

Capital Account Liberalization and Foreign Direct Investment

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Abstract

We examine the impact of capital account policies on FDI inflows. Using an annual panel dataset of 83 developing and developed countries for 1984-2000, we find that capital account openness is positively but only very moderately associated with the amount of FDI inflows after controlling for other macroeconomic and institutional measures. To a large extent, other country characteristics seem to determine FDI inflows instead of capital account policies. Furthermore, we find that capital controls are easily circumvented in corrupt and politically unstable regimes. We conclude that liberalizing the capital account is not sufficient to generate increases in inflows unless it is accompanied by a lower level of corruption or a decrease in political risk.

Key Words: Foreign direct investment, capital controls, capital flows, capital account liberalization.
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1. Introduction

During the past thirty years, foreign direct investment (FDI) has grown in importance with a large number of developing countries able to attract inward FDI in increasing volumes. The theoretical literature that examines FDI identifies a number of channels through which FDI inflows will be beneficial to the receiving economy.¹ Yet, the empirical literature has lagged behind and has had more trouble identifying these advantages in practice. Most prominently, a large number of applied papers have looked at the FDI-growth nexus.²

The consensus that is slowly emerging is that FDI is beneficial when compared to other types of capital inflows such as portfolio investment or syndicated bank loans, though some maintain that even this beneficial effect is limited.³ Additional research efforts are devoted to identifying other features unique to FDI, such as its relative permanence or the positive externalities it generates.⁴ Notwithstanding these fragile conclusions, most countries continue to vigorously pursue policies aimed to encourage more FDI inflows; these include very significant tax breaks and other types of subsidies granted to multinationals in return for setting up domestic operations.⁵ The multilateral

¹ For a recent theoretical contribution, with a discussion of its empirical applicability, see Chakrabarti, 2003.

² While most papers identify FDI as a source of technological diffusion, productivity increases, and growth accelerations, the real significance of these effects is still in debate with a minority of papers disagreeing with all these positive conclusions. A prominent contribution, Borensztein et al. (1998), argues that FDI will lead to increased GDP growth only beyond a threshold level of accumulated human capital stock. With the availability of better data, the last few years have seen an especially large number of empirical papers devoted to this question (e.g., Alfaro et al., 2004; Bengoa and Sanchez-Robles, 2003; Durham, 2004; Hsiao and Shen, 2003; and Li and Liu, 2005, Vu et al., 2007).

³ Gray (2004) even goes so far as to suggest that countries should restrict FDI inflows, but his position is clearly in the minority among academic economists writing in English.

⁴ For widely-cited examples, see Aitken and Harrison (1999), Fernández-Arias and Hausmann (2001), and Sarno and Taylor (1999).

⁵ For a critical look at these domestic tax/subsidy policies, see Hanson (2001). For a discussion of the empirical evidence on tax policy's impact on FDI inflows see Hines (1996); and for a more recent survey,

public organizations, in particular the Organization for Economic Cooperation and Development (OECD), the World Trade Organization (WTO) and the International Monetary Fund (IMF), have also been vocal supporters of FDI promotion policies. One of the more common policies the international institutions frequently prescribe within this context is liberalization of the capital account.⁶

Yet, very little empirical work has been done to examine the impact of capital account policies on FDI inflows. While neo-classical modeling suggests that capital account liberalization will increase FDI inflows, this might not be the case if the neo-classical assumptions of perfect information, a complete menu of contingent contracts and competitive markets are relaxed. Developing countries - with their underdeveloped financial markets, lack of corporate transparency, insufficient national data-collection and dissemination, and susceptibility to large fluctuations in exchange rates - might be particularly vulnerable to perverse impacts of capital account liberalizations. In this paper, we aim to examine macroeconomic data to investigate the relationship between capital account policies and the inflows of foreign direct investment.

Table 1 presents recent trends in FDI inflows both as a percentage of output and as a percentage of fixed capital formation. Apparent is the worldwide trend increase in the importance of FDI (using both measures) throughout the 1980s and 1990s in all geographical regions, with FDI inflows after 2000 increasing to 4-5 times the level experienced during the 1980s. Yet, in several regions, net FDI flow peaked in 1995-1999 period and current levels are still below that peak. As is seen in figure 1 for emerging markets, more recent figures reveal that while 2001-2003 have indeed been years of

Mooij and Ederveen (2003). Gastanaga et al. (1998) analyze other host-country policies that aim to encourage FDI inflows.

⁶ For the IMF's role in promoting capital account liberalization, see Joyce and Noy (2005).

decline, FDI flows into this group have soared again in 2004 and are predicted to continue soaring through 2006. Their level today is appreciably higher than during the previous peak in 2001.⁷ If those trends continue, then understanding the determinants of foreign direct investment flows will only become even more important.

Section 2 provides a brief survey of the extensive empirical work on the determinants of FDI inflows and of the very few papers that have looked at the nexus of FDI and capital account policies highlighting our contribution. Section 3 presents our empirical model and the data we use. Section 4 analyzes the results and Section 5 concludes.

2. Empirical Literature

Recent contributions to the literature on the determinants of FDI inflows are summarized in table 2. This literature is quite large, with much of it focusing on an OECD dataset of out-bound bi-lateral dataset of FDI flows. A recent survey of this literature and the micro-empirical literature on the industrial-organizational foundations of FDI is provided in Blonigen (2005). Another strand in the literature on capital flows examines the impacts of capital account policies on other variables such as the volumes of short-term capital flows (the so-called ‘hot money’) or the volume and price of investment in the receiving country. Notable recent contributions in this strand include Henry (2003), Edwards and Rigobon (2005) on the Chilean case, Carvalho and Garcia (2006) on the Brazilian case, and a recent survey by Forbes (2006).

In the following discussion, we focus only on those papers that have examined the capital account - FDI nexus which is also the focus of our work. Desai et al. (2004), using

⁷ Mody (2004) offers more analysis of FDI flows over time and across regional groupings.

firm level data from the U.S., find that American multinationals manage to circumvent capital controls by adjusting their reported intra-firm trade, affiliate profits and dividend repatriations. On the other hand, they identify a number of ways in which capital controls make operations more costly to the foreign affiliate, and thereby reduce FDI inflows significantly. American affiliates are about 15% smaller in countries with capital controls and, importantly, this reduction disappears once countries open up their capital accounts.

Montiel and Reinhart (1999) examine the impact of capital account policies and sterilized foreign exchange interventions on the volume and composition of capital flows using a policy index they developed for the years 1990-1996. They conclude that imposing capital controls had no impact on volumes of flows but did shift the composition of flows toward short term – ‘hot money’ – flows. Alfaro et al. (2005), and Aizenman and Noy (2003), also find that capital controls have no impact on aggregate capital flow volumes. Aizenman and Noy (2006), find that while capital controls have no impact on FDI gross flows, controls on the current account do have an indirect impact on FDI inflows through their impact on goods trade.

The paper closest to ours is Asiedu and Lien (2004). In this paper, the authors use a cross-country macro panel of net FDI flows to examine the impact of external policies (controls on the capital account, exchange rate regime and a surrender of export proceeds requirement) on net FDI flows. They present mixed findings with some evidence that FDI flows are impacted by capital account policies but only in specific geographical regions.

In light of these puzzling and often conflicting results and the prominence of policy debates on these issues, it is clear that more research into the capital flows / capital account policies nexus is desirable. Our paper is different from the previous literature

described above in several ways. First, as our dependent variable we use net FDI inflows (FDI inflows minus repatriated investments) instead of the Asiedu and Lien (2004) measure of net FDI flows (net FDI inflows minus direct-investment-abroad/net-FDI-outflows) or Aizenman and Noy's (2006) measure of FDI gross flows. Secondly, we use a different measure of capital controls that was recently developed in Chinn and Ito (2006) rather than the dichotomous measure used in almost all of the previous literature.

Thirdly, measures of capital controls are based on a *de jure* state, but it is likely that the *de facto* state of enforcement of these regulations is of considerable importance in identifying any empirically observable link. It is also probable that the *de facto* state is influenced by institutional characteristics of the receiving economy. Consequently, we examine the impact of institutional factors – corruption and political stability - on the degree of association between capital controls and the flows of FDI. Finally, as is described and reasoned in the following sections, our data coverage and empirical estimation methodology are different.

3. Methodology and Data

3.1. Data

We collected a macroeconomic annual panel data for 62 developing and 21 developed countries from 1984 to 2000.⁸ Blonigen and Wang (2005) argue that pooling developed and developing countries is inappropriate in empirical FDI studies. Besides other differences, they find that the factors that affect FDI inflows are different across the

⁸ We use dummy variables to fill most of the missing observations but still have several missing observations, so we have an unbalanced panel. If there were more than 3 missing observations for one country for a single variable, we used a binary replacement variable to enable us to include the observations in the regressions.

