 futures rise as U.S. election suggests less regulatory risk." *Reuters*.

⁵⁰ Myra P. Saefong. 2020. "Here's how the U.S. presidential election could shake up the oil market." *Marketwatch*.

⁵¹ Matthew Weaver. 2020. "Congressional elections could impact commodity prices most, expert says." *Capital Press*.

⁵² Philip Tetlock. "Expert Political Judgment". 2005.

Markets tend to be more accurate than any pundit or forecasting alternatives. The efficient, price-discovering nature of markets in a wide range of contexts is a well-substantiated finding in academic research.⁵³⁵⁴⁵⁵⁵⁶ The collective wisdom of many people who have a direct monetary stake in the outcome results in a valuable price signal. Weather derivatives and agricultural futures are better at predicting the weather than meteorologists.⁵⁷⁵⁸ Markets trading on the reproducibility of scientific research are better at discovering which papers will reproduce than experts, who do no better than chance.⁵⁹ Most importantly, research studying IEM and PredictIt have confirmed that markets provide more accurate information than traditional forecasting methods.⁶⁰⁶¹

By creating a visible, well-trusted benchmark against which to evaluate a pundit's predictive power, Tetlock writes, "prudent consumers should become suspicious" when they confront a public record of poor performance relative to the market. In Tetlock's words, "Unadjusted ex ante forecasting performance tells consumers in the media, business, and government what most want to know: how good are these guys in telling us what will happen next?"

⁵³ Justin Wolfers and Eric Zitzewitz. 2004. "Prediction Markets." *Journal of Economic Perspectives*.

⁵⁴ Kenneth J. Arrow, Robert Forsythe, Michael Gorham, Robert Hahn, Robin Hanson, John O. Ledyard, Saul Levmore, Robert Litan, Paul Milgrom, Forrest D. Nelson, George R. Neumann, Marco Ottaviani, Thomas C. Schelling, Robert J. Shiller, Vernon L. Smith, Erik Snowberg, Cass R. Sunstein, Paul C. Tetlock, Philip E. Tetlock, Hal R. Varian, Justin Wolfers, and Eric Zitzewitz. 2008. "The Promise of Prediction Markets." *Science Magazine*.

⁵⁵ Joyce Berg, Forrest D. Nelson, and Thomas A. Reitz. 2008. "Chapter 80 Results from a Dozen Years of Election Futures Markets Research." *Handbook of Experimental Economics Results*.

⁵⁶ Georgios Tziralis and Ilias P. Tatsiopoulos. 2007. "Prediction Markets: An Extended Literature Review." *The Journal of Prediction Markets*.

⁵⁷ Richard Roll. 1984. "Orange Juice and Weather." *The American Economic Review*.

⁵⁸ Matthias Ritter. 2012. "Can the market forecast the weather better than meteorologists?" *Economic Risk*.

⁵⁹ Anne Dreber, Thomas Pfeiffer, Johan Almenberg, Siri Isaksson, Brad Wilson, Yiling Chen, Brain A. Nosek, and Magnus Johannesson. 2015. "Using prediction markets to estimate the reproducibility of scientific research." *PNAS*.

⁶⁰ Joyce Berg, Forrest D. Nelson, and Thomas A. Reitz. 2008. "Chapter 80 Results from a Dozen Years of Election Futures Markets Research." *Handbook of Experimental Economics Results*.

⁶¹ Joyce Berg, Forrest D. Nelson, and Thomas A. Reitz. 2006. "Prediction market accuracy in the long run." *International Journal of Forecasting*.

APPENDIX B.1 (CONFIDENTIAL) - EXTENDED CASE STUDIES ON THE HEDGING, PRICE BASING UTILITIES OF THE CONTRACT AND POLITICAL EXPECTATIONS

Below are several case studies involving different sectors of the economy and regulation that demonstrate the hedging and price basing utilities of the contract; as well as the link between political expectations and outcomes.

Case Study from 2020: Energy Policy

Presidential administrations and Congress have large discretion over - and opportunity to impact with great intensity - the domestic energy landscape. They can initiate regulatory changes with implications for permitting, emissions standards and other environmental standards that could impact the profitability of different firms. In 2020, several of these issues were at stake: as delineated by the Atlantic Council's David Goldwyn and Andrea Clabough, the differences between a Democratic and Republican could hardly have been more stark.⁶² More Republican control, for example, would likely have ushered in greater drilling opportunities in the Arctic and Atlantic coastlines, faster review processes under the Clean Water Act and National Environmental Policy Acts and relaxed emissions standards for fossil fuel-fired power plants. If the hypothesis that changes in the partisan makeup of Congress create *predictable and foreseeable economic outcomes* is correct, then we should expect to see these policy differences manifested in the equity prices of different energy companies. When positive news about Republicans' chances emerge, the stock prices of fossil fuel companies would likely rise. When positive news about the Democrats' chances surface, renewable energy stocks would rally.

Indeed, this prediction is borne out by reality. As reported by CNBC, "expectations of an infusion of investment in alternative energy should Democratic challenger Joe Biden win the presidency have sent the TAN solar ETF soaring this year, up 123%."⁶³ Bloomberg reported that on the days following election night, when early returns seemed to make the prospect of a Democratic Senate slim, renewable stocks "slumped" while oil and gas stocks like ConocoPhillips "rallied".⁶⁴ One major solar provider FirstSolar's stock was so tightly linked to election returns that it fell immediately following election day (when Trump's re-election seemed likely) before spiking 11% when the election was finally called for Biden.⁶⁵ It's worth flagging that these benefits do not merely accrue to large corporations. From small-scale solar panel installers, to wind turbine

⁶² David Goldwyn and Andrea Clabough. 2020. "Election 2020: What's at Stake for Energy?" *Atlantic Council*.

⁶³ Keris Lahiff. 2020. "Biden's prospects send solar stocks soaring, but trader sees trouble ahead." *CNBC*.

⁶⁴ Will Wade, Brian Eckhouse and Gerson Freitas Jr. 2020. "Investors Sour on Green Wave as Democrats' Hope for Senate Fades." *Bloomberg*.

⁶⁵ Matthew Farmer. 2020. "How have US energy stock prices reacted to Biden's US election win?" *Power Technology*.

technicians, to coal miners, the value of an electoral hedge is valuable regardless of one's financial resources.

Tax, Investment Decision-Making & the 2016 Election

The complete Republican victory in the 2016 Presidential and Congressional elections resulted in the swift passage of a tax reform bill that reduced corporate taxes, modified major tax deductions (such as the child tax credit, mortgage interest rate deduction, and the state and local tax deduction), and enabled accelerated expensing for certain short-lived investments such as machinery.

Consider a shipping company like UPS or FedEx that is trying to decide whether or not to invest in a major new distribution hub. These centers—which involve hundreds of thousands of square feet of floor space, vast technology for package processing, and complex logistics involving trucks and airplanes—can cost in excess of \$1 billion to construct, with smaller centers costing \$10 million to \$50 million.⁶⁶⁶⁷ These investment decisions must be made in advance but are highly sensitive to changes in the tax code. If the 2017 tax cut bill never becomes law, for a \$100 million investment in machinery that lasts 10 years, one can only deduct \$10 million in taxes (in contrast, the company can deduct the full \$100 million in year one under the full expensing provision). The tax bill for that company then decreases by a full \$32.9 million in year one through the lowered headline rate and the new depreciation rules. While these gains would be smaller in future years, due to the time value of money, the combination of the bonus depreciation rules and the lower headline rate could be the difference between making the decision to invest and deciding not to. These benefits are not hypothetical. The Tax Foundation's review of the economic literature estimates that full expensing boosts investment by roughly 2.5%.⁶⁸ Since major investments must be planned in advance, knowing the probability that a party will enter power plays a role in corporate decision-making. The decision whether or not to engage in certain commercial transactions (willingness to accept a good at certain prices) can thus depend on the price of a political control contract.

The benefits accrue to retail investors such as individuals and small businesses. If someone is trying to decide whether or not to take on a mortgage or move to a new state, knowing whether the mortgage interest rate deduction or the state and local tax deduction will be limited becomes relevant. A couple deciding whether their financial situation is stable enough to start a family may care about the generosity of the child tax credit. A young worker trying to decide whether to start their own business might want to know whether their headline tax rates will be lower in the future.

Health Insurance Decision-Making & the 2016 Election

⁶⁶ Jacob Steimer. 2020. "Follow FedEx's money." *Memphis Business Journal*.

⁶⁷ Greg Clinton. "What does it cost to build a FedEx distribution center?" *Buildzoom*.

⁶⁸ Anna Tyger. 2019. "New Evidence on the Benefits of Full Expensing." *Tax Foundation*.

Much like the campaign four years prior, Republicans in 2016 repeatedly promised to repeal the Affordable Care Act. Ultimately, they removed some components—the individual mandate, the Cadillac tax, and the medical device tax—while keeping components like the individual market subsidies.

Studies found that policy uncertainty had negative effects on the health insurance marketplace. According to one study from the Urban Institute, “uncertainty over how Congress will act and when insurers will obtain information about the rules under which they must operate will lead many to reassess their participation in these markets and others to significantly increase premiums.”⁶⁹ After all, few entrants wish to begin offerings in an individual marketplace that may soon be eliminated, or for whom much of the rationale for entrance (everyone is forced to buy insurance, the insurance is heavily subsidized by the public) might soon be yanked away. The study emphasizes that health insurance companies were confident that they could handle a repeal, reform or maintenance of the status quo. What deterred them was not the change—it was *uncertainty about change*. When one doesn’t know who is going to win an election, it is difficult to make long-term business plans for the future.

Therein lies the price-basing utility for political control contracts. If a health insurance company is deciding whether to enter a marketplace or deciding what rates to set, they need to know the policy environment they will be facing. But that policy environment depends directly on who controls Congress and the Presidency. As a result, the information embedded in the price of a political control contract has a direct bearing on services.

The price-basing utility is also strong for retail investors such as individuals and small businesses. One fear individuals have when deciding to start their own business is the loss of health insurance.⁷⁰ Knowing whether or not one’s individual insurance subsidies will persist two years from now can be important to making the best decision for ones’ family.

Energy Sector Decision-Making & the 2020 Election

Many energy investments take years to come into fruition. Utility-scale solar plants take around 5 years to build, with nearly all of the time related to permitting, siting and environmental review.⁷¹ Nuclear plants can often take even longer.⁷² Building major transmission lines can take decades as

⁶⁹ Sabrina Corlette, Kevin Lucia, Justin Giovannelli and Dania Palanker. 2017. “Uncertain Future for Affordable Care Act Leads Insurers to Rethink Participation, Prices.” *Urban Institute*.

⁷⁰ Robert W. Fairlie, Kanika Kapur, Susan M. Gates. 2011. “Does Employer-Based Health Insurance Discourage Entrepreneurship and New Business Creation?” *Rand Corporation*.

⁷¹ “Siting, Permitting & Land Use for Utility-Scale Solar.” *Solar Energy Industries Association*.

⁷² Pedro Carajilescov and João M. L. Moreira. 2011. “Construction Time of PWRs.” *International Nuclear Atlantic Conference*.

disputes over land wind their way through the court system.⁷³ Energy investments must thus be made well in advance of going to market, and companies must secure financing and make financial projections with significant policy uncertainty. As shown above, elections have meaningful effects on the profitability of energy investments, as they can result in different levels of subsidies, environmental scrutiny, deductibility eligibility, and beyond.

Policy uncertainty is a deterrent in renewable energy investment. As Professor Kelly Burns writes, “there is a clear inverse relationship between trends in REI [renewable energy investment] and EPU [economic policy uncertainty]...when the level of EPU rises (falls), the level of REI falls (rises). This is evidence that EPU influences REI in the USA.”⁷⁴ Studies repeatedly show that uncertainty over whether the wind production tax credit will be extended, for instance, is a deterrent to financing new utility-scale wind farms.⁷⁵ The same dynamic exists in fossil fuel generation. An S&P Global report cites many coal executives, who said that they could only make investments in new coal generation if the Republicans won a trifecta in 2020.⁷⁷ They reported,

The lack of focus on coal in the 2020 campaign reflects the “highly unlikely” prospects of a revival in coal-fired generation, which would only occur if the federal government subsidized coal production, said Ethan Zindler, head of Americas for BloombergNEF. Such an effort would require unified Republican Party control of the U.S. Congress and the White House come January 2021, the chances of which are “next to none” based on pre-Election Day polling.... Building a coal-fired power plant comes with regulatory and policy risks managed over multiyear permitting and construction timelines for plants where it may take decades to recoup the investment.

ADDITIONAL CASE STUDIES DEMONSTRATING THE LINK BETWEEN POLITICAL CONTROL EXPECTATIONS AND ECONOMIC OUTCOMES

Case Study from 2010: Budget & Debt Ceiling Showdowns

⁷³ Associated Press. 2022. “Hydro-Quebec halts work on its part of hydropower corridor.” *Spectrum News*.

⁷⁴ Kelly Burns. 2019. “On the Relationship between Policy Uncertainty and Investment in Renewable Energy.” *International Association for Energy Economics*.

⁷⁵ Barradale, Jones Merrill. 2010. “Impact of public policy uncertainty on renewable energy investment: Wind power and the production tax credit.” *Energy Policy*.

⁷⁶ Derya Eryilmaz and Frances R. Homans. 2016. “How does uncertainty in renewable energy policy affect decisions to invest in wind energy?” *Electricity Journal*.

⁷⁷ Jacob Holzman and Taylor Kuykendall. 2020. “Coal sees diminished role in US presidential race with odds slim for new plants.” *S&P Global*.

In President Barack Obama’s words, the Democrats took a “shellacking” in 2010, as Republicans flipped 60 seats in the House and six seats in the Senate.⁷⁸⁷⁹ As a result, instead of unified Democratic control (as existed from 2009-10), Democrats needed Republican approval in the House to pass any legislation. In an era of heightened polarization, this “split Congress” ground routine government operations to a halt.

The tensions reached a head in summer 2011, a scant few months after the new Congress started. Republicans and Democrats failed to reach an agreement to raise the debt ceiling—a heretofore uncontroversial practice—thrusting the country into economic turmoil. IMF economist Filippo Gorri estimated that the “disagreement between Republicans and Democrats over the rise in the US debt ceiling” raised US government credit default swap costs by 46 basis points and bank financing costs by 18 basis points.⁸⁰ A U.S. Department of the Treasury retrospective determined that the 2011 debt ceiling shutdown increased volatility, widened credit spreads and slowed job growth for months after the crisis was ultimately resolved, as consumer confidence fell 22 percent.⁸¹ As they wrote,

The United States has never defaulted on its obligations, and the U. S. dollar and Treasury securities are at the center of the international financial system. A default would be unprecedented and has the potential to be catastrophic: credit markets could freeze, the value of the dollar could plummet, U.S. interest rates could skyrocket, the negative spillovers could reverberate around the world, and there might be a financial crisis and recession that could echo the events of 2008 or worse. Political brinkmanship that engenders even the prospect of a default can be disruptive to financial markets and American businesses and families.⁸²

They wrote further,

The S&P 500 index of equity prices fell about 17 percent in the period surrounding the 2011 debt limit debate and did not recover to its average over the first half of the year until into 2012. Roughly half of US households own stocks either directly or indirectly through mutual funds or 401(k) accounts, so this fall in equity prices reduced household wealth across a wide swath of the economy. Between the second and third quarter of 2011, household wealth fell \$2.4 trillion. A decline in household wealth tends, all else equal, to lead to a decline in consumption spending, and consumer spending accounts for roughly

⁷⁸ Liz Halloran. 2010. “Obama Humbled By Election ‘Shellacking’.” *National Public Radio*.

⁷⁹ Paul Harris and Ewan MacAskill. 2010. “US midterm election results herald new political era as Republicans take House.” *The Guardian*.

⁸⁰ Filippo Gori. 2021. “The cost of political uncertainty: Lessons from the 2011 US debt ceiling crisis.” *Vox EU*.

⁸¹ Department of the Treasury. 2013. “The potential macroeconomic effect of debt ceiling brinkmanship.”

⁸² *Ibid*

70 percent of GDP. Moreover, because a good deal of retirement savings is invested in stocks, lower stock prices reduce retirement security – from the second to the third quarter of 2011, retirement assets fell \$800 billion. Businesses are also affected by stock prices because they rely on both debt and equity financing. When stock prices fall, investment or other spending to expand a business is more costly. The effects on households and businesses, moreover, are reinforcing. Less capacity and willingness of households to spend, when businesses have less incentive to invest, hire, and expand production, all lead to weaker economic activity.⁸³

Certain businesses and households felt this brunt more than others. Banks use Treasuries as “risk-free” collateral in nearly all of their short-term lending and borrowing activities—a technical default would destroy this bedrock of the financial system. Because interest rates on Treasuries directly impact mortgage rates, the U.S. Department of the Treasury estimates that the 70 basis point jump in mortgage costs in the summer of 2011 cost the average household \$100/month.⁸⁴

The budget showdowns hardly ended with the conclusion of the debt ceiling crisis. To resolve the crisis, President Obama signed the compromise Budget Control Act of 2011 (often called “the Fiscal Cliff”), which applied an across-the-board government spending cut. The Congressional Budget Office estimated in 2012 that had the cuts gone into full effect (they were eventually partially reversed), the drop in growth would be so severe that it would send the country back into recession.⁸⁵ In total, they estimated the impact of the fiscal cliff to be 3.6 percent of GDP lost in 2013. While some of these changes were ultimately reversed in 2013 with the American Taxpayer Relief Act of 2013, many of the cuts were still enacted (called “the sequester”), including \$42 billion in defense industry cuts and \$11 billion in Medicare cuts. The bill cut reimbursements to physicians by 2%, and an American Hospital Association/American Medical Association study estimated that it cost the healthcare industry 500,000 jobs.⁸⁶ Pharmaceutical companies were also acutely harmed by the decimation of the FDA’s budget for inspections, which slowed approval times for new drugs and devices.⁸⁷

It is important to establish that these effects were *downstream of the change in partisan makeup of Congress*. Had either party—the Democrats or the Republicans—won unified control of the government, then these debt ceiling fights would likely have been avoided, as they had been in years past. These fights were also readily predictable prior to the Republican takeover. The Republicans ran first and foremost on a campaign of deficit spending and small government.⁸⁸ The

⁸³ Ibid

⁸⁴ Ibid

⁸⁵ Congressional Budget Office. 2012. “Economic Effects of Reducing the Fiscal Restraint That Is Scheduled to Occur in 2013.”

⁸⁶ Katie Booth . 2013. “Impact of the Sequester on Health Care: By the Numbers.” *Bill of Health*.

⁸⁷ Amy Filbin. 2013. “Funding Cutbacks at FDA: A Sequester Primer.” *REDICA Systems*.

⁸⁸ Brian Weld. 2010. “A Pledge to America.” *The Washington Post*.

political press made it very clear prior that the debt ceiling would be a major showdown.⁸⁹ The Republican “Pledge to America” (written by leader Kevin McCarthy) called for “strict budget caps” in order to prevent an increase in the debt, an obvious non-starter with Democratic leaders.⁹¹ As Representative (and future Vice President) Mike Pence of Indiana said in late 2010, “There will be no compromise on stopping runaway spending, deficits and debt.”⁹² The Republican nominee for the Senate seat in Colorado Ken Buck continued, “When it comes to spending, I'm not compromising. I don't care who, what, when or where, I'm not compromising.” The budget showdown emerged in early summer, just five months after Republicans first held a majority.

Importantly, it is *not* sufficient to offer an event contract on a government shutdown or default. After all, consumers and businesses lost billions of dollars *even though the government remained open and the government did not default on its debt*. Rather, the harms manifested because the partisan breakdown of Congress dramatically raised financial uncertainty, and financial markets tend to compensate for the additional risk. Suppose a retail investor with a mortgage tried to hedge their risk by buying a contract on whether the US will default on its debt. They will be insufficiently hedged as they lost hundreds per year even though the country did not default. Moreover, it is not plausible to anticipate the precise form that a resolution to the standoff would take far enough in the future to be useful to families and firms. It is well-known that cuts to spending and budgetary uncertainty would manifest, but policy-specific contracts require an impractical level of foresight. As a result, political control contracts alone are sufficient to provide an adequate level of hedging.

Case Study from 2012: Political Gridlock and Health Care

While headlines in 2012 pitted incumbent President Barack Obama against former Massachusetts governor (and now Utah Senator) Mitt Romney, Congressional control had an equally dramatic effect on the economy. In particular, due to the flagging economic recovery, a major economic reform bill was expected to come before Congress. If the Democrats gained unified control, it was likely a major stimulus along the lines of the proposed American Jobs Act (with hundreds of billions in spending on schools and other traditional Democratic priorities) would have become law. Had Republicans gained unified control, major spending cuts and deregulation along the lines of the (successfully passed) JOBS Act would likely have been implemented. In particular, the Republican Party platform promised an end to taxes on capital gains, interest, and dividends for middle-class taxpayers, along with the end to the estate tax and the Alternative Minimum Tax.⁹³

⁸⁹ Corey Dade. 2010. “Tea Party: From Fringe Element To Power Player.” *NPR*.

⁹⁰ David Min. 2010. “The Big Freeze.” *Center for American Progress*.

⁹¹ Brian Weld. 2010. “A Pledge to America.” *The Washington Post*.

⁹² Andy Barr. 2010. “The GOP's no-compromise pledge.” *Politico*.

⁹³ Republican Party. 2012. “Restoring the American Dream: Rebuilding the Economy and Creating Jobs.” *The American Presidency Project*.

Congressional candidates, along with nominee Mitt Romney, repeatedly promised a territorial system of taxation (which would exempt US multinationals from paying taxes on profits earned abroad) and a reduction in the overall corporate tax rate.

Perhaps the clearest contrast emerged in health care. Mitt Romney and Congressional Republicans repeatedly pledged to repeal President Obama's signature legislative achievement—the Affordable Care and Patient Protection Act of 2010 (“ACA”, aka “Obamacare”)—upon entering office. The aforementioned Pledge to America promised to repeal the ACA no fewer than three times.⁹⁴ The Republican-controlled House of Representatives voted to repeal the law no fewer than thirty-three times between 2011 and 2012.⁹⁵ By removing subsidies for tens of millions of Americans to buy insurance (in addition to removing the health insurance mandate), many existing health insurance companies would be harmed by such a proposal. For example, the CEO of the pharmaceutical company AmerisourceBergen specifically endorsed the Affordable Care Act on the belief that expanded insurance coverage would increase demand for his company's products.⁹⁶ Meanwhile, many medical technology companies—who are subject to a tax under the health care bill—would save millions of dollars per year from the Republican plan. Indeed, insurance and health care company stocks were volatile in the weeks up before the 2012 elections for fear of an eventual ACA repeal.⁹⁷ For example, hospital stocks fell 1-3% after Romney's strong first debate performance raised the probability of an eventual Republican victory.⁹⁸ As reported by Reuters,

Romney's perceived win in the debate accounted for the negative outlook on hospital stocks on Thursday, Wells Fargo Securities analyst Gary Lieberman said. “Hospitals had been rallying on the likelihood of Obama's healthcare reform getting implemented as it looked like he had pulled ahead in polls,” Lieberman said. But Romney's Wednesday performance showed the race was tightening, increasing the risk to hospital stocks, RBC Capital Markets analyst Frank Morgan said.⁹⁹

Of course, the effects were not limited to corporations. Americans with pre-existing conditions would likely be harmed by the repeal, as the ACA required health insurance companies to offer health insurance to those with pre-existing conditions whereas prior to the bill it was often difficult to obtain affordable coverage. Meanwhile, community rating and age-banding limited premium increases for older adults, lowering their premiums. In contrast, a repeal might have benefited younger, healthier Americans who would no longer need to cross-subsidize older or sicker adults. Since an ACA repeal would also result in the removal of the requirement that health insurance

⁹⁴ Brian Weld. 2010. “A Pledge to America.” *The Washington Post*.

⁹⁵ Wendell Potter. 2012. “Why insurers want ObamaCare's Medicaid business.” *Tucson Sentinel*.

⁹⁶ David Sell. 2012. “Q&A with AmerisourceBergen CEO Steven Collis.” *The Philadelphia Inquirer*.

⁹⁷ 2012. “Insurers, Hospital Stocks Register Presidential Election Jitters” *KHN*.

⁹⁸ Reuters staff. 2012. “Hospital stocks fall on Romney debate performance.” *Reuters*.

⁹⁹ *Ibid*

companies cover a wide swathe of ailments such as smoking cessation devices, many younger or healthier Americans could see lower premiums by no longer having to pay for such items in their insurance. While the net effect of the bill remains hotly contested, 1) the economic effects of the bill and its repeal on specific sub-groups were identifiable, 2) the repeal of the Affordable Care Act was a predictable consequence of Republican control of government.¹⁰⁰¹⁰¹¹⁰²

Of course, because the voters delivered a split Congress, neither of these tax or health care repeal proposals became law. Voters largely restored the status quo ante, with Democrats controlling the Presidency and the Senate, while Republicans controlled the House of Representatives.¹⁰³¹⁰⁴ As a result, little legislative action happened, with Congress passing the fewest major bills in decades.¹⁰⁵¹⁰⁶

While on the surface it appears as if there was no impact since control did not change, the truth tells a more nuanced story. Just a few percentage points of votes separated unified Democratic control from unified Republican control. Either of those scenarios would have altered the economic landscape for households and corporations alike. As such, a split government had economic consequences by foreclosing the possibility of unified control.

This example, as in the one above, precisely illustrates how hedging the partisan makeup of Congress is important for businesses and individuals alike. Insurance companies may use millions of customers from an ACA repeal, but households lose the insurance itself. In the status quo, that risk is *unhedgeable*. In fact, considering how the size of ACA subsidies downscale with income (i.e. people with lower incomes receive more benefits), the hedge is most valuable to those with the least income.

Case Study from 2016: Tax reform

Then candidate Donald J. Trump indicated his intention to dramatically change the tax code upon ascension to the nation's highest office. In August 2016, he unveiled a tax plan that he promised

¹⁰⁰ Sara R. Collins, Stuart Guterman, Rachel Nuzum, Mark A. Zezza, Tracy Garber, and Jennie Smith. 2012. "Health Care in the 2012 Presidential Election: How the Obama and Romney Plans Stack Up." *The Commonwealth Fund*.

¹⁰¹ Klein, Ezra. 2012. "The most important issue of this election: Obamacare." *The Washington Post*.

¹⁰² Robert J. Blendon, John M. Benson, and Amanda Brulé. 2012. "Understanding Health Care in the 2012 Election." *The New England Journal of Medicine*.

¹⁰³ 2012. "President Map." *The New York Times*.

¹⁰⁴ 2012. "United States Congressional elections results, 2012." *Ballotpedia*.

¹⁰⁵ Philip Bump. 2014. "The 113th Congress is historically good at not passing bills." *The Washington Post*.

¹⁰⁶ Drew Desilver. 2014. "Congress continues its streak of passing few significant laws." *Pew Research Center*.

would be the biggest since the Reagan administration, offering tax cuts to Americans at every income level, “streamlining deductions” and reducing tax liability for US corporations.¹⁰⁷

Market participants believed these promises were credible. As the New York Times reported, “the bounce-back in stocks [after the 2016 Republican victory] reflects the bet being made by many investors that Mr. Trump’s promises to increase government spending, cut taxes and ease financial regulations will outweigh his anti-trade rhetoric.”¹⁰⁸ Vox further reported, “The [stock market] rally started off powered by banking stocks, but it has spread across industries. It appears to be fueled by both improving economic indicators and a buoyant optimism about the prospects for sharp tax cuts and sweeping deregulation under unified Republican government in Washington. And it coincides with a spike in business confidence that can only be seen as a reaction to Trump’s victory.”¹⁰⁹

Importantly, none of these tax changes could be enacted without the Republicans winning control of both the House of Representatives and the Senate. Democrats uniformly opposed such cuts and the bill—the Tax Cut and Jobs Act of 2017—was ultimately passed on a party-line basis with no Democrats in the Senate supporting its passage.¹¹⁰¹¹¹ As a result, unified control over government was a prerequisite to the passage of the tax cut bill. There were two primary channels by which these taxes impacted financial outcomes for businesses.

First, lower headline rates meant that corporations can retain more of their profits as opposed to disbursing them in taxes. For some corporations, slashing the top corporate tax rate from its previous peak at 35% to its current top rate of 21% saved the bottom line billions of dollars.¹¹²¹¹³ As a study by economists Javier Garcia-Bernardo, Petr Jansky and Gabriel Zucman found, the Act caused a “10 percentage point decline in the effective tax rate on domestic profits”.¹¹⁴ As the Congressional Research Service wrote,

The Act would reduce individual income taxes by \$65 billion, corporate income taxes by \$94 billion, and other taxes by \$3 billion, for a total reduction of \$163 billion in FY2018... From 2017 to 2018, the estimated average corporate tax rate fell from 23.4% to 12.1% and

¹⁰⁷ John W. Schoen. 2016. “Trump touts sweeping, and costly, tax-cut plan.” *CNBC*.

¹⁰⁸ Landon Thomas, Jr. 2016. “Why Stock Markets, Initially Shaken, Went Up After Trump’s Victory.” *The New York Times*.

¹⁰⁹ Jim Tankersley. 2017. “Why the stock market loves Donald Trump.” *Vox*.

¹¹⁰ Scott Horsley. 2016. “The Issues: Explaining Hillary Clinton's And Donald Trump's Tax Plans.” *NPR*.

¹¹¹ H.R.1, 115th Congress. <https://www.congress.gov/bill/115th-congress/house-bill/1/actions>

¹¹² 2020. “How does the corporate income tax work?” *Tax Policy Center*.

¹¹³ 2021. “Big Businesses That Banked Tens of Billions From Trump Tax Cuts Now Lobbying On Plans To Make Them Pay Their Fair Share.” *Accountable.us*

¹¹⁴ Javier Garcia-Bernardo, Petr Janský, and Gabriel Zucman. “Did the Tax Cuts and Jobs Act Reduce Profit Shifting by US Multinational Companies?”

individual income taxes as a percentage of personal income fell slightly from 9.6% to 9.2%.¹¹⁵

Second, changes in the tax treatment of capital asset depreciation can be decisive for capital-intensive firms. As a candidate, Donald Trump promised to allow firms to expense the full value of their investments in the year they made them, as opposed to writing off the cost over the lifespan of the asset.¹¹⁶ For firms with large capital expenditures, immediate expensing could allow them to recoup millions in tax savings immediately, instead of slowly over time. Due to the time value of money (a dollar today is worth more than a dollar ten years from now) and the liquidity benefits of being able to reduce tax expenditures in the same year one had to spend, the promised expensing reform was transformative for capital-intensive industries, making more investments profitable than before.¹¹⁷ The Congressional Research Service wrote further,

Estimates indicate that the user cost of capital for equipment declined by 2.7% and the user cost of structures declined by 11.7% ... than that of structures primarily because more of the cost for equipment is for depreciation.¹¹⁸

The Institution of Tax and Economic Policy estimated that the bonus depreciation alone saved twenty corporations more than \$26 billion in 2018 and 2019.¹¹⁹ Some companies that invest in large amounts of equipment, vehicles and machinery, such as Amazon, EOG (formerly Enron Oil and Gas), Delta Airlines, General Motors, FedEx, UPS, Intel, United Airlines, and Verizon saw more than \$1 billion in savings each from that single provision.

Even non-corporations were dramatically impacted by the change in the tax code. The bill lowered the limit of mortgage deductibility to \$750,000 and eliminated the deductibility for home equity interest.¹²⁰ Meanwhile, the deduction for state and local taxes was capped at \$10,000, substantially raising taxes for those in high-tax jurisdictions such as California, New York and New Jersey. Meanwhile, for parents and those who do not itemize, the near doubling of the standard deduction and child tax credit substantially reduced the taxes they needed to pay. One Niskanen Center report estimates that the changes to the child tax credit lifted 750,000 people out of poverty, of which

¹¹⁵ Jane G. Gravelle and Donald J. Marples. 2019. "The Economic Effects of the 2017 Tax Revision: Preliminary Observations." *Congressional Research Service*.

¹¹⁶ Steven M. Rosenthal. 2016. "Making tax shelters great again!" *Tax Policy Center*.

¹¹⁷ Anna Tyger. 2019. "New Evidence on the Benefits of Full Expensing." *Tax Policy Center*.

¹¹⁸ Jane G. Gravelle and Donald J. Marples. 2019. "The Economic Effects of the 2017 Tax Revision: Preliminary Observations." *Congressional Research Service*.

¹¹⁹ Matthew Gardner and Steve Wamhoff. 2020. "Depreciation Breaks Have Saved 20 Major Corporations \$26.5 Billion Over Past Two Years." *Institute on Taxation and Economic Policy*.

¹²⁰ Joseph A. Bellinghieri. "Key provisions of the Tax Cuts and Jobs Act." *MacElree Harvey*.

roughly half were children.¹²¹ According to an analysis by the Tax Foundation, people earning \$20,000-\$30,000 saved an additional 13.5% on their taxes each year from the tax reform. As a result, the hedge is valuable not just to large corporations, but to regular American families as well.

This analysis is not merely with the benefit of hindsight: these proposals and their downstream effects on corporations were well-identified prior to the change in government. Economic newsletters were advising their clientele to buy bank stocks as a proxy for a Republican victory, as they would benefit most from the proposed tax plan.¹²² In short, Republican control was a *necessary prerequisite to the passage of a major tax bill associated with major economic effects*. These effects were identified by the political press and market participants well in advance.

Case Study from 2020: Stimulus Checks

After the dust cleared in 2020, it became clear that Joe Biden had won the Presidency and the Democrats had won the House of Representatives. However, Senate control was dead-locked: the Democrats had won 48 seats to the Republicans' 50, with two races in Georgia heading to a run-off. If Democrats won both, they would control the Senate (due to Vice President Kamala Harris holding the tiebreak vote).

Control of the Senate would be pivotal to President Biden's agenda. Democrats made the stakes clear: if they controlled the Senate, they would immediately use their trifecta to pass a major COVID-19 relief bill that includes \$2,000 stimulus checks for nearly all Americans.¹²³¹²⁴¹²⁵ If the Republicans won, those checks were unlikely (Senate Republican leader Mitch McConnell even called them "socialism for rich people" before blocking a vote on them in late 2020), as was confirmed when the bill (the American Rescue Plan Act) was ultimately passed on a pure party-line vote.¹²⁶¹²⁷¹²⁸

While the ultimate stimulus amount was pared down to \$1,400 per person, the bill also contained provisions such as \$350 billion in aid to state and local governments, a dramatic expansion in the

¹²¹ Robert Orr. 2019. "The impact of the 2017 Child Tax Credit expansion was larger than anyone expected." *Niskanen Center*.

¹²² Phil Kuntz. 2016. "4 days to go: Here's the US election cheatsheet for financial markets." *The Economic Times*.

¹²³ Kate Sullivan. 2021. "Biden says electing Georgia's Ossoff and Warnock would lead to \$2,000 stimulus checks." *CNN*.

¹²⁴ Sahil Kapur. 2021. "In Georgia, Democrats close with populist pitch vowing \$2,000 stimulus checks." *NBC News*.

¹²⁵ Lance Lambert and Anne Sraders. 2021. "Democrats plan to use Senate win to pass \$2,000 stimulus checks." *Fortune*.

¹²⁶ Burgess Everett and Quint Forgey. 2020. "McConnell: House's \$2,000 stimulus checks are 'socialism for rich'." *Politico*.

¹²⁷ Burgess Everett. 2020. "McConnell and GOP reject House's \$2,000 stimulus checks." *Politico*.

¹²⁸ H.R. 1319, 117th Congress. <https://www.congress.gov/bill/117th-congress/house-bill/1319/actions>

child tax credit and an extension of emergency unemployment insurance policies that had been enacted earlier during the pandemic.¹²⁹ For millions of families with children or earning under \$75,000 per year (the income threshold for the stimulus checks), control of the Senate thus had a predictable impact on their household finances. Along with those who were unemployed, or had a job dependent on contracts with state and local governments, the Democratic trifecta may have been a factor in the drop in household debt and child poverty in the first half of 2021.¹³⁰¹³¹

As in the previous examples, these tradeoffs were known prior to the Democratic takeover. Senate Republican leadership was opposed to the American Rescue Plan Act and made that opposition plain. They not only opposed the checks, but the aid to states as well.¹³² Reasonable voters could reasonably infer that a Republican victory meant either no or a much smaller rescue bill. Control of the legislative branch thus has an impact on millions of Americans' financial situations.

¹²⁹ Erik Haagansen. 2021. "American Rescue Plan (Biden's \$1.9 Trillion Stimulus Package)." *Investopedia*.

¹³⁰ Household Debt Service Payments as a Percent of Disposable Personal Income. *Federal Reserve Economic Data*. <https://fred.stlouisfed.org/series/TDSP>

¹³¹ Zachary Parolina, Sophie Collyera, Megan A. Currana and Christopher Wimer. 2021. "Monthly Poverty Rates among Children after the Expansion of the Child Tax Credit." *Poverty and Social Policy Brief*.

¹³² Jason Lemon. 2020. "N.Y. Congressman Calls Out McConnell for Opposing COVID Aid to States." *Newsweek*.