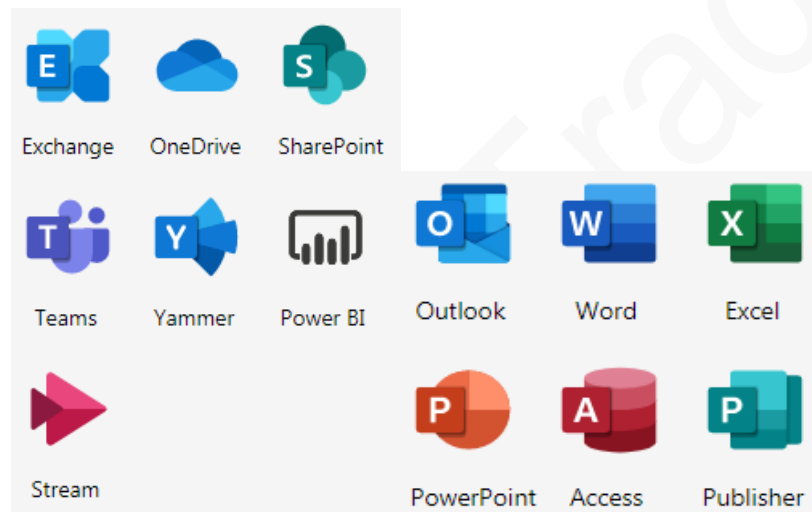


Microsoft: Overvalued or Just Getting Started

An old company that has seemingly transformed itself into a cash generating machine, but is the best already priced in?

SOFTWARE: THE HEART OF MICROSOFT



(Some of the applications in Microsoft Office)

Microsoft is one of the most profound and important companies of all time. It has pioneered the different ways we create and analyze data through the creation of operating systems to excel sheets. However, those inventions are priced into the stock by now and while they still have relevancy in today's society, the amount of competition has increased dramatically.

Last week, I did a report on Smartsheet, a software company that uses the layout of excel spreadsheets in order to create a more fluid way of organizing workflow and projects. Even though the products coming out are more specific and built to tackle certain problems in a business, it still takes away from Excel usage. Even Google Docs eliminates a lot of what made Microsoft office so unique.

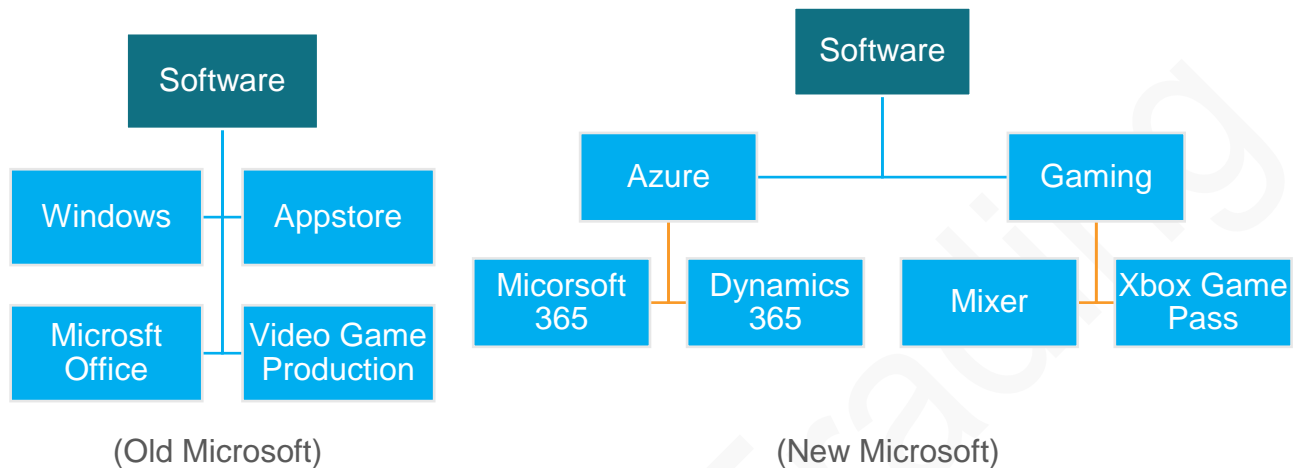
That was the dominant theme in Microsoft's past. Apple created its own operating system and is essentially dominating the smartphone market which in turn, lead to a huge increase in assimilation to the iOS operating system, further taking market share away from Windows.

So what now?

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THE EVOLUTION OF MICROSOFTS SOFTWARE



The flow charts above are strictly about Microsoft's software business and don't include and hardware sectors. Looking at Microsoft's previous growth drivers, other than the expansion of hardware, there are a couple of things to take note of. One, while windows and the app store were significant products, they did not provide the longevity that the current growth drivers have.

The mindset in the business world has been to switch from selling the most amount of single units of a product, to selling subscriptions of a product. The result has been an increasing customer base that has more assurance of long-term retention.

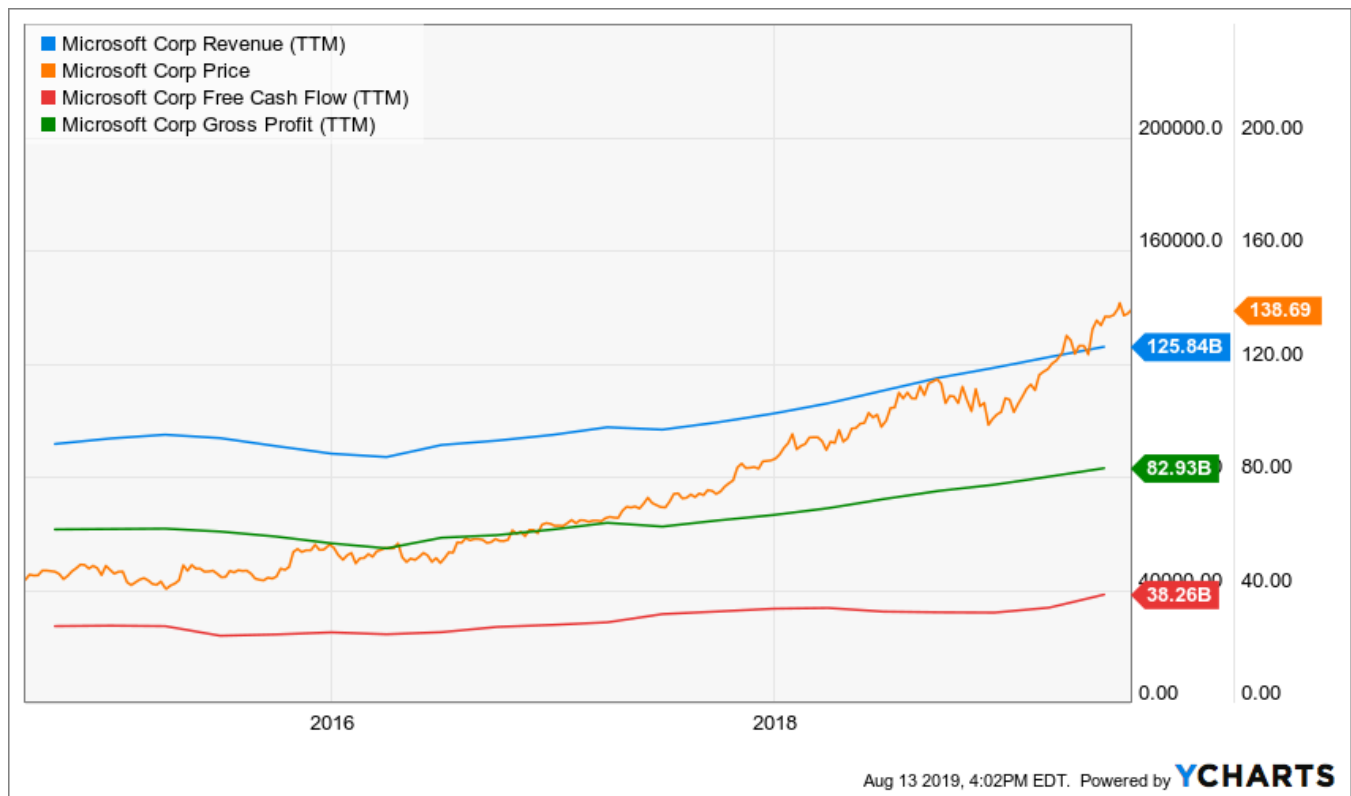
Excluding Microsoft Office, a large portion of the business was run on the sale of single units. Fast forward to now and that has completely changed.

Not only has Management been able to build products that revolve around the subscription based model but they have managed to convert existing parts of their business into subscription model drivers. More importantly, there is a continued emphasis on building around their core products and creating multiple ecosystems in both Azure and Gaming.

The result has been good to say the least.

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Above is a chart indicating record revenues, profits, and free cash flow over the past 5 years. The stock has really benefited from the hardware to software transition but can the growth be sustained? The stock is currently trading at historical PE valuations and many technicians have the view that Microsoft is an extended stock. The only way a stock can expand its valuation is if their growth avenues are extremely attractive.

WHAT IS DRIVING THE GROWTH

In essence, there are two main product categories that I feel still have room to grow based on the evolution of tech and the remaining attainable markets. Gaming and Enterprise software applications look to be the main drivers that will continue to drive the stock higher. In my opinion, both areas are currently in the process of evolving from their initial core products.

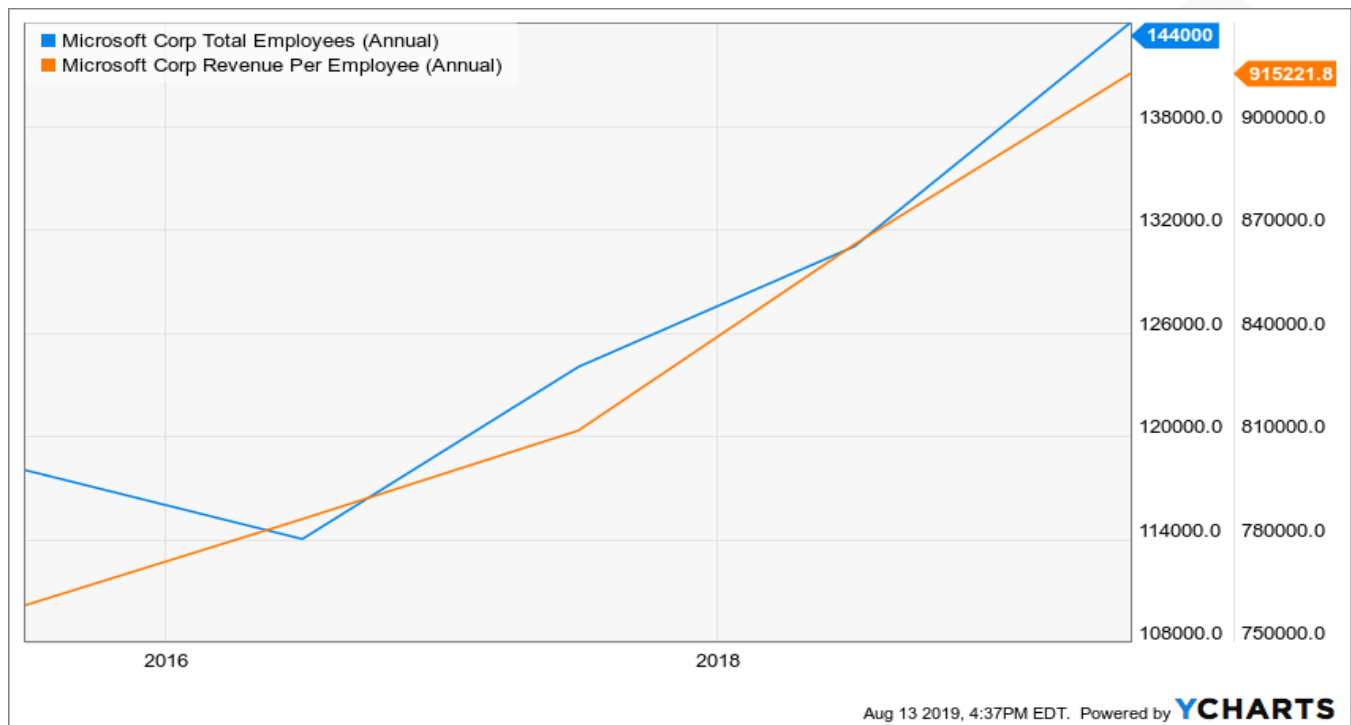
Azure and XBOX gaming are in the midst of transforming into ecosystems that have the potential to create Moats around their business, which will create sustainability in the long run.

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AZURE AND ENTERPRISE SOFTWARE

Microsoft has been making huge pushes into the enterprise software category by increasing the amount of developers and sales people in its workforce. The hiring spree has helped Microsoft compete in the most amount of areas for all sizes of businesses.



A massive increase in employees since 2016 has resulted in a huge increase in sales per employee, which is rare. This shows that the company is hiring considerably and seems to get the most out of their employees.

Judging off the hiring numbers, I would say this company is nowhere near close to a slowdown in growth.

Still, while the hiring is great and the raw results from that are positive, it leaves a question as to whether or not it is necessary given the natural inclination of businesses to want to spend on software in this day and age.

According to FTR, about 80% of applications still run on legacy software. That is huge considering nearly every business has some type of software.

In truth, the conversion on some levels of business may not be that fiscally attractive but even if its 50% of legacy applications, those are still a ton of businesses that need to upgrade. Microsoft

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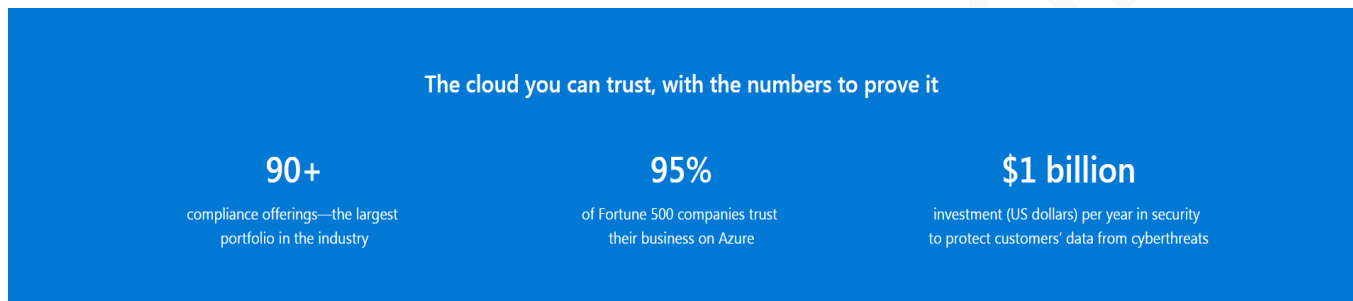
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is creating the biggest brand all while expanding its product line to fit the needs of small and large businesses.

Microsoft's enterprise software is truly one of a kind.

As the CEO Satiya Nadella said in the conference call this June, "Our Commercial Cloud business is the largest in the world surpassing \$38 billion in revenue for the year with gross margin expanding to 63%."

This business has some of the best margins of any business in the world and Microsoft seems determined to control as much market share as they can.



They have steadily built the cloud from a thriving portion of their business to the main growth driver for the future. With the cloud, It isn't just about accessibility but security and overall power.

Microsoft is continually spending up to 1 billion dollars a year to protect its clients from potential security threats. In an era where data is stolen so regularly, security is a top priority for every customer.

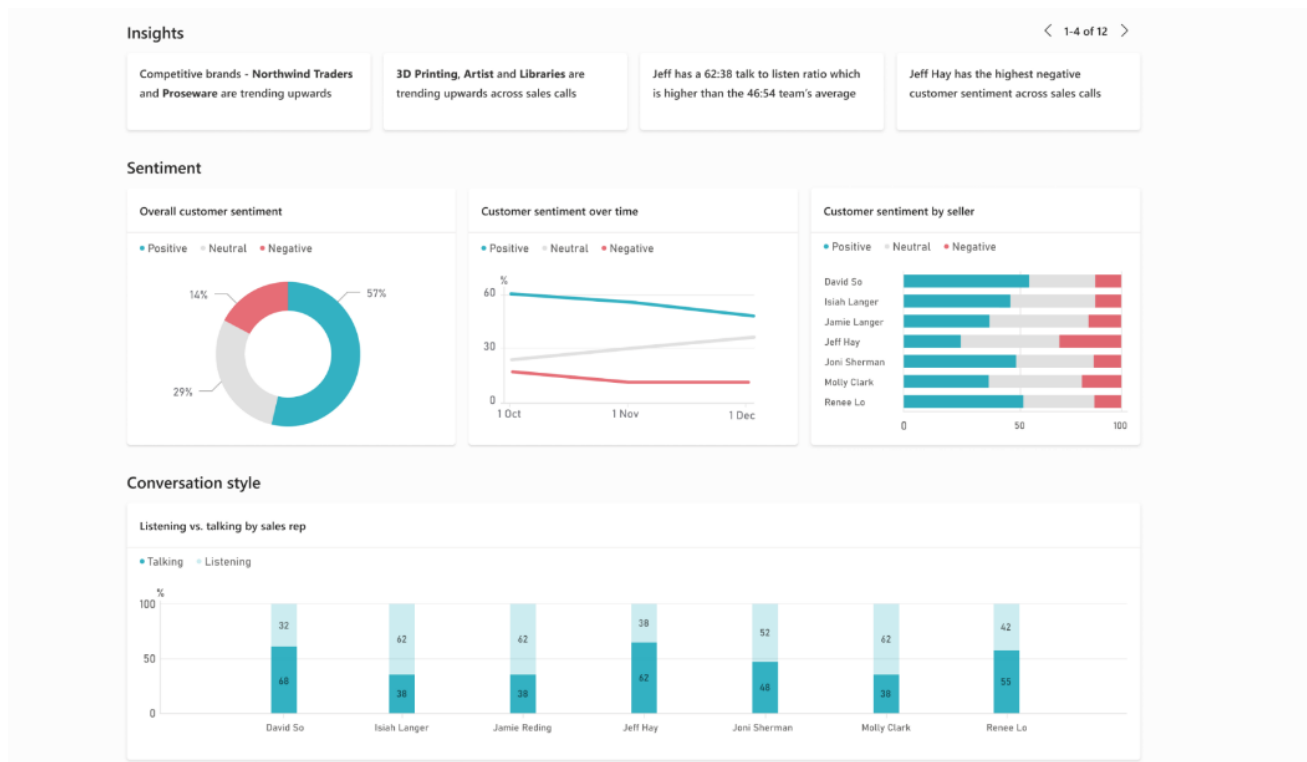
As far as power goes, Microsoft is seemingly mimicking IBM and combining the use of analytics and AI in order to create more efficiency and more success in decision making.

Microsoft recently released its Dynamics 365 platform that allows business to have the power of AI and analytics combined. Dynamics was release just this year and has already has a slew of applications for many various levels of business including marketing, sales, service, and talent acquisition, all connected through the Business Central dashboard.

Take a look at one of the applications that combines AI and Sales in order to create multiple visuals pertaining to customer segments.

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Although it's hard to see the specifics, the key topics they relate to are important to any business owner. With the help of their Dynamics Sales application, a business owner can gain insight into the customer's sentiment, management, and insight into forming trends.

The application currently goes for \$50 a month per user, which is pretty steep. For a business with sales woes or just a general need to gain insight or improve efficiency, the cost may just be worth it.

Currently, more than 90% of fortune 500 companies currently use Dynamics 365 or Power Platform, another data driven platform. The growth is stemmed from the additions of applications starting from one area like sales and slowly integrating more applications, spanning across various levels of the business until the entire business is fully integrated within the cloud.

A NEW AGE OF GAMING IS COMING

Video gaming has always been a huge segment in Microsoft portfolio. However, Microsoft has fallen behind Sony's in terms of console sales and technology.

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Although they have had streaming for video games, as has Sony, Xbox has finally rolled out its Ultimate game pass which is essentially an updated version of its current game streaming platform, The Xbox Game Pass. Not every game is on there but through the Game Pass, gamers can stream video games onto their Xbox seamlessly, no disk required.

For those who don't keep up with video gaming, this may seem like a revolutionary product, comparable to Netflix. However, Sony has had their own service, PlayStation Now which has been around much longer than Xbox Game Pass.

The only problem is, Sony has yet to surpass 1 million subscribers and the service has been out since 2015. Whether it's the price or the quality of content on the service, Sony has yet to capitalize on game streaming which I think will completely supersede all distribution of games.

Microsoft seems to be doing things differently on a content and pricing basis that in my opinion, is far superior in terms of value proposition to gamers, with just enough unique features to keep gamers subscribed in the long run.

For starters, PlayStation Now and XBOX Game Pass don't have all the games ready to stream. They have their own libraries that users can choose from all for an annual or monthly subscription. Below are a few points that investors should know before assessing the different streaming platforms.

Playstation Now	Ultimate Xbox Game Pass
Library of over 800 games ranging from PS2 - PS4	Collection of 100+ high quality games for Xbox and PC
Overall, more high rated games	Recent Releases are available to play
Annual sub - \$100 Monthly Sub - \$20	PC only monthly sub - \$4.99 Xbox only monthly sub - \$9.99 Ultimate game pass sub - \$14.99

The stats above point out some key points about each company and what value they give to their customers.

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- **Content:**

- **PS4:** The content on both sides are enough to satisfy most people with a love for videogames. Sony clearly has the lead in this, as it allows PS2, PS3, and PS4 games to be streamed. Its great considering you could not play old generation disks in the PS4 so for the nostalgic crowd, PS4 has the widest selection of titles, even if some are completely irrelevant.
- **XBOX:** While Xbox doesn't have the same amount of exclusive as PS4, they still have great content as well as backward compatibility with older generation games. In my opinion, they have a lot more titles that are more relevant to gamers. Even more importantly, with the Ultimate Game Pass, they are starting to release upcoming games before their launch date. I think this is a fantastic idea and one that I can't believe Sony hasn't implemented yet. If you want to get people to convert to a new way to play, there needs to be a unique value proposition. Releasing new games early is a great way to convert gamers to Game Pass while giving them an important reason to renew subscriptions.

- **Pricing:**

- **PS4:** This is where I think Sony has really messed up on. The pricing of the Playstation Now has always been a problem. Looking back to when the service came out, I remember being so excited to try it, only to find out the costs were way too high for my taste. Fast forward to now and Sony is still lacking in terms of getting gamers to add PlayStation Now to their gaming catalogue. While the annual is pretty good for \$100, their monthly cost at \$20 per month is way over-priced compared to competitors.
- **XBOX:** Xbox is newer to the space and has probably learned from the mistakes of Sony. Their pricing is more attractive for people who are still used to buying new video games for \$60 but want to add in the extra catalogue of games for a low price. Considering Xbox is now releasing new games on this platform, it may eliminate the high \$60 cost that gamers are so use to. Not only that but when comparing prices to PlayStation Now monthly and XBOX Ultimate Monthly, Xbox is actually cheaper yet the value proposition in the Ultimate Game Pass is far superior.

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(Image provided by PSU.com)

Conclusion:

While both PS4 and Xbox have their own ways of converting gamers, I think Xbox is giving gamers more relevant content to get them interested in trying out the service and better incentives to stay subscribed. They are also marketing to PC gamers, which is a great idea considering it expands the addressable market for a low cost.

In terms of creating long term connection with users, Microsoft is also investing heavily in its video streaming platform, Mixer. I couldn't get enough data to thoroughly give me an idea as to how valuable this service could be, the market for videos streaming is expected to be close to 10 billion, according to stream labs.

Microsoft knows video gaming is still growing rapidly and while competition is stiff, Microsoft is determined to create an entire ecosystem of products around gaming and I believe the benefits have yet to be fully reaped.

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THE VERDICT

Microsoft has been one of the best stocks in the market over the past two years and for good reason too.

Their footprint into the enterprise software space has brand power and is continually expanding in terms of creating technology to improve more levels of business.

Xbox and Xbox Game Pass are in a position to be the leader in video game streaming, which could be close to 300 billion by 2025, according to global data.

All in all, the stock is relatively expensive, but their growth avenues are in the right growth markets. Look for this stock to continue to outperform over the next year or two, even if the valuation is continuously pushed to historical ranges.

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