

2019 Annual Letter

Barrage Fund

Management Report

For the period of January 1st to December 31st, 2019 the S&P/TSX posted a return of 22.64% (including dividends) while the S&P 500 returned 25.13% (in Canadian dollars and including dividends). The Barrage Fund's performance for the same period was 30.36% before fees and 26.10% after fees.

The fund is still made up of 10 securities and has a modest cash position. We maintained a certain level of liquidity throughout the year, but were opportunistic towards the end of the year.

Market Commentary

The United States has not experienced a recession in the past decade. We must go back to 1850 to observe such a situation. However, over the past 10 years, we have heard about the risk of the next recession on many occasions. At the very beginning of the decade, when we were barely out of the great financial crisis, the specter of a "double-dip recession" lingered in the news. During this period, several European countries were drowning in deficits so large that there was talk of defaulting on sovereign debt. Greece in particular attracted much attention, and negotiations with bondholders had to be started. Over the ensuing years, the economy's good performance in relation to the previously bleak outlook proved pessimists wrong. However, the absence of a recession only increased fears: at the slightest sign of a slowdown, the stock market reacted quickly.

Some would say that markets have appreciated a lot, and that we may be in the territory of a speculative bubble. Those who participated in the first internet wave 20 years ago will remember the hard lessons and return to reality, when the Nasdaq index lost 60% of its value after its peak in March 2000.

If we take a look at the S&P 500 index, which has jumped 320% since the depths of the financial crisis (March 2009), we could be led to conclude that the appreciation was too rapid and pronounced. Historically, the stock market has generated an average of 9 to 10% per year (including dividends). However, the annual return since 2009 has been 16% (without the effect of the Canadian currency). Today, the S&P 500 price/earnings multiple hovers around 24 times according to estimates, a level similar to the summer of 2016. The stock market has certainly

performed well thanks to a higher evaluation of securities, but also thanks to the increase in corporate profits, not to mention the fiscal and financial measures introduced by the Trump administration to stimulate economic activity.

Presently, nothing makes us particularly optimistic or pessimistic. However, without necessarily "waiting" for a recession, we are aware of this risk. This is why we must always remain vigilant in our choice of stocks. Since we are unable to control macroeconomic forces, we limit our selection to the securities of companies capable of surviving the worst economic and financial storms.

Large S&P 500 Companies

In the table below, we have the 7 largest stocks and their weighting in the index at the time of this writing:

Company	Symbol	Value (in billions of USD)	Weighting
Apple	AAPL	1300	4.65%
Microsoft	MSFT	1200	4.54%
Alphabet *	GOOG	950	3.05%
Amazon	AMZN	930	2.93%
Facebook	FB	610	1.87%
Berkshire Hathaway	BRK.B	550	1.66%
JP Morgan Chase	JPM	430	1.64%

** By combining the two share classes, A and C.*

We own or have held four of these stocks in the portfolio in 2019, perhaps suggesting that we are clearly favoring very large capitalization stocks. For the sake of comparison let's now look at the largest stocks of the same index from the year 2000:

Company (year 2000)	Symbol	Value (in billions of USD)
General Electric	GE	475
Exxon Mobil	XOM	300
Pfizer	PFE	290
Citigroup	C	285
Cisco Systems	CSCO	275
Wal-Mart Stores	WMT	235
Microsoft	MSFT	230

The only company that has remained in this peloton is Microsoft, a company in a sector that has historically been considered risky, technology!

Note that if we went back another 10 years, to the year 1990, we would see that Exxon Mobil and General Electric were second and third largest, demonstrating that their dominance in the charts was not necessarily short-lived.

In its heyday General Electric's stock reached a historic peak of \$60 during the year 2000. It generated profits of US\$12 billion and traded at an elevated price/earnings multiple of more than 40 times. Today, the company is suffering losses, its stock has collapsed to under \$12, and its future remains uncertain, not to mention all the anxiety that its finance arm has aroused in recent years.

As for Exxon Mobil, its stock market return has been only 2.4% annually over the past 20 years, not including dividends, which places its performance far behind the S&P 500 index. Its revenues and profits are now at a fraction of what they were in 2011.

Given that 3 of our largest positions in the portfolio are also on the list of the 7 most valuable stocks in the S&P 500, shouldn't we see this as a certain red flag? How can we say that companies with a value between US\$600 billion and US\$1 trillion are trading at bargain prices? What makes us think that they will perform well in the future?

As value investors, we usually look for securities that are overlooked, shunned or misunderstood. You will find neglected stocks from time to time in the "not very interesting" pile for the simple reason that they are barely followed. However, in a long bull market, deals

are scarcer and the competition to find these stocks is increasing. So we end up mostly with shunned and misunderstood stocks. Shunned because they are viewed negatively by the masses, the media and politicians. Misunderstood because investors and analysts misjudge their earnings capacity and competitive advantages.

The Big Technological Shift: Well underway and still in progress

For the past 20 years, we have witnessed an unprecedented technological revolution. The Internet has become the information superhighway, and since the 1990s, its capacity to transport data has been increasing. At first, the simple ability to send messages in real time was a revolution in itself. The use of email spread everywhere. Then, growth of data transmission capacity opened the door to new possibilities. In 1994, Amazon began selling books online. In 1998 the Google search engine appeared. In 2003, the social network Myspace became popular, eventually being surpassed by Facebook.

The first streaming services were created, including YouTube in 2005. The quality of the videos often left something to be desired, but it was a great innovation. Then, in 2007, Netflix started streaming movies and shows online. Its founder, Reed Hasting, had to wait until the transmission capacity was sufficient to start offering an "acceptable" service comparable to what was offered by sending DVDs by mail. As the years went by, the quality of the content and the ease of use for customers only increased. It was also in 2007 that the iPhone was born, bringing a whole new way for consumers to use the internet.

Meanwhile, the "cloud" was beginning its long journey of upheaval throughout the IT industry. Amazon Web Services (AWS) launched its first service in 2006. This new initiative gave way to a digital revolution, in which the installation of software on the hard drive of computers became increasingly obsolete. In the same way that it is no longer necessary for Netflix to send DVDs to obtain good image quality, software companies no longer need any support other than the internet to enable their customers to operate their products. The rapid transmission of data makes it possible to obtain the same advantages previously offered by DVD or other physical mediums. Updates can be done remotely and instantly.

All of these advantages stem mainly from the increase in internet capacity and computing power. Many investors have expressed doubts about the impact of this revolution and have long questioned the valuation of the companies that benefited the most.

In May 2019, Warren Buffett announced that Berkshire Hathaway had acquired shares in Amazon, stating that the purchase was the work of one of his portfolio managers, Todd Combs or Ted Weschler. During the annual meeting, a questioner wondered if with such a purchase, the company had abandoned its original philosophy, "value investing". Buffett was adamant in his response, "The people making the decision on Amazon are absolutely as much value investors as I was when I was looking around for all these things selling below working capital

years ago. That hasn't changed." He added that the criteria used are the same for Amazon as for a bank that looks like a bargain by looking at its book value or profits.

In 2017, during an interview with CNBC, Mr. Buffett said that he had long followed the evolution of Amazon and its founder, Jeff Bezos. Despite his admiration for the latter, he had always chosen to stay on the sidelines. In response to a question asking why he never bought the stock his response was that he was stupid.

Charlie Munger, Mr. Buffett's right-hand man at Berkshire Hathaway, made a similar comment on Google. They had seen how exceptional Google was as an advertising company since they were good customers themselves through Geico, their auto insurance company. However, he and Warren preferred to do nothing and rest on their laurels.

The dazzling expansion of internet speed...after the bubble burst

To get an idea of the progression of data transmission, we consulted the website of the internet provider Videotron through Wayback Machine, a site that allows one to retrace a website's history. Below is the data concerning the availability of high-speed internet, tracked by residential download speeds over the years:

End of the 90s: 56 kbps (thousands of bits per second).

2005: 6.5 mbps (millions of bits per second). Proudly announced as speed that is 118 times faster than the 56 kbps modem!

2010: TGV (Very High Speed), 120 mbps.

2015: Fiber 200 hybrid, 200 mbps.

2020: Hélix Internet 400, 400 mbps (62 times the speed of 2005).

As we can observe with this data, we have experienced quite the progression since the internet bubble burst. This is just an example of a residential service. At the commercial and industrial level, we are witnessing a larger-scale progression. According to a study published by MarketsandMarkets in 2019, the cloud computing market should reach US \$623B in 2023. As we know, Amazon is one of the big beneficiaries of this trend, but when it first started, the future looked much less rosy.

The arrival of the internet in our homes had caused a huge craze on the stock market at the time, leading to the tech bubble which caused heavy financial losses to many investors. Many companies completely collapsed, such as Pets.com. Others survived, such as Amazon. As Brad Stone mentioned in his biography of Jeff Bezos, the company came close to disaster.

Indeed, only a month before the stock market crash, Amazon managed to complete a round of financing with convertible bonds, for which it had to offer very generous terms to convince lenders.

Things got a lot better after that. Most of the initiatives that have led Amazon to the success it enjoys today were taken after the tech bubble burst. Besides the creation of AWS in 2006, the company started its third-party marketplace in 2003, a platform to allow companies to sell via its site. As for the idea of forming teams small enough to be fed with only two pizzas (“two-pizza teams”), it came up in 2002. This initiative greatly contributed to the culture of innovation that Jeff wanted to establish throughout his business.

From the Tech Bubble to an oligopoly situation

Great changes occurred during the first decade of the new millennium. Ben Thompson, an American business analyst who lives in Taipei, recently offered an interesting perspective on his Stratechery site. Rich in experience as a former employee of both Apple and Microsoft, he drew a parallel between the automotive industry and today's technology companies. He suggests that the big cloud and mobile phone companies - Amazon, Microsoft, Apple, and Alphabet - may well be General Motors, Ford, and Chrysler of the 21st century.

He explains that the first American car was made in 1895. Over the next five years, 34 new car manufacturers appeared. Twenty years later, 401 new companies emerged in this industry. There was a proliferation of manufacturers, but ultimately, the “Big Three”, GM, Ford and Chrysler, came to own the market. The disappearance of new competitors did not mean that the car stopped revolutionizing our society. On the contrary, this product has become omnipresent in our lives.

The parallel established by Mr. Thompson is that even if only a few new competitors arrive to challenge and threaten the oligopoly of Amazon, Microsoft, Apple and Alphabet, the products of this quartet of the internet revolution will continue to have a profound impact in our lives. In such a context, the value investor must not be held back by the size of a company, and neglect its potential as a whole.

Our Companies

Alphabet (Google) derives its profits mainly from advertising. Despite its large current size, we are optimistic. Global advertising expense is expected to exceed one trillion dollars in a few years. The portion dedicated to digital mediums (internet vs radio, television and other traditional media) continues to increase, having surpassed 50% in 2018.

In 2004, WPP, the largest network of advertising and public relations firms at the time, had sales and profits twice as high as Google. It was the year when the latter went public.

On the valuation side, an investor choosing Google had to pay twice the capitalization of WPP, and temporarily settle for half the profits. Some 15 years later, Google's stock has multiplied by

16 fold, while the performance of WPP, even taking into account the dividends paid, has proved anemic.

At the time, a disciplined investor could have been put off by the valuation of 40 times profits, compared to 26 times today. Why pay so much for a company whose market size is already twice as large as the dominant player in the advertising industry, which had a history of several decades.

Together, Facebook and Alphabet represent a total market valuation of US\$1.6 trillion! Despite this gigantic valuation, given the size of the total addressable market and the enormous advantages that these two companies derive from technology, they will still experience several good years of attractive growth in our opinion. According to the latest quarterly results, Alphabet's revenues increased by 22% (without the effect of currencies), while those of Facebook increased by 31%.

On the Amazon side, sales increased by 25% (without the effect of currencies). The cloud division, AWS (Amazon Web Services), continues to grow significantly, with a 35% increase.

Netflix

Netflix, the streaming platform, is now a significant weight in our portfolio. Revenues jumped 35%. Data for the last quarter demonstrated the pricing power of the company, as revenues per member rose 12%. With an annual content budget of more than US\$15 billion and its own films and series, Netflix enjoys a position of strength allowing it to increase its subscription prices, despite the strong competition that appeared last fall.

In fact, it was in November that Disney launched its own streaming service, Disney+. However, we do not expect a significant impact on Netflix subscriptions following the launch of this new service. Investor fears surrounding the launch of Disney+ allowed us to increase our position at a very attractive price.

Spotify

Spotify, a new company in the portfolio, is the leader in online music and podcast broadcasting. It has a good head start on its closest rival, Apple Music. It has 248 million members worldwide, of which 113 million pay a monthly fee (Premium subscribers). For comparison, Apple Music has just over 60 million subscribers. According to the management of Spotify, the number of new members is about twice as high as Apple's. As for the turnover rate ("churn"), that is to say, the user abandonment rate, it is about half as high.

We particularly like the founder of this Swedish company, Daniel Ek, who has a long-term vision for the development of his firm. He currently sees exponential potential in podcasts, the number of hours broadcast increased by 39% compared to the previous quarter when the latest

results were released. Mr. Ek is therefore investing in this new avenue of growth, for which the sale of advertising would be easier compared to music.

Sale of Apple

We have been shareholders of Apple for most of the fund's existence since inception in March 2013. Our portfolio weighting varied according to our estimates, but more recently, the stock market value has appreciated more than our valuation. Although we have liquidated our position, we would be pleased to be able to buy this high-quality company in case the price returns to an attractive level.

We wish all our clients an excellent year in 2020.

Sincerely,



Patrick Thénier



Rémy Morel



Mathieu Beaudry



Maxime Lauzière