

Chart Blast

Santa delivers a lump of coal

Market Analysis

Key takeaways

- No Santa rally = tactical lump of coal. Increases the risk for a down January as well as a lackluster 1Q and 1H in 2024.
- January is a tough month in Presidential election years but even weaker, along with 1Q and 1H, when there is no Santa rally.
- There is a greater risk for a bearish January Barometer in 2024. See inside this report for more on the January Barometer.

No Santa rally = tactical lump of coal

Investors have dubbed the last five days of December and the first two days of January as the Santa Claus rally period. Going back to 1929, the S&P 500 (SPX) is up 78% of the time over this 7-day period with an average return of 1.6% (1.4% median). Santa's rally did not happen this year, and the SPX dropped -0.88% during this period. This is a risk to January, 1Q and 1H of 2024, which aligns with the tendency for the SPX to struggle in early Presidential Cycle Year 1 (see our report, [Tactical hangover entering 2024](#)).

No Santa rally increases the risk for a down January

January shows solid seasonality going back to 1929 with the SPX up 62% of the time on an average return of 1.2% (1.6% median). However, when the SPX does not experience its Santa rally, the risk increases for a down January with the month down 55% of the time on an average return of -0.38% (-1.3% median). January has plenty of trading days left, but a down January would generate a bearish January Barometer signal for 2024. See page 6-8 inside this report for more on the January Barometer.

Lackluster 1Q and 1H when Santa does not come to town

When the SPX does not get its Santa rally, 1Q and 1H returns are much weaker than average returns for these periods. This scenario shows the SPX down 60% of the time in 1Q on average and median returns of -1.2% and up 55% of the time in 1H with an average return of -0.74% (0.33% median). Once again, this fits the tendency for the SPX to struggle from January into May in Presidential election years.

January is a tough month in Presidential election years

The SPX tends to struggle in January in Presidential election years. January is up only 48% of the time on an average SPX return of 0.05% (-0.16% median). In the seven election years when the SPX dropped during the Santa rally period entering the year, the SPX has declined six times in January on an average return of -2.9% (-4.1% median). When Santa does not come to town heading into Presidential Cycle Year 4, 1Q and 1H also have weaker than average returns. See report for more.

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Market Analysis
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Santa delivers a lump of coal

No Santa rally = tactical lump of coal

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No Santa rally increases the risk for a down January

January shows solid seasonality going back to 1929 with the SPX up 62% of the time on an average return of 1.2% (1.6% median). However, when the SPX does not experience its Santa rally, the risk increases for a down January with the month down 55% of the time on an average return of -0.38% (-1.3% median). January has plenty of trading days left, but a down January would generate a bearish January Barometer signal for 2024. More on the January Barometer inside this report.

Table 1: S&P 500 January returns: 1929-2023

January is a solid month that is even stronger when a Santa rally occurs and much weaker when a Santa rally does not happen.

Statistic	January returns when Santa Claus Rally is negative	January returns when Santa Claus Rally is positive	All periods
Average return	-0.38%	1.63%	1.21%
Median return	-1.29%	1.81%	1.55%
% time up	45.00%	66.67%	62.11%
Std dev	4.37%	4.83%	4.79%
Min	-6.15%	-8.57%	-8.57%
Max	7.82%	13.18%	13.18%
Observations	20	75	95

Source: BofA Global Research, Bloomberg

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Lackluster 1Q and 1H when Santa does not come to town

When the SPX does not get its Santa rally, 1Q and 1H returns are much weaker than average returns for these periods. This scenario shows the SPX down 60% of the time in 1Q on average and median returns of -1.2% and up 55% of the time in 1H with an average return of -0.74% (0.33% median). Once again, this fits the tendency for the SPX to struggle from January into May in Presidential election years.

Table 2: S&P 500 first quarter (1Q) returns: 1929-2023

1Q is stronger following a Santa Claus rally and weaker when a Santa rally does not happen.

Statistic	1Q returns when Santa Claus	1Q returns when Santa Claus	All periods
	Rally is negative	Rally is positive	
Average return	-1.23%	2.28%	1.54%
Median	-1.18%	3.00%	2.00%
% time up	40.00%	65.33%	60.00%
Std dev	7.90%	8.33%	8.33%
Min	-19.43%	-20.00%	-20.00%
Max	13.63%	21.59%	21.59%
Observations	20	75	95

Source: BofA Global Research, Bloomberg

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Table 3: S&P 500 first half (1H) returns: 1929-2023

1H is stronger following a Santa Claus rally and weaker when a Santa rally does not happen.

Statistic	1H returns when Santa Claus	1H returns when Santa Claus	All periods
	Rally is negative	Rally is positive	
Average return	-0.74%	4.85%	3.67%
Median	0.33%	5.90%	4.95%
% time up	55.00%	66.67%	64.21%
Std dev	13.01%	13.41%	13.46%
Min	-45.44%	-23.48%	-45.44%
Max	14.72%	57.66%	57.66%
Observations	20	75	95

Source: BofA Global Research, Bloomberg

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January is a tough month in Presidential election years

The SPX tends to struggle in January in Presidential election years. January is up only 48% of the time on an average SPX return of 0.05% (-0.16% median). In the seven election years when the SPX dropped during the Santa rally period entering the year, the SPX has declined six times in January on an average return of -2.9% (-4.1% median). When Santa does not come to town heading into Presidential Cycle Year 4, 1Q and 1H also have weaker than average returns. See Table 5 and Table 6 for more.

Table 4: S&P 500 January returns for Presidential Cycle Year 4: 1932-2020

January is less robust in Presidential election years, the month but is stronger when a Santa rally occurs and much weaker when a Santa rally does not happen.

Statistic	Jan returns when Santa Claus Rally is negative	Jan returns when Santa Claus Rally is positive	All periods
Average return	-2.92%	1.34%	0.05%
Median	-4.05%	1.64%	-0.16%
% time up	14.29%	62.50%	47.83%
Std dev	4.03%	4.50%	4.72%
Min	-6.12%	-7.15%	-7.15%
Max	5.76%	11.83%	11.83%
Observations	7	16	23

Source: BofA Global Research, Bloomberg

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Table 5: S&P 500 first quarter (1Q) returns for Presidential Cycle Year 4: 1932-2020

1Q is stronger following a Santa Claus rally and weaker when a Santa rally does not happen.

Statistic	1Q returns when Santa Claus Rally is negative	1Q returns when Santa Claus Rally is positive	All periods
Average return	-2.48%	1.29%	0.14%
Median	-1.44%	2.76%	1.29%
% time up	42.86%	62.50%	56.52%
Std dev	6.25%	8.48%	7.93%
Min	-9.98%	-20.00%	-20.00%
Max	6.60%	13.95%	13.95%
Observations	7	16	23

Source: BofA Global Research, Bloomberg

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Table 6: S&P 500 first half (1H) returns for Presidential Cycle Year 4: 1932-2020

1H is stronger following a Santa Claus rally and weaker when a Santa rally does not happen.

Statistic	1H returns when Santa Claus Rally is negative	1H returns when Santa Claus Rally is positive	All periods
Average return	-5.44%	3.23%	0.59%
Median	2.69%	4.98%	3.28%
% time up	57.14%	68.75%	65.22%
Std dev	18.99%	8.99%	13.05%
Min	-45.44%	-19.90%	-45.44%
Max	9.41%	15.62%	15.62%
Observations	7	16	23

Source: BofA Global Research, Bloomberg

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January Barometer

January is a reasonably good predictor of the year

January is a reasonably good predictor of the year based on S&P 500 data going back to 1928. When January is up, the year is up 80% of the time with an average return of 13.2%, and the rest of the year (February-December) is up 78% of the time with an average return of 8.7%. When January is down, the S&P 500 tends to be weaker and is up only 46% of the time with an average return of -0.7%, and the rest of the year is up 60% of the time with an average return of 3.00. For all years back to 1928, the S&P 500 is up 67% of the time with an average return of 7.9%, and February-December is up 71% of the time with an average return of 6.5%.

Table 7: S&P 500 January Barometer from 1928-2023

When the SPX is up in January, the rest of the year is up 79.6% of the time with an average return of 13%.

Criteria	# of years	# of years with positive returns	Average annual return (%)	% of years up	Average Feb-Dec return (%)	Chance of an up Feb-Dec
January up	59	47	13.23%	79.66%	8.71%	77.97%
January down	37	17	-0.72%	45.95%	3.00%	59.46%
overall	96	64	7.85%	66.67%	6.51%	70.83%

Source: BofA Global Research, Bloomberg

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The First 5-sessions of January Barometer

Using the price return for the first five sessions of January as a gauge for the year and February-December is another January Barometer. Data back to 1928 suggest that S&P 500 returns are stronger for the year and February-December when index rallies over the first five trading days of January. When the first five sessions of the year are up, the year is up 75% of the time with an 11.2% average return. When the first five sessions are down, the year is up 50.0% of the time with an average return of 1.1%.

Table 8: S&P 500 First 5-days of January Barometer from 1928 - 2023

The SPX tends to be stronger for the year and February-December when the first five sessions of January are up.

Criteria	# of years	# of years with positive returns	Average annual return (%)	% of years up	Average Feb-Dec return (%)	% of an up Feb-Dec
1st 5 days of Jan positive	64	48	11.22%	75.00%	8.72%	78.13%
1st 5 days of Jan negative	32	16	1.11%	50.00%	2.09%	56.25%
overall	96	64	7.85%	66.67%	6.51%	70.83%

Source: BofA Global Research, Bloomberg

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Combined 1st 5-sessions & month of January Barometer

The best scenario for the S&P 500 is when the returns for the first five sessions of the year and January are both up. This has happened 47 times going back to 1928. This scenario shows the year up 83% of the time with an average return of 14.8%, and February-December up 81% of the time with an average return of 10.1%. All other scenarios have below average returns, but the S&P 500 is weakest when the first five days and month of January are down with the year down 60% of time on an average return of -2.5% under this scenario.

Table 9: Combined first 5 sessions & month of January Barometer – 1928 - 2023

There year can have much stronger returns when the S&P 500 is positive for both the first five days of the year and the month of January.

Criteria	# of years	# of years with positive returns	Average annual return (%)	Chance of up year (%)	Average Feb-Dec return (%)	Chance of an up Feb-Dec
1st 5 days of Jan up / month of Jan up	47	39	14.79%	82.98%	10.10%	80.85%
1st 5 days of Jan up / month of Jan down	17	9	1.35%	52.94%	4.88%	70.59%
1st 5 days of Jan down / month of Jan up	12	8	7.10%	66.67%	3.25%	66.67%
1st 5 days of Jan down / month of Jan down	20	8	-2.48%	40.00%	1.39%	50.00%
Overall	96	64	7.85%	66.67%	6.51%	70.83%

Source: BofA Global Research, Bloomberg

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January Barometer and the Presidential Cycle

2024 a Presidential election year and Year 4 of the Presidential Cycle. Year 4 has average annual and February-December returns for the S&P 500 of 7.5% and 7.2%, respectively. When January is up in the Presidential Cycle Year 4, the year is up 100% of the time with an average S&P 500 return of 16.6%, and February-December is up 100% of the time with an average return of 12.0%. When January is down in Presidential Cycle Year 4, which has happened thirteen times in the prior 24 cycles, the year is up 54% of the time with an average return of -0.2%, and February-December is up 69% of the time with an average return of 3.2%.

Table 10: January Barometer with Presidential Cycle – 1928 - 2023

The SPX tends to do well in Presidential Cycle Year 4. It is most likely to have an up year and February-December period when January is up.

Presidential Cycle Year	Criteria	# of years	# of years with positive returns	Average annual return (%)	Chance of up year (%)	Average Feb-Dec return (%)	Chance of an up Feb-Dec
Year 1	Jan. up	14	11	13.90%	78.57%	9.85%	78.57%
	Jan. down	10	3	-3.54%	30.00%	-0.32%	30.00%
	overall	24	13	6.63%	58.33%	5.61%	58.33%
Year 2	Jan. up	14	8	9.34%	57.14%	5.67%	57.14%
	Mid-term Year Jan. down	10	5	-5.08%	50.00%	2.58%	70.00%
	overall	24	13	3.33%	54.17%	4.38%	62.50%
Year 3	Jan. up	20	17	13.66%	85.00%	8.25%	80.00%
	Jan. down	4	2	15.46%	50.00%	20.32%	100.00%
	overall	24	19	13.96%	79.17%	10.26%	83.33%
Year 4	Jan. up	11	11	16.55%	100.00%	11.96%	100.00%
	Election Year Jan. down	13	7	-0.18%	53.85%	3.20%	69.23%
	overall	24	18	7.49%	75.00%	7.22%	83.33%

Source: BofA Global Research, Bloomberg

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First 5 days vs the rest of January & month of January

When the first five sessions of January are up, the month of January is up with 73% of time with an average gain of 2.2%. However, rest of the January is up only 56% of the time with an average return 0.3% after trading higher in the first five days.

Table 11: S&P 500 first 5 days of January as of Barometer for the rest of January & the month of January – 1928-2023

The rest of January tends to be weaker when the first five sessions of the month are positive, but the month of January is higher most of the time under this scenario.

Criteria	# of years	# of years the rest of Jan has positive returns	Average rest of Jan return (%)	Chance that the rest of Jan is up (%)	Average January return (%)	Chance of an up Jan
1st 5 days of Jan positive	64	36	0.32%	56.25%	2.15%	73.44%
1st 5 days of Jan negative	32	18	1.17%	56.25%	-0.92%	37.50%
overall	96	54	0.60%	56.25%	1.13%	61.46%

Source: BofA Global Research, Bloomberg

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However, the January Barometer less reliable since 2000

The January Barometer has become less reliable in recent years. The best decade for the January Barometer was the 1950s, which was when the direction of the S&P 500 in January (up or down) had a 90% success rate of calling the direction of the year. The Barometer also worked well in the 1940s, 1960s, 1970s, 1980s, and 1990s with an 80% success rate. However, the January Barometer's success rate dropped to 60% in the 2000s and then to 50% in the 2010s, which was worst success rate since the 1930s. The 2020s did not get off to a great start in terms of the January Barometer as down Januaries in 2020 and 2021 did not coincide with down years, but a down January preceded a down year in 2022 and an up January occurred ahead of an up year in 2023.

Table 12: January Barometer success rate through the years

The January Barometer has a success has dropped since 2000.

Years	Jan Barometer success rate for year	Jan Barometer success rate for Feb-Dec
1928-1929	0%	0%
1930s	50%	40%
1940s	80%	70%
1950s	90%	90%
1960s	80%	70%
1970s	80%	80%
1980s	80%	70%
1990s	80%	70%
2000s	60%	60%
2010s	50%	40%
2020s	50%	50%
All periods	69%	63%

Source: BofA Global Research, Bloomberg

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January Barometer through the years

Table 13: January Barometer each year from 1928-2023 (January vs Year shaded)

The January Barometer worked in 2022 and 2023.

Year	1st 5 days return	Rest of Jan	January return	Annual return	Feb-Dec return	1st 5 days	January	Year	Feb-Dec
1928	-0.91%	0.40%	-0.51%	37.88%	38.59%	Down	Down	Up	Up
1929	-0.74%	6.50%	5.71%	-11.91%	-16.67%	Down	Up	Down	Down
1930	-0.75%	7.05%	6.25%	-28.48%	-32.69%	Down	Up	Down	Down
1931	5.80%	-0.25%	5.54%	-47.07%	-49.85%	Up	Up	Down	Down
1932	5.54%	-7.35%	-2.22%	-14.78%	-12.85%	Up	Down	Down	Down
1933	3.03%	-2.66%	0.29%	44.08%	43.66%	Up	Up	Up	Up

Table 13: January Barometer each year from 1928-2023 (January vs Year shaded)

The January Barometer worked in 2022 and 2023.

1934	-2.11%	14.45%	12.04%	-4.71%	-14.95%	Down	Up	Down	Down
1935	-0.32%	-3.91%	-4.21%	41.37%	47.58%	Down	Down	Up	Up
1936	2.01%	4.45%	6.55%	27.92%	20.06%	Up	Up	Up	Up
1937	1.75%	1.66%	3.43%	-38.59%	-40.63%	Up	Up	Down	Down
1938	7.30%	-5.57%	1.33%	24.55%	22.92%	Up	Up	Up	Up
1939	-2.66%	-3.83%	-6.39%	-5.18%	1.30%	Down	Down	Down	Up
1940	1.69%	-4.89%	-3.29%	-15.09%	-12.20%	Up	Down	Down	Down
1941	1.80%	-6.50%	-4.82%	-17.86%	-13.70%	Up	Down	Down	Down
1942	2.19%	-0.34%	1.84%	12.43%	10.40%	Up	Up	Up	Up
1943	1.54%	5.24%	6.86%	19.45%	11.78%	Up	Up	Up	Up
1944	1.71%	-0.17%	1.54%	13.80%	12.07%	Up	Up	Up	Up
1945	2.26%	-0.81%	1.43%	30.72%	28.88%	Up	Up	Up	Up
1946	1.90%	4.97%	6.97%	-11.87%	-17.61%	Up	Up	Down	Down
1947	0.72%	1.62%	2.35%	0.00%	-2.30%	Up	Up	Down	Down
1948	0.07%	-4.11%	-4.05%	-0.65%	3.54%	Up	Down	Down	Up
1949	2.70%	-2.50%	0.13%	10.46%	10.32%	Up	Up	Up	Up
1950	1.73%	-0.18%	1.55%	21.68%	19.82%	Up	Up	Up	Up
1951	2.79%	3.14%	6.02%	16.35%	9.74%	Up	Up	Up	Up
1952	0.21%	1.34%	1.56%	11.78%	10.07%	Up	Up	Up	Up
1953	-0.90%	0.19%	-0.72%	-6.62%	-5.95%	Down	Down	Down	Down
1954	0.48%	4.61%	5.12%	45.02%	37.96%	Up	Up	Up	Up
1955	-1.81%	3.68%	1.81%	26.40%	24.16%	Down	Up	Up	Up
1956	-2.13%	-1.55%	-3.65%	2.62%	6.50%	Down	Down	Up	Up
1957	-0.90%	-3.31%	-4.18%	-14.31%	-10.58%	Down	Down	Down	Down
1958	2.50%	1.73%	4.28%	38.06%	32.40%	Up	Up	Up	Up
1959	0.34%	0.04%	0.38%	8.48%	8.07%	Up	Up	Up	Up
1960	-0.65%	-6.54%	-7.15%	-2.97%	4.50%	Down	Down	Down	Up
1961	1.20%	5.05%	6.32%	23.13%	15.81%	Up	Up	Up	Up
1962	-3.40%	-0.41%	-3.79%	-11.81%	-8.34%	Down	Down	Down	Down
1963	2.60%	2.26%	4.91%	18.89%	13.32%	Up	Up	Up	Up
1964	1.31%	1.37%	2.69%	12.97%	10.01%	Up	Up	Up	Up
1965	0.73%	2.57%	3.32%	9.06%	5.56%	Up	Up	Up	Up
1966	0.77%	-0.28%	0.49%	-13.09%	-13.51%	Up	Up	Down	Down
1967	3.09%	4.59%	7.82%	20.09%	11.38%	Up	Up	Up	Up
1968	0.16%	-4.53%	-4.38%	7.66%	12.60%	Up	Down	Up	Up
1969	-2.95%	2.19%	-0.82%	-11.36%	-10.63%	Down	Down	Down	Down
1970	0.67%	-8.26%	-7.65%	0.10%	8.39%	Up	Down	Up	Up
1971	0.04%	4.00%	4.05%	10.79%	6.48%	Up	Up	Up	Up
1972	1.35%	0.45%	1.81%	15.63%	13.58%	Up	Up	Up	Up
1973	1.52%	-3.19%	-1.71%	-17.37%	-15.93%	Up	Down	Down	Down
1974	-1.47%	0.47%	-1.00%	-29.72%	-29.00%	Down	Down	Down	Down
1975	2.16%	9.91%	12.28%	31.55%	17.16%	Up	Up	Up	Up
1976	4.87%	6.64%	11.83%	19.15%	6.54%	Up	Up	Up	Up
1977	-2.28%	-2.84%	-5.05%	-11.50%	-6.79%	Down	Down	Down	Down
1978	-4.69%	-1.53%	-6.15%	1.06%	7.69%	Down	Down	Up	Up
1979	2.80%	1.14%	3.97%	12.31%	8.02%	Up	Up	Up	Up
1980	0.94%	4.78%	5.76%	25.77%	18.92%	Up	Up	Up	Up
1981	-1.99%	-2.64%	-4.57%	-9.73%	-5.40%	Down	Down	Down	Down
1982	-2.45%	0.71%	-1.75%	14.76%	16.81%	Down	Down	Up	Up
1983	3.23%	0.08%	3.31%	17.27%	13.51%	Up	Up	Up	Up
1984	2.41%	-3.25%	-0.92%	1.40%	2.34%	Up	Down	Up	Up
1985	-1.94%	9.54%	7.41%	26.33%	17.62%	Down	Up	Up	Up
1986	-1.57%	1.83%	0.24%	14.62%	14.35%	Down	Up	Up	Up
1987	6.24%	6.53%	13.18%	2.03%	-9.85%	Up	Up	Up	Down
1988	-1.49%	5.62%	4.04%	12.40%	8.03%	Down	Up	Up	Up
1989	1.17%	5.87%	7.11%	27.25%	18.80%	Up	Up	Up	Up
1990	0.11%	-6.98%	-6.88%	-6.56%	0.35%	Up	Down	Down	Up
1991	-4.64%	9.22%	4.15%	26.31%	21.27%	Down	Up	Up	Up
1992	0.24%	-2.23%	-1.99%	4.46%	6.59%	Up	Down	Up	Up
1993	-1.53%	2.27%	0.70%	7.06%	6.31%	Down	Up	Up	Up
1994	0.74%	2.49%	3.25%	-1.54%	-4.64%	Up	Up	Down	Down
1995	0.34%	2.08%	2.43%	34.11%	30.93%	Up	Up	Up	Up
1996	0.41%	2.84%	3.26%	20.26%	16.46%	Up	Up	Up	Up
1997	1.04%	5.04%	6.13%	31.01%	23.44%	Up	Up	Up	Up
1998	-1.48%	2.53%	1.02%	26.67%	25.40%	Down	Up	Up	Up
1999	3.73%	0.36%	4.10%	19.53%	14.82%	Up	Up	Up	Up

Table 13: January Barometer each year from 1928-2023 (January vs Year shaded)

The January Barometer worked in 2022 and 2023.

2000	-1.89%	-3.26%	-5.09%	-10.14%	-5.32%	Down	Down	Down	Down
2001	-1.85%	5.41%	3.46%	-13.04%	-15.95%	Down	Up	Down	Down
2002	1.10%	-2.63%	-1.56%	-23.37%	-22.15%	Up	Down	Down	Down
2003	3.42%	-5.96%	-2.74%	26.38%	29.94%	Up	Down	Up	Up
2004	1.80%	-0.07%	1.73%	8.99%	7.14%	Up	Up	Up	Up
2005	-2.12%	-0.41%	-2.53%	3.00%	5.67%	Down	Down	Up	Up
2006	3.35%	-0.78%	2.55%	13.62%	10.80%	Up	Up	Up	Up
2007	-0.44%	1.85%	1.41%	3.53%	2.09%	Down	Up	Up	Up
2008	-5.32%	-0.84%	-6.12%	-38.49%	-34.48%	Down	Down	Down	Down
2009	0.72%	-9.22%	-8.57%	23.45%	35.02%	Up	Down	Up	Up
2010	2.68%	-6.21%	-3.70%	12.78%	17.11%	Up	Down	Up	Up
2011	1.10%	1.15%	2.26%	0.00%	-2.22%	Up	Up	Down	Down
2012	1.84%	2.48%	4.36%	13.41%	8.67%	Up	Up	Up	Up
2013	2.17%	2.81%	5.04%	29.60%	23.38%	Up	Up	Up	Up
2014	-0.59%	-2.99%	-3.56%	11.39%	15.50%	Down	Down	Up	Up
2015	0.16%	-3.26%	-3.10%	-0.73%	2.45%	Up	Down	Down	Up
2016	-5.96%	0.95%	-5.07%	9.54%	15.39%	Down	Down	Up	Up
2017	1.34%	0.44%	1.79%	19.42%	17.32%	Up	Up	Up	Up
2018	2.77%	2.77%	5.62%	-6.24%	-11.22%	Up	Up	Down	Down
2019	2.70%	5.04%	7.87%	28.88%	19.48%	Up	Up	Up	Up
2020	0.69%	-0.85%	-0.16%	16.26%	16.45%	Up	Down	Up	Up
2021	1.83%	-2.89%	-1.11%	26.89%	25.06%	Up	Down	Up	Up
2022	-1.87%	-3.45%	-5.26%	-19.44%	-14.97%	Down	Down	Down	Down
2023	1.37%	4.74%	0.07%	24.23%	17.01%	Up	Up	Up	Up

Source: BofA Global Research, Bloomberg

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