



Quantitative Strategist

Location – Los Angeles, CA

Hiring Manager – Confidential PM

ABOUT EXODUSPOINT

ExodusPoint Capital, founded in 2017 by Michael Gelband and Hyung Lee, began managing investor capital in 2018. The firm employs a global multi-strategy investment approach, seeking to deliver compelling asymmetric returns by combining complementary liquid strategies managed by experienced investment professionals within a robust risk framework. ExodusPoint brings together an accomplished team with hands-on experience running multi-manager businesses to create an institutional investment management firm.

CASE STUDY ASSIGNMENT

Gold/Copper vs. Duration Pair Trading

The use of gold primarily represents store of value with no industrial use. Gold is a risk free real asset, and as such, gold prices should have a fundamental relationship with real interest rates. While gold is a non-cash flow asset, it could be thought of as a zero coupon bond – similar to Strips (zero coupon treasuries).

Copper as an industrial metal, which tends to rise in price at times of strong GDP growth and rising inflation. Gold/copper ratio is frequently used to gauge expected global economic activity. One hypothesis is that copper may be a predictor of inflation exceptions, and therefore could have relevance in modeling treasury returns.

How would you go about testing a pair trading strategy between long dated treasuries and combination of gold and copper?

Feel free to use any statistical/econometric/analytical method you feel comfortable with (cointegration, simple OLS, machine learning or any other) in the language of choice (Python preferred if possible). Using the returns data provided, try building a simple mock trading strategy. You can suggest a buy/sell signal generating model. This assignment has an unspecified scope. Coding/quantitative modeling is welcome.

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