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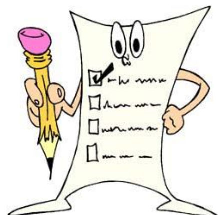
FINANCIAL PERSPECTIVES



How the stock market has performed during past viral outbreaks

Data by: By MarketWatch Mark DeCambre
SCHWAB CENTER FOR FINANCIAL RESEARCH

Market Volatility: What Does It Mean?

U.S. equity markets have experienced turbulent trade recently as investors keep watch of a deadly viral outbreak of COVID-19 in China. There are now 79,407 cases of COVID-19 in 32 countries and 2,622 deaths, according to the most recent reports.

However, gauged by the market's performance during the onset of other infectious diseases, including SARS, or severe acute respiratory syndrome, Ebola and avian flu, Wall Street investors may have little to fear that the pathogen will sicken a U.S. stock market that finished 2019 with the best annual return in years.

On Thursday, the Dow Jones Industrial Average DJIA, -3.15%, the S&P 500 index SPX, -3.03% and the Nasdaq Composite Index COMP, -2.77% all had been trading near records up until Monday.

Historically, however, Wall Street's reaction to such epidemics and fast-moving diseases is often short-lived. According to Dow Jones Market Data, the S&P 500 posted a gain of 14.59% six months after the first occurrence of SARS back in 2002-03, based on the end of month performance for the index in April, 2003. About 12 months after that point, the broad- market benchmark was up 20.76% (see attached table):

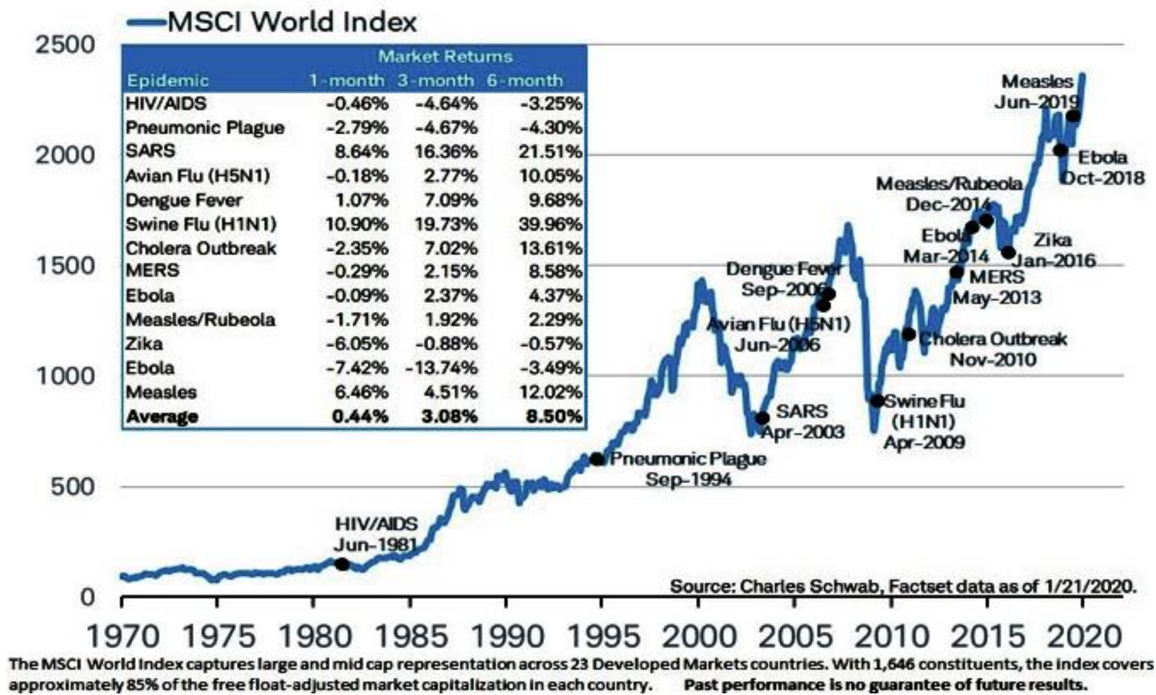
Epidemic	Month end	6-month % change of S&P	12-month % change of S&P
HIV/AIDS	Jun-81	-0.3	-16.5
Pneumonic plague	September 1994	8.2	26.3
SARS	Apr-03	14.59	20.76
Avian flu	Jun-06	11.66	18.36
Dengue Fever	Sep-06	6.36	14.29
Swine flu	Apr-09	18.72	35.96
Cholera	Nov-10	13.95	5.63
MERS	May-13	10.74	17.96
Ebola	Mar-14	5.34	10.44
Measles/Rubeola	Dec-14	0.2	-0.73
Zika	Jan-16	12.03	17.45
Measles/Rubeola	Jun-19	9.82%	N/A

—Source: Dow Jones Market Data

SARS resulted in a total of about 8,100 people being sickened during the 2003 outbreak, with 774 people dying, according to data from WHO and the Centers for Disease Control and Prevention.

Separately, the S&P 500 rose 11.66% in the roughly six months following reports of the 2006 Avian flu virus — a fast- moving pathogen also known as H5N1. The market gained 18.36% in the following 12-month period.

Data are similar for equity performance across the globe based on data from Charles Schwab, tracking the MSCI All Countries World Index 892400, -2.31%. The index has gained an average 0.4% in the month after an epidemic, 3.1% in the ensuing six-month period and 8.5% a year later (see graphic below):



Epidemic	Market Returns 1-month	3-month	6-month
HIV/AIDS	-0.46%	-4.64%	-3.25%
Pneumonic Plague	-2.79%	-4.67%	-4.30%
SARS	8.64%	16.36%	21.51%
Avian Flu (H5N1)	-0.18%	2.77%	10.05%
Dengue Fever	1.07%	7.09%	9.68%
Swine Flu (H1N1)	10.90%	19.73%	39.96%
Cholera Outbreak	-2.35%	7.02%	13.61%
MERS	-0.29%	2.15%	8.58%
Ebola	-0.09%	2.37%	4.37%
Measles/Rubeola	-1.71%	1.92%	2.29%
Zika	-6.05%	-0.88%	-0.57%
Ebola	-7.42%	-13.74%	-3.49%
Measles	6.46%	4.51%	12.02%
Average	**0.44%**	**3.08%**	**8.50%**

The severity of the virus, ultimately, will dictate the market's reaction and not just because indexes managed to shrug off the contagion from prior outbreaks.

What is a correction?

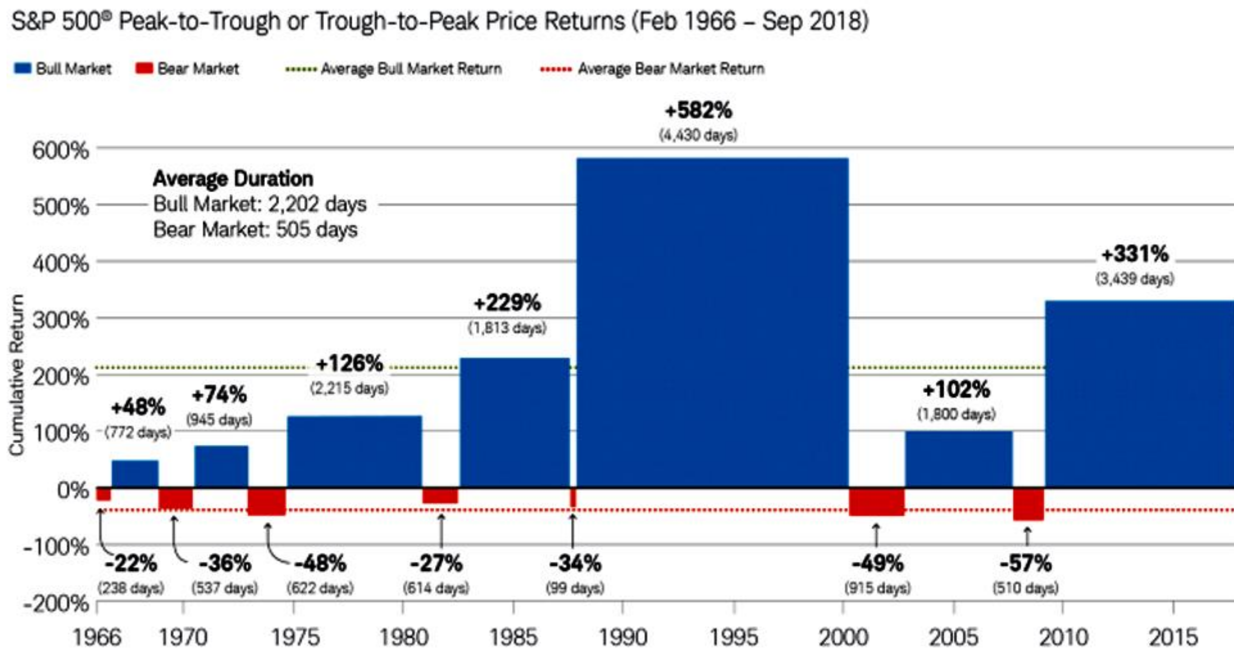
There's no universally accepted definition of a correction, but most people consider a correction to have occurred when a major stock index, such as the S&P 500 or Dow Jones Industrial Average, declines by more than 10% (but less than 20%) from its most recent peak. It's called a correction because the drop often "corrects" an overshoot and returns prices to their longer-term trend. Prior to this most recent downturn, stocks had been rising since the previous 10% correction that began in January 2018, which was just one of a handful of bumps in a bull market that has been running since March 2009.

Is the start of a bear market?

Eventually, we're going to see a bear market. No bull market runs forever. While they can be scary, bear markets are a part of long-term investing and can be expected to occur periodically throughout every investor's lifetime.

However, it's important to keep them in perspective. Since 1966, the average bear market has lasted just under 17 months, far shorter than the average bull market. And they often end as abruptly as they began, with a quick rebound that is very difficult to predict. That's why long-term investors are usually better off staying the course and not pulling money out of the market.

Past bear markets have tended to be shorter than bull markets



Source: Schwab Center for Financial Research with data provided by Bloomberg. A bear market is usually defined as a decline of 20% or greater. Duration is measured as the number of days from the previous peak close to the lowest close reached after it has fallen at least 20%, and uses a 30/360 date conversion (30 days a month/300 days a year). The market is represented by the S&P 500 index. Past performance is no guarantee of future results.

Since the 1960s, the average time from the peak in an up market to the trough in a down market and back up again has been about three and a half years. Future downturns could be longer or shorter, but a four-year time horizon is a cushion that can help manage risk in most markets.

Historical peak-to-trough-to-peak time periods for the S&P 500® Index

Period	Peak-to-trough decline of the S&P 500	Recovery Date	Approximate time to recovery
February 1966 to October 1966	-22%	May, 1967	1 year 3 months
November 1968 to May 1970	-36%	March, 1972	3 years 4 months
January 1973 to October 1974	-48%	July, 1980	7 years 6 months
November 1980 to August 1982	-27%	November, 1982	2 years
August 1987 to December 1987	-34%	July, 1989	1 years 11 months
July 1990 to October 1990	-20%	February, 1991	7 months
March 2000 to October 2002	-49%	May, 2007	7 years 2 months
October 2007 to March 2009	-57%	March, 2013	5 years 5 months
Average	**-37%**		**3 years 8 months**

Source: Schwab Center for Financial Research with data provided by Bloomberg. Chart reflects periods in which the S&P 500 Index fell 20% or more over a period of at least three months. Time to recovery is the length of time it took the S&P 500 to complete its peak-to-trough decline and then rise to its prior peak. Past performance does not guarantee future results.

What should you do now?
If there are changes in your financial life, which you believe we should be aware of, please do not hesitate to contact us. If we do not hear from you, we will assume that our current understanding, summarized in your quarterly investment policy statement, is correct and your financial objectives and risk tolerances have remained unchanged.

Please do not hesitate to contact us directly with any questions, concerns, or comments regarding your Asset Allocations or Financial Planning issues.

1 Schwab Center for Financial Research with data provided by Morningstar, Inc. U.S. stock market is represented by the S&P 500® Index. Daily data from 01/01/2000 to 02/09/2018 were used in this analysis. The general definition for a market correction is a market decline that is more than 10%, but less than 20%. A bear market is usually defined as a decline of 20% or greater.

2 Schwab 2018 Modern Wealth Index developed in partnership with Koski Research and the Schwab Center for Financial Research. The online survey was conducted by Koski Research from Jan. 12-19, 2018, among 1,000 Americans ages 21 to 75. Quotas were set so that the sample is as demographically representative as possible. The margin of error for the total survey sample is three percentage points.

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