



Seismology, cotton and Covid



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'Unique', 'without equivalent', 'exceptional' and 'never seen before' – all of these qualifiers have been used to describe the impact of Covid-19 on the financial markets. This lexical field often transcribes a desire to isolate this phenomenon from a 'normal' market configuration. Indeed, from a psychological standpoint, we tend to treat this situation as special. However, as this type of variation is part of the global financial market landscape, instability and disasters are inevitable.

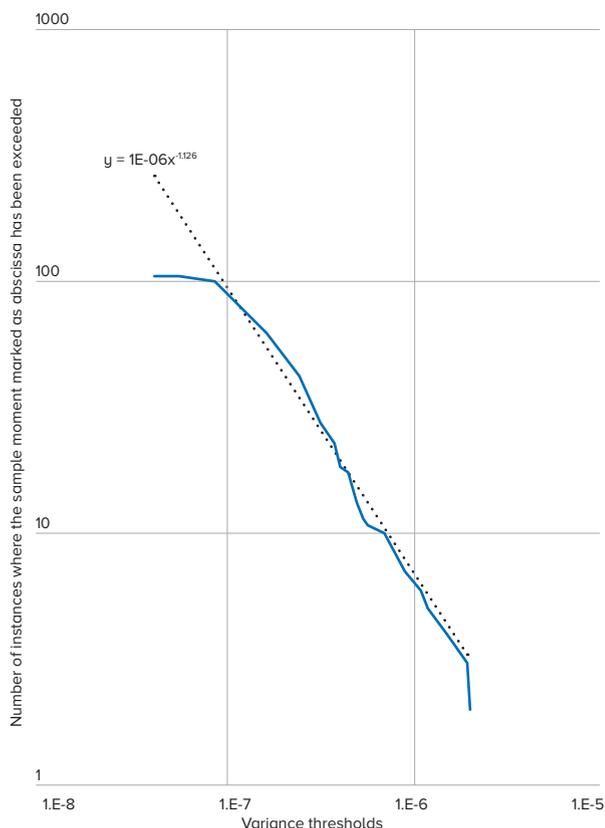
A parallel can be made with seismology. Earthquakes recorded over time seem very diverse and are the consequences of systems in constant motion. Individual analysis of each event shows they are complex. However, Richter-Gutenberg's law points to a simple and linear relationship between the frequencies of earthquakes and their magnitudes. It suggests that the largest earthquakes do not play a particular role and follow the same law as small earthquakes. When catastrophe strikes, we do not rely on a special explanation but rather a general theory grouping together all earthquakes.

This surprising phenomenon applies to various fields. Benoit Mandelbrot demonstrated in 1963 that this law was also valid for the financial markets by observing the price of cotton.

The influence of the Covid-19 crisis on the financial markets invites us to meditate on our perception of crises and the best way to understand them. Mandelbrot's observations and thinking are still remarkably accurate, almost 60 years after his seminal work. By considering a widely diversified financial index (LPP25 2000) and replicating its approach with the latest available data, the same conclusions arise (see graph below). Crises, particularly the current pandemic, are part of the logic of things and follow the same power of law.

These conclusions highlight why it's important to form investment strategies that take into account all types of movements, even the most significant crises. In this context, quantitative, or 'quant', methodologies can be very efficient due to their robustness. A quant methodology tested over a very long period of time will not perceive a coronavirus-type event as unusual. The decision-making process will therefore not be influenced by human cognitive biases and emotional states. Since crises are part of a universe of possible scenarios, the methodology can be based on past crisis patterns to understand the present and stay the course. In this environment, it is safe to say that quant methodologies will continue to gain respect and emerge the big winners of this crisis, which, from a financial point of view, is ultimately not so singular.

NUMBER OF OCCURANCES BY VARIANCE THRESHOLDS EXCEEDED FOR THE LPP25 INDEX FROM 31/12/99 TO 28/4/20



Source: Dynagest Asset Management Division (BPDG) & Pictet LPP indices