Statistical Overview and Empirical Literature on Foreign Direct Investment in Developing Countries WP326

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Abstract

This note aims to provide an overview of Foreign Direct Investment (FDI) in developing countries. First, we present the recent trends of global FDI flows, and identify the main hosting areas as well as the variables promoting FDI inflows. Then, we briefly describe the empirical literature on the economic impacts of FDI on recipient countries. Finally, we present some recent changes in public policies implemented in developing countries aiming at attracting FDI inflows.

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Determinants and Patterns of Foreign Direct Investment

Recent trends of FDI in the world

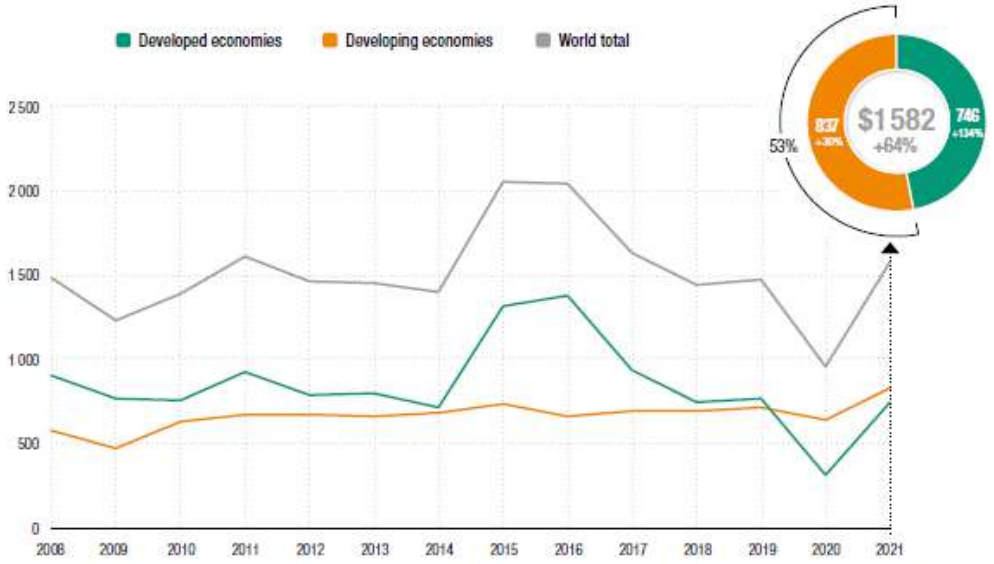
In 2021, global Foreign Direct Investment (FDI) flows were estimated at $1.58 trillion (UNCTAD, 2022b), among which 53% were oriented toward Low- or Middle-Income Countries. Figure 1 below presents the recent trends in FDI inflows between developed and developing economies. Three main observations can be inferred from this graph:

(i) FDI inflows to developing countries have continuously increased, but at a very low rate, over the last decade, reaching $837 billion in 2021.

(ii) Over the period, FDI flows to developed economies have always dominated FDI flows to developing countries, with a reverse in 2020 due to the Covid crisis and the subsequent drop in FDI flows. However, the post-crisis recovery suggests that FDI flows to developed countries could again exceed 50% of global flows in 2022.

(iii) FDI inflows are much more volatile in developing than in developed economies.

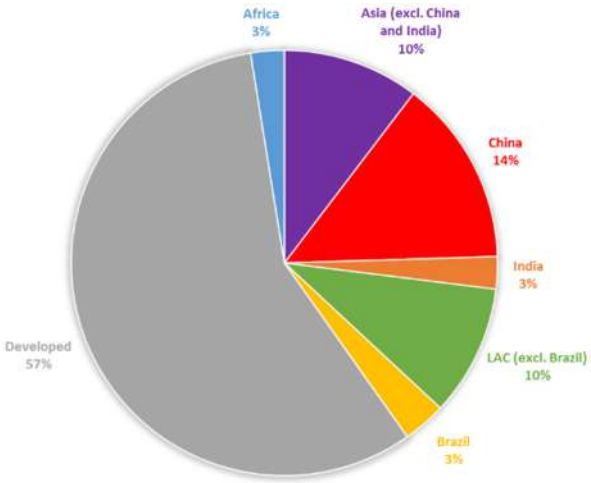
Figure 1: FDI inflows, global and by economic grouping, 2008-2021 (US$ Billion)



Source: UNCTAD (2022b)

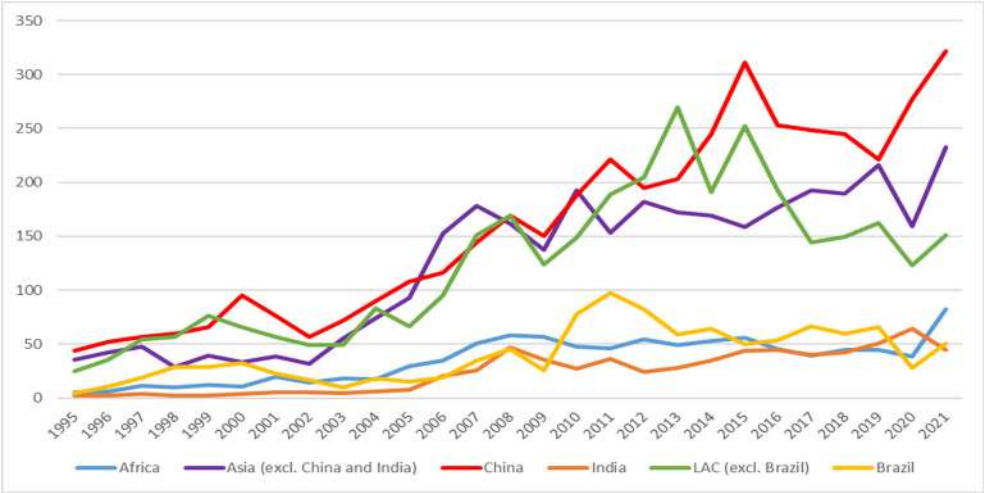
However, these numbers mask an important heterogeneity, both in value and in trends, across countries within a same group. Figure 2 reveals that, before the Covid-crisis, China represented in itself 14% of global FDI inflows, hence 33% of flows to developing and emerging economies (EMDEs), slightly more than the rest of Asia or than Latin America and the Caribbean (LAC) region. On the opposite, Africa represented only 3% of global flows before 2019, approximately the same part as India. In addition, as visible in Figure 3, after a global increase of FDI flows in almost every region during the 2000s, the 2010s decade has seen a diverging trend across regions: overall increase in FDI inflows in Asia (including China and India), stagnation in Africa and general decline in LAC.

Figure 2: FDI inflows by host regions (average 2015-2019)



Source: UNCTAD

Figure 3: FDI inflows by host regions over time (US$ Billion)



Source: UNCTAD

The UNCTAD (2022b) report provides even more detailed information regarding the post-2020 period by region:

- *Africa*: FDI inflows slightly increased between 2020 and 2021 in all regions except in South Africa, where flows reached a record value of $42 billion in 2021 (from $4 billion in 2020) due to a single transaction (a $46 billion share swap between the South African multinational Naspers and its Dutch-listed investment unit Prosus). Due to this transaction, total flows to African countries rose from less than 3% of global FDI before 2019 to 5.2% in 2021. Most of the increase in other African countries were related to hydrocarbon projects (notably in Nigeria and Central Africa) (UNCTAD, 2022a).

- *Asia*: FDI inflows increased in all regions, except in South Asia. These flows remain however highly concentrated: 6 countries still account for more than 80% of received FDI (China, Hong Kong, Singapore, India, the UAE and Indonesia).

- *Latin America and the Caribbean*: FDI rose in all areas but mainly around a few target industries (automotive manufacture, financial and insurance services, electricity provision). After Brazil, which represents in 2021 25% of all FDI inflows to LAC countries, the three main countries in FDI inflows are the British Virgin Islands (20%), Mexico (16%) and the Cayman Islands (13%).

What are the determinants of FDI?

Since the seminal work of Lucas (1990; 1993), a large set of determinants of FDI inflows have been identified in the literature. Among them, we can notably mention:

- *Institutional quality and the business environment* (Okey, 2011; Buchanan et al., 2012; Lim, 2015; Peres et al., 2018; Sabir et al., 2019). Interestingly, Buchanan et al. also observe that a sound institutional environment not only increases FDI inflows but also reduces their volatility for the host economy. Due to the importance of reducing pro-cyclicality of capital flows, enhancing the quality of institutions and the business environment is therefore primordial for developing economies.

- *Trade openness* (Buchanan et al., 2012; Aghion et al., 2016; Teixeira et al., 2017; Sadeghi et al., 2020)

- *Physical Infrastructure* such as transportation (roads, harbors…), electricity, communications (phone, internet…) (Peres et al., 2018; Sabir et al., 2019)

- *Human capital* (Masron and Abdullah, 2010; Teixeira et al., 2017; Sadeghi et al., 2020)

- *Exchange rate stability* (Bénassy-Quéré et al., 2001; Kiyota and Urata, 2004)

Overall, the literature calls for a coordination between public and private sectors, particularly in developing countries where trade openness tends to be reduced and physical or financial infrastructure are often lacking. We can also underline that Buchanan et al. (2012) conclude to a positive impact of domestic private investment on FDI, suggesting a potential crowding-in effect between domestic and foreign private investment.

Do FDI Inflows Promote Economic Development?

Theoretical arguments

It has often been argued that FDI inflows tend to encourage GDP and productivity growth in recipient countries. This positive impact can occur through several channels:

- *Input change*
  - FDI inflows contribute to the accumulation of capital stock, particularly in developing countries where domestic investment is low and capital is scarce (Thompson, 2008; Makiela and Ouattara, 2018).
  - Anecdotally, FDI inflows might also increase the demand for workers and contribute to (skilled) labor accumulation.

- *Innovation*
  - FDI inflows contribute to the introduction of new technologies in domestic markets. The magnitude of this effect is likely to increase as the technology gap increases (Aghion et al., 2016).
  - Similarly, FDI can contribute to the introduction of new management methods, working practices, processes or routines, labor training… (De Mello, 1997)

- Other positive impacts of the development of multinational enterprises (MNEs) on other domestic firms (spillovers).
  - *Capacity to export*: MNEs are more likely to be oriented toward external markets, as they may already have distribution networks or knowledge about foreign consumer preferences that domestic firms do not have. Domestic firms wishing to enter international markets can reduce their costs and risks by following MNEs through imitation or collaboration.
  - *Competition*: by increasing competition on the domestic markets, MNEs create incentives for domestically owned firms to increase productivity.
  - *Backward linkages*: by increasing demand for local inputs, MNEs may increase the local market for domestic suppliers.
  - *Forward linkages*: if MNEs are more productive than domestic firms, they can provide inputs to domestic firms at lower prices (or better quality).

However, it has also been argued that FDI inflows might have negative unexpected consequences. For instance, FDI can crowd-out domestic (public and private) investment, leading to a mixed aggregate impact on capital accumulation (Morrissey and Udomkerdmongkol, 2012). In addition, by increasing competition for domestic market shares, the entry of MNEs can lead to the eviction of domestic firms and prevent economies of scale (Aitken and Harrison, 1999). Finally, FDI inflows may benefit recipient firms or sectors but generate negative externalities for other firms operating in the same sector or for firms operating in non-recipient sectors (Aitken and Harrison, 1999).

Empirical evidence of aggregate impact

Based on this theoretical discussion, several researchers have investigated the impact of FDI inflows on macroeconomic variables. Most of this literature focus on aggregate economic growth, which includes both the direct impact on firms/sectors benefiting from FDI and the indirect effect of positive/negative spillovers on other firms/sectors.

Overall, cross-sectional and panel studies provide overwhelming evidence that FDI tend to boost productivity, increase economic growth and/or contribute to poverty reduction in recipient countries, a (see for instance Hansen and Rand, 2006; Contessi and Weinberger, 2009; or Demena and van Bergeijk, 2017 for literature reviews and meta-analyses).

However, country-case analyses tend to provide mixed results (Carkovic and Levine, 2005). For instance, Aitken and Harrison (1999) observe for Venezuela that increasing foreign participation in domestic firms increases their productivity but has a negative impact on other domestic firms in the same sector, leading to an aggregate insignificant effect on economic growth. Chakraborty and Basu (2002) find no evidence that FDI encourage growth in India but rather than economic growth attracts FDI. Belloumi (2014) finds a strong positive impact of domestic investment on growth in Tunisia, but not of FDI. These studies overall suggest a large heterogeneity across countries on the impact of FDI on economic performance.

What are the determinants of FDI effectiveness?

To explain why the empirical evidence on FDI impact on growth is mixed, some studies have investigated the conditions for FDI spillovers to emerge. Several conditions and hypotheses have been proposed:

- *Initial Income*: FDI have a positive impact on growth only is the initial level of income per capita is high enough, in order to avoid a possible "poverty trap" (Blomstrom et al., 1994).

- *Trade Policy*: FDI promote growth in countries following an export-promotion strategy but not in countries following an import-substitution strategy (Balasubramanyam et al., 1996).

- *Human Capital*: FDI allow technology transfers and innovation only if the initial level of human capital in the host economy is high enough to absorb new technology (Borensztein et al., 1998; Li and Tanna, 2019).

- *Financial Development*: If local financial markets are developed, it is easier for credit constrained entrepreneurs to start their own firms, and the number of firms consuming or producing intermediate inputs is higher. Therefore, the potential for FDI to create backward and forwards linkages depends on the development of domestic financial markets (Alfaro et al., 2004 and 2010).

- *Institutional Quality and Business Environment*: A good institutional environment reduces the risk faced by foreign and domestic firms, and is therefore required to fully benefiting from FDI spillovers (Li and Tanna, 2019).

Which sectors are the more likely to benefit from FDI?

As mentioned above, two of the key channels through which FDI are supposed to raise economic growth are the accumulation of capital stock and the transfer of technologies. It is then likely that FDI will have a stronger impact on sectors that are highly capital intensive or on sectors that will benefit from technological change. This might be the case for manufacturing activities, extractive industries or activities related to Information and Communications Technology (including services).

Some empirical studies have therefore tried to identify the sectoral impact of FDI[1]. Overall, results from the empirical literature on the subject tends to be mixed and heterogenous across regions. For instance, Wang (2009) finds a positive and strongly significant impact of FDI in the manufacturing sector on overall growth in developing Asian countries, but not significant impact of FDI in agriculture, construction or services sectors. Similarly, Chakraborty and Nunnemkamp (2008) conclude for India that FDI have a positive impact on output in the to a positive impact of FDI on output in the manufacturing sector, but not in agriculture or in services. On the contrary, Gui-Diby and Renard (2015) do not find evidence that FDI benefit more to manufacture than to the rest of the economy in African countries, which might be explained by the lower initial level of manufacture and the weak absorptive capacity of African industries.

[1] However, due to the absence of data for sectoral FDI inflows in developing and emerging economies in the most common data sources (UNCTAD, IMF and WDI), these analyses are much less frequent than those investigating an overall impact of total FDI on economic growth and must be interpreted cautiously.

Recommendations and Policy

Overall, this literature suggests that developing countries might want to attract foreign private capital inflows to raise overall productivity, boost economic growth and reduce poverty. This is in line with the observation that, for the last decades, many developing countries have tried to attract foreign investment. Indeed, according to UNCTAD (2022b), more than 80% of non-neutral policy measures related to the investment climate adopted by developing countries between 2011 and 2021 aimed at attracting or facilitating investment, while less than 20% were intended to restrict investment. This percentage is approximately the same between Least Developed Countries (LDCs) and developing non-LDCs, but reach 94% for LDCs in Asia and even 100% for LDC Islands. These reforms were notably intended to opening new sectors and activities to FDI, increasing protection guarantees or investment support mechanisms or introducing investment incentives. Asian LDCs notably opened new sectors to FDI while African LDCs introduced investment incentives (UNCTAD, 2022b). These numbers are also confirmed by the FDI Restrictiveness Index (OECD Data), which has declined from 0.127 to 0.064 between 1997 and 2018 in OECD countries and from 0.367 to 0.128 in non-OECD countries (despite a moderate increase during the pandemic)[2]. Among other examples, one can also mention the G20 Compact with Africa initiative. The Compact with Africa is an initiative started in 2017 between 12 African countries[3], international organizations and bilateral partners aiming at increasing private investment in participant countries through improvements in the macro, business and financing frameworks (IFS, 2022).

However, previous works also underline the importance of considering the global environment, not only for attracting investment, but also for fully benefiting from the positive impact of FDI. Overall, recommendations can be decomposed into three categories (UNCTAD, 2022b):

- Enhancement and modernization of the investment climate and business environment (property right protection, tax reform, simplification of administrative procedures…)
- Development of domestic absorptive capacity (physical infrastructure, human capital accumulation, institutions facilitating knowledge transfer…)
- Development of local productive capacities and value chain development to encourage back-forward linkages (public investment in local infrastructure and/or development of local value chains, strengthening of financial system, development of special economic zones and integration of these SEZs in local markets…)

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[2] The FDI Regulatory Restrictiveness Index (FDI Index) measures statutory restrictions on foreign direct investment across 22 economic sectors. It gauges the restrictiveness of a country's FDI rules by looking at the four main types of restrictions on FDI: 1) Foreign equity limitations; 2) Discriminatory screening or approval mechanisms; 3) Restrictions on the employment of foreigners as key personnel and 4) The score is estimated on a scale ranging from 0 (open) to 1 (closed). (https://www.oecd.org/investment/fdiindex.htm)

[3] Benin, Burkina Faso, Cote d'Ivoire, Egypt, Ethiopia, Ghana, Guinea, Morocco, Rwanda, Senegal, Togo and Tunisia.

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"Sur quoi la fondera-t-il l'économie du monde qu'il veut gouverner? Sera-ce sur le caprice de chaque particulier? Quelle confusion! Sera-ce sur la justice? Il l'ignore."

Pascal

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