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TECHNOLOGY, COMMUNICATION AND THE PERFORMANCE OF FINANCIAL MARKETS: 1840–1975

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SESSION CHAIRPERSON: ROBERT A. KAVESH

TECHNOLOGY, COMMUNICATION AND THE PERFORMANCE OF FINANCIAL MARKETS: 1840–1975

KENNETH D. GARBADE AND WILLIAM L. SILBER*

"The products of the world, which, if left free to move naturally would be attracted to the most profitable markets, are frequently impelled towards unprofitable ones because the knowledge of which are the best ones becomes known in most cases only after the product has been shipped to an unprofitable one. All this source of mercantile loss and embarrassment ceases where the telegraph is established."

Hunt's Merchant Magazine
July, 1865, p. 18

I. INTRODUCTION

MOST THEORETICAL and empirical investigations of the behavior of securities prices implicitly assume that the price at which an asset trades at any moment of time is determined by a balancing of the supplies and demands of all participants in a single integrated market. Many assets, however, trade in multiple, geographically separated, market centers. Participants in one center may be only imperfectly aware of opportunities for purchases and sales of *identical* assets in other locations. Contemporaneous asset prices may, therefore, differ between the various market places. Stigler (1961) has suggested that the analysis of markets which are not completely centralized may be viewed from the context of the economics of information.

One of the most important causes of inter-market price differentials is the existence of time delays in communicating price information between market centers. The purpose of this paper is to investigate the contribution of improvements in communication technology to the integration of decentralized markets. We consider the impact of the domestic telegraph system on the New York and Philadelphia stock markets and on the New York and New Orleans foreign exchange markets during the 1840s. In a similar vein we examine the effect of the opening of the trans-Atlantic cable in 1866 on the New York and London bond markets. Finally, we analyze the effect of the consolidated stock market ticker tape on the New York and regional stock exchanges in 1975.

Although these innovations in communications technology span more than one hundred years, they all served to speed the flow of information from one market

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