Foreign direct investment in Latin America from the perspective of illicit financial flows: "cocacolonisation" of saving?

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Abstract

This article analyses the implications of illicit financial flows for foreign direct investment (FDI). During the 2003–2017 period, in the financing of gross fixed capital formation in Latin America, external savings show high variability in relation to domestic saving. This study calculates the net effects of FDI on the balance of payments by country, concluding that its contribution is not always positive. In fact, it is negative in countries with investments mainly in the primary or extractive sector. The volume of inward FDI is lower than recorded for all countries when considering pass-through or phantom investment, with signs of round-tripping in secrecy jurisdictions. This is of concern in countries that have traditionally kept their capital abroad. The concept of "cocacolonisation" of savings is therefore proposed.

Keywords

Capital movements, financial flows, illegality, foreign direct investment, savings, balance of payments, capital formation, macroeconomics, Latin America

JEL classification

F21, H26, O16, H87, K42

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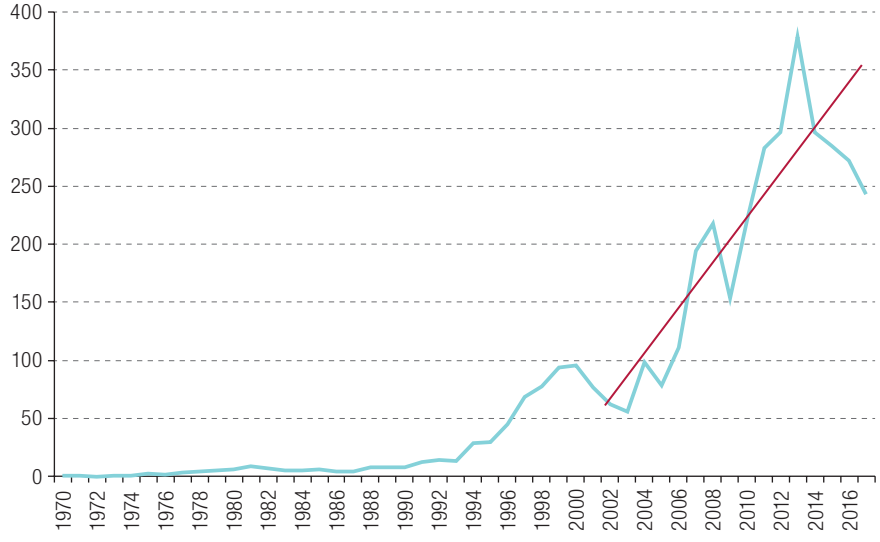
I. Introduction

Receipt of foreign direct investment (FDI) has become the badge of success for developing economies. Particularly in Latin America, it is championed without knowing whether it offers an answer to the external difficulties that countries may have. In terms of public opinion, there is a lack of saving and inward FDI is appealing as a sign of confidence in the country, even though its implications in terms of illicit financial flows are unknown and rarely discussed. Foreign investments become a sort of demonstration effect for the economies that receive them. They are considered life-saving remedies or "good flows", in the words of Blanchard and Acalin (2016, p. 1). One of the supposed advantages of inward FDI that calls for analysis is that it is considered, a relatively stable source of external financing (Ruesga and da Silva, 2009) and of contribution to financing of gross fixed capital formation. Another important factor is that, in terms of debt, FDI has a better reputation, because there is no clarity about income payment and because in developing economies an increase in gross fixed capital formation is desirable in the long term, as are the accompanying technological transfers.

Illicit financial flows —as cross-border movements of illegally obtained or transferred money— include tax evasion and avoidance by multinational enterprises and high-net-worth individuals (Kar and Cartwright-Smith, 2008; TJN, 2020). These illicit financial flows can result in misreporting of macroeconomic variables, such as exports and imports of goods or services. As a result, they can give a distorted picture of GDP and of traditional responses to macroeconomic problems. This is because some illicit financial flow transactions are fictitious and are used to evade taxes or circumvent legislation, meaning that the real movements of certain variables are unpredictable. In this article we propose analysing this problem with three aims: (i) evaluating the stability of external saving with respect to domestic saving; (ii) determining the net effect on the balance of payments, in the 2003–2017 period; and (iii) calculating the contribution of FDI to gross fixed capital formation in view of the 2000–2017 illicit financial flows. This period is analysed because there has been a change of trend in the region's inward FDI since 2003, as shown in figure 1.

Figure 1
Latin America: trend in inward foreign direct investment, 1970–2017
(Billions of dollars)



Source: Prepared by the author, on the basis of World Bank, "World Development Indicators" [online database] https://datatopics.worldbank.org/world-development-indicators/.

Analysed in terms of illicit financial flows, the contribution of FDI to gross fixed capital formation in Latin America is variable and smaller than reported. Its net contribution to the balance of payments is dubious, because of the possibility of domestic and national saving being disguised as external saving as a form of "cocacolonisation" of saving, a concept that will be explained later. This hypothesis is analysed using information on FDI stock and ultimate investors (a term that identifies the real investor, when the direct investor conceals the real investor's identity and is only an intermediary) of FDI from the United Nations Conference on Trade and Development (UNCTAD) and information on balances of payments from the International Monetary Fund (IMF), compared with the official information reported by the countries and compiled by the Economic Commission for Latin America and the Caribbean (ECLAC). This research approaches FDI from the perspective of illicit financial flows, in terms of what is considered pass-through or phantom investment, and of the net contribution to the balance of payments. Therefore, to examine effects of FDI that more closely reflect reality, certain elements that are not usually taken into account when analysing FDI must be made visible, as they become apparent if analysing FDI in the context of illicit financial flows.

This article is structured as follows: in this first section, the possible relationships between FDI and illicit financial flows are outlined; the second section offers an overview of previous theoretical and empirical studies on FDI; the third section presents stylized facts regarding FDI in the world, for the 2000–2017 period, in a context of illicit financial flows; the fourth section contains macroeconomic analyses of FDI to check the hypothesis, and the concept of "cocacolonisation" of saving is proposed; in the final section the conclusions are given.

II. Prior theoretical and empirical studies

Promoting long-term investment is key to increasing the productive capacity of an economy (Jha, 2003) and, in that regard, FDI is considered important. This reflects the goal of a direct investor residing in one economy who becomes ultimate beneficiary of an interest in a firm located in another economy, with a direct investment in a different firm. The interest entails the existence of a long-term relationship between the direct investor and the direct investment in another firm and a degree of direct influence in the management of the firm, established by equity that entitles it to 10% or more of the voting rights in the recipient company (IMF, 2009).

For Stephen Hymer, precursor of the neoclassical theory on FDI and multinational enterprises, FDI is possible if there are market imperfections that multinationals can exploit. He differentiates between direct investment and portfolio investment, explained not only by differences in interest rates, but also by enabling multinational enterprises to maintain their monopolistic power (Dunning and Rugman, 1985). Dunning (1980) distinguishes between these advantages in terms of industrial organization and develops the eclectic paradigm —or ownership, location, internalization (OLI) model— on the competitive advantages of firms that undertake FDI and seek attractive locations to obtain higher returns. The higher the earnings, the greater the likelihood of internationalization.

For Michał Kalecki (1976), FDI falls into the category of foreign aid and is understood as receipt of:

> "…additional resources in foreign currency, or its equivalent in goods, over the capacity to import generated by exports or financed from accumulated reserves, without the need of immediate repayment and at a cost lower than the prevailing interest rates of commercial loans" (pp. 64–65).

The author mentions the advantages of importing capital for the rapid development of a country and the relief in the need for foreign currency:

> "…the process of development tends to strain the balance of payments by raising the requirements for imports of capital goods as a result of higher investment, the requirements for imports of industrial raw materials because of growing industrial production, and the requirements for imports of food if home production lags behind demand" (p. 55).

From a post-Keynesian view, Joan Robinson (1976) considers that FDI is "directed to what the corporations expect to be profitable, not to what the developing country needs most". Robinson refers to this as "cocacolonisation" and defines it as "the right to remit profits in perpetuity [which] makes this the most expensive of all forms of borrowing" (1976, p. 12).

Along the same lines, from a structuralist perspective, Raul Prebisch (1978) states that FDI increases the "rate of accumulation, as well as the growth rate of the surplus, by virtue of [its] acknowledged efficiency, with favorable effects on the rate of development". However, he notes that "all this is paid for when the net inflow is reduced or becomes negative as new investment decreases and the financial remittances from earlier investments increase" (p. 242).

According to Pérez-Caldentey (2015, p. 57), the external constraint implies that

> "…an economy (especially on the periphery) is unlikely to be able to maintain a current account deficit for a long period, except in the case of countries that usually receive substantial amounts of foreign direct investment or official assistance flows".

Thus, theoretically, inward FDI can solve the external constraint and provide required capital. In addition, it has effects on the transfer of modern technology and knowledge, and creation of management and organizational skills (Jha, 2003), as well as facilitating formation of channels of access to foreign markets.

For a multinational enterprise, foreign investment is undertaken because it is more cost-effective to keep access to unique technologies, managerial skills or marketing expertise within the corporate network (Frieden and Lake, 2000). For Caves (2000), FDI is a means for multinational enterprises to diversify risk.

The Washington Consensus model put forward by Williamson (1990) proposed eliminating barriers to inward FDI (Rodrik, 2011), assuming, as stated at the beginning, that its contribution would always be positive.

The *Global Investment Competitiveness Report 2017/2018* published by the World Bank (2017) states that the concept of investment competitiveness is "defined by the ability of countries to not only attract but also retain and integrate private investment into their respective economies" (p. ix). It is these standardized policies that have enabled a race to the bottom on tax.

At the empirical level, no clear effects can be found, as they vary according to certain features of the host economy: its income level, productive sector, integration of investment into productive capacity and level of human capital. Depending on how these factors combine, transfer effects can be larger or smaller (Aitken and Harrison, 1999). In terms of the sector receiving FDI, investment in the extraction of natural resources has harmful effects (Alfaro, 2003). The study by Ruesga and da Silva (2009) shows that Spanish investments in the Latin American region are explained by the size of the destination economies and the privatizations performed by them, without finding effects on the real economy (effects on investment, exports, productivity and employment are analysed). This is essentially because investments were concentrated in the services sector, meaning there was no increase in the volume of capital in the economies. Alfaro and others (2010) attempt to bring the macro- and microeconomic perspectives on FDI in economic growth closer together and find that there may be a larger growth effects when goods produced by multinational enterprises are substitutes rather than complements.

Recent empirical studies in the region have sought to identify the determinants of inward FDI in general (Galaso and others, 2017; Henry, Saadatmand and Toma, 2015) or in a particular country, such as Brazil (Martins Correa da Silveira, Triches and Dias Samsonescu, 2017), as well as the effects this has on growth and inequality (Herzer, Huhne and Nunnenkamp, 2014; Suanes and Roca-Sagalés, 2015) or on poverty and other macroeconomic variables (Quiñonez, Sáenz and Solórzano, 2018).

Djulius (2018) compares foreign sources of financing with domestic saving with a time-based perspective. The study finds a positive effect of FDI on growth in the short term, which becomes negative in the long term, while external debt has a negative effect in the short term and a negligible impact in the long term, and domestic saving has positive short- and long-term effects.

More specific empirical studies include examinations of round-tripping FDI, mainly with regard to China and the Russian Federation.

Xiao (2004) explains that when new capital is created, channels for illicit financial flows are formed, such as trade misinvoicing and smuggling, and others that enable capital flight. These resources then return from abroad in a sort of round trip. The paper states this is a way to diversify domestic risks and to seek protection of property rights, which are weak in China. These resources also appear as a means of avoiding exchange rate controls, and they depend on a country's ability to generate new capital.

In the case of the Russian Federation, Ledyaeva and others (2015) find that round-tripping is mostly driven by domestic corruption and financial secrecy abroad. Foreign investors prefer regions where there is less corruption, while domestic investors look for regions with greater secrecy.

Borga (2016) acknowledges that not all foreign investment is in fact foreign and gives as reasons for round-tripping the incentives offered for such investments, controls on capital movements or exchange rates, better financial services offered by overseas financial centres, investment treaties and the possibility of concealing one's identity.

Round-tripping in China has been more notable and more frequently analysed because, given the size of the economy, the volume of round-tripping capital is considerable and because foreign capital receives differential treatment. In the Russian Federation, the most important factors analysed are the possibility of obtaining secrecy and the relation to corruption.

Ironically, in the case of Latin America —a region historically characterized by persistent capital flight— such processes have been studied little.

In this review of empirical studies, no recent research was found that estimated the actual effects of FDI on saving or external constraints. However, studies that are relevant to the analysis in this article were published in 2019. In one study by Casella (2019), which is referenced in UNCTAD (2019) a bilateral matrix of volumes of inward FDI is estimated, enabling identification of the ultimate investor of 95% of that FDI. A paper by Damgaard, Elkjaer and Johannensen (2019) estimates that phantom investment in corporate shells with no economic substance or links to the local economy may account for almost 40% of global FDI. The same authors also calculate the actual volume of inward FDI by country.

In the following section, some stylized facts are presented concerning FDI on topics that are relevant to illicit financial flows.

III. Stylized facts on foreign direct investment at the global level

Four empirical facts are raised in relation to FDI, based on an examination of illicit financial flows in the 2000–2017 period.

1. Internationalization of production through subsidiaries

International production that generates added value through foreign subsidiaries of multinational enterprises has grown more than fivefold since 1990: it grew from US$ 1.3 trillion in 1990 to US$ 6.7 trillion in 2017 (UNCTAD, 2019), equivalent to a rise from 5.7% to 8.4% of global GDP (as calculated by the author). Thus, the revenues of the largest companies[1] account for a considerable proportion of global GDP, with a correlation coefficient between the two variables of 0.87.[2] The revenues are so significant that those companies' average sales for the last six years are equivalent to around 50% of the world's GDP. The first stylized fact is internationalization of production through multinational enterprises' foreign subsidiaries, which accounts for 8% of global GDP.

2. Developed countries receive the largest share of inward foreign direct investment

In 2016, the United States was the largest recipient of inward FDI, amounting to US$ 391 billion (UNCTAD, 2017), more than one-fifth of all inflows. In 2017, this amount decreased in absolute terms, owing to the United States' restriction on corporate restructuring for tax purposes (UNCTAD, 2018). Nonetheless, the United States remained the main recipient of inward FDI. Contrary to what might be expected, and to the trends observed until 2014, according to data from UNCTAD (2017), inward FDI was mostly received by developed countries: in 1990 they accounted for 83% of the total, while the lowest percentage recorded in the period was in 2014, at 46%. In 2015 and 2016, those countries accounted for 62% of total inward FDI and in 2017 the figure was 51%, as shown in table 1.

Table 1
Share of inward foreign direct investment received by developed countries, 1990–2017
(Percentages)

	1990	1995	2000	2005	2010	2014	2015	2016	2017
Percentage of total inward FDI	83	64	82	62	50	46	62	62	51

Source: Prepared by the author, on the basis of United Nations Conference on Trade and Development (UNCTAD), *World Investment Report: Special Economic Zones*, Geneva, 2019.

This marks a second stylized fact, as inward FDI from 2015 onward was again directed to developed countries and cannot be considered development aid, because it was mainly among developed countries, except in 2014.

[1] The 3,000 largest publicly traded companies in the world, according to Bloomberg, are included in the calculation.

[2] Author's own calculations for the 2010–2016 period, with GDP data from IMF and Bloomberg.

3. Tax cuts play a prominent role in foreign direct investment changes

(a) Mergers and acquisitions dominated FDI growth in 2014–2015

According to the *World Investment Report* from UNCTAD (2016), global FDI flows in 2015 totalled US$ 1.77 trillion, with 41% (US$ 721 billion) from mergers and acquisitions. In 2015, there was 38% growth in FDI compared to the prior year. UNCTAD states that this growth appears inconsistent with growth fundamentals and the decline in commodity prices. One of the explanations for this growth is mergers and acquisitions, as previously mentioned, owing to corporate restructuring for tax purposes. Excluding the effect of such agreements, inward FDI grew by just 15% (UNCTAD, 2016). The third stylized fact relates to the information that three-fifths of global FDI growth in 2015 was driven by mergers and acquisitions to reduce tax burdens.

(b) Destinations of investment, and financial instruments as a means of making foreign direct investment

FDI to offshore financial centres, and through special purpose vehicles,[3] rose in the first three quarters of 2015 and fell in the last quarter. In 2012, 19% of the investment in Latin America by volume was made through special purpose vehicles and 11% through offshore financial centres (UNCTAD, 2015). These investments reflect accounting transactions related to financial needs, tax arbitrage between jurisdictions and tax evasion, which is to say illicit financial flows. They are also considered pass-through foreign investments. The main recipient countries of investment flows through special purpose vehicles were Luxembourg and the Netherlands (UNCTAD, 2016), which also recorded more inward FDI. The two countries are considered to be the new global financial centres and are seen as systematic conduits (Casella, 2019). Much of the investment is channelled through special purpose vehicles, as mere financial intermediaries (Damgaard and Elkjaer, 2017). The United States and the United Kingdom have historically been the financial centres par excellence.

The fourth stylized fact is that financial transactions to reduce tax burdens or circumvent regulations —in contrast with productive investments— clearly stand out in FDI variations as commercial and tax practices that become normal among large multinational enterprises.

IV. Analysis and discussion of macroeconomic effects

In developing countries, FDI has traditionally been the preferred instrument for financing the capital account of the balance of payments.

In that regard, countries have ceded legal sovereignty, cut taxes, forgone tax resources and pursued various machineries to attract investment by offering lower labour costs and establishing tax incentives and benefits, as well as making use of the specific conditions of the country that make it an attractive destination for investment.

[3] Special purpose vehicles (SPVs), also known as special purpose entities (SPEs), are used to conceal the beneficial owner and have several purposes, such as keeping profits in a particular country to evade taxes or circumvent regulations, while also obtaining secrecy regarding such actions (Damgaard, Elkjaer and Johannensen, 2019).

Robinson's (1976) original concept of "cocacolonisation" referred to companies targeting only the most profitable sectors and remitting profits in perpetuity. This is the concept studied here, from the perspective of development financing and resolution of the external constraint. To this end, in this section an analysis is performed of the stability of external saving as a mechanism for financing investment, followed by a calculation of the contribution of FDI to the balance of payments, to determine its support for easing of the external constraint.

Because illicit financial flows exist, not all FDI is real, owing to the financial practices of multinational enterprises. In addition, they allow domestic or national saving to be disguised as external saving, with FDI income remitted in perpetuity, referred to here as "cocacolonisation" of saving. In addition to this, there has been a rise in international trade misinvoicing in recent years. It is therefore important to examine the actual contribution of FDI to gross fixed capital formation, as is done in section (c). Section (d) explores round-trip investment or "cocacolonisation" of saving.

The three aims set out in the introduction are then discussed.

1. Stability of external saving in the financing of gross fixed capital formation

The first aim of this article is to determine whether FDI has made a stable contribution to gross fixed capital formation. Table 2 shows the different types of saving that finance gross fixed capital formation in Latin America.

Table 2
Latin America: financing of gross fixed capital formation at current market prices, 2000–2017
(Percentages of GDP)

Item	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Domestic saving	19.0	18.0	19.1	20.0	21.4	21.2	22.2	22.4	22.2	20.4	21.4	21.7	21.2	20.4	19.5	18.4	18.3	18.3
Net factor payments to the rest of the world	-2.5	-2.6	-2.7	-3.0	-3.1	-3.2	-3.1	-2.9	-2.7	-2.6	-3.1	-2.9	-2.7	-2.4	-2.6	-2.6	-2.6	-2.7
Net current transfers	1.0	1.3	1.6	2.0	2.1	2.0	2.1	1.9	1.6	1.5	1.3	1.1	1.1	1.1	1.1	1.4	1.5	1.5
National saving	17.5	16.6	18.0	19.1	20.3	20.1	21.1	21.4	21.1	19.2	19.7	19.9	19.6	19.0	18.0	17.2	17.2	17.1
External saving	2.9	2.7	1.1	0.0	-0.3	-0.3	-0.7	0.2	1.8	0.8	2.2	2.4	2.5	3.0	3.3	3.2	1.9	1.6
Gross fixed capital formation	20.3	19.3	19.1	19.0	20.0	19.8	20.5	21.5	22.9	20.1	21.9	22.3	22.1	22.0	21.4	20.4	19.1	18.7

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of CEPALSTAT [online database] https://estadisticas.cepal.org/cepalstat/web_cepalstat/estadisticasIndicadores.asp?idioma=i.
Note: National saving = domestic saving – net factor payments to rest of the world + net current transfers. Gross fixed capital formation = national saving + external saving.

External saving followed a cyclical pattern and increased after the 2008 crisis, when returns in wealthy countries fell. Table 3 shows the coefficients of variation and standard deviations of the different types of saving, factor payments and gross fixed capital formation in Latin America.

Table 3
Latin America: analysis of dispersion and variation of macroeconomic indicators, 2003–2017

	Standard deviation	Coefficient of variation
Domestic saving	1.43	0.07
External saving	1.39	0.97
Net factor payments to the rest of the world	0.23	-0.08
Gross fixed capital formation	1.32	0.06

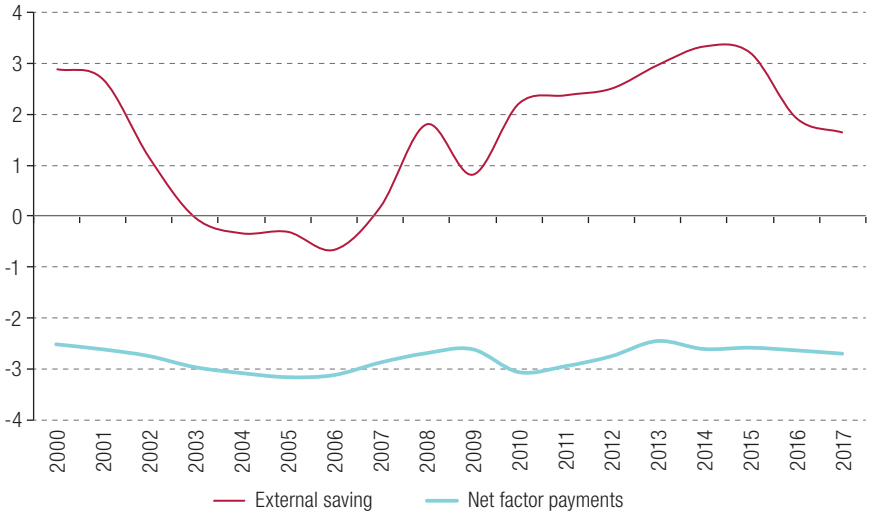
Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of CEPALSTAT [online database] https://estadisticas.cepal.org/cepalstat/web_cepalstat/estadisticasIndicadores.asp?idioma=i.

In the 2003–2017 period, domestic and external saving show the same standard deviation, while domestic saving has a much lower coefficient of variation than external saving.[4] External saving has a coefficient of variation close to 100% and a range of 4 percentage points of GDP, indicating high variability and volatility. This demonstrates that in Latin America it is in fact national saving that enables a larger and more stable increase in gross capital formation.

Net factor payments have the lowest standard deviation and a coefficient of variation of -8%, with a smaller range (0.7 percentage points of GDP), meaning that they are more constant. These payments, which range from 2.4% to 3.2% of GDP, reduce domestic saving.

Figure 2 shows the patterns in net factor payments and external saving in the 2000–2017 period. The downtrend in external savings can be seen in the figure from 2014 onward.

Figure 2
Latin America: external saving and net factor payments to the rest of the world, 2000–2017
(Percentage points of GDP)



Source: Prepared by the author, on the basis of CEPALSTAT [online database] https://estadisticas.cepal.org/cepalstat/web_cepalstat/estadisticasIndicadores.asp?idioma=i.

[4] The coefficient of variation is calculated by dividing the standard deviation by the mean of the variable analysed. If the result is positive, it is used to compare the dispersions of the variables.

Table 4 presents the correlation coefficients for the variables analysed, for the 2003–2017 period.

Table 4
Latin America: correlation coefficients for macroeconomic indicators, 2003–2017

Macroeconomic variables analysed	Pearson correlation coefficient
Domestic saving and gross fixed capital formation	0.61
National saving and gross fixed capital formation	0.50
External saving and gross fixed capital formation	0.44
Domestic saving and net factor payments to the rest of the world	-0.58

Source: Prepared by the author, on the basis of CEPALSTAT [online database] https://estadisticas.cepal.org/cepalstat/web_cepalstat/estadisticasIndicadores.asp?idioma=i.

In the 2003–2017 period, a negative correlation of 0.58 is found between domestic saving and net factor payments, along the same lines as previously discussed. There is also a very similar positive correlation between domestic saving and gross fixed capital formation of 0.61, and a lower correlation coefficient between external saving and gross fixed capital formation of 0.44.

The first finding is that, although external saving contributes to gross fixed capital formation, it is not a stable source of financing or of contributions to alleviating the external constraint, for two reasons: its volatility and the constant burden of net factor payments to other countries, which reduces national saving. The following section analyses the extent to which FDI contributes to the balance of payments.

2. Net effect of foreign direct investment on the balance of payments

As the second aim of this study, the net contribution of FDI to the balance of payments is analysed, and the basic definitions of FDI and FDI income are repeated.

Equation 1: calculation of FDI and its income

FDI = capital contribution + reinvested earnings + inter-subsidiary loans

Income = dividends + reinvested earnings + interest

The first approach would be to analyse whether the sum of FDI income flows exceeds FDI stock, as set out in equation 2:

Equation 2: calculation of the net effect of FDI

FDI - income = capital contribution + reinvested earnings + inter-subsidiary loans
- (dividends + reinvested earnings + interest)

FDI - income = capital contribution + inter-subsidiary loans - dividends - interest

The net contribution will be positive while foreign companies continue to make new investments, with a ratio of less than 1. It will be negative when income is greater than the stock, with a value above 1.

Formula 1: ratio of net FDI contribution

$$\text{Net contribution ratio} = \frac{Income_{2000-2017}}{Stock_{2017}}$$

Table 5 presents the ratio of net FDI contribution in the 2003–2017 and 2000–2017 periods.

Table 5
Latin America (18 countries): ratio of net foreign direct investment contribution, 2003–2017 and 2000–2017

Country	Ratio 2003–2017	Ratio 2000–2017
Argentina	1.5	1.6
Bolivia (Plurinational State of)	1.1	1.2
Brazil	0.7	0.7
Chile	0.8	0.9
Colombia	0.7	0.7
Costa Rica	0.5	0.6
Dominican Republic	0.8	0.9
Ecuador	0.6	0.7
El Salvador	0.6	0.6
Guatemala	0.9	0.9
Honduras	0.8	0.9
Mexico	0.4	0.5
Nicaragua	0.2	0.2
Panama	0.7	0.7
Paraguay	1.4	1.4
Peru	1.2	1.2
Uruguay	0.8	0.8
Venezuela (Bolivarian Republic of)[a]	2.6	2.8

Source: Prepared by the author, on the basis of International Monetary Fund (IMF), Balance of Payments and International Investment Position Statistics (BOP/IIP) [online database] https://data.imf.org/?sk=7A51304B-6426-40C0-83DD-CA473CA1FD52&sId=1390030341854; United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2019: Special Economic Zones*, Geneva, 2019.

[a] Information is only available up to 2016.

In countries for which total income is high, the contribution of FDI to the balance of payments is lower using this formula than if only the volume of inflows is considered. Thus, it is found that some countries suffer from what Prebisch (1978) described: a negative net contribution because of lower investments and higher remittances from prior investments.

These countries are the Bolivarian Republic of Venezuela, Argentina, Peru, Paraguay and the Plurinational State of Bolivia, in order of their ratios. Of these countries, three stand out —the Bolivarian Republic of Venezuela, Peru and the Plurinational State of Bolivia— which receive foreign investment for exploitation of primary commodities, including in the mining and oil sectors. This is in line with the findings of Alfaro (2003) on the effects of FDI in extractive sectors. In these sectors, moreover, the amount of the initial investment is relatively fixed (King, 2021).

The ratios are lower in Mexico and Costa Rica, which have investments in vehicles, machinery and, in the case of the latter, semiconductors. What is striking is that these countries are also the ones with the highest concentration of illicit financial flows in trade, with 48% and 8%, respectively, in addition to Brazil, which ranks second with 18% (Podestá, Hanni and Martner, 2017).

As seen above, the contribution of FDI to the balance of payments, if income remittances are also taken into account, becomes a net outflow of resources for certain countries. In countries where this does not occur, there are representative values of illicit financial flows that also affect the external constraint.

This situation, together with the cyclical access of the countries in the region to the capital market (Bértola and Ocampo, 2013; Ffrench-Davis, 2010), goes some way to explaining the high volatility of economic growth. If, as seen, FDI is solely devoted to remitting income, its positive externalities are diluted, national saving is affected, and balance of payments difficulties are aggravated. Beyond discussing whether investment is a product of the accelerator effect or of the exposure method, which is to say the relationship between current demand and the volume of capital available to meet it (Robinson, 1959), it is important to recognize the multiplicity of interests of foreign investors and of the national community with which they transact, as well as how those interests clash (Ffrench-Davis, 1979).

Although reinvestment of earnings is important in the production process, it does not entail an inflow of new resources, but rather a lack of an outflow of resources.

In relation to this aim of the study, it can be concluded that the net effect of FDI is not always positive; indeed, some of the results already show a negative contribution for several countries over a limited period, since only income from 2000 or 2003 onward is included.

3. The contribution of foreign direct investment to gross fixed capital formation when accounting for illicit financial flows

To fulfil the third aim of studying the contribution of FDI to gross fixed capital formation, available data shall be examined to differentiate between genuine investment and fictitious investment. Three areas are addressed: ultimate investors, confidential or unspecified investment, and phantom investment, which relates to investment through special purpose vehicles.

For the first and second areas, this paper draws on the aforementioned studies on estimation of ultimate investors in the bilateral FDI stock (Casella, 2019; UNCTAD, 2019), enabling a matrix to be created of FDI by ultimate investor, as a percentage of the total FDI stock.

For the first area, the data in the matrix is compared with macroeconomic information on the stock of inward FDI positions. This information was compiled by IMF (2017) on the basis of consolidated statistics on this subject.[5] Those statistics do not include information from certain jurisdictions that are considered tax havens, so a comparison with all countries is not possible. However, Luxembourg and the Netherlands are included, which, as previously mentioned, are the main FDI conduits for tax planning and are even considered the new global financial centres. The information is expressed in dollars and is therefore comparable.

Fictitious FDI by ultimate investor is defined as follows:

Formula 2: Definition of the percentage of fictitious FDI by ultimate investor

$$\text{Percentage of fictitious FDI} = \frac{1 - COND(N,L)}{FDI\ Stock} \times 100$$

Where $COND\ (N, L)$ is the share of FDI made from the Netherlands and Luxembourg as conduits.

Table 6 shows the percentage of fictitious FDI originating from Luxembourg and the Netherlands.

Only the countries listed above appear in the original UNCTAD (2019) estimates. According to table 6, Brazil is the country with the highest percentage of fictitious investment in its total FDI stock, followed by Mexico, Argentina, Honduras and Paraguay. They are followed by the Bolivarian Republic of Venezuela, the Plurinational State of Bolivia, Chile and Guatemala, with values between 4% and 6%.

[5] See Coordinated Direct Investment Survey (CDIS) [online database] https://data.imf.org/?sk=40313609-F037-48C1-84B1-E1F1CE54D6D5.

Mexico, Bolivarian Republic of Venezuela, Argentina and Brazil recorded the highest levels of capital flight (Pastor, 1990).

Table 6
Latin America (13 countries): cumulative share of fictitious foreign direct investment (FDI) from Luxembourg and the Netherlands, up to 2017
(Percentages of inward FDI stock)

Country	Percentage
Argentina	8.5
Bolivia (Plurinational State of)	5.5
Brazil	23.1
Chile	4.1
Costa Rica	2.0
El Salvador	0.6
Guatemala	3.8
Honduras	8.3
Mexico	12.3
Panama	1.0
Paraguay	7.0
Uruguay	1.7
Venezuela (Bolivarian Republic of)	5.9

Source: Prepared by the author, on the basis of United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2019: Special Economic Zones*, Geneva, 2019; International Monetary Fund (IMF), Balance of Payments and International Investment Position Statistics (BOP/IIP) [online database] https://data.imf.org/?sk=7A51304B-6426-40C0-83DD-CA473CA1FD52&sId=1390030341854.

These conservative estimates of real FDI (as only Luxembourg and the Netherlands are included) suggest that, as an average of all the countries mentioned above, fictitious investment accounts for 11.4% of FDI stock up to 2017.

This appears to be closely related to the use of conduits by multinational enterprises that often base their financial and tax planning transactions in Luxembourg or the Netherlands.

In 2012, as mentioned by UNCTAD (2015), in Latin America 19% of investment by volume was made through special purpose vehicles and 11% through offshore financial centres. However, few countries collect data on investment through special purpose vehicles. In the region, only Chile does so.In the matrix, UNCTAD (2019) also calculates confidential or unspecified FDI, as presented in table 7. This relates to the second area of FDI contribution to gross fixed capital formation.

Table 7
Latin America (13 countries): cumulative share of confidential or unspecified foreign direct investment, up to 2017
(Percentages of inward FDI stock)

Country	Percentage
Argentina	3.28
Bolivia (Plurinational State of)	2.85
Brazil	6.16
Chile	37.50
Costa Rica	1.35
El Salvador	2.42

Table 7 (concluded)

Country	Percentage
Guatemala	3.31
Honduras	4.05
Mexico	2.66
Panama	4.03
Paraguay	2.42
Uruguay	15.76
Venezuela (Bolivarian Republic of)	2.44

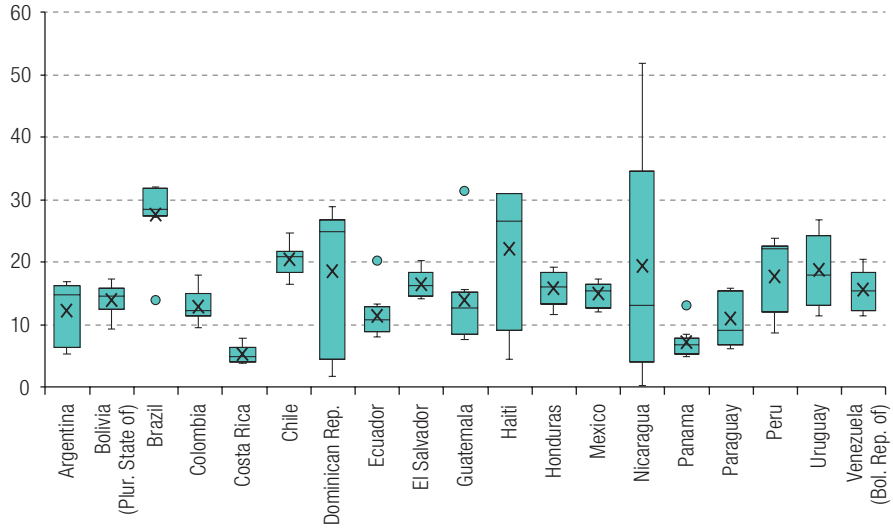
Source: Prepared by the author, on the basis of United Nations Conference on Trade and Development (UNCTAD), *World Investment Report: Special Economic Zones*, Geneva, 2019.

Chile is the country with the highest percentage of confidential or unspecified FDI (37.5%), followed by Uruguay (15.76%). The simple average for the region is 6.79%. In this area, the contribution to gross fixed capital formation is dubious because of the motivations for pursuing secrecy. There may be tax stratagems to reduce tax burdens.[6] There may also be domestic investors that appear to be foreign, which do not necessarily produce new investments or a real increase in gross fixed capital formation.

Regarding the third area, we use the study by Damgaard and others (2019), which defines phantom investment as that which is into empty corporate shells with no link to the local real economy, and which estimates exposure to phantom FDI.

Figure 3 presents, in a box-and-whisker plot, the descriptive indicators of phantom FDI exposure for 19 countries in the region, based on the values estimated by Damgaard and others (2019) for the 2009–2017 period.

Figure 3
Latin America (19 countries): box-and-whisker plot of phantom foreign direct investment exposure, 2009–2017
(Percentages of inward FDI stock)



Source: Prepared by the author, on the basis of J. Damgaard, T. Elkjaer and N. Johannensen, "What is real and what is not in the Global FDI Network?", *Working Paper*, No. 19/274, International Monetary Fund (IMF), December, 2019.

[6] Chile and Uruguay were on the list of countries that facilitate the creation of holding companies, which allows the accumulation of profits through such companies (Nazar, 2010).

For the Latin American region, the simple average of exposure to phantom investment is 19.6%. In this area, the estimates are higher than in a comparison solely of ultimate investor data for Luxembourg and the Netherlands or confidential information data.

Brazil also ranks first in this regard, followed by Haiti, Chile, Nicaragua, Uruguay, the Dominican Republic and Peru. Haiti has investment records from 2014 onward, showing an upward trend in phantom investment. Chile, in contrast, has lower values than in table 7, in which it appeared with the highest values for confidential or unspecified investment.

Guatemala, Haiti, Nicaragua and the Dominican Republic have high coefficients of variation. A second group in terms of variations comprises Argentina, Ecuador, Panama, Paraguay, Peru and Uruguay, which display high variability. Argentina, Panama and Paraguay show rising trends, Peru has a falling trend and Ecuador and Uruguay show more erratic patterns.

The findings indicate that the volume of inward FDI in the three areas presented is lower in all the countries, meaning that its contribution to gross fixed capital formation is also lower.

In practice, the resources classified as FDI may be resources that local investors remove from the country and then bring back in to take advantage of the benefits granted to FDI or simply to carry out financial transactions that favour them and reduce the tax burden. This may explain why two-thirds of foreign investment in the region does not create new physical capital (ECLAC, 2016).

This topic will be discussed in more detail in the following section.

4. A discussion of round-tripping

UNCTAD (2016) conducted a study of ownership of subsidiaries using information from the Orbis database which contained ownership information on 22 million companies in November 2015.[7] Distinctions were made between four types of ownership, the third being domestic companies that use offshore locations to channel investments back to their own country, which is to say round-trip investment. Although the focus of the study was on multinational enterprises and it excluded privately owned companies with family shareholders, in it the authors estimate that in Latin America and the Caribbean the ultimate owners of 11% of subsidiaries were companies from the same region and 19% of subsidiaries had direct owners from the region.

Moreover, the study states that capital in round-tripping investment mostly consists of private wealth or is directly controlled by individuals (rather than by companies). In other words, it is the capital of high-net-worth individuals. Round-tripping accounts for 20% of investment in the Caribbean and, because the total universe of companies excludes those without ownership information or that are owned by individuals, it can be said that as a phenomenon it is established in the region and is underestimated owing to the lack of information and the instruments using to conceal ultimate beneficial owners.

These percentages show how, when illicit financial flows are taken into account, FDI is found to make a lower real contribution, and that round-tripping investment exists, which does away with the supposed advantages of foreign capital.

In peripheral countries, “new investments” are promoted by offering them differential or preferential treatment. This can take the form of lower tax rates, free zones or a specific framework of legal protection in the event of disputes, through foreign investment protection treaties.

Special treatment is thus granted to companies that are domiciled abroad. This results in an aura of superiority, even if the ultimate beneficial owner is unknown, thus facilitating the mechanisms that drive illicit financial flows and capital flight.

[7] At that date, the database contained 136 million companies, meaning that information on ownership was available for just 16.2% of all companies in the database.

Herzer and others (2014) find a significant and positive correlation between FDI stock and inequality in several Latin American countries. This positive relationship, and the scarce creation of new physical capital in the region, could be explained by part of the inward FDI in fact being mere financial machinations to disguise local companies as new foreign investors, when the resources actually come from capital flight, fictitious or fraudulent sales that conceal the identity of the beneficial owner and do not increase physical capital.

The presented data are not exhaustive, as they are estimates. Moreover, round-trip investment is difficult to measure in the case of countries with a history of capital flight. In other words, such investment may be capital that left the country at some point, either as national saving that exited the country for legitimate or illicit reasons, or as resources from illicit flows that leave and then return as external saving. The truth is that it is very difficult to establish whether it is one or the other.

What can be verified is that round-trip investment or "cocacolonisation" of savings has not been considered in the case of Latin America, especially because, as previously mentioned, consideration is not given to the volume of resources that have fled in the past or the illicit financial flows generated by trade transactions. All these resources can return disguised as external saving to circumvent regulations, to obtain advantages granted to supposedly new capital or simply to conceal their origin. Even in the calculations by Casella (2019) using absorbing Markov chains, there is a noticeable bias in estimation of round-trip investment. He prefers to consider only those countries for which there are previous studies of that type of investment, such as China and the Russian Federation, applying an a priori probability approach.

Recognition of this type of investment means that the countries send royalties abroad on their own resources, putting additional pressure on the external constraint. If external financing is dependent on this type of foreign saving, external interests may intervene in the economic policy of the destination country and lobby for more incentives, thus further complicating the external constraint. The new legal, tax or other privileges in turn create an incentive for further round-trip investment, resulting in a vicious circle that can be somewhat "addictive". The more privileges or benefits the governments grant, the more the simulated national capital will demand. As is said of Coca-Cola, the more you drink, the more you want.

In addition, some high-net-worth individuals have inside information about their own country owing to their connections. They also usually know how to move within the environment, giving them more opportunities to do business, as suggested by Ledyaeva and others (2015).

We can thus reinterpret Robinson's (1976) concept of "cocacolonisation" of saving through round-trip investment and add to it the veto powers of the elites, as mentioned by Pastor (1993) in reference to nationalization of private debts in the 1980s.

V. Conclusions

In developing countries, FDI is always seen as desirable and the deceptive financial and tax practices that may be behind such investment, which are common among large multinational enterprises, are either not discussed or are not known. These enterprises operate in a framework of increased global production through subsidiaries. Inward FDI is mainly between developed countries. Tax planning determines new trends in FDI based on mergers and acquisitions, as well as the use of offshore financial instruments and centres. High-net-worth individuals mimic the practices of multinational enterprises to evade taxes and circumvent regulations.

This article provides an analysis of some dimensions of FDI, from the perspective of illicit financial flows. The first finding is that, in Latin America, external savings are quite volatile and factor payments

affect national saving, which could have been more stable in the 1990s (Machinea and Vera, 2006). FDI financing of gross fixed capital formation is lower than officially reported, as is its contribution to the balance of payments.

In short, the positive effect of FDI in Latin America should be considered with great care because although such investment finances the capital account, it also remits income that facilitates lower tax contribution owing to triangular structures and financial transactions carried out by investors, without considering the effect on the balance of services.

In some countries, FDI income is beginning to put the external sector at risk, because of continued payment for prior investments and the lack of new investments, especially in countries with a greater tradition of extractive industries. The cases of Mexico and Costa Rica are significant because FDI is directed towards industrialized goods and not just commodities, in line with the findings of Cipollina and others (2012) of a positive effect of FDI in sectors that are more capital-intensive and use more advanced technology. However, these countries record considerable illicit financial flows.

FDI round-tripping can be a mechanism used by high-net-worth individuals to benefit from FDI incentives, encourage capital flight and exert political power over economic policy decisions to obtain greater profits.

In most peripheral countries, multinational enterprises enjoy preferential treatment over local companies, which opens the door for the latter to benefit from this treatment or to try to do so. That differential treatment also facilitates illicit financial flows not only from tax evasion, but also from saving that is disguised as foreign investment. It can therefore be said that a "cocacolonisation" of saving exists, in a reinterpretation of Robinson's (1976) original concept.

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