Finance Essentials: Market Volatility Lecture

To begin the discussion on the topic of market volatility is essential first to understand the meaning. Market Volatility refers to when a market experiences unpredictable and sharp price movement.

Many associate market volatility with adverse price movements but it can also refer to positive market movement. **The defining characteristic of market volatility is the sharp and unpredictable movements in price.** [1]

How is Market Volatility Measured?

As is valid with many economic and financial elements, there are many ways to measure market volatility. At a high level, **market volatility is a measure of standard deviation**. The standard deviation shows how far a data point, in this case, a price, is from the average. [2] Think of standard deviation as the range in which a price could fall in.

For example, when shopping for a pack of gum, if the average price is $3.00 with a standard deviation of $1.00, I know I can find that pack of gum for as much as $4.00 and as little as $2.00, 68% of the time according to statistics.

I also know that I will be able to find that pack of gum within two standard deviations of the average 95% of the time. Therefore, 95% of the time the gum will be priced between $1.00 and $5.00. Now think of that gum as a stock. The difference in price represents the market volatility.

How to Calculate Market Volatility?

Because I'm sure you all are on the edge of your seats to know, here is the formula behind standard deviation calculation:

$$\sigma = \sqrt{\frac{\sum (X - \mu)^2}{N}}$$

Where:

- σ =standard deviation
- $\sum$ = sum of...
- X = each price points
- μ = average price
- N = number of prices [3]

In plain English, that formula would read like standard deviation equals the square root of the sum of each price point, less the average price. Then it is squared and divided by the number of prices in the calculation.

What Causes Market Volatility?

A significant factor in the cause of market volatility is simply news. Think of the market and investors like high school students. The more gossip they hear, the more boisterous and unpredictable they get.

When there is no new buzz, things quiet down. Markets are the same. Investors react to news about geopolitical, sector, and company events by acting and moving assets around. These reactions can lead to price changes and market volatility. [4]

Geopolitical conflict, elections, or even natural disasters can cause investors to feel unsettled. Once enough investors make emotional decisions in response to current events, prices begin to fluctuate, and the market becomes more volatile.

Should I Be Afraid of Market Volatility?

Even the word volatility seems to incite some fear. However, **market volatility is a natural part of long-term investing**. While it is easy to join in on the emotional investing trend and get caught up in the ‘buzz’, it is important to remember that trying to time the market is often an effort in futility. Seeing the market from a calm and rational mindset and keeping a long-term perspective on investments will ease the fear that market volatility can bring about.

In conclusion, market volatility refers to sharp and unpredictable price changes in a market. While it can create fear in some investors, this market characteristic is a natural part of long-term investing.

The financial world contains many complex topics that may cause miscommunications between you and your clients. We hope this article will help bridge the understanding gaps between your clients and you and facilitate direct and productive client-advisor relationships.

Sources

[1] https://www.investopedia.com/terms/v/volatility.asp
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[3] https://www.khanacademy.org/math/statistics-probability/summarizing-quantitative-data/variance-standard-deviation-population/a/calculating-standard-deviation-step-by-step
[4] https://www.fidelity.com.sg/beginners/what-is-volatility/market-volatility#:~:text=Volatility%20is%20an%20investment%20term,to%20sudden%20price%20rises%20too.

Sources

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[4] https://www.fidelity.com.sg/beginners/what-is-volatility/market-volatility#:~:text=Volatility%20is%20an%20investment%20term,to%20sudden%20price%20rises%20too.

Disclosures: