

## 2021 Annual Letter

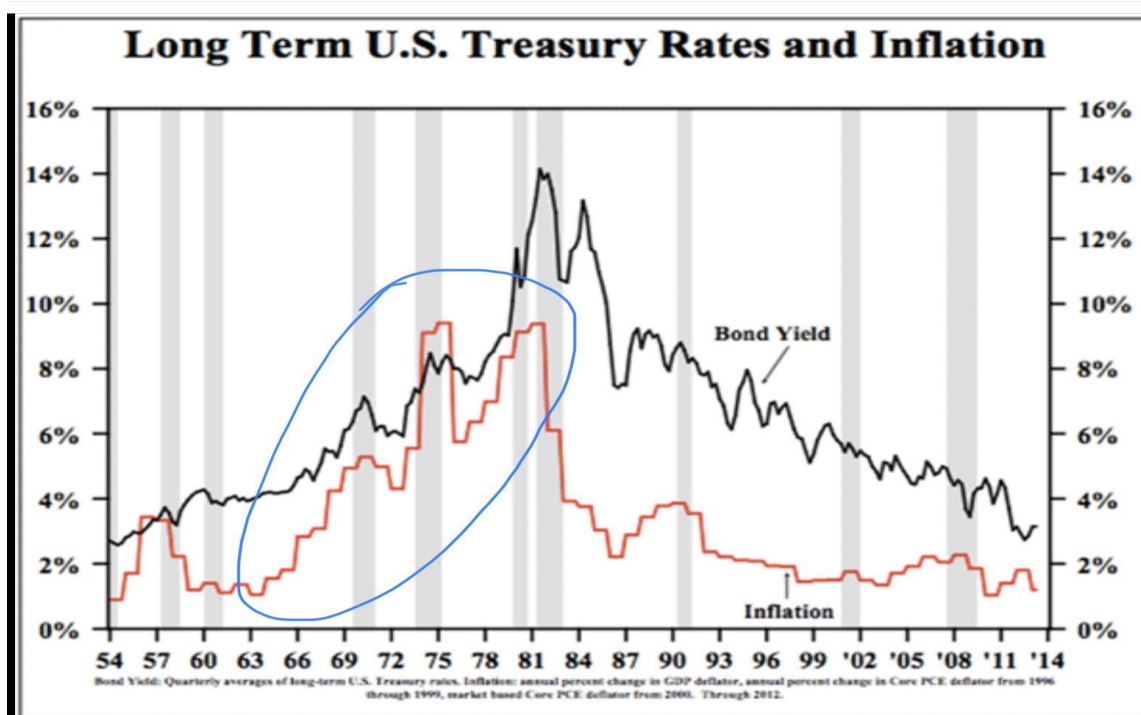
### Barrage Fund

#### Management Report

For the period of January 1<sup>st</sup> to December 31<sup>st</sup> 2021, the S&P/TSX posted a return of 25.04% (including dividends) while the S&P 500 returned 27.62% (in Canadian dollars and including dividends). The Barrage Fund's performance for the same period was 19.02% before fees and 15.68% after fees.

#### Market Commentary

The big topic of the day: inflation. In general, higher interest rates translate to lower valuations for stocks. Should we be overly concerned about this? Let's use an example from the past, the 18-year period when inflation fluctuated between 1% and 10% (and even higher according to some estimates):



Source: marketoracle.co.uk, July 2013

As can be seen, from 1963 to 1981, inflation fluctuated upwards, causing interest rates to rise as can be seen with the black line. The latter represents bond yields. And below is the S&P 500:



Source: *Macrotrends.net*

As we can see, the stock market continued to rise. We can see that several recessions, which are represented by the grey columns, hit the stock market during this time. Therefore, it is not so much interest rates that cause stock market crashes, but rather the recessions that follow.

Rising prices indicate that companies as a whole have raised the price of their products and services. So, although their expenses are increasing (salaries and operating expenses), their revenues are also increasing. This is why we believe that in the long term, companies protect us from inflation.

However, in the short term, it may be quite different. Most recently, the prospect of higher interest rates has been well received by investors in financial companies. Let's take a look at the stock of Bank of America, one of America's largest banks:



Source: Yahoo Finance, Bank of America (BAC)

When interest rates rise, banks generally generate higher revenues. The low rates of recent years have compressed their net interest margins (difference between returns on assets and interest paid on liabilities). A rise in interest rates has the opposite effect.

On the other hand, so-called technology stocks reacted less well:



Source: Yahoo Finance, NASDAQ 100 Technology Sector

However, a significant rise in interest rates could cause a recession, which would be really harmful for financial stocks, like that of Bank of America. Indeed, the rise in interest income would not compensate for the high default rate that we normally see in times of recession. On the other hand, companies that hold a lot of cash with little or no debt will be able to easily withstand a drop in revenues. This is why, despite the short-term reaction in the stock market, we sleep soundly with our stocks. Note that 2010-2019 is the only decade in the entire history of the United States in which we have not witnessed a recession. We don't know when the next one will be, but we are confident in the strength of our holdings.

## Results of our companies

### Netflix

Knowing how to recognize potential where it is not obvious is a quality we find at Netflix. The first evidence comes from Reed Hastings' sense for the potential of online entertainment when Blockbuster refused to buy the company for US\$50 million. Hastings wanted to team up with the rental giant. His company would handle the online division, and Blockbuster, its stores. The fate of the latter might have been completely different today if its CEO had at least "considered" Hastings' suggestion.

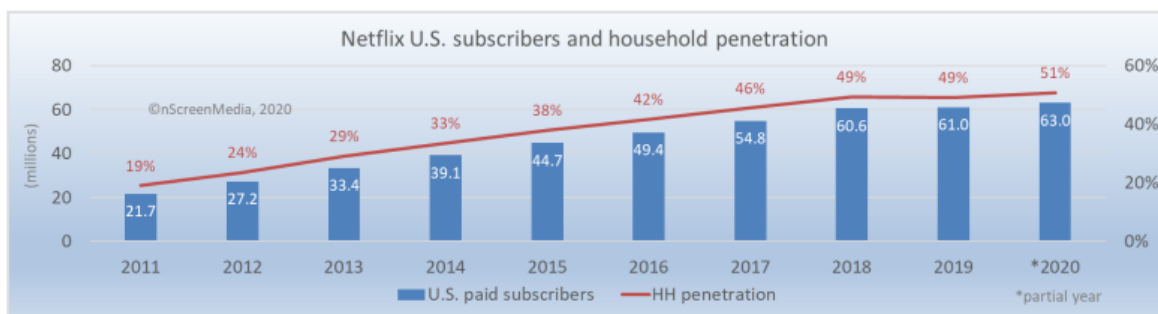
We recently had another example, with the success of Squid Game last October. This South Korean series was viewed by 142 million member households during the first month of its online availability. This is a record for the company. The series ranked number 1 in Netflix's programming in 94 countries, including the United States!

However, the designer of the original idea for this series, Hwang Dong-hyuk, had been trying for 10 years to have his work accepted. He lived with his mother and grandmother, and had to stop writing his script at some point due to lack of money. All the while, local studios were refusing his idea, finding the scenario grotesque and implausible. Netflix had a different view. This "grotesque" series became its greatest success. Note that Dong-hyuk's financial situation has also changed...

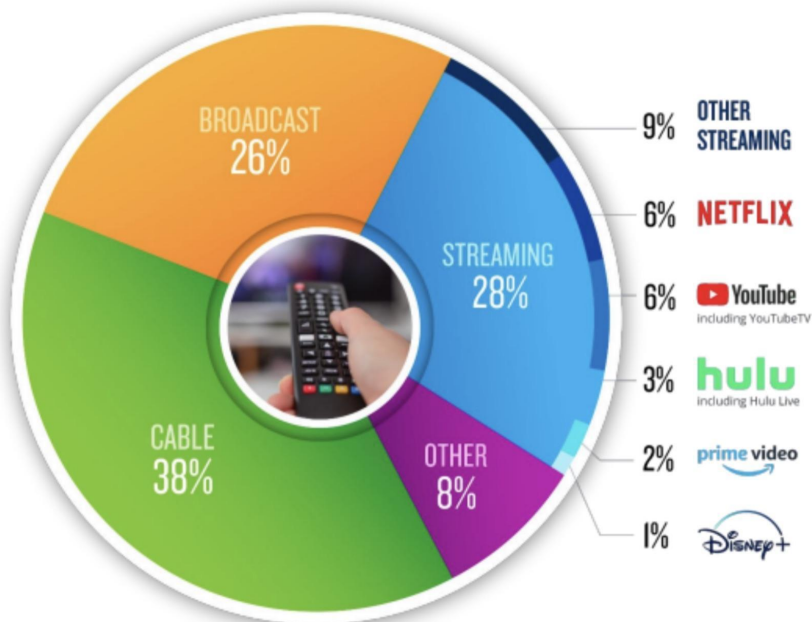
Ironically, the success of the South Korean series provoked strong reactions from the telecommunications company SK Broadband. As one of the largest Internet providers in South Korea, the company is seeking compensation from Netflix for the significant increase in data traffic caused by the popularity of its series.

### Growth Potential

Netflix now has 214M paid memberships, including 74M in the US and Canada. Is there still good growth potential? In the US, the penetration rate is over 50%:



Estimates vary depending on the source, and this rate could be higher. So Netflix is present in many American households. However, according to Nielsen, we can see in the following table that the number of hours devoted to it remains modest compared to the total screen time:

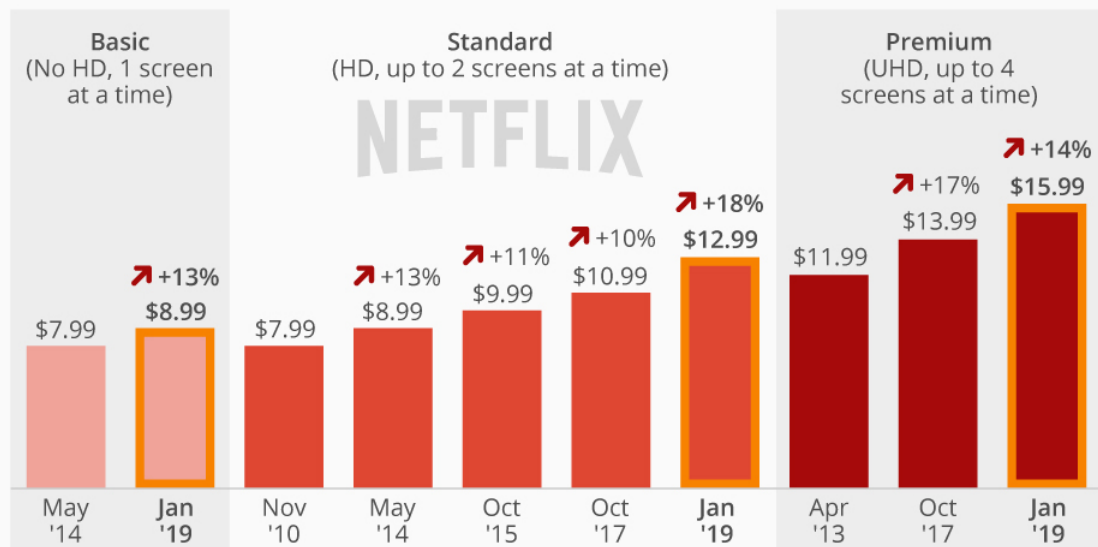


Source: Netflix quarterly letter, September 30, 2021

Streaming represents 28% of the total time, and Netflix, less than a quarter of that portion (6%). When engagement grows, the company can increase its prices. When it does this in the United States and Canada, each additional monthly dollar generates nearly US\$900M in additional revenue. Netflix has done this many times in the past. In the table below from Statista, we can observe here the increases from 2010 to 2019:

## A Brief History of Netflix Price Hikes

Changes in price of a Netflix subscription in the United States\*



\* for new customers; existing customers are usually moved to the new pricing model at a later time

Sources: Company announcements, press reports

statista

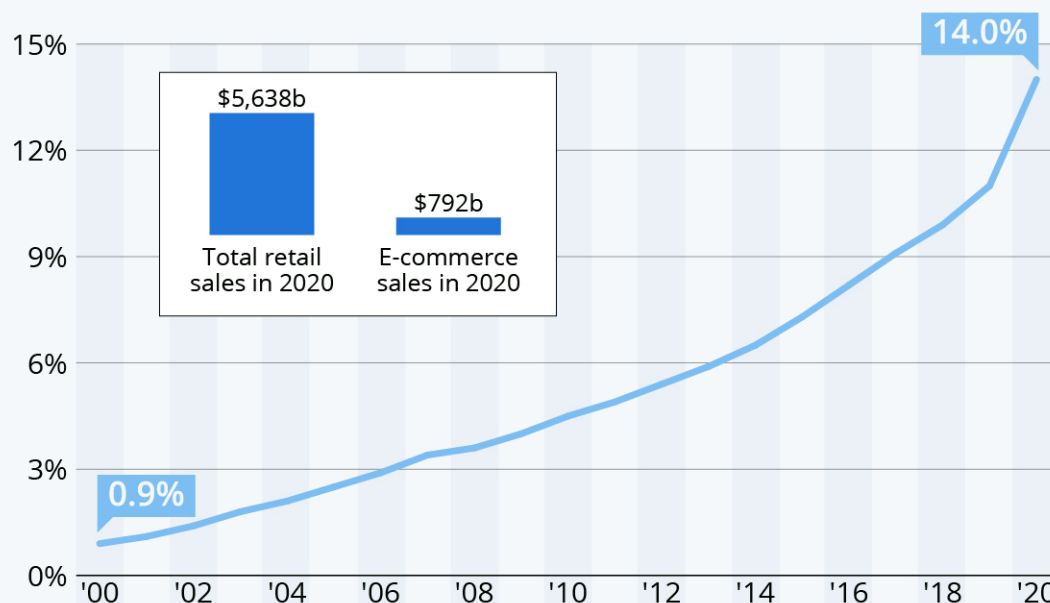
Note that since the time frame above, the company has proceeded with another increase in the United States, towards the end of the year 2020. At the time of finishing this letter, i.e. on January 15, 2022, a further 10% increase has been announced. We believe that price increases are just as important a driver of growth as increasing the number of members.

### Amazon

Unsurprisingly, the company's retail sales growth slowed drastically during the year. The pandemic had boosted online retail sales, as can be seen in this graph, taken from the Statista, and Amazon had benefited greatly from it:

# Pandemic Accelerates Shift to Online Retail

E-Commerce sales as a percentage of total retail sales in the United States\*



\* not seasonally adjusted; excluding food services sales

Source: U.S. Census Bureau



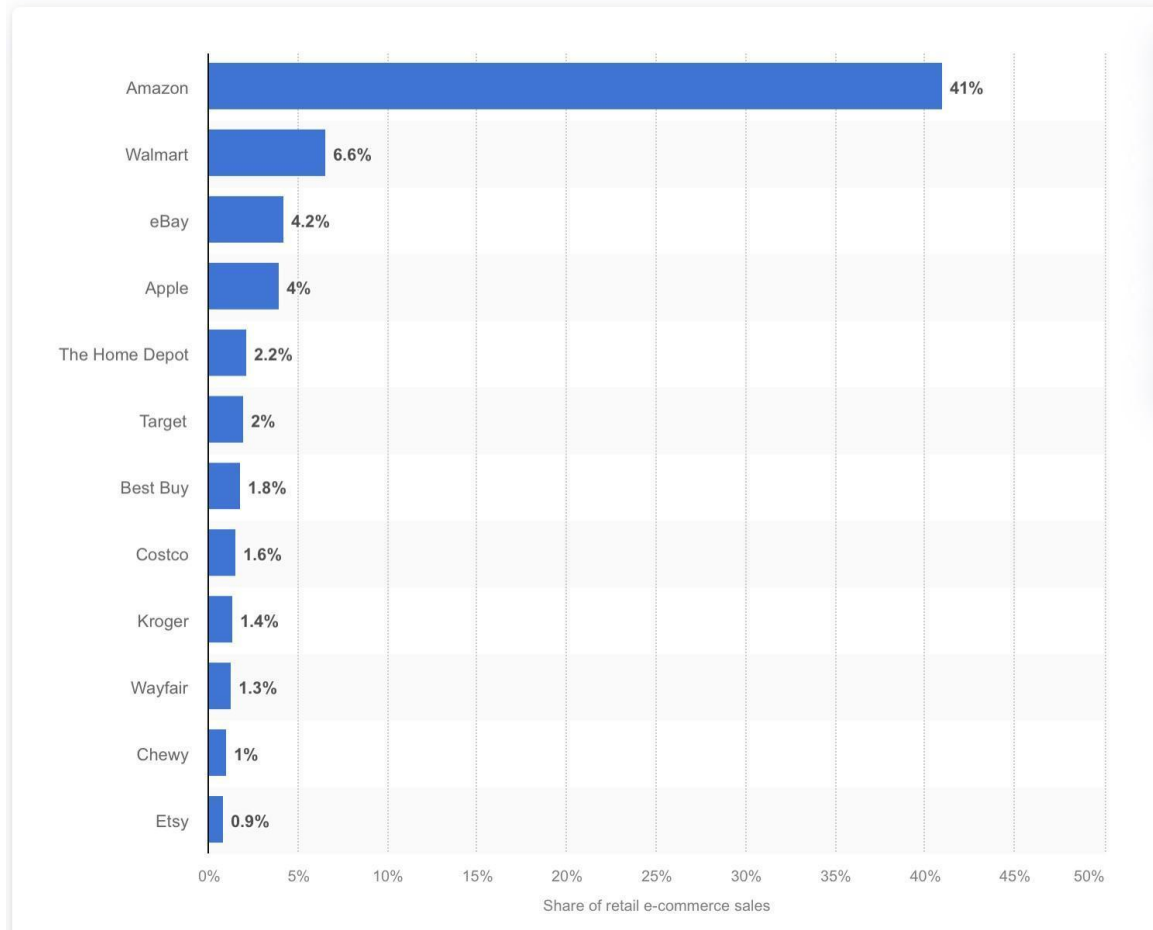
statista

At Amazon, we saw this trend of sales returning to physical locations. For their physical businesses (Whole Food Market and others), there was an increase of 13% in the last quarter, compared to just 3%<sup>1</sup> for online sales.

Amazon separates its sales into three segments: the North American, International and AWS division. In the first quarter of 2021, it announced meteoric growth of 40% and 60% for the first two divisions, respectively. With the tailwind of the pandemic waning, these rates dropped to 10% and 16% in the 3rd quarter, which turned out to be below analysts' expectations. Given Amazon's dominant position in e-commerce (see chart below), we weren't surprised by these large swings.

<sup>1</sup> Online services in the form of subscriptions are excluded from this category. Note that these services increased by 24% during the quarter.

## Market share of leading retail e-commerce companies in 2021



Source: Statista

Besides the slowdown in growth, the increase in spending also contributed to investor disappointment. Operating profits fell 37% in the last quarter, while net profits fell 46%. For the upcoming 4th quarter, management expects profits between US\$0 and US\$3B, compared to US\$6.9B for the same quarter last year. It plans to spend several billion dollars more to deal with the labour shortage, salary increases and supply problems. These forecasts seem to have been poorly received on the stock market.

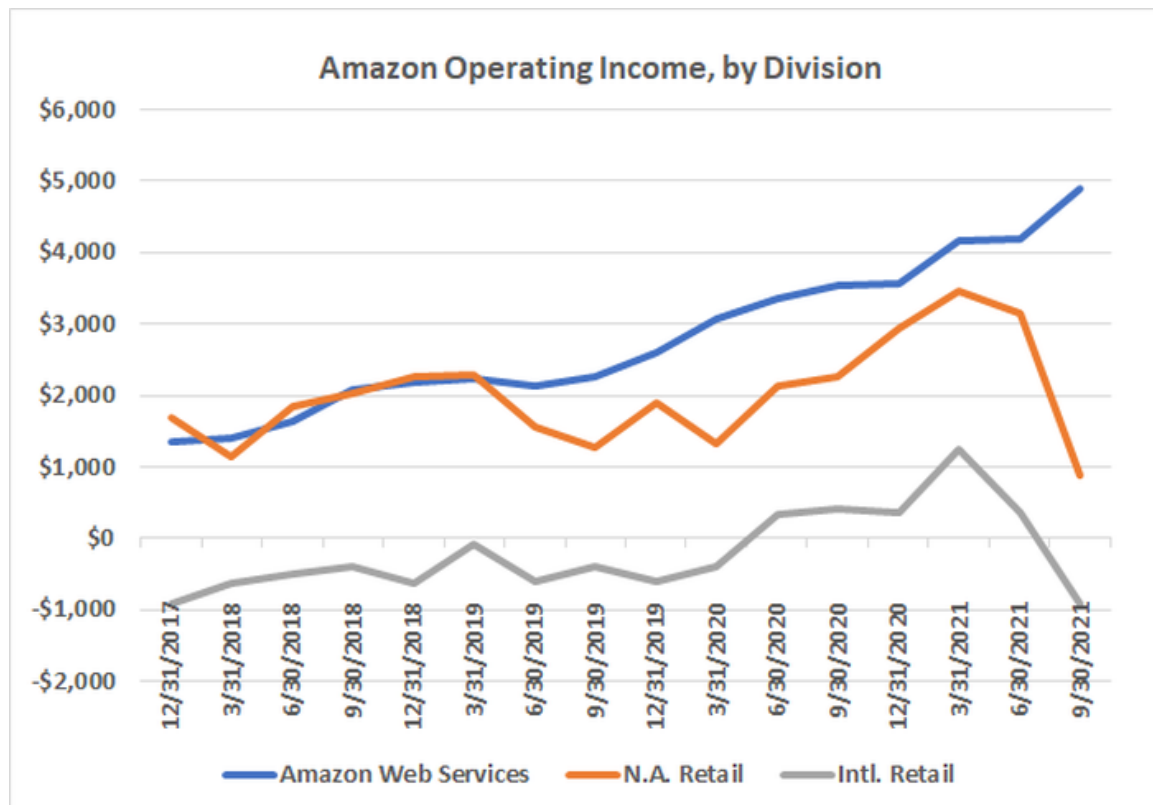
*"We've always said that when confronted with the choice between optimizing for short-term profits versus what's best for customers over the long term, we will choose the latter."*

- Andy Jassy, CEO of Amazon



We believe this is the right strategy for the company. The whole sector is affected, and by investing in this way, Amazon strengthens its competitive position. We like it when management thinks long term. Yet, it seems that during this time the performance of the most interesting division in our opinion, Amazon Web Services, has been somewhat ignored.

We've said in the past that AWS is becoming increasingly important at Amazon. Here's a graph from a recent Motley Fool article:



Source: James Brumley, The Motley Fool, December 2021.

As can be seen over the past four years, AWS profits are growing for Amazon. While growth hovered around 30% for several quarters, the latest results pleasantly surprised us with an increase of 39%! It should be noted that without AWS's operating income of nearly US\$5billion in the 3rd quarter, the company would have recorded a loss for this period.

In our 2021 semi-annual letter, we estimated the value of this division at US\$600 billion. Barely 6 months later, applying the same price-to-sales ratio, we get a value of US\$700 billion, or 40% of the total market capitalization. If sales growth is at least 30% for next year, AWS alone will add 1.8x the equivalent of IBM's total stock market value.

During 2021, the cloud division continued to add large customers, and/or solidify its relationships with them. These include Walt Disney, which uses AWS for Disney+. We also have The Globe and Mail, Swisscom (the largest telecommunications company in Switzerland), Bell Canada, BMO Financial Group, Ferrari and the National Hockey League (NHL).

It's not just the results of AWS that particularly pleased us during the year. Buried in the results of the retail segment is another significant driver of value, advertising, for which we suspect high profit margins for Amazon. Sales grew by 50% in the last quarter, and the annualized amount now reaches more than US\$30 billion. We believe that profits from advertising already significantly exceed those from retailing.

Despite this good news, the stock rose little during the year. It's therefore become more attractive. In a 2018 interview, Jeff Bezos said,

*"When the stock is up 30%, don't 30% feel smarter. Because when the stock is down 30% in a month, it's not going to feel so good to feel 30% dumber. I never spend any time thinking about the daily stock price."*

Like Mr. Bezos, we focus our attention on the intrinsic value of the company, and 2021 has proven to be a good year in this regard.

#### Meta Platforms (formerly "Facebook")

The company posted strong Q3 results, with sales up 35%. However, much more modest growth is expected for the 4th quarter. It should be about half that rate. Apple's new "App Tracking Transparency" is having some impact on advertising sales.

From now on, Meta will separate the results of its advertising sales from those from its products related to virtual reality. Thus, there will be two new segments: Family of Apps and Facebook Reality Labs. For the latter, major investments are planned, which will cause a decrease in operating profits of US\$10 billion according to their calculations. Also, its founder Mark Zuckerberg does not mince words: they will invest for the long term, but the revenue will take a while to materialize. There is even talk of possibly waiting until the end of the current decade before seeing any significant results.

Mr. Zuckerberg is thinking long term. He is only 37 years old, and describes himself as a person who is passionate about his projects. These words were spoken a few years ago before a university audience:

*"Ideas don't come out fully formed. They only become clear as you work on them. You just have to get started... Purpose is that sense that we are part of something bigger than ourselves, that we are needed, that we have something better ahead to work for. Purpose is what creates true happiness."*

When Mr. Zuckerberg discusses the future of the Metaverse as he does these days, we can feel his passion. He has a vision, and he is willing to work for several years even if the results will not be felt in the short term. Unsurprisingly, he doesn't seem to be the only one to embrace this vision, which brings us to the next stock.

## Microsoft

The pandemic has transformed the world of work. Unable to meet in person, companies have turned to technology more than ever to keep their employees connected and collaborating. Workers were able to demonstrate that they could remain effective despite lacking proximity. So companies are now open to the idea of investing in tools that promote remote collaboration. Obviously, Microsoft has an advantageous position in this sector, with its cloud (Azure) and its many integration tools optimized for the workplace.

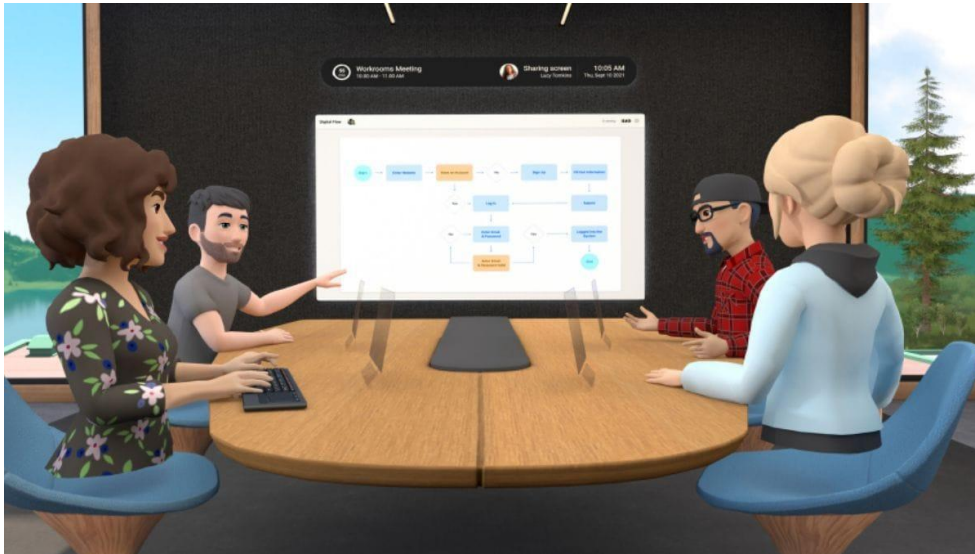
Last fall, Microsoft announced that Teams, its collaborative communication application platform, would be integrated into Mesh. Thus, the user will be able to use an avatar in a virtual three-dimensional environment, while benefiting from the functionalities of Teams. Consequently, they will not feel out of place, and will be able to participate in meetings, integrate into a new job or attend presentations. All of this can be done with a custom avatar. Microsoft expects the Teams application to have access to Mesh in the first half of 2022.

### Mesh for Teams (Microsoft)



*Taken from the Inventiva site. Author of the article: Prangya Barik, November 5, 2021*

## Horizon Workrooms (Meta/Facebook)



*Credit: Meta Platforms*

This initiative is exactly in line with that of Mark Zuckerberg at Meta. Microsoft uses its HoloLens glasses, and Meta, Oculus Quest. The competition between the two companies has intensified since last year. According to a recent Wall Street Journal article, Microsoft has lost about 100 employees to Meta, which is actively hiring. However, it should be noted that Microsoft still has a head start in the field of augmented reality.

The results for the last quarter (September 30) were excellent. Revenues and earnings per share rose 22% and 25% respectively. Sales of Azure, the cloud division, jumped 50% (compared to 39% for AWS at Amazon). LinkedIn continued its impressive ascent, rising 42%.

Microsoft is the second-largest company by market capitalization, behind Apple. Despite its size, the potential for growth is still present, thanks to its great diversification and its positioning in sectors favoured by the digital revolution.

## Spotify

Like Mr. Zuckerberg, Spotify's founding leader, Daniel Ek, is just as young, at 38 years old. His net worth is said to be around US\$4 billion, thanks to his stake in the company. We like when executives' interests are aligned with those of shareholders, especially when their incentives are long-term. It's hard to beat direct ownership of shares, as opposed to simply issuing options that clearly benefit executives at the expense of shareholders. This is even truer when they hardly take a salary (which is his case!)

However, Mr. Ek did indeed use options on several occasions, but in a totally unique way. On August 23, 2021, he invested 31 million euros (US\$36.5M) to acquire warrants (the equivalent of long-term call options) allowing him to buy shares at US\$281.63 each. At the time, the stock was trading at \$221.50. These warrants expire on August 23, 2024. The cost was US\$45 per share. To better understand, we can compare Ek's actions with the common practice of the business world.

What normally happens in the world of public corporations? Executives issue options at a strike price close to the market price. Mr. Ek obtained options that will start to be profitable at only \$282. He must therefore concede the first 27% of winnings.

How much do such options cost managers in normal times? Zero dollars. Indeed, they are part of their total remuneration. So if all goes well, the leaders make a lot of money. Otherwise, they lose nothing. Only shareholders pay the costs! In Ek's case, he paid \$45 per share to obtain this right. Therefore, the shares must rise above \$327 before they are profitable. In other words, if the stock does not rise by at least 48%, Ek will have paid \$45 for nothing.

Skeptics might argue that the timing was right to buy these warrants. After all, the stock had a 2021 high of \$365, compared to \$221 when he bought the warrants a few months later. We therefore compared the warrants to the options available to the general public on the Chicago Board Options Exchange, and found that, taking into account the premiums and the time to expiration, the prices turned out to be comparable. Our conclusion is unequivocal: the chief executive of Spotify fully believes in the future of his company!

As for the results of the last quarter, we were pleasantly surprised by advertising revenues, which grew by 75%. Daniel Ek has often discussed his strategy for growing podcasts, where revenue comes from advertising, while the majority of music streaming revenue comes from monthly subscriptions. The advertising segment holds a lot of potential, and we are confident that over time operating margins will be significantly higher than what we are witnessing in music.

## Alphabet and Airbnb

Alphabet reported revenue up 41% in the September 30 quarter, while earnings per share rose 70%. The company now has US\$128 billion net cash on its balance sheet.

As for Airbnb, we started to take a position in this company during the summer. This company is the largest lodging rental platform. It allows anyone to rent their house, apartment or cottage, for stays of varying lengths. So far, there are about 4 million hosts.

We admire its founder and CEO, Brian Chesky. The company is taking advantage of a new trend in long-term rentals (28 days and more). Unlike hotels, rented houses or apartments have more amenities and facilities to accommodate longer stays. With remote work becoming increasingly popular, the company has seen a rise in stays of 28 days and longer. This category accounts for 20% of gross nights booked, compared to 14% for the same period in 2019.

We wish all our clients an excellent year in 2022.

Sincerely,



Patrick Thénier



Rémy Morel



Mathieu Beaudry



Maxime Lauzière