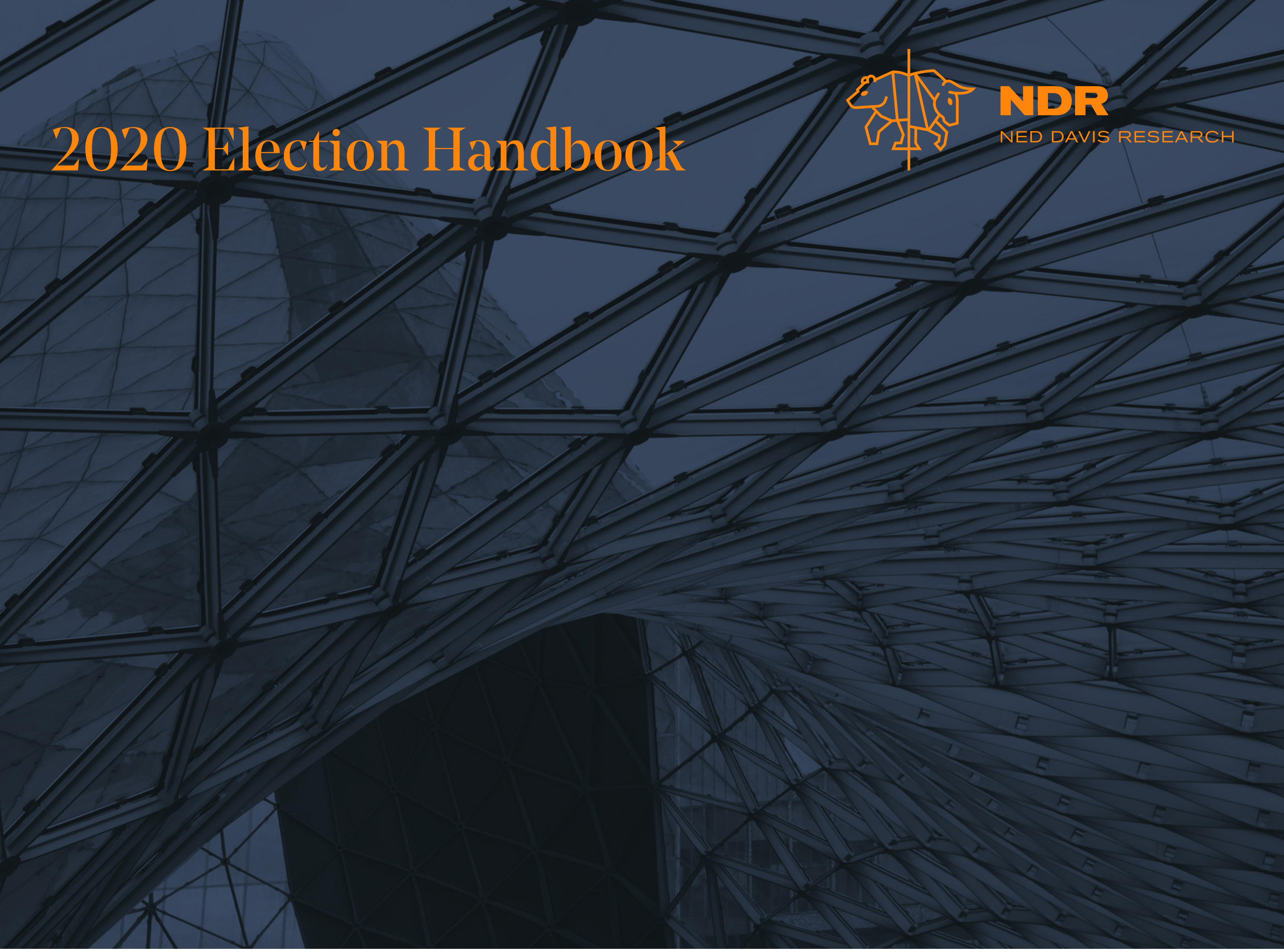


NDR
NED DAVIS RESEARCH

2020 Election Handbook

A unique election cycle with some unexpected parallels

A Special Report by Ned Davis Research

ED CLISSOLD, CFA, CHIEF U.S. STRATEGIST
THANH NGUYEN, CFA, SENIOR QUANTITATIVE ANALYST

NDR
NED DAVIS RESEARCH

JULY 14, 2020

email us

2020 Election Handbook

Special Report

Table of Contents

Strategists

Ed Clissold, CFA,
Chief U.S. Strategist

Thanh Nguyen, CFA,
Senior Quantitative Analyst

Executive Summary

The 2020 election feels so unprecedented that perhaps historical analogs should be disregarded. It is coming against the backdrop of a severe recession, global pandemic, and social unrest. President Trump is running as more of an outsider than his opponent, perhaps because the Democratic nominee, Joe Biden, has spent 32 years as an elected official in Washington. In the background is the closely contested 2016 election, where Trump won the Electoral College but lost the popular vote. Whether states that flipped from blue to red (and vice versa) four years ago continue or flip back could have implications for decades.

Yet, voters, and the markets, have seen much of this before. Trump is the 12th president since 1900, and sixth since 1950, to run when there was a recession or bear market in an election year. The Spanish flu and the social unrest of the 1960s were the backdrop of previous elections. One only has to go back to 2004 to find an incumbent Republican running for reelection with Democrats still stinging from a close loss four years prior. The Electoral College has shifted every few decades, with America's regional alliances finding balance in the two-party system.

The purpose of this report is to put the 2020 election into perspective for the stock market. Our conclusions are summarized below. For those who enjoy our election cycle charts and data, our new report SMF_39 puts all of them in one place.

Toplines

Trump's reelection bid

- Recessions and major market declines do not bode well for incumbents. Will voters blame Trump?
- The 2020 monetary and fiscal stimulus is the biggest in an election year since at least 1968.
- Post-election rallies have been strongest when the Republican party has retained the White House.

What a Biden presidency could mean

- Investors' biggest fear about a Biden win is a Democratic clean sweep that leads to higher taxes.
- Election year weakness when Republicans have lost the presidency have reversed in post-election years, on average.
- A President Biden would have to balance the centrist and progressive wings of the Democratic party.

Election cycle and political power

- The stock market has followed the four-year pattern this cycle, with a strong pre-election year and weak first half of an election year.
- The timing of the second-half election year rally often depends on when the market identifies the winner.
- The stock market has risen at a faster rate when Republicans have controlled Congress.

Leadership trends and the election cycle

- High-beta and cyclical areas tend to outperform during election years.
- Small-caps and Value appear more dependent on an economic recovery than election tendencies in 2020.
- Health Care, Financials, and Tech are under the most political pressure this cycle.

NDR
NED DAVIS RESEARCH

JULY 14, 2020

email us

Trump's reelection bid

Key Takeaways

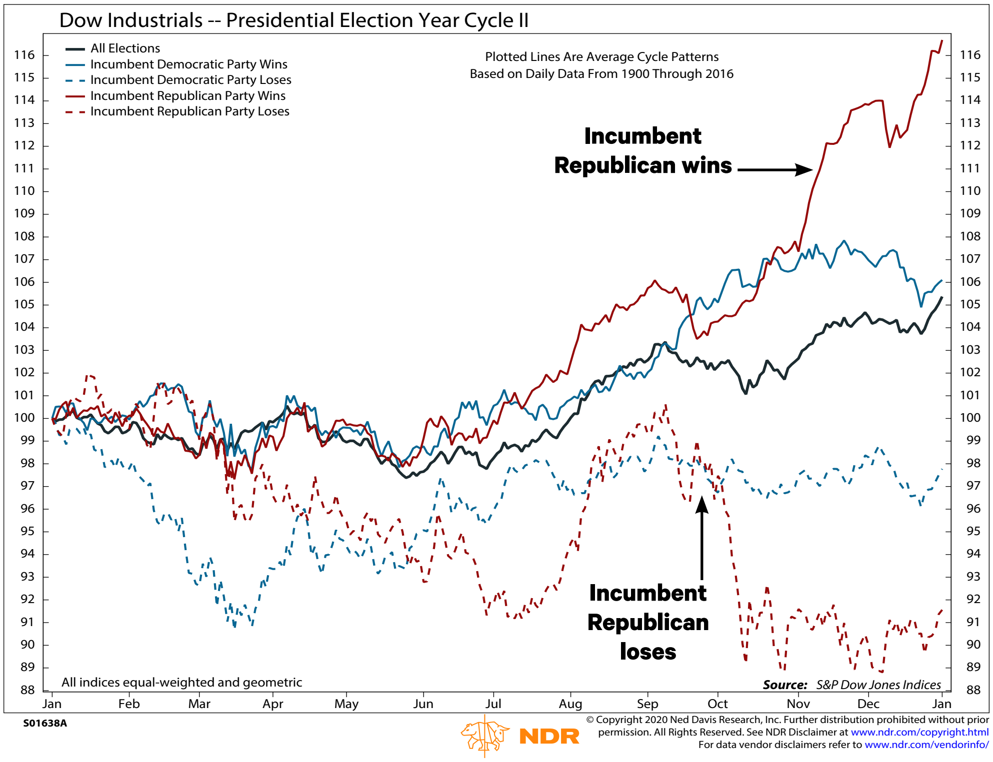
- Recessions and major market declines do not bode well for incumbents. Will voters blame Trump?
- The 2020 monetary and fiscal stimulus is the biggest in an election year since at least 1968.
- Post-election rallies have been strongest when the Republican party has retained the White House.

History rhymes?

In some regards, an incumbent seeking reelection fits well into NDR's historical analysis wheelhouse. The last president to not run for reelection when he could have was Lyndon Johnson in 1968. The last president to lose a reelection bid was George H.W. Bush in 1992. No millennial, and few Gen-Xers, have invested under the cloud of an incumbent failing to win a second term.

In other cases, this election is unique. A recession is one of the worst events for an incumbent. Because the cause of the 2020 recession is an exogenous shock, one of the biggest questions heading into the fall is whether voters will blame President Trump for the economy.

Year-end rallies weakest when incumbent Republican has lost



Our approach to this section is to apply historical analysis and highlight when 2020 may not fit neatly into the framework.

Stocks and incumbents

One chart that seems relevant every cycle is the tendency for the market to perform better when the incumbent party wins than when the incumbent party loses. The trends have been amplified under Republicans, with **the strongest gains coming when incumbent Republicans have won and the biggest losses when incumbent Republicans have lost, on average (chart, above)**.

The chart is a classic example of the chicken or the egg argument. The economy is integral to both the election and the stock market. Is the market declining because of a recession, so the incumbent party suffers? Or is the president penalized for his economic performance, and the markets reflect the uncertainty? The answer is probably some of both. Since Republicans have often positioned themselves as pro-business, it stands to reason that the market has been more sensitive to their reelection chances.

Note that much of our analysis is based on the incumbent party, not individual. The reason is that the market often reacts to uncertainty, and a change in party leadership represents an additional unknown.

It's the economy, stupid

James Carville, who made the phrase "it's the economy, stupid" famous in 1992, would love T_40. It shows that when the economy is in a recession on Election Day, the incumbent party has lost 80% of the time versus 32% when the economy was in expansion.

Most economists expect the recession to be over by November. Our macro team would not be surprised if the recession end date were backdated to as early as May 2020.

The question for candidates is not whether the NBER declares that a recession has ended, but how voters feel about the economy. As an indicator of sentiment toward the economy, the stock market can be a useful gauge.

Since 1900, the incumbent party has won three times and lost eight when there was a 20% decline in the DJIA or a recession in the election year **(table, right)**. The last to do so was Truman in 1948. **Since 1952, no party has retained the White House when there was either a 20% decline or a recession.** Both have taken place in 2020. Note that we often use the DJIA for its longer history, but trends are similar with the S&P 500.

Volatility and elections

Focusing just on the markets, **higher volatility has been negative for the incumbent party**. Declines have been bigger when the incumbent party has lost, with an average maximum correction in election years of -18.7% versus -10.6% when the incumbent party has won **(table, page 4)**. Rallies have also been bigger when the incumbent party has lost. Trends have been amplified under Republicans.

Incumbents 0-5 when recession or 20% drop in election year

Market and Economic Influence on Presidential Elections

Year	20% Decline or Recession in Election Year	Incumbent Party	Incumbent Party Win/Lose
1900	No	R	Win
1904	No	R	Win
1908	No	R	Win
1912	Yes	R	Lose
1916	Yes	D	Win
1920	Yes	D	Lose
1924	No	R	Win
1928	No	R	Win
1932	Yes	R	Lose
1936	No	D	Win
1940	Yes	D	Win
1944	No	D	Win
1948	Yes	D	Win
1952	No	D	Lose
1956	No	R	Win
1960	Yes	R	Lose
1964	No	D	Win
1968	Yes	D	Lose
1972	No	R	Win
1976	Yes	R	Lose
1980	No	D	Lose
1984	No	R	Win
1988	No	R	Win
1992	No	R	Lose
1996	No	D	Win
2000	Yes	D	Lose
2004	No	R	Win
2008	Yes	R	Lose
2012	No	D	Win
2016	No	D	Lose
2020	Yes	R	??

Since 1900

		20% Decline or Recession: Yes	20% Decline or Recession: No
Incumbent Party	Win	3	15
	Lose	8	4

Since 1952

		20% Decline or Recession: Yes	20% Decline or Recession: No
Incumbent Party	Win	0	8
	Lose	5	4

20% decline based on Dow Jones Industrial Average.
Recession dates from National Bureau of Economic Research.
D - Democrat. R - Republican.

Ned Davis Research T_SP202007141.1

Volatility higher when incumbent party has lost

DJIA Rallies and Corrections In Election Years (1928-2020)

Year	Incumbent Party	Incumbent Party Win/ Lose	Greatest Rally (%)	Start Date	End Date	Maximum Correction (%)	Start Date	End Date
1928	Republican	Win	56.8	2/20/28	12/31/28	-12.9	11/28/28	12/8/28
1932	Republican	Lose	93.9	7/8/32	9/7/32	-53.6	3/8/32	7/8/32
1936	Democrat	Win	29.2	1/6/36	11/17/36	-11.3	4/6/36	4/29/36
1940	Democrat	Win	23.5	6/10/40	11/9/40	-26.8	1/3/40	6/10/40
1944	Democrat	Win	13.6	2/7/44	12/16/44	-5.0	7/10/44	9/14/44
1948	Democrat	Win	16.8	3/16/48	6/15/48	-11.4	6/15/48	11/30/48
1952	Democrat	Lose	13.9	5/1/52	12/30/52	-6.9	1/22/52	5/1/52
1956	Republican	Win	12.7	1/23/56	4/6/56	-10.6	4/6/56	11/28/56
1960	Republican	Lose	9.6	3/8/60	6/9/60	-17.4	1/5/60	10/25/60
1964	Democrat	Win	16.4	1/2/64	11/18/64	-3.8	11/18/64	12/15/64
1968	Democrat	Lose	19.4	3/21/68	12/3/68	-9.2	1/8/68	3/21/68
1972	Republican	Win	16.6	1/26/72	12/11/72	-6.3	5/26/72	7/20/72
1976	Republican	Lose	18.2	1/2/76	9/21/76	-8.9	9/21/76	11/10/76
1980	Democrat	Lose	31.8	4/21/80	11/20/80	-16.0	2/13/80	4/21/80
1984	Republican	Win	14.5	7/24/84	11/6/84	-15.6	1/6/84	7/24/84
1988	Republican	Win	16.2	1/20/88	10/21/88	-8.4	1/7/88	1/20/88
1992	Republican	Lose	7.6	1/2/92	6/1/92	-8.1	6/1/92	10/9/92
1996	Democrat	Win	30.4	1/10/96	12/27/96	-7.5	5/22/96	7/23/96
2000	Democrat	Lose	15.5	3/7/00	9/6/00	-16.4	1/14/00	3/7/00
2004	Republican	Win	11.3	10/25/04	12/28/04	-9.2	2/11/04	10/25/04
2008	Republican	Lose	18.3	11/20/08	12/8/08	-42.2	5/2/08	11/20/08
2012	Democrat	Win	12.5	6/4/12	10/5/12	-8.9	5/1/12	6/4/12
2016	Democrat	Lose	27.6	2/11/16	12/20/16	-8.7	1/5/16	2/11/16
2020	Republican	??	48.3*	3/23/20*	6/8/20*	-37.1*	2/12/20*	3/23/20*

	Greatest Rally		Maximum Correction	
	Mean	**Median**	**Mean**	**Median**
All	**22.9**	**16.6**	**-14.1**	**-9.2**
Incumbent Party Wins	**20.8**	**16.4**	**-10.6**	**-9.2**
Incumbent Party Loses	**25.6**	**18.3**	**-18.7**	**-12.6**
Incumbent Republican -- All	**25.1**	**16.4**	**-17.6**	**-9.9**
Incumbent Republican Wins	**21.4**	**15.4**	**-10.5**	**-9.9**
Incumbent Republican Loses	**29.5**	**18.3**	**-26.0**	**-16.7**

Rally is the largest gain and correction is the greatest loss during an election year.
Some rallies occur within corrections and some corrections occur within rallies.
*2020 statistics not included in summary statistics.

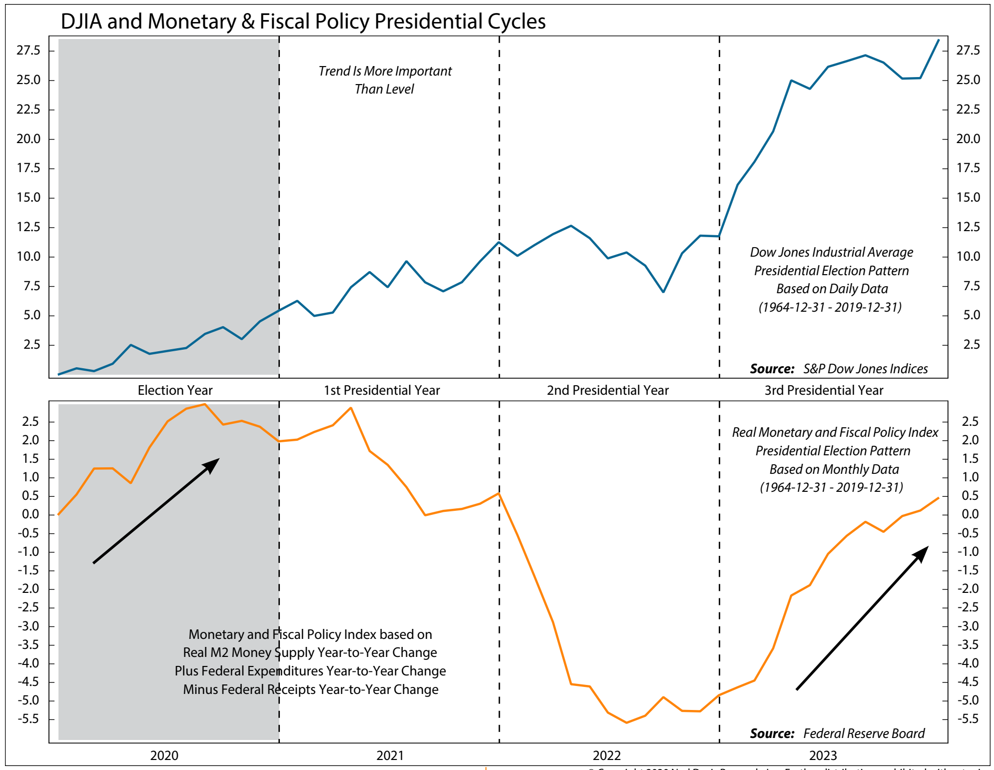
Ned Davis Research T_40

Economic stimulus

The biggest support for the economy and stock market in 2020 has been the speed and size of economic stimulus. In a matter of weeks, the Federal Reserve provided more liquidity than during the entire financial crisis. The fiscal response was the biggest since World War II.

Historically, the government has added stimulus leading up to the election **(chart, right)**. The tendency has been especially true for first-term presidents **(table, below)**. The change in the policy index so far in 2020 far exceeds even that of the financial crisis. **Whether the stimulus continues to steady the economy and markets through Election Day could be a major determinant of whether President Trump can avoid the dire implications of the macro backdrop.**

Monetary & fiscal stimulus accelerates into election



S01643

Monetary & fiscal stimulus accelerates more for 1st term presidents

NDR Real Monetary & Fiscal Policy Index by President

President	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Johnson**	4.6	-0.6	8.5	36.9				
Nixon	-14.7	9.2	16.1	4.4	-6.4			
Ford		-5.6	25.7	0.5				
Carter	-0.3	-2.7	-10.9	2.0				
Reagan	1.5	11.7	15.2	1.0	5.8	6.7	-7.4	-2.1
Bush I	1.0	3.8	2.2	2.4				
Clinton	-9.6	-6.5	-1.9	-1.4	-3.5	3.3	-2.6	-1.9
Bush II	17.1	20.2	11.3	1.2	-4.9	-2.5	0.3	26.9
Obama	29.9	-6.6	4.0	-1.5	-13.7	1.5	3.8	7.7
Trump	4.7	6.5	6.7	49.9* ←	**Biggest stimulus since at least 1965**			
Median	**1.5**	**1.6**	**7.6**	**1.2**	**-4.9**	**2.4**	**-1.2**	**2.9**
% Positive	**67**	**50**	**80**	**78**	**20**	**75**	**50**	**50**

Readings are values at end of year, except for Trump's fourth year, which is through May 31 and not included in summary statistics.
**Johnson became president in Kennedy's third year, but because Johnson could have run for reelection in 1968, 1965-68 is treated as a first term.
Real Monetary & Fiscal Policy Index based on real M2 money supply year/year percent change, plus federal expenditures year/year percent change, minus federal receipts year/year percent change.

Ned Davis Research SMF_60

Convention to election

The election has taken a back seat to the coronavirus pandemic, but it should move to the forefront as the calendar turns to the fall.

The lack of attention may feel odd, but the election dominating headlines for the entire year is a fairly recent phenomenon. Before cable news channels needed to fill 24/7 programming, the focus was from the party conventions to Election Day.

The **table at right** shows DJIA performance from the second convention to the day before the election. **The DJIA has gained a median of 5.7% when the incumbent party has won versus -1.4% when the incumbent party has lost.** Note that unlike the polls, the DJIA foreshadowed Clinton's defeat in 2016.

The second convention ends on August 27. Like everything else in society, COVID-19 will reshape conventions. Whether they generate enthusiasm like they have historically remains to be seen, but that should not impact the message from the market's performance as the election approaches.

A rare indicator that predicted the 2016 election

DJIA Performance Between Second Convention and Election Day

Ending Date of Second Convention	Day Prior to Election	DJIA % Change	Incumbent Party	Incumbent Party Win/ Lose
7/6/00	11/5/00	8.4	R	W
7/9/04	11/7/04	30.2	R	W
7/10/08	11/2/08	9.6	R	W
7/2/12	11/4/12	-1.5	R	L
6/16/16	11/6/16	15.9	D	W
7/6/20	11/1/20	-8.1	D	L
7/9/24	11/3/24	6.7	R	W
6/29/28	11/5/28	22.4	R	W
7/2/32	11/7/32	48.6	R	L
6/27/36	11/2/36	11.5	D	W
7/18/40	11/4/40	9.9	D	W
7/21/44	11/6/44	0.8	D	W
7/14/48	11/1/48	-0.5	D	W
7/26/52	11/3/52	-2.8	D	L
8/23/56	11/5/56	-2.3	R	W
7/28/60	11/7/60	-1.3	R	L
8/27/64	11/2/64	4.8	D	W
8/29/68	11/4/68	5.8	D	L
8/23/72	11/6/72	1.5	R	W
8/19/76	11/1/76	-1.8	R	L
8/14/80	11/3/80	-2.6	D	L
8/23/84	11/5/84	-0.3	R	W
8/18/88	11/7/88	4.8	R	W
8/20/92	11/2/92	-1.3	R	L
8/30/96	11/4/96	7.6	D	W
8/3/00	11/6/00	2.5	D	L
9/2/04	11/1/04	-2.3	R	W
9/4/08	11/3/08	-16.7	R	L
9/6/12	11/5/12	-1.4	D	W
7/28/16	11/7/16	-1.1	D	L

		All	Incumbent Party Wins	Incumbent Party Loses
Mean %		**4.9**	**7.1**	**1.6**
Median %		**1.1**	**5.7**	**-1.4**

Source: S&P Dow Jones Indices. D = Democrat. R = Republican.

Ned Davis Research T_55

Should we care about polls?

President Trump's election was the biggest presidential surprise since Truman's upset in 1948. Virtually every major poll showed Hilary Clinton winning. With polling so sophisticated, how did pollsters get it so wrong?

Analytics groups like fivethirtyeight.com pointed out that polls were accurate within 2% for the popular vote, which Clinton won. State polling data was less frequent, and of lower quality, in Pennsylvania, Michigan, and Wisconsin, three rust belt states that Trump narrowly won to swing the Electoral College in his favor.

As of the date of this publication, Joe Biden has a nearly 10-point lead nationally and has sizeable leads in major swing states like Florida, Michigan, and Wisconsin, according to fivethirtyeight.com. The 2016 experience has led to near universal discounting of the polls. The distrust will likely continue through the election. The result may be that the political uncertainty weighs on the market through November 3.

Approval rating

The presidential approval rating provides an interesting perspective because it has more history than other polls. As of June 30, President Trump sported a 38% approval rating. **No president has been reelected with an approval rating that low at the end of June (table, below)**. **Truman was close at 39%**, but no other president has been reelected with an approval rating below 47% (Obama in 2012).

History has not been kind to presidents facing economies and stock markets like 2020. The question is whether voters blame President Trump.

No president reelected with a June 30 approval rating as low as Trump's

June Presidential Approval Ratings and Elections

Year	Incumbent Party	6/30 Approval Rating (%)	Incumbent Party Win
1940	D	64	Y
1944	D	66	Y
1948	D	39	Y
1952	D	32	N
1956	R	73	Y
1960	R	61	N
1964	D	74	Y
1968	D	40	N
1972	R	56	Y
1976	R	45	N
1980	D	31	N
1984	R	53	Y
1988	R	48	Y
1992	R	38	N
1996	D	52	Y
2000	D	55	N
2004	R	48	Y
2008	R	28	N
2012	D	47	Y
2016	D	50	N
2020	R	38	??
All - Median		**49**	
Incumbent Party Win Median		**53**	
Incumbent Party Lose Median		**40**	

Source: Gallup Poll, www.gallup.com
D - Democrat. R - Republican.

Ned Davis Research T_SP202007141.2

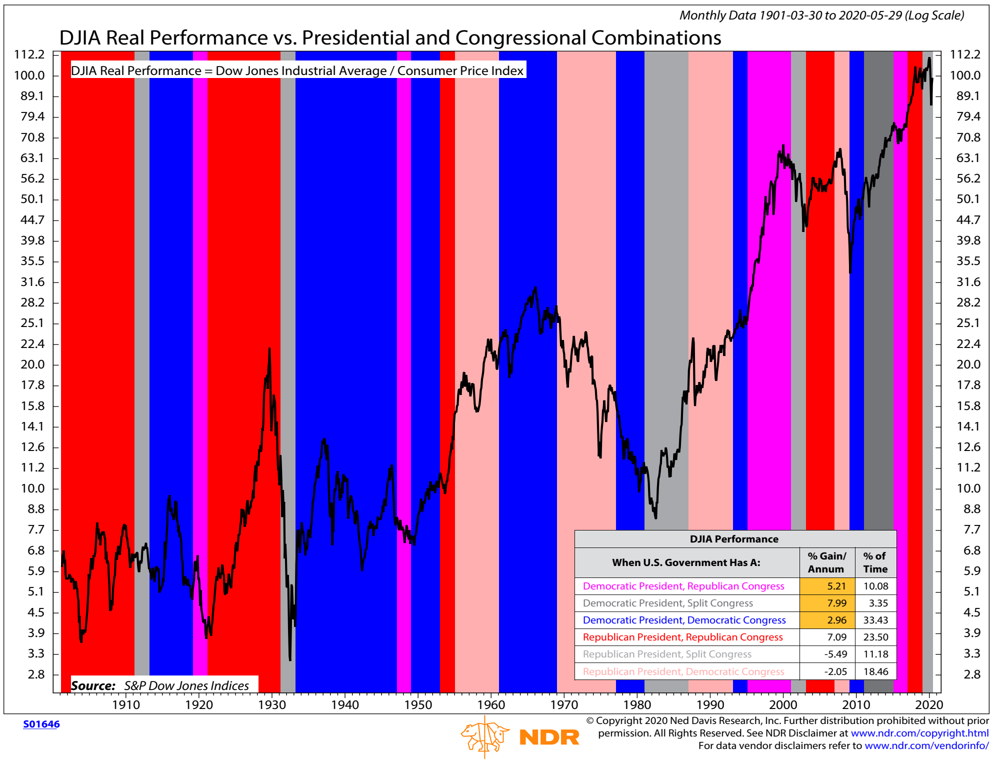
NDR
NED DAVIS RESEARCH

What a Biden presidency could mean

Key Takeaways

- Investors' biggest fear about a Biden win is a Democratic clean sweep that leads to higher taxes.
- Election year weakness when Republicans have lost the presidency have reversed in post-election years, on average.
- A President Biden would have to balance the centrist and progressive wings of the Democratic party.

Stocks prefer Congressional checks on Dem presidents



Status quo or outsider

During the Democratic primary, markets were jolted when progressive candidates like Elizabeth Warren or Bernie Sanders climbed in the polls. Based on client questions, the main concerns were that higher taxes and more regulations would be detrimental to Wall Street.

As a six-term senator from corporate friendly Delaware and a two-term vice president, Joe Biden was seen as the moderate choice. Markets seemed relieved when he surged to victories in South Carolina and on Super Tuesday.

The pandemic overshadowed the race as Biden was securing the nomination. Now that investors are refocusing on the election, they are questioning how much of a status quo candidate the former vice president is. **Historical data is mixed on whether a Biden victory is bullish or bearish.**

Democratic sweep

Based on client questions, chief among concerns are what happens not if Biden wins, but if Democrats regain the Senate as well. A Democratic sweep could increase the risk for more regulations and taxes. One thing the market hates is uncertainty.

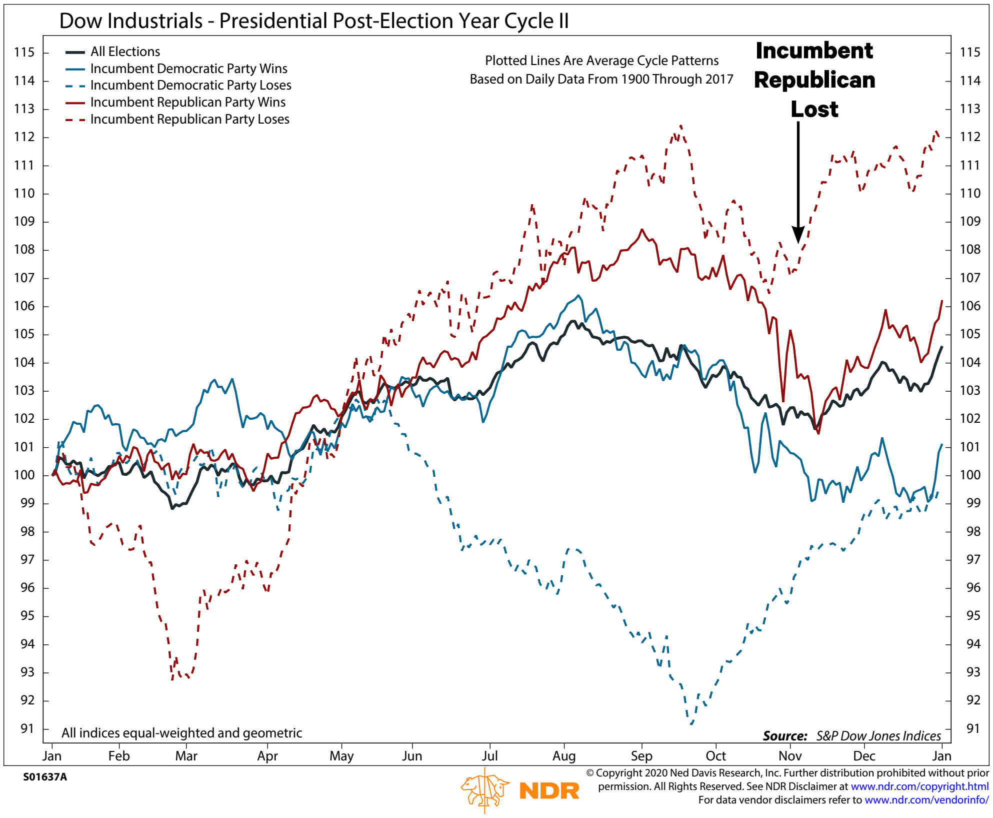
The **chart above** quantifies the concern. It shows inflation-adjusted returns for the DJIA based on the combination of presidential and congressional power. Under Democratic presidents, **the market has risen faster when there has been a check on their power**. Real DJIA returns have been higher under Democratic presidents and Republican or split Congress combinations than Democrats controlling the White House and both chambers of Congress. Conversely, markets have fared better when Republican presidents have enjoyed legislative majorities.

An important caveat is that there are **so few cases** that one-off events can skew returns. For example, the only instance of a Democratic president and split Congress was under Obama from 2013-2017. Also, large portions of the 1931-33 and 2008-09 crashes came under Republican presidents and Democratic or split Congresses.

The chart on page 3 shows that the DJIA has fallen the most in election years when the incumbent Republican has lost, on average. The **chart at right shows that that relative performance has reversed in post-election years**, with the strongest average gain in years following incumbent Republican losses.

The **table below** shows averages for all years. The mixed returns suggest that **party control may be more about sentiment than fundamentals in most cases**.

Weakness after Republican losses reverse in post-election years



Market performance in anticipation of winner often reverses after election

Presidential Election Cycle by Party
Dow Jones Industrial Average (Mean) % Gain since 1900

Political Party	# Cases	Post- Election Year	Mid-Term Year	Pre- Election Year	Election Year
Under Republicans	16	5.3	3.4	5.7	10.3
Under Democrats	14	8.6	4.2	19.7	4.8
Incumbent Party Wins	18	6.2	2.6	5.3	14.6
Incumbent Party Loses	12	7.7	5.5	22.7	-2.9
Incumbent Republican Wins	10	8.2	-1.3	-0.1	19.8
Incumbent Democrat Wins	8	3.7	7.5	12.0	8.2
Incumbent Republican Loses	6	15.1	-0.3	30.1	-6.1
Incumbent Democrat Loses	6	0.4	11.3	15.3	0.3

Source: S&P Dow Jones Indices
Ned Davis Research T_10A.RPT (excerpt)

Biden tax hikes

The Biden campaign has been gradually releasing its economic platform. A main component is the partial reversal of the 2018 corporate tax cut.

Biden has proposed raising the corporate tax rate from 21% to 28%, reversing half of Trump's cut. A 28% tax rate would slash S&P 500 after-tax EPS by 12.7%, all else being equal **(table, right)**.

Companies have paid far less than the stated rate for years. The effective rate fell 6.6% points from 2017 to 2019. **Reversing half of the 2017-19 effective tax rate decline would trim EPS by 4.2%.**

28% corp tax rate could lower SPX EPS 4-13%

Biden's Proposed Corporate Tax Hike Impact on S&P 500 After-tax Income

	Tax Rate		
Line Item	**17.7% Effective (As of 12/31/2019)**	**28% Stated (Biden)**	**21.0% Effective (halfway of 2017 and 2019)**
Pretax Income per Share ($)	174.73	174.73	174.73
Income Taxes per Share (S)	30.67	48.92	36.69
Effective Tax Rate (%)	17.7	28.0	21.0
Change in Taxes per Share ($)	0.00	18.25	6.02
After-tax Income per Share ($)	144.06	125.81	138.04
Change in After-tax Income (%)	0.0	-12.7	-4.2

Source: S&P Capital IQ Compustat.
Ned Davis Research T_SSF20_24.1

Buybacks biggest winners from 2018 tax cuts

S&P 500 Uses of Cash Pre- and Post-2018 Tax Cuts (Billions $)

Date	Buybacks	Dividends	Capex	M&A
12/31/17	457.2	451.2	638.0	305.7
12/31/19	669.7	514.4	757.9	281.2
$ Change	212.6	63.2	119.9	-24.5
% Change	46.5	14.0	18.8	-8.0

Source: S&P Capital IQ Compustat.
Ned Davis Research T_SSF20_24.3

Buyback concerns

Both parties have taken aim at stock repurchases. The 2018 tax cuts were supposed to spur investment. While S&P 500 capex rose $120 billion from 2017-19, net repurchases garnered the lion's share of the gains, with a $213 billion jump **(table, left)**.

Buybacks were already declining due to the diminishing one-time benefit of overseas repatriations and companies conserving cash, led by Financials. Fewer buybacks would remove an important source of demand.

Investors' fears of a cash crunch could be too focused on buybacks. Companies may choose to slash other uses of cash like capex and acquisitions if they lower their economic outlook.

Biden, the Midlands president

Colin Woodard's best-selling book, American Nations, theorizes that the United States consists of 11 sub-cultures, each with its view on how society should be structured, and in turn how the government should interact with its citizens.

With Mr. Woodard's blessing, in September 2016 we published a report on the market and economic tendencies for presidents by their American Nation. Click here for a summary. We found some general tendencies, with the caveats that not all presidents fit neatly into a single nation (Trump is from New Netherlands, but his base is Greater Appalachia and Deep South), and that outside circumstances can dictate policy (Wilson's nationalization of the economy during WWI).

Joe Biden has lived in multiple nations, but has governed as someone from the Midlands. He is from Scranton, Pennsylvania, which is on the boarder of Yankeedom and the Midlands. Wilmington, Delaware, where he staged his political career, is also in the Midlands.

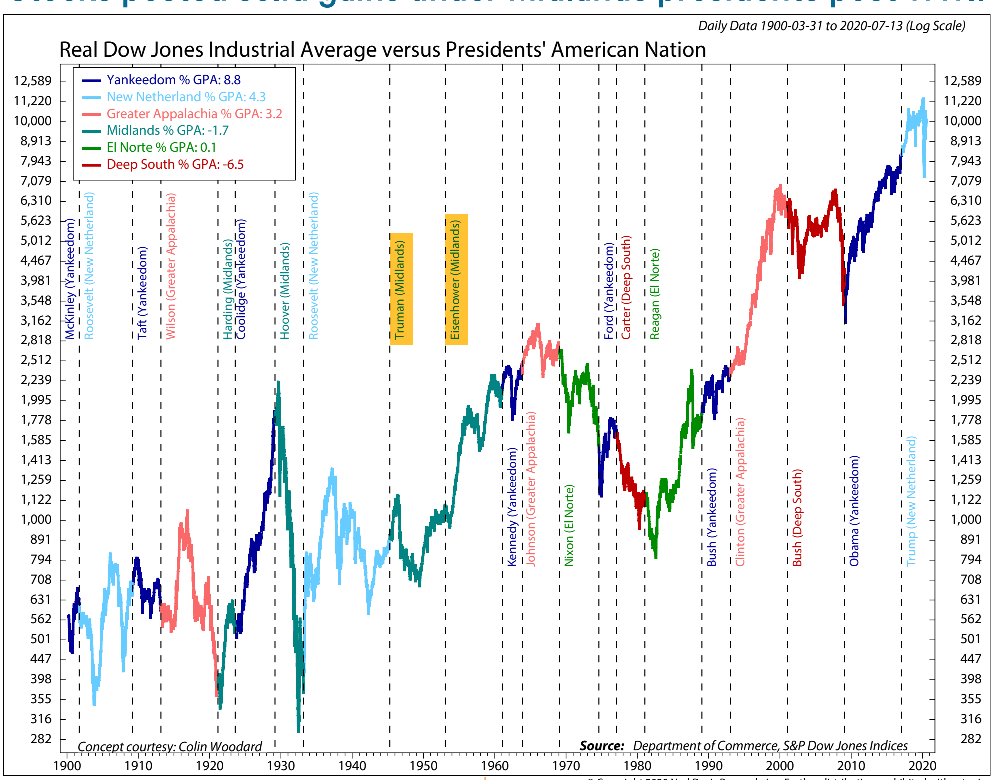
The Midlands was founded by Quakers, and then settled by German and other central Europeans. They were skeptical of a top-heavy government, but not as laissez-faire as Greater Appalachia or the Deep South.

If the United States formed a parliamentary government, 11 regional parties may have developed. Instead, the 11 nations form two coalitions at the party level. Since its views on government lay in between other large nations, the Midlands has been the preeminent swing region. The Midlands stretches from Pennsylvania, through Ohio, and into Iowa. It is no coincidence that those are the states that often determine presidential elections.

It will be interesting to see **how Biden balances the Midlands' more limited government tendencies with the influence from the progressive wing of the Democratic Party**, led by Elizabeth Warren and Bernie Sanders, both from big-government Yankeedom.

Stock market and economic performances have been solid under Midlands presidents, with the notable exception of Herbert Hoover. Inflation-adjusted DJIA returns have been the second-lowest under Midlands presidents **(chart, below)**, but a more respectable 5.6% since WWII, the exact same as Trump's New Netherlands. Industrial production growth has been near average since WWII under Midlands presidents.

Stocks posted solid gains under Midlands presidents post WWII



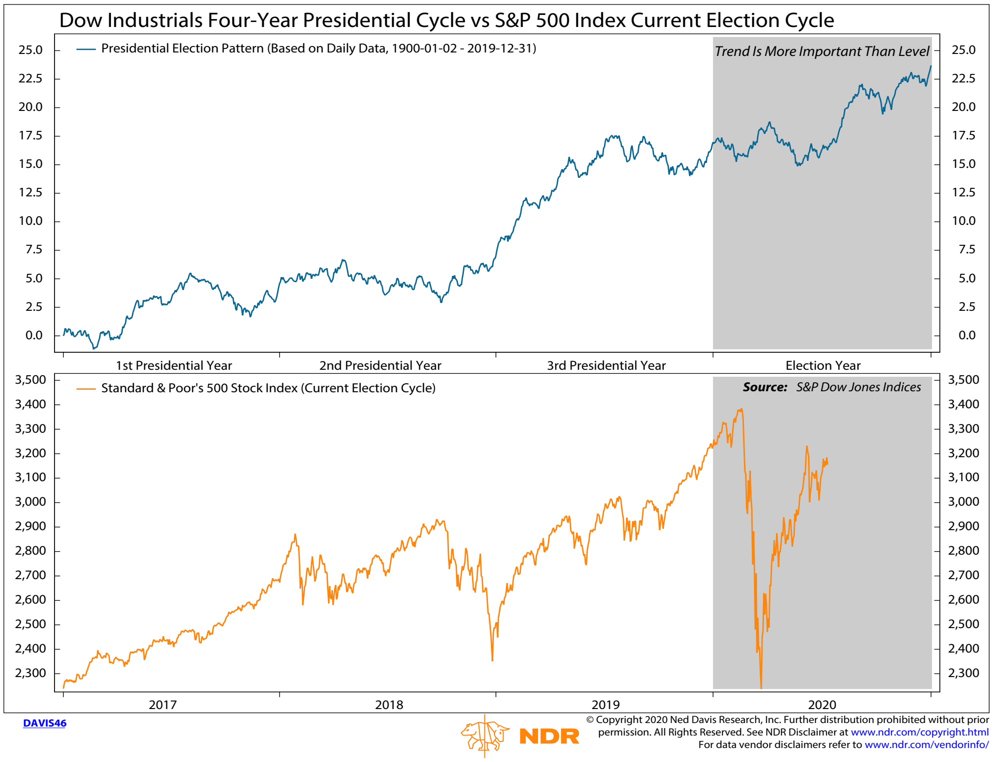
NDR
NED DAVIS RESEARCH

Election cycle and political power

Key Takeaways

- The stock market has followed the four-year pattern this cycle, with a strong pre-election year and weak first half of an election year.
- The timing of the second-half election year rally has often depended on when the market identifies the winner.
- The stock market has risen at a faster rate when Republicans have controlled Congress.

DJIA has been following 4-yr cycle, but with more volatility



Four-year cycle

The first two sections focused on the most relevant charts and studies for 2020. This section shows additional perspectives on the election cycle. A full list of our election cycle content can be found in new report SMF_39, which is shown on page 21.

The **chart above** shows the four-year presidential cycle for the DJIA. The first half of election years tend to be weak, followed by a second-half rally. The market dislikes uncertainty, and political uncertainty is no exception. The weakness roughly corresponds to the primary season.

On average, the rally begins in mid-May, but the timing has varied widely. **A common thread most years is that once the market sniffs out who is going to win the election, the uncertainty is lifted and the market can rally.**

In 1996 for example, Bill Clinton's reelection was rarely in doubt. After two small first-half corrections, the market rallied through the second half **(page 13, top)**.

Conversely in 2004, George W. Bush was locked in a tight battle with John Kerry. Bush's reelection was uncertain until late on election night. Stocks were weak throughout 2004, before staging a strong post-election relief rally **(page 13, bottom)**.

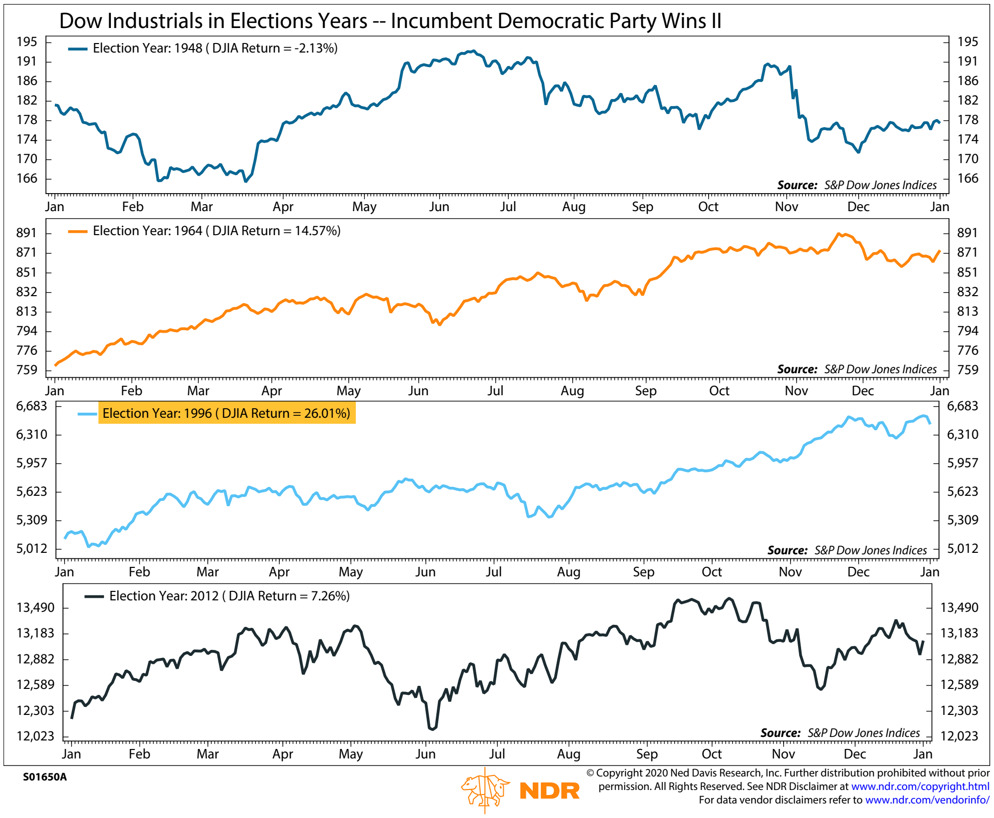
This year, the waterfall decline in February-March certainly fit the weak-first-half narrative, although few would attribute it to the election.

The third presidential year tends to be the strongest of the four. **The table on page 14** shows that the DJIA's average gain has been 12.2%. Post WWII, the DJIA has risen 94% of the time by an average of 16.2%. 2019 was true to form, with the DJIA surging 22.3%.

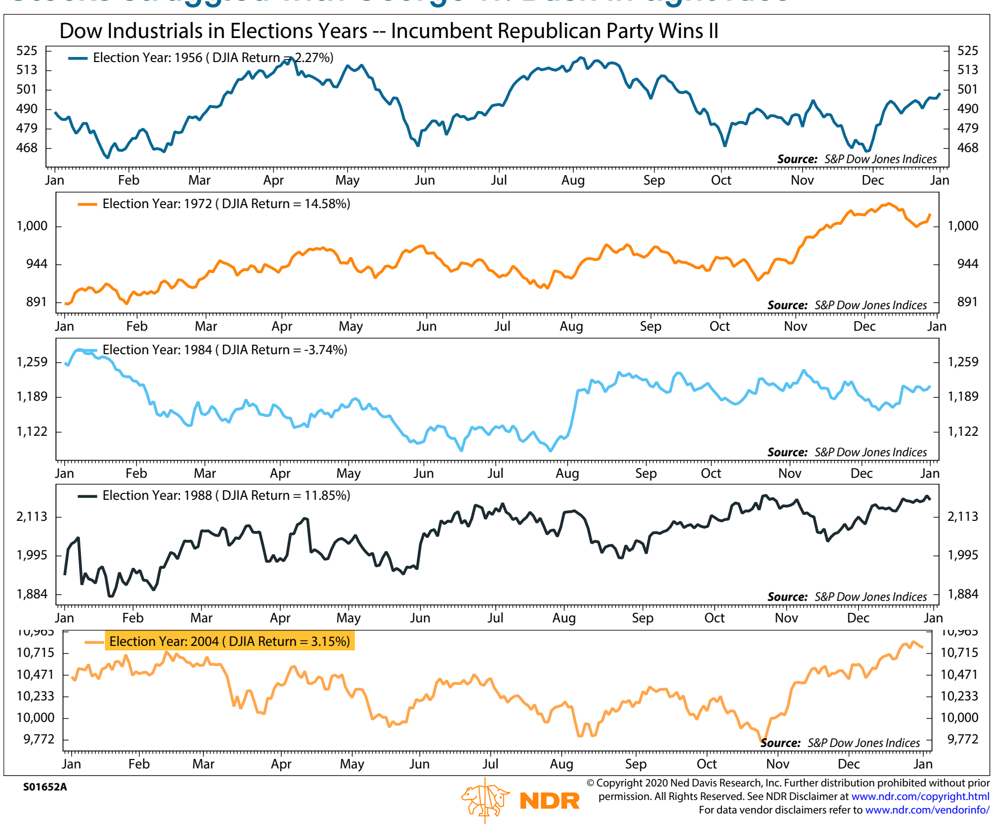
After the pre-election year, the election year has produced the second-highest percentage of positive years, although average gains rank third out of four, depending on the date range.

Notice in the **chart at right** the contrast between 1948, when Truman won a surprise second term, and 1996, when Bill Clinton defeated Bob Dole 379-159 in the Electoral College.

Stocks rallied on status quo of '96 Clinton reelection



Stocks struggled with George W. Bush in tight race



The 2004 election between George W. Bush and John Kerry went down to the wire. Bush won Ohio by 2.1%. If Kerry had captured the Buckeye State, he would have won the Electoral College. The DJIA was down 3.8% year-to-date until the day before the election, and then rallied 7.2% through yearend.

In 1988, the elder Bush trailed by as many as 17% points to Michael Dukakis in late-July, before surging to a 426-111 electoral landslide. The DJIA rallied 5.8% in September and October, as it became clear that a Republican would be occupying the White House for a third consecutive term.

Pre-election year strongest. Election years 2nd highest % positive years.

Presidential Cycle: Dow Jones Industrial Average Year Percent Change

President	Incoming Party	Incumbent Party	Election Year	Post-Election Year	Mid-Term Year	Pre-Election Year	Outgoing Election Year
McKinley, William*	R	R	1900	-8.7	-0.4	-23.6	41.7
Roosevelt, Theodore	R	R	1904	38.2	-1.9	-37.7	46.6
Taft, William	R	R	1908	15.0	-17.9	0.4	7.6
Wilson, Woodrow	D	R	1912	-10.3	-5.4	81.7	-4.2
Wilson, Woodrow	D	D	1916	-21.7	10.5	30.5	-32.9
Harding, Warren*	R	D	1920	12.7	21.7	-3.3	26.2
Coolidge, Calvin	R	R	1924	30.0	0.3	28.8	48.2
Hoover, Herbert	R	R	1928	-17.2	-33.8	-52.7	-23.1
Roosevelt, Franklin	D	R	1932	66.7	4.1	38.5	24.8
Roosevelt, Franklin	D	D	1936	-32.8	28.1	-2.9	-12.7
Roosevelt, Franklin	D	D	1940	-15.4	7.6	13.8	12.1
Roosevelt, Franklin*	D	D	1944	26.6	-8.1	2.2	-2.1
Truman, Harry	D	D	1948	12.9	17.6	14.4	8.4
Eisenhower, Dwight	R	D	1952	-3.8	44.0	20.8	2.3
Eisenhower, Dwight	R	R	1956	-12.8	34.0	16.4	-9.3
Kennedy, John*	D	R	1960	18.7	-10.8	17.0	14.6
Johnson, Lyndon	D	D	1964	10.9	-18.9	15.2	4.3
Nixon, Richard	R	D	1968	-15.2	4.8	6.1	14.6
Nixon, Richard**	R	R	1972	-16.6	-27.6	38.3	17.9
Carter, Jimmy	D	R	1976	-17.3	-3.1	4.2	14.9
Reagan, Ronald	R	D	1980	-9.2	19.6	20.3	-3.7
Reagan, Ronald	R	R	1984	27.7	22.6	2.3	11.8
Bush, George	R	R	1988	27.0	-4.3	20.3	4.2
Clinton, Bill	D	R	1992	13.7	2.1	33.5	26.0
Clinton, Bill	D	D	1996	22.6	16.1	25.2	-6.2
Bush, George W.	R	D	2000	-7.1	-16.8	25.3	3.1
Bush, George W.	R	R	2004	-0.6	16.3	6.4	-33.8
Obama, Barack	D	R	2008	18.8	11.0	5.5	7.3
Obama, Barack	D	D	2012	26.5	7.5	-2.2	13.4
Trump, Donald	R	D	2016	25.1	-5.6	22.3	N/A
Full History Summary							
Percent Positive				**53**	**57**	**80**	**69**
Mean Gain Per Year				**6.8**	**3.8**	**12.2**	**7.7**
Median Gain Per Year				**11.8**	**3.1**	**14.8**	**7.6**
Post WWII (1948) Summary							
Percent Positive				**56**	**61**	**94**	**77**
Mean Gain Per Year				**6.7**	**6.0**	**16.2**	**5.3**
Median Gain Per Year				**11.9**	**6.2**	**16.7**	**7.3**

Source: S&P Dow Jones Indices. D - Democrat. R - Republican.

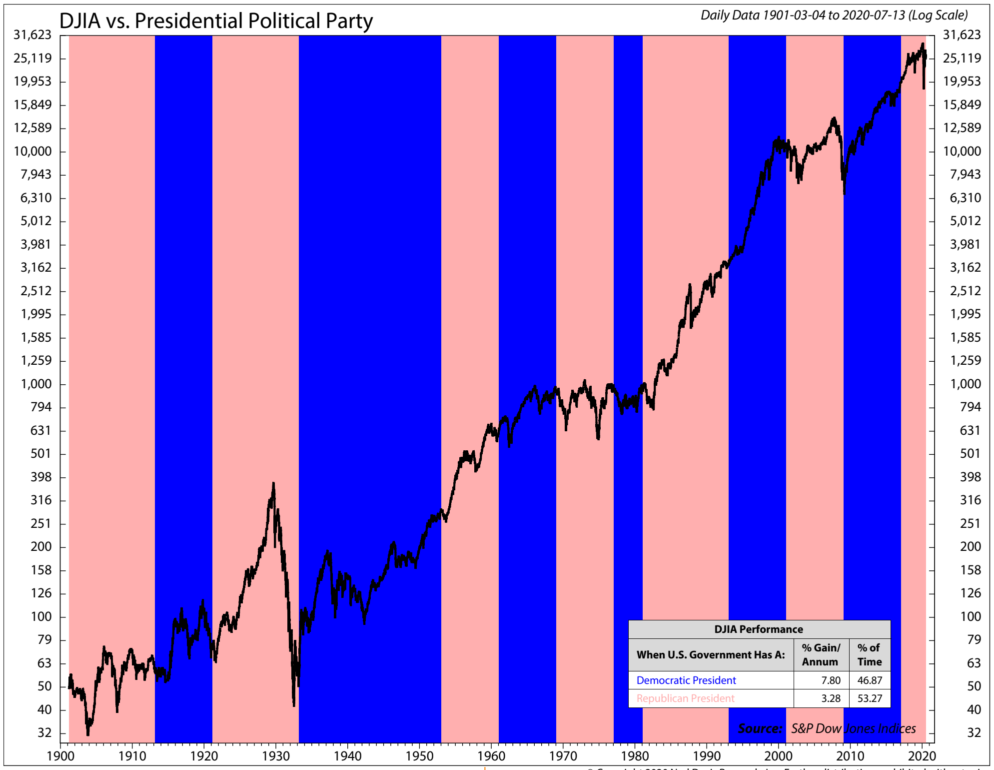
Ned Davis Research T_10A

Political power

Our most popular chart on party control and market performance is shown on page 8. It divides political power into six categories based on the party in control of the White House, Senate, and House of Representatives. The next four charts isolate those historical tendencies.

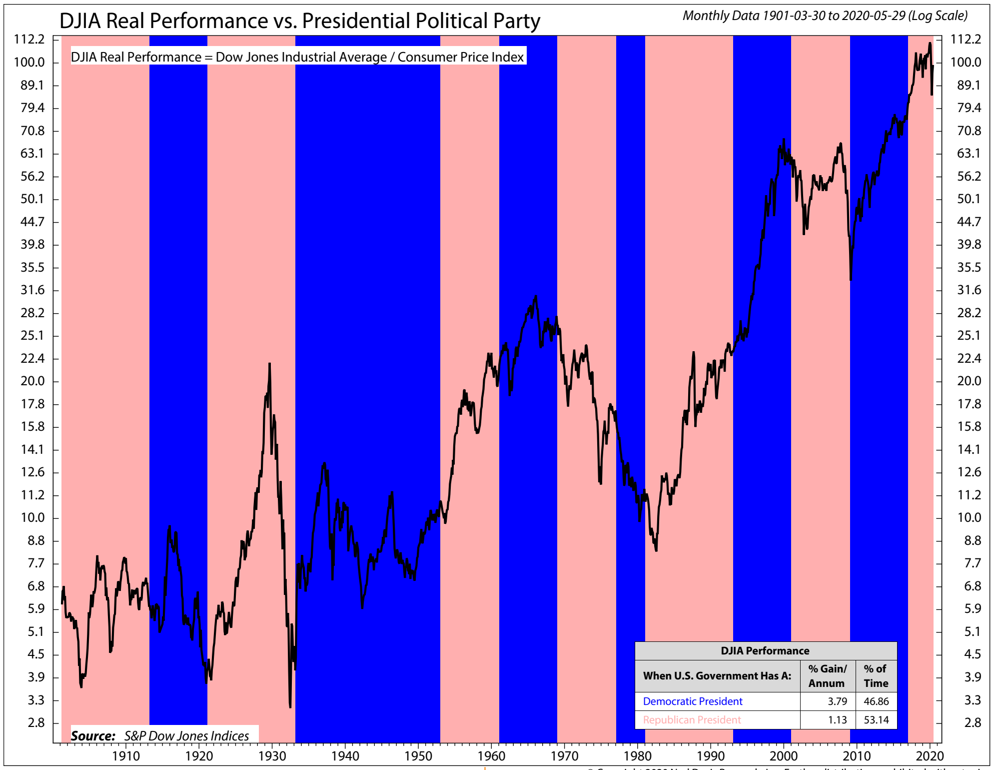
The DJIA has risen over twice as quickly under Democratic presidents than under Republicans **(chart, right)**.

In nominal terms, stocks have risen faster under Democrats



DJIA Performance		
When U.S. Government Has A:	% Gain/ Annum	% of Time
Democratic President	7.80	46.87
Republican President	3.28	53.27

Spread narrower after inflation



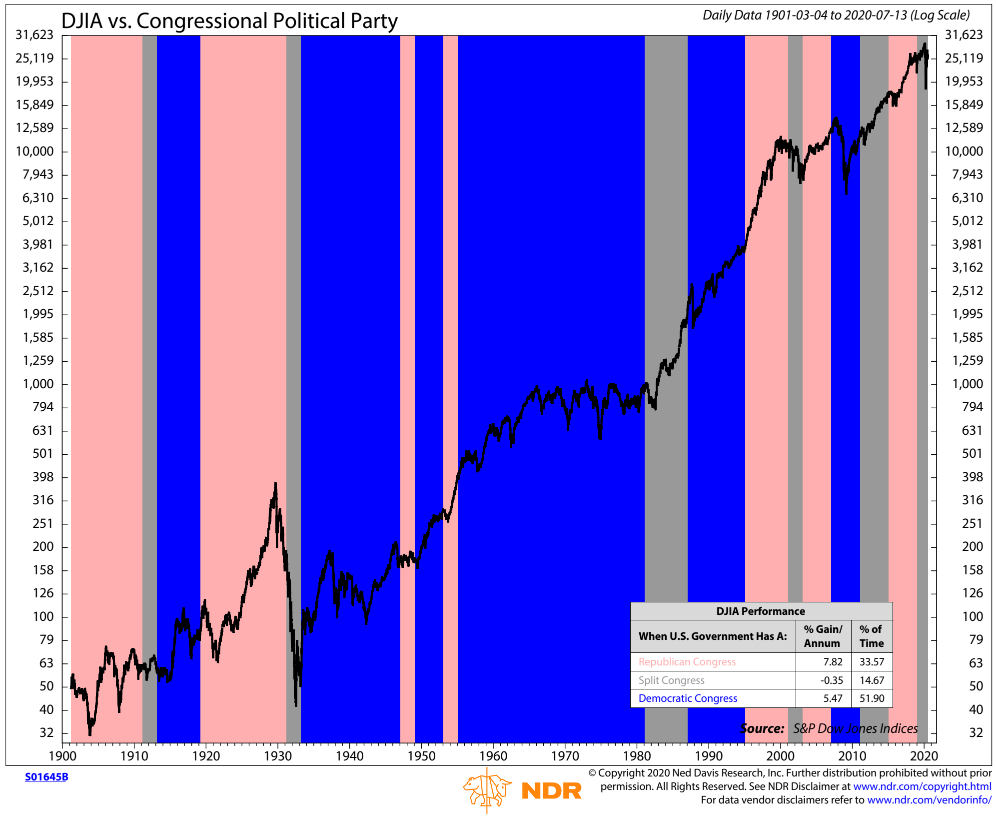
DJIA Performance		
When U.S. Government Has A:	% Gain/ Annum	% of Time
Democratic President	3.79	46.86
Republican President	1.13	53.14

The return spread narrows significantly on an inflation-adjusted basis, at 3.8% under Democrats versus 1.1% under Republicans **(chart, left)**.

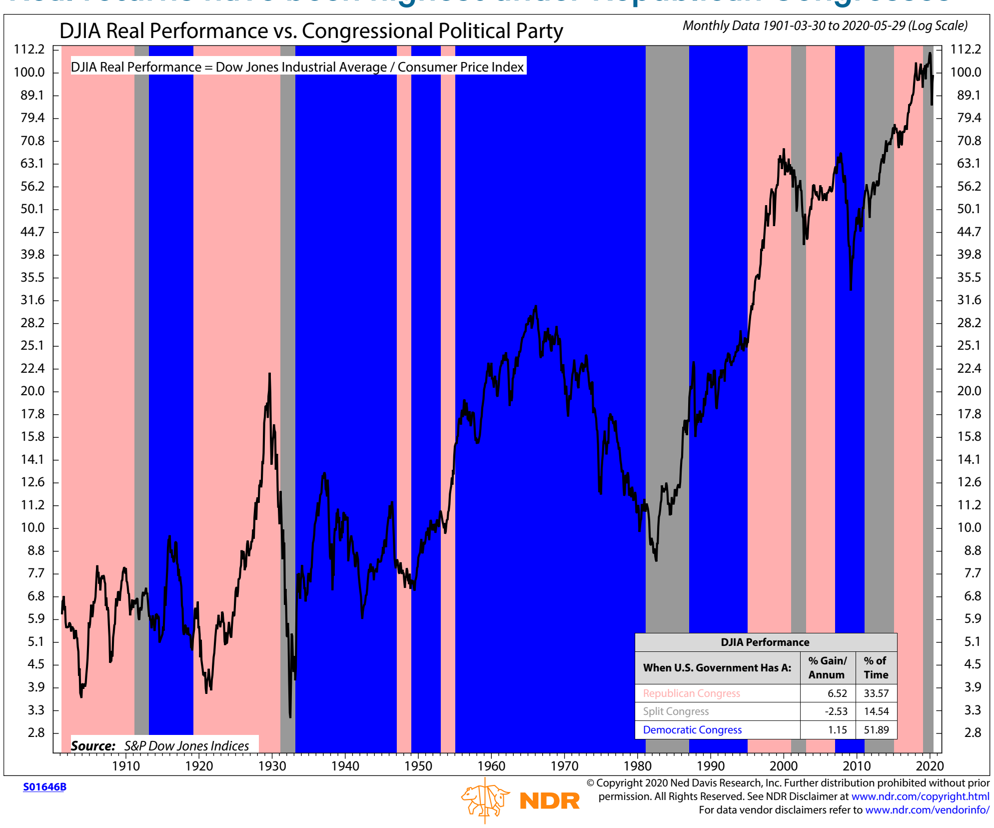
Stocks have risen at the fastest rate when Republicans have controlled both chambers of Congress (7.8%), although they have posted a respectable 5.5% gain per annum under Democrats **(chart, right)**. The worst combination has been under split Congress, with the caveat that has occurred only 14.7% of the time.

Differences between House and Senate terms could explain why a split Congress has been bearish. All House seats are up every two years. Senate terms are six years, so a third are elected every two years. If a party falls out of favor due to a poor economy, it may not lose both chambers at once.

Split Congress has been the worst combo for stocks



Real returns have been highest under Republican Congresses



On an inflation-adjusted basis, the DJIA has risen more quickly under Republicans than under Democrats **(chart, left)**. A split Congress has still been the worst combination.

NDR
NED DAVIS RESEARCH

Leadership trends and the election cycle

Key Takeaways

- High-beta and cyclical areas tend to outperform during election years.
- Small-caps and Value appear more dependent on an economic recovery than election tendencies in 2020.
- Health Care, Financials, and Tech are under the most political pressure this cycle.

Limited cases, broad tendencies

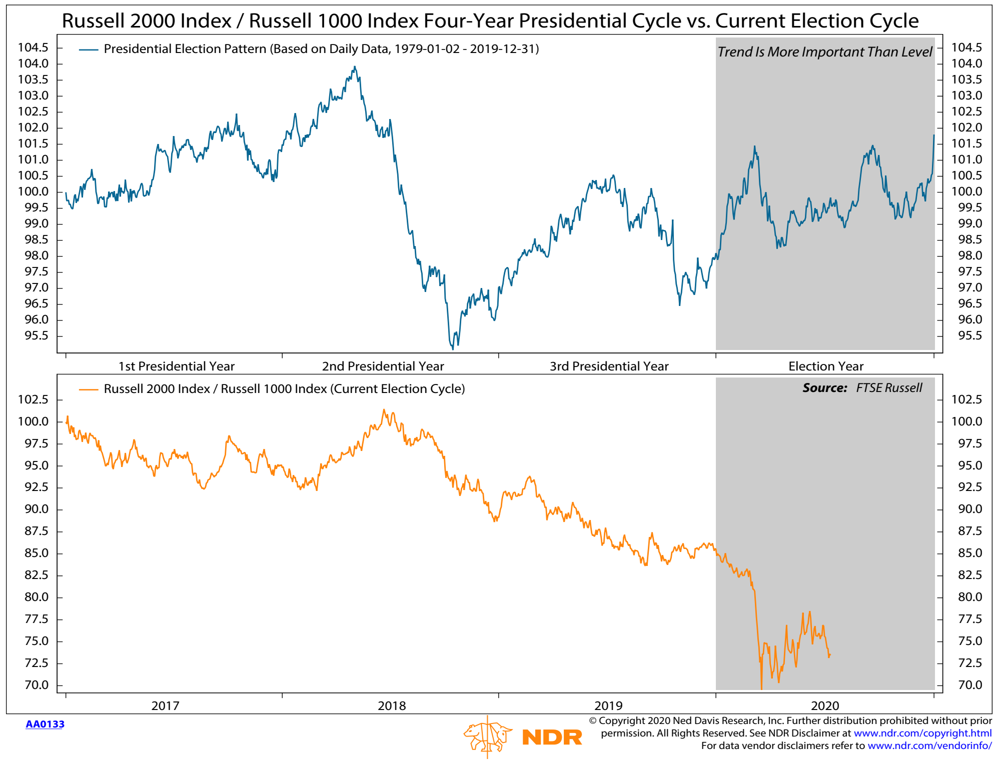
One of the biggest challenges with presidential cycle analysis is the small number of cases. Even the DJIA, which starts in 1900, only yields 30 elections. Relative performance metrics have less data, resulting in as few as 10 cases to study.

Nevertheless, there are some tendencies for equity leadership trends. They mostly stem from **pre-election stimulus leading to stronger economic growth, and therefore relative strength from high-beta and cyclical areas**.

Small/large

Since small-caps tend to be more economically sensitive than large-caps, the Russell 2000/1000 ratio roughly tracks the broad market cycle over the four-year presidential cycle.

Will COVID derail the typical small-cap election year rally?



Small-caps have tended to underperform during the weak second presidential year, rally through much of the third presidential year, be choppy during much of the election year, and stage a **post-election rally (chart, above, top clip)**.

Small-caps have been mired in a secular bear market relative to large-caps since 2011. The secular headwinds have led to steeper declines when the presidential cycle has been negative and anemic rallies when the election cycle has been positive for small-caps (bottom clip).

Small-caps have bounced since the March lows, but have given back some gains as COVID-19 cases have increased in the U.S., throwing the V-shaped economic scenario in doubt.

Whether small-caps can mount their typical post-presidential election rally may depend more on COVID-19 and the economy than on the election itself.

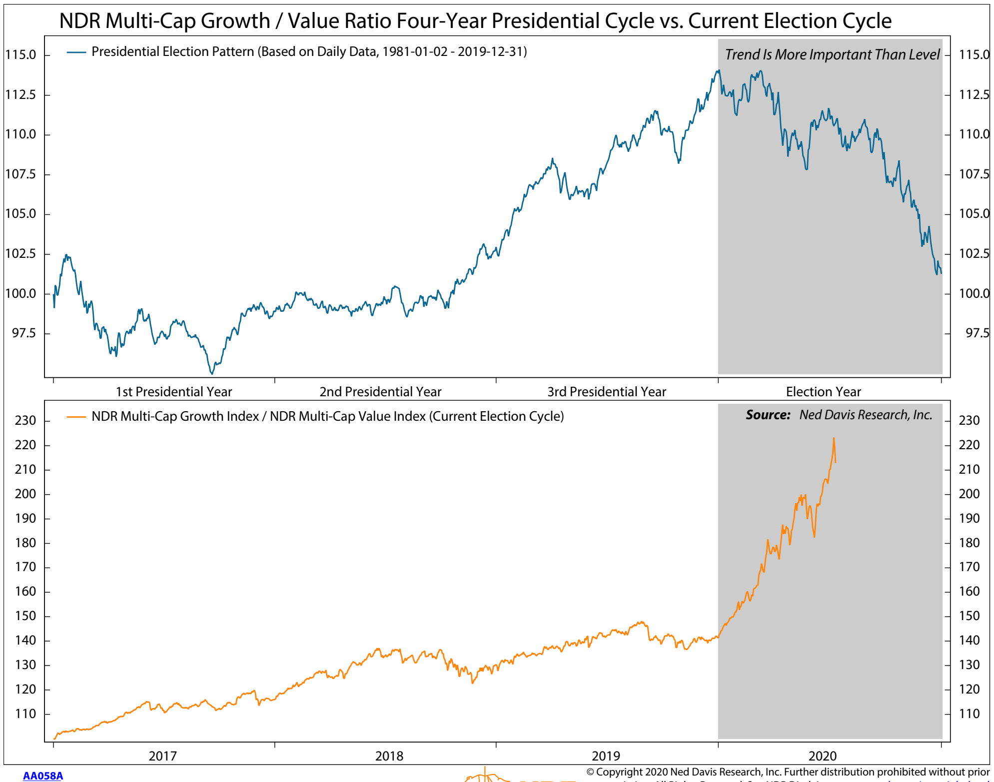
Growth/Value

Value has tended to outperform Growth during election years, as stronger economic growth boosts cyclical parts of the market **(chart, right, top clip)**.

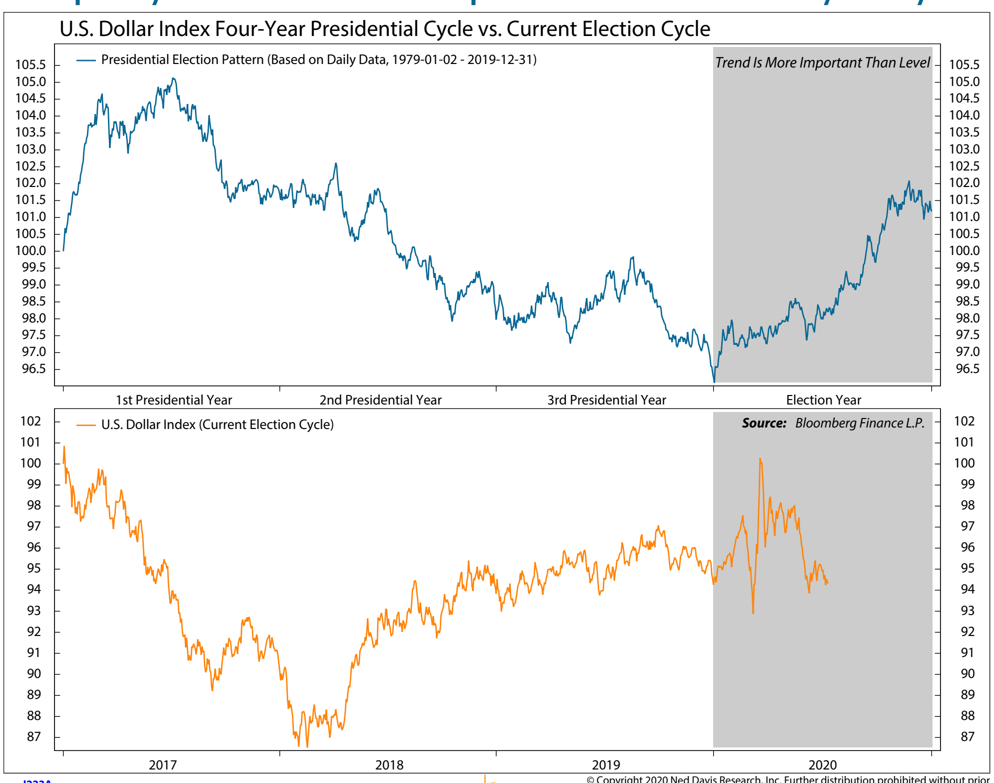
Value has been in a pronounced secular bear relative to Growth since 2006. With GDP growth below trend, investors have put a premium on companies that can grow without the benefit of a strong economy. By definition, those are Growth stocks. As a result, Growth has outperformed Value year-to-date (bottom, clip).

Even more so than small-caps, **Value is reliant on a strong economic rebound for it to follow its election year tendency to outperform**.

Value may need a stronger econ to follow election pattern



Fed policy & COVID have overpowered USD election year cycle



U.S. dollar

The dollar has tended to rally during election years on the back of stronger economic growth **(chart, left, top clip)**. COVID-19 and the unprecedented printing of dollars has led to a weaker greenback year-to-date.

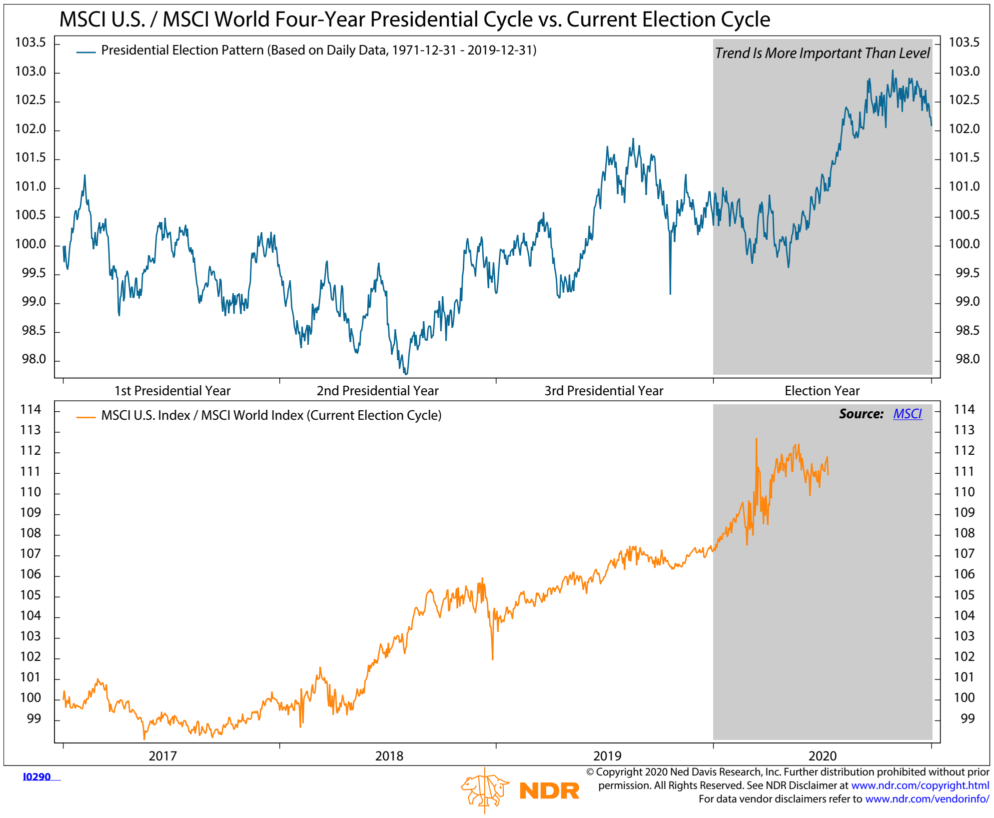
U.S. vs. rest of world

Similarly, U.S. stocks have tended to outperform during election years **(chart, right, top clip)**. The majority of mega-cap Growth stocks that have been relative winners during the pandemic are domiciled in the U.S., helping the U.S. outperform so far this year (bottom clip).

Sectors

Value relative strength before the election is evident at the sector level. The four most consistent outperformers in the six months prior to the election – Financials, Consumer Staples, Utilities, and Energy – all tilt toward Value **(table, below)**. The tendency is slightly more consistent when Republicans have won.

U.S. > int'l one of the few RS trends following election cycle



Value sectors tend to outperform 6 months before elections

S&P 500 Sector Relative Performance 6 Months Prior to Presidential Elections (12 Cases Since 1972)

			DEM WIN (76, 92, 96, 08, 12)		REP WIN (72, 80, 84, 88, 00, 04, 16)	
Sector	**% Outperform - Overall**	**Avg Relative Return (%)**	**% Outperformance**	**Average Rel Return (%)**	**% Outperformance**	**Average Rel Return (%)**
Financials	83	7.6	80	1.3	86	12.1
Consumer Staples	67	6.5	80	3.5	57	8.7
Utilities	67	5.2	60	-0.7	71	9.4
Energy	58	5.1	40	-1.7	71	9.9
Communication Services	58	1.1	60	-2.5	57	3.8
Health Care	50	5.1	60	1.6	43	7.5
Industrials	50	5.0	40	-3.2	57	10.8
Information Technology	42	2.0	40	-4.6	43	6.8
Consumer Discretionary	33	1.7	20	-4.8	43	6.3
Materials	17	-1.6	0	-9.6	29	4.1

Sources: Ned Davis Research Inc, S&P Dow Jones Indices.
Key: Red = <34% Outperformance Green = >66% Outperformance

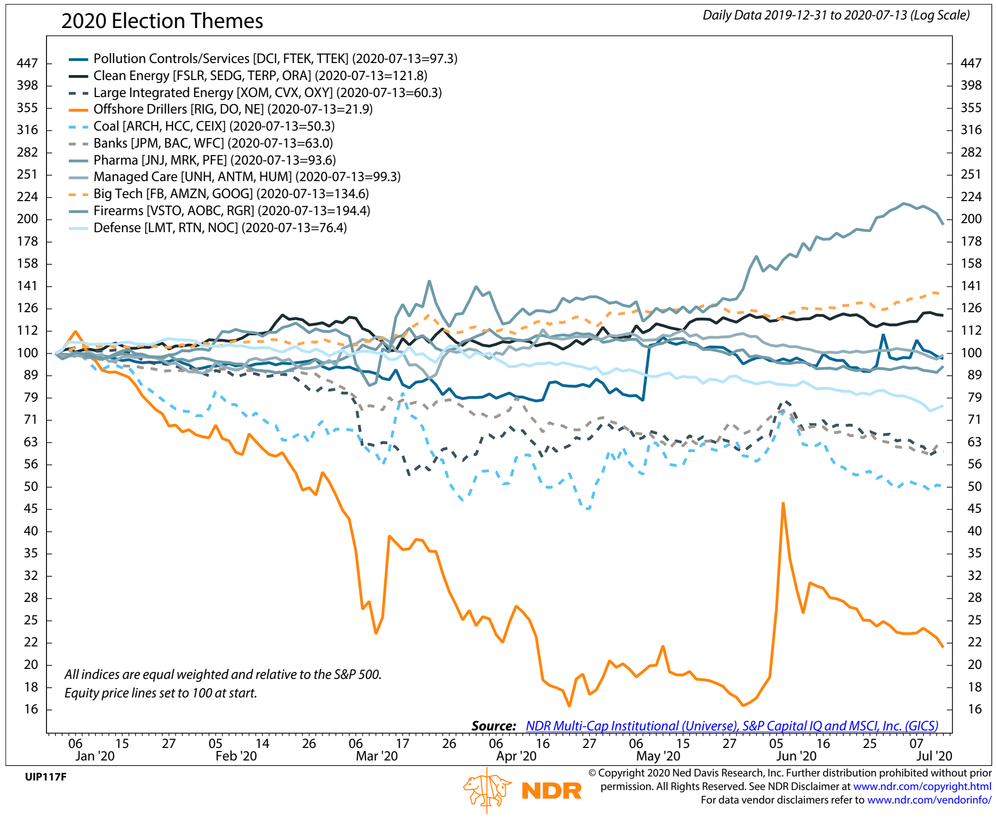
Ned Davis Research T_SP20200714.3

In the six months after the election, Communications Services and Health Care have been the most consistent outperformers (table, below). Health Care has been a popular target for regulation during campaigns, but reforms are rarely as severe as candidates promise. Health Care has outperformed more after Republican victories, on average.

Technology has been the most consistent underperformer after Republican victories.

The **chart at right** shows several election themes our sector team is tracking. Firearms has been the top performer, followed by big Tech and clean energy. Despite Tech being targeted by both parties, investors have preferred its stability during the recession. Offshore drilling, coal, integrated energy and banks have been the biggest losers.

Guns, Tech, & clean energy have been strongest election themes



Health Care and Com Services most consistent winners 6 months after elections

S&P 500 Sector Relative Performance 6 Months After Presidential Elections (12 Cases Since 1972)

			DEM WIN (76, 92, 96, 08, 12)		REP WIN (72, 80, 84, 88, 00, 04, 16)	
Sector	**% Outperform - Overall**	**Avg Relative Return (%)**	**% Outperformance**	**Average Rel Return (%)**	**% Outperformance**	**Average Rel Return (%)**
Communication Services	83	7.8	80	9.2	86	6.6
Health Care	75	4.8	60	-1.2	86	9.1
Financials	67	3.5	80	5.0	57	2.4
Energy	67	4.8	80	6.1	57	3.8
Consumer Staples	50	4.0	40	1.7	57	5.6
Industrials	50	4.0	60	5.2	57	3.2
Consumer Discretionary	50	3.4	60	4.3	43	2.9
Utilities	42	3.3	40	3.0	43	3.5
Information Technology	42	0.4	60	6.8	29	-4.3
Materials	42	5.6	40	2.8	57	7.7

Sources: Ned Davis Research Inc, S&P Dow Jones Indices
Key: Red = <34% Outperformance Green = >66% Outperformance

Ned Davis Research T_SP20200714.4

All U.S. election charts and tables in new report SMF_39

Ned Davis Research Group Four-Year Presidential Cycle Content	
Product	**Description**
	Broad Market
S01642	Dow Industrials Four-Year Presidential Cycle
S01642A	Dow Industrials Four-Year Presidential Cycle (Democrat & Republican Incumbent Wins vs. Loses)
DAVIS46	Dow Industrials Four-Year Presidential Cycle vs S&P 500 Index Current Election Cycle
T_10.RPT	Presidential Cycle Based on The S&P 500
T_10A.RPT	Presidential Cycle 12/31/1900 - Current - Percentage Change from year to year based on the DJIA
T_55.RPT	DJIA Performance Between Second Conventions and Election Days From 1900
T_20.RPT	DJIA Performance Around Presidential Elections From 1928
T_40.RPT	DJIA Rallys and Corrections In Election Years From 1928
	Relative Strength
AA0133	Russell 2000 Index / Russell 1000 Index Four-Year Presidential Cycle vs Current Election Cycle
AA058A	NDR Multi-Cap Growth / Value Ratio Four-Year Presidential Cycle vs Current Election Cycle
I223	U.S. Dollar Index Four-Year Presidential Cycle
I223A	U.S. Dollar Index Four-Year Presidential Cycle vs U.S. Dollar Index Current Election Cycle
I0290	MSCI U.S. / MSCI World Ratio Four-Year Presidential Cycle vs. Current Election Cycle
	Economy and Broad Market
S01643	DJIA and Monetary and Fiscal Policy Presidential Cycles
SMF_60	NDR Real Monetary & Fiscal Polity Index by President
T_60.RPT	Presidential Elections vs Recessions From 1904
	Political Power
S01639	Dow Industrials -- Election-Year Cycle (Incumbent Party Wins vs. Loses)
DAVIS520	Dow Industrials -- Election-Year Cycle (Incumbent Party Wins vs Loses)
S01638	Dow Industrials - Election Year Cycle
S01638A	Dow Industrials -- Election-Year Cycle
S01645	DJIA vs. President and Congressional Combinations
S01645A	DJIA vs. Presidential Political Party
S01645B	DJIA vs. Congressional Political Party
S01646	DJIA Real Performance vs. President and Congressional Combinations
S01646A	DJIA Real Performance vs. Presidential Political Party
S01646B	DJIA Real Performance vs. Congressional Political Party
S01650	Dow Industrials in Elections Years -- Incumbent Democratic Party Wins I
S01650A	Dow Industrials in Elections Years -- Incumbent Democratic Party Wins II
S01651	Dow Industrials in Elections Years -- Incumbent Democratic Party Loses I
S01651A	Dow Industrials in Elections Years -- Incumbent Democratic Party Loses II
S01652	Dow Industrials in Elections Years -- Incumbent Republican Party Wins I
S01652A	Dow Industrials in Elections Years -- Incumbent Republican Party Wins II
S01653	Dow Industrials in Elections Years -- Incumbent Republican Party Loses I
S01653A	Dow Industrials in Elections Years -- Incumbent Republican Party Loses I
T_50.RPT	Gains for Stocks, Economy and Inflation By Party of President and Majority Party in Congress From 1901
	American Nations
S01647	Dow Jones Industrial Average versus Presidents' American Nation
S01647A	Real Dow Jones Industrial Average versus Presidents' American Nation
S01647B	Small/Large Ratio versus Presidents' American Nation
S01647C	Real Small/Large Ratio versus Presidents' American Nation
S01647D	Federal Taxes/GDP (%) versus Presidents' American Nation
S01647D	Federal Spending/GDP (%) versus Presidents' American Nation
S01647F	Federal Defense Spending/GDP (%) versus Presidents' American Nation
S01647G	Federal Non-Defense, Non-Interest Spending/GDP (%) versus Presidents' American Nation
S01647H	Industrial Production versus Presidents' American Nation
T_12	Stock Market and Economic Performance by President's American Nation
	Fixed Income
T_11.RPT	Presidential Cycle -- Return On Government Bonds Relative To Cash From 1927
T_70.RPT	Aaa Yields During Presidential Terms From 1953
T_30.RPT	Interest Rate Behavior During Election Years From 1928

Ned Davis Research SMF_39

NDR
NED DAVIS RESEARCH

NDR HOUSE VIEWS (Updated July 7, 2020)

NDR recommends marketweight allocation to equities. We are overweight bonds and underweight cash. If coronavirus worries continue to subside and global economic activity starts returning to normal, we will likely see stock prices continue to move higher with rising bond yields. We are watching long-term trend indicators for confirmation that the secular bull market in equities remains intact.

Equity Allocation

U.S. | We are overweight the U.S. relative to other regions and neutral on an absolute basis. The rally from the March 23 low has met the NDR criteria for a cyclical bull market, and we are shifting to risk-on assets as models confirm. We favor small-caps over large-caps and are neutral on Growth versus Value.

INTERNATIONAL | We are overweight the U.S., underweight Emerging Markets and Pacific ex. Japan, and neutral on all other regions within our seven-way regional allocation framework.

Macro

ECONOMY | The global economy is in a sustained slowdown. Recession probability in the U.S. has increased, due to the spread of COVID-19. Other major risks include heightened trade war tensions, a sharp slowdown in China, and political dysfunction in the U.S. and Europe.

FIXED INCOME | We reduced our bond exposure by 10% to 100% of benchmark duration. We are positioned for a steeper yield curve. We are marketweight Treasurys, IG and HY corporates, agencies, agency MBS, CMBS, and ABS.

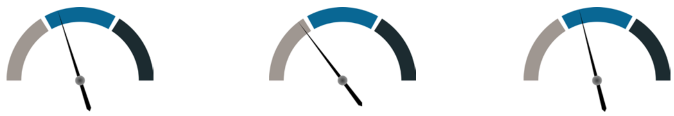
ENERGY | The combination of a flattening oil futures curve and production cuts support a neutral outlook.

GOLD | Long-term uptrend intact. We are bullish.

DOLLAR | We see limited upside potential.

Economic Summary

July 13, 2020



Global Economy
Below Trend
(-3.5% to -4.0%)

U.S. Economy
Below Trend
(-5.0% to -5.5%)

U.S. Inflation
Moderate
(2.2%)

● Overweight ● Marketweight ● Underweight

GLOBAL ASSET ALLOCATION

- Bonds (45%)
- Stocks (55%)
- Cash (0%)

Benchmark: Stocks (55%), Bonds (35%), Cash (10%)

Equities — Regional Relative Allocation

- U.S. (59%)
- Europe ex. U.K. (15%) | Japan (7%) | U.K. (5%) | Canada (3%)
- Emerging Markets (9%) | Pacific ex. Japan (2%)

Benchmark – U.S. (56.4%), Europe ex. U.K. (13.5%), Emerging Markets (11.8%), Japan (7.2%), U.K. (4.6%), Pacific ex. Japan (3.5%), Canada (3%)

Global Bond Allocation

- U.S. (55%) | U.K. (8%)
- Europe (27%)
- Japan (10%)

Benchmark: U.S. (51%), Europe (26%), Japan (18%), U.K. (5%)

U.S. ALLOCATION

- Bonds (45%) | Small-Cap
- Stocks (55%) | Mid-Cap | Growth | Value
- Cash (0%) | Large-Cap

Benchmark: Stocks (55%), Bonds (35%), Cash (10%)

Sectors

- Technology (27%) | Financials (15%)
- Consumer Staples (5%) | Real Estate (2%) | Utilities (1%)

Benchmark: Technology (23.2%), Health Care (14.0%), Financials (11.9%), Consumer Discretionary (10.5%), Consumer Staples (8.1%), Industrials (8.9%), Energy (3.9%), Utilities (3.3%), Real Estate (3.0%), Materials (2.6%), Communication Services (10.7%)

U.S. Bonds — 100% of Benchmark Duration

NED DAVIS RESEARCH

NDRsales@ndr.com
www.ndr.com
(800) 241-0621

VENICE
600 Bird Bay Drive West
Venice, FL 34285
(941) 412-2300

NEW YORK
1120 Avenue of the Americas
6th Floor
New York, NY 10036
(646) 810-7270

BOSTON
711 Atlantic Ave
6th Floor
Boston, MA 02110
(617) 279-4860

ATLANTA
7000 Central Parkway
Suite 1100
Atlanta, GA 30328
(678) 303-0097

SAN FRANCISCO
50 California Street
Suite 1500
San Francisco, CA 94111
(415) 277-5477

LONDON
8 Bouverie Street
Temple, London
EC4Y 8AX
+44 (0) 20 7779-8682

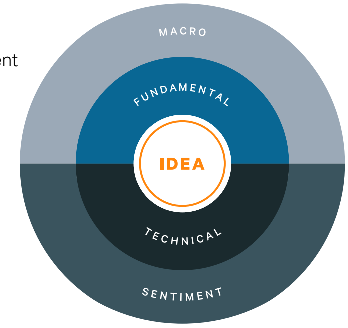
HONG KONG
38/F Hopewell Centre
183 Queen's Road East
Wanchai
+852 3416 6676

AUSTRALIA
19/1 O'Connell Street
Sydney, Australia
+61282491867

NDR
NED DAVIS RESEARCH

See the signals. Avoid mistakes.

Founded in 1980, Ned Davis Research Group is a leading independent research firm with clients around the globe. With a range of products and services utilizing a 360° methodology, we deliver award-winning solutions to the world's leading investment management companies. Our clients include professionals from global investment firms, banks, insurance companies, mutual funds, hedge funds, pension and endowment funds, and registered investment advisors.



Important Information and Disclaimers

NDR (Ned Davis Research) uses the weight of the evidence and a 360-degree approach to build up to market insights. When we say "evidence," we mean processing millions of data series to fuel a historical perspective, build proprietary indicators and models, and calm investors in a world full of bull/bear news hype and hysteria. We believe that no client is too big or too small to benefit from NDR's insights.

The data and analysis contained in NDR's publications are provided "as is" and without warranty of any kind, either expressed or implied. The information is based on data believed to be reliable, but it is not guaranteed. **NDR DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE.**

NDR's reports reflect opinions of our analysts as of the date of each report, and they will not necessarily be updated as views or information change. All opinions expressed therein are subject to change without notice, and you should always obtain current information and perform due diligence before trading. NDR or its affiliated companies or their respective shareholders, directors, officers and/or employees, may have long or short positions in the securities discussed in NDR's publications and may purchase or sell such securities without notice.

NDR uses and has historically used various methods to evaluate investments which may, at times, produce contradictory recommendations with respect to the same securities. When evaluating the results of prior NDR recommendations or NDR performance rankings, one should also consider that **NDR may modify the methods it uses to evaluate investment opportunities from time to time, that model results do not impute or show the compounded adverse effect of transaction costs or management fees or reflect actual investment results, that other less successful recommendations made by NDR are not included with these model performance reports, that some model results do not reflect actual historical recommendations, and that investment models are necessarily constructed with the benefit of hindsight. Unless specifically noted on a chart, report, or other device, all performance measures are purely hypothetical, and are the results of back-tested methodologies using data and analysis over time periods that pre-dated the creation of the analysis and do not reflect tax consequences, execution, commissions, and other trading costs. For these and for many other reasons, the performance of NDR's past recommendations and model results are not a guarantee of future results.**

Using any graph, chart, formula, model, or other device to assist in deciding which securities to trade or when to trade them presents many difficulties and their effectiveness has significant limitations, including that prior patterns may not repeat themselves continuously or on any particular occasion. In addition, market participants using such devices can impact the market in a way that changes the effectiveness of such devices. NDR believes no individual graph, chart, formula, model, or other device should be used as the sole basis for any investment decision and suggests that all market participants consider differing viewpoints and use a weight of the evidence approach that fits their investment needs. Any particular piece of content or commentary may or may not be representative of the NDR House View, and may not align with any of the other content or commentary that is provided in the service. Performance measures on any chart or report are not intended to represent the performance of an investment account or portfolio, as some formulas or models may have superior or inferior results over differing time periods based upon macro-economic or investment market regimes. NDR generally provides a full history of a formula or model's hypothetical performance, which often reflects an "all in" investment of the represented market or security during "buy", "bullish", or similar recommendations. This approach is not indicative of the intended usage of the recommendation in a client's portfolio, and for this reason NDR does not typically display returns as would be commonly stated when reporting portfolio performance. Clients seeking the usage of any NDR content in a simulated portfolio back-test should contact their account representative to discuss testing that NDR can perform using the client's specific risk tolerances, fees, and other constraints.

NDR's reports are not intended to be the primary basis for investment decisions and are not designed to meet the particular investment needs of any investor. The reports do not address the suitability of any particular investment for any particular investor. The reports do not address the tax consequences of securities, investments, or strategies, and investors should consult their tax advisors before making investment decisions. Investors should seek professional advice before making investment decisions. The reports are not an offer or the solicitation of an offer to buy or to sell a security.

Further distribution prohibited without prior permission. Full terms of service, including copyrights, terms of use, and disclaimers are available at https://www.ndr.com/web/ndr/terms-of-service. For data vendor disclaimers, refer to www.ndr.com/vendorinfo.