July 2020

Elixir News

CREATING INCOME FOR EVERYDAY PEOPLE BY USING TECHNOLOGY
TO HARVEST VOLATILITY.

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Hi, everyone.

Hi everyone,

The bubble continued growing across all capital markets in July. The markets are obviously extremely stretched, and a powerful reversal will happen sooner or later. Our capital position remains strong, and the current situation allows us to increase our portfolio insurance purchase while we wait for a correction.

Under the market observation section, aside from a brief summary of the July US GDP and unemployment status, we share research backing our belief that the US economy is on track for another tough quarter. Additionally, we wrote an extensive piece about why we strongly believe that we are in a massive bubble—and that this bubble is about to burst. The questions we are trying to answer are: Is it normal for a bear market rally to last this long and for the rebound to be this aggressive? Are we still confident that we are in a bear market bubble? Or should we switch to the popular retail sentiment that the US equity market could achieve new highs in the coming months? Those who are interested may find the research update in this article to be very insightful.

Additionally, we want to make a thrilling announcement in this newsletter. After only three short years, Elixir now has more than 150 shareholders—a major milestone achieved towards a direct listing on a Canadian venture stock exchange! On behalf of management and the board, I want to thank all shareholders for your continued trust and confidence in Elixir. We thought, 'What better time than now to talk about how Elixir's valuation works and how our share price is determined.' I encourage all of our investors to have a read. If you have any questions, I'm more than happy to set up a call.

While we have no intention of listing until the market conditions are right, we must continue acting more like a public company so that we can prepare for the future. Under this strategic long-term plan set out by the board, the company has made several governance-related improvements since the April 2019 AGM. We've recruited and changed our board composition, as well as changed the way we run meetings (board and AGM) and record minute books so that they match public company standards.

One other area on which we need to work is reporting and investor relations/communications. From the third quarter forward, Elixir will switch to a financial reporting schedule that meets TSXV and CSE standards. Because the company has grown significantly since its inception, this change is necessary to eliminate the potential legal liability for wrongful disclosure and aggressive soliciting. Instead of the monthly performance metrics that we've been including in the newsletter, we will send out quarterly financial highlights after the board reviews and approves the interim financials. This quarterly financial highlight report will be much more comprehensive than the one-liner on trading performance currently in the monthly newsletter and will be available only to shareholders. The board always meets within one month after the end of a quarter. The next meeting, for Q3, will be at the end of October; shareholders can expect the financial highlights at the beginning of November. Our monthly newsletters will continue to provide information about company operational updates, market observations, and other educational commentary. Elixir strives to have high engagement with investors, so we may start hosting regular webinars to provide updates and answer questions. We will make an announcement about this soon.

I hope that you find good information in this newsletter. Please feel free to reach out.

Sincerely,
Bill and Eve McNarland

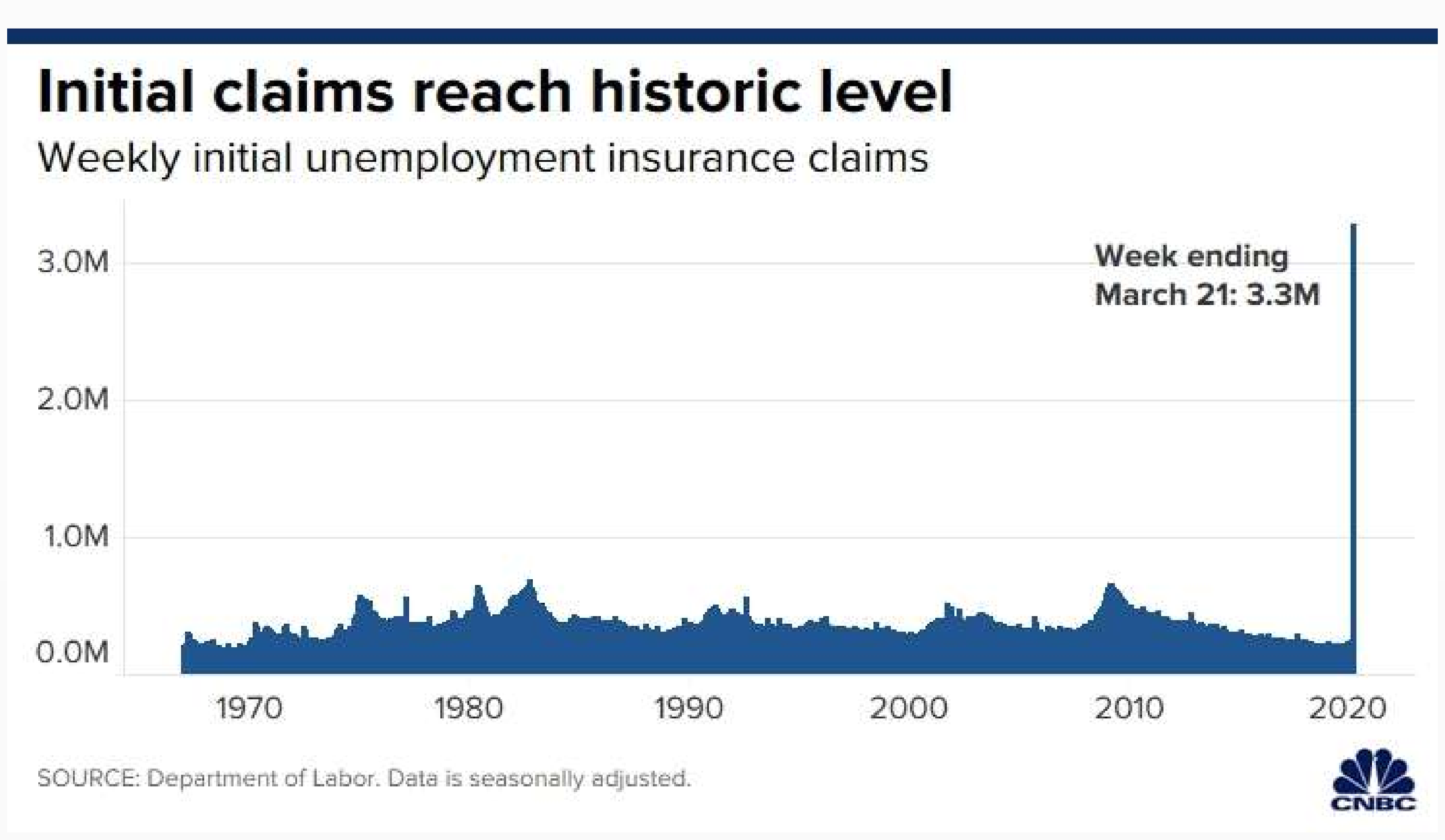
Elixir Technology Inc.
elixiroftechnology.com

In July, we learnt that the second quarter was a disaster for the US economy. According to the "advance" estimate released by the Bureau of Economic Analysis, the US real GDP declined at an annual rate of 32.9% in the second quarter of 2020. In the first quarter of 2020, real GDP decreased by 5.0%. [1]

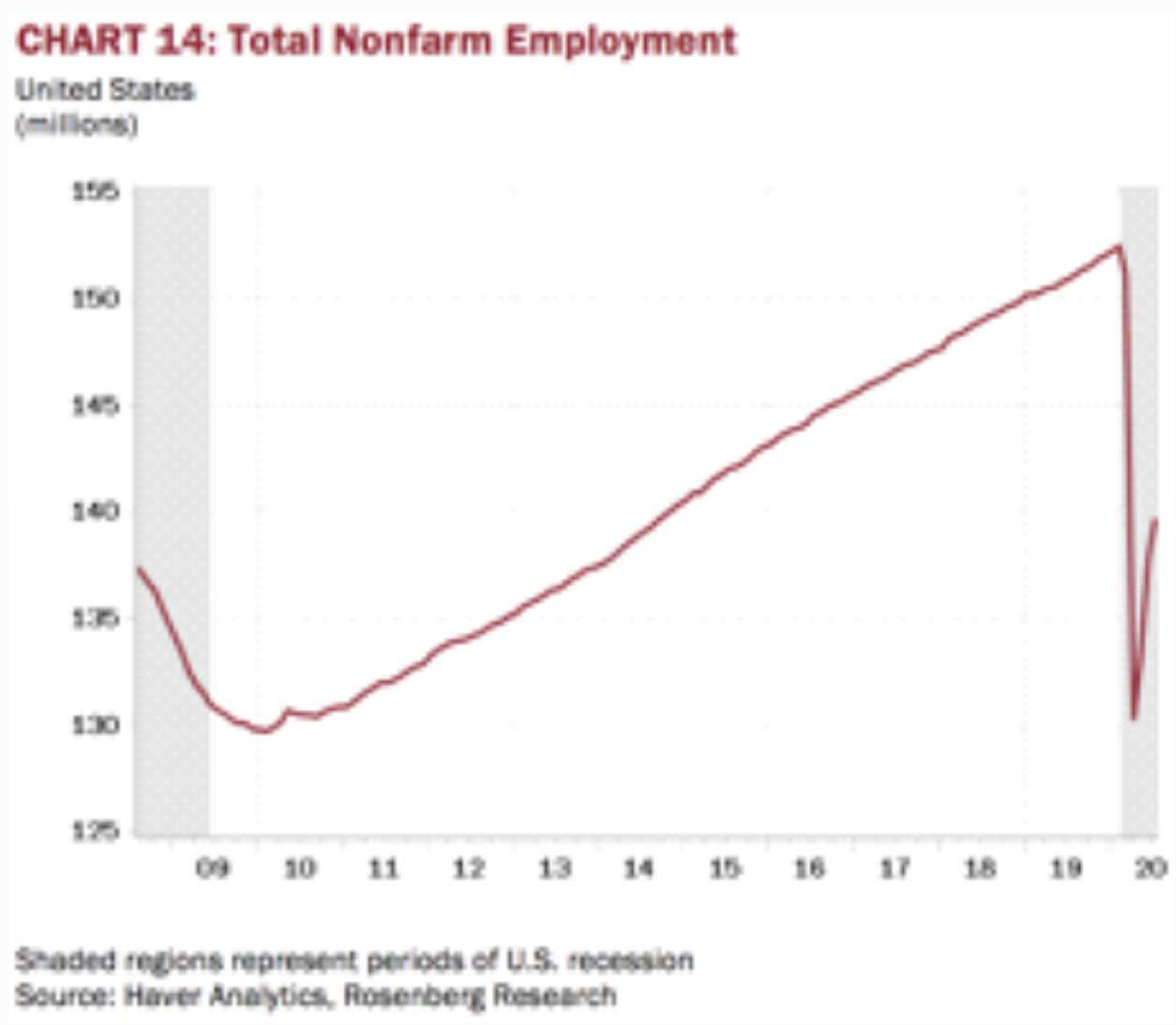
While optimism about the economic recovery remains strong for the third quarter, high-frequency (unofficial) data points to a further decline in GDP. A few highlights are as follows: Retail sales dropped 7.1% year over year for the week of August 1, based on the Johnson Redbook survey. [2] The drop is similar to that in April, when most cities were on lockdown. Consumer outlook is still pessimistic for August, according to the IBD/TIPP poll. [3] The Mobility/Engagement Index compared to the same time last year is trending the wrong way. The index data indicates that people stayed home more in the first week of August (-45%) than they did in the previous week of July (-42.8%). [4]

Concerning job reports, the US unemployment rate improved from 11.1% in June to 10.02% in July. However, the 1.8 million jobs gained in July is well below June's 4.8 million jobs added. This signals that momentum is slowing after a burst of economic activity in late spring.

Looking ahead, US employment continues to face significant challenges in the third quarter. According to data compiled by Trading Economics, more than 1 million jobs were lost every week in July and August, which shatters the weekly job loss record of the Great Recession peak of 665,000 in March 2009 and the all-time high of 695,000 logged in October 1982. [5]



The Household Pulse Survey, released August 11, points to a bleaker August and September for employment. The projection is that 8.7 million jobs could be lost over the four-week period starting the week of August 10. [6] If the forecast is correct, we will begin to see more than 2 million weekly jobs lost in the US, which is a real reversal of its job improvement trend. Even if the improvement trend stays or improves, the following chart from Rosenberg Research reminds us that the US still has a long way to go before its employment number recovers to its pre-pandemic level.



Regarding asset pricing in July, all asset classes, including stocks, bonds, and commodities, increased in value except for the US dollar. The next article, "Why We Believe We Are in a Massive Bubble and the Bubble Is About to Burst", includes an in-depth discussion of asset pricing and the future direction in that pricing.

Why We Believe **We Are in a Massive Bubble**

and the Bubble Is About to Burst.

The US bear market rally lasted for over 140 days from the time when the stock markets tanked to a bottom on March 23, 2020. On August 10, the great rally brought the S&P 500 to within 1%, the Dow Jones Industrial Average to within 5%, and the Russell 2000 to within 6% of their respective all-time closing highs achieved in the first two months of 2020. More shockingly, the Nasdaq-100 went over 11,000, which is about 18% higher than its all-time closing high of 9,401, reached back in February 2020.

Is it normal for a bear market rally to go on this long and for the rebound to be this aggressive? Are we still confident that we are in a bear market bubble? Or should we switch to the popular retail sentiment that the US equity market could achieve new highs in the coming months?

In past newsletters, I've commented many times that our world could be taking a path similar to the one that Japan followed towards its lost 30 years. Let's look at the history of the Japanese stock market for some clues regarding the first question.

The Nikkei 225 Index dropped from its all-time closing high of 38,916 in December 1989 to its bottom of 7,086 in March 2009. Over 19 years, it lost more than 82% of its value. During the nearly-two-decade decline, the Nikkei 225 went through six lengthy market rallies; the duration of these rallies stretched anywhere from 168 days to nearly four years, and the percentage of increase of these rallies ranged from 19% to 243%. Comparatively, the rally we have been experiencing since the March crash is still within expectations.

Market Rallies	New Market Low	Date New Low Established	New Market High	Date New High Established	Rally Duration (Days)	Rally Increase (%)
1	28,002	02-Apr-89	33,192	28-May-90	421	19%
2	20,221	01-Oct-90	27,146	18-Mar-91	168	34%
3	14,309	18-Aug-92	21,043	10-May-93	265	47%
4	14,309	30-Jun-95	22,597	25-Jun-96	361	58%
5	12,879	09-Oct-98	20,522	12-Apr-00	551	59%
6	7,607	28-Apr-03	18,215	23-Feb-07	1397	139%
7	7,086	09-Mar-09	24,270	10-Feb-18	3260	243%

It's worth noting that after the Nikkei 225 ended its long rally in February 2018 and closed at 24,270, the index hasn't been able to break this glass ceiling. Three decades later, the Japanese market is still trading at 42% below its 1989 highest peak.

In the late 80s, investors were extremely confident about the Japanese economy and its stock market. Warnings of a bubble were unpopular and brushed aside. With that in mind, let's look at some evidence in the US capital markets that backs up my strong belief that we are in a massive asset price bubble. Subsequently, I will discuss four reasons why we also believe the bubble will soon burst.

Evidence of Equity Pricing Bubble

Stock over-valuation is getting worse.

Many of our early investors know that we created Elixir because we believe the easy period of making money in stocks, bonds, and real estate has ended. Over the next 50 years, people will have trouble preserving capital and earning income off these investments.

My bearish view on the future was first published by Private Investor Magazine in December 2016,[7] seven months before Elixir became a stand-alone company. In that article, I said that the earnings of American public companies were artificially high due to low interest rates and that if interest rates were to rise, companies' profits and stock prices would suffer.

Since the article was published, the US interest rate, measured by US Ten Year Treasuries, dropped 80% from 2.5% at the beginning of 2017 to the current rate of 0.5%. So, with the favourable low-interest-rate environment, public companies that have experienced stellar earnings growth during the last few years should be within expectations; the income growth is not necessarily a reflection of a company's strong ability to generate more value.

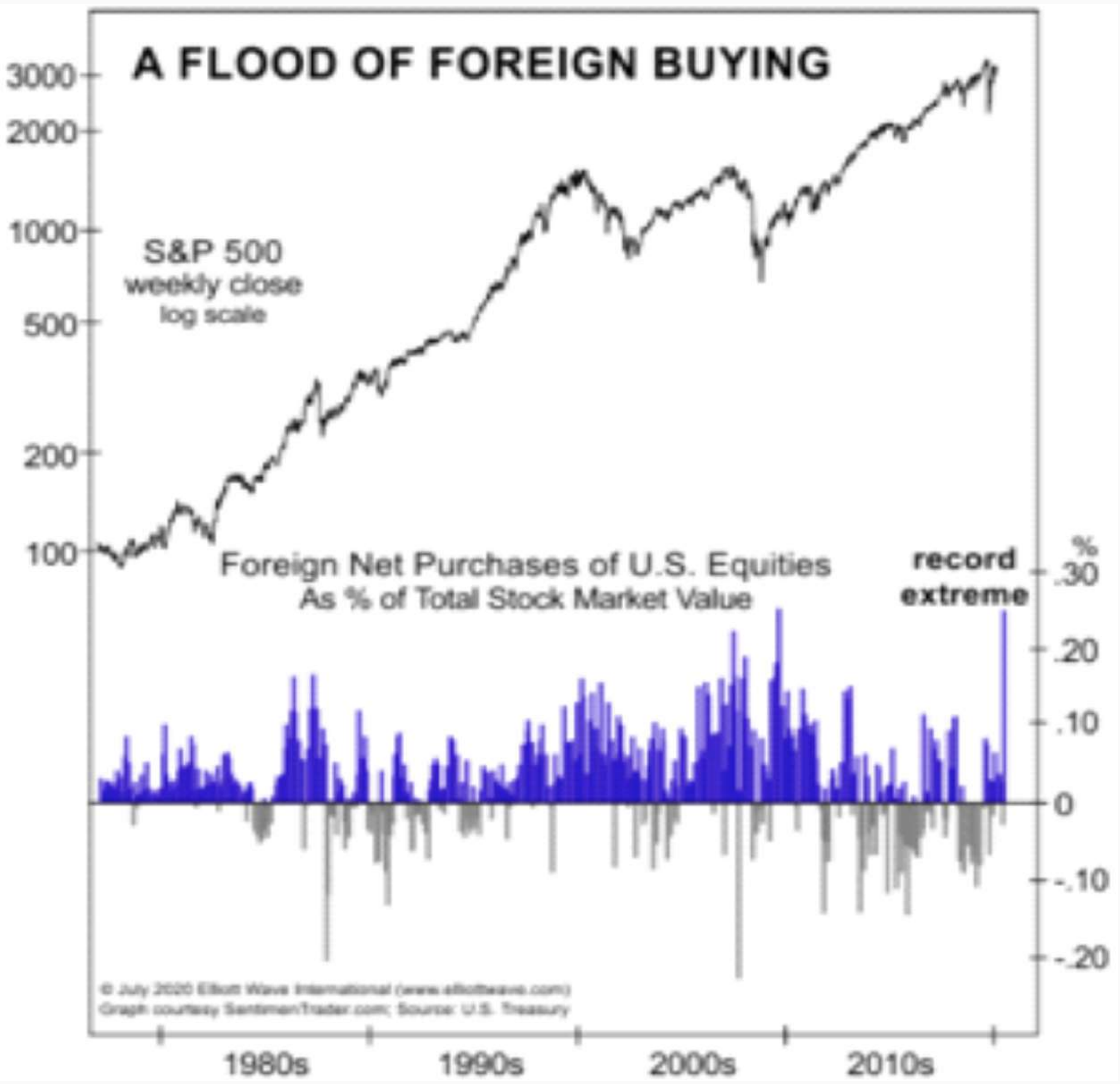
A clear sign of a pricing bubble is that the valuation of a mature public company went sky-high without significant revenue growth. Apple is an excellent example of this. In August 2018, Apple became the first US company to reach a $1 trillion valuation. This valuation was based on its $265 billion revenue at the time. Two years later, Apple is now within 5% of reaching a $2 trillion valuation, yet its 2019 revenue decreased to $260 billion, while its 2020 revenue is estimated at only $272 billion based on consensus. A mere 3% increase in sales paired with no new product breakthroughs or major business development over the last two years—how could anyone justify the nearly 200% increase in Apple's valuation?

The pricing bubble is real not only for leading American public companies; valuation for small caps companies is even worse. The following list highlights some of the ridiculous valuations currently in the small caps market.

Name	Core Business	Valuation at close on August 6, 2020
Zoom Video Communication	Online conferencing tool	1570X earnings
Trupanion Pet Insurance	Pet insurance	1503X earnings
Freshpet	Gourmet fresh dog food	1025X earnings
Match Group	Tinder, Match.com	499X earnings
Square	Mobile payment for vendors	245X earnings
ETSY	e-commerce (Amazon for hipsters)	213X earnings

Foreign investors' interest in US stocks is at an all-time high.

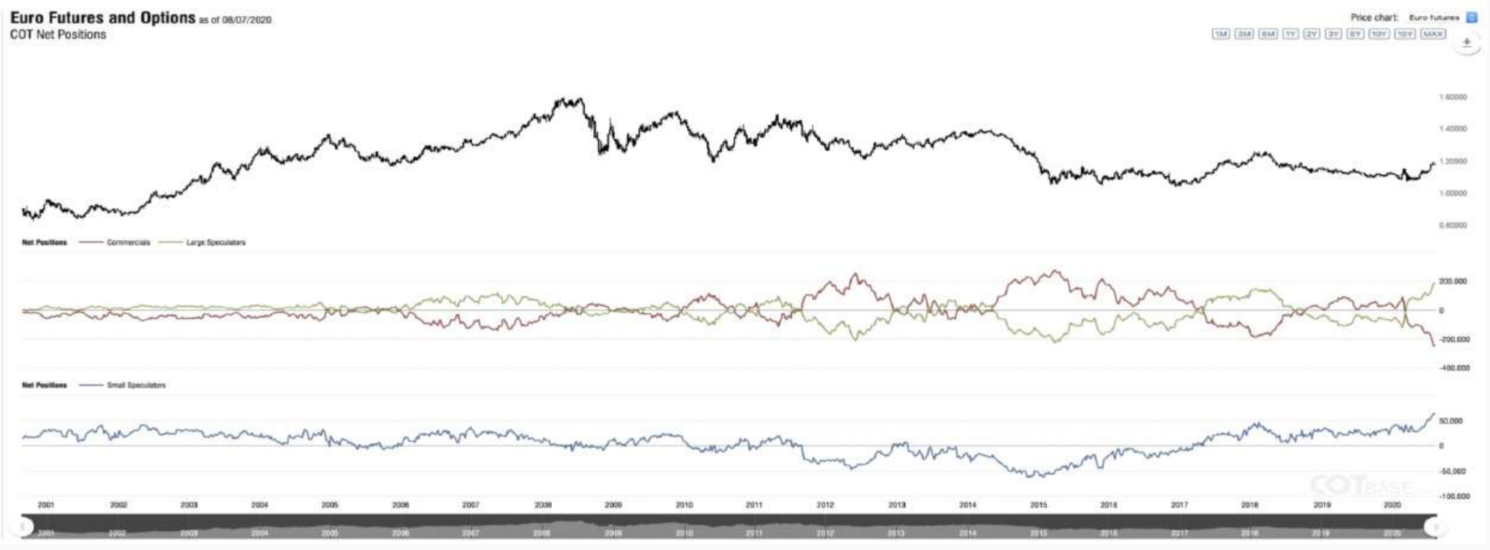
Typically, a flood of foreign buying is a sign that we are in a stock bubble. As you can see in the following chart, this phenomenon took place during the 1999/2000 and 2007/2008 bubbles. According to Elliott Wave International, current foreign net purchases of US Equities as a percentage of total stock market value are at an all-time high.



The value of the US dollar is at an extremely low point compared to other major currencies.

Extreme speculation is found not only in the stock market but also in the foreign exchange market, which indicates that we are in a severe bubble. The foreign exchange market is the largest market globally, so tremendous force would be necessary to move it significantly.

According to COTBase, since the Euro became exchange-tradable in early 2000, speculators (hedge funds and retail investors) have never been so bullish on the Euro, and commercial users (banks, insurance companies, importers, and exporters) have never been so bullish on the US dollar. Not only is the value of the Euro exceptionally high compared to the US dollar, but currencies such as the Australian dollar and the Canadian dollar have also increased in value against the US dollar. Stronger currency equals higher purchasing power, which is one reason why foreign investors can keep pushing asset prices higher.

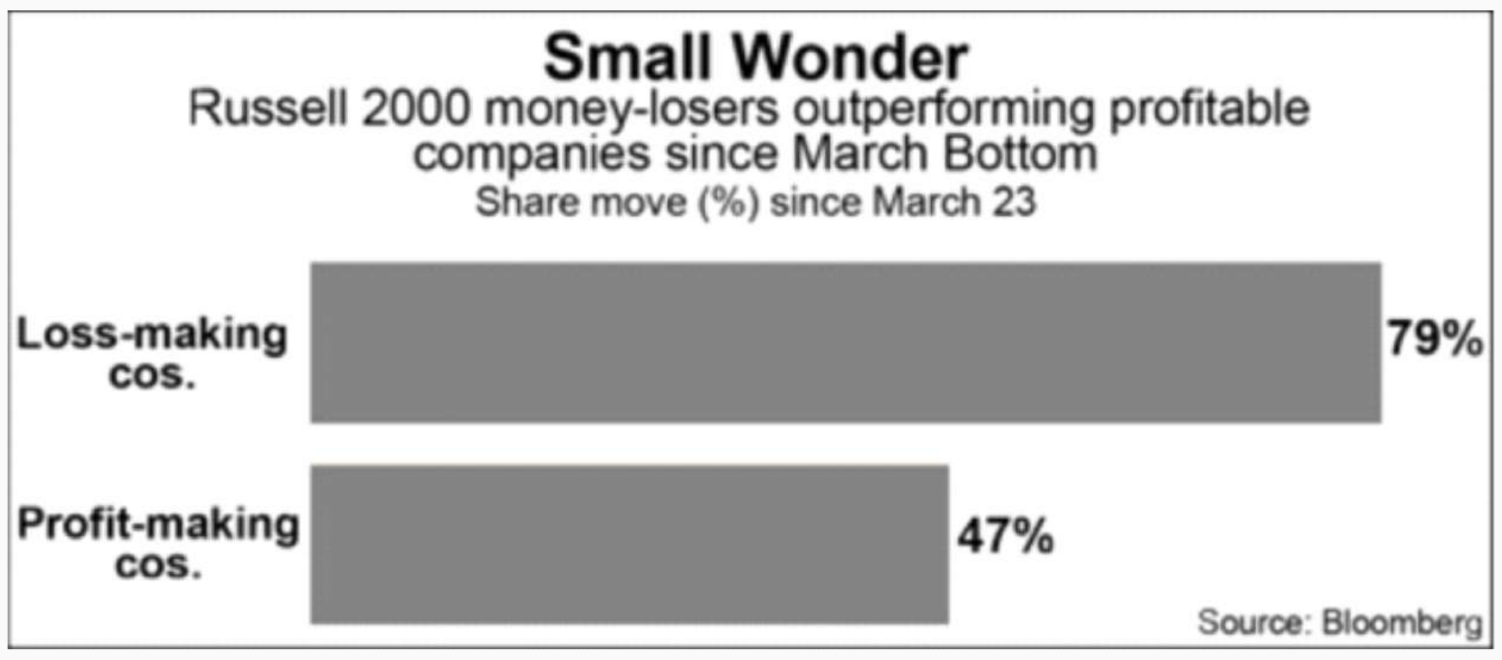


The Catalysts for Bubble Bursting

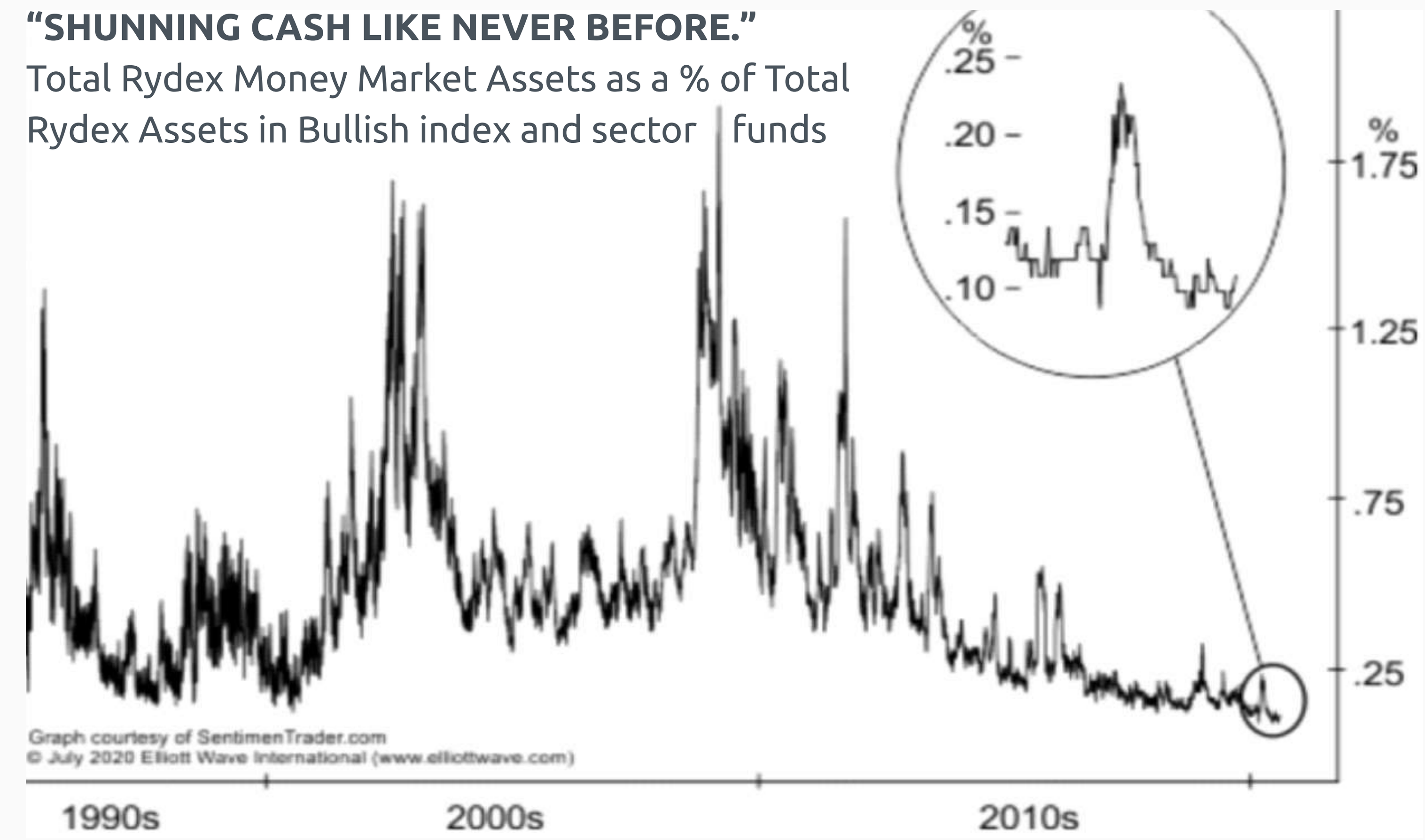
Rational investors, especially experienced investors, agree that we are in a massive bubble. I want to focus more on the four reasons why we believe that we are close to seeing the bubble burst. First, the buying pressure is dying down. Second, the Fed is pulling liquidity support. Third, the value of the USD will bounce. Fourth, COVID-19 continues to drag down the economy.

Buying pressure is dying down.

On the institutional side, hedge funds had the largest short positions build-up in the last eight years. According to Rosenberg Research, 80% of these short positions (52,162 contracts) have been reversed in the last eight weeks. This massive short squeeze has certainly prolonged the market rally. Short sellers typically short on non-profitable companies, as their stock is much more vulnerable to market turbulence. Evidence of this short squeeze can be seen in the fact that the Russell 2000 money-losers outperformed profitable companies since the March bottom. Based on Bloomberg research, non-profitable companies saw an average 79% increase in their stock prices since March while the prices of profitable companies increased by only an average of 47%. As the short squeeze ends, the stock market is losing significant buying pressure to keep the rally going.



On the retail side, based on the research released by the sentiment trader in July, investors' current cash holdings compared to their stock ownership are at their lowest level in the last three decades. Low cash holding presents two challenges for the market rally. First, people have little cash to move into stocks or other risky investments. Second, when retail investors are spooked, they sell stocks and other risky investments to build cash. Low cash could quickly put downward pressure on stocks and other assets with risk.



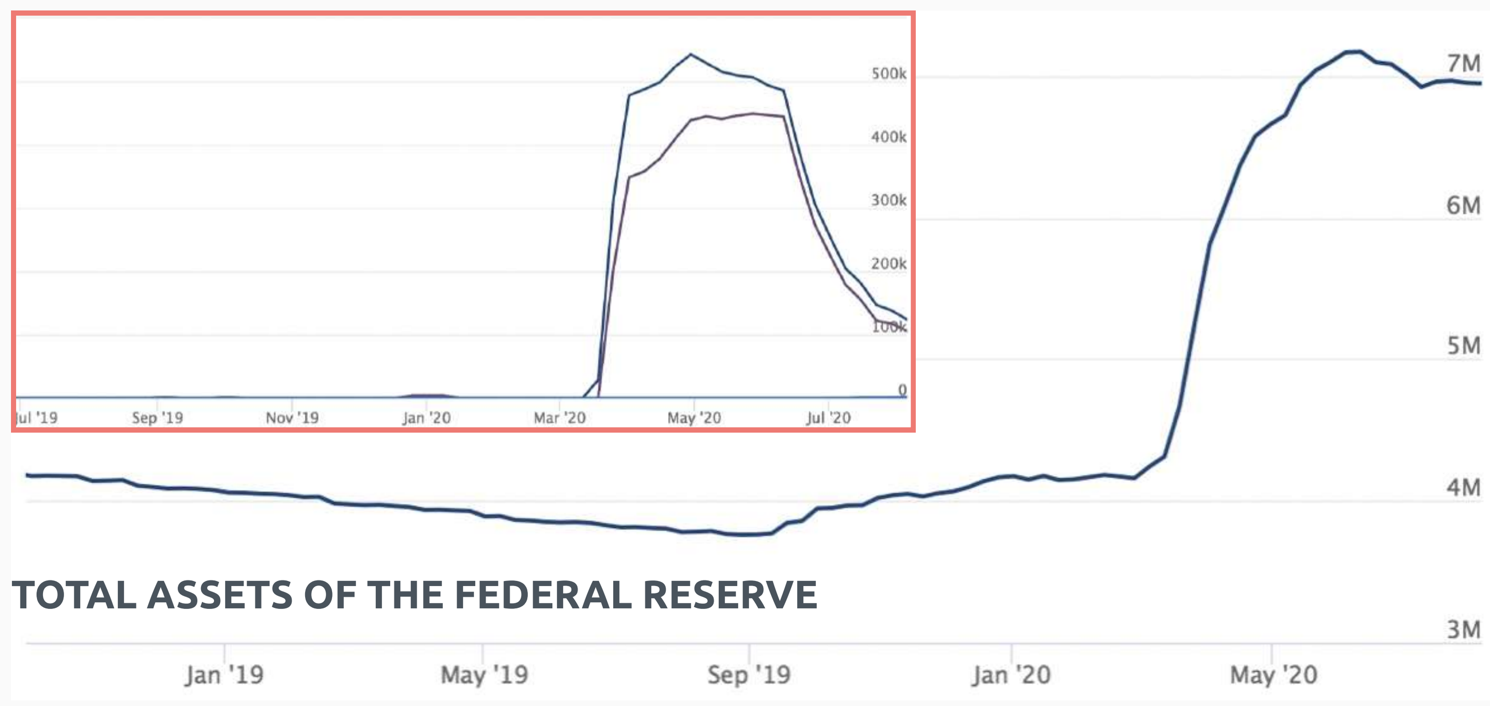
The US Federal Reserve is pulling liquidity support.

The extreme confidence in the capital markets has also been supported by the false faith that the US Federal Reserve will always come to the rescue when the stock market falls. I don't blame investors, especially retail investors, for having this false trust when Chairman Powell's favourite line to the media has always been, "We are committed to using our full range of tools to support the economy in this challenging time…" No doubt, liquidity helps the market, but problems often arise when even a small amount is taken away. An example of this is the fact that the Fed stopped pouring money in September 2008, as it thought the economy had stabilized. A few weeks later, the market crashed, and Lehman Brothers disappeared.

Currently, despite Chairman Powell's repetitive reassuring speech, the Fed is no longer adding liquidity to the market. Rather, the Fed is taking it away. As seen in its balance sheet charts (below), the Fed has slowly sold its short-term bond holdings (reducing liquidity) since mid-June.

It is difficult to estimate when the negative effect on asset prices will start showing. Based on its study of historical data, the McClellan Oscillator (a statistics tool) indicates that it typically takes about 110 days to see the market drop bottom from the day when the Fed pulls liquidity support. If the prediction materializes, this means we could see a bottom in early October—and maybe sooner.

CREDIT EXTENDED THROUGH FEDERAL RESERVE LIQUIDITY FACILITIES



The value of the US dollar will bounce.

Earlier, we talked about how the value of the US dollar is extremely low as compared to other major currencies. Because all assets that trade in the US dollar are negatively correlated to the price of the US dollar, it makes sense to see a pricing bubble in assets such as stocks, commodities, metals, and bonds.

When commercial buyers and speculators are on the extreme opposite side, things always reserve based on commercial buyers' direction. For example, the gap between commercial buyers and speculators on the US dollar widened significantly back in May 2012, January 2015, and January 2018. Similar to today, hedge funds were bearish on the US dollar and bullish on non-US currencies while commercial buyers were on the opposite side. Within a month, the value of the US dollar increased. We are confident that the US dollar will bounce back soon, and when that happens, pricing correction is due for all assets that trade in the US dollar.

COVID-19 is still a significant risk to the economy and asset pricing.

Over the last six months, we have closely followed the development of COVID-19. Lately, most reports on the pandemic seem to indicate that an effective and safe vaccine will soon be available, and the economy should be recovering.

However, Michael Osterholm, Regents professor and director of the Center for Infectious Diseases Research and Policy at the University of Minnesota, had a different opinion.

I consider Osterholm's opinion to be creditable among all the experts because he is not politically restricted like our good doctor, Anthony Fauci, and he is conflict-free, as he does not work for a pharmaceutical company that is racing to produce a vaccine.

In his interview with the Guardian in early August, Osterholm said that until 50% to 70% of the population reaches immunity, the only effective way to stop the spread is to implement more lockdowns in areas that see infectious spikes. Moreover, he cautioned that the high expectations regarding an effective vaccine may result in disappointment. [8]

I believe that Bill Gates is another creditable source on COVID-19. He has warned about a worldwide pandemic since 2015, and his charitable efforts have focused on vaccine development. In an August 7 interview with Wired magazine, Gates said that while he is encouraged by the amount of money that has gone into vaccine development and by the progress that has been made thus far, he is not optimistic that the world will be over COVID-19 any time soon. He estimates that the US will eliminate COVID-19 cases by the end of 2021 and that the world will be COVID-free by the end of 2022 . [9]

If Gates and Osterholm are right, we have a long way to go before the world returns to normal. The enormous drag on GDP and unemployment continues. Eventually, asset pricing will fall.

Final Remarks

The capital markets' great rally is hard to justify when every indicator points to a bleak economic future. It is undoubtedly tough to navigate this bear market bubble. We are confident in our analysis, from both a technical perspective and a fundamental perspective. Timing, however, is less predictable. Eve and I recently watched the movie "The Big Short" again. It reminded us about how stressful and challenging "being right too early" can be and how important it is to stick to what you believe is right. We are confident that the great reward for sticking to what we believe is right may be late but that it won't be absent.

As mentioned in the introduction, Elixir now has more than 150 shareholders – a major milestone achieved since the company was founded three years ago. I want to take this opportunity to write about how Elixir's current valuation is determined. The first section of the article will be more general in scope. I will comment on the proper process for evaluating a private company and the common pitfalls that investors should note during the due diligence process. The second section will focus on how Elixir's valuation and current and future share prices are determined. As always, we will try to explain things in simple language, so that we don't overwhelm our readers with technical terminology.

Before starting Elixir, I spent nine years of my career devoted to private equity valuations and due diligence. Over the years, I have seen a few good examples of valuation attempts by management; however, most of the valuations I have encountered were done poorly. Poor-quality valuation is understandable, as most entrepreneurs don't have formal training in finance or accounting, and equity valuation through financial-modelling is an even more specialized area, typically done professionally for large transactions, such as a merger or an acquisition.

For public companies, while speculations could push a company's stock price sky-high and artificially increase its value, such hype-driven valuation would be viewed only as a pricing bubble and would not be accepted in an acquisition. I will comment more on public company valuation another time; today, I'm focusing solely on the assessment of private companies.

Private Company Valuations

Based on experience, I have found that 90% of private companies seeking to raise capital do not have a proper financial model or carry out modelling on a limited scale at best. A financial model is essentially a forecast of the company's future financial statements; it provides a reasonable range of estimates regarding the company's future revenue and profitability.

To boost the likelihood of accuracy, a model is typically built based on five years into the future. An adequately built financial model will ensure that the company's valuation is justifiable and that the issued share price is reasonable. I believe that a high-quality, trustworthy financial model must abide by the following six principles.

Principle 1

The model must mirror every line item in the financial statements. If the model includes fewer line items than the financial statement does, the model might not be detailed enough. To ensure accuracy and the relevance of future forecasting, the baseline data should be updated every quarter when the latest financial data becomes available.

Principle 2

A good model carefully considers all the critical success and risk variables tailored to the business. Assumptions and the probability of assumption for each variable should be realistic. Many companies have unrealistic capital-raising timelines and underestimate costs. A conservative approach is always better: Overestimate expenses and have reasonable assumptions regarding capital raising.

Principle 3

Once the key variables are determined, the model must be stress-tested. An effective way to stress-test is through a Monte Carlo simulation. The simulation could run thousands of random scenarios and produce a range of future financial outcomes. After the stress test, the analyst would select the worst-, base-, and best-case scenarios on future earnings to calculate the company's future value.

Principle 4

A company's future value is a multiple of the company's future earnings. These future earnings could be revenue, operating profit, or profit. Bear in mind that this future value is what the company would be worth in five years.

In calculating their acquiree's future value, acquisition specialists typically choose operating profit (also called EBIDTA) over revenue and profit. EBIDTA is earnings before interest, depreciation, taxes, and amortization. Following are the reasons why an analyst would prefer to take out these items. Depreciation and amortization from past capital spending do not affect cash flow. The money could have been spent years ago and is not material for current decision-making. As for interest and taxes, small private companies typically have a much higher cost of capital and a preferred tax situation as compared to that of the acquirer (generally large, mature companies). So, interest cost and taxes are usually ignored too when it comes to determining a company's valuation.

As for the multiples in the valuation formula, the New York University Leonard N. Stern School of Business, a leading private equity research institution, regularly publishes reports on enterprise value multiples by sector. The most current (January 2020) report stated that, in most recent acquisitions, technology companies had the highest multiples (26.35), while steel companies' valuations had the lowest multiples, at 6.24 times EBIDTA. The multiple that a financial model uses is potentially a red-flag item that investors should note. Public companies often have much higher multiples, but over 1500 times earnings (as in the case of Zoom) is just ridiculous.

Principle 5

Before I talk about the next principle, let me ask you a question. If I owe you $100 without paying you interest, would you rather that I pay you back tomorrow or one year from now? Tomorrow, of course, because you could invest your $100 somewhere else, at 10% annual interest perhaps; then, after one year, your $100 would become $110. In reverse, if you know that an investment will be worth $110 in a year, and you require a 10% return on your investment, then you will need to invest $100 today.

Back to our private companies' valuation. We now know what a company will be worth in five years. One of the most critical factors in determining how much the company is worth today is investors' "required annual rate of return".

For private companies, I would require a 30% annual return on my investment to justify the high risks. If I invest in a large public company with relatively lower risks, then a 5-10% annual return is perhaps acceptable. Investors' "required annual rate of return" is also called the "discount rate". The present value of the company can then be calculated. Using the earlier example, if I am a private company and my discount rate is 30%, then you would need to pay me only $47.83 today instead of $100 under a 10% return. This example tells us that setting the "required annual rate of return" at 10% instead of 30% overvalues my company by 200%. The difference is enormous! Therefore, in my due diligence practise, the discount rate that the financial model used was always one of the material pieces of information that I found first.

Principle 6

After the lengthy financial modelling process, once the company's present value and share price under the worst-, base-, and best-case scenarios are established, executive management would present the model, the results, and a report explaining key variables to the board of directors.

Unlike with public companies, a private company's share price is reviewed, challenged, and eventually authorized by the board. Therefore, the following questions should be considered. Does the company have a highly sophisticated and independent board? Is the board capable of challenging the model and the valuation and determining whether share price adjustment is warranted? This is another important area that investors should investigate in the due diligence process.

Elixir's Valuation and Share Price

I'm pleased to say that the methodology used to determine Elixir's valuation and share price is based on the six above-mentioned principles. The unexpected global pandemic created an unprecedented level of volatility and mispricing in the market; it also created liquidity challenges for our portfolio back in March. Therefore, in addition to regular quarterly base data updates, we've made several material structural and assumption improvements to our model. To explain all the updates to our financial model, management presented a 3,000-word technical document to the board during the May board meeting. While I won't be able to get into the results and comment on all the technical details of our financial modeling in this newsletter, I do want to highlight a few key points:

1. Elixir's financial model is based on conservative assumptions and the probability of what we think our future earnings should be if we meet our objectives. While all model is wrong (because no one can predict the future with 100% accuracy), we try our best to make our financial forecasting relevant and to ensure that it falls within a reasonable margin of error.

2. We tested Elixir's future value based on 6X, 12X, and 18X EBIDTA. A simulation was run 10,000 times to reveal the worst-, base-, and best-case scenarios of our share price range in five years. Again, the multiples that our model used are much more conservative than the average multiple of 26.35 for private technology companies.

3. The discount rate (investors' required annual rate of return) that Elixir used in the model is 30%.

4. To under-promise and over-deliver regarding Elixir's worth in five years, the board chose a base-case scenario projection under 6X earnings. For current share price, the board chose to be more conservative and further applied a 60% discount. This was how our $70 per share today was determined.

I trust that this explanation will help our investors better understand Elixir's valuation and share price. We are more than happy to discuss the details with shareholders. Please feel free to reach out. As a final remark, I should note that our financial model is not only a tool for valuation but also helps management and the board make business decisions for the company. For example, using our financial model, we stress-tested the design of our bonds and preferred shares. Management and the board want to ensure that the rates and terms of the securities we offer are sustainable for the company and that the company can always fulfil its obligations on the securities it issues. Typically, our board reviews the share price and rates on other securities twice a year and makes adjustments if the change is warranted.