FOREIGN DIRECT INVESTMENT VOLATILITY AND ECONOMIC GROWTH IN ASEAN-FIVE COUNTRIES

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ABSTRACT

This study examines the role of foreign direct investment (FDI) volatility as a source of variability in five major ASEAN economies. Using bounds testing approach, we show that while FDI has positive and significant effect in all the ASEAN economies considered, its volatility retards long-run economic growth in Indonesia, Malaysia, the Philippines and Thailand. Moreover, FDI volatility can be welfare reducing even after controlling for other country-specific growth correlates. This finding is robust to different measures of FDI volatility.

Key words: Foreign direct investment, economic growth, volatility, bounds test

1. INTRODUCTION

The economic literature has widely documented the significant impacts of FDI on economic growth. A number of studies have found that higher levels of FDI are associated with higher growth rates (e.g., De Mello, 1997; Borensztein *et al.*, 1998; Choong *et al.*, 2005, 2010a), while some studies have found no significant relationship between FDI and economic growth (e.g., Aitken *et al.*, 1997; Aitken and Harrison, 1999)[1]. These controversial findings have motivated many empirical investigations to study the different mechanisms that explain the linkage between FDI and growth, including human capital (Borensztein *et al.*, 1998), public infrastructure (Barro, 1990), trade policy or exports (Balasubramanyam, et al., 1996), technological diffusion (Barro and Sala-i-Martin, 1997), and level of economic development and absorptive capacity (Hermes and Lensink, 2003; Alfaro, et al., 2004; Choong *et al.*, 2010b, 2010c).

These studies, nevertheless, have neglected the impact of FDI volatility on economic growth. FDI volatility is expected to have adverse impact on economic growth for the following reasons. First, volatile FDI discourages innovation and technology adaption and thereby is detrimental to economic growth. Second, volatility of FDI flows is a proxy for country specific risk (e.g., economic or political uncertainty) and thereby FDI volatility may be a proxy for growth-retarding instability. Foreign investors, when confronted with risks, may postpone or even withdrawn the investments. Hence, FDI volatility has a destabilizing effect on the economic performance[2].

This study attempts to contribute to the literature by examining the relationship between FDI volatility and economic growth in ASEAN-Five countries, which are heavily dependent on FDI inflows in promoting their economic growth (UNCTAD, 2006)[3]. Since the late 1990s, FDI volatility has increased substantially due to few internal and external shocks, which led to increased uncertainty in the rate of return on invested foreign capital[4]. Hence, it is important to investigate the impact of FDI volatility on growth in these countries. The focus on ASEAN-Five economies reflects the intuition that if FDI volatility matters, then policy-makers in these economies, which depend heavily on FDI inflows, should give priority to stabilize FDI volatility in their attempts to promote economic growth. The rest of the paper is organized as follows. Section 2 describes the specification of the empirical model and data source. Section 3 presents the results and Section 4 concludes.

2. DATA AND METHODOLOGY

We use annual data from *International Financial Statistics*, International Monetary Fund to examine the relationship between FDI volatility and economic growth in ASEAN-Five countries. The output variable is the real GDP growth rate (*RGDPGR*). The FDI variable is gross FDI as a percentage of GDP (*FDIGDP*). Two different measures of FDI volatility, namely *FDISD* and *FDIEGARCH* are adopted in this study. FDISD is calculated by taking the standard deviation of error from the autoregressive equation for FDI with one-year lagged value and a time trend, whereas *FDIEGARCH* the alternative measure generated using exponential generalized autoregressive conditional heteroskedasticity (EGARCH) model[5].

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[1] See De Mello (1997) and Buckley *et al.* (2002) for a comprehensive overview.
[2] See, for example, Lensink and Morrissey (2006) for details.
[3] Indonesia, Malaysia, the Philippines, Singapore and Thailand.
[4] For example, East Asian financial crisis erupted in mid-1997. See for instance, Gabriele *et al.* (2000) which pointed out that "… capital flows to developing countries are characterized by high, rising and unpredictable volatility" (p.1051).
[5] See Lensink and Morrissey (2006) for details.