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Institutional development and stock price synchronicity: Evidence from China

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ABSTRACT

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Better developed legal and political institutions result in greater availability of reliable firm-specific information. When stock prices reflect more firm-specific information there will be less stock price synchronicity. This paper traces the experience of China, an economy undergoing dramatic institutional change in the last 20 years with rich variation in experiences across provinces. We show that stock price synchronicity is lower when there is institutional development in terms of property rights protection and rule of law. Furthermore, we investigate the influence of political pluralism on synchronicity. A more pluralistic regime reduces uncertainty and opaqueness regarding government interventions and therefore increases the value of firm-specific information that reduces synchronicity. *Journal of Comparative Economics* **42** (1) (2014) 92–108. Schools of Business, Fordham University, New York, NY 10019, USA; Research Unit, Bank of Finland, 01001 Helsinki, Finland; School of Business and Economics, Michigan Technological University, Houghton, MI 49931, USA; Stern School of Business, New York University, NY 10012, USA.

1. Introduction

The influence of institutional characteristics on the synchronicity of stock prices can be traced to Grossman and Stiglitz (1980), who argued that informed trading and informative pricing, which are central determinants of firm-specific stock variation, are determined by the costs and benefits of information collection. Following their rationale, we argue that poor legal institutions increase the cost of information collection and reduce investors' incentives to collect private information. This reduces the information content of stock prices and increases stock price synchronicity. Furthermore, we introduce a related argument regarding the openness of political institutions, namely, that there is greater availability of private information in more open political environments.

For the most part, the existing literature relates the quality of institutions to economic performance with cross country studies in which the heterogeneity of country specific characteristics makes it difficult to identify the effects even with panel data (Acemoglu et al., 2005; Glaeser et al., 2004; Wachtel, 2011). In this paper we focus on one country, China, where the pace of both legal and political development has varied across the provinces, and we relate these developments to the quality of information and, hence, synchronicity in equity markets. Rapid development over the last 20 years has both improved

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Chinese institutions and increased the variation among China's provinces in the level of legal and political development. Specifically, we use a panel of Chinese provinces to investigate the effect of institutions, both legal and political, on stock price synchronicity.

We show that the differences in stock price synchronicity are in part due to the variation among the provinces in institutional characteristics regarding property rights protection and the extent of the rule of law, as well as the degree of political pluralism. That is, stock price synchronicity is lower (i.e., the information content of stock prices is higher) in provinces with a better legal environment and greater political openness.

A priori, there are two reasons why poor institutions can lead to less collection of private information. First, in provinces where property protection for investors is weak, the risk of expropriation by corporate insiders could make firm-specific information less valuable, and informed risk arbitrage is unattractive. Second, even good regulations regarding information disclosure are often not fully enforced when there is poor rule of law. The entrenched managers are able to withhold relevant information to cover their own self-serving behavior.[1] The argument regarding political pluralism is similar. A more pluralistic political structure reduces the uncertainty and opacity of political decision making because the dominant Communist party has to contend with non-party members and is subject to increased monitoring from them. Thus, greater political pluralism in a province will reduce the costs that result from political risk in collecting private information, which, in turn, decreases synchronicity.

The cross country literature on synchronicity has shown that firm-specific stock return variation is high or stock price synchronicity is low in countries with more developed institutions because reliable firm specific information is more readily available (Morck et al., 2000). Furthermore, countries where investors have more firm-specific information will also have greater efficiency of capital allocation and lower costs of capital (Durnev et al., 2004; Wurgler, 2000). However, a potential drawback of the cross country studies is that firms operating in different national environments are also affected by other country specific characteristics, such as diversity of historical experience. We are able to hold national characteristics constant by focusing on the province-level differences in institutional development across China.

The literature on synchronicity focuses on the effects of investor protection from the perspective of the legal and information environment with no discussion of the direct influence of the political environment (i.e., Jin and Myers, 2006; Fernandes and Ferreira, 2009). We suggest that the political environment may be equally important because politicians can change investor protections if they choose to do so (Pagano and Volpin, 2005). Political authorities can alter the legal environment with legislative changes or by changing the way laws are applied. An authoritarian political regime can enact new legislation or change the existing legal environment as it relates to investor protection. There is significant variation across China's provinces in the extent of influence of the Communist party and the diversity of the political environment. We show that differences across the provinces in political pluralism influence stock price synchronicity.

Stock price synchronicity among the Chinese provinces has been examined by Gul et al. (2010) in a study of ownership concentration and corporate governance. We adopt their approach to the measurement of synchronicity and apply it to a study of local institutions. The measures of legal and political development in China at the provincial level were first developed by Hasan et al. (2009), who use the data to explain differences in the growth rate across provinces. Data are available for 31 Chinese provinces for the period 1998–2007.

The possible endogeneity of synchronicity presents a major challenge which we attempt to solve by using GMM estimation. The results are often over identified, but when they are not we find that our results with OLS and GMM are largely the same. Furthermore, we present a number of tests to support the robustness of our results. For example, Morck et al. (2000) find that the relationship between investor protection and stock price synchronicity is different in emerging markets as compared to developed countries. There are large differences in the level of development across China; we divide our sample between those provinces with above and below median GDP per capita. Our results are not driven by the differences between the two sub samples. We also explore some alternative explanations for the roles of institutions. For instance, Khanna and Thomas (2009) suggest that poor institutions may enhance the development of business groups, vertical integration, and operating diversification, which further increases stock price synchronicity. We examine the role of corporate governance by looking at the interaction between our institutional measures and firm characteristics, such as ownership that is related to better corporate governance. We find that better institutions have a more pronounced effect on stock price informativeness for firms with poorer corporate governance, as indicated by a higher proportion of government ownership or a lower proportion of foreign ownership. These results support our hypothesis that the negative relationship between institutional development and stock price synchronicity is due to poor institutional development that provides less investor protection. This increases the cost of information collection and reduces investors' incentives to collect private information, which further reduces the information content of stock prices and increases stock price synchronicity.

Our study contributes to the literature in several ways. First, as noted earlier, by using province level data from one country, we overcome the problem faced by all cross country studies regarding omitted country characteristics. We provide a unique focus on the effect of province-level investor protection in the single most important emerging market, China. Second, in addition to the effects of property rights and law enforcement, we also examine the effect of another important aspect of institutional development, political pluralism—a measure of the strength of democracy—on stock price informativeness, which has not been previously investigated. Third, China utilizes a quota system to select companies from

[1] For a discussion of these issues in emerging markets, see Chan and Hameed (2006) and Fan and Wong (2005).