Quantifying NVIDIA's AI Growth

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October 2023

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NVIDIA's stock price started the year at $143 per share and reached a peak of $493 on August 31st before ending the quarter at $435 per share, a gain of roughly 205% over the last nine months. NVIDIA and ChatGPT have been dominating the financial headlines as the Artificial Intelligence (AI) story has gone viral, but has NVIDIA's seemingly overnight growth been as sudden as it appears?

Using Syntax's patented FIS® classification methodology, we examined **NVIDIA** and found that it began reporting revenue for its AI-related product line – Datacenter Processors for Use in Data Analytics and AI – in 2016. Over the last seven years, this product line has grown from 7% of NVIDIA's revenue in 2016 to 56% in 2023, as shown in Exhibit 1.

Exhibit 1: NVIDIA's AI Revenue Growth (as a % of Total Revenue)

Source: Syntax. NVIDIA's fiscal year end is January 31st; results are shown for the 12 months ending January 31 of each labeled year.

In dollar terms over the same time period, AI-related product line revenue grew from $339 million to over $15 billion, as shown in Exhibit 2, which also captures the revenue growth of NVIDIA's other product lines.
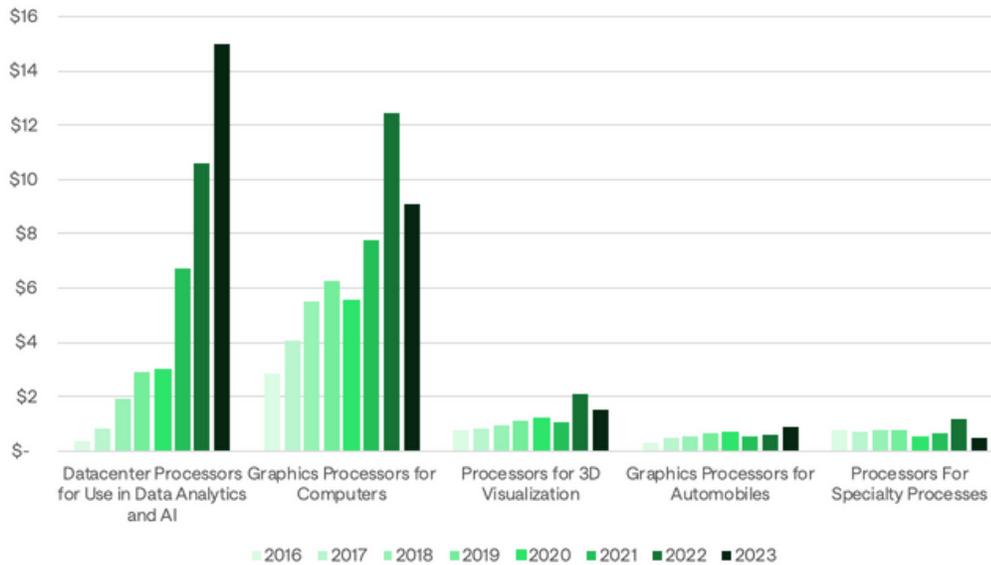
Since 2018, NVIDIA's AI-related revenue growth has been a huge driver of NVIDIA's overall business. Consider the following:
- Total AI-related revenue growth: $13.1 billion
- NVIDIA's non-AI product line revenue growth: $4.2 billion
- Annualized AI growth rate: 97%
- NVIDIA's non-AI product lines annualized growth rate: 8%
- AI-product line as % of total revenue growth: 76%

Exhibit 2: NVIDIA Total Revenue by Product Line (2016-2023, $B)

Legend: 2016 2017 2018 2019 2020 2021 2022 2023

Source: Syntax. NVIDIA's fiscal year end is January 31st; results are shown for the 12 months ending January 31 of each labeled year.

Interestingly, NVIDIA reported $26.794 billion in total revenue for its fiscal year-end 2023, just slightly ahead of its reported 2022 results of $26.914 billion. The AI product line's $4.4 billion increase in revenue from 2022 to 2023 largely offset declines in NVIDIA's other product lines.
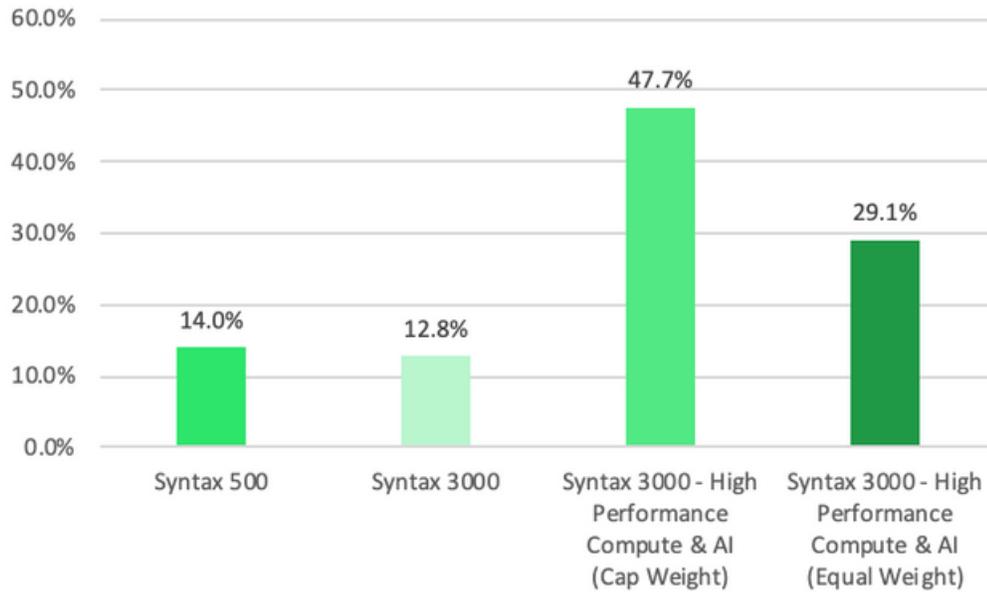
Looking at the AI trend more broadly, Exhibit 3 illustrates the recent outperformance of stocks whose primary business line falls into our "High Performance Compute and AI" lens relative to the US large cap (Syntax 500) and broad US market (Syntax 3000). Both the Syntax 500 and 3000 Indices returned about 13% for the year to date through September 30. The High Performance Compute & AI indices returned 47.7% on a cap weighted basis, and 29.1% on an equal weighted basis.

NVIDIA was an anomaly reporting an AI-related product line starting as early as 2016. Well-known companies such as Amazon, Cisco Systems, Meta Platforms, Honeywell and Oracle all disclose AI-related activities in their financial statements but presently do not attribute any revenue to these business segments. With roughly 44 percent of companies looking to make serious investments in AI and integrate it into their business[1], we expect a meaningful increase in both companies reporting AI-related revenue and new product lines to emerge in the next few years. Fortunately, Syntax's approach to classifying companies and tagging their attributes will allow us to keep present with these trends, thereby providing investors and fiduciaries with better information than traditional classification systems to support their analysis and decision-making. If you would like to learn more or to demo our Affinity software, please visit www.syntaxdata.com/affinity.

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[1] https://www.reuters.com/technology/intel-gives-details-future-ai-chips-it-shifts-strategy-2023-05-22/

Exhibit 3: YTD Performance: Market vs. High Performance Compute & AI

Source: Syntax. Total Return from 12.31.2022 to 9.30.2023. High Performance Compute & AI performance is calculated as the performance of securities in the Syntax 3000 index whose primary classification belongs to the High Performance Compute & AI theme. Performance of these subsets, calculated on both cap- and equal-weighted bases, is hypothetical. Hypothetical performance may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index. Performance does not reflect fees or implementation costs as an investor cannot directly invest in an index.

About Syntax

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