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# Price differentials between different classes of stocks: an empirical study on Chinese stock markets

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**Abstract**

This paper investigates the effect of strict segmentation on pricing in the context of the Chinese stock markets. The paper demonstrates that information asymmetry between foreign investors and domestic investors, liquidity effects, diversification effects, clientele bias, risk-free return differentials between foreign and domestic investors, and foreign exchange risks are significant factors in explaining discounts on shares that can only be owned by foreign investors. © 2001 Elsevier Science B.V. All rights reserved.

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## 1. Introduction

In the Chinese stock markets, strict ownership segmentation is implemented, and two classes of shares — domestic-only shares (A shares) and foreign-only shares (B shares) — are traded. Bailey (1994) gives evidence of discounts on foreign-only-shares relative to domestic-only-shares. Fernald and Rogers (1998) argue that the lower return required by domestic investors, and little domestic investment opportunities in China contribute to the price discount. Chakravarty et al. (1998) model

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the effect of information asymmetry on the discount on stock prices in a strictly segmented market. Gordan and Li (1999) argue that legal restrictions create the segmented market and limit investment opportunities. Thus, domestic investors have inelastic demands for equity due to insufficient supply, pushing up the price of class A shares.

In a related study, Errunza and Losq (1985) argue that in partially segmented markets, securities inaccessible to a subset of investors demand a risk premium.[1] Hietala (1989) devise a model that suggests domestic investors pay less under mild segmentation; and this is verified by empirical data from the Finnish market. Bergström et al. (1993) analyze stock pricing when domestic investors face a cap on investing in foreign assets, and when foreign investors are restricted to investing in domestic assets. They find that domestic investors pay a premium to invest in foreign assets while foreign investors pay a premium to invest in domestic assets.

In contrast to other stock markets with similar ownership segmentation, the Chinese stock markets have substantial, yet persistent, price discounts on foreign-only-shares relative to domestic-only-shares.[2,3] Given this special phenomenon, this paper analyses potential causes that can explain the price discount.[4] The paper is structured as follows: Section 2 presents the institutional setting, Sections 3 and 4 perform analysis of cross-sectional and time-series data; and Section 5 presents our conclusions.

## 2. Institutional setting

Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE) started trading in the early 1990s.[5] Since then, public equity markets have developed

[1] Under partial segmentation, one class of shares is available to all investors and the other class is available to a subset of investors. However, in the Chinese stock markets, segmentation is strict, under which one class of shares is only available to domestic investors while another class of shares is only available to foreign investors.

[2] Examples of other markets that segment ownership are Switzerland, Mexico and the Philippines. The degree of segmentation varies between different markets. According to Wo (1997), the Chinese stock markets are the only markets covered by the International Finance Corporation that employ strict segmentation.

[3] The phenomenon of discounting foreign-only shares relative to domestic-only shares previously appeared in other markets, such as the Stockholm Stock Exchange. However, according to Fernald and Rogers (1998), by the end of 1996, only the Chinese stock markets still demonstrated such a phenomenon.

[4] The paper is an extension of Tang (1999), a master thesis authored by Tang and supervised by Bergström.

[5] There are other regional Stock Exchanges, e.g. Beijing Stock Exchange and Chengdu Stock Exchange, offering domestic-only shares. However, only SZSE and SHSE offer both domestic-only shares and foreign-only shares.