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Dynamic Inefficiency in Decentralized Capital Markets

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Abstract

We study the efficiency implications of bargaining in frictional capital markets in which firms match bilaterally with dealers in order to buy or sell capital. We show how two of the distinguishing characteristics of capital – ownership and the intertemporal nature of investment – give rise to a dynamic inefficiency. Firms that anticipate buying capital in the future overinvest because this increases their outside option of no trade in negotiations with dealers in the future, thereby lowering the bargained purchase price. Vice versa, firms that anticipate selling capital in the future strategically underinvest because this increases the bargained sale price. If the only motive for trade is capital depreciation, there is overinvestment. With stochastic productivity, high-productivity firms underinvest and low-productivity firms overinvest. In equilibrium, the inefficiency interacts with the externality from dealer entry and implies that no bargaining power achieves the constrained-efficient allocation. We propose a regressive tax on capital that can restore efficiency. Finally, we calibrate the model to data on physical capital markets and show that depending on bargaining power, the welfare loss from the inefficiency can be large.

Keywords: Search, capital markets, over-the-counter markets, bargaining.
JEL codes: C78, D83, E22, G1.

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