Rational contagion and the globalization of securities markets

Guillermo A. Calvo\textsuperscript{a}, Enrique G. Mendoza\textsuperscript{b,e,*}

\textsuperscript{a}Center for International Economics, University of Maryland, College Park, MD 20742, USA
\textsuperscript{b}Department of Economics, Box 90097, Duke University, Durham, NC 27708-0097, USA
\textsuperscript{c}National Bureau of Economic Research, Cambridge, MA 02138, USA

Received 8 December 1998; received in revised form 7 May 1999; accepted 26 May 1999

Abstract

This paper argues that globalization may promote contagion by weakening incentives for gathering costly information and by strengthening incentives for imitating arbitrary market portfolios. In the presence of short-selling constraints, the gain of gathering information at a fixed cost may diminish as markets grow. Moreover, if a portfolio manager's marginal cost for yielding below-market returns exceeds the marginal gain for above-market returns, there is a range of optimal portfolios in which all investors imitate arbitrary market portfolios and this range widens as the market grows. Numerical simulations suggest that these frictions can have significant implications for capital flows in emerging markets. © 2000 Elsevier Science B.V. All rights reserved.

Keywords: Herd behavior; Contagion; Capital mobility; International portfolio diversification

\textit{JEL classification:} F30; F34; F36; G11; G15

*If I may be allowed to appropriate the term speculation for the activity of forecasting the psychology of the market, and the term enterprise for the activity of forecasting the prospective yield of assets over their whole life, it is by no means always the case that speculation predominates enterprise. As the organisation of investment markets improves, the risk of the predominance of speculation does, however, increase. . . . Speculators may do no

\*Corresponding author. Tel.: +1-919-660-1814; fax: +1-919-684-8974.

E-mail address: mendozae@econ.duke.edu (E.G. Mendoza)
harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation.' (John Maynard Keynes, *The General Theory of Employment, Interest, and Money*, pp. 158–159).

1. Introduction

In the aftermath of the Mexican crash of 1994, several emerging stock markets fell as investors ‘ran for cover,’ expecting that vulnerable countries like Argentina and Brazil, or even rising stars as Chile or Singapore, would be next in a series of currency crises. Similarly, the spreading of the financial crisis that originated in Thailand across several countries in East Asia in 1997, and the global financial turmoil triggered by Russia’s default in 1998, are widely attributed to unprecedented contagion effects across globalized securities markets. In all these instances, investors seemed to follow the ‘market’ rather than take the time and expense to make their own assessments of each country’s fundamentals, perhaps guessing that ‘market’ portfolios embodied relevant information, or fearing the consequences of disagreeing with the ‘market.’ A similar phenomenon, albeit at a smaller scale, also appears to operate in the recurrent waves of optimism by institutional investors observed in industrial countries. 2

The extreme volatility of these speculative capital flows, and the costly economic crises that have accompanied recent financial crashes, have led researchers and policy-makers to reconsider the merits of the trend toward the liberalization of global asset trading that prevailed during the last 15 years. The introduction of controversial capital controls, taxes, and other barriers to asset trading is gaining increasing popularity in the wake of the recent financial turmoil. Chile’s taxes and timing restrictions on inflows and outflows of short-term capital, which had been in place since the early 1990s, are an often-cited example of the type of controls that could be useful to prevent contagion. Malaysia’s decision to suspend foreign trading in its currency and impose widespread capital controls in 1998 is a more radical example. Even at the New York Stock Exchange (NYSE), there are automatic trading halts that stop trading for periods of time during market sessions when stock prices fluctuate too much. However, given that our understanding of the distortions that may produce contagion, and of how these distortions interact with the globalization of capital markets, is very limited, one must remain skeptical about the effectiveness and desirability of these policies. The aim of this paper is, therefore, to contribute to the development of an

---


2 See the survey data analysis of contagion by word of mouth by Shiller and Pound (1986, 1987).