The NAGMO Investment Thesis: A Market-Neutral Portfolio in AI

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Abstract

The artificial intelligence sector exhibits significant growth potential but is characterized by high volatility and correlated stock movements. This paper presents a market-neutral investment strategy, termed the NAGMO Investment Thesis, designed to capitalize on relative performance disparities between leading AI companies. We establish a mathematical framework for a portfolio that is immunized against broad market shifts, focusing on a specific trade involving NVIDIA, Amazon, and Google. By optimizing for minimal capital exposure, we identify a non-trivial solution that offers a capital-efficient bet on the relative strength of NVIDIA's hardware-centric business model against the cloud and service-oriented models of its peers. The portfolio is visualized to demonstrate its balanced structure.

The paper ends with "The End"

1 Introduction

The rapid advancement of artificial intelligence has created a new frontier in technology, with companies like NVIDIA (**N**), Amazon (**A**), Google (**G**), and Meta (**M**) at the forefront. As of late 2025, these giants command market capitalizations in the trillions of dollars, reflecting immense investor confidence [2]. However, this enthusiasm leads to high correlation in their stock prices, making it difficult for investors to achieve alpha - returns above the market benchmark - through traditional long-only strategies.

Market-neutral strategies, which aim to generate returns regardless of market direction, offer a compelling alternative. By simultaneously holding long and short positions, these portfolios isolate returns from relative value bets. This paper details one such strategy, the **NAGMO Investment Thesis** (**N**VIDIA **A**nd **G**oogle **M**arket **O**pportunity), which posits a specific divergence in the performance of these key players.

2 Methodology

2.1 Mathematical Framework

We model a portfolio with positions in four major AI companies and a cash/debt component. Let the market capitalizations (in trillions USD) be the coefficients: NVIDIA ($5.03T), Amazon ($2.40T), Google ($2.21T), and Meta ($1.24T). The portfolio weights are represented by variables a, b, c, d respectively, with e representing an offsetting cash or debt position.

The portfolio is designed to be perfectly balanced, with a net value of zero. This is expressed by the equation:

$$a \cdot 5.03 + b \cdot 2.40 + c \cdot 2.21 + d \cdot 1.24 + e = 0 \tag{1}$$

To ensure capital efficiency, we seek a non-trivial solution that minimizes the total absolute exposure, W:

$$W = |a| + |b| + |c| + |d| + |e| \tag{2}$$

2.2 The NAGMO Investment Thesis

The core of our thesis is a bet on the AI value chain. We posit that NVIDIA, as the primary provider of essential hardware (GPUs), possesses a more defensible market position and higher growth sensitivity to AI compute demand than companies primarily focused on AI applications and cloud services, like Amazon and Google. While all will benefit from AI growth, we believe NVIDIA's 'picks and shovels' business model will outperform the 'prospectors' (Amazon Web Services, Google Cloud) in the near to medium term [3].

Therefore, the NAGMO investment thesis involves:

- **Long Position in NVIDIA ($a > 0$):** A direct bet on the hardware leader.
- **Short Positions in Amazon and Google ($b < 0$, $c < 0$):** A hedge against the broader tech sector and a specific bet against the relative performance of these cloud giants.
- **No Position in Meta ($d = 0$):** We exclude Meta to isolate the N-A-G dynamic, reducing model complexity.

2.3 Optimization and Solution

Solving the system of equations for a solution that minimizes W yields a highly efficient, non-trivial portfolio. The optimal weights are:

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a = 1.00
b = -1.00
c = -1.00
d = 0.00
e = -0.42
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This configuration results in a minimized exposure of $W = |1|+|-1|+|-1|+|0|+|-0.42| = \mathbf{3.42}$. The negative value of e indicates a small net cash inflow is required to establish the hedge, as the proceeds from the short sales exceed the cost of the long position.

3 Portfolio Visualization

The balanced nature of the NAGMO portfolio can be visualized as a perfectly leveled seesaw, where the long position's value is offset by the combined value of the short positions.

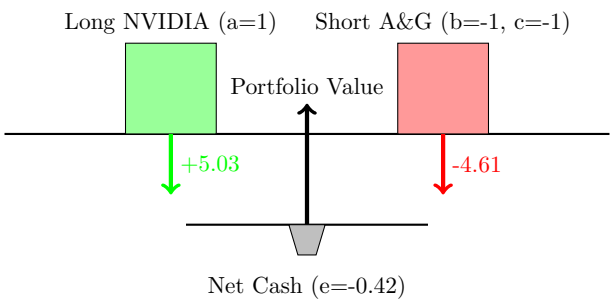

Figure 1: The NAGMO Portfolio as a Balanced System. The long position in NVIDIA is perfectly counterweighted by the combined short positions in Amazon and Google, with a small cash residual to balance the equation.

Figure 1 illustrates the core principle: the portfolio's net exposure to the market's directional movement is zero. The value is derived not from the market rising or falling, but from the *relative* performance of the underlying assets.

4 Discussion and Conclusion

The NAGMO portfolio represents a sophisticated, capital-efficient approach to AI investing. It moves beyond simple bullishness on the sector and instead makes a specific, defensible argument about the differential value creation within the AI ecosystem. The primary risk is idiosyncratic: if NVIDIA's hardware dominance is challenged (e.g., by a competitor like AMD or custom silicon from Google) or if Amazon/Google's AI divisions unexpectedly outperform, the position will incur a loss [1].

However, by minimizing W, we reduce the capital at risk and the cost of carrying the positions. The success of this thesis hinges on the continued segmentation of the AI market, where infrastructure providers outpace application and service providers in growth and investor sentiment. This strategy allows an investor to participate in the AI narrative while being hedged against its inevitable volatility and corrections.

References

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The End