A Christmas Gift for Investment Advisors – A Model of NVIDIA's NPV

December 20, 2024

NVIDIA: Table of 10 Years' Future Revenues, Future Net Income and Net Present Value

Year Ending	Years Later	Revenue Growth Rate	Revenue	Profit Margin	Net Income	NPV
12/20/2025	1	40%	$158,577	50%	$79,288	$72,080
12/20/2026	2	40%	$222,007	50%	$111,004	$91,739
12/20/2027	3	40%	$310,810	50%	$155,405	$116,758
12/20/2028	4	20%	$372,972	35%	$130,540	$89,161
12/20/2029	5	20%	$447,567	35%	$156,648	$97,266
12/20/2030	6	20%	$537,080	35%	$187,978	$106,109
12/20/2031	7	7%	$574,676	20%	$114,935	$58,980
12/20/2032	8	7%	$614,903	20%	$122,981	$57,371
12/20/2033	9	7%	$657,946	20%	$131,589	$55,807
12/20/2034	10	7%	$704,002	20%	$140,800	$54,285
10-Year Total			$4,600,539		$1,331,169	$799,555

	Gross Value	NPV		
Total of 10 Years' Earnings	$1,331,169	$799,555	**Current Market Cap**	**$3,273,578**
Terminal Value	$1,000,000	$385,543	**Net Present Value**	**$1,185,098**
Total Value of NVIDIA	$2,331,169	$1,185,098	**Rate of Return**	**-63.8%**

Net Present Value (NPV) is the most accurate method for evaluating a stock's value. It estimates the current worth of a company by summing the expected value of its future net income, adding a "terminal value" for the company's value at the end of the model, and discounting those values back to the present. By doing so, investment advisors can estimate whether a company is overvalued or undervalued based on its projected performance.

Let's take NVIDIA as an example. What is NVIDIA worth to an investor today? We have created a model to calculate the potential net present value of NVIDIA or any other company based on the user's assumptions of its future revenues and profit margins. We're happy to share the NPV model we used in this article with any investment advisor who reaches out to us—free of charge. Estimating the future revenues and profit margins of any company is incredibly challenging. However, as investment advisors, you need to make decisions based on your best estimates. ERS is a data science company, and we're here to support you in that process.

The numbers in this example are simply illustrative and were chosen to show how the model works. We're not making any predictions about NVIDIA's future revenues or profit margins.

In this example, we made the following assumptions about NVIDIA's future financials:

- **Revenue Growth:**
  - 40% per year in years 1-3
  - 20% per year in years 4-6
  - 7% per year in years 7-10
- **Profit Margins:**
  - 50% in years 1-3
  - 35% in years 4-6

    - 20% in years 7-10
- **Terminal Value:** $1 trillion after 10 years.
- **Discount Rate:** 10%.

These assumptions are used to project NVIDIA's revenues and net income for the next 10 years, as shown in the table. Adding up the net present value of these projected earnings and the terminal value results in a total valuation of **$1.19 trillion**.

However, NVIDIA's current market capitalization is **$3.27 trillion**—nearly three times the estimated NPV.

This raises an important question: **What does this analysis say about the probability of making a profit on NVIDIA for investors who buy or hold the stock at its current price?**