

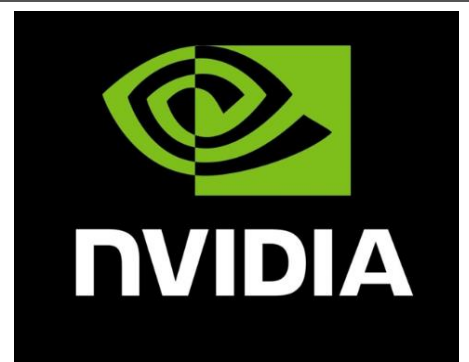
NVIDIA (NVDA)

Business Description: Nvidia designs graphics processing units for the gaming and professional markets, as well as systems on chip units for the mobile computing and automotive markets.

What Wall St. is Missing: The recent decline in the crypto industry has instigated a decline in the sale of certain GPU's developed by NVIDIA. Because of that development, along with the overall macroeconomic tensions around the world, the stock price has dropped ~56% in less than four months, creating a lucrative buying opportunity. The market is overlooking not only the strength of the company's high margin/high growth business, but also the potential opportunities NVIDIA can capitalize on with its leading position in multiple high growth industries.

Investment Thesis

- NVIDIA holds a leading industry position in at least three of its operating segments (Datacenters, Automotive, and Gaming) with very favorable growth outlooks.
- Even if the datacenter market share for NVIDIA declines from its current levels (90%), the company is set to make substantial gains from this industry as the cloud computing industry evolves further.
- While the gaming segment is on a decline due to the slowdown in the crypto industry, NVIDIA's GPU's still serve most of the growing high-end gaming industry and will provide a sustainable source of revenue in the years to come.
- NVIDIA is a market leader in the automotive AI/AV space with partnerships with every automaker in the world, making it well positioned to benefit from the revolution of self-driving and self-assisted vehicles.
- Trading at lower than its 52-week low, the company is offered with a substantial margin of safety. Given the strength of the company, there is not much rational downside risk at this level, while the upside is very



December 24, 2018

Rating: Buy

Target: \$180 (\$157-\$197)

Price: \$127.08

52 Week Range: \$124.5-\$292.76

Company Information

Headquarters: Santa Clara, CA

CEO: Jensen Huang

Market Cap: 77.52B

Shares Outstanding: 626M

P/E: 16.97

Dividend Yield: .5%

Cash and Equivalents: 729M

Debt: 1.98B

EPS (2018): 4.9

bright depending on the developments of the next few years.

Possible Catalysts

- After a decline in its gaming segment due to crypto, gaming GPU sales will stabilize over the next two years driven by the demand from high-end computer gamers.
- The datacenter segment is set to have a TAM of 50B by 2023, making this segment the fastest growing portion of the company.
- The increasing demand for AI in multiple segments of the economies worldwide should drive exponential growth in the products offered by NVIDIA
- The self-driving and assisted-driving industries have some contingencies, but the upside looks very bright for NVIDIA if it materializes.

Risks

- **Falling Behind Technological Advancements:** The introduction of its GPU's has propelled the company to the top of the semiconductor industry, and that advantage will deteriorate if the company falls behind in developing faster and better products than its competitors.
- **The Delay of Certain Developments:** The company's future is contingent on the developments in the datacenter, AI, AV, and other industries, the delays of which might cost the company its leading position and eventual drop in operating performance.
- **Macroeconomic Contingencies:** Global tensions and trade wars come and go, but depending on their length and intensity the company's operating results might be affected in such an adverse way that the company is unable to recover.
- **Unsustainable Growth:** The company has enjoyed very strong growth in the past few years, but this advantage is unsustainable because the barriers to entry are not sufficient in the long run, especially in the competitive world of technology.

Drivers

- **The Gaming Industry:** The introduction of discrete GPU's has made computer games much faster, realistic, and enjoyable, creating a sustainable demand from high-end computer gamers. The gaming industry has been driven by the gamers' switch to higher performance computers and the trend of updating these computers more often than ever before (every 2.5-3.5 years)
- **Demand from Cloud Computing:** The disruptive cloud computing industry depends on high performing datacenters to store and analyze massive amounts of data. NVIDIA's GPU Cloud has been serving this growing industry and looks to take advantage of its high growth.
- **Increasing Popularity of AI:** The rising integration of AI in every part of technology related sector induces the use of GPU's.

- **Need for Professional Visualization:** Professional visualization is becoming an integral part of academia and researchers alike, who demand high performance visualization software to make their projects more realistic.
- **Partnership with AV developers:** The company's partnership with every car developer in the world make it one of the leading companies to take advantage of the autonomous car revolution.

Valuation (Assumption: 10.5% WACC, 3% perpetual growth rate)

FCF	2019	2020	2021	2022	2023
EBIT	4,343	4,994	6,495	9,022	11,527
TAX	543	624	812	1,128	1,441
EBIAT	3,800	4,370	5,683	7,894	10,086
Stock Based Comp	483	512	634	776	961
Depreciation	241	256	317	388	480
CapEx	(482)	(332)	(628)	(753)	(954)
Changes in NWC	244	102	332	418	501
FCF	3,797	4,703	5,673	7,887	10,073
TV					138,330
Total FCF+TV	3,797	4,703	5,673	7,887	148,403
PV	3,436	3,852	4,205	5,290	90,080
EV	106,863				
Debt,net	(5,604)				
Equity Value	112,467				
Shares Outstanding	626				
Price/Share	180				

Operating Segments (Using Base Case Scenario)

Segments	2016	2017	2018	2019	2020	2021	2022	2023
Gaming	2818.00	4060.00	5513.00	6,505	5,855	7,026	8,080	9,292
	56%	59%	57%	18%	-10%	20%	15%	15%
Professional Visualization	750.00	835.00	934.00	1,027	1,120	1,209	1,294	1,385
	15%	12%	10%	10%	9%	8%	7%	7%
Datacenter	339.00	830.00	1932.00	3,091	4,266	5,887	8,124	11,211
	7%	12%	20%	60%	38%	38%	38%	38%
Automotive	320.00	487.00	558.00	670	804	964	1,157	1,388
	6%	7%	6%	20%	20%	20%	20%	20%
OEM & IP	783.00	698.00	777.00	769.23	761.54	753.92	746.38	738.92
	16%	10%	8%	-1%	-1%	-1%	-1%	-1%
Total Revenue	5,010	6,910	9,714	12,063	12,806	15,840	19,401	24,015

Scenario Analysis

Bear Case: The company is looking to lose some revenue due to the decline of demand from the cryptocurrency industry. Additionally, the current macroeconomic tensions will adversely affect the company's top line. However, even in a worst-case scenario the company is not as worse off as the public thinks and therefore its stock price is overvalued.

- **23.6% upside potential**

Base Case: The company has a stable revenue stream in the gaming industry, even without the market for crypto. Its datacenter and auto industries are looking to create substantial possibilities for the company due to its leading position. With very modest projections the company is offered at a substantial discount from market price.

- **41.7% upside potential**

Bull Case: The company's leading role in three of its segments make it well positioned to reap the benefits of the technological revolution of AI, datacenters, and self-driving cars, making the future very bright for the company if it is able to maintain its leading position for long enough.

- **55.1% upside potential**

