Contemporaneous ADR Pricing: Intraday Dynamics During Overlapping Trading Hours

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Abstract

We contribute to the literature by identifying and accurately measuring the drivers of ADR returns contemporaneously across various global time zones. We consider ADRs as two inherently distinct asset classes – stocks and currencies – bundled into one. Throughout, we use a relatively refined, focused, and synchronized minute-by-minute data set on ADRs and all other variables. ADRs from all countries with regular trading hours that overlap with those of the U.S. are considered individually and in clusters. We analyze the interplay of several factors that influence ADRs pricing patterns. Further, we investigate whether such patterns vary by currency, ADR, industry, and emerging/developed market classifications. Our findings indicate that synchronized returns on underlying shares comprise 68.5% to 74% of the explained returns in ADRs. The remaining 31.5% to 26% of returns are generated by movements in currency rates. These results are robust across the several models and estimation methods employed. Our findings also show persistent small price discrepancies between ADRs and dollar-adjusted underlying shares on a minute-by-minute basis, implying possible arbitrage opportunities. However, we conclude that trading and ADR conversion costs render such opportunities unattractive.

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