Coronavirus and the stock market: science cannot predict the outcome, but does it matter?

As always in times of market turmoil, investors turn to financial experts to understand what is going on with their savings. More specifically, they want to figure out what to do with their financial investments: Is it the right time to sell or is it better to purchase what seems like cheaper stocks?

It results in a steep increase in information demand about financial markets. Google trends reports that the number of searches containing the word “markets” increased by more than 350% between mid-February and mid-March. This demand for financial information is well understood – and well met – by journalists who are writing abundantly about the topic.

The problem is that no expert or article will ever be able to provide you with market timing advice in a time like this. Simply put, the effect of such a global pandemic on financial markets is unprecedented and we cannot open any financial history book to search for answers. Less simply put, investment theory in times of turmoil resembles more an art than a science.

As Robert Shiller explains in a recent New York Times article, “there is no purely scientific way to forecast turning points in the stock market in light of the kind of changes we have seen recently. Unfortunately, we just have to accept it.”

The abundance of information about the current stock market condition might just be a way to reassure ourselves that we can have some sort of rationale over our investment decisions, but science is missing in action. Let us review why.

Of course, science encompasses more than just mathematics, physics, chemistry, and other “hard sciences” that find their roots in the natural world. Science, at its core, is predictable and perpetual; meaning that scientific outcomes are causal and built on previously held knowledge. Moreover, science is characterised as a system of relations yielding explainable invariant outcomes. This is to say that facts that demonstrate consistent patterns or predictable outcomes can be classified as scientific. Market forecasts in unpredictable pandemic situations definitely fail to fulfil this definition but isn’t it the case under any market conditions?

The field of finance relies on a set of theories. In particular, the notion of efficient markets is a point of contention, as it argues that market outcomes cannot be predicted through randomness. With market movements being characterised by a random walk, market forecasting under any sort of condition could be viewed as unscientific.

Date originally posted: 2020-04-23

Permalink: https://blogs.lse.ac.uk/businessreview/2020/04/23/coronavirus-and-the-stock-market-science-cannot-predict-the-outcome-but-does-it-matter/

Blog homepage: https://blogs.lse.ac.uk/businessreview/

However, it may not be fully appropriate to exclude so quickly the forecast on stock prices from the scientific arena. For instance, predictability is not a necessary condition to qualify a field as scientific. A chaotic system – although unpredictable – can be scientifically defined. Bernoulli models provide an example of such a case, as they capture the probability distributions of random variables. Randomness is even a prerequisite for the application of probabilistic theories. Moreover, it may not be the case that sciences are fundamentally predictable. For instance, Werndl examines some of the arguments that could render Newtonian physics unpredictable.

Moreover market forecasting has also often been treated as a science in the past. Indeed, in the 19th century, economist Jules Regnault likened the field to science in his book "Calcul des chances et philosophie de la bourse" (1863). Later, Louis Bachelier wrote his doctoral dissertation in mathematics, "Théorie de la spéculation" (1900), on financial markets, focusing on stocks and options, and the mathematical modelling of price movements. Similarly, Benoit Mandelbrot (1983) applied the geometric concept of fractals to model market movements in an attempt to explain the occurrence of large price fluctuations.

Therefore, the forecast of financial markets can be viewed as a science that is imperfect and subject to uncertainty and risk since it is exposed to probabilistic forces. In the current situation, uncertainty is at its peak. This renders market forecasting trickier than ever. However, in times where most of our bearings are shattered, it could be reassuring to remember that there is one key difference between finance and the other "hard sciences": it is our human decisions that generate market outcomes; not some natural law against which we are powerless.

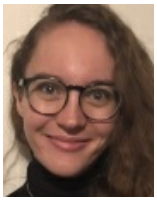
Our behaviours, actions, decisions, and sentiments ultimately affect the movements of financial markets.
The weakness of finance as a science, just like any other social science, is most certainly its lack of predictive general law. Ironically, we believe that it is also its strength in times of turmoil and confusion. We, investors, make the outcome of any given trading day. And so, following Robert Shiller's advice of not worrying too much about the market might be the best deed we can do to give us peace of mind and to give the market some stability.

♣♣♣

Notes:

- *This blog post expresses the views of its author(s), not the position of LSE Business Review or the London School of Economics.*
- *Featured image by geralt, under a Pixabay licence*
- *When you leave a comment, you're agreeing to our Comment Policy*

Nicolas Martelin is a professor of finance at the Jack Welch College of Business & Technology, of Sacred Heart University in Luxembourg. His main area of expertise is behavioural finance. More information is available on his faculty page.



Jamie Ness is a graduate student at Carleton University in Ottawa. Her main research interests are the philosophy of finance and sustainable finance.

Date originally posted: 2020-04-23

Permalink: https://blogs.lse.ac.uk/businessreview/2020/04/23/coronavirus-and-the-stock-market-science-cannot-predict-the-outcome-but-does-it-matter/

Blog homepage: https://blogs.lse.ac.uk/businessreview/