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The competitive position of Shanghai in the Asia-Pacific region: a comparative study

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This paper looked at 12 International Financial Centers (IFCs) in the Asia-Pacific region by employing hierarchical cluster analysis and principal component analysis and applying them to 10 financial variables. This study has demonstrated that as a result of increased foreign financial institutions' participation and the expansion of markets' size, Shanghai is fast closing up the gap with other major IFCs. Shanghai might pose a challenge not only to Hong Kong but also to Tokyo in the next few years if China's Government further liberalizes its financial markets to foreigners and augments the range of financial instruments.

Keywords: International Financial Center; Shanghai; Hong Kong; Asian-Pacific region

JEL Codes: G15, G20

1. Introduction

In the last decades, progress in transport technology, telecommunications, and data processing has largely stimulated the worldwide dispersion of financial operations. However, economic analysis of geographically localized financial activity has lagged behind the development of regional studies of economic activity. Most studies have a historical and/or descriptive and/or promotional character. There are already three well-established International Financial Centers (IFCs) in the region: Tokyo, Singapore, and Hong Kong (Researchrepublic 2008). So far Hong Kong retains its position as a major IFC in the region and locational benefits that develop from Hong Kong being at the intersection of Chinese and foreign social networks that mediate the flow of capital (Yu and Yun 2009). However, Shanghai has an expanding services sector offering agglomeration economies. China's Government certainly has an interest in seeing Shanghai succeed in becoming the significant IFC in the near future (Laurenceson and Tang 2005).

The purpose of this paper is to examine the importance of Shanghai as an IFC in the Asia-Pacific region and to suggest how the process of financial liberalization and internationalization could be pursued to aid the further development of mainland

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China's economy. In this paper, we adopt two statistical techniques which include cluster analysis and principal component analysis to scrutinize the Asian financial markets. Cluster analysis is employed to group 12 IFCs into homogeneous clusters with similar characteristics so as to provide a preliminary classification. Principal components analysis is used to identify what main factors determine the status of an IFC. In addition, factor scores of principal components analysis is used to rank the different IFCs in the region. Meanwhile, 10 variables are used in both analyses. Among them, seven variables followed the previous empirical studies. Additionally, we propose and use three new variables: the number of foreign companies listed on the center's stock exchange, derivative turnover of the country, and law and order (reflecting an IFC's regulatory environment and legal protection of investor rights), which are critical in the trend of globalization and sophistication of financial markets.

The structure of this paper is as follows. Section 2 reviews previous studies on the theoretical framework of IFCs and empirical work on the ranking of IFCs. Section 3 describes 10 variables employed in this study. Section 4 presents a statistical ranking (using cluster and principal components analysis) of 12 IFCs in the Asia-Pacific region. Section 5 discusses the future prospects of Shanghai in light of the statistical analysis and provides some policy implications.

2. Literature review in theory and in practice

The birth of industrial location theory is generally dated 1909 when Weber (1909) published his famous book entitled *Über den Standort der Industrie*. Later on, an increasing awareness of the limitations of the Weberian purely competitive framework led to another approach to the problem of plant locations under the influence of Hotelling (1929). Hotelling (1929) first proposed that two firms of a homogeneous product agglomerate at the center of the line market under linear transportation costs. Since then, a considerable effort has been devoted to this principle of agglomeration (see, e.g. D'Aspremont *et al.* 1979, Mai and Peng 1999). Moreover, Krugman (1991) developed the so-called "new economic geography" and demonstrated how economic integration can lead to dramatic increase in the geographical concentration of industry production via a self-reinforcing, linkage-based agglomeration process. As Porter (1998) pointed out, clusters affect the nation's innovative capability and location influences competitive advantage through its impact on productivity and especially on productivity growth. The existence of clusters suggests that much of a company's potential to achieve competitive advantage, both in operational effectiveness and in establishing a unique strategy, lies outside the company and even outside the industry. Thus, it is very important to understand the role of clusters in competition. Most of the theoretical underpinnings of traditional industrial location theory find application in the financial services sector (Park 1982, Choi *et al.* 1986, Davis and Latter 1989, Davis 1990, Goldberg *et al.* 1991, Sassen 1991).

A financial center agglomerated by financial firms is generally defined as a central location where the financial transactions of an area are coordinated and cleared. By centralizing its financial transactions, the financial community benefits from the economies of scale. The benefits of centralization include (1) quick and easy access to the knowledge and services of complementing and competing institutions; (2) rapid clearing and