barrage capital

August 29, 2023

2023 Semi-Annual Letter

Barrage Fund

Management report

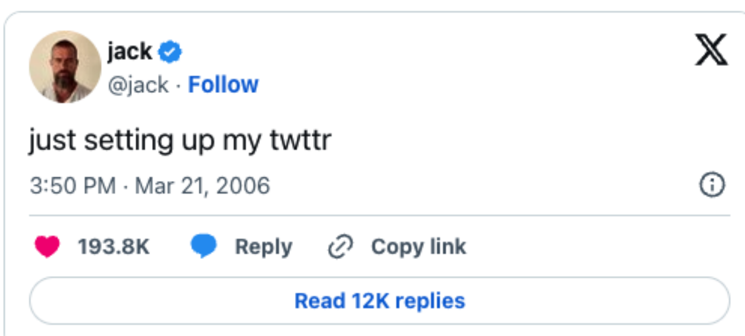
For the period of January 1st to June 30th 2023, the S&P/TSX index posted a return of 5.71% (including dividends) while the S&P 500 generated a return of 14.16% (in Canadian dollars and including dividends). The return of the Barrage Fund for the same period was 64.49% before fees and 63.55% after fees.

Market Commentary

To begin this letter, we would like to share with you an interesting narrative that has transpired over the past few years.

In 2021, NFTs (Non-Fungible Tokens) experienced a significant increase in popularity. These digital collectibles can be any virtual item, such as pictures, tweets, sports cards, music, and the like. Behind each NFT is a unique numerical identifier that buyers can acquire ownership of.

Take the example of the very first tweet on Twitter (or now “X”).



This simple tweet was posted by one of the platform's founders, Jack Dorsey. In 2021, an investor acquired ownership of it for $2.9M. Although it is possible to access this tweet with a few clicks on the internet, this buyer had the “original code” of the NFT, giving them ownership. Just as you are probably thinking, we don't get the point either!

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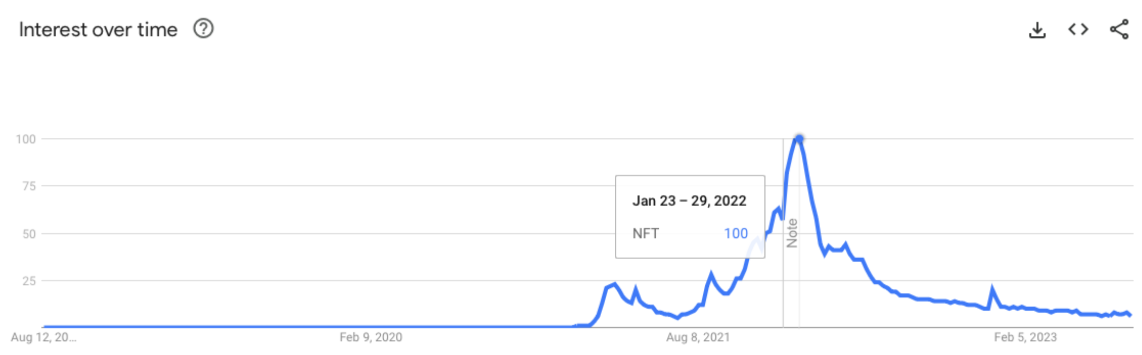
The new owner of the tweet hoped to resell it in 2022, for $48 million. However, according to the site *Brobible*, the top bid was a modest sum of…$280! The popularity of NFTs peaked in January 2022 and is now at its lowest since July 2021. The graph below shows how often the term 'NFT' was searched on Google:



Source: Google Trends

This is an interesting story to keep in mind when you hear about new investment trends. As value investors, we aim to take advantage of market anomalies created by short-term events to buy securities at a discount. However, we prefer to stay away from assets whose value we do not understand, even if a certain subject is "trendy".

We're hearing a lot about artificial intelligence (AI) right now, a topic we covered in our 2022 annual letter. According to BNN Bloomberg, for the 2nd quarter of this year, AI was mentioned more than 390 times in company conference calls as of July 28, 2023 compared to 92 times for the same period last year.

Is this a speculative bubble or a fundamental change in companies? The significant investments in this technology suggest an opportunity to improve the services and products offered by companies. For example, the artificial intelligence system *Bard* by Google could improve the search experience of its users. Recently, the companies in our portfolio have benefited from the rise in popularity of artificial intelligence and are well positioned to continue developing this technology.

Certainly, it is easier to assign a value to artificial intelligence, which will most likely have a positive impact on the activities of a company, than to try to evaluate the code of a pixelated image. The image below sold for $10.3M in 2021!

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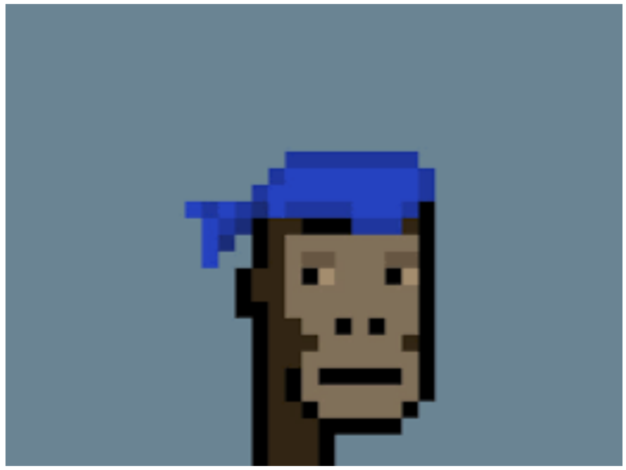

Source: Insider

Results of our companies

Netflix

(in millions except per share data)	Q2'22	Q3'22	Q4'22	Q1'23	Q2'23	*Q3'23 Forecast*
Revenue	$7,970	$7,926	$7,852	$8,162	$8,187	$8,520
Y/Y % Growth	*8.6%*	*5.9%*	*1.9%*	*3.7%*	*2.7%*	*7.5%*
Operating Income	$1,578	$1,533	$550	$1,714	$1,827	$1,890
Operating Margin	*19.8%*	*19.3%*	*7.0%*	*21.0%*	*22.3%*	*22.2%*
Net Income	$1,441	$1,398	$55	$1,305	$1,488	$1,580
Diluted EPS	$3.20	$3.10	$0.12	$2.88	$3.29	$3.52
Global Streaming Paid Memberships	220.67	223.09	230.75	232.50	238.39	
Y/Y % Growth	*5.5%*	*4.5%*	*4.0%*	*4.9%*	*8.0%*	
Global Streaming Paid Net Additions	-0.97	2.41	7.66	1.75	5.89	
Net cash provided by operating activities	$103	$557	$444	$2,179	$1,440	
Free Cash Flow	$13	$472	$332	$2,117	$1,339	
Shares (FD)	450.2	450.3	451.6	452.4	451.6	

Source: Netflix Letter to shareholders, 2nd quarter 2023

Revenue growth was only 2.7%, but 6% in constant currencies. The company has stood out in the last two quarters with particularly strong cash flow, as we witness tighter control on content spending. Despite this reduction in spending, Netflix remains the leader in content production dedicated to online distribution.

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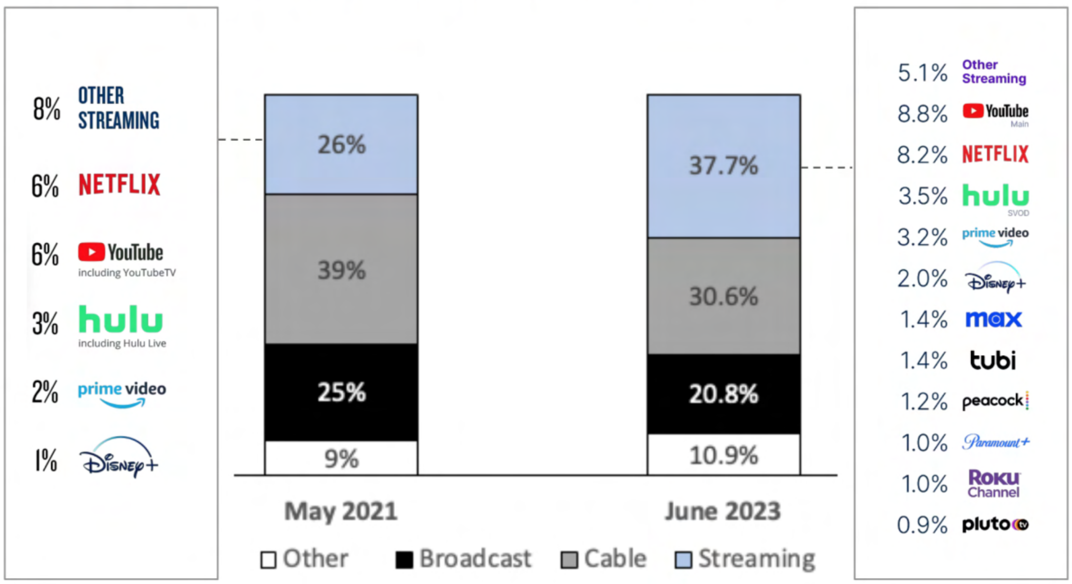
The number 2 player, Disney+, posted subscription growth of 1%, alongside a loss of US$512 million in the second quarter. Paramount Global is in a similar situation, their Paramount+ service increased subscriptions by 1% over the same period.

Despite these weak results, the industry is continuing its transition, with streaming now accounting for 38% of viewing time in the United States, of which 8.2% and 8.8% are attributable to Netflix and YouTube respectively.

Nielsen's The Gauge: Share of US TV Screen Time, Total Day, Persons 2+



Source: Netflix Letter to shareholders, 2nd quarter 2023

As for advertising revenues, they are not yet significant for the company. Management seems confident about the long-term potential, and is even looking to steer its new customers in this direction. During the 2nd quarter, Netflix eliminated its basic subscription only plan in Canada for new customers, forcing future members to either opt for an ad-supported plan, or adopt a more expensive standard plan. This initiative is also being rolled out in the United States and the United Kingdom.

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Microsoft

Selected Product and Service Revenue Constant Currency Reconciliation

	Three Months Ended June 30, 2023		
	Percentage Change Y/Y (GAAP)	Constant Currency Impact	Percentage Change Y/Y Constant Currency
Microsoft Cloud revenue	21%	2%	23%
Office Commercial products and cloud services	12%	2%	14%
Office 365 Commercial	15%	2%	17%
Office Consumer products and cloud services	3%	3%	6%
LinkedIn	5%	2%	7%
Dynamics products and cloud services	19%	2%	21%
Dynamics 365	26%	2%	28%
Server products and cloud services	17%	1%	18%
Azure and other cloud services	26%	1%	27%
Windows OEM	(12)%	0%	(12)%
Windows Commercial products and cloud services	2%	1%	3%
Xbox content and services	5%	1%	6%
Search and news advertising excluding traffic acquisition costs	8%	0%	8%
Devices	(20)%	2%	(18)%

Source: Microsoft website

Microsoft sales increased 7% (10% in constant currencies). However, effective expense control boosted operating profits by 15% (in constant currencies). Azure, the cloud division, grew its sales by 23% last quarter, almost twice as fast as its rival AWS (Amazon). As for ChatGPT, it will be some time before we see the full benefits of this recent initiative.

We still like this company's competitive strength and revenue diversity, but after a 45% rebound from the stock's low in 2022, we find the valuation less attractive. We have therefore reduced our position in the portfolio somewhat.

Amazon

Total Amazon sales grew 11% in the second quarter. Its online retail division recorded a more modest growth of 5%. The entire industry is currently experiencing a slowdown. Walmart experienced a revenue increase of only 5.7% in the 2nd quarter. As for Target, sales fell 4.9%, and its online sales in particular were down 10.5%.

AMAZON.COM, INC.
Segment Information
(in millions)
(unaudited)

	Three Months Ended June 30, 2022	Three Months Ended June 30, 2023	Six Months Ended June 30, 2022	Six Months Ended June 30, 2023
North America				
Net sales	$ 74,430	$ 82,546	$143,674	$159,427
Operating expenses	75,057	79,335	145,869	155,318
Operating income (loss)	$ (627)	$ 3,211	$ (2,195)	$ 4,109
International				
Net sales	$ 27,065	$ 29,697	$ 55,824	$ 58,820
Operating expenses	28,836	30,592	58,876	60,962
Operating loss	$ (1,771)	$ (895)	$ (3,052)	$ (2,142)
AWS				
Net sales	$ 19,739	$ 22,140	$ 38,180	$ 43,494
Operating expenses	14,024	16,775	25,947	33,006
Operating income	$ 5,715	$ 5,365	$ 12,233	$ 10,488

Source: Amazon Q2 2023 Earnings

Here is an interesting fact: the North American retail division contributed 42% of total profits. Normally, AWS makes up the majority of the company's profits. We suspect a growing contribution of advertising, which generated revenues of US$10.7 billion in Q2, 22% more than last year.

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023
Net Sales						
Online stores (1)	$ 51,129	$ 50,855	$ 53,489	$ 64,531	$ 51,096	$ 52,966
Online stores -- Y/Y growth (decline), excluding F/X	(1)%	0 %	13 %	2 %	3 %	5 %
Physical stores (2)	$ 4,591	$ 4,721	$ 4,694	$ 4,957	$ 4,895	$ 5,024
Physical stores -- Y/Y growth, excluding F/X	16 %	13 %	10 %	6 %	7 %	7 %
Third-party seller services (3)	$ 25,335	$ 27,376	$ 28,666	$ 36,339	$ 29,820	$ 32,332
Third-party seller services -- Y/Y growth, excluding F/X	9 %	13 %	23 %	24 %	20 %	18 %
Subscription services (4)	$ 8,410	$ 8,716	$ 8,903	$ 9,189	$ 9,657	$ 9,894
Subscription services -- Y/Y growth, excluding F/X	13 %	14 %	14 %	17 %	17 %	14 %
Advertising services (5)	$ 7,877	$ 8,757	$ 9,548	$ 11,557	$ 9,509	$ 10,683
Advertising services -- Y/Y growth, excluding F/X	25 %	21 %	30 %	23 %	23 %	22 %
AWS	$ 18,441	$ 19,739	$ 20,538	$ 21,378	$ 21,354	$ 22,140
AWS -- Y/Y growth, excluding F/X	37 %	33 %	28 %	20 %	16 %	12 %
Other (6)	$ 661	$ 1,070	$ 1,263	$ 1,253	$ 1,027	$ 1,344
Other -- Y/Y growth, excluding F/X	28 %	135 %	168 %	80 %	57 %	26 %

Source: Amazon Q2 2023 Earnings

The tight control of expenses related to distribution centres should also be emphasised. As of June 30 of last year, fulfillment costs had increased by 15% while revenues had

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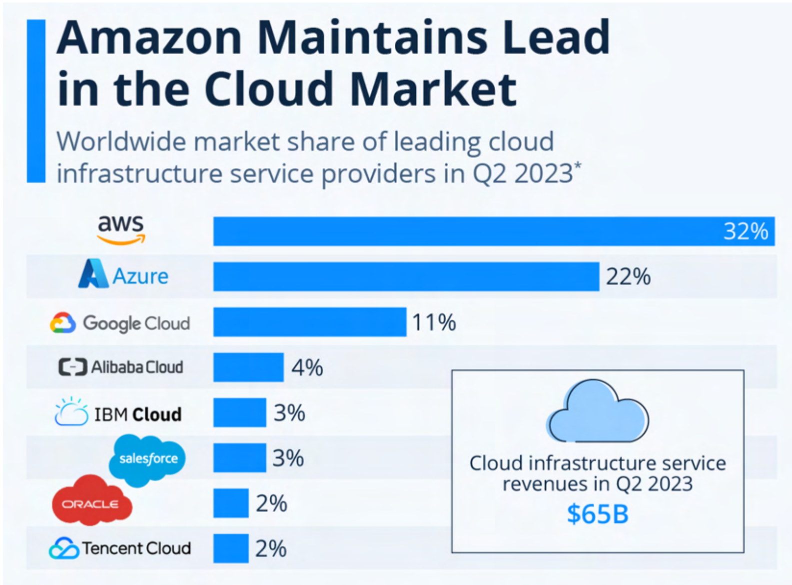
fallen by 2.5%. The scenario is very different in the recent quarter: an increase of only 5% for fulfillment costs, thus supporting the positive profit result.

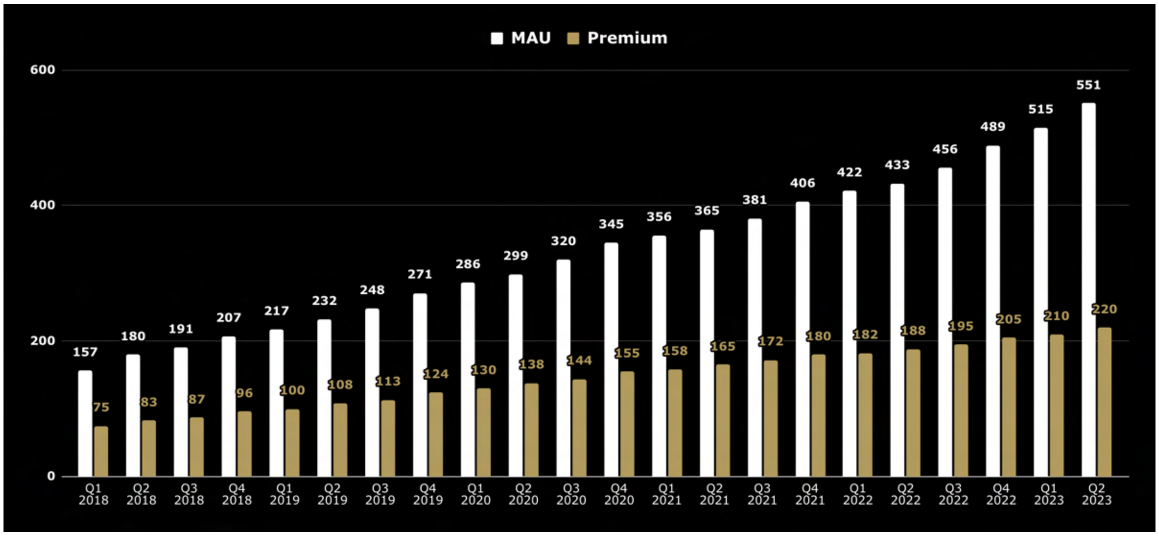


Source: [Statesman]

AWS, despite its more modest growth, continues to lead the industry, with 10% more market share than its closest rival, Azure.

Spotify

User growth continues at Spotify. In the first quarter of 2023, the number of monthly active users on the music platform exceeded half a billion, and numbered more than 551 million in the second quarter. This represents a 27% increase year over year.



Premium users grew by 17% compared to last year to reach 220 million. For the first time in 12 years in many of its markets, Spotify recently announced a price increase for its premium service. In Canada, depending on the package, prices will increase by $1 or $2. On its website, the company states:

"So that we can keep innovating, we are changing our Premium prices across a number of markets around the world."

However, given that the price increases will take place at the next renewal of subscriptions, the effects of this increase will be reflected in the financial statements for the 4th quarter of 2023.

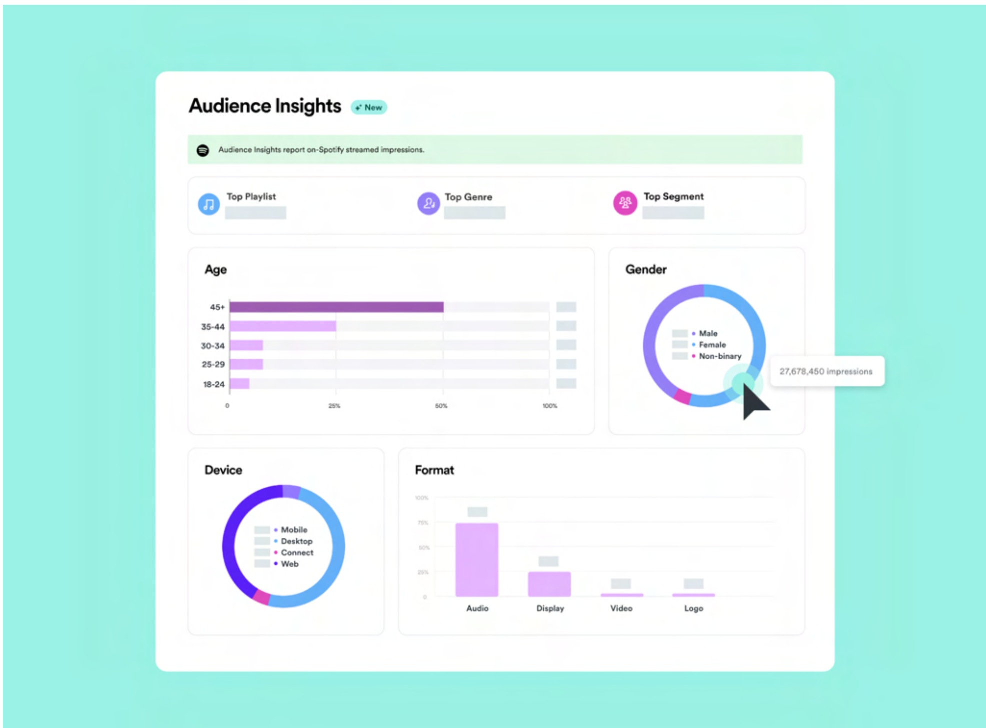
A new competitor joined the audio market last July, TikTok Music. Launched by the Chinese company ByteDance, this service works in synchrony with the Tiktok app. However, the platform is only available in Indonesia, Brazil, Australia, Singapore and Mexico. Although Tiktok has a large pool of users who can potentially use this new service, it can be difficult to switch music services when all your playlists are already established on a certain platform. Additionally, as Jonathan Woo, an analyst at Phillip Securities puts it:

"There really is not that much incentive to switch services for users already on Spotify or Apple Music as brand loyalty amongst users on these premium incumbent platforms is also very strong."

Also,TikTok Music is not available for free, which may discourage many from joining this platform. As seen at Spotify, the free service with ads is the most popular offer for listening to music. Although TikTok Music does not appear to pose a major threat to

Spotify and the audio market in general, we will continue to monitor developments on the platform.

During the first half of 2023, we were pleasantly surprised by Spotify's developments in advertising features. The company launched Spotify Ad Analytics last June, which allows advertisers to assess the performance data of their advertisements.



Source: [Spotify Advertising]

By giving more useful information to advertisers, they will be able to adjust their advertisements in order to increase conversion rates. Thus, more and more companies could be attracted by audio advertising, leading to an increase in advertising demand. This will reduce the amount of ad space available and drive up the prices to advertise. The company will therefore be able to benefit without additional costs.

Meta

It has been an important first half of the year for Meta, not only because of the stock price which has rallied 154% at the time of this writing, but also for its notable announcements and results.

On June 1, 2023, just before Apple's event, Meta unveiled its new virtual and mixed reality headset, the Quest 3.

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Source: Meta

This is one more step in the direction of getting mixed reality glasses. This new headset has several cameras, allowing the user to interact with his environment. At a price of $690 CAD, the Quest 3 is much more affordable than the Apple Vision Pro, announced just days after the announcement of the Quest 3. Apple's new product will retail for $4,700 CAD! Certainly, the Vision Pro is of exceptional quality and will integrate perfectly with iOS devices, but its price represents too great an obstacle for the majority of the population, especially since a VR headset is not currently a necessity. Meta is therefore in a very good position to attract new users to its ecosystem.

Last July, we witnessed the launch of the new platform Threads by Meta. This new social network competes directly with X (formerly Twitter).

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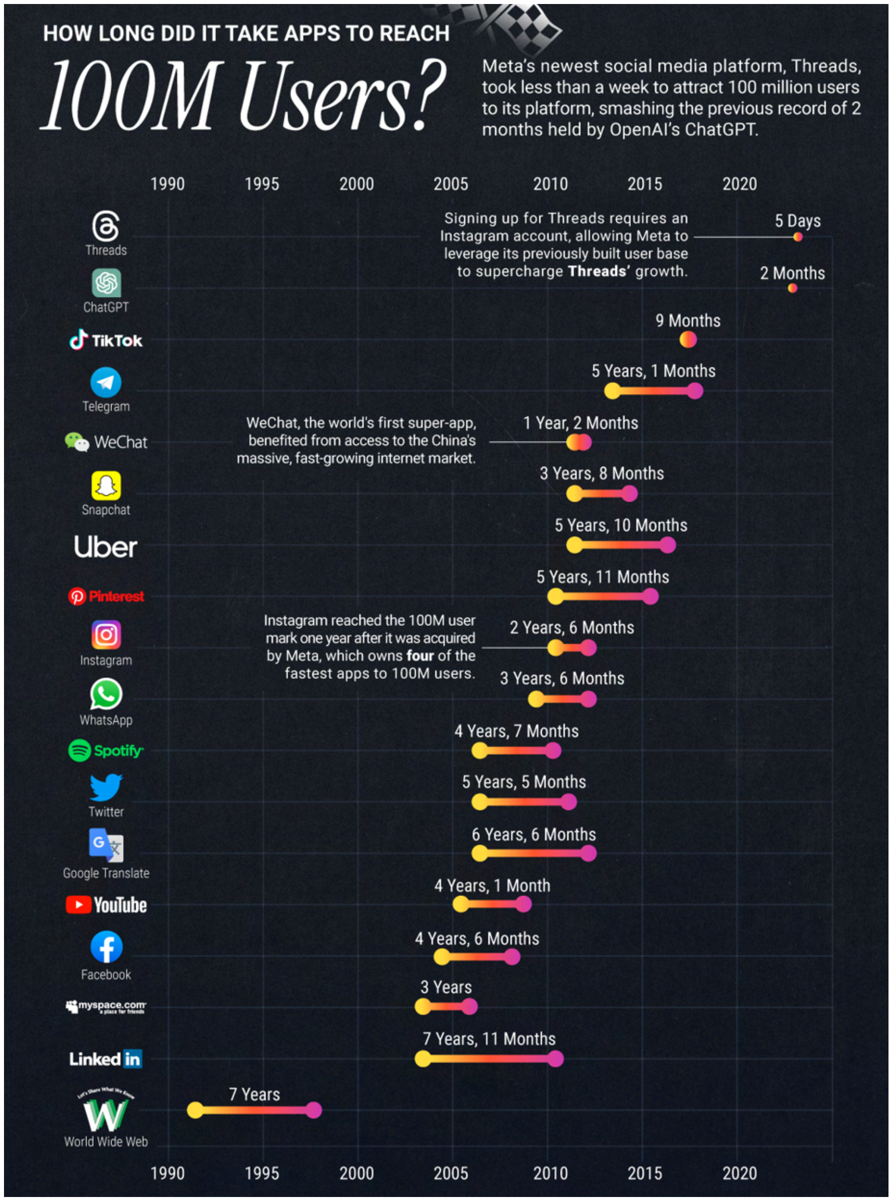


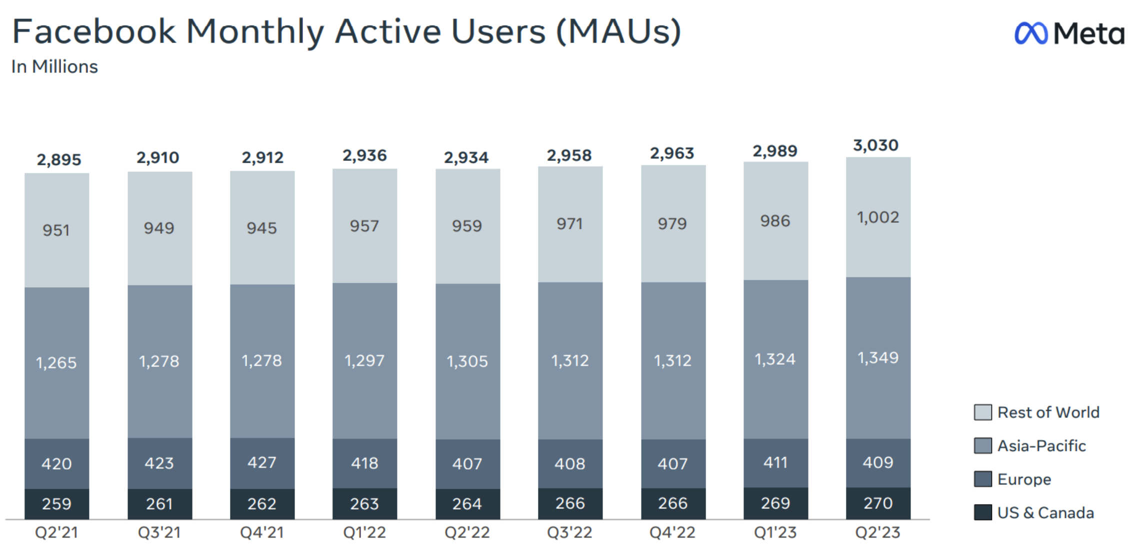
Source: [*Visual Capitalist*]

The graph above clearly demonstrates the power of network effects. To join Threads, users had to log in from an Instagram account. In just 5 days, the new social network reached 100 million users, unheard of in the history of online platforms.

In the early days of Threads, companies that published on the new platform reportedly experienced stronger engagement on their content compared to X. For example, according to *Business Insider*, Red Bull saw 23 times more likes on a certain post on Threads compared to X, despite the company currently having 85% fewer followers on the new platform.

However, the novelty waned in July which, according to [Forbes](), saw engagement dropped by 70%. Indeed, the platform does not yet have all the features that a user might be looking for, such as a place to track news in real time (especially with the use of *hashtags*). This is still a very good start, for an application that was created by only a few dozen people (as you might recall, this is Meta's year of efficiency). In the long term, we'll be keeping an eye on user engagement and establishing whether the application has significant potential to contribute to revenue.

The Facebook platform reached another milestone in Q2 2023, exceeding 3 billion monthly active users, more than a third of the world's population.



Source: [Facebook earnings presentation]()

The company continues to see increased engagement with its Reels product, the short video platform competitor to Tiktok. On the Q2 2023 earnings conference call, Mark Zuckerberg pointed out that there are over 200 billion Reels being watched every day on the Facebook and Instagram platforms. In the past 12 months the company has generated $10 billion from Reels ads.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenue:				
Family of Apps	$ 31,723	$ 28,370	$ 60,029	$ 55,583
Reality Labs	276	452	616	1,146
Total revenue	$ 31,999	$ 28,822	$ 60,645	$ 56,729
Income (loss) from operations:				
Family of Apps	$ 13,131	$ 11,164	$ 24,351	$ 22,647
Reality Labs	(3,739)	(2,806)	(7,732)	(5,766)
Total income from operations	$ 9,392	$ 8,358	$ 16,619	$ 16,881

Source: [2nd quarter 2023 results]()

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Reality Labs, the division in which Zuckerberg is investing heavily for the metaverse, posted a loss of US$7.7 billion over 6 months, representing 32% of operating profits. Therefore, the company turns out to be much more profitable than the final published results. Management could decide to significantly reduce expenses in this category. Without this loss, over the same period, profits would have been 46% higher.

Considering Meta's excellent balance sheet, spending discretion and competitiveness, which has improved lately, we find its valuation still attractive, despite the share price appreciation of the last few months.

Alphabet

Of our three companies offering cloud services, Google Cloud is the fastest growing for the first six months of 2023, jumping 28% from last year. Profits of $395M were published, compared to $191M for the first three months of the year. This is therefore the second quarter for which this division is generating profits. We believe that it will continue to make an increasing contribution to the company's growth.

Youtube's results, meanwhile, reflect the downturn in the digital advertising industry. Revenues rose just 4% year on year last quarter. For comparison, Snap saw its revenue decrease by 4% over the same period.

Overall, the emphasis on reducing expenses seems to have paid off: profits rose by 15%. In the context where the company is investing heavily in artificial intelligence, especially in Bard, such an increase in profits is remarkable.

Finally, as of this writing, the city of San Francisco has just given self-driving vehicle makers more rights, favoring Alphabet's smart car division, Waymo. Robot-taxis can now offer paid travel services at all times. Previously, the city imposed limits with respect to territory and pricing.

Airbnb

Despite rising interest rates, the travel industry shows no signs of letting up. The company's revenues increased by 19% (in constant currencies) in the 2nd quarter. At the start of 2021, the platform had 4 million hosts. Just two years later, that number has grown to 7 million.

Management continues to innovate to pursue its growth, with the recent creation of Airbnb Rooms. The average price of $67 per room rented is significantly lower than the average price of a hotel room. Management estimates that for every $1 spent on Airbnb, people spend $10 on hotels, offering great potential for growth.

Airbnb is a platform that connects hosts (those who rent their homes) and guests (those who stay in those homes), and the company collects an average of 14% of the transaction price. Like other companies that use platforms to grow their business, it benefits from a business model that requires little capital. In the last quarter, Airbnb showed a modest US$9M in capital expenditures, compared to US$2.5B in revenue and US$650M in profits. It is quite the opposite for hoteliers, who own and maintain their infrastructure.

With so little capital expenditure, one might think that cash flows are particularly reliable for assessing the profitability of this type of business model. Airbnb has generated US$2.3B in profits over the last twelve months, but US$3.9B in "free" cash flow, and management is quick to point this out. However, we have reservations about this figure.

In recent years, a growing number of high-growth companies have used stocks and options to pay their employees. This allowed them to avoid shelling out large sums of money for salaries. For example, Airbnb was able to add over $1 billion a year to its cash flow through this kind of compensation.

In a context where a company constantly needs financing to grow and create value, the systematic issuance of shares may be justified. The key is to create more shareholder value than the dilution created by the higher number of shares outstanding. This practice has allowed many companies to record losses year after year, waiting to reach a critical mass. They were not short of money since one of their largest expenses was paid by the issuance of shares creating a big disparity between profits and cash flow. Snap, for example, continues to mount significant losses, with a US$1.3B deficit over the past 12 months, against US$250M in positive operating cash flow. The US$1.4 billion in compensation costs that it did not have to pay to its employees made the difference.

We understand the usefulness of this scheme for a company whose survival depends on it. However, many of them have reached a point where this is no longer necessary, and are resorting to share buybacks to cancel out the dilutive effect of such compensation. In doing so, operating cash flow can become particularly misleading. Imagine an employer who, instead of paying $1500 a week, pays his employee the equivalent of $1500 in stock. He turns around and immediately buys $1,500 worth of stock, to avoid diluting the stock he just issued. In the end, it is as if he had simply paid his employee in cash.

In public companies, this anomaly is observed when the company buys back its shares at the same time as it makes massive use of equity compensation. The Trade Desk is a good example, with compensation up to 28% of its revenue. For Airbnb, it's 11.5% of revenue. While we understand the usefulness of this compensation in attracting and retaining the best employees in the industry, when combined with a stock buyback, it

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invalidates the relevance of mentioning operating cash flow. Obviously, they will often be significantly higher than profits, potentially influencing investor perception. This is why we must focus on profits above all.

In conclusion, we like Airbnb's business model and management. We are confident about its long-term prospects. Our weighting is lower than for our other securities, mainly due to valuation.

Conclusion

The annual meetings of Barrage Fund unitholders held in Montreal and Quebec City at the end of May were a great success and the Barrage Capital team was delighted to meet you in person.

Like last year, this fall we are going to carry out the annual regulatory campaign to update your investor profiles.

Sincerely,

Patrick Thénière

Rémy Morel

Mathieu Beaudry

Maxime Lauzière

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