



March 2020 is likely to go down in the economic history books as one of the most torrid on record; when mass panic gripped the entire population of earth as our leaders grappled with an unseen enemy wreaking greater havoc than any other past global event in recorded history.

But we all need a little humour so I lifted this from a US news feed that I follow: *“We all know ‘working from home’ roughly translates to ‘re-watching The Sopranos.’ Americans streamed 85% more minutes of video in March 2020 than in March 2019, according to new Nielsen data.*

The average person has spent 36% more minutes streaming TV and movies in the last four weeks.

Binge watching (or watching 3+ episodes in one sitting, per the Hulu English Dictionary) has climbed more than 25% over the last two weeks.

Netflix claimed the biggest share of streaming minutes in the last week of March with 29% to YouTube’s 20%, Hulu’s 10%, and Amazon’s 9%. But if our newfound appreciation for bingeing continues post-pandemic as some media experts anticipate, this is a plus for all streamers.

Returning to the Covid-19 crisis, to put my opening remarks into perspective, the number of World War 2 deaths stats vary tremendously from 70 to 85-million which suggests a mean of approximately three percent of the 1940 world population. As I write, one in five people who have contracted the Coronavirus have recovered and 4.95 percent have died. That’s significantly WORSE (65 percent worse) than the war death rate and it is the result of an unseen foe. So only the foolish should claim they are not worried.

Furthermore, in the absence of a vaccine that could immunise whole populations, expert estimates of likely peak infection rates have varied widely, but some go as high as 80 percent. Noting that the 1918 Spanish Flu infected 500-million people (a third of the world’s then population) and killed an estimated 50-million people, suggests that Covid-19 is only getting started or, optimistically, the world now better understands how to deal with pandemics.

Economists are, furthermore, arguing that, even worse than the impact of the Coronavirus, is the panic that is engulfing communities. So, we should not be surprised that markets have been behaving irrationally. At times like these, all bets are off the table because falling back upon historical evidence can provide us with little guidance.

Nevertheless, there are many voices of calm out there. Vaccines are already under test and it is likely that later this year we might see the roll out of a reliable vaccine. However, the experts tell us that by then most of us will have been infected and the majority will have survived and developed immunity.

More importantly, however, world governments will by then have hopefully recognised that their past preoccupation with military threats has paled into insignificance in the face of viruses that can leap over national boundaries with far greater efficacy than weapons of mass destruction. Rather than building nuclear arsenals and sophisticated delivery weaponry, they will hopefully be diverting future defence spending into medical research in order to ensure that the world never again succumbs to a virus attack far more deadly than conventional warfare.

Here at home we have had the double whammy of a long-anticipated final ratings agency downgrade that has projected our bonds firmly into Junk status, the consequence of which has barely yet been recognised by most in leadership but will surely play out in even worse employment statistics. It is accordingly past urgent for the government to change the direction of its policies and the acid test is imminent.

This year's budget was created on the sole premise that deep cuts would be made in the public sector wage bill. The 2018 public sector wage agreement comes into effect this month in terms of which general workers and support staff are due to receive increases equal to the consumer price index plus 1%. Higher-income categories, mainly assistant directors and directors-general are due CPI plus 0.5%. Pay cheques reflecting these increases are due to be received on April 15. To date Public Service and Administration Minister Senzo Mchunu, has ducked questions as to whether the increases will go through and Mugwena Maluleke, the chief negotiator for public sector unions affiliated to Cosatu, is accordingly preparing to go to war on the issue.

Given the depth of the crisis we face as a nation and the emergency powers he has assumed to deal with them, if President Ramaphosa does not stand firmly behind Finance Minister Tito Mboweni on this issue, then we will have to assume that he is never going to implement the economic reforms this country so desperately needs. We will then have to conclude victory for that the element of selfish kleptocrats within the ANC who cannot see beyond the demands of their bloated bellies, and accept that Ramaphosa is merely a public relations figurehead.

This is crunch time for Ramaphosa. He either rises to the occasion for the good of all South Africans or we will have to reluctantly accept that this once-vibrant economy has become a failed state with little hope of recovery in the foreseeable future!

Thus, both on the economic front and the war against Covid-19, we are beginning to see some sort of a time frame for the very different future that lies beyond the pandemic with the likelihood both here and internationally of a change of direction of global government spending priorities.

I am an eternal optimist and take the view that Ramaphosa has recognised that this is his moment for posterity. His is surely a simple ask; that in this time of crisis we all have to make sacrifices and public servants should be no different. If we are to reverse our ever-worsening unemployment rate and plot a new road to South African prosperity, we have to fix government spending and end the deficit. The public sector wage bill is the biggest single impediment to future growth and so it needs to be tackled right now!

Meanwhile, as the world begins to re-build itself out of what is likely to prove to have been, not only the biggest threat to life that all of us have ever had to face up to, but also the biggest threat to all of our financial welfare, we will all need to recognise that it can never again be business as usual.

Turning to personal investments, given that at the end of December the total value of all shares on the JSE was R18,755,334,455,000 and, judging by the 20 percent decline of the JSE Top40 Index since then, South African investors have lost a total of R 3,751,066,891,000: on paper anyway.

Put in a way that most people can understand, the average wealth of the typical reader of this column (who mainly falls into South Africa's top one percent wealth category) was R10.99-million at the end of 2019. Each has accordingly lost + - R2.198-million so far this year which is collectively equal in rough terms to four fifths of South Africa's gross domestic product.

But you have only lost that amount if you have sold at these levels. If you have taken courage in both hands and held on, then you might still live to see prosperity once more...hopefully in the not too distant future if the history of past market crashes is repeated; and there is a far greater probability of a fairly rapid recovery than there is of a protracted economic depression. Indeed, given the scale of central bank liquidity measures, the average investor is likely to emerge from this worth more than at the start.

Happily, as I predicted last Friday, the market has bottomed out and for now is well on its way to recovery. But don't hold your breath. I warned that the recovery was likely to be a "dead cat bounce" and that another decline is imminent. The graph below tells the story with ShareFinder predicting that another down-turn is likely from April 10 through to + - June 26 before a volatile recovery begins that will take the Top 40 Index up to a December 3rd peak before turning down once more.



Now notice that I was able to draw in two converging trend lines that accordingly demark a pennant formation so beloved of chartists for it inevitably predicts a break-out. Since the longer and thus more dominant of the two lines is a descending one, one would term this a descending pennant which is said to predict a probable future decline before the two lines actually converge; which is of course what happened in this case...in spades!

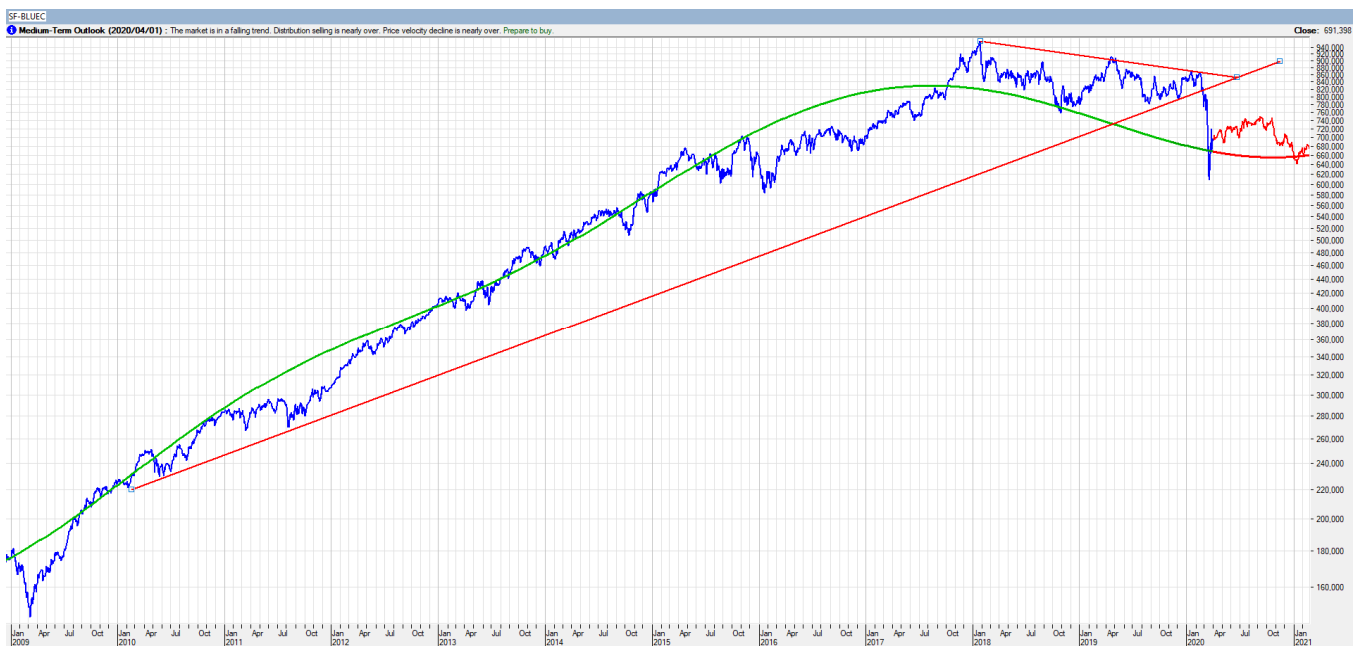
The point to bear in mind is that the longer line underscores the dominant or longer-term trend while the shorter line suggests a possible future change of direction because of a trend that has not been as long-established. These are the two opposing forces of optimism and pessimism which dominate markets at all times, graphically expressed.

When times are pessimistic, we need to remind ourselves that pessimism and optimism co-exist in the marketplace, but the long-term winner is optimism. My next graph depicts the performance of the JSE All Share Index over the past 35 years, noting that for the most part the market has performed ABOVE its long-term trend line rising on average year after year at compound 12.5 percent a year. That implies that the dominant force in the market is, and always has been **optimism!**



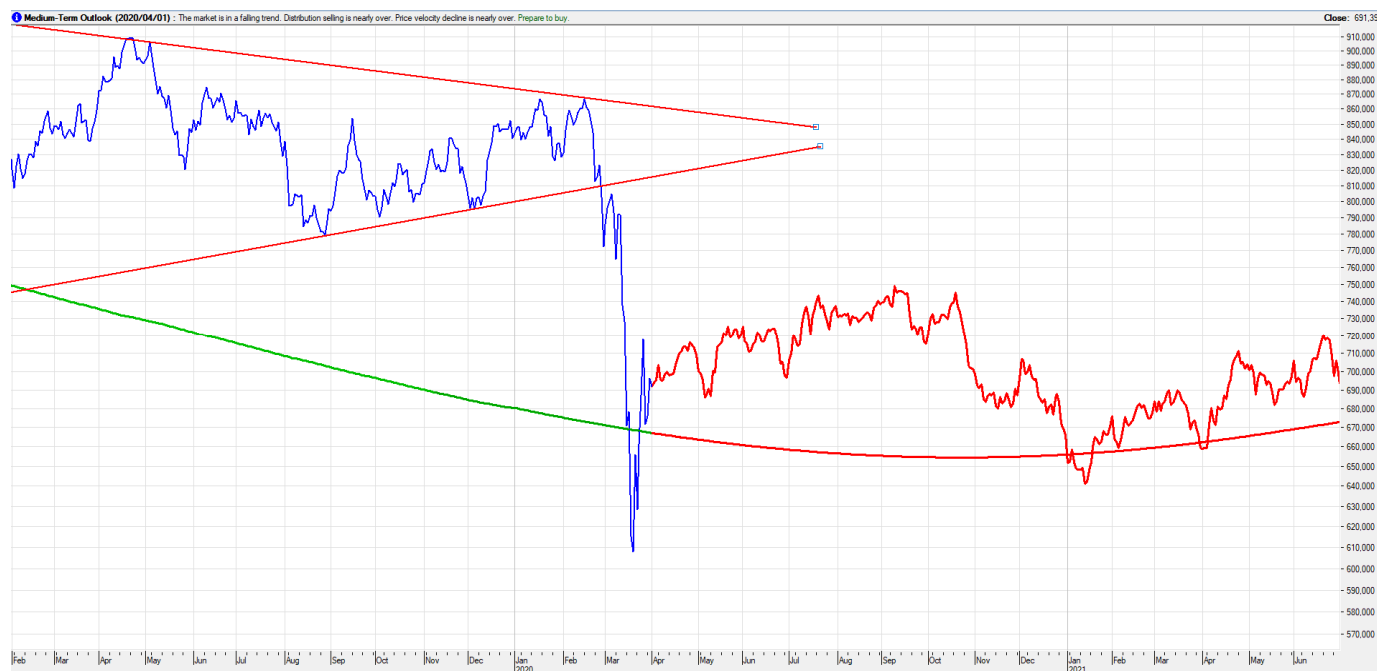
What that line also implies is that everyone who invested on the JSE over that period saw their wealth DOUBLE every five- and three-quarter years...and for half of that time we have lived with ANC economic policy. How much better might it perform if Ramaphosa can change policy direction in favour of growth and real job-creation?

Now consider my next graph in which I have been able to construct a similar pennant in which case the longer of the two lines is an ascending one. What we have here is the ShareFinder Blue Chip Index in which the rising trend had been established over seven long years. However, for the past two years the upper line has been descending and, precisely where the two met, the market fell out of bed as the short-term trend established dominance.



But look closely and you will see that for the past six months the rising trend was attempting to re-assert itself and it actually broke out upwards until a force more dominant than the South African economic trend overwhelmed it; in this case the plunge of the New York market which swept all before it in anticipation of a global economic depression:

To make that future projection clearer I have expanded it and pushed the projection further into the future to provide a glimpse of what ShareFinder thinks is likely to happen, (noting from the weekly statistics that I always maintain at the bottom of this column that these projections now average better than 96 percent accuracy)



Note that ShareFinder projects, at the extreme right-hand side of the graph, that the market will again try to recover from here until early September when, sadly, another global issue will overwhelm us again sending the market crashing down again at least until mid-January 2021. But from there on in recovery is likely to be protracted.

The month ahead:

New York's SP500: I correctly predicted the first signs of a bottoming and a gradual recovery which I now see lasting until mid-October.

London's Footsie: I correctly predicted the start of a bottoming followed by recovery until the end of May, downhill from then until early July and then another recovery until early October ahead of the next big down-turn.

Hong Kong's Hangsen: I correctly predicted the bottom around the end of March ahead of a long recovery until January when the next down-turn is likely.

Japan's Nikkei: I correctly predicted the start of a recovery this week but still expect it to be short-lived with a new down-trend until August beginning in mid-April.

Australia's All Ordinaries: I correctly predicted a worsening situation with the down-trend continuing until mid-August before the first hint of recovery and I still hold that view though there are now signs of the fall moderating from here.

JSE Industrial Index: I correctly predicted that a modest recovery had begun did not see it lasting much longer than early April. Now I see a sideways decline until late June when a brief recovery will prepare us for further declines until January next.

Top 40 Index: I correctly predicted a recovery which I still see lasting until late April followed by a decline until late June and then a brief recovery ahead of further declines until next January.

ShareFinder Blue Chip Index: I correctly predicted the beginning of a volatile recovery which I see lasting until early September ahead of the next decline.

Gold shares: I correctly predicted further declines which I see lasting until next February.

Gold Bullion: I correctly predicted declines which I now see lasting until early June before a long recovery begins.

The Rand/US Dollar: I correctly predicted a volatile recovery would get under way. It is likely to be modest, however establishing a semi-permanent new level at around R18 to the dollar.

The Rand/Euro: I correctly predicted weakness. Now I see a recovery until early May followed by extended weakness until December.

The Predicts accuracy rate on a running average basis over the past 742 weeks has been 85.62%. For the past 12 months it has been 96.44%.

Richard Cluver

If you would like to read a detailed study on the implications of the corona virus, click on this link: <https://medium.com/@tomaspueyo/coronavirus-the-hammer-and-the-dance-be9337092b56>

Rising From The Ashes - The VIX In 2020

Clemens Kownatzki



Volatility has been at levels not seen since 2008. However, the speed and voracity of the recent market decline is what left many of us nauseous.

Complacency in the market has been replaced by fear. The search term "VIX" was at an all-time high in Google Trends.

The current VIX level suggests that we're in for a choppy ride a little while longer.

Until recently, the market has been ignoring any exogenous risk factors with benign neglect. Take a pick of your favorite crisis from the atrocities in Syria, Brexit, the refuge crisis & European disintegration, North Korea or the trade war with China - equity markets shrugged off all of the above.



As recently as the 2020 Economic Summit in Davos, we have heard pronouncements of "the end of the boom-bust cycle as we know it" or statements such as "cash is trash."

Fear has replaced the complacency of the past few years, and with that, all eyes are now focusing on a long-forgotten friend, the VIX a.k.a. the "Fear Index." *Google Trends* suggest that the VIX has been rising from the ashes. The search term "VIX" was at an all-time high in March of this year.

To get a better perspective, I thought a brief primer on the VIX along with a trip through history might be in order.

The original VIX was created by Robert Whaley, who devised a method to extract the implied volatility from options on the S&P 500 Index. In essence, he suggested to use market prices of these options as a given and solve for the only unknown from the Black-Scholes-Merton model, i.e. implied volatility. In 2003, the Chicago Board Options Exchange (CBOE), together with Goldman Sachs, changed the methodology, which is more akin to a Variance Swap and no longer based on the Black-Scholes-Merton model. For those of you who are interested, you can find the exact VIX methodology [here](#).

Although the VIX has only been averaging around 20 since its creation, we have seen intermittent spikes occurring ever so often. The chart on the right, contrasting the VIX with the S&P 500 also shows that there is a negative correlation between the two indices.

Adding some statistical measures, we can see that there have been periods of low or high volatility that affect the overall sentiment of the market for the entire year. While the long-term average of the VIX is just under 20, we had protracted periods of much lower and much higher than average volatility. The obvious comparison to make is of course the current market turmoil and the last crisis of 2008.

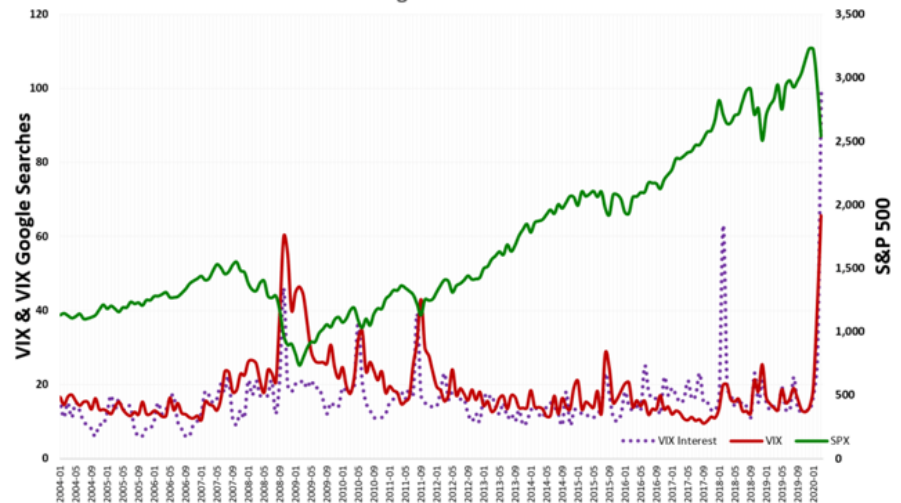
We should also point out that there have been some remarkable periods of low volatility. 1995 and 2017 stand out as periods of extremely low volatility. Interesting to note here, 32 of the forty lowest ever VIX levels occurred in 2017. The same year showed 6 of the ten lowest VIX levels ever recorded.

We can also get a sense of volatility by the decades. The average VIX in the 90's was 19.24, climbed up to 22.12 in the 2000's and reverted back to 17.17 in the past decade.

Now that we have a picture of the price of volatility over time, we should also find out what the value of volatility implies. The VIX is an estimate of future volatility 30 days out, but it may be more useful to know what that means in translation. A VIX of say 20 corresponds to an expected 20% annualized standard deviation of returns. In essence, we should expect that the market could go up or down by about 20% per year. Volatility, however, is a different "beast" compared to traditional assets. It does not scale linearly with time. Instead, it scales with the square root of time. A VIX of 20 then translates to an implied daily S&P change of $20 \div \sqrt{252}$ or 1.26% (assuming 252 business days per year).

From a volatility perspective, the past decade clearly lulled us into a sense of complacency. We could almost hear echoes of past voices. Those who remember the phrase "housing prices never go down" may also have heard that "risk had been conquered" around the same time. What led to this recent decade of complacency is too complex to include in this article but take a look at how market dynamics changed from active to passive investing,

VIX and VIX Google Searches versus S&P 500



Year	# days	Mean	Median	Max	Min	Std. Dev.	Implied Daily Δ
1990	253	23.06	22.57	36.47	14.72	4.74	1.45%
1991	253	18.38	17.44	36.20	13.95	3.68	1.16%
1992	254	15.45	15.36	21.02	11.51	2.12	0.97%
1993	253	12.69	12.43	17.30	9.31	1.33	0.80%
1994	252	13.93	13.86	23.87	9.94	2.07	0.88%
1995	252	12.39	12.30	15.74	10.36	0.97	0.78%
1996	254	16.44	16.25	21.99	12.00	1.94	1.03%
1997	253	22.38	20.95	38.20	17.09	4.14	1.41%
1998	252	25.60	23.14	45.74	16.23	6.86	1.61%
1999	252	24.37	24.10	32.98	17.42	2.88	1.54%
2000	252	23.32	23.24	33.49	16.53	3.41	1.47%
2001	248	25.75	24.26	43.74	18.76	4.78	1.64%
2002	252	27.29	26.39	45.08	17.40	6.91	1.72%
2003	252	21.98	19.85	34.69	15.58	5.24	1.38%
2004	252	15.48	15.33	21.58	11.23	1.92	0.98%
2005	252	12.81	12.52	17.74	10.23	1.47	0.81%
2006	251	12.81	12.00	23.81	9.90	2.25	0.81%
2007	251	17.54	16.43	31.09	9.89	5.36	1.11%
2008	253	32.69	25.10	80.86	16.30	16.38	2.06%
2009	252	31.48	28.57	56.65	19.47	9.08	1.98%
2010	252	22.55	21.72	45.79	15.45	5.27	1.42%
2011	252	24.20	20.72	48.00	14.62	8.14	1.52%
2012	250	17.80	17.52	26.66	13.45	2.54	1.13%
2013	252	14.23	13.75	20.49	11.30	1.74	0.90%
2014	252	14.17	13.67	25.27	10.32	2.62	0.89%
2015	252	16.67	15.32	40.74	11.95	4.34	1.05%
2016	252	15.83	14.31	28.14	11.27	3.97	1.00%
2017	251	11.09	10.85	16.04	9.14	1.36	0.70%
2018	251	16.64	15.49	37.32	9.15	5.09	1.05%
2019	252	15.39	14.87	25.45	11.54	2.61	0.97%
Q1-2020	62	31.22	16.73	82.69	12.10	22.20	1.92%
Averages		19.54	17.97	34.67	13.16	4.76	1.97%

incessant growth of ETFs, Robo-advisors, algo-funds etc. to give you an idea.

The reason why so many market practitioners have been caught off-guard in the recent turmoil is probably a function of our behavioral tendency to compare current conditions with past episodes, regardless of how appropriate they may be from a statistical perspective. We assume these conditions to be the norm and find ourselves in a quagmire when our assumptions no longer hold.

Many of us who experienced the last financial crisis have been watching the unraveling of the current crisis with a sense of *déjà vu* and cannot help but draw comparisons to 2008. Given the pricey valuations of many companies, forecasters warned that a repeat of the phenomenal returns of 2019 may not be possible. Still, the extent of the downturn has surprised almost everyone. It wasn't just that we were surprised by the 30+ percent decline in the major market indices, but it was the velocity and voracity of the decline that shook us. This year, it took the VIX only 51 days to get to the same level it did in 2008 when the index needed 208 days to reach a level of about 80. The tremendous speed in the increase of volatility is what left many of us nauseous.

What's next then, you might ask? That is the multi-million dollar question everyone is trying to grasp.

Assuming the VIX is a correct forecast of future volatility in 30 days, we can expect choppy waters for a while longer. The VIX closed at 53.49 today. When we do the math, it suggests that we can expect a daily price change of about 3.4%, which translates to an expected price change in the S&P of about +/- 15% over the next month (20 business days). Make no mistake though. It does not suggest that the move can be to the downside only. Either way, fasten your seat-belts!

