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Journal of Asian Economics 14 (2003) 593–609

JOURNAL OF ASIAN ECONOMICS

The efficiency of the Chinese stock market and the role of the banks

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Received 25 October 2002; received in revised form 3 March 2003; accepted 30 June 2003

Abstract

This paper examines the weak market efficiency and the role of the banks in the Chinese stock market. We consider both A and B shares traded on the Shanghai and Shenzhen stock exchanges using daily data for seven indexes for the period 1992–2001. We begin by an examination of the weak EMH and find evidence of departures from weak efficiency in the form of predictability of returns on the basis of their own past values. Over the period as a whole this was most marked for the B shares in both the exchanges and absent altogether in the index for the 30 leading stocks on the Shanghai market, suggesting that previously reported predictability may simply reflect thin trading. We go on to examine whether the efficiency was affected when banks were excluded from the stock market in 1996 and subsequently re-admitted in early 2000. We find that efficiency tended to be adversely affected when the banks were excluded.

JEL classification: G14; G18; G21

Keywords: Efficient markets hypothesis; Predictability; Chinese stock market; Banks

1. Introduction

There is a growing literature demonstrating the importance of the financial system in the process of economic development—the financial system provides a mechanism whereby the resources available for financing new capital expenditure (domestic saving and net

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1049-0078/$ – see front matter
doi:10.1016/S1049-0078(03)00097-6

capital inflow from abroad) are distributed amongst competing ends.[1] Competing projects differ both in their expected returns as well as in risk and it has long been a central tenet of financial economics that an efficiently operating financial market optimally balances risk and return in funds allocation. Thus the investigation of the efficiency of financial markets has been an important preoccupation of empirical financial economics and much of the literature has focussed on the efficiency of the stock market.

China's stock market is a relatively new but increasingly important part of the Chinese financial system which is undergoing a structural shift from a heavily-regulated and almost exclusively bank-based system to one with much greater diversity of institutions including a vigorous and increasingly sophisticated stock market. The two official stock exchanges, the Shanghai Exchange and the Shenzhen Exchange, were established in December 1990 and July 1991, respectively. Since their establishment, the two exchanges have expanded rapidly and have operated in a continually changing regulatory environment. China's stock market is now the second largest in Asia, behind only Japan. The speculation is that China's securities market has the potential to rank among the top four or five in the world within the coming decade (Ma & Folkerts-Landau, 2001). Yet little is known about this relatively young player in the global community.

In this paper we investigate the efficiency of the Chinese stock market. In the literature of financial economics, efficiency has come to take on a specific meaning following the work particularly of Fama (1970, 1991). Fama defined efficiency as the ability of the market to rapidly digest new information so that securities' prices would at every point in time incorporate all relevant available information. This has become known as the efficient markets hypothesis (EMH) and an arbitrage argument is used to show that the EMH implies the absence of predictability of asset prices—if prices were predictable, profits could be made on the basis of the predictability and arbitrage would eliminate these profits in an efficiently operating market. It is this unpredictability implication of the EMH which is most commonly tested in the empirical literature.

In our investigation of the efficiency of the Chinese stock market, we focus on the interplay between market efficiency and changes in regulation. In particular, we examine the impact of the banks on market efficiency. This is an important question since the banks have a traditional and dominant place in the financial system and have for much of the 1990s been important sources of funds (and other influence) for the stock market. Interestingly, there have been two distinct changes of government policy in relation to the banks' role in the stock market and these provide a useful opportunity to assess the implication of the banks to the efficiency of the system in the Fama sense.

We contribute to the literature first by re-examining the weak form of the efficient markets hypothesis (WEMH) using daily Chinese stock market data. While numerous studies have addressed issues in this area in the recent past, we extend the existing studies in several ways. First, this study is based on a much more extensive database. Previous studies focussed on the initial years immediately after China's two stock markets were established in 1991 and often analysed relatively few indexes. We analyse daily data for

[1] For recent evidence on the importance of the relationship between the financial system and development see, for example, Arestis and Demetriades (1999), Beck, Levine, and Loayza (2000), Henry (2000a, 2000b), Levine (1997), Levine, Loayza, and Beck (2000), Levine and Zervos (1998).