September 2018

Elixir News

elixir

ELIXIROFINCOME.COM

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

Hi, everyone.

I hope you had a great time with your family for Thanksgiving!

Our proprietary trading performance came in at 1.63% for September. Performance was within the range of expectation but was lower than our 2% monthly target. This was due to several reasons, explained in the "Revenue" section of this newsletter.

The "Global Market Observations" section has a new format. We want our market update to provide more relevant information to our Elixir investors. Please have a read; I would love to hear your comments or questions. In addition, as the fifth article in the "Why Did We Start Elixir" series, I discuss my concerns about the risk of developed countries' debt default and its impact on our financial system.

On September 21st, I took three days off and drove my motorcycle from Vancouver to San Francisco. Under the "Economic Traveler" section, I will share what I learnt from a business/economic standpoint. I will also share what I learnt on a personal level, stemming from my meditative experience while driving the motorcycle alone.

Lastly, we are hosting an investors' update and ElixirTech 2.0 debut dinner at the Burnaby office on Tuesday the 23rd. If you received the invitation but have not yet RSVPed, please do so at your earliest convenience.

Thank you and have a great October!

Regards,
Bill

*This key performance metric is calculated based on realized revenue divided by bonds outstanding at the beginning of the month. The realized revenue is from interest earned on deposits and from rebalancing our hedge.

ELIXIR SEPTEMBER 2018

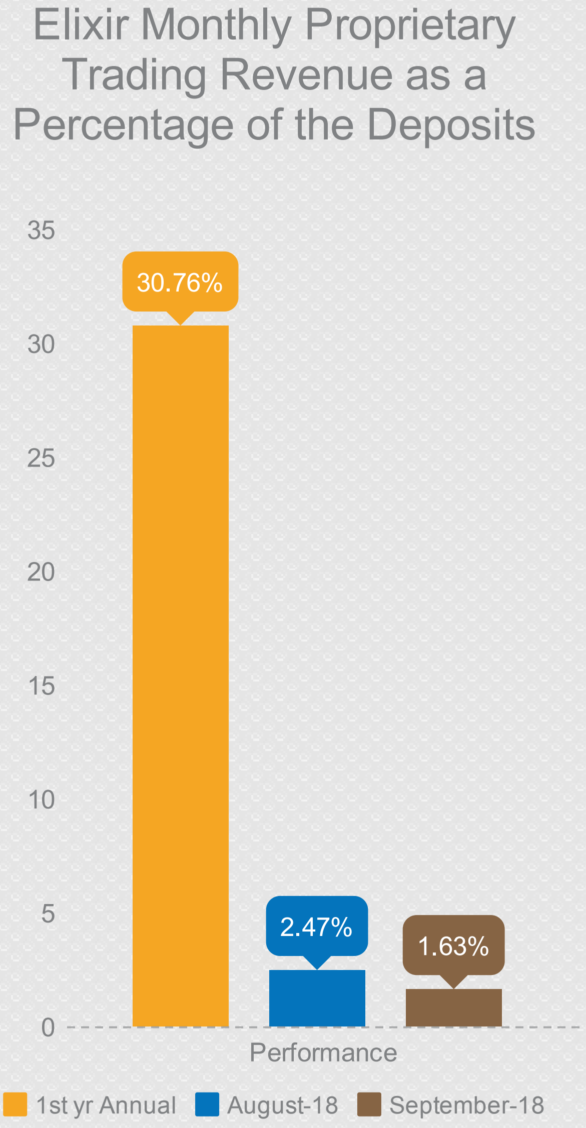
TRADING REVENUE PERFORMANCE

In September, our performance from proprietary trading activities was 1.63% of bond outstanding, which was lower than our 2% monthly target.

With low market volatility and temporarily increased hedging costs, this past September was our most challenging month in terms of producing proprietary trading returns. That said, the aggregated micro profits from the use of ElixirTech 1.0 neutralized the headwind from the increased hedging costs. This allowed our performance to fall within the range of expectation.

Another noteworthy change in September was that we took on a significant amount of capital during the month. When our balance sheet increases in size, the new capital usually requires a month to start producing returns.

Because we started implementing ElixirTech1.0 in our trading activities in July 2018, the software is performing as expected. Currently, 50% of our balance sheet has switched to use of the software. Within the next six months, we will fully transition our legacy accounts.



GLOBAL MARKET OBSERVATIONS

Starting with this issue of Elixir News, we are adopting a new format for the Global Market Observations section. Discussions will focus primarily on answering the following three questions. The idea is that this approach will create a more focused and relevant market update for our Elixir investors.

1. Which asset class performed well in trading in September?

With our diverse trading portfolio, our performance stems from a wide variety of value-based currencies and commodities. For September, one significant income driver was sugar. In our last newsletter, we stated that the price of sugar decreased to its 20-year low twice in August and that we were therefore able to profit twice off the volatility. In September, sugar remained volatile, and we were able to buy low and sell high for a third time.

Some may wonder why sugar was volatile. The truth is, I don't know. I don't think any responsible analyst can answer this question with confidence, either. Volatility is caused by a fluctuation in the number of buyers and sellers, and no one knows the collective reasons for buying and selling decisions. Everyday I am baffled when I read, in the news, the explanations that reporters give for any volatility. At Elixir, we are interested only in the asset class that is undervalued or overvalued, and our algorithm is designed to identify that class for us. We would never make trading decisions based on speculations or trends.

2. How have the predictions we made in the newsletter a year ago worked out today?

A year ago, in September, we warned our readers about the overvaluation of the US equity markets. Since then, we saw the downdraft and volatility in February and again in October 2018. I believe that these represented just the overture and that the worst is yet to come.

According to the US National Bureau of Economic Research, the US had 33 completed economic cycles between 1854 and 2009. The average period of economic growth is only 38.7 months. The longest recorded expansion period in US history was from March 1991 to March 2001: a total of 120 months (10 years). The current expansion cycle has lasted almost 10 years. It will have to end eventually, and history tells us that the time is near. The 2008 global recession started on an ordinary day; the next "2008" will happen just like that.

The good news is that Elixir is designed to profit off volatility. For example, many of you received our special news bulletin on October 10th, 2018. That day, while the capital markets fell the most they had fallen since February, Elixir generated revenue equivalent to 0.52% of bonds outstanding. To put that in perspective, we made one-quarter of our target revenue in one day and broke our record for highest daily realized revenue. Our track record shows that, time and again, Elixir performs best when the market has high volatility.

3. What is the most undervalued and overvalued asset class that Elixir's algorithms have recently identified?

Our algorithm is designed to let us know if an asset is overvalued or undervalued. It also indicates how confident it is about its own findings. The algorithm ranks its confidence between 0 and 100%. For assets over the 80% level, we would start making small purchases. As we continuously refine our calculation and include more data, our algorithm will change and become more accurate.

In future newsletters, we will discuss the mechanics behind our algorithm. For today, we will share a list of assets which our algorithm has identified. Not everything in this list is within our mandate to trade (for example, equity investments), but knowing whether they are overvalued or undervalued is helpful. As a disclaimer, this information is intended to show our investors the assets on which we are currently keeping an eye. It should not be viewed or used as investment or trading advice.

Undervalued Assets and Confidence Levels (Assets to Buy) – October 9th 5pm EST

Asset Class	Confidence Level
New Zealand Dollar	100%
30 Year US Dollar Bonds	100%
Gold	100%
5 Year US Dollar Bonds	100%
Australian Dollar	92%
10 Year US Dollar Bonds	91%
Silver	91%
2 Year US Dollar Bonds	88%
Japanese Yen	83%
Sugar	80%
Soybeans	75%

Overvalued Assets and Confidence Levels (Assets to Sell) – October 9th 5pm EST

Asset Class	Confidence Level
S&P 500	100%
RBOB Gasoline	97%
Heating Oil	83%
Natural Gas	81%
Mexican Peso	80%

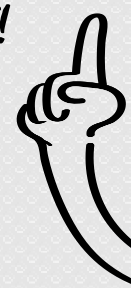
WHY DID WE START ELIXIR?

CONCERNS ABOUT DEVELOPED COUNTRIES DEBT DEFAULT

In March, I began writing a series of articles explaining the serious financial/economic problems which led us to create Elixir. In a nutshell, I believe that the period of making easy money in stocks, bonds and real estate has ended. Over the next 50 years, people will have trouble preserving capital and earning an income off these investments. Yet, despite this fact, market volatility will always exist, and as market corrections are made, vibrations will become more volatile. We created Elixir to capture those vibrations and thereby profit off market volatility.

IMPORTANT POINT!

Before we start a new financial concern, following is a summary table outlining the issues which I have discussed in the past newsletters.



Issue	Area of Concern	My Concluding Quote
March 2018	North American Real Estate Market	"I believe passive real estate returns over the short term and long term will underperform inflation and produce negative real returns for the conceivable future."
May 2018	Stock Market (US, Canada, UK & the Rest of Europe)	"The future stock market return will be lower than what we have experienced over the last 60 years."
July 2018	The Negative Impact of a Future Increase in Interest Rates	"The effects that an increase in interest would have on our economy, bonds, stocks and real estate are devastating. Unfortunately, it will happen one day, sooner or later. Traditional investments will depreciate, and we will be in a bleak financial era for a long time."
August 2018	Extreme Leverage and a Shortage of Real Assets in the Global Financial System	"We know that high-leveraged, over-the-counter derivative contracts caused huge volatility in 2008. Today, they are certainly a leading risk factor in our financial system."

In this September issue, I would like to highlight another concern. In fact, I believe that this is one of the most material risks we face. Large debt defaults by developed countries are coming, and the impact will be much more devastating than it was in the past.

Like the extreme leverage concern that I discussed in August, I suspect that the general public is oblivious to the destructive impact that a developed country debt default would have and is unaware of how close we are to the next one.

First, why is it such a big problem when a developed country defaults on its debt?

When a country defaults on its debt, it creates an extreme loss of confidence among investors. Whenever confidence is lost, a downward-spiral effect occurs very quickly:

• Investors would sell off their investments. Typically, this would increase volatility in the market and cause stocks, commodities and non-safe-haven currencies to decline in value.

• Investors would demand a higher return from government bonds (excluding the US, Japan and Switzerland), private companies' bonds and consumer loans. This would cause interest rates to increase.

• A bank run may occur in the affected country. This could lead to bankruptcy among banks and to losses at other financial institutions globally. Banks would stop giving mortgages and loans to consumers.

• Companies' cost of capital would become much higher. Therefore, spending would have to be cut elsewhere. Typically, companies would have to lay off workers or freeze/reduce salaries.

• Unemployed workers would not be able to make their mortgage payments, which would place more pressure on banks' balance sheets.

• Consumer purchasing power would significantly decline due to hyperinflation and a shrinking disposable income. GDP would drop. The country would be in recession and its government would potentially have to cut back on spending for public services. This would further affect citizens' quality of life.

As you are aware, Venezuela is undergoing a debt default and financial system meltdown. According to Business Insider, Venezuela's inflation rate rose over 40,000% in July 2018. As of June, a million bolivars were worth only 29 cents USD. In May, a kilo of rice cost around 220,000 bolivars ($4.40). To put this in perspective, 56% of the monthly minimum wage in Venezuela is at barely 392,646 bolivars ($7.85).

What is happening in Venezuela is devastating for Venezuelans. If this country were a developed country, the situation would have been much worse. Developed countries are heavily involved in globalization and international trade. Because of this interconnectedness, any default by a developed country would cause economic problems globally.

Take the great 2008 recession as an example. Although many complex explanations could be used to clarify why it happened, the heart of the problem is simply that the Americans can't afford their debt. While Canadians weren't involved, the recession in the US caused our dollar to drop by 20%. Our banks' cost of capital almost doubled on new preferred shares issued. Because of our economic structure, most of the Canadian workforce is involved in either manufacturing or commodity production. Both industries experienced significant challenges because buyers across the world stopped making purchases. This led to a ripple effect nationally. As a result, our GDP declined by 4% and our unemployment rate increased by 3%.

For those of you who aren't aware, in 2008 I was packaged out by the asset management company for which I worked. This ended up benefiting my career, as I went on to become an entrepreneur. However, I will never be able to forget the overwhelming stress of being a dad to a newborn son and, as the family's only breadwinner, having lost my stable income.

Second, let's look at history.

As is always the case, the only way to make sense of the present and present a reasonable prediction for the future is to closely review the past.

Debt defaults have happened frequently throughout history and sometimes close to home. We often forget that even within our relatively conservative financial environment, Canada experienced government defaults. In 1935, before the oil boom, Alberta declared debt default to investors. During that time, Canadian banks refused to do business in Alberta. Therefore, the province had to start its own bank, now known as the Alberta Treasury Bank (ATB). It was nine years before Alberta restored its financial health. I suspect that most Canadians today don't know about – or forgot – this serious default and the reason why ATB was founded.

In looking beyond the Canadian border, based on the data in This Time Is Different: Eight Centuries of Financial Folly, a book written in 1999 by Carmen Reinhart and Kenneth Rogoff, I put together the following chart to show the number of times some countries have defaulted on their debts. As you can see, debts defaults do occur, and often. Every time a debt default happens, it's a repeat of Venezuela. If anyone is interested in exploring this aspect of history, I highly recommend the book.

Country	Defaults
Spain	18
Brazil	10
Chile	9
Argentina	9
Greece	7
USA	6

The most recent debt crisis in a developed country took place in Greece in 2009; the country is still recovering today. Because Greece is the only developed country to have had a debt default in the last three decades, we can learn much from its experience. Following is my summary of Greece's default. The data I quote below are sourced from Trading Economics, IMF, Bloomberg and Investing.com.

At the beginning of 2008, the world was near the end of an economic expansion. At that time, Greece's 10-year bonds offered a yield of 4.3%. Its unemployment rate was 7.3%, its debt rating from S&P Global Ratings was "A" and its GDP was at a record high of $29,824 per person. Everything was going well except for the fact that Debt to GDP was alarmingly high, at 109%.

Four year later, in 2012, the full impact of the "US turned Global" Great Recession had arrived in Greece. The country experienced a serious recession. The same 10-year bond was paid a yield of 36.2%. Greece's unemployment rate rose to 24.4%, its debt rating from S&P Global Ratings declined to "CCC" or "Junk", and GDP per person declined over 30%. In addition, the Debt to GDP ratio had increased to over 170%!

We can view Greece as another victim of the 2008 recession, just like Canada was. However, the hard-to-miss difference between the two victims was that, in 2008, Canada's Debt to GDP ratio was 67.8%. Greece's was 41.2% higher.

The global economic slow-down caused Greece's GDP to drop and, subsequently, its unemployment to rise. However, the numbers were much higher than predicted. This caused bond rating agencies to reduce Greece's "investment grade" debt rating to "junk". Institutional investors are typically not allowed to own "junk"-rated bonds and were forced to sell. The situation worsened by the day. Very quickly, Greece's GDP was no longer able to support its debt and the country had to declare default.

Greece would not have survived without the $330 billion USD bailout money it received from the European Union, European Central Bank and IMF. The last bailout funds were sent on August 20th, 2018. It took 10 years for Greece to stabilize itself after the recession began in September 2008.

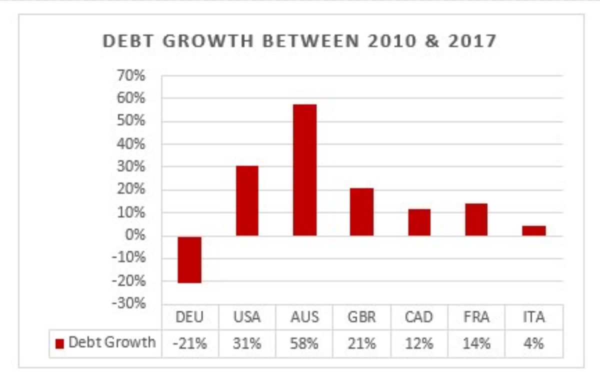
Third, consider the position we are in today.

Through the lens of Greece, let's look at the financial health of other major developed countries today. We'll examine data from Germany (DEU), the United States (USA), Australia (AUS), Great Britain (GBR), Canada (CAD), France (FRA) and Italy (ITA). I am concerned about two key areas: Debt and the Debt to GDP ratio have grown to shocking levels, and debt costs could be too high to service.

Please note that we did not include Japan and China in our study. These nations are unique in that they have significant currency reserves to cover large portions of their debt if necessary.

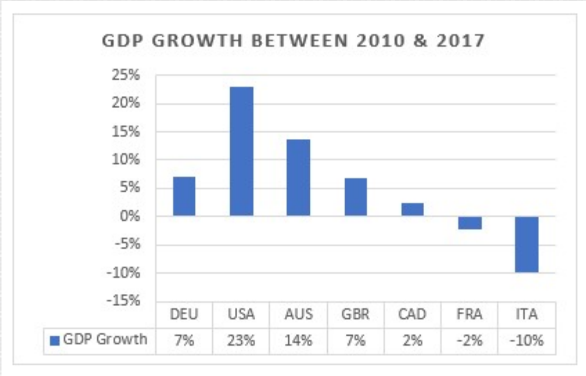
• ***Developed countries are piling up debt.***

The following chart, which we have created based on data from the World Bank, shows debt growth in percentage among major developed counties between 2010 and 2017. It is easy to see that every country took on more debt over the last seven years. The only exception is Germany, whose debt declined 21%.



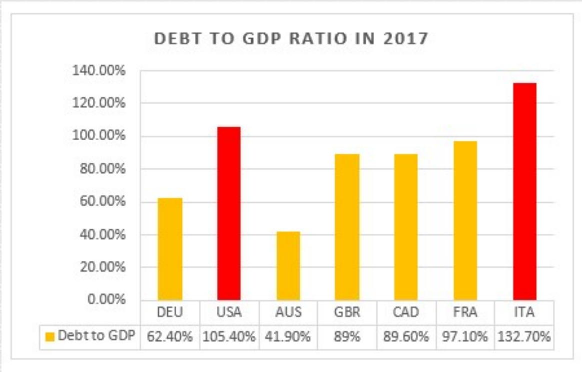
In our last newsletter, we talked about how our extreme leverage in the financial system is not backed by many real assets. This is also true of debt. Today, countries' debts are backed only by the tax earning potential of their governments.

Tax earning potential relies largely on a country's economy – in other words, on its GDP. An initial glance at the following chart indicates that, over the last seven years, the selected counties all seem to have done well in terms of GDP growth, except for Italy.



Does this mean all the countries are fine financially and that only Italy has problems? Well, no. because we can't focus only on GDP and forget about debt. For example, if you received an annual salary increase of 10% each year for the last 10 years, but your debt grew 15% annually at the same time, would you say that your financial health is improving? Of course not; it's getting worse, as your debt has outgrown your income. A country's financial health follows this basic principle. In finance terms, we call it the "Debt to GDP ratio". The lower the ratio, the less likely the country will default. A higher percentage indicates more leverage and more risk.

• ***The Debt to GDP ratio is at a very high level.***



As shown in the chart above, all these developed counties have a high Debt to GDP ratio. Some might say that a ratio above 60% is concerning. I would look to Greece as an example and say that a ratio over 100% is definitely dangerously high. A year ago, the US and Italy were already in the red zone, at 105.40% and 132.70%, respectively. Later, we will look at these two countries' situations more closely.

• ***Debt service costs will be unaffordable as the interest rate increases.***

Another area of concern for me is debt service cost. Interest rates have been at a historic low for a while now; the data can easily be found through a Google search. What will happen when interest rates return to normal? I answered this question back in July. Today, I would like to talk specifically about what will happen to the debt servicing cost when interest rates increase.

Let's take the United States as an example. In 2017, the US national debt was $20.4 trillion (the Debt to GDP ratio was 105.4%). The 10-year US Bond averaged 2.41%. The amount of $500 billion USD a year was used to service the debt. Consider the fact that 2.41% is a very low number. What will happen when the rate increases?

Not long ago, during the decade of 2000 to 2009, the 10-year US Bond averaged a yield of 4.16%. It almost doubled the 2017 rate. At that rate, the debt servicing costs would have been $850 billion USD a year. The rate change caused a difference of $350 billion USD a year!

To put this $350 billion into perspective, according to the World Bank data, the National GDP of Canada in 2017 was $1.65 trillion USD. The amount of $350 billion USD represents over 20% of Canada's GDP! If this were a country, it would be competing with Israel for the 31st spot in the world GDP ranking.

Lastly, is major developed country default in sight? Yes!

Today, based on the Debt to GDP ratio, Italy is in worse condition than Greece was back in 2008. Greece's Debt to GDP was 109% at the beginning of 2008, while today Italy is at 176%. The country's debt has already been rated "BBB" – just above "junk" status. We are nearing the end of an economic cycle and a recession could happen any day.

We are so concerned about Italy because its economy is eight times larger than that of Greece! It could be too large for the European Union, European Central Bank and IMF to bail out.

If a bail-out is not an option, the Euro could see its end and banking collapses could occur. In my opinion, this could create a much bigger issue than the collapse of Lehman Brothers, which started the Great Recession in 2008.

It appears that the US Government is on a path similar to Italy's, but is taking a slower pace. I believe that if the United States does not turn back the ship, the next US debt default could cause a catastrophic global financial collapse the likes of which the world has never seen.

In my opinion, this will be one of the greatest financial risks in my children's lifetime. To ensure that my children can withstand the long storm, we created Elixir.

ELIXIR ECONOMIC TRAVELER REPORT

IMPORTANT POINT!

It seems that a "sense of community" is starting to form among Elixir investors and stakeholders, which I think is great.

On September 21st, I drove my motorcycle from Vancouver to San Francisco, California. The journey took three days and was very memorable. If you have never driven a motorcycle for a long distance alone, I highly recommend that you get on it right away. I would be happy to share some ideas and routes with you.

Driving a motorcycle in silence through beautiful scenery is a very different experience from driving a car on the highway, being distracted by the radio or people's chatter. I felt as though the cold ocean/mountain air had the power to strip away all negative energy. My mind was quiet and focused, and I was able to stay present and think without distractions. If meditation is part of your life, I would encourage you to try "motorcycle meditation".

Another thing I really enjoy about driving a motorcycle is the "sense of community" I establish with fellow motorcycle riders. Everyone I passed waved at me. People walked up to me at restaurants and gas stations to have conversations. The experience reminded me of the shareholder and director dinners we are starting to have in different cities across the country to meet our investors face to face. While conversations start by focusing on business, eventually they become a means of getting to know one another personally.

During this three-day trip, I also made some economic observations. Hotel prices in the US are through the roof right now. Below is a table showing the price difference of some of my favourite North American hotels between 2010 and today.

Hotel	2010	2018
	Typical Price (USD)	
Intercontinental San Francisco	$160	$550
Intercontinental Monterey	$135	$620
Intercontinental Palazzo Las Vegas	$120	$550
Omni Montelucia	$115	$525

Hotel price is often an indicator of our location in the economic cycle. High hotel prices are a sign that a recession is coming soon. An explanation of this phenomenon is beyond the scope of this article. However, if you are interested in this topic, I recommend an academic paper, "Predictive Powers of Hotel Cycles", published by Cornell University and written by John B. Corgel. https://scholarship.sha.cornell.edu/cgi/viewcontent.cgi?article=1558&context=articles

At Elixir, we are well-prepared for this potential recession and will profit off "safe-haven" assets when they increase in value.