Master's Thesis Presentation

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"Geographic Revenue Factor: High-Dimensional Alpha Test & ETF Design"

November 5, 2025, at 3:00 PM Jones 111, 5747 S. Ellis Avenue

Abstract

Investors often face a trade-off between domestic market concentration and generic global diversification. This thesis proposes and validates a thematic strategy addressing this challenge, focusing on global companies that derive significant geographic revenue from a target domestic market (using China as a case study). We hypothesize that this revenue exposure predicts superior stock performance (alpha) unexplained by known risk factors. A rules-based methodology identifies eligible firms from 2016-2023. To rigorously test for alpha, we employ high-dimensional factor regression models (LASSO and Post-LASSO) to control for over 200 known risk factors. The analysis finds a statistically significant monthly alpha (approx. 0.94%, p < 0.001) against this comprehensive factor set. The finding remains robust when tested against standard benchmark models (e.g., Fama-French 5 + Momentum, alpha approx. 1.78%). These results confirm that geographic revenue factor is a potent characteristic predicting returns beyond known factors. The thesis concludes by outlining practical ETF design considerations based on this blueprint.

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