The Role of Mexico's Stock Exchange In Economic Growth

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Abstract. This paper discusses theoretical issues concerning the relationship between the stock market and economic development and applies five econometric models for the case of Mexico: (a) unit root tests; (b) cointegration analysis, (c) error correction model, (d) Granger causality tests; and (e) impulse-response analysis. Results suggest, for the 1968-2002 period, that the variables involved are non-stationary, are cointegrated, present a bilateral Granger-causality relationship and the response of the stock market to industrial innovations is initially positive and lasts for about six months; the response of industrial production to stock market shocks is positive and dies out after the fifth month.

JEL Classification: G12, G15
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1. Introduction

The importance of the financial sector on economic growth has been widely studied, deriving important liberalization recommendations to enhance its contributions to increase savings and investments in the developing countries. From the pioneering studies of Gurley and Shaw (1955; 1960), Goldsmith (1969) and McKinnon (1973), research has emphasized the importance of financial structure to enhance development. Research on the specific contributions of stock markets to economic development is wide for the case of developed countries. However, the empirical evidence is mixed. While some researchers (Brainard and Tobin, 1968; Fama 1990; Barro, 1990) have found that stock returns precede output changes, other researches (Binswanger, 2000, 2004) maintain that stock returns do not lead real activity, at least during the last two decades. For the case of emerging markets the issue is even more controversial. Recently, Bencivenga et al (1996) reason that the level of economic activity is affected favorably by stock market liquidity creation; however, Demirgüc-Kunt and Levine (1996) maintain an opposite view. Moreover, although cross-country analysis suggest a strong connection between stock market performance and economic growth, those results should be viewed as important leads for further research in order to find more complementary and relevant findings to suggest policies and needed reforms to promote the development of financial markets at the emerging markets economies. Not withstanding the varied experience of many countries, this paper examines the long run relationship between economic growth and stock market performance for the case Mexico; its capital markets have had continuous activity since the last decade of the XIX Century.

Unit root test and co-integration analysis are used to determine long run equilibrium relationship; finally, the error correction mechanism and Granger causality approach are used to determine whether or not stock market activity influences growth or vice versa. The paper employs monthly data for real stock prices and real industrial production for 1968-2002 period. Economic data was obtained from International Financial Statistics. Stock market prices were obtained from local market report sources. The paper is divided in five sections. Following this Introduction, Section II reviews the literature in the context of emerging markets. Section III presents the data and methodology. Section IV presents the results. Section V concludes the work.

2. Emerging Capital Markets and Economic Development

Influential financial theories postulate a positive relationship between the financial sector and economic growth. The size, structure and maturity of a nation's financial sector measure financial deepening, an essential factor to promote economic growth. This is only achieved in a free market environment; otherwise, financial repression, i.e. excessive government controls over the markets inhibit financial growth and the potential role of financial intermediaries on economic activity. However, there are also controversial views, particularly in understanding how stock markets promote development. Stiglitz (1985) Capasso (2004) argue that developed stock exchanges may not provide incentives for information acquisition because of the public nature of good and bad news information which is readily available at those markets. In the case of developing markets the lack of information might lead to ambiguous decisions by both investors and corporate managers. Moreover in both developed and emerging markets asymmetric information inhibits investments: interest rate policy becomes inefficient, and banking and corporate decisions become inefficient in discriminating between good and bad borrowers. Under those circumstances firms face binding financial constraint as credit rationing and quantitative constraints are imposed by creditors and investors in the stock markets (Stiglitz and Weiss, 1981). Similarly, Singh (1997) claims that financial development may be not be beneficial for growth, pointing out three reasons. First, the inherent volatility and arbitrariness of the stock market pricing process at emerging markets which makes them poor guides to efficient investment allocation. Second, the linkages between the stock and currency markets in the wake of unfavorable economic shocks may exacerbate macroeconomic instability and reduce long-term growth. Finally, stock market development is likely to weaken the existing strong corporate group-banking relationship in those countries; in spite of many problems and errors this relationship has promoted investments and corporate growth in several countries, particularly in the highly successful East Asian economies.