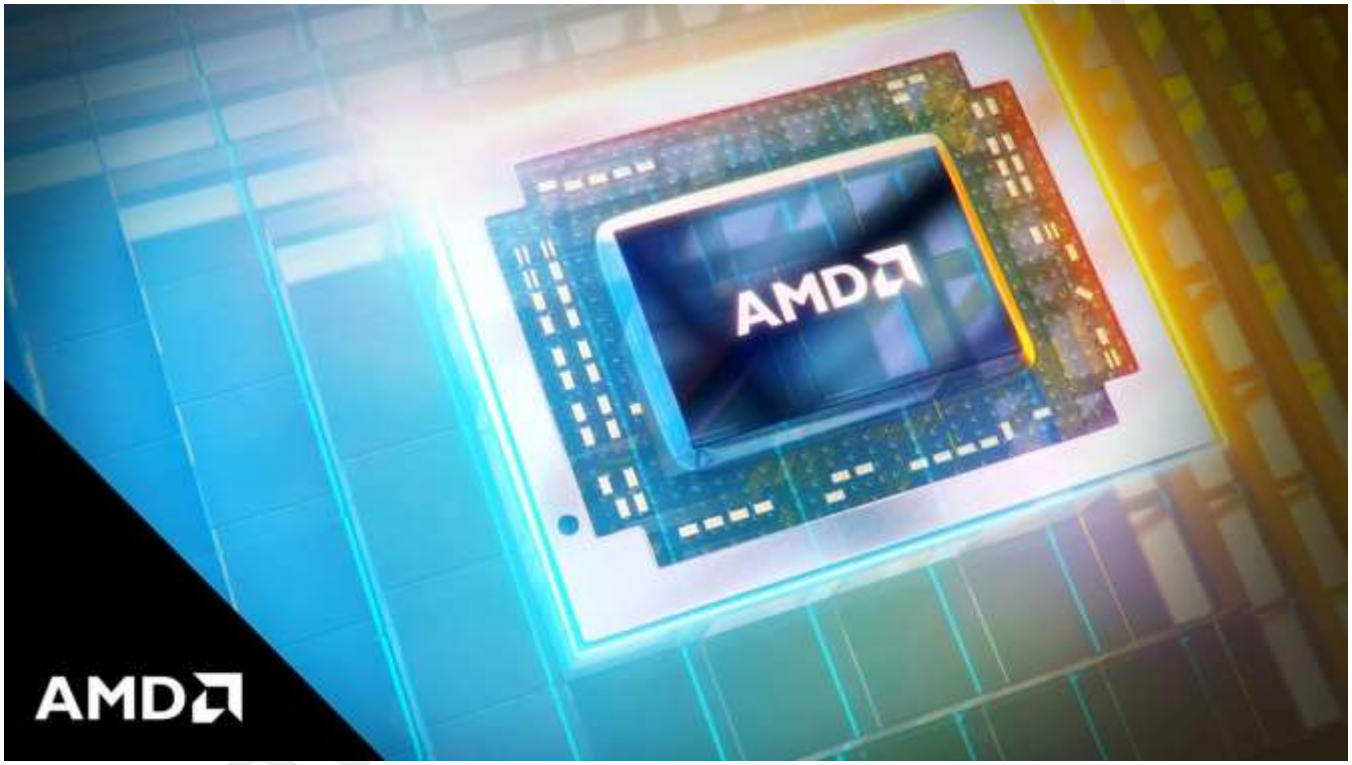
Advanced Micro Devices (AMD): Unrealized Growth at a Premium Price.

[redacted]

A Semi-Chip maker that is driving innovation in the fastest growing technology sectors

AMD: A RISING LEADER IN THE SEMI



Advanced Micro Devices or AMD is a company that produces Computer Processors and Graphics Cards for PC's and other technologies in the gaming, crypto, and PC space.

Off the bat, you have probably heard of AMD. They are the second biggest producers of GPU's and CPU's, with Nvidia and Intel leading in those categories respectfully. Recently though, it seems like the level of innovation and parternships has risen to an extreme level within AMD. The CEO, Lisa Su, has done an extraordinary job of creating competitive products in spaces where the competition has significantly more funding and expertise.

While Intel and Nvidia have maintained dominance for over a decade at least, I believe AMD could be the company to break the power structure and secure its place as either the most dominant CPU or GPU producer in the world.

GPU'S WILL CHANGE GAMING BEYOND GRAPHICS

AMD, for what seems like the beginning of time, has been competing with Nvidia for the hearts and souls of gamers. Gamers use the GPU's or graphics cards to enhance the overall graphics for the computer and its applications. The GPU can create sometimes lifelike graphics if the applications can handle the GPU's max power.

Seriously though, having a great graphics card can make a huge difference as far as resolution and overall smoothness when running games or applications.

In a 2014 CEA survey, they reported that over 75% of their audience really cares about graphics when deciding to buy a game. Even though that survey was done in 2014, I think graphics have become even more important to gamers, considering graphical power in the $100-$200 dollar range graphic cards have some considerable juice in them.

(Source: WePC.com)

I remember when the big selling point about PlayStation was that it had blue ray integrated graphics for its games. Fast forward to today and the average GPU in today's market can run laps around the PS4 graphic performance. The best cards may even be 4 times more powerful than the PlayStation graphical capabilities.

Another big benefit to the GPU industry is that game developers are increasing their overall graphic capabilities for newer games. This may not be a big driver for the average consumer but as long as there are graphical increases by gaming developers, it should push gaming enthusiast to consistently shell out money for a new graphics car in order to get the best experience out of a game.

While GPU's have been synonymous with gamers, their usage in various applications is driving the growth of GPU's to enormous levels

According to Accumen Research and consulting, the GPU market is expected to be $103.6 billion by 2026 growing at 30% over the next 7 years.

In my opinion, I actually think that number will be a lot higher after they do another study in a couple of years for the sole reason that technology is changing our environment so rapidly, I think there can be many products that will be driven by the power of the GPU that we don't know about yet.

Very recently, integration with the Cloud has been a huge trend among businesses and its still going on today. That demand ended up driving the GPU market as GPU's can help with cloud deployment and data collection.

The cloud integration movement is still in the midst of its business cycle, which is good for AMD due to the fact that in the Accumen research report, the cloud deployment GPU's are expected to account for 40% of the future growth when looking at the 2026 estimates.

One interesting area that AMD is focusing on combines both of its growth drivers, which in turn may lead to an entirely new way to play games.

While gamers use GPU's for graphical and running purposes, AMD is thinking if you can bring an entire business to the cloud, why can't you bring a gaming experience to operate on the cloud as well?

(Source: Wccftech.com)

While Nvidia and Steam already have some cloud streaming capacities, AMD has released their own GPU that connects with a database that holds the games you have on multiple devices.

This may seem like a great idea but there is a huge barrier that has stopped cloud gaming from becoming the standard platform to play on.

That reason is the internet speed needed to stream a game. If you do not have good internet speed, cloud gaming will not work optimally. The technology relies on good internet speed, due to the fact that gamers aren't playing something that is downloaded but rather a game that is archived on a separate server, hosted by guys like AMD or Nvidia.

The internet speed issue will immediately turn off some consumers now, but the trend of improving internet speed isn't going anywhere. Soon, everyone will have the necessary internet speed to play on the cloud. For now, I think we are about 3-7 years away from that standard.

The truth is, there is a massive opportunity for cloud gaming aside from the internet issue.

The biggest benefit I see is that you can essentially play fairly high resolution games on low quality hardware due to the fact that you aren't running the application through the computer but rather the GPU. The graphics card can hold up frame rates much better than if you were to download the game and play through a average computer.

This cuts out the need for consumers to constantly upgrade their hardware so in the long run, cloud gaming could actually be really appealing to a consumer from a fiscal standpoint as well giving more accessibility and flexibility to gamers.

Rather than have their own data base of games like Nvidia or Steam, AMD has decided to partner with Microsoft's cloud software and even offers 3 months of Xbox Game Pass, which is a platform that allows gamers to stream a select catalogue of games.

It's a great idea considering Microsoft is pumping a ton of money into the streaming service which has a huge archive of unique content. The real benefit from AMD's standpoint is that AMD doesn't have to spend on archiving the content. This frees up a ton of cash while still giving users a trove of good to great content.

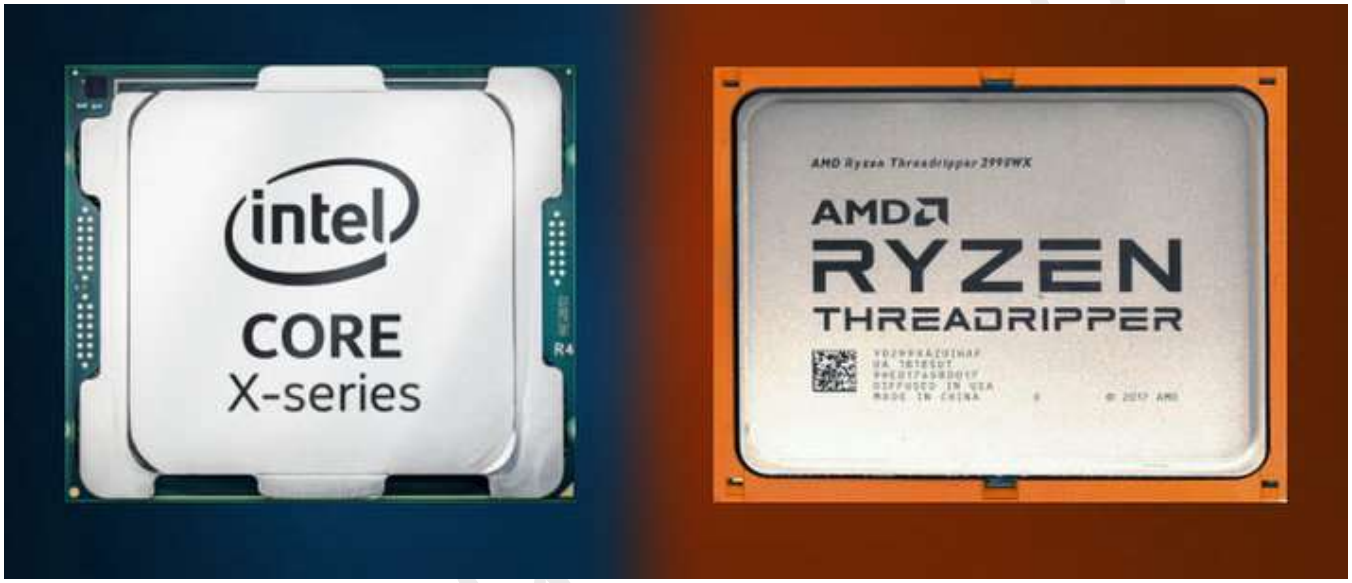
So if a user buys an AMD graphics card, they can get 3 months of Xbox game pass which already has unique content and is also updating its archive with newly released games, which is different than any other gaming service out there.

The partnership is really a great value for customers when deciding which chip to buy and I think it will become a bigger factor as time goes on.

INTEL PROCESSORS FINALLY HAVE A REAL COMPETITOR

Intel has been the main producer for CPU's for so long, they have developed into a worldwide giant and are one of the most valuable companies in the world.

However, With AMD's Ryzen series of CPU's, Intel finally has a real competitor that can threaten the dominance of the 'X' series.



(Source: Tomshardware.com)

The value that is derived from these chips involves a multitude of levels ranging from how many cores there are to how many threads the chip is capable of running. All of these factors affect the computer in ways that affect performance in certain applications, whether it be for gaming or AI or any other complex application.

The dominance in Intel can't be overstated as they had over 80% of the market in just 2016

This dominance was mainly due to the fact that no one could compete with them on a technological level. However, all that changed when AMD released their Ryzen series which focused on having more cores that allow more capacity for threads.

A thread can be a single or multiple data streams that are generated from running programs. Having multiple cores allows more threads which in turn, allows for more programs to run

concurrently. This is especially useful for enterprise servers, which run multiple programs at the same time.

Up until recently, Intel had at most 6 cores in their CPU units but AMD's Ryzen series has up to 12, for now.

When looking over the various CPU's, AMD's Ryzen 5 consistently came up as being an equal if not better processor than Intel's I9, which is considered the most powerful CPU on the market due in regards to clock speed.

AMD also has integrated graphics within their CPU's, which technically makes them APU's. This means that users would be able to get graphical power from the CPU rather than needing a GPU to generate the graphics. AMD was the first to discover that technological process and have even partnered with Intel to make CPU's with integrated graphic technology.

AMD has really given Intel a run for its money this year and I have no doubt the innovation will continue to increase as the years go by.

AMD: HIGH QUALITY PRODUCTS FOR AFFORDABLE PRICES

AMD has a ton of processing and GPU power in its products but their greatest asset is their brand.

After doing my research and reading scathing reviews on all of these tech products from different companies, the number one trend I found was that AMD consistently has the best value in terms of how much power you can get for you buck.

Not every computer user needs the most high end graphics card and speaking from my own personal experience, I built my computer within a budget. Most of the time, the avergae PC user is looking for power without breaking the bank and AMD has products in both the CPU and the GPU market that fit that criterea.

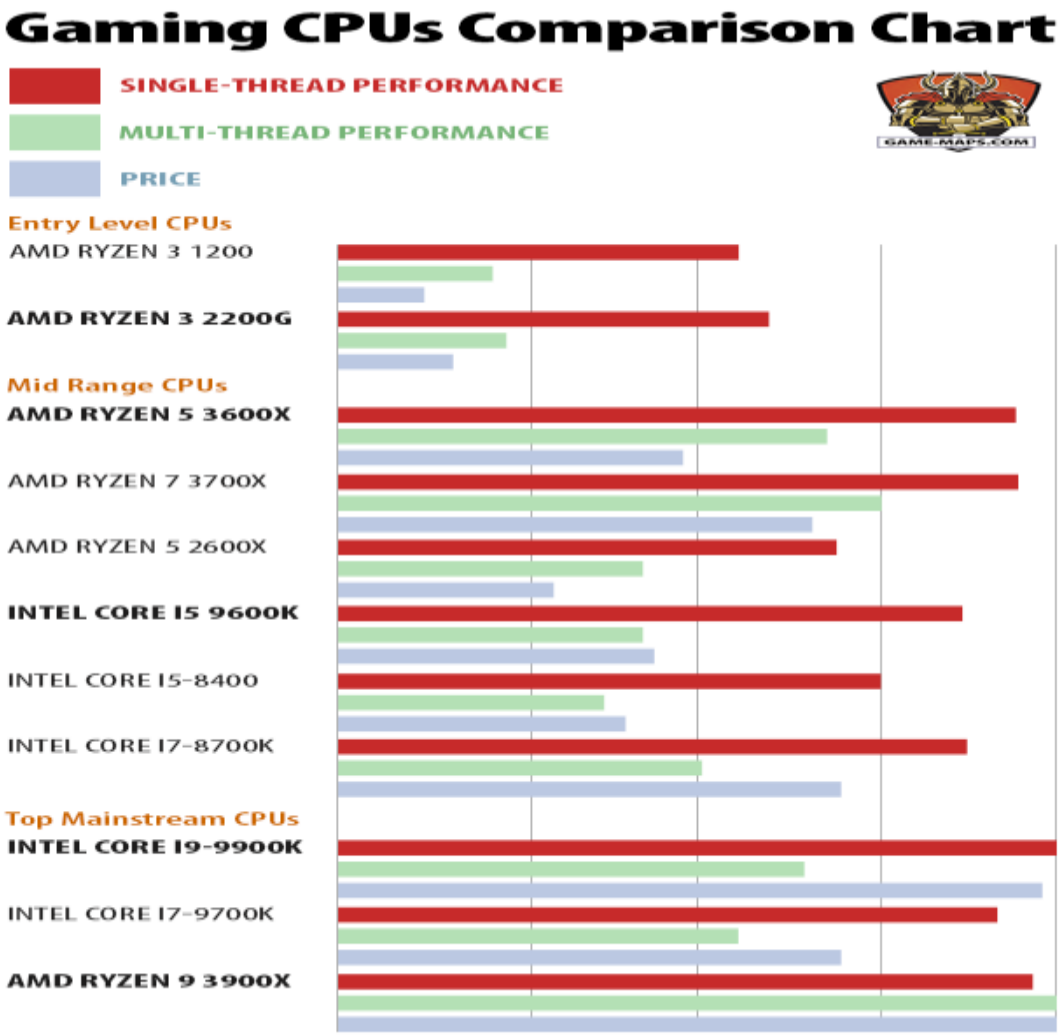
Whether consumers are buying the Ryzen 3600 processor or the Radeon RX Vega GPU, both seem to provide better value when comparing between Intel and Nvidia. They clearly have a brand of affordability and yet their tech is still considered high quality.

When looking at consumer usage, most PC users use their computer for either a specific purpose that run a singular data stream, such as gaming. They can also use their computer for more complex processes like building a the framework for a site or enterprise, both instances

require the right graphics card that suits their customers' needs and AMD provides a better solution in terms of getting the biggest bang for your buck.

When looking at AMD's overall position in the GPU space, I think Nvidia has a clear lead in terms of having the most powerful GPU with the most capabilities. However, for the average consumer, those graphics cards are extremely expensive, sometimes running between $500-$1300 dollars. AMD offers some great power for the average gamer for under $250. I think as the gaming trend continues, this practical solution will be more and more popular as gamers realize they don't need to break the bank for graphics in order to play game like Fortnite.

In the CPU market, I think AMD not only is gaining an edge in technological capacity but they also maintain some of the lowest prices in terms of power per price ratio.

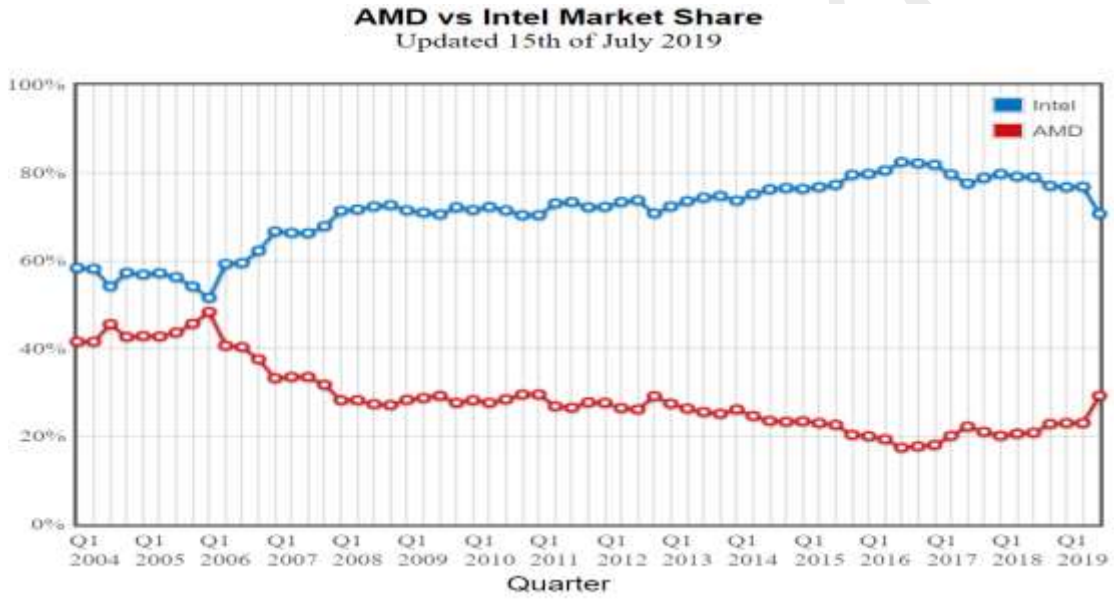


(Source: Gamemaps.com)

The chart above shows a number of things pertaining to overall performance for your dollar. The main idea to take away from it is that AMD can give you the best bang for your buck period. Their products are consistently underpriced when comparing to Intel's products. It doesn't even matter whether or not the CPU specializes in single or multiple threads, AMD still wins. The dominance of Intel's presence has probably pushed AMD to pursue a lower pricing strategy but make no mistake, their power is equal, if not greater, as shown is the chart above when looking at the AMD Ryzen 9 or the value centric AMD 3600X

I think it's only a matter of time before consumers look to AMD to be first purchase when thinking of what graphics card to build their PC with.

Just take a look at how much room there is to gain in the CPU market when looking at the comparisons between Intel and AMD



(Source: wccftech.com)

You can look at the graph a couple of ways. The way I look at it is that it looks like AMD is starting to churn its CPU run into some sustainable gains and I think that AMD has a huge opportunity to take market share away from Intel.

Even though the market share was more equal in the past, I think the technology gap has narrowed between the two competitors and has started to shift the lead in AMD in terms of innovation.

As far as GPU's go, AMD still has some ways to compete with Nvidia as far as producing the most powerful device but sometimes, that's not always what sells to the consumers. AMD clearly has the consumer budget in mind when it's pricing its GPU's. As the overall trend of

gaming continues upwards, AMD will be looked at as the more practical brand while still integrating fantastic technology behind its relatively low price.

However, the practicality of quality products poses a real problem.

As AMD continues to pour in all this money into developing the best technology, there is a problem that is offset by this growth, price cutting.

Prices are older models are immediately slashed as soon as the new models come out. This is pretty standard in many industries but with GPU's it's a little different.

While Apple may be able to convince people time and time again that they need the new Iphone, GPU and CPU consumers don't always see it like that.

Every game and application has minimal requirements for graphics cards or CPUs that need to be met in order to run the program.

(Source: HowtoGeek.com)

The truth is most older-gen. GPU's and CPU's can meet those requirements easily. The GPU industry has been helped a ton by gaming developers, who have increased the capacity for better graphics over the years but I think that's more appealing to the enthusiast versus the average customer.

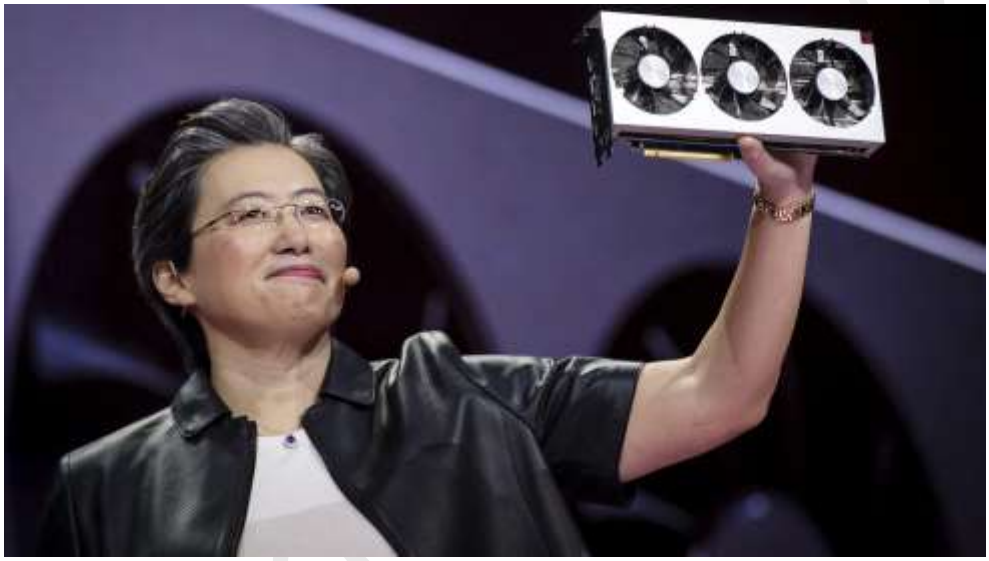
The issue I see is that at some point, developers hit a wall in how much capacity a games can have for graphics and then you see the need to upgrade start to diminish within the customer.

It may never happen like that but one thing is for sure, the customers may not always shell out for the most expensive card but will opt to buy the best card from previous years, which provides a ton of power for what they need, but for a much more affordable price.

THE LEADERSHIP MIGHT BE THE BEST IN THE INDUSTRY

The innovation at AMD hasn't come from out of the blue. At the helm of the ship, the captain of the AMD voyage seems to be ahead of schedule.

In 2014, AMD hired Lisa Su to take in the behemoths in the CPU and GPU space and in the little time she has been there, she has exceeded every estimate that was put upon her.



(Source: Marketwatch.com)

Under her watch, the stock price has skyrocketed and now they are actually able to compete on a technological level against the giants that before seemed unstoppable.

According to the latest earnings report, which was reported July 30th, the GPU market is still in a slight decline, mainly from the crypto slowdown, but the CPU business, especially on the mobile side is growing at an exponential rate.

In a cyclical business like this one, it really important to have leadership that is able to survive the down turns through smart capital allocation methods. Lisa Su has shown to do that not only in the CPU space, but also making huge deals like working with Sony and Microsoft to make the next generation of consoles or partnering with Samsung to further drive their mobile business.

Diversification is the name of the game and AMD has certainly benefited from it. Gross margins are currently at a 5 year high at 39.8%, growing from 27.1% in 2015.

Currently, the GPU market is slowing down due to gaming and crypto mining decreases. The great thing about the GPU market though is that cloud and data center GPU demand is still strong and AMD is extremely well positioned in those markets.

Though, as stated in the previous quarter, Ms.Su noted that they will start to shift more focus to the CPU market as the GPU market continues to cool. You can bet that under her leadership, the market share that I hoped they could take away from Intel may come sooner rather than later.

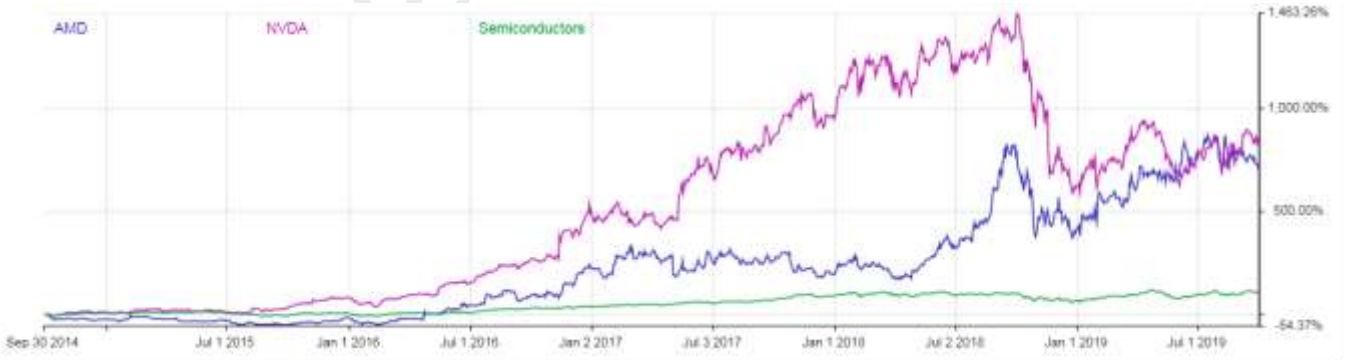
WHY NOW COULD BE A GREAT TIME TO INVEST

AMD has been on fire over the past couple of years but recently it's cooled down. The stock has come down more than 11% this year, even after all of the breakthroughs they have made.

So why is now the right time to buy? The truth is, the semi industry as a whole is primed for success.

In my opinion, I think the entire semi sector will be one of the top performing sectors over the next couple of years and the time to buy could be now considering this year was a down year but estimates show that the industry is expected to pick up in 2020 and 2021.

So far, many Semi companies have come down, like NVDA and AMD but those are coming off of high valuations.



(Information provided by stockrover.com)

The chart above helps show the spike in NVDA and AMD, both of which are down for the year. The sector as a whole however is doing great. TXN is one of my favorite Semi stocks as it has

never had the problem of being extremely overvalued like AMD or NVDA. That stock just hit an all-time high in the last couple of weeks. At the same time, my favorite Semi ETF (SMH) has also recently flirted with all-time highs before pulling back a bit.

The point I want to make is that while some of the most popular stocks like AMD or NVDA seem to be lagging, that isn't a representation of the industry as a whole. In fact, I believe it creates a great buying opportunity, with added risk of course.

The fact is these stocks are cooling down due to their extreme valuations relative to their peers and so a pull-back has been warranted. Though, I personally don't believe they won't stay down for much longer. Then again, timing these stocks in such a cyclical business can be extremely tricky.

I recently made an alert for AMD at $29.20 and an alert for NVDA at $156.5 so I personally think the bottom is in but I could definitely be wrong.

The recent lack of momentum in growth stocks could continue to affect the growth Semi names but based on what I'm seeing from the majority of the sector, I feel like there is a lot more room to run. In turn, I don't believe the growth Semi companies like AMD and NVDA won't stay down for long.

I currently believe AMD will be trading between $35 and $40 within the 2 next quarters.

THE VERDICT

AMD is a fantastic company that is truly pushing the levels of technology in the GPU and the CPU space. The stock may trade at a premium in relation to the market and its peers, but you could definitely argue that their enormous addressable market has higher odds of being taken away from Nvidia and Intel in a relatively short time span due to their position in the marketplace currently. Make no mistake, there are still some ways to go before AMD becomes the standard in both GPU and CPU but their technology has advanced to a point where I feel comfortable saying they have a good shot to be a game changing company. The best part of the entire company is that the upside a game changer but at the same time, they already have an established brand.

I have high hopes for AMD and their growth will be something to watch over the next 5-10 years.

Specifics

Date: 9/30/19

Rating: Buy (Risk Level – Medium)

Current Price: $28.99

6 Month Target: $37.5

Buying Timeframe: Within the Quarter

Support and Breakout Price points:

Key Support at $26.30

Breakout level above $31.50