

Constraint-Induced Factors

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Abstract

We propose a new way to quantify portfolio investment frictions. Representing any given friction as a constraint, its *Constraint-Induced Factor* is the tracking error from replicating the tangency portfolio subject to the constraint. Constraint-Induced Factors carry a structural interpretation in a standard asset pricing framework, where their price of risk corresponds to the mass of affected capital and the marginal cost of the associated friction in risk-sharing terms. In empirical applications to global bond markets, we show that the magnitude of pricing effects associated with U.S. Treasury convenience and capital controls for Chinese government bonds is consistent with 20-25% of global bond market capital being constrained to invest in each of those markets. We also discuss applications to stock markets, including ESG investing and indexing.

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