Experience-based corporate corruption and stock market volatility: Evidence from emerging markets

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ABSTRACT

This paper reassesses how "experience-based" corporate corruption affects stock market volatility in 14 emerging markets. We match the World Bank enterprise-level data on bribes with a unique cross-country macroeconomics dataset obtained from the World Bank development indicators. It is found that wider coverage of "realized" corporate corruption in the emerging markets investigated reduces the stock market volatility, attributed to decrease in uncertainty about government policy with regard to the business environment, as implied by the general equilibrium model of Pastor and Veronesi (2012). Overall, our results suggest that stock price volatility decreases as the uncertainty about government policy becomes more predictable, which is consistent with the testable hypotheses of Pastor and Veronesi (2012).

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1. Introduction

Stock market facilitates and therefore promotes capital formation, and therefore promotes economic growth through encouraging saving and real investment. For financial markets with risk-adverse investors, less saving and investment will be realized if the underlining stock market is too volatile, and this is the usual implication of general equilibrium model with a representative agent maximizing utility under uncertainty (Du and Wei, 2004). As a stylized fact, the volatility of stock market price index across different countries can vary enormously. The volatility of stock returns is higher in emerging markets; for

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example the volatility of stock market in Taiwan in 2006 is 1.19, as measured by the standard deviation of the daily stock price returns, which is higher than that of Hong Kong of 0.92. This figure also varies within emerging economies: Brazil and Chile are the emerging markets with modest market liquidity (over 23% in 2012), while the volatility of Brazil is 0.6% higher than that of Chile in 2012. Moreover, the volatility also varies substantially across time periods. The stock market volatility for Chile in 2012 is 100% less than that of the year in 2008, when financial crisis was prevailing.

One important source of stock market volatility comes from "government policy uncertainty", as argued by Pastor and Veronesi (2012). The main purpose of this paper is to assess the role of "corporate bribery" to public officials, as a way of reducing government policy uncertainty in explaining the difference in market volatility across countries, along with other detrimental factors like the volatility of fundamentals and the maturity of the stock markets. To the best of our knowledge, this has not been studied on a systematic way. A similar vein of research is the examination of the effects of corruption on financial market volatility by Zhang (2012). The author finds evidence of correlations of corruption with financial market stability.

However, the measure of corruption was obtained from the Corruption Perception Index 2007 and the Index of Economic Freedom 2007 leading to an unreliable conclusion of this study. It is well known that corruption perception index cannot be used to compare the degree of corruption across countries, attributed to the response scale bias for corruption perception index. Leon et al. (2012) argue that corruption perception index is problematic as a variable to measure of the corruption levels across countries and it will subsequently lead to a misleading conclusion regarding the relationship between corruption and financial market stability. According to Fan et al. (2009), the previous literatures widely use perception-based corruption indexes that complied from aggregated perceptions of businessmen or country experts. It is problematic in the sense that the rankings of corruption index are perhaps, based on common press depictions of countries or conventional notions about what institutions or cultures are conducive to corruption. As explained by the authors, there is a great variation when we compared the subjective corruption indexes of Transparency International, the World Bank, and the International Country Risk Guide to the level of reported experience with corruption.[1] Recognizing the pitfall of using these perception-based corruption indexes, the authors use an alternative measure of corruption in their study, which is experience-based.[2] The experience-based corruption measure has been used in several studies, including a study on the telecom sector: Berg et al. (2012) use the same experience-based corporate bribery measurement and they find that stricter regulatory policy on the telecom sector increases firm's accountability and therefore reduces illegal bribery. Another study seeks to explain corporate corruption using political decentralization as an influential factor. Fan et al. (2009) find evidence that in countries with a larger number of administrative tiers, the reported bribery was more frequent in that business environments.

While the previous studies examine the impact of political events, which only impose risk indirectly on the market and have potential to affect market volatility, our paper differs in several critical ways. Unlike the radical events such as political unrest or presidential election, which occurs on every 3–5 years, used to quantify political uncertainty; we use corruption perception to measure uncertainty. There are several advantages to model the effect of policy uncertainty on stock market volatility by using corporate corruption instead of political unrests like civil war in Syria. First, small sample bias is a concern because usually financial markets are absent in countries where political unrest occurs. Second, presidential election may have an effect on stock market election in a developed market; however, monetary policies and fiscal policies sometimes may be changed by the prevailing government to boost employment and stock market before election. More importantly, unlike civil war or presidential elections, we need to search for a variable that the uncertainty of stakeholders in the stock market can be better modeled. For

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[1] As an example quoted by the authors, Argentina and Macedonia were both rated about equally corrupt in 2000: they were ranked 103 and 114 respectively out of 185 countries, according to the World Bank perceived corruption index. However, it was found that when the respondents were surveyed by the United Nations Interregional Crime and Justice Research Institute (UNICRI) in the late 1990s about their own personal experience with bribery, the result was completely different.

[2] The authors use a large scale of an experience-based survey of business managers conducted in 80 countries. The World Business Environment Survey interviewed managers from more than 9000 firms in 1999–2000. Respondents were asked: "Is it common for firms in your line of business to have to pay some irregular "additional payments" to get things done?"