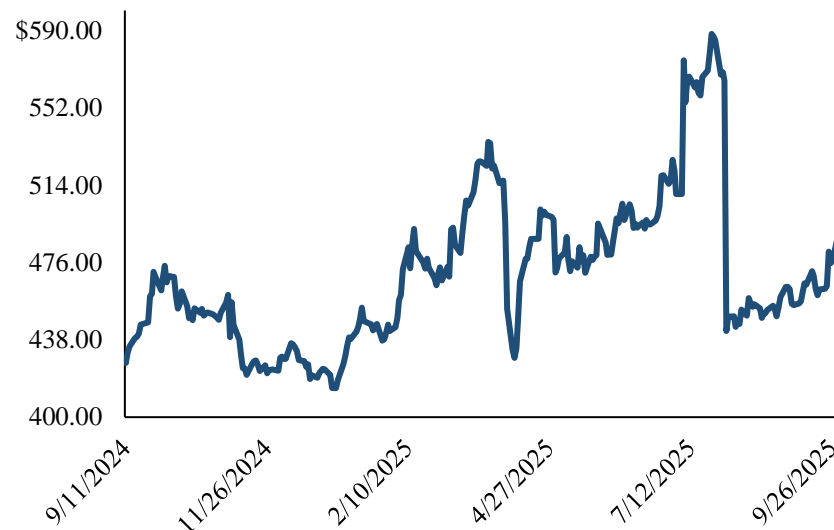




### Position Details

- Copper | HGG6
- Underlying Price: \$509.55
- Bull Call Spread
- Expiration Date: January 27, 2026

### Copper | One-Year Price Chart



### Metals Sector

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## Table of Contents

- I. Product & Position Overview
- II. Macroeconomic Thesis
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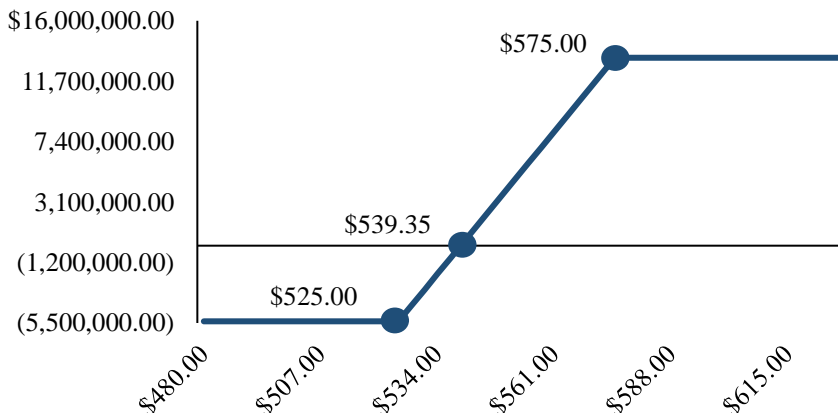
## I. Product & Position Overview

## Product & Position Overview

### Product Description

- **Copper**
  - Copper is an industrial metal used across various sectors of the economy due to its excellent electrical conductivity. This property makes the metal a key component in many construction, infrastructure, and renewable energy projects across the globe
  - The metal's price is very reliant on industrial demand in traditional and emerging industries, as well as demand from major consumers and supply expectations from top producers
  - China is the world's largest consumer and refiner of copper, accounting for ~55.00% of global demand, while Chile is the largest producer, generating ~26.00% of global supply

### Payoff Diagram



### Trade Breakdown

- **Bull Call Spread**
  - This strategy benefits from bullish price movements in the underlying asset prior to the expiration date
- **Setup**
  - We Buy – 15.00 OTM \$525.00 Calls | HGG6
  - We Sell – 15.00 OTM \$575.00 Calls | HGG6
  - Max Profit: \$13,368,750.00
  - Max loss: (\$5,381,250.00)
- **Expiration**
  - Date: January 27, 2026

### Exit Strategy & Potential Hedge Strategy

- **Bull Base & Bear Case**
  - **\$575.00 / \$552.00 / \$525.00**
  - Breakeven – \$539.35
- **Methodology**
  - The Metals Sector looks to benefit from a ~13.00% bullish movement in the price of the underlying before expiration
- **Hedge Strategy**
  - In the event of bearish price movement in the underlying asset, the Sector would look to reverse trade to minimize losses



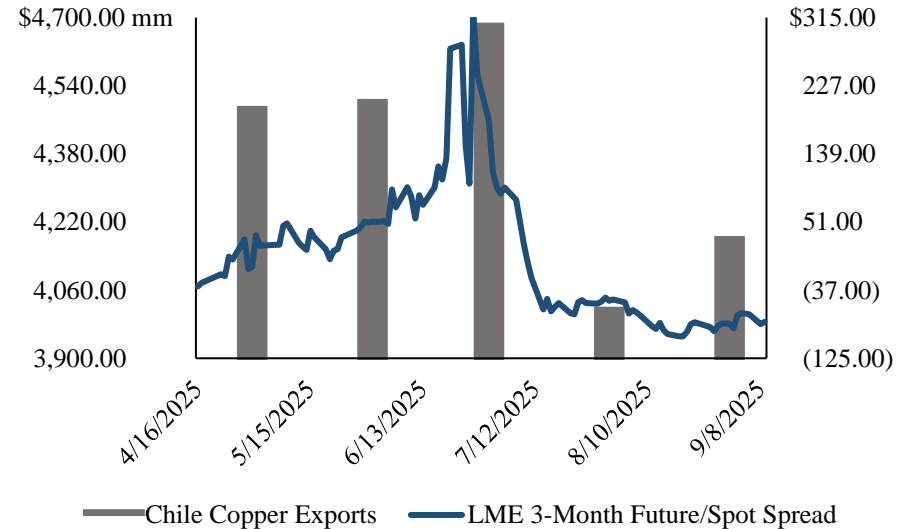
## II. Macroeconomic Thesis

## Macroeconomic Thesis

### Macroeconomic Summary

- Significant Supply Disruptions Pressuring Tight Global Inventories**
  - On September 8<sup>th</sup>, production at Freeport-McMoRan's Grasberg mine in Indonesia was halted entirely. As the world's second-largest mine, it generates ~4.00% of global copper production
  - J.P. Morgan previously forecasted a supply deficit of more than 200.00 k MT in 4Q2025. Yet, following a collapse at the world's largest mine in Chile and the expected loss of ~273.00 k MT of supply from Grasberg, this shortfall will be further exacerbated
  - Copper spot treatment charges in China are near a record low -\$50.50/MT, meaning smelters are paying to secure concentrate
- Stronger Than Expected Industrial Demand Through 1Q2026**
  - In 3Q2025, Tesla delivered a record-breaking 497.00 k vehicles worldwide, a 7.40% y/y increase and 58.00 k above expectations
    - GM, Hyundai, and Ford will extend discounts on certain EV models following the federal tax credit expiration
  - According to the IEA, China's grid investment was the largest contributor to copper demand growth over the past two years
    - In 4Q2025, State Grid Corporation will accelerate projects to achieve its ¥825.00 mm investment target
- Clouded Data Driving Dollar Weakness and Foreign Demand**
  - According to Fed data, the top 10.00% of income earners now account for a record 49.20% of all U.S. consumer spending
  - Over the past 20.00 years, the 12-month rolling correlation between LME copper and DXY has averaged around (0.70)
  - Prolonged government shutdown could lead to even larger revisions and further deplete trust in data reliability

### LME Copper Spread vs Chile's Monthly Export Value | Six-Month Chart



### Market Pros & Cons

- Emerging uses for copper in medical and military technology
- Ongoing M&A concentrates control and validates scarcity
- Record-level inventories in Comex warehouses could be re-exported
- Substitution risk increases with elevated prices

## III. Risk Analysis

## Risk Analysis

### Directional & Magnitude Risk

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- **Delta Analysis**

- The delta for this trade is 0.2608
- For every \$1.00 change in the price of the underlying asset, the strategy gains or loses \$0.2608
- The moderate delta in this trade reflects both strikes being OTM, with profitability requiring a strong upward move in copper prices before our proposed expiration date

- **Gamma Analysis**

- The Gamma value for this trade is 0.0009 meaning delta shifts by 0.0009 for every \$1.00 change in the price of the underlying
- Gamma is low as both strikes are OTM and expiration is relatively distant, so delta adjusts slowly as the underlying moves

### Implied Volatility Risk

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- **Vega Analysis**

- This trade has a Vega value of 0.4887
- Implied volatility for this trade is 27.00%
- For every 100.00 bps change in implied volatility, the contract's price is expected to increase or decrease by \$0.4887
- Vega is relatively high for this trade, reflecting how copper markets are sensitive to ongoing geopolitical uncertainty, sudden supply disruptions, and shifts in investor sentiment

### Time Risk

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- **Theta Analysis**

- The value of Theta in this trade is (0.0772)
- The trade experiences a loss of \$0.0772 for every 1.00-day decrease in time to expiration, with time decay accelerating as the contract approaches our proposed expiration date
- Theta is negative in this trade because the probability of the position landing ITM decrease as time passes

### Interest Rate Risk

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- **Rho Analysis**

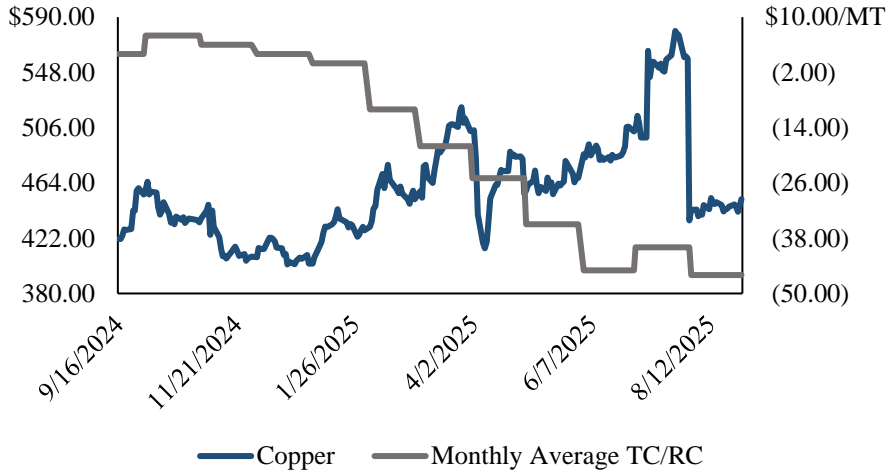
- The Rho in this trade is (0.0038)
- For every 100.00 bps change in the risk-free interest rate, the contract's value is expected to gain or lose \$0.0038
- Rho is slightly negative as the long call's positive Rho and the short call's negative Rho partially offset. Because this is a commodity-based spread, the position's value is only marginally affected by changes in interest rates



## IV. Technical Bias & Fair Value

## Technical Bias & Fair Value

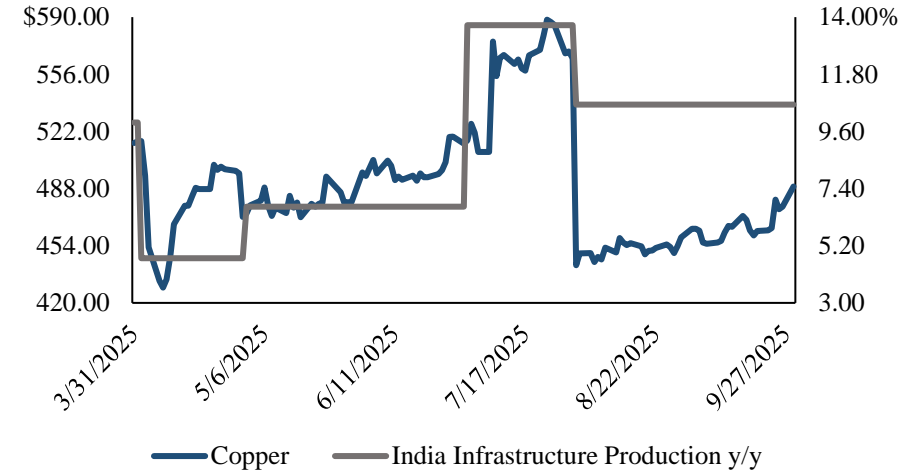
**Copper Price vs Average Treatment and Refining Cost | One-Year Chart**



**Monte Carlo**

	Long Call	Short Call
Value	\$35.34	\$13.79

**Copper Price vs India y/y Infrastructure Production | Six-Month Chart**



**Synopsis**

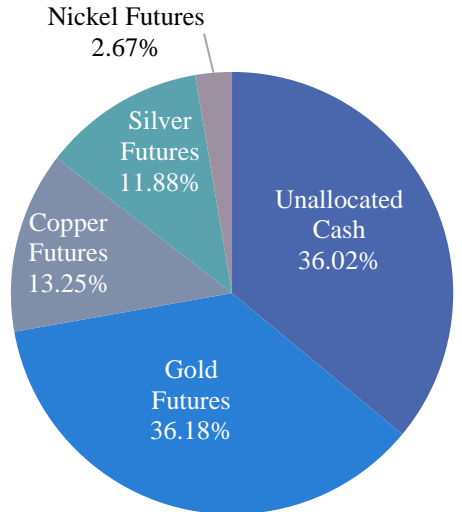
- The top left graph shows copper prices rebounding in mid-2025, even as monthly average Treatment/Refining costs stayed near record lows of around (\$40.00) to (\$50.00) per metric ton, underscoring that severe concentrate shortages and tight supply are driving the market. The collapse of treatment charges highlights that smelters are paying miners to secure feedstock, reflecting scarcity following the Grasberg halt and Chilean mine disruptions
- The top right graph shows that India's infrastructure production remained robust at the end of July, compared to the single-day 22.00% drop in copper prices during the same period. A positive correlation has been observed between these two indicators, leading to expectations that copper prices may rise over the next few months, as copper is a key material in electrical infrastructure, construction, and manufacturing. India's infrastructure production remaining above copper prices could indicate increased demand for raw copper material across specific sectors in the coming months



## V. Capital Allocation

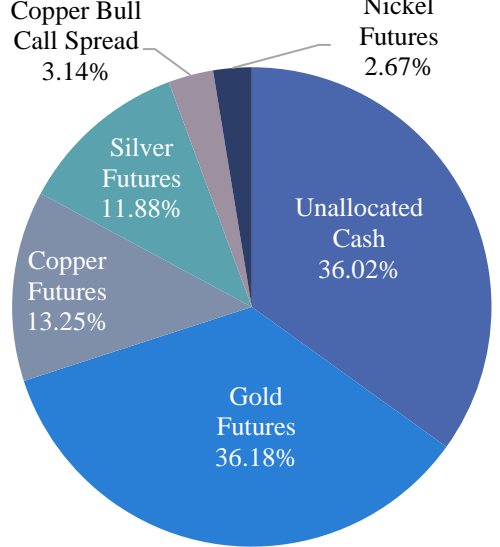
### Capital Allocation

#### Current Portfolio Allocation

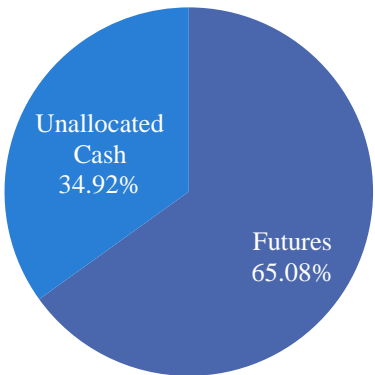


Transaction Summary			
Ticker	Position Change		Allocation
	Contracts	Allocation	
Gold Futures	0		\$0.00
Copper Futures	0		\$0.00
Silver Futures	0		\$0.00
Nickel Futures	0		\$0.00
Copper Bull Call Spread	+30		\$5,381,250.00
Allocation Change			\$5,381,250.00

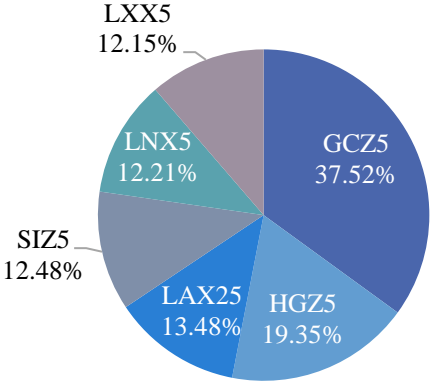
### Proposed Portfolio Allocation



### Current Position Allocation



### Benchmark Allocation



### Proposed Position Allocation

