SYSTEMIC RISK IN BANKING:
CONCEPT AND MODELS

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ABSTRACT

The purpose of this chapter is to examine systemic risk in financial markets. A number of definitions of systemic risk are discussed. While various shocks may have the potential to disrupt severely the functioning of financial markets, I argue that it is necessary to consider "nonrational" behavioral responses of agents to these shocks to understand the dynamics of systemic events. The role of policy institutions to prevent or mitigate systemic events is also considered.

INTRODUCTION

Recently, there has been a marked increase in the public's interest in issues surrounding the robustness of financial markets to large, adverse shocks. This heightened interest is due, at least in part, to the rapid growth of the use of financial "derivatives" by market participants in recent years, along with some well-publicized instances of financial distress of institutions that relied heavily on certain types of derivatives. One frequently encounters the thesis that an inappropriate exposure to risks from derivatives positions could either amplify existing risks or create new risks in financial markets. Among the forms of risk that are of particular concern is systemic risk, i.e., the risk that parts or all of the financial system may fail abruptly, thereby exposing market participants to additional potential losses.

Unfortunately, there is no universally agreed-upon definition of what constitutes systemic risk, and the term is rarely defined explicitly by those who use it. Some recent contributions to this discussion that do provide