International Review of Financial Analysis 21 (2012) 81–89

Contents lists available at SciVerse ScienceDirect

International Review of Financial Analysis

Foreign direct investment and institutional quality: Some empirical evidence

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ARTICLE INFO

Article history:
Received 27 September 2011
Accepted 3 October 2011
Available online 28 October 2011

JEL classification:
F21
F23
F30
G30

Keywords:
Institutions
Corporate governance
FDI

ABSTRACT

Based on a panel data analysis of 164 countries from 1996 to 2006, we examine the impact of institutional quality on foreign direct investment (FDI) levels and volatility. We find that good institutional quality matters to FDI. We provide evidence that institutional quality has a positive and significant effect on FDI. More specifically, we find that a one standard deviation change in institutional quality improves FDI by a factor of 1.69. Ceteris paribus, institutional quality is negatively and significantly associated with FDI volatility which may have an adverse effect on economic growth per Lensink and Morrisey (2006). Thus, our results suggest that if there are institutional determinants of FDI volatility and if such volatility is associated with lower economic growth, then the usual policy prescription of attracting FDI into countries by offering the "correct" macroeconomic environment would be ineffective without an equal emphasis on institutional reform.

1. Introduction

Foreign direct investment (FDI) is a global phenomenon and is widely understood to be a major antecedent to economic development. In real terms, cross-border capital flows have been increasing at a rate of about 6% a year since 1980, faster than those of the world's GDP and trade (Ju and Wei, 2007). More specifically, over the 1996–2006 time period, worldwide trade of goods and services increased by 8% while net inflows of FDI surged by 19%.[3] However, the advantages of FDI do not ensue automatically and are not distributed evenly across countries. The vast majority of FDI is between wealthy nations despite the availability of cheaper labor in developing economies. The poorest, slowest growing nations attract perhaps 2% of all foreign direct investment. Among developing countries, the largest flows have been to economically dynamic countries. According to Wolf (2008), "*Capital now flows upstream, from the world's poor to the richest countries of all.*" Nevertheless, FDI has been credited with providing recipient nations with much-needed access to financial capital, advanced technology and employment.[4]

It is not a matter of dispute that while the benefits of FDI are real, they do not automatically fall into place. FDI related issues extend well beyond liberalization of economies. One thing that a financial crisis brings to the fore is weaknesses in institutional infrastructure that may have previously been masked during a credit and commodity boom. For example, in the aftermath of the 1997 Asian financial crisis, many countries started to reform their institutional policies, legislation and institutional arrangements in order to attract more FDI.

In addition, recent reports have highlighted the importance of an enabling institutional environment in reaping the maximum benefits from FDI (OECD, 2002). A 2003 Economist article details the slow pace of structural institutional reforms that were taking place in Russia.[5] The article notes that FDI flows to Russia remained below $3 billion (much less than what China was getting on a monthly basis). The article further contends that this flawed institutional infrastructure in Russia led to a slowdown in economic growth and in investment.

Scholarly interest in institutional determinants of FDI coincides with the growing body of literature that has focused on governance and economic development over the last two decades (Acemoglu and Johnson, 2005; IMF, 2003). Broadly speaking, FDI flows to countries with better quality institutions while poor governance can impede FDI. Indeed the literature on institutions and FDI has delineated several ways by which institutions matter for FDI inflows. For instance, Daude and Stein (2007) propose two channels through which poor institutional quality can deter FDI inflows. The authors

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[3] World Development Indicators (2009). The World Bank: Washington D.C.

[4] Among the many benefits of FDI is the creation of jobs for women in developing countries.

[5] Russia: Reduced Expectations, The Economist, EIU No. 24. April 16, 2003.

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doi:10.1016/j.irfa.2011.10.001

claim that poor institutions can act like a tax and therefore are a cost to FDI. Poor institutional quality can also increase the uncertainty associated with all types of investment, including FDI. In this paper we propose and empirically investigate a third channel of transmission. We posit that poor institutional quality can increase the *volatility* of FDI inflows which can have an adverse impact on economic growth.

The impact of institutions on the volatility of FDI inflows is a relatively unexplored topic in the existing literature. An extensive survey on the topic suggests that only one study by Lensink and Morrissey (2006) has investigated the association between volatility of FDI and economic growth but the authors did not focus on any determinants, institutional or otherwise, of volatile FDI. In contrast, this paper directs attention to the institutional antecedents of FDI volatility. By focusing on the association between institutions and FDI volatility, we attempt to bridge the existing literature on institutional quality and FDI with the nascent work on FDI volatility and economic growth. In other words, a specific concern with institutions and FDI volatility and not with simply with the institutional determinants of FDI is what distinguishes our analysis from previous studies on the subject.

We contribute to the literature in another way. A significant limitation of the literature on FDI is that it has become rather dated with many cross-country studies pre-dating the 1997 Asian financial crisis. To the best of our knowledge, apart from single country studies, there has been a dearth of papers that examine FDI in a panel framework. In this regard, we provide panel data estimates on FDI for a large set of countries, including both macro variables and institutional variables as regressors. Our data set includes 164 countries over an 11 year time-period from 1996 to 2006 — the most comprehensive data sample to date.

Our econometric results show that institutional quality has a positive and significant effect on FDI, whereby a one standard deviation change in institutional quality changes FDI by a factor of 1.69. Our results also show that institutional quality has a negative and significant effect on the volatility of FDI. These findings are statistically and economically significant. In addition, these findings suggest that if there are institutional antecedents of FDI volatility and if such volatility is associated with lower economic growth, then the usual policy prescription of attracting FDI into countries by offering the "correct" macroeconomic environment would be ineffective without an equal emphasis on institutional reform.

The paper is set out as follows: Section 2 provides an overview of recent trends in FDI. The following section surveys relevant literature and this critical discussion provides the basis for our hypothesis development; Section 4 details the data and sample selection; results are provided and discussed in Section 5 and Section 6 concludes the paper.

2. Trends in FDI

Global FDI flows have become increasingly more complex over the last four decades as many poorer countries have been growing at a faster rate than richer ones. There has also been a geographical shift in the destination/origin of FDI inflows and outflows. For example, the US FDI position has also changed markedly over the last forty - years. In 1960 the US was the origin of 49% of the world's FDI and host to just 14%, but by 2002 it was the origin of only 22% but host to 19% of FDI.[6]

As Fig. 1,[7] Panel A indicates, FDI on a worldwide basis surged toward the end of the 1990s but was interrupted during the global slowdown between 2000 and 2002. Despite the collapse of asset, currency and internet bubbles at the turn of the decade, the trend in FDI has continued to remain on the whole, positive and remarkably stable over the last decade. In 2005, cross border FDI rose by 29% and reached $916 billion according to an UNCTAD report.[8]

One of the FDI success phenomena of the past decade has been the BRIC (Brazil, Russia, India and China) economies, represented in Fig. 1, Panel B. In 2005, these four economies attracted US$144.57 billion, or 16% of total FDI inflows in the world.[9] The mining, manufacturing and service sectors – especially automobile, electronics and electrical, oil and gas and mining, metal and steel, power, finance, telecommunications and real estate – gained the most from the FDI surge in these four economies. Despite this, the path of FDI growth has not necessarily been smooth for the BRIC economies. If we observe the FDI pattern in Brazil we note it is quite volatile, especially around 2002. Part of this can be explained by the 2002 Presidential election results. Stock and bond markets tumbled and yet when Lula da Silva pledged that his policies would be market friendly, FDI rebounded. While China is the top recipient of FDI, research by Huang (2008) rejects cheap labor and a large domestic market as the reasons for large FDI flows to China. He suggests that China attracts more FDI than others because of an inefficient domestic financial sector that cannot allocate household savings efficiently. Thus FDI effectively serves as a tool for Chinese private firms to circumvent the inefficient domestic financial sector.

However, if we examine FDI destination on a regional or country level, rather different patterns start to emerge. A recent World Investment Projects Survey[10] reinforces a growing trend towards regionalization in global FDI patterns. In Fig. 1, Panel C, we observe that FDI in the Middle East and North Africa rose from 0.5% to 4% of GDP between 1996 and 2006. Yet if we look at individual countries disparate trends become evident. For example, inflows to Tunisia went up because of privatization in the telecommunications industry, yet FDI inflows to Morocco declined because there was a downturn in privatization sales.

In 2006, FDI to Africa attracted only 3% of the world's total FDI and this was down from a peak of 6% in the mid-1970s.[11] With regard to Sub-Saharan Africa in Fig. 1, Panel D, investment flows to the continent doubled between 2004 and 2006 and have increased more than six-fold since 1996. The three largest recipients of FDI were Angola, Nigeria and South Africa — these three countries absorbed 65% of FDI flows to the region between 2000 and 2002.[12] But though it appears that FDI to Sub-Saharan Africa has risen strongly, the region still ranks at the bottom of investor preferences according to UNCTAD.[13]

In Fig. 1, Panel E we note that in Central and Eastern Europe, FDI rose from 2% to 8% of GDP between 1996 and 2006. A closer investigation[14] reveals FDI inflows declined in most of the eight Central European countries attempting to join the EU at the time. The Western Balkans, Romania and Bulgaria were the few Central European countries to witness an increase in FDI.

In Fig. 1, Panel F, East Asia and Pacific FDI exhibit a declining trend over the same time period. Consider one country in the East Asia region — Japan. Over the last decade, the Japanese government has tried very hard to court FDI. Such measures included reworking the commercial code to make it easier for foreign firms to buy Japanese businesses.[15] Between 2001 and 2005, Japan's inward FDI doubled,

[6] Three Reasons to be Cheerful about the World Economy, Martin Wolf, Financial Times, 30 June 2004.

[7] Data for FDI/GDP is taken from the World Development Indicators, 2009.

[8] Financial Express: FDI Flows in the Emerging Markets. Financial Times. 22 May 2007.

[9] FDI Flows in the Emerging Markets. Financial Express. 22 May, 2007.

[10] Foreign Investments: Slower Growth Ahead. EIU — Business Africa. November 1, 2008.

[11] A Glimmer at Last? Sub-Saharan Economies are Growing Faster but are they really growing stronger? The Economist, June 24, 2006.

[12] FDI in Africa: The Role of Natural Resources, Market size, Government and Policy, Institutions and Political Instability. Elizabeth Asiedu. World Economy. Vol 29. January 2006.

[13] Foreign Investments: Slower Growth Ahead. EIU Business Africa. November 1, 2008.

[14] Cooling Down, The Economist, December 13, 2003.

[15] Gaijin at the Gates; Japanese Business, The Economist 8/18/2007.