# Measuring the Risk of Investment in Latin America's Emerging Markets

by

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**(Abstract)**

This paper uses a multi-factor Arbitrage Pricing model to measure the systematic risks of U.S. Foreign Direct Investments (FDI) in the largest emerging markets of Latin America: Argentina, Brazil, Chile, and Mexico. The Arbitrage Pricing Theory (APT) states that returns on investments are exposed to and affected by a number of economy-wide factors or risks. Moreover, risk is defined as the potential losses due to the unanticipated or unexpected changes in the systematic risk factors . Because the unexpected changes in those factors account for the discrepancies between expected and actual returns, we can measure systematic risk by using traditional econometrics and multivariable analysis. Essentially, APT postulates expected returns are a linear function of unexpected changes in various regressors. The magnitude and sign of the coefficients generated provide a way to obtain a dollar denominated time explicit measure of risk.

This model is estimated with a variety of estimators and it identifies four risk factors: the annual growth rates of Gross Domestic Product (GDP), money supply (M1), total exports, and total external debt, as determinants of returns. The Ordinary Least Square (OLS) results are somewhat robust--three out of four factors have the expected sign, thus supporting the hypothesis. GLS procedures reveal similar results.

## Dedication

To my daughter, Christine.

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