Don’t Blame the Quants!

London (HedgeNordic) – Whenever markets crash, there is a desire to seek scapegoats and pin the blame on somebody else. There is nothing very new about this. In the 1987 stockmarket crash, “program trading” – one of the earliest quantitative investing approaches – was blamed. In the 2010 “flash crash”, algorithmic high frequency traders were blamed. And once again, quants are allegedly behind the Great Coronavirus Crash (GCC) of March 2020, which was the fastest and most violent market crash in decades. Several European regulators temporarily banned short selling of individual equities in 2020 (they generally have not touched index futures; bonds, or commodities, and cannot really act on currencies, where one currency is expressed in terms of another).

History

History shows that bubbles and busts have been a feature of financial markets for centuries, long before computers were created. Most centuries have contained multiple financial crises. The real cause of markets overshooting and undershooting is probably mass human psychology and herd behaviour. Nobody can blame quant funds for the Dutch tulip mania of 1636-37, the South Sea bubble of 1720, or numerous other cases of speculation.

Historically, it was sadly the case that certain minority ethnic and religious groups were blamed for financial crashes. Most often there were claims of “Jewish conspiracies” (sometimes based on falsified documents), but any minority could be singled out. Recent academic research suggests that economic recessions lead to a general rise in all kinds of anti-foreigner sentiment. The mystique persisting around quant strategies makes them a good candidate for venting frustrations – quant investing seems “foreign” to some people. This is no rational basis for this essentially superstitious prejudice.

Size

The strongest data-based counter-argument is simply the size of the systematic hedge fund industry. Of hedge fund industry assets around US$3 trillion, quant funds make up around $1 trillion, according to HFR data. To put things into perspective, global equity markets worth c $90 trillion at the end of 2019. Global bond markets are worth over US$ 100 trillion, according to SIFMA. Taking these two together, quant funds are about 0.5% of global bond and equity markets. By way of comparison, global pension assets are US$ 46 trillion, according to the Towers Watson Global Pension Assets Study, and global insurance industry assets are around US$ 33 trillion. Taken together, pension and insurance assets of US$ 77 trillion are around 40% of global equity and bond markets, and are 77 times larger than systematic hedge fund assets.

Procyclicality?

We then need to examine to what extent various market participants’ behaviour is pro-cyclical or anti-cyclical. Here there is no straightforward answer.

Whilst trend-following systematic hedge fund strategies are in theory likely to go short after markets go down, in practice the situation is more complicated. Most of these funds target constant or at least steady volatility, so after an explosion in volatility, they are in fact likely to be lightening up all positions, including short positions. Some of the funds we have recently interviewed mentioned this.

Some systematic strategies, such as statistical arbitrage, are more based on mean reversion of single securities. As such they could be seen as counter-cyclical, buying losing markets or stocks and selling winners.

Or in other cases, relative value traders will be short of some markets and long of others, with no overall long or short position.

For instance, fundamentally driven quantitative equity market neutral strategies could also be a counter-cyclical influence. The largest US liquid alternatives house, AQR, has kept the faith in “value investing”, which has seen another leg down in the first quarter of 2020. It is possible that quant managers buying up value stocks have reduced the extent of falls in these equities.

It is also not easy to estimate whether much larger pension funds and insurance companies are likely to be amplifying or softening trends. To the extent that some pension funds have fixed targets for asset allocation, in March 2020 they should have been rebalancing portfolios by selling bonds that appreciated and buying equities after the drop, to maintain their target weights.

However, some pension funds and insurers have a minimum solvency level that could force them to de-risk portfolios after a drop in value, and/or an increase in volatility and the financial markets in 2020 have caused a double whammy plunging many pension funds further into deficit. Lower interest rates increase the value of liabilities, while the GCC has cut the value of assets. Given that the long term megatrend of rising longevity has, fortunately, thus far only been marginally impacted by Covid-19 mortalities, it is likely that solvency ratios for defined benefit pension funds will have fallen further. In some cases, this may accelerate de-risking of portfolios, which might well have amplified the downtrend in March.

Retail investors

The biggest culprit of market crashes may be neither quant funds nor traditional real money investors, like pensions or insurance, but small retail investors, who have been much more active than normal since March 2020: statistics show DARTS (Daily Average Revenue Trades) at retail brokerages have quadrupled over this period. Hundreds of thousands of brokerage accounts have been opened. Individuals who have either lost their jobs or are working from home have more time available for “day trading” the markets. The temporary hiatus in sports matches has also meant that those who previously gambled on sports, have now shifted to betting on stocks.

And multiple studies suggest that individual investors are bad at timing markets. The “money-weighted” return on most collective investment funds is much lower than the “time-weighted” return, meaning that most funds have received net inflows at higher prices and net outflows at lower prices.

Further evidence of retail investors’ investing record comes from the EU ESMA regulator requirement for brokers offering leveraged equity trading accounts (known as “spread betting” in the UK) to publish the percentage of retail clients who lose money. In the UK in, this is now running at over 80%.

Retail investment is quite insignificant in some European countries, but in the US, retail investors own about 30% of the stockmarket. It seems highly probable that retail investors in general (and leveraged ones in particular) who have a habit of buying at the top, have also been spooked into selling at the bottom. This could well have accelerated the recent GCC, and along with pension and insurer de-risking, seems likely to have been a much more important factor than quant funds.

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