

Through the looking glass

HOW THE MARKETS FARED DURING AN UNPRECEDENTED YEAR

Auteur Ronald Kok

In March 2020, it became clear that the coronavirus would become a global pandemic. As a result, the financial markets experienced one of their most volatile periods as panic spread globally and central banks responded with immense stimulus. Now, over a year later, we interview Daniel Neeteson, a strategist at Optiver who reflects on the unprecedented period that was 2020 and considers how the markets held up, and how we can improve the European capital markets going forward.

Although the corona crash was one of the largest financial crashes in the past decades, most stock markets were remarkably stable in terms of technical operation. This was despite the fact that most exchange offices were closed, which forced people to work from home. Given all these difficulties it was an extraordinary achievement that most markets continued to function normally. Neeteson emphasizes that cooperation between market makers and exchanges helped facilitate this continuity. If the exchanges had been forced to close or if market makers were unable to provide quotes, we would have seen more dramatic events in the financial markets.

Corona crisis: a perfect ETF stress test in perfect storm

The price formation of equity ETFs during the volatile period at the start of 2020 has been a topic of global interest. Neeteson mentions the crisis in 2008 and the flash crash in 2010 when the markets remained open, but in these cases, equities often had irrational prices or no prices at all. *"In March and April 2020 there were no major glitches in global electronic markets. How did that happen? Firstly, market structure has improved over the last decade with the implementation of mechanisms to temporarily suspend trading in a volatile asset for a few minutes until a new equilibrium is found. Secondly, regulation on trading algorithms has forced market participants and exchanges to improve their controls around the development, testing and deployment of their trading software. The biggest risk in 2020 was the scenario of exchange closures for an unknown amount of time. But by making sure the markets remain open during volatile periods like these, no additional uncertainty was added to the financial markets. That said, because of the higher volatility, we did see declining liquidity (which is to be expected as there was more risk) and increasing demand for cash to support positions"* according to Neeteson.

While trading did continue, the corona crisis did expose some issues in the markets that are worth exploring. With the increase in market volatility, margin requirements increased as well. This went hand in hand with an increased need to support larger open positions, all the while considering balance sheet constraints

imposed on clearing banks. The *dash for cash* that resulted from this convergence impaired liquidity in cash-intensive securities such as corporate bonds and ETFs, making bid/ask spreads wider than what would have been expected from the volatility only.

The European ETF market is highly fragmented in terms of the number of funds relative to the total AUM. Many issuers fiscally optimize their funds for each of their national audiences. Due to this large variety of slightly different ETFs, market makers need to hold each of these ETFs on their book to support providing liquidity. Furthermore, the post-trading landscape in Europe is highly fragmented, where each national exchange has its own national depository. This means that a long position held at one depository



Daniel Neeteson is responsible for product and strategy development for Optiver's European office. Before starting at Optiver in 2008 as a derivatives, currencies, fixed income and ETF trader, he worked at KPMG. He studied medicine and IT at the university of Groningen. Optiver is a global market maker focusing on listed derivatives on equity, commodity, FX and fixed income assets. In addition, it provides markets in cash products such as ETFs and single stocks.

cannot be automatically offset by a short at another. In addition, for most market participants, ETFs are difficult to use as collateral which makes them highly cash intensive.

These factors contributed to the reduced ability for market makers to warehouse a lot of risk positions in ETFs. This in turn caused the bid/ask spreads of ETFs to go wider than necessary. Possible improvements to avoid this from happening again include more effective netting opportunities for ETF positions, improved post-trade funding infrastructure so that more participants can use ETFs as collateral, and a pan-European Central Counterparty that optimizes the margin requirements coupled with a pan-European depository that optimizes the cash equity netting.

It should be noted that the very fundamental structure of the ETF market – the ability to create or redeem shares of the fund with the issuer in exchange for underlying securities – remained intact. If that part of the market had broken, the prices of ETFs would have diverged from the value of their holdings, leading to added uncertainty and inefficient pricing. Thankfully, due to resilience in the system as a whole, this doom scenario did not materialize. Even fixed income ETFs, which in some instances did experience notable tracking errors, were still available for creation and redemption with their issuers. However, the issuers did make some changes to support the integrity of the funds but also increased the tracking error for these funds.¹

Stay open, improve predictability and increase transparency

Looking outside the ETF markets, the corona crisis highlighted other risks that could be mitigated. In the option markets, Neeteson calls for more predictability and transparency with regards to various extreme scenarios, such as what would happen if the underlying markets of an option contract closes for an extended time or what happens when a dividend right that has been assigned to the holder of a share is cancelled by policy makers.

These types of scenarios are major risks for parties that maintain positions in derivatives. For example, currently, contract details for options sometimes lack clarity on settlement processes in case of unexpected underlying market closure. Questions such as what the settlement price for calculating the payoff of the options in these scenarios is, and whether they are based on the last closing price known on the expiration day or the next opening day, should be answered as part of the contract specifications or exchange rulebooks. These details impact the exposures that are generated by the option contract. Neeteson therefore urges for clear rules in case of stress scenarios, especially in Europe.

The EU ban on dividend payouts for financial institutions was an understandable if unexpected intervention. However, it had some unintended consequences for financial products. For dividend futures, details regarding dividend payments are critically important – specifically whether they reference assigned dividend rights or actual dividend payouts. A notable instance was HSBC during the corona crisis. The listed bank was already trading ex-dividend but the pay date was after the ban was put into place. This created a lot of uncertainty for other products such as ETFs

that hold HSBC, dividend futures and options in places as far as in Hong Kong where HSBC is listed as well. This had a ripple effect throughout the market related to dividend uncertainty even for well performing companies unrelated to banks. Now there was uncertainty on their future dividends as well.

This lack of clarity of the rules for European derivatives compares starkly to the US and Hong Kong, where the rules are much clearer. In Hong Kong for example, this improved clarity is necessitated by the periodic cyclones that could result in closure of the financial markets by accident or on purpose to mitigate worse. In Europe we are not yet fully prepared for these kinds of events.

Furthermore, the unexpected nature of these ad-hoc policy decisions exacerbated the problem as the stress in the markets did not originate from the market itself, but from unrelated external events. This meant additional stress in the form of uncertainty was injected into the financial markets. Neeteson therefore emphasizes the importance of keeping the markets predictable and transparent as in many cases the problems are external to the financial markets and unpredictable interventions could make matters worse.

The importance of short term and temporary interruptions

These suggested improvements do not mean that trading should go on uninterrupted at all times. Neeteson supports the presence of short breaks in times of stress (such as those advocated by Albert Menkveld²). These so-called circuit breakers are intended to establish calm by allowing the market to reset in a measured way to support liquidity following some predefined trading halt. After the Flash Crash in 2010³ and the implementation of MiFID II in 2018 these mechanisms were formalized across US and European markets. These improvements have proved to be successful judging by the lack of flash crash-like events during the corona crisis. Neeteson urges that these mechanisms could be further improved in Europe by implementing a market-wide system such as in place in the US.⁴ Furthermore, the additional requirements on system/operational stability for market participants that have been introduced over the years have contributed to market resilience during this period.

Short-selling bans come at a cost to the market and to investors

One of the market interventions that are often discussed in times of stress is the banning of short selling. Neeteson emphasizes that banning short selling⁵ is a very disruptive action as it creates bigger problems than it could prevent. Often the aim of such a measure is to reduce volatility in the market. Speculative short-selling is often associated by the public with market manipulation. However, market manipulation should be addressed as short selling itself serves a useful function in the market for end-investors wishing to get out of positions. Furthermore, the option of short selling also gives liquidity providers extra capacity to manage positions. If one takes away that capability the cost and risk of market making increases leading to wider spreads.

Short selling also serves to protect the investors as it prevents the creation of 'pump and dump' positions and the over inflated asset prices (like in Japan where short selling was forbidden and asset

prices were inflated during the 1980s). However, there are negative effects that may result from short selling. Neeteson referred to the Gamestop event at the start of 2021 and the Volkswagen short squeeze around October 28, 2008. These undesirable effects were mostly caused by a lack of transparency around how the current stock borrow and lending (SBL) market operates. In the case of Volkswagen only a few insiders knew about the large OTC option positions that resulted in a larger open short interest than there was available to borrow. In the case of Gamestop those well informed on its SBL market could manage their exposures better than others.

ESMA is currently improving the transparency of the post trading process with the Securities Financing Transactions Regulation (SFTR) that aims to mitigate some of these risks. The better the transparency regarding the short positions, the better market participants can anticipate and manage their risks.

Strengthening confidence in financial markets is critical for market makers

Often, market making firms hear remarks like "*the more panic on the markets the better for them*". This may be true in the short term because it creates more opportunities due to wider spreads and more volume. However, for the efficient allocation of capital that can provide long-term growth and the managing of financial risks, confidence in the financial markets is of vital importance. Following the short-term opportunities during such high market activity, most of the time there are periods of very low volatility where margins and profits drop over a longer period. So, in the end there are pros and cons of having periods of higher volatility. Neeteson emphasizes the need for a sustainable and highly resilient capital environment in which investors have confidence. "*The financial market should consistently do its utmost to give investors the highest level of confidence at all times*" according to Neeteson. He is also skeptical about the investor's view on the capital markets as a place for short-term gains as opposed to a place where efficient capital allocation can provide growth and risks can be managed.

Market makers are also aware of their role in strengthening this confidence. Therefore, some have, in collaboration with exchanges, suggested improvements to market microstructures.

Improvements such as speed bumps reduce the impact of aggressive latency arbitrage that would negatively impact the overall liquidity in the market. Neeteson: "*Higher speed leads to higher pricing precision. But the moment only some have a significant speed advantage over others liquidity will be impaired because it adds too much risk. This is the balancing act exchanges are trying to solve.* There is also a point where greater speed no

longer improves price precision. Speed is not all that counts. An example is an alternative market model known as request for quotes (RFQs) that are frequently used for trading ETFs. This is a system where the market participant wants to trade a large size in an ETF and sends in an RFQ to an independent platform where this participant can specify which counterparties he wants to trade with potentially. These counterparties then send in their quotes and the participant can then execute on the best price. Market makers can show the larger size on the RFQ system as the risks of showing these prices is clearly defined. That doesn't mean that liquidity in European ETFs has disappeared from the electronic order books. These public prices are useful to RFQ users as they provide a benchmark for their execution, and market makers are still showing reasonable liquidity in these books. However, for the lowest trading costs RFQ is generally the best choice.

Concluding, Neeteson mentions that although the stress in the markets was comparable to the crash of 1987 and 2008, a positive difference was that markets remained open enabling uninterrupted trading. This 'market-resilience'⁶ as Neeteson likes to call it, is an achievement of all market participants and is an indication that financial markets, for now, have been more stable than before. Despite this success, several uncertainties remained that resulted in additional volatility. For the ETF markets, price formation was hindered due to the fragmented structure of the post-trade processing and the lack of sufficient netting rules that unnecessarily impacted the capital requirements for market makers at a time where capital was scarce. For the derivatives markets, examples include ad-hoc interventions by policy makers such as the ban on dividends for banks that had a ripple effect – in local financial markets where uncertainties in dividends increased for unrelated companies, but also in distant markets such as the one in Hong Kong. Increased transparency, improved predictability and a more integrated European post-trade environment will reduce these uncertainties.

Notes

- 1 Bond ETFs might have short changed market makers during 2020 panic, Financial Times, March 3, 2021, <https://www.ft.com/content/9c29b47e-160d-4c7e-be20-31744e7a9252>
- 2 <https://cfavba.nl/en/publications/geef-de-hft-s-meer-credits/36654756-97d1-11eb-8a1e-005056b303d3>
- 3 https://en.wikipedia.org/wiki/2010_flash_crash
- 4 <https://www.optiver.com/insights/news-articles/market-wide-circuit-breakers/>
- 5 <https://www.optiver.com/insights/news-articles/short-selling-bans/>
- 6 <https://www.optiver.com/insights/news-articles/building-resilience-in-eu-equity-markets/>