SECTION II
FINANCIAL AND ACCOUNTING POLICIES AND CORPORATE GOVERNANCE IN THE GLOBAL CONTEXT

WORLD-WIDE FLOWS OF FOREIGN DIRECT INVESTMENTS

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Abstract

This paper below is continuing once more on our studies about international directly invested capital. This latest approach of ours still aims to detect such specific flows across the world as resulting from data provided by the UNCTAD's specific statistics for the 1990-2015 interval the way that equations, in general, are supposed to be solved once their unknowns are found. This case still is one of „a single equation with several unknowns". And here the previous methods, as well as descriptions, will bear some adjustments in the below lines, despite the model that remains the same as in our previous papers, and some of our previous conclusions will here come to adjust, as well. But first of all it is our theory on FDI requiring its assertion, together with its specific model – i.e. another kind of model.

Key words: *foreign direct investments, direct investments abroad, external balance of payments, economic theories.*

JEL Classification: *E22, F21*

1. Theory on international direct investments

The *international investment* is made by capital invested / moving from one country to another. Several theories do try to explain such capital movements between countries here also considering the *direct* investment as directly involved in the real economy – i.e. industrial productions. A basic production related theory so sees the capital as a production factor that is supposed to „search" for the other factors – e.g. natural resources and even labour – in the production development order, basing on its plus in mobility against them and in both macroeconomic and international (other) areas (Markusen, JR & Venables 1995) – i.e. so in a kind of macro-micro „neutrality" for economics. An older theory – i.e. that results from another large theory that is the *international trade* theory (i.e. its later HOS Model, see Ely Heckscher's, Bertil Ohlin's and Paul Samuelson's variants) – sees the same phenomenon as resulting from the macroeconomic context in which capital becomes cheaper for some countries and so ready to be exported and circumstances like the lacks/empty spaces in the international market's specific competition and other countries in need for development come to sustain it (Helpman, E & Krugman, P. , 1985, Iancu, 1983).

.Once this theory relates to the international trade one, it takes over from the *comparative advantage*(i.e. of the countries) and here adds correspondingly the *competitive advantage* of firms (Mucchielli , 1997).

A third theory prefers a narrower space to focus on and a more detailed view: the individual product becoming a market good and getting its *life cycle* in consumption and consumers' preference – the good is first „born", then its demand-supply might rise, then it goes to reach a part of the domestic market space and even goes to exportation. But such an „increasing" story will meet its later „decay" – i.e. when the same good's industry goes to exportation, instead of the good itself for its consumption, as previously (Vernon 1979).

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Going further on, entire industries are observed to migrate to neighbouring countries, as in the splendid metaphor of „goose flying" – i.e. migrating industries do not usually go too far in the geographical area, but stop in the country's neighbourhood (Ozawa 1992).

Another theory prefers, instead of individual goods, to focus the international investment story on a similar life-cycle, the one of the individual firm (Dunning 1995; Horst 1972) – i.e. this way responding not only to the good's life cycle theory but equally to the previous one related to international trade, here by making the *investment* a rather *micro*- than *macro*-economic related issue. The firm, in its evolution, might acquire necessary conditions that make it an international investor. Other theories go on the same way observing multinationals as a real international zone of interests and forces that gets distinct from the one of States and so means something more than economic-related (Broaden, 1999, Buckley, PJ & Casson,1976), Ethier, WJ , 1986, Helpman, E.,1984, Muchieli,1985, 1991, 1992, 1997, Lall 1977).The polemic that here comes, besides the „micro versus macro" one, is the one of country-States being or not able to control such a process.

The theories on international direct investments so make not only a long list, but a contradictory landscape at the same, plus their references naturally multiply. Then, here comes our own theory in context that might be just one more one. International direct investments are made, once more, by individual countries that invest and the ones that receive the same capital invested – i.e. never the same country on both sides admitted. So, countries are *subjects* of investment transactions and the capital invested is the *object* of these. World-wide, the same capital invested is to be found on both entries (FDI- *foreign direct investments*) – i.e. for recipient countries – and issues (DIA-*direct investments abroad*) – i.e. for investor countries. Except for here admitting that capital might be exported from the country where it is cheaper, good-product- and firm-related arguments here are skipped – i.e. together with particularities and varieties that they suggest about; such a variety might here remain beyond that each country is admitted to be concomitantly both an investor (capital issuer) and an investment(capital) recipient -- and instead, the same capital is viewed as homogeneous and fluid stuff able to flow across the international area. Moreover, it is a world-belonging issue that is claimed/called by the country-subjects for their transactions between and each individual capital amount according to corresponding transaction's size.

Last, but not least, and in the same context of variety against homogeneity of capital, this last will be one of two kinds: (i) *cooperation capital(Ccp),* that is investment made now for its return expected after a while – i.e. that might be a capital specific, viewing its medium-long term work due to capital goods' lifetime and capital amortization periods – and (ii) *long-way flows (Lwf)* that are and make the investments in/to the so-called „Third World", basically for the last's development specific needs. Ccp is more complex than Lwf by working on both short & long distances – i.e. between countries in the same region, as well as between regions and areas not too close to one-another. Lwf, in their turn, get different from Ccp by: (a) always flowing between regions and areas that stay far from each-other, (b) not expecting capital returns – i.e. as much as they result from the capital that is cheaper in the capital exporter country – and (c) usually being larger individual amounts traded than are the Ccp cases and especially the ones within the region/between neighbouring countries. However, capital equally disposes of the capability of turning from Lwf to Ccp and conversely in various circumstances.

2. The model

This is also called the ***binary*** model: *foreign direct investments* /FDI (+/capital entries), versus *direct investments abroad* /DIA(-/capital issues) and *balance of international capital(FDI) stocks /* FDIstckBal(+/-), all related to individual world countries (i)(Andrei & Andrei 2019).

2.1. The static hypothesis

This is the following:

$$\Sigma\ FDI_i\ (i=1\rightarrow n;\ j=1\rightarrow m) = \Sigma\ DIA_i (i=1\rightarrow n;\ j=1\rightarrow m) \quad (1)$$

making then:

$$\Sigma\ FDIstckBal_{ij}\ (i=1\rightarrow n;\ j=1\rightarrow m) = 0 \quad (2)$$

for *total world flows* (up to one year cumulated FDI or DIA transactions) / *stocks* (more than one year cumulated FDI or DIA transactions).Flow has equally the sense of general components of the world capital, with their individual direction and sense in total world capital design and this will make the particular subject of this paper.

in which:

$$FDIstckBal_i (i=1\rightarrow n;\ j=1\rightarrow m) \neq 0$$

is the *FDI stocks balance* of the individual country i, FDI_i – DIA_i, in cumulating FDI&DIA stocks of all periods up to j and / or in the j period for this last's year flow. These being the theoretical possibilities of our model, corresponding applications naturally refer to the whole 1990-2015 interval for significant conclusions to be drawn. Our previous papers (Andrei& Andrei 2019, 2021) then produce these applications – i.e. related to the above given *model 1* formula (Table 1.).

Table 1.The model's applications

1	countries ranking according to FDI&DIA stocks
2	Dominant/major FDI&DIA countries, vs. the rest of countries
3	individual countries and/vs. world regions
4	types of the world regions, according to FDI's and DIA's behaviours
5	individual country's typical FDI&DIA behaviour on the long terms
6	searching for FDI&DIA/ international capital flows in association with the unitary model 2(see below 2.) -- identifying world capital sections(see Diagram 2).

2.1.1 Countries ranking according to FDI&DIA stocks

WIR(2016), our data table-reference, exposes two large tables that include FDI&DIA reported in US$ million by each of the 215 UNCTAD member country-States in each of the years of the 1990-2015 interval (26 years). Cumulating all these amounts, country rankings do result on all: FDI, DIA, the same on countries considered as *significant* and *non-significant* international capital flows/stocks and international capital *dynamics* (see below) on the same individual countries (Andrei& Andrei 2019,).Significant FDI country means over 0.2% of total world FDI stocks and significant DIA country the same for 0.1% of total world DIA stocks – i.e. the difference between the two being induced by some evaluation errors between total world FDI and total world DIA in WIR(2016)

2.1.2 Dominant/major FDI&DIA countries, versus the rest of countries

We recall the debates about *"two peaks of the iceberg"* (Andrei& Andrei (2019, pp 65-68) :

[a] the restricted/reduced one (4 world entities): Euro-zone, US, China and UK, these covering more than ½ of the total world capital amounts on both FDI and DIA; For Euro-zone just 14 countries (excluding those of Central and Eastern Europe already part of the Euro-zone): Germany, Netherlands, France, Spain, Belgium, Ireland, Italy, Luxembourg, Malta, Austria, Finland, Greece, Cyprus and Portugal.

[b] the large one(17 world entities): Euro-zone, US, China, UK, West Europe, Hong-Kong, Singapore, India, Russian Federation, Brazil, Mexico, British Virgin Islands, Japan,

Canada, Australia, New Zealand and South Africa, these showing really dominant/ capital majority inside the total one attributed to all the 215 countries in this study on both FDI and DIA parts of model 1. The West Europe is nominating the region/country group called in WIR (2016) "Other developed Europe", i.e. other than the Euro-zone : Switzerland, Sweden, Norway, Denmark, Gibraltar and Iceland.

These *"two peaks"* do find, in their turn, a double trend /two trends of the international capital:

/1/ the profound flows inequality / strongly uneven flows among countries;

/2/ individual countries' FDI and DIA approach each-other's levels (this is a regularity respected by both the above world capital majority countries and the non-significant capital countries of which's large majority report similarly low stocks on FDI and DIA).

Then two other results:

/a first result, the international directly invested capital (FDI&DIA) seems a game of "concentric circles" among countries, as diverse degree investors;

/ the second one comes especially from the [b] large peak, with its cumulative *FDIstckBal* of about (-) 10 bln. US$ – i.e. this is what really gives life to and makes the international investments really popular among world countries in this epoch.

2.1.3 Individual countries and/versus world regions

As the situation given by WIR(2016), all 215 countries are grouped into 18 regions throughout the world. Our interventions on this (Andrei& Andrei 2019, pp.68-283) were as follows:

- starting from the above [b] peak (17), 6 countries were considered out of regions: US, UK, Canada, Japan, Australia and New Zealand – the rest of countries were included in their regions North America, i.e. US and Canada isn't here considered a region like the others)
- the region called "Other Developed Europe" changed its name into "West Europe", without other interventions;
- the African regions called "East Africa", "Central Africa" and "West Africa" reunite into our "Middle Africa" according to the regional criterion of dominant FDI country existing, which here is Nigeria.

The result is having 16 regions: Europe-4, Asia-3, CIS-1, Near East-1, Africa-3, Latin America-2, Caribbean-1, Oceania-1 – the last two not even being regions, but groups of island countries – besides 6 individual and without region countries.

2.1.4 Types of world regions, according to FDI's and DIA's behaviours

Three such types of regions are found in Andrei& Andrei (2021, pp.7-11):

/ the *[a] type*: long-way flows f(Lwf) entries of the region go priory to one country or a small group of countries[f], as regionally FDI *major countries* with international capital majority and from them to the rest of the region, as part of the initial entries ($a=\Sigma ai < f$) – i.e. the [a] type of the regions is made by $\Sigma DIA/major.ctr \geq \Sigma FDI/rest.of.ctr$.

This way all countries in the region get positive *FDIstckBal* and just the dominant countries also get Ccp related to their DIA to the other countries in the region[a] and off the region investment partners – i.e. former Lwf investors into the same region[f]. Then, there might be about two kinds of capital responses on the medium-long term that enlarge the Ccp: the ones from the rest of countries back to dominant countries[a'], as within the region capital returns[a'/a%], the others from the region's dominant/major countries back to initial world investors, i.e. that make long-way Ccp through diminishing the initial

Lwf[f $\rightarrow$(f-f ')] and (f-f ') so becomes the current Lwf entries of the region.

The difference between these two international investment mechanisms in the model is that the ones within the region do add [a'/a%] to both intra-region Ccp and initial FDI-DIA turnover -- i.e. volume of international capital investments –, while the latter rises long-way

Ccp on the expense of Lwf [f-f']. Then, there will be formed total FDI&DIA of major countries and so f ' results as such and from now on it is to be coupled with the same inter-regions Ccp of the corresponding world investors' performing, as capital entries.

This type of regions is for: West Europe(with Switzerland), CIS(with Russian Federation), South Asia (with India), Central America (with Mexico) and Caribbean (with British Virgin Islands) – with just one dominant country – and East Asia (with China and Hong-Kong), South-East Asia (with Singapore, Thailand and Indonesia), Near East (with Turkey, Saudi Arabia, Israel and the Emirates), Southern Africa (with South Africa and Mozambique) and South America (with Brazil and Chile) – with more than one dominant country;

/ **the *[b] type*** is one of strong intra-region Ccp and then of equally strong DIA/Lwf regions, both as symptoms of economic expanding through capital investing. Here considering the n number of Yi member countries of the region and correspondingly the same of [bi] (Ccp) capitals invested from each country to another one and such initial investments meat their replies similar to the ones in regions of type [a] above and DIA in the rest of the world would be able to usually work from this (Andrei& Andrei 2021, pp. 9-11).

This type of regions is for just the Euro-zone and West Europe. But besides this, both regions keep some country dominance similar to the one of the [a] type – i.e. Germany, Netherlands, France and Spain together for the Euro-zone and just Switzerland for West Europe. So that these regions will rather classify as ***[b-mix];***

/ the *[e] type* is basically similar to the above [a] type – i.e. investment recipient regions --, except for no dominant country or group of countries inside the region like in the above [a] case – i.e. the world investors related to this type of region are assumed to negotiate with each country in the region as separately. Lwf entries, intra-region and inter-regions Ccp work similarly to the [a] above region case – i.e. paradoxically, despite no dominant FDI&DIA country, this type of region might include countries with inter-regions Ccp issues (i.e. i.e. Serbia& Montenegro, in South-East Europe, and the Visegrad-4 countries (Poland, Czech and Slovak Republics and Hungary), in the Central and Eastern Europe.

Intra-region Ccp either looks less detectable by our model in these regions, or these latest look like weaker cohesion regions/groups of countries, as compared to all the other above.

This type of regions is for: Central and Eastern Europe (CEE), South-East Europe, Northern and Middle Africa and Oceania.

2.1.5 The individual country's typical FDI&DIA behaviour on the long terms

Of the total of 215 reference world countries, 66 countries are what is called in our model *FDI significant* ($FDI_i \geq 0.2$ % of world stocks) and 60 countries are *DIA significant* ($DIA_i \geq 0.1\%$ of world stocks /Andrei& Andrei 2019, pp.258 and following). 6 countries, as the difference between, are supposed to be partly significant for international capital, i.e. just for FDI (capital entries).Or, this countries minority forms the exception to the above found rule of FDI&DIA related to one-another on individual countries. Finally, the rest of world countries stay *insignificant* FDI&DIA countries, a reality indicating that the majority of countries looks not to have yet joined the international capital(ist) business initiative . Not only this real economic (and financial) movement of countries might be found as historically induced – e.g. the time of our analysis comes just after the international debt crisis of the 80ies, while international investments might similarly perform without international debt producing, in their turn --, but also this quarter of a century analysed (1990-2015) might be long enough to be representative for what has happened with the contemporary capital – e.g. capital amortization lengths of diverse capital goods.

Finally, the camp of those (i.e. 66) having joined the international capital is formed by countries regularly:

/ starting with capital accumulation – i.e. important FDI: positive *FDIstckBal* frequently accompanies the capital scarcity of individual countries;

/ continuing with DIA as similarly up to about the FDI=DIA equality;

/ since both FDI and DIA get high enough – plus, the capital supply on the country's home market ensures its cheapness – DIA do take the initiative (FDI<DIA) and the country becomes an international investor – a moment in which the same country really enters its new development condition;

/ FDI<DIA being – i.e. contrary to FDI> DIA-- the symptom of economic expanding, the same new phase proves equally able to remake capital entries' (FDI's) dynamic against corresponding issues (DIA) at least temporarily /from time to time -- i.e. the international investments might not stay related to the primary economic development only, capital stock renewal and/or other facts could here get included in. Our findings include the one of converse dynamics between the two opposite capital flows(Andrei& Andrei 2019, Annex 1, pp. 295-296).

The truth of the above conclusions sees itself met by almost the whole Third World with positive *FDIstckBal*, and even China here might be the most representative example – i.e. the highest positive FDIstckBal coupled with the highest DIA dynamic world-wide. Just few examples of countries investing abroad in the absence of previous significant FDI accumulation: South Korea and Taiwan (East Asia), Kuwait and Qatar (Near East), Libya (North Africa), Suriname (South America), Cook Islands (Oceania) and other countries with less important capital amounts. The amounts here are less important as related to the total of world stocks, but our model appears in more difficulty when negative FDIstckBal is caused not by outflows (DIA), but by negative entries– e.g. Yemen, South Sudan. On the other hand, Germany (Euro-zone) and Switzerland (West Europe) could be the examples of FDI/inflows recovery for already important international investor countries as well.

2.2 The dynamic hypothesis

Unlike in the above static hypothesis, both FDI&DIA flows have their own dynamics, to be seen as independent from one-another:

$$\Sigma\, dynamics\text{-}of\text{-}FDI_i(j\text{-}j')(i=1\rightarrow n;\ j=2\rightarrow m;\ j'=1\rightarrow m\text{-}1\ )=0 \qquad (3)$$

$$\Sigma\, dynamics\text{-}of\text{-}DIA_i(j\text{-}j')(i=1\rightarrow n;\ j=2\rightarrow m;\ j'=1\rightarrow m\text{-}1\ )=0 \qquad (4)$$

in which:

- $dynamics\text{-}of\text{-}FDI_i(j\text{-}j')(i=1\rightarrow n;\ j=2\rightarrow m;\ j'=1\rightarrow m\text{-}1\ ) = FDI_{ij}/FDIworld.stck._{ij}(\%)$ -

  - FDI_{ij}'/$FDIworld.stck._{ij}$' (%) is the passing of the i country from its percentage in total world FDI stocks(%) of year j' to the one in year j and:

- $dynamics\text{-}of\text{-}DIA_i(j\text{-}j')(i=1\rightarrow n;\ j=2\rightarrow m;\ j'=1\rightarrow m\text{-}1\ ) = DIA_{ij}/DIAworld.stck._{ij}(\%\ )$- DIA_{ij}'/$DIAworld.stk._{ij}$' (%)

is the passing of the *i* country from its percentages in total world DIA stocks of year *j'* to the one in year *j*. Both percentage point numbers bear their algebraic signs indicating the advance into(+), versus step-back(-) of the country from the world capital market. Note that our model compares the individual countries to the world average on the capital dynamics criterion – i.e. nothing about absolute numbers or world capital's dynamic in this model.

3. Conclusion of the model

Andrei & Andrei (2019) offers a plastic image of the international directly invested capital flows as "concentric circles", i.e. first as "a game among the few", followed by distinct groups of countries successively involved in the flows movement, but naturally with decreasing amounts. But this image, despite some relevance that it bears, cannot and will not be the final one or the one that such a model could be able to achieve. It is too general and so incomplete – i.e. just all top investor countries face to the large regions of the Third World. No international

capital flows in detail from each investor country to each investment receiving country and/or region. Or, this will be for our following paper-approaches, in which intermediary work steps, e.g. making distinct the cooperation capital – i.e. between countries of comparable international capital sizes – from long-way flows – i.e. the ones from world investor countries to the same Third World. By the way, such a flows distinction proves able to come up directly from our above papers' double basic finding regarding the uneven world capital distribution throughout the world countries and the individual countries' trend of equalizing their FDI-inflows with DIA-outflows of capital. An imaginable end of this approach of ours in this moment could be the one in which our model results might confront statistics(facts) on international capital, be they partial and/or on specific countries and territories.

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