Principal Trading Arrangements: Optimality under Temporary and Permanent Price Impact

Markus Baldauf†  Christoph Frei‡  Joshua Mollner§

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Abstract

We study the optimal execution problem in a principal-agent setting. A client contracts to purchase a large position from a dealer at a future date. The dealer first buys the position from the market, creating temporary and permanent price impact. The client chooses a contract, which specifies payment as a function of market prices; hidden action precludes her from conditioning on the dealer’s trade sequence. Weighted-average-price contracts are commonly-used. We explicitly characterize the optimal weights: they are symmetric and generally U-shaped over time. Back-of-the-envelope calculations suggest that switching to our optimal contract significantly reduces transaction costs.

Keywords: agency conflict, block trading, contracting, dealer-client relationship, price impact
JEL Codes: G11, G14, G23, D82, D86

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†University of British Columbia, Sauder School of Business: baldauf@mail.ubc.ca, https://sites.google.com/site/mbaldauf/.
‡University of Alberta: cfrei@ualberta.ca, https://www.math.ualberta.ca/~cfrei/.
§Northwestern University, Kellogg School of Management: joshua.mollner@kellogg.northwestern.edu, https://sites.google.com/site/joshuamollner/.