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Awakenings, or the investor who mistook the market for a hat, 2020 edition.

Invesco

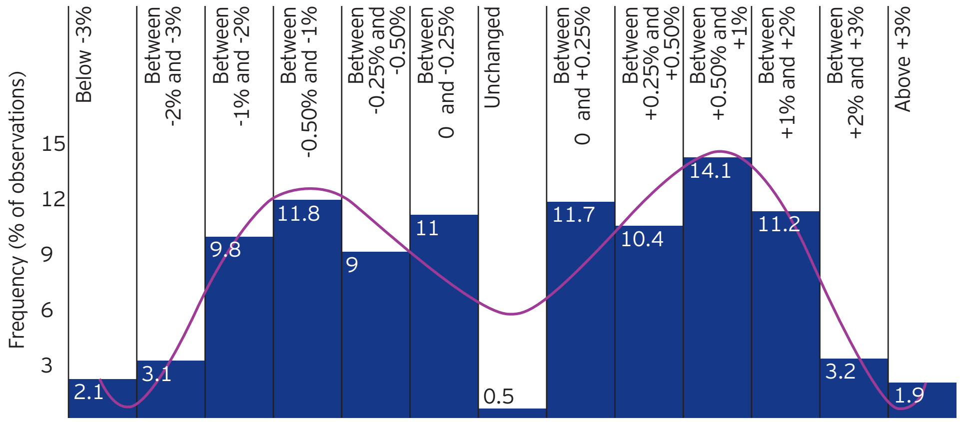
2021 just started. We are still on time to have a look back at the full picture of 2020 for equity markets. Some numbers confirm it was an unusual year.

An investor's work, on paper, might seem simple. They decide how to put to work, on financial markets, open to all or private, resources of their own or entrusted to them by clients. Decisions are made on the basis of specific criteria and rules, which investors call investment processes and which lead to the creation of a set of assets, called a portfolio. The value of this portfolio depends on market movements. Many markets, including equity, show some volatility, that is, the prices of financial assets can move, up or down, significantly over short time horizons. There is a very positive fact for investors - that over long time horizons, financial markets, both equities and bonds, have shown a clear upward trend.

Today we want to focus on the daily changes in prices on the major equity markets. Because it is true that in order to assess an investment opportunity and the results it has produced, in particular on the stock market, it is necessary to give an extended and multiannual time horizon, but it is also true that the long term is nothing more than a sequence of shorter periods. The single day is a useful unit of measure to split time and can help us put the financial events of 2020 in a correct historical perspective.

I have previously counted and analyzed the daily movements observed in the history of the main stock markets, dividing them between positive and negative and then, in a fragmented way, by intervals of performance. The image that resulted from this analysis (chart 1), published about a year and a half ago for the first time, may remind the reader of a hat, or of the image of the "boa constrictor digesting an elephant" in Antoine de Saint-Exupery's *The Little Prince*.

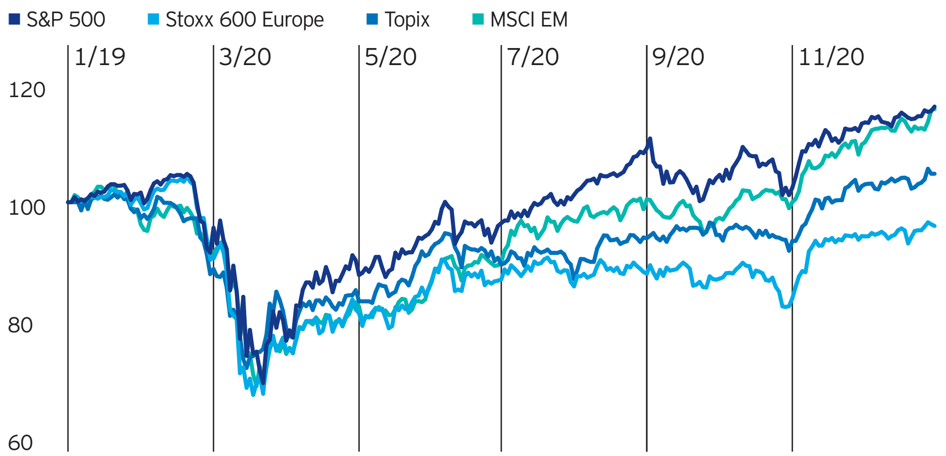
Chart 1: Historical frequency of daily performances by bracket. Average of main indices[1]



Source: Bloomberg, data from Dec. 31, 1927 (depending on the index) to Dec. 31, 2020, in local currency, price only. Past performance is not a guarantee of future performance.

2020 was a very special year, marked by a rare event such as a pandemic. The consequences at all levels, including the economic one, were very important and financial markets reacted. However, an observer from another planet, who could only see the number that returns the performance of equity markets at the end of the year without knowing the dynamics over the months (chart 2), would struggle to grasp anything really exceptional in 2020.

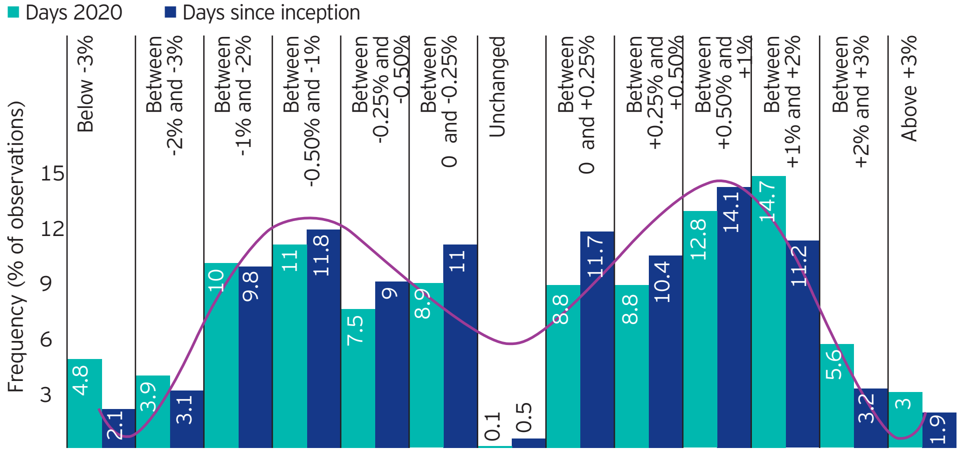
Chart 2: S&P 500, Stoxx 600 Europe, Topix, MSCI EM



Source: Bloomberg, data from Dec. 31, 2019 to Dec. 31, 2020, in local currency, price only. Past performance is not a guarantee of future performance.

It is only when we dissect the performance of the entire 2020 to the single day level that we note the differences compared to the average historical daily performances. In 2020 we had a much higher frequency of days with very negative and positive performances. The frequency of days with performances below -3% was almost two and a half times higher than the historical norm (4.9% vs 2.1%), and also those between -3% and -2% and between -2% and -1% have occurred with greater frequency than in the past. Symmetrically, also on the positive side of the spectrum of returns we note that in 2020 the frequency of days with a performance between +1% and +2%, between +2% and +3% and above +3%, has been materially higher than what we observed throughout the life of the major equity indices.

Chart 3: Historical and 2020 frequency of daily performances by bracket. Average of indices[1]



Source: Bloomberg, data from Dec. 31, 1927 (depending on the index) to Dec. 31, 2020, in local currency, price only. Past performance is not a guarantee of future performance.

2020, therefore, was characterized by a stronger polarization of daily performance than the historical norm. Not surprisingly, measured and perceived volatility has increased a lot. The most negative days were concentrated towards the end of the first quarter, while the positive ones fed the strong rally from April onwards. 2020 was therefore an eloquent example of the phenomenon of the so-called "fat tails" of the distribution of yields (green bars in chart 3 compared to the historical average, represented by blue bars).

The monetary and fiscal policy measures announced and carried out have had a strong stimulative effect on the global stock market, sunk abruptly by the spread of SARS-Cov2 in much of the world and by the deep recession induced by the virus and the restrictive measures imposed to manage the consequences of its propagation. It was a sudden, strong stimulating effect similar to that of the drug L-Dopa, which Dr. Sayer administered to his patients affected by catatonia (also linked to a viral pandemic in the previous decades) in the movie Awakenings.

It is very early to say whether the daily stock price changes in 2021 will be more like the historical norm, or not. And whether we will actually be able to leave the pandemic crisis behind and return to a more normal and free life and economic dynamic, without the need for the massive and constant or increasing stimuli that had become necessary, or if, like the drug in the film, the stimuli can have an efficacy limited to a few years with some side effects.

A more granular understanding of what happened in 2020 can help us put data, events and our future choices in a more informed perspective. After all, we know: even with the best structured projects, we always live day to day, and solid and disciplined investment processes are very helpful precisely to face the unexpected challenges of an investor's daily life.

Notes and references

T con Zero #26, June 2019, *The investor who mistook the market for a hat*.
T con Zero #5, August 2017, *Bolt Malaussène e i mercati azionari* (Italian version only).
Oliver Sacks, *The man who mistook his wife for a hat,* 1985.
Antoine de Saint-Exupéry, *The litttle prince,* 1943.
The movie mentioned in the text is *Awakenings* (1990), with R. De Niro and Robin Williams.

1For details of the indices analyzed and the starting year, see the following list. The final date of the analysis is December 31st, 2020. S&P 500 since 1927, Euro Stoxx since 1986, Stoxx 600 Europe since 1986, MSCI World since,1969 MSCI Emerging Markets since 1987, Nasdaq Composite since 1971, Nikkei 225 since 1970, Topix since 1949, CAC 40 since 1987, DAX since 1959, FTSE 100 UK since 1983, FTSE MIB since 1997, Ibex since 1983, SMI since 1988, Bovespa since 1989, CSI300 since 2002, Psei Philippines since 1987, MSCI Asia ex Japan since 1987, Hong Kong since 1964.

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