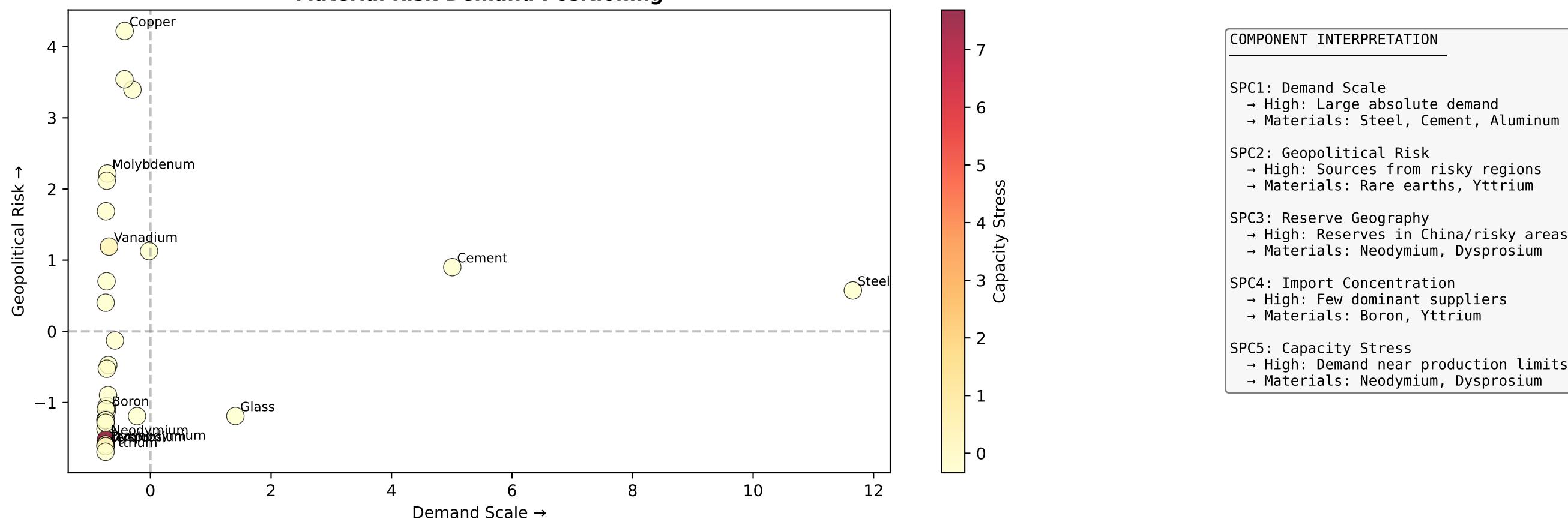


Material Supply Chain Risk Analysis — Sparse PCA Summary

Material Risk-Demand Positioning



Highest Scoring Materials by Component

Demand Scale: Steel, Cement, Glass

Geopolitical Risk: Copper, Zinc, Lead

Reserve Geography: Terbium, Dysprosium, Praseodymium

Import Concentration: Iridium, Boron, Manganese

Capacity Stress: Neodymium, Vanadium, Praseodymium

Materials with Highest Supply Chain Risk Exposure

