Omega Analysis Notes

Market Risk Alert

15 August 2023

Is what Stanley Druckenmiller called “The biggest, broadest asset bubble ever”[1] about to crash in a repeat of 2008?

Risk levels across U.S. equity markets have increased steadily in the last year and are now even higher than they were in August 2008. The 20-day returns distributions are indicating uncomfortably high risk of bubble-bursting drawdowns—as much as three times as high as 18 months ago. In 2008, the bubbles in U.S. equity markets were mostly confined to the financial sector. This time, as Druckenmiller observed, equity asset bubbles are everywhere.

We Measure Market Risk to Provide Advance Warning of Trouble Ahead.

Our award winning technology has made accurate measurements of market risk possible. These measurements show that market risk has always risen dramatically prior to the big market crashes of the past. This applies equally to daily market returns and returns over longer periods. In major downturns it’s the latter that matter most. In the past 50 years there have only been a handful of times when 20-day losses exceeded 20%. Until March 2020, this had only happened in the 1987 crash and in the 2008 melt-down.

In January 2020, our measurements predicted that losses unseen since 2008 in the S&P 500, the Nasdaq 100 and the Russell 2000 indices were likely to occur within a few months. This had nothing to do with Covid-19. It was based solely on measuring risk from market data to the end of 2019.

We had no knowledge of what would trigger a major crash, but our technology gave advance warning to prepare for one. Likewise, while others were warning in 2017 that a large run up in the VIX would wipe out the ‘Short VIX’ ETFs, we were able to give an accurate estimate of the likelihood of that event before it happened in February 2018.

Now we’re seeing risk levels in U.S. equity markets that are even higher than they were at this time in 2008. This predicts a very hard landing, not the soft one that the Fed and Treasury are hoping for.

Our Technology Identifies and Quantifies Bubbles.

Boom and bust cycles have always been a feature of financial markets—but nobody knows how far a boom can run before there’s a major reversal. And in the past bubbles have only been reliably identified with hindsight, after the bust. That changed when we developed a bubble detector at the request of a G-7 Central Bank. In all of the major equity boom bust cycles of the past it has spotted the bubbles well in advance of bursting and given good estimates of the size of the coming crash.

Now the Biggest Broadest Asset Bubble in History may be About to Burst.

Our bubble detector confirms the widespread fears and warnings that the unprecedented stimulus after the Covid Crash of March 2020 would result in unsustainable asset price inflation.

Everything was caught up in the lightning market recovery. From the flashy ‘disruptive technology’ ARKK to the staid Consumer Staples sector, market bubble alerts were going off. We began tracking their Correction Levels—the prices we expect them to fall to (or through) when the bubble bursts.

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[1] Stanley Druckenmiller interviewed by Sonali Basak at Bloomberg Invest New York, 7 June 2023.

At its peak in February 2021, ARKK was more than 70% above the Correction Level our bubble indicator predicted. By May 2022 it had fallen through that level and continued to decline.

At the other end of the ‘innovation’ spectrum, the Consumer Staples sector is also experiencing a boom which we are watching turn to bust. The XLP ETF is trading close to its 2022 peak of $79 but our bubble detector predicts it could fall back below $51. When the Fed started tightening in March 2022, Consumer Staples dropped sharply. Our risk measure says we can soon expect a repeat of the drawdowns it experienced then. The 20-Day drawdown risk[2] levels for XLP are more than twice as high as they were at the end of March 2022.

Anti-Bubbles are Back

In the aftermath of long periods of bubble inflation, ‘anti-bubbles’ of panic selling can emerge as the bubble begins to deflate. When that happens, prices can continue to fall past their bubble correction levels. And equity prices can go all the way to zero. In 2007 anti-bubbles appeared in our detector in the shares of Lehman Brothers and Royal Bank of Scotland—presaging their catastrophic 2008 collapse.

ARKK was in an anti-bubble when its share price dropped by more than 40% between August and December 2022.

Now anti-bubbles are back.They appeared in major US market sectors in late 2022 as markets fell from their 2021 peaks, indicating potentially catastrophic loss, just as in 2008.

When the bubbles burst, a drop of 30% in Consumer Staples will be a minor loss in comparison to what we expect in other much more volatile sectors. And this time, unlike 2008, the Fed is tightening into what looks like a major crash.

A detailed overview of the US equity market conditions outlined above, including background on the statistical technology that supports them is available in forms from a written report, to an expanded presentation over a Zoom call, to bespoke versions with your chosen sectors, asset classes or markets. Contact : risk@OmegaAnalysis.com

[2] Our multi-day market risk estimates focus on 20 day periods—a nominal month in the market. That’s the timescale on which the real damage to investment portfolios is seen in a crash. Our technology starts with market data for 20-day returns and provides a model of their probability distribution. This allows us to compute the frequency with which a given loss should be expected to occur. Just as in a lottery draw with the numbers from 1 to 100 where we would expect to see the number 50 come up one time in 100, on average.

We expect a drawdown with a frequency of 1 time in 100 will happen, on average, one day out of 100 days. With markets open every weekday, that translates into one time in just under 5 months.

When the 1 in 100 day loss increases in magnitude or becomes more likely, the market has become more dangerous.

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About Omega Analysis Research

William F. Shadwick is Managing Partner of Omega Analysis.
During his previous career in mathematics he was responsible for establishing the Fields Institute for Research in Mathematical Sciences and worked in many prestigious institutions, including the Institute for Advanced Study, Princeton, the Mathematical Sciences Research Institute, Berkeley, IMPA, Brazil and the NASA Ames Research Center.

Ana Cascon, co-founder of Omega Analysis, was a tenured professor of mathematics at the Federal University Fluminense Brazil before moving from academic to industrial research.

Together they have pioneered a fundamentally new approach to the study of probability and statistics. Their revolutionary new tools, coupled with their no-nonsense approach, have yielded extraordinary results.

In 2018, Cascon and Shadwick were the winners in the Best Use of Technology category in Investment Week's Investment Research Awards for "building additional insights through the use of proprietary technology". In 2017, Omega Analysis was shortlisted in two categories, Best Research Report and Best Research Service in the Investment Week Research Awards. In October 2016, Omega Analysis came second, Highly Commended for 'Best Economic Research' in Investment Week's inaugural Research Awards.

Their published research on risk and performance measurement won both the 2010 Edward D. Baker III Journal Award and the 2007 Journalism Award of the Investment Management Consultant's Association.

In 2010, Shadwick was the University of Hawaii Mathematics Department's Distinguished Lecturer.

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