Foreign direct investments flows detected world-wide

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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 – able to identify the investor countries and then find where these investor countries invest their capitals and, on the other hand, where the recipient countries collect their international capital funding from.

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

JEL Classification: E22, F21

The paper below will share into:

- its *Introduction* -- i.e. referred to our previous papers' content, information, developing and findings for which details try to be here avoided -- and
- new *Content* – naturally regarding the new added research and its findings.

1. Introduction

1.1 The theory

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[1] – 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[2]. 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 counsumers' 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 exportaion, instead of the good itself for its consumption, as previously (Vernon 1979). Going further on, entire industries are observed to emigrate 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 stops 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[3] – i.e. 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[4]) – i.e. for recipient countries – and issues (DIA[5]) – 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 homogenous 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.

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[1] i.e. its later HOS Model, see Ely Heckscher's, Bertil Ohlin's and Paul Samuelson's variants.
[2] Helpman, E & Krugman, P(1985), Iancu(1983).
[3] Broaden (1999), Buckley, PJ & Casson(1976), Ethier, WJ (1986), Helpman, E (1984), Muchieli (1985, 1991, 1992, 1997), Lall (1977).
[4] *Foreign direct investments.*
[5] *Direct investments abroad.*

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.

1.2 The model

See the two parts of our model (Andrei & Andrei 2019, 2021):
1/the ***binary*** model: *foreign direct investments* /FDI (+/capital entries), versus *direct investments abroad* /DIA(-/capital issues), both related to individual world countries;
2/the ***unitary*** model: *cooperation capital(s)*/Ccp, *long-way flows*/Lwf, capital *turnover*/Tv – all in module numbers (+) and related to individual countries, as well.
And then, let us take both these in detail.

1.2.1 The binary model

This is to be deepened by two hypostases: (A) the *static* and (B) the *dynamic* ones[6].

1.2.1.1 The static hypostasis

This is the following:

$$\Sigma\ FDIi\ (i=1\rightarrow n;\ j=1\rightarrow m) = \Sigma\ DIAi(i=1\rightarrow n;\ j=1\rightarrow m)$$

making then:

$$\Sigma\ FDIstckBalij(i=1\rightarrow n;\ j=1\rightarrow m) = 0$$

for *total world flows* (up to one year cumulated FDI or DIA transactions[7])/*stocks*(more than one year cumulated FDI or DIA transactions), in which:

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

is the *FDI stocks balance* of the individual country i, FDIi – DIAi, 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* formulae (Diagram 1).

[6] See also Annex 1.

[7] *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.

Diagram 1

The Model 1's applications

A1/	countries ranking according to FDI&DIA stocks
A2/	Dominant/major FDI&DIA countries, vs. the rest of countries
A3/	individual countries and/vs. world regions
A4/	types of the world regions, according to FDI's and DIA's behaviours
A5/	individual country's typical FDI&DIA behaviour on the long terms
A6/	searching for FDI&DIA/ international capital flows in association with the unitary model 2(see below 2.) -- identifying world capital sections(see Diagram 2).

A. 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*[8] international capital flows/stocks and international capital *dynamics* (see below) on the same individual countries (Andrei&Andrei 2019, Annex 3, pp. 316 and following).

A2.Dominant/major FDI&DIA countries, versus the rest of countries

Andrei&Andrei (2019, pp 65-68) debates about "two peaks of the iceberg":
[a] the restricted/reduced one (4 world entities): Euro-zone[9], US, China and UK, these covering more than ½ of the total world capital amounts on both FDI and DIA;
[b] the large one(17 world entities): Euro-zone, US, China, UK, West Europe[10], 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.

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

- the profound flows inequality / strongly uneven flows among countries;
- individual countries' FDI and DIA approach each-other on individual countries[11].

Then two other results:

[8] *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).
[9] 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.
[10] This 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.
[11] 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.

- 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.

A3/ 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[12];
/ 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.

A4/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=Σai <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 →(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[13].

[12] North America, i.e. US and Canada isn't here considered a region like the others.
[13] See details below in 2.

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 Chili) – 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. f ')[14]. 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 the other above.

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

A5/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* (FDIi≥0.2 % of world stocks) and 60 countries are *DIA significant* (DIAi≥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/Andrei& Andrei 2019, Annex 3, pp. 316 and following). 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 [15].

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

[14] 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.

[15] 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 analyzed (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.

/ 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)[16] 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.

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[17]. 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.

A6/Searching for FDI&DIA/ international capital flows in association with the model 2, the unitary one[18]

Here there is to make the exact difference between two notions of our model – i.e. capital *flows detecting* and *model 2,* as the second part of the model in this paper. Besides, there isn't yet to talk about flows detecting, but just about the primary step in this undertaking, i.e. firstly detecting *international capital sections* (Diagrams 2&3). Such performance includes that non-null cumulative *FDIstckBal* of the section assesses the limits of FDI&DIA flows between different sections – i.e. and this is still due to *model 1,* as exclusively.

Diagram 2
World capital sections identifying
basic principles of identifying:
model 1/: the higher the number of countries with their FDI&DIA stocks, the lower their cumulated *FDIstckBal* -- down to about zero amounts
model 2/: Tv approaches FDI & DIA numbers*
model 2/: Lwf equally shared between *investor* countries and investment *recipient* countries
model 2/: Ccp and Tv equally shared between dominant/major investors and the whole rest of countries

[16] Our findings include the one of converse dynamics between the two opposite capital flows(Andrei&Andrei 2019, Annex 1, pp. 295-296).
[17] 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.
[18] See also below 2.

criteria of identifying:
the geographical criterion -- of the country &region neighborhood
more than one world region involved in
more than one type of countries/regions involved in -- e.g. investor, investment recipient…
model 2/: there always are both Ccp and Lwf within.
concomitant sections finding throughout the world & so comprising all countries -- possibly, the most appropriate criterion of sections identifying

It is only together that the two basic principles and the two models do apply for international capital sections detecting. Whether only model 1(i.e. cumulative *FDIstckBal*→ 0) the result might be *false capital sections* found(see the below Chapter2).

And yet Diagram 3 completes the model 1's distinct contributions to international capital sections detecting.

Diagram 3

Total world and sections

Total world	**Sections**
Σ FDIstckBali(i=1→n; j=1→m) = 0 exact equality on each transaction done -- i.e. on all short & long terms	Σ FDIstckBali(i=1→n; j=1→m) ≅ 0 approximate equality only on longer terms the non-zero cumulated FDIstckBal of the section naturally indicates the (reduced) capital flows between world capital sections -- i.e. entries, for positive numbers, issues/ invested capitals to other regions for negative numbers.

Just concluding for this paragraph that searching for international capital flows detecting:
/ starts with the same *capital sections* detecting
/ and belongs to both model parts of this paper -- i.e. model 1/ and model 2/.

1.2.1.2 The dynamic hypostasis

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

Σ dynamics-of-FDIi(j-j')(i=1→n; j=2→m; j'=1→m-1)=0

Σ dynamics-of-DIAi(j-j')(i=1→n; j=2→m; j'=1→m-1)=0

in which:

/dynamics-of-FDIi(j-j')(i=1→n; j=2→m; j'=1→m-1) = FDIij/FDIworld.stck.ij% -
- FDIij'/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-of-DIAi(j-j')(i=1→n; j=2→m; j'=1→m-1) = DIAij/DIAworld.stck.ij% -
- *DIAij'/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.
Remark: No application of FDI&DIA dynamics in this current paper.

1.2.2 The second/unitary model

This second part of our model and paper applies especially:

- for the international *capital flows identifying*
- in association with model 1/
- just after the *world capital sections* identified above.

1.2.2.1 Basics

Identifying world capital sections (see Diagrams 2 and 3 again) comes out of model 1, i.e. through just cumulated *FDIstckBal* decreasing to about zero amount. So, back to the same basic model formula:

$\Sigma\ FDIstckBal\ ij(i=1\rightarrow n;\ j=1\rightarrow m) \cong 0$

i.e. valid for both total world and individual sections, except for here turning the exact equality of total world into approximate equality of the individual section. See Diagram 4 for model 2 applying to all levels -- country, region, section and world total:

- $Tv = 1/2(FDI+DIA)$
- $Tv = Ccp + 1/2\ Lwf$

Model 2 applied just to world total:

- $\Sigma FDIij\ (i=1\rightarrow n;\ j=1\rightarrow m) = \Sigma DIAi(i=1\rightarrow n;\ j=1\rightarrow m)$
- $\Sigma\ FDIstckBal\ ij(i=1\rightarrow n;\ j=1\rightarrow m) = 0$
- $Tv = (+)\ FDI = (-)DIA$

Model 2 applied just to sections:

- $\Sigma\ FDIstckBal\ ij(i=1\rightarrow n;\ j=1\rightarrow m) \cong 0$
- $(+/-)\ (Tv - FDI) = (-/+)\ (Tv - DIA) = (+/-)\ ½\ \Sigma FDIstckBalij(i=1\rightarrow n;\ j=1\rightarrow m)$

Diagram 4
Basics of model 2
cooperation capital (Ccp):
capital invested abroad towards coming back in a while.
equal to the lower of FDI or DIA of the country
identifying all intra-region FDI & DIA flows,
here including intra-region flows from the main FDI-Lwf recipient countries to the rest of the region that appear like Ccp for only these countries*.
(plus) some reply over the regions' borders flows to initial long-way flows received by the country.
long-way flows (Lwf):
capital invested abroad
for no coming back expected
and to other regions /over the region's border only.
Basically, Lwf relate to FDIstckBal of the country, irrespective of their +/- algebraic sign, and equal their half (Theorem 1**).

remark: Ccp and Lwf might turn into each-other in some circumstances.
turnover(Tv):
basically, the half of all international investments (abroad and received from abroad) at all levels: country, region, section, total world (Theorem 2***) for which Lwf account by their half (Theorem 1**, again) and Ccp apparently as entirely -- actually, they account as both entries and issues. all these above describe the relationship between the two models on international directly invested capital.
* this practical aspect being the one found to break the general rule of Ccp easy dividing by 2, as the same amount issuing from(DIA) and entering(FDI) the same country with equal counterparts in another country – i.e. some countries might detain a real *Ccp/inter-regions/surplus* (i.e. with no equal counterpart in other countries).
****theorem1:** Both *long-way flows(Lwf)* – entries and issues -- account for their half amounts in module numbers(Andrei&Andrei 2021, page 7). *****theorem 2:** The capital *turnover(Tv)* either is the country's half cumulative amount flows (1/2[FDI+DIA]), or equalizes both FDI and DIA of total world and tend to these respectively in the international capital sections (Andrei& Andrei 2021, page 8).

2. Content. Practice of the model: international capital flows detecting

This is finally what is supposed to be new in this paper. Analyses in this respect belong to our previous papers as well, but the here below approach will be different and some of our previous conclusions will adjust.

2.1 Basic principle

Reaching model 2, as above explained – i.e. Ccp, Lwf and Tv instead of FDI(+), DIA (-) and FDIstckBal(+/-) – significantly changes the countries' corresponding international capital related numbers (and may-be numbers' hierarchies), but just in order of the two models' reconciliation troughout reaching the section's level by calculations (i.e. adding the countries' and regions' specific numbers /here recall the above Diagrams 2 and 3). Tv succeeds to approach totals of both FDI&DIA. Then, the same components of model 2 -- i.e. each of Ccp, Lwf and by consequince Tv -- will be supposed to share equally between *investor* and *investment recipient* countries.

2.2 Adjustment applied

This adjusting aspect belongs once more to model 2 and becomes *sinequanon* necessary since either (i) *regions* play their own role in the international capital working – i.e. be it just by their part in Ccp, as assumed by this model, or (ii) this is by the capital here added to its initial amount – the one invested by world top investor countries -- and as the response to it from the *rest of countries* inside the region(i.e. [a']/the lower FDI&DIA ones[19]). As the result, first, the *intra-region* investment flow gets as distinct in our model context as both making the international capital real growth world-wide and leaving the above 2.1.1 approach to what

[19] Actually, the most impressive intra-region capital flows do belong to the Euro-zone and West Europe, the regions nominated as of [b] type and here also reflecting the economic integration reality.

correspondingly might be called *extra-region, section-* or *world-level* part of international capital.

In work strategy terms, the intra-region Ccp will be subtracted from both total Ccp and Tv and to this diminished Tv resulted will relate, as properly, the more important part of capital flows.

2.3 Sub-sections or „false" sections – a case/example

Recall once more Diagram 2 above for here considering all in, except for:
/ the basic principle of model 2's involvement;
/ the last criterion, the one of *sections' concomitancy*,
plus here considering that the 5 countries included in each of the following tables are just part of international capital Section 2, on which descriptions will be developed below, as entirely – i.e. the way that all the other criteria in the Diagram are fully respected (e.g. these countries belong to different regions/ keep individually and basically nothing in common with one-another).

The sub-section's cumulated FDIstckBal

Country	**FDIstckBal**			
	Country's		**Cumulated**	
x	**Mill. Of US$**	**% of world stocks**	**Mill. Of US$**	**% of world stocks**
United States	-973183	-4.0	-973183	-4.0
Australia	405922	1.7	-567261	-2.3
Mexico	367847	1.5	-199413	-0.8
Cayman Isl.	100442	0.4	-98972	-0.4
Nigeria	76557	0.3	**-22415**	**-0.1**

See in this first table that *FDIstckBal/Cumulative* could be admitted as attributable to a world capital section by being significantly lower amount than each of this individual countries' FDIstckBal. Then, the next table verifies the same cumulated FDIstckBal by the tools of model 1.

The sub-section's model 1 data
(FDI, DIA, FDIstckBal)

Country	**FDI**		**DIA**		**FDIstckBal**		**region**
x	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**	**x**
United States	3949711	16.3	4842484	20.3	-973183	-4.0	World top
Australia	532168	2.2	124184	0.5	405922	1.7	World top
Mexico	499739	2.1	129737	0.5	367847	1.5	Central America
Cayman Islands	223028	0.9	120584	0.5	100442	0.4	Caribbean
Nigeria	92235	0.4	15422	0.1	76557	0.3	West Africa
subtotal	**5296881**	**21.8**	**5232411**	**21.9**	**-22415**	**-0.1**	**Sub-section**

And then, the same cumulated FDIstckBal gets verified by the next/last table on Lwf – i.e. the model 2's tool related to FDIstckBal, where the US keep about the half of corresponding subtotal.

The sub-section's model 2 data
(Ccp, Lwf, Tv)

Country	Ccp		Lwf		Tv		region
x	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks	x
United States	3949711	16.3	973183	4.0	4436302	18.3	World top
Australia	126246	0.5	405922	1.7	329207	1.4	World top
Mexico	131892	0.5	367847	1.5	315815	1.3	Central America
Cayman Islands	122586	0.5	100442	0.4	172807	0.7	Caribbean
Nigeria	15678	0.1	76557	0.3	53956	0.2	West Africa
subtotal	**4346112**	**17.9**	**1923951**	**7.9**	**5308088**	**21.9**	**Sub-section**

But finally the hypothesis of these five countries properly forming a presumably international capital Section in this model's view comes to be rejected: the US' Ccp and turnover(Tv) here stay too high as compared to collective performances of this (too) small group of countries. Or, in other words at least the US are supposed to call for a significantly larger world capital area around to really form a real/appropriate such section.

All these above are for several intermediary conclusions:

/1/ FDIstckBal/Cumulative – i.e. model 1-- sees itself insufficient criterion for international capital sections identifying;

/2/ all the less for arbitrary countries association in such a respect;

/3/ Plus, as to be seen below, such sections are to be identified as concomitantly working and covering the whole world area.

2.4 International capital sections detected

2.4.1 World and sections of international capital

See tables below this time for the *real* capital sections identified according to the above Diagram 2 provisions in their specific model numbers.

Overall

	FDI		DIA		FDIstckBal	
Section	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of wrld stcks
Eurasia	13419361	55.3	13519034	55.7	-99673	-0.4
US & partners	9088803	37.4	8942514	36.8	146289	0.6
Japan in Pacific	1770947	7.3	1817562	7.5	-46616	-0.2
total	**24279110**	**100.0**	**24279110**	**100.0**	**0**	**0.0**

Section	Ccp		Lwf		Tv/2/real Tv	
	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks
Eurasia	9817300	40.4	7303795	30.1	13469197	55.5
US & partners	7466273	30.8	3098771	12.8	9015658	37.0
Japan & Pacific	454684	1.9	2679141	11.0	1794255	7.4
total	**17738256**	**73.1**	**13081708**	**53.9**	**24279110**	**100.0**

Recapitulative

Model item	millions of US$	% of world stocks
Ccp	17738256	73.1
Lwf/2	6540854	26.9
Sum of the above	24279110	100.0
Tv/2	24279110	100.0
FDI	24279110	100.0
DIA	24279110	100.0
Tv/2againstFDI	0	0.0
Tv/2againstDIA	0	0.0
compare	0	0.0
cumul / FDIstckBal	0	0.0

See Annex 1, once again, for nominating items in the Section. Then, once in the above 2.1.2 distinction between *intra-region* and *inter-regions* applied the total international capital – i.e. turnover/Tv – sees itself equally[20] considering the intra-region Ccp:
Tv = Tv/inter-regions + Ccp/intra-region
Ccp, in its part, actually is the first international capital component breaking down into *intra-region* and *inter-regions:*
Ccp = Ccp/intra-region + Ccp/inter-regions

2.4.2 In the intra-region area[21]

As for *intra-region* areas*,* recall the model rules that all flows between countries of the same region belong exclusively to Ccp/intra-region, and extra-region countries – i.e. both international investors and investment recipients – are assumed to miss them and have all their Ccp as extra- or inter-regions (Andrei& Andrei 2021, pp. 16-17). Then, all types of regions are assumed to keep their own Ccp/intra-region, be they of local (regional) origin – i.e. in [b] type

[20] i.e. besides the above Tv = ½(FDI+DIA)=Ccp+1/2Lwf,
[21] See also the above paragraph 1.2.1.1/A4/*Types of the world regions.*

regions – or resulting from Lwf received – i.e. in the [a] and [e] types of regions. Plus, the difference between the last [a] and [e] region types deals with the model's higher or lower ability to detect flows converted from Lwf to Ccp/intra-region. In the [a] type region Lwf entered turn into Ccp/intra-region – i.e. what is called *re-investment* - from the major direct recipient &investor countries to the rest of countries in a transparent way:
[f]: [f] FDI/major.countries = [f] DIA/international.investors
while in the [e] type region this phenomenon is basically the same, but there remains more difficult to find/identify the region's investors and recipients directly related to each-other by investment flows. Moreover, in the [a] type region the specific Ccp/intra-region comes to be identified in its two opposite flows – i.e. the previous one from the major investor to the rest of region:
[a]: [a]ΣFDI/rest.of.countries = [a] ΣDIA/ major.countries
for [a] ≤ [f]. Then the opposite one received by the major investor back, that is likely to be just a part of the previous flow received, so with a computable (%) *rate of return*(ibidem).
[a]: [a'] ΣFDI/ major.countries = [a'] ΣDIA/ rest.of.countries
for *[a']≤[a].* Then, the major capital recipients (i.e. investors, as well) of the region are also admitted to deal similarly with their extra-region investment partner – i.e. they return some amount of their FDI previously received:
[f]: [f '] ΣFDI/international.investors = [f ']ΣDIA/major.countries
for [f '] ≤ [f]. Or, this way Lwf do turn into Ccp once more – i.e. as unexpected in the moment of Lwf received --, while it will be only inside the region where *Ccp/major.countries* attracting *Ccp/rest.of.countries* will make not only Ccp, but also Tv really grow and make international capital growth.

Of an equal importance for our present approach there result two ways of Ccp – i.e. basically a total amount supposed to equally share between the investor and the recipient[22] – altering such a principle.

Finally, the intra-region investment flows become important world-wide (Andrei &Andrei 2021, page 111), but certainly remain lower than the inter-regions ones as individually. More important to be here reminded is the two ways in which Ccp goes unequal between major countries and the rest of region – i.e. higher on the major countries' side:
/ where [a]≥ [a']
/ and where [f] ≥ [f '].
And these aspects will also serve the inter-regions' flows analysis as there will be seen below.

2.4.3 The extra-region area and specific capital flows

And this is while, in context, Lwf by definition bias the last term of this equality in its right hand side – i.e. cumulating all individual *FDIstckBal* in module numbers:
Lwf = Σ|FDIstckBal/Cumulative (i=1/n; j=1/m)|
in which then they make a further distinction between countries that invest – i.e. with negative *FDIstckBal* – and the ones that, on the contrary, receive(FDI) investments from the other – i.e. see the previous countries' DIA. See also the following equalities:
Lwf/all.investors = Σ[Lwf/investors (i=1/n')]

[22] Except for re-investments.

in which n' is the number of investor countries in the section and n'<n, n latest being the total number of countries in the same sectional area.
Lwf/all.investors/Double = 2 Σ Lwf/all.investors
Lwf/all.investors/Surplus = Lwf/all.investors/Double - Lwf

In this last equality the presumable *surplus* will be positive for FDIstckBal negative -- i.e. in favour of the investor countries -- and zero for that ideal equality between flows invested and those received within the *Sectional* geographic area. Of course, there also might exist sections with positive FDIstckBal related to outside investors and so the right hand side member of this equality will be negative – i.e. Lwf higher than the double of flows invested by investor countries within the Section.

And then the Lwf 's structure does influence the ones of Ccp and Tv in their *inter-regions* part – i.e. the same investor countries will be here assumed to make the half of each of these two. So, looking at this new equality:
Tv/inter-reg./all. investors/surplus = Ccp/inter-reg/all investors/Surplus [-/+][23] *½ Lwf/ all.investors /surplus*
that actually will transcript the above basic one, *Tv = Ccp + ½ Lwf,* and so will become the *rule of our finding* about *the Section's main flows identified*.

2.4.4 Basic model 2's rules for inter-regions capital flows detecting

And now see these two rules applying to all world Sections of capital:
[1] *Lwf/all.investors/surplus = FDIstckBal/cumulative*
that is equally the 2nd correspondence between the two parts of the model[24].
[2] *Tv/inter-reg/major.investors/surplus = Ccp/inter-regions/major.investors /surpusl.over.Lwf.received - 1/2 Lwf/all.investors/surplus*

No.	Items involved	Eurasia		America & partners*		Japan in Pacific**	
		Mill. US$	% of world	Mill. US$	% of world	Mill. US$	% of world
1	Tv/inter.reg/major.investors/surplus**	906832	3.7	245852	1.0	24089	0.1
2	Ccp/inter-regions.major.investors /surplus	856996	3.5	319683	1.3	781	0.0
3	1/2 FDIstckBal.cumulative= 1/2 Lwf/all.investors/Surplus	-49836	-0.2	73831	0.3	-23308	-0.1

*There results a negligible difference of (-)1373 million US$/ 0.0% between *FDIstckBal.cumulative* and *Lwf/all.investors/Surplus* that bears some explanations.
**No major investors in Section 3/ Japan, in Pacific.

It will be from this on that the international capital Sections' approach will contain just their specific related to these above rules. In such an way these Sections will be seen in the converse order – i.e. the one from the simpler to the most complex one.

[23] [-/+] means/emphasises, once more, that here rather the deficit of *FDIstockBa*l comes in favour of investor countries of the Section.
[24] Besides that of Tv ≅ FDI=DIA for the sections and total world/international capital(see above).

2.4.5 Flows detecting in the 3rd section: „Japan, in Pacific"

Apparently Japan seems to be the major investor in this large area, but in reality the situation is a little more nuanced, as will be seen below. But first see the general description of this Section in the following two comprehensive tables.

Overall data

Entity	Ccp, of which		Intra-region		Inter-reg		Lwf		Tv.inter-reg		Tv. (total)	
	mill US$	% of wd stk	mill US$	% of wd stk	mill US$	% of wd stk	mill US$	% of wd stk	mill US$	% stk	mill US$	% of wd stk
Japan	120363	0.5	-	-	120363	0.5	1353047	5.6	796886	3.3	796886	3.3
Sth Am	333185	1.4	214136	0.9	119049	0.5	1304079	5.4	771088	3.2	985547	4.1
Oceania	1136	0.0	603	0.0	532	0.0	22016	0.1	11540	0.0	12144	0.0
Sect 3	**454684**	**1.9**	**214739**	**0.9**	**239944**	**1.0**	**2679141**	**11.0**	**1579515**	**6.5**	**1794577**	**7.4**

Recapitulative

Model item	millions of US$	% of world stocks
Coop. Kp.	454684	1.9
Lwf/2	1339571	5.6
SUM	1794255	7.5
turnover/2/Real	1794255	7.5
FDI	1770947	7.5
DIA	1817562	7.5
diffFDI	23308	0.0
diffDIA	-23308	0.0
compare	0	0.0
cumul / FDI Stck Balance	-46616	-0.1

All countries that invest Lwf in the rest of this Section come up in the following table with their amounts invested.

Long way flows(Lwf)	millions of US$	% of world stocks	Region
Japan	1353047	5.6	-
Cook Islands	9103	0.0	Oceania
Niue	25	0.0	Oceania
Micronesia, Federated States of	55	0.0	Oceania

Suriname	650	0.0	South America
Summing	**1362879**	**5.6**	-
Double summing	**2679141**	**11.0**	-
Sect ion 3	**2725757**	**11.2**	-
Cumulated FDIstckBal deficit *	**- 46616**	**- 0.2**	-

*Just the difference between the above in this Table double summing of *investors' Lwf* and *total* of Section 3.

Countries that appear to participate to the inter-regions Ccp here are, besides Japan: Papua New Guinea, French Polynesia, Brazil and Chile.

Ccp/inter-regions and Countries participating to	**millions of US$**	**% of world stocks**	**Region**
Japan	120363	0.5	-
Brazil, Chile	119049	0.5	South America
Papua New Guinea, French Polynesia	532	0.0	Oceania
S3/Ccp/inter-reg	**239944**	**1.0**	**-**

Conclusions:

Five countries do invest Lwf abroad in this S3, six countries do participate to the Ccp/inter-regions, but so there are 11 countries that make international investments, of which, of course, Japan looks the major investor for both Ccp and Lwf, plus the Section's cumulated deficit of FDIstckBal/Cumulative recalls at least the „old" Japanese investing in the US.

But despite these abrupt differences in capital amounts between Japan and the rest of investor countries in Pacific the previous couldn't be admitted as a *major investor country* in the sense that other countries do qualify as such in the other two sections to be similarly analyzed below – i.e. the *Ccp/inter-regions* almost equally shares between Japan and the rest of Section; the negligible 781 million $ /0.0% of world stocks Japan's Ccp/inter-regions surplus rather might come from capital invested off the Section/in the inter-Sectional area[25]. The other investor countries in this Section pratically miss Ccp and do not invest in Japan[26].

Remark: In Andrei& Andrei(2021, pp 108-109) this Section appears to include New Zealand. New calculations see differently, despite that such an exclusion does enlarge both the FDIstckBal/Cumulative and Tv/inter-regions.

2.4.6 Flows detecting in the 2nd section: „America and partners"

Just starting, as above, with the pattern comprehensive picture of this Section in the prime two tables below.

[25] See in the following paragraph that this capital is suspected to reach the US – i.e. recall that Japanese investments in the US are rather traditional as well (Andrei&Andrei 2019, pp 264-265).

[26] Such an investment alternative will be really present in the other capital Sections' analyses below.

Overall data

1/

Entity	Ccp, of which		Intra-region		Inter-regions	
x	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks
United States	3949711	16.3	-	-	3949711	16.3
United Kingdom	1557943	6.4	-	-	1557943	6.4
Canada	806876	3.3	-	-	806876	3.3
Caribbean	749674	3.1	278102	1.1	471572	1.9
Central America	134969	0.6	6154	0.0	128815	0.5
Australia	126246	0.5	-	-	126246	0.5
Southern Africa	66829	0.3	48531	0.2	18298	0.1
Northern Africa	33009	0.1	28583	0.1	4427	0.0
Middle Africa	30110	0.0	28864	0.1	1246	0.0
Section 2	**7455366**	**30.6**	**390233**	**1.6**	**7065133**	**29.1**

2/

Entity	Lwf		Tv.inter-reg		Tv. total	
x	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks
United States	973183	4.0	4436302	18.3	4436302	18.3
United Kingdom	262832	1.1	1689358	6.9	1689358	6.9
Canada	88112	0.4	850932	3.5	850932	3.5
Caribbean	341509	1.4	642327	2.6	920429	3.8
Central America	434329	1.8	345979	1.4	352133	1.5
Australia	405922	1.7	329207	1.4	329207	1.4
Southern Africa	80709	0.3	58652	0.2	107183	0.4
Northern Africa	186493	0.8	99001	0.5	126256	0.5
Middle Africa	292443	1.2	147468	0.6	176331	0.7
Section 2	**3065532**	**12.6**	**8599227**	**35.5**	**8988132**	**37.0**

Recapitulative

Model item	millions of US$	% of world stocks
Ccp	7454038	30.7
Lwf/2	1532766	6.3
Sum of the above	8986804	37.0
Tv/2	8986804	37.0
FDI	9043329	37.2
DIA	8930279	36.8
Tv/2againstFDI	-56525	-0.2

Tv/2againstDIA	56525	0.2
compare	0	0.0
cumul / FDIstckBal	113049	0.5

In which the four above top positions comprise the Lwf investor countries of this Section – US, UK, Canada and British Virgin Islands, part of the Caribbean arhipelago. Then, there come the investors participating to Ccp/inter-regions: British Virgin Islands, again (Caribbean), Mexico (Central America), South Africa (Southern Africa), Libya (North Africa) and Nigeria (Middle Africa).

Tv/inter-regions of this Section comes to be seen as produced by *major investor countries* in the Section. *Major investors* -- a new concept to be here introduced – do identify the investor countries that dominate both *Tv/inter-regions* and *Ccp/inter-regions* in the given Section. Or, looking back at the above comprehensive tables the US do obviously result as such. Only for Lwf such a dominance is missing – i.e. this is for *all investors,* versus the *rest of the Section*. The(new) mechanism here introduced, together with this new concept of major investors, *makes the rest of investor countries limit their DIA to the major countries* – i.e. here, to the US, as exclusively --, then the major investors'(US') new reaction goes to their *Ccp/inter-regions* rising and going dominant(higher than the half of total) within the Section – i.e. it will be the same for *Tv/inter-regions,* that includes Ccp/inter-regions.

But despite this new *major investors* concept[27] the mechanism isn't entirely new for our model(2) – i.e. it is similar to what is happening in the [a] type regions, as investment recipients, with their dominant countries, as above described, making their plus in Ccp through *re-investing* capital received to the rest of the region.

Ccp/inter-regions/major.investors/Surplus = Ccp/inter-regions/major.investors/Double - Ccp/inter-regions

which certainly then determines at least in part *Tv/inter-regions/Surplus* for major investors in the Section:

Tv/inter-regions/major.investors/Surplus = Tv/inter-regions/major.investors/Double – Tv/inter-regions

Further precisions to be here made:

Ccp/inter-regions/major.investors/Surplus over.Lwf.received = Ccp/inter-regions/ major.investors/Surplus - Lwf/other.investors

Lwf/major.investors: Σ Lwf of investor countries making by themselves minimum the half of *Σ Ccp/inter-regions* and of *Σ Tv/inter-regions*

Lwf/other.investors = Lwf/all.investors - Lwf/major.investors

And now back to **Lwf** of this Section for other two aspects:

/ as even similar to the above S3 (Japan, in Pacific) total Lwf of the Section equally share between all Lwf investor countries and the rest of – investment recipients in – the Section.

/ This last is except for the positive *FDIstckBal/Cumulated* for this Section, for which only Japanese and other investors from Section 3 might be so far considered, but with relatively low amounts, as compared to those flowing accross this Section's area.

/ *Lwf/other.investors* make the amount that stays important when compared to *Ccp/inter-regions/major.investors/Surplus.*

[27] The one that is missing above, in the Japan& Pacific Section.

Or, there might be not quite easy to explain a *Ccp/inter-regions/Surplus > Lwf/other.investors,* the latter taken in the model as the previous' direct source. The full explanation of this though might come up from the other source of *Ccp/inter-regions/Surplus*, i.e. the back flows[f '] to the initial investor from the also initial investment recipients – i.e. this investment return to the US stays low enough for the three large African regions, but not too much more for Caribbean either, and obviously higher for the other investors, the ones investing in the US and receiving Ccp from (UK and Canada/see in the above comprehensive tables once more).

Conclusions:

/ Section 2 sees itself strongly dominated by the US – i.e. see the last's dominance for both *Ccp/inter-regions* and *Tv/inter-regions*.

/ But this is while other important investor countries (the *other/minor investors*) do work in the same area – i.e. the UK, British Virgin Islands and Canada – and the whole Section benefits from a positive *FDIstckBal/Cumulated*, all these amounts flowing into the US.

/ The US, in their international capital Section -- by far less generous with their capital supply to Africa than Japan, in its smaller Section, proves for South America, for instance -- also meet an enough lower rate of capital return from there.

2.4.7 Flows detecting in the 1st section: „Eurasia"

This is a real continental block with fewer islands around included, so apparently less spreaded throughout the world – i.e. in reality there is a world capital majority to talk about and this(i.e. Bout 55% of world stocks), while also world investment country leaders like US, UK – i.e. of larger individual international capital than any Eurasian investor country – and even Japan are missing from.

2.4.7.1 Overall

See also here the following pattern comprehensive tables for the picture of the international capital of the Section.

Overall data

1/

Entity	**Ccp, of wch**		**Intra-region**		**Inter-regions**	
x	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**
Euro-zone	4800441	19.8	3794096	15.6	1006345	4.1
East Asia	2141853	8.8	503901	2.1	1637952	6.7
West Europe	1014280	4.2	579148	2.4	435132	1.8
SE Asia	742069	3.1	384565	1.6	357504	1.5
CIS	502964	2.1	101911	0.4	401053	1.7
Near East	338084	1.4	159539	0.7	178545	0.7
South Asia	145178	0.6	9978	0.0	135199	0.6
C&E Europe	127837	0.5	68605	0.3	59232	0.2
SE Europe	4594	0.0	1236	0.0	3358	0.0
Eurasia	**9817300**	**40.4**	**5602980**	**23.1**	**4214320**	**17.4**

2/

Entity	Lwf		Tv.inter-reg		Tv. total	
x	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks
Euro-zone	2804712	11.6	2408701	9.9	6202796	25.5
East Asia	1227196	5.1	2251550	9.3	2755451	11.3
West Europe	780516	3.2	825390	3.4	1404538	5.8
SE Asia	607701	2.5	661354	2.7	1045919	4.3
CIS	337132	1.4	569619	2.3	671530	2.8
Near East	573094	2.4	465092	1.9	624631	2.6
South Asia	335884	1.4	303141	1.2	313120	1.3
C&E Europe	569766	2.3	344115	1.4	412721	1.7
SE Europe	67794	0.3	37255	0.2	38491	0.2
Eurasia	**7303795**	**30.1**	**7866217**	**32.4**	**13469197**	**55.5**

Recapitulative

Model item	millions of US$	% of world stocks
Ccp	9817300	40.4
Lwf/2	3651898	15.0
Sum of the above	13469197	55.5
Tv/2	13469197	55.5
FDI	13419361	55.3
DIA	13519034	55.7
Tv/2againstFDI	49836	0.2
Tv/2againstDIA	-49836	-0.2
compare	0	0.0
cumul / FDIstckBal	99673	0.4

Recall from above the way we went through the above capital sections starting from S3 – i.e. the simplest Section, so closer to the basic theory enunciation above developed in Introduction –, then to S2 – i.e. as not only larger, but especially more complex by its significant distinction of major investor countries in the total of investors. As for Eurasia, not only this last distinction reiterates, but one more significant distinction here claims its presence – i.e. the one regarding individual investor & investment recipient countries and the regions that they belong to. No country, including investor countries, off regions in Eurasia. In such conditions the above pattern tables regard just the 9 regions of this area – i.e. while recalling that a proper view on international capital, as assumed by the above theory, actually prioritizes the individual countries, not their regions. So these above tables here even stop being comprehensive like in the above sections' cases and the following below ones get needed.

2.4.7.2 Long-way flows(Lwf). Major and minor investor countries

As similarly to the above S2 in terms of this model, *major investors* are here present as a more complex description.

Major investor countries in Eurasia

1/

No	Country	FDI		DIA		FDIstckBal		Region
		millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of wrld stcks	x
1	Germany	845853	3.5	1611270	6.6	-765417	-3.2	Euro-zone
2	France	654240	2.7	1401352	5.8	-747111	-3.1	Eurozone
3	Netherlands	771295	3.2	1186968	4.9	-415673	-1.7	Eurozone
4	Hong Kong	1076080	4.4	1099479	4.5	-23399	-0.1	East-Asia
5	Spain	632005	2.6	863178	3.6	-231174	-1.0	Euro-zone
6	Switzerland	364707	1.5	795719	3.3	-431011	-1.8	West Eu
7	Italy	357706	1.5	583478	2.4	-225772	-0.9	Euro-zone
8	Russian Fed.	452008	1.9	513030	2.1	-61022	-0.3	CIS
9	Sweden	359999	1.5	507293	2.1	-147295	-0.6	West Eu
-	**Subtotal**	**5513893**	**22.7**	**8561767**	**35.3**	**-3047874**	**-12.6**	-
-	**Eurasia**	**13419361**	**55.3**	**13519034**	**55.7**	**-99673**	**-0.4**	-

2/

	Country	Ccp inter-regions		Lwf		Tv/2/inter-reg		Reg.
	X	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks	x
1	Germany	177321	0.7	765417	3.2	477081	2.0	Euro-z
2	France	137152	0.6	747111	3.1	399119	1.6	Euro-z
3	Netherlands	161691	0.7	415673	1.7	380221	1.6	Euro-z
4	Hong Kong	822917	3.4	23399	0.1	888853	3.7	East-Asi
5	Spain	132491	0.5	231174	1.0	290308	1.2	Euro-z
6	Switzerland	156461	0.6	431011	1.8	340967	1.4	West E
7	Italy	74988	0.3	225772	0.9	182743	0.8	Euro-z
8	Russian Fed.	360422	1.5	61022	0.3	409292	1.7	CIS
9	Sweden	154441	0.6	147295	0.6	254836	1.0	West E
-	**Subtotal**	**2775153**	**11.4**	**3047874**	**12.6**	**4299090**	**17.7**	-
-	**Eurasia**	**4214320**	**17.4**	**7303795**	**30.1**	**7866217**	**32.4**	-

These above are only 9 countries – i.e. the *major investors* – from a total of 20 investor countries and a total of 89 countries of this large Sectional area -- claiming more than half of the Section's *Ccp/inter-regions* and of the *Tv/inter-regions,* the same as the US in the above S2.

However, *Lwf* coming from these *major investors* do not make the half of total Eurasian such amount – i.e. they do not match those Lwf received by all the investment recipient countries of the Section --, but similarly to the above S2 again only *all investors* together here make it – i.e. see 3,701,734 million US$, which make 15.2% of world stocks . The same investors make a

surplus over the Eurasian Lwf strictly corresponding to the negative *FDIstckBal/Cumulative* of (-)99,673 million US$ /(-)0.4% of world stocks – i.e. possibly going to America, in their turn.

The *other/minor investor countries* – Luxembourg, Austria, Finland and Cyprus (the Euro-Zone), Norway and Denmark (West Europe), South Korea and Taiwan (East Asia), Kuwait, Qatar and Yemen (Near East) – of course are found to invest in the major investor countries – i.e. as it occurs in the above S2 with the other investors dealing with the US only. Here it must also be assumed that such investment flows between the two categories of investors equally go over the regions' borders – i.e. as basically admitted by the model. See also the next table for the minor investor countries' part of Lwf and Tv/inter-regions in Eurasia.

Minor investor countries in Eurasia

Minor investor	Lwf		turnover/ /inter-regions		Region
	millions of US$	% of world stocks	millions of US$	% of world stocks	
Luxembourg	46363	0.2	321468	1.3	Euro-zone
Korea, Republic of	128506	0.5	246512	1.0	East Asia
Norway	113890	0.5	204608	0.8	West Europe
Austria	88085	0.4	183393	0.8	Euro-zone
Denmark	67871	0.3	156409	0.6	West Europe
Taiwan Prov. China	122673	0.5	126409	0.5	East Asia
Finland	9716	0.0	120033	0.5	Euro-zone
Kuwait	57170	0.2	40702	0.2	Near East
Qatar	12042	0.0	40497	0.2	Near East
Cyprus	7498	0.0	40663	0.2	Euro-zone
Yemen	45	0.0	646	0.0	Near East
Subtotal	**653860**	**2.7**	**1481340**	**6.1**	**x**

2.4.7.3 Long-way flows(Lwf). Investor countries and their regions

The most interesting S1's aspect might be that both each country belongs to its region and regions claim more than in the rest of the world their proper involvement in the international investments process. And here, for the same Lwf there are the same regions for both minor and major investor countries to be asserted – see the next following two tables.

Minor investors, in regions

Region	Lwf		turnover/inter-regions	
x	Millions of US$	% of world stocks	millions of US$	% of world stocks
West Europe	181761	0.7	361018	1.5
East Asia	251179	1.0	372921	1.5
Euro-zone	151663	0.6	665557	2.7

Near East	69257	0.3	81844	0.3
Subtotal	**653860**	**2.7**	**1481340**	**6.1**

Major investors, in regions

Region	**Ccp/inter-regions**		**turnover/inter-region**	
x	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**
West Europe	435132	1.8	724285	3.0
East Asia	932623	3.8	944323	3.9
Euro-zone	1006345	4.1	2198919	9.1
CIS	401053	1.7	431564	1.8
Subtotal	**2775153**	**11.4**	**4299090**	**17.7**

The significance of such a distinction will see its fruits below.

2.4.7.4 Inter-regions cooperation capital (Ccp/inter-regions)

In exchange, specific *Ccp/inter-regions* and *Tv/inter-regions* of *major countries* meet no difficulties to cover the ones of the rest of Eurasia. See the *Ccp/inter-regions* participants in the below table with their Ccp/inter-regions amounts.

Eurasia: Participant countries to Ccp/inter-regions

Countries		**Ccp/inter-regions**		**Region (for the same total of Ccp/inter-regions)**
Identified	**Nmb.**	**millions of US$**	**% of world stocks**	
Germany, France, Netherlands, Spain	4	1006345	4.1	Euro-zone
China, Hong-Kong	2	1637952	6.7	East Asia
Switzerland, Sweden	2	435132	1.8	West Europe
Singapore, Thailand. Indonesia	3	357504	1.5	SE Asia
Russian Federation	1	401053	1.7	CIS
Saudi Arabia, Turkey, Israel, Emirates	4	178545	0.7	Near East
India	1	135199	0.6	South Asia
Poland, Czech Republic, Hungary	3	59232	0.2	C&E Europe
Serbia & Montenegro country	1	3358	0.0	SE Europe
Eurasia	**21**	**4214320**	**17.4**	**--**

21 countries are identified in this last table as for the other type of investor countries than Lwf investors – that are 20, as above mentioned. Here, in this last table, there are also investment

recipient countries mentioned, countries that belong to other regions than those of investors, plus both categories of investor countries – i.e. the ones of Lwf and those of Ccp/inter-regions.

Seeing all of the above in this chapter, Eurasia becomes an area not quite depending on a few great international investors already, like in the other section cases, but one of a very active capital almost all over – i.e. so does Eurasia make the world capital majority.

2.4.7.5 The other investors' Lwf to major investors' Ccp/inter-regions

As similarly to the above 2.3, this is just a test and its results won't directly interfere with the specific numbers/amounts deployed above in Section 1. This test regards the same major investor countries, together with the regions that they belong to and appear in this below table, for the countries', regions' and even whole Section's capacity of respecting:
(i) the model's exigency regarding *Lwf as inter-regions* working only and
(ii) the recent conclusion-hypothesis that the non-major – i.e. minor – investors deal in fact with the other major investor countries only.

So, see the below table and then let us explain about.

Minor investors' Lwf to Major investors' Ccp/inter-regions

Region	**Major investors' Ccp/inter-region**		**Lwf/minor.investors**		**FDI collecting capacity**	
x	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**
East Asia	932623	3.8	251179	1.0	529942	2.2
Euro-zone	1006345	4.1	151663	0.6	504148	2.1
CIS*	401053	1.7	-	-	-252807	-1.0
West Europe*	435132	1.8	181761	0.7	-36967	-0.2
Near East*	-	-	69257	0.3	-584603	-2.4
total	**2775153**	**11.4**	**653860**	**2.7**	**159713**	**0.7**

* These regions do not satisfy the model's exigency of all minor investor's Lwf received capacity, given their Ccp/inter-regions and negative results in the last column. See also the attached table.

Possible-alternative variants for the above non-satisfactory regions

Region	**Major investors' Ccp/inter-regio**		**Lwf/minor.investors**		**FDI collecting capacity**		**From**
	millions of US$	**% of world stocks**	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**	
West Europe	435132	1.8	181761	0.7	32290	0.1	Euro-Zone & East Asia
CIS/1	401053	1.7	0	0.0	67629	0.3	Euro-Zone & West Europe
CIS/2	401053	1.7	0	0.0	80617	0.3	Euro-Zone & East Asia

No country, but just regions in these above tables with their major investors' Ccp/inter-regions and minor investors' Lwf . The same regions on both sides, except for CIS – i.e. with only major investors and this is just Russian Federation – and Near East – i.e. this time only for

minor investors, Kuwait and Qatar. Just here reiterate the model assumption that minor investors' Lwf go to major investors only, trading-off with the latter's Ccp/inter-regions. Lwf are also assumed to work only between regions, so on each of the table's line Ccp/inter-regions exclude all dealing with the next column corresponding Lwf on the same row. Ccp/inter-regions of each region deals with the sum of Lwf of the rest of regions for the presumably positive result in which the region's major investors' Ccp/inter-regions prove able to have collected – and not being overwhelmed by -- all Lwf assumed to come from the other regions:

Ccp/inter-regions/region>Lwf/the.other.regions

Wherever contrary this inequality, the region gets diagnosed with some problems of collecting FDI from the rest of the Section. And here there are to be noted the cases of West Europe, CIS and Near East. As for the last, this result is quite normal, given that here there isn't any major investor country. West Europe, in its turn, here might be able to deal just with the Euro-Zone's and East Asia's minor investments taken together – no more than these two.

The case of CIS seems even more interesting. There is just Russian Federation investing abroad and even as a major investor. This country does not seem able to face DIA/Lwf from all the other regions either to be turned into Ccp/inter-regions, as seen in the last columns, but here comes the interesting point. Russia and its CIS region might meet two possible variants of dealing with FDI/Lwf of minor investors – in both of them there is the Euro-Zone associating with one of East Asia or West Europe.

2.4.7.6 Eurasia's major international capital flows

In the above paragraphs *investor countries* are identified on both *Lwf* and *Ccp/inter-regions,* then investment flows across Eurasia are yet to be completed by those making the rest of S1 involved – i.e. the non-investor countries or *investment recipients* throughout the area. Or getting to investment recipients means equally back to major investors considered. See the following three tables for concomitant great flows found by this model's means provided.

The Euro-zone investing

Region	**Ccp/inter-regions**		**Lwf**		**Tv/inter-regions**		**Countries**
	millions of US$	**% of world stocks**	**millions of US$**	**% of world stocks**	**millions of US$**	**% of world stocks**	
Major investors							
Euro-zone	**1006345**	**4.1**	**2385147**	**9.8**	**2198919**	**9.1**	Germany, France, Netherlands, Spain
East Asia	705329	2.9	910848	3.8	1160753	4.8	China
South Asia	135199	0.6	230600	0.9	250499	1.0	India
C&E Europe	59232	0.2	315469	1.3	216967	0.9	All countries*
Recipients	**899760**	**3.7**	**1456918**	**6.0**	**1628219**	**6.7**	**x**

* This region is of [e] type, i.e. missing dominant international capital countries within (Andrei&Andrei 2021, page 11).

West Europe investing

Region	Ccp/inter-regions		Lwf		Tv/inter-regions		Countries
	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks	
Major investors							
West Europe	**435132**	**1.8**	**578306**	**2.4**	**724284**	**3.0**	Switzerland, Sweden
SE Asia	357504	1.5	439514	1.8	577260	2.4	Singapore, Thailand, Indonesia
SE Europe	3358	0.0	40196	0.2	23456	0.1	All countries*
Recipients	**360861**	**1.5**	**479709**	**2.0**	**600716**	**2.5**	**x**

* This region is of [e] type, i.e. missing dominant international capital countries within (ibidem).

Rest of investing/investors: East Asia & CIS

Region	Ccp/inter-regions		Lwf		Tv/inter-regions		Countries
	millions of US$	% of world stocks	millions of US$	% of world stocks	millions of US$	% of world stocks	
CIS	401053	1.7	61022	0.3	431564	1.8	Russian Federation
East Asia	932623	3.8	23399	0.1	944323	3.9	Hong-Kong
Major investors	**1333676**	**5.5**	**84420**	**0.3**	**1375886**	**5.7**	**-**
Euro-zone	178033	0.7	690009	2.8	523038	2.2	Malta, Belgium, Ireland, Portugal, Greece
Near East	178545	0.7	381613	1.6	369352	1.5	Turkey, Saudi Arabia, Israel, Emirates
Recipients	**356578**	**1.5**	**1071622**	**4.4**	**892390**	**3.7**	**x**

To be here above noticed that there are regions missed in these tables: on the investors' side there are only the regions of dominant investor countries; on the recipients side West Europe and CIS are missed for benefitting from dominant investor countries that cover the rest of region's FDI.

Or, in our view these last tables mark the real step forward of analysis reached in this paper as against our previous ones(Andrei&Andrei 2021, pp 34-43) – i.e. as for more exactness and transparency.

2.4.7.7 Conclusion for Eurasia:

While the same *major-minor investors'* duality in S1, as in S2 above, in Eurasia the major investor countries of the Euro-Zone – Germany, Netherlands, France and Spain – meet no problem to satisfy the (also major) FDI recipients of East Asia -- China --, of South Asia – India – and of the Central and Eastern Europe – all countries --, the same for major investors of West Europe – Switzerland and Sweden – feeding the major FDI countries of SE Asia – Singapore, Thailand and Indonesia – and the little South-East Europe – all countries. But this doesn't quite seem to be the same for the other major investors that are Hong-Kong – East Asia – and Russian Federation – CIS - for the rest of FDI recipient territories that are the Near East and the five positive FDIstckBal countries in the Euro-zone -- Malta, Belgium, Ireland, Portugal and Greece. And this aspect seems to be due to not high enough „pure Lwf" on these major investors' side coupled with an apparently too large Ccp amount on the Hong Kong side.

Looking once more at the last table numbers we believe that the key-explanation of this does consist in the same *Lwf shifting into Ccp/inter-regions* that is called above in this model *re-investing/re-investments* – and this might be the case of Hong-Kong: just shifting this country's Ccp/inter-regions amount to the next Lwf columns would make the total Lwf of these major investors approach the total of FDI of recipient countries[28] and the contrary on the Ccp/inter-region columns: here the major investors' superiority against their recipients stays concomitantly untouched after here deducting the Hong Kong's part. In reality, *reinvestments* might not belong to Hong-Kong only in the area.

3. Further conclusions[29]:

Besides being the largest international capital Section, the Eurasia's plus in complexity against the other capital sections comes from deepening either the individual country's condition of capital inside the region, or the region's condition face to this capital that flows within. It is the individual country that is assumed to run its own capital invested, in this model, but it is the region in its turn that keeps its own role to play in this same context – e.g. see once more the regions' types above. Regions have been met in the above capital sections as well, but there were not too many examples of Ccp/intra-region> Ccp/inter-regions so far – i.e. just Southern Africa (S2) and South America (S3). In Eurasia 6 of the total of 9 regions are like this – i.e. the Euro-Zone, West Europe, C&E Europe, SE Europe, SE Asia and Near East. And in the Euro-zone [b] – i.e. the region with the highest economic integration degree world-wide – the intra-part of capital is about 4 times larger than the inter-regions one.

The same region's role in the international capital picture comes to be completed by here finding the regions' specific types – i.e. see especially the [b] type for Euro-Zone and West Europe that makes, in order, high Ccp, even starting with Ccp/intra-region, and then the ability of *investor region*[30] in its larger geographical area.

Continuing on the last idea of the above major conclusion on Eurasia, the *reinvestment* concept in the international area seems to reach a previously pretty unexpected significance – i.e. on all market areas, as starting from the intra-region one. From the regions' major investor

[28] Though, a difference of (-)54579 million US$ /(-)0.2% of world stocks here remains for still keeping the investors' DIA inferior to corresponding FDI received by the partner countries, but this amount stays pretty negligible for the total investments amount of S1.

[29] See Annexes 3 and 4 for the international capital flows across the world.

[30] However, this paper is for adjusting such an idea of our previous contribution (ibidem) the way that countries remain the exclusive subject of international capital even in a section like Eurasia.

countries to the US, in S2, and from there to Hong-Kong, in S1, it seems to be rather reinvestment making the country a major international investor, and not the opposite.

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Annex 1
Nominated items in the specific formulae of the model applied

model 1	Also called "binary" model due to its expression and functioning for both FDI(+) / capital entries and DIA(-) /capital issues
FDI	foreign direct investments
DIA	direct investments abroad
FDIstckBal	balance of entered-issued international capital stocks
FDIstckBal/Cumulative	sum of the countries' balances of entered-issued international capital stocks in a group of countries
i	a country in the total of n countries of a group
i'	a country in a restricted group of countries(n') in a region/capital section (n'<n)
j	a reference year or the last year in a years interval considered
j'	another year than the reference year considered
dynamic.of.FDI/DIAi(j →j')	the dynamic = changing of the country i's weight(%) in world capital stocks within the (j →j') years interval for its FDI / DIA
model 2	also called "unitary" model, since all its three main items are expressed in module-positive numbers, as the procedural and working responses to the above binary model
Remark: Σ will be missing here below /all the items are sums by countries.	
Tv	total turnover of the section/world
international investors	abroad countries investing in the multi-country region
major investors	countries in the [a] type region receiving Lwf from abroad, then reinvesting part of FDI/Lwf in the rest of the region as Ccp/inter-regions and sometimes reinvesting back into the initial abroad investor countries as Ccp/inter-regions
	investor countries in a world capital section that fill all the rest of this section's Ccp/inter-regions and Tv/inter-regions
the other/minor investors	investor countries of an international capital section that are not major investors and so invest only in the major investor countries
all investors	major and minor investors in a world capital section, with their capital amounts invested
Tv/inter-regions	the part of total turnover that is made by (1) international investors(countries with negative FDIstckBal) and (2) countries making Ccp/inter-regions
Tv/inter-regions/ major.investors	part of total turnover made by major investor countries -- i.e. it is the half or more of the total specific turnover (Tv/inter-regions/2).

Tv/inter-regions/ major.investors/ Double	turnover made by major investors multiplied by 2 -- i.e. this amount serves to verify that major investors fill the whole investment received in the sectional/ world area.
Tv/inter-regions/ major.investors/ Surplus	the difference that results from deducting total inter-regions turnover(Tv) from the double inter-regions turnover made by major investor countries -- i.e. the source of this would be surpluses in Ccp/inter-regions and negative FDI.StckBal /Cumulative of the section: total world is assumed not to have surplus of deficit of the FDIStckbal.
Ccp	cooperation capital
Ccp/intra-region	cooperation capital flowing between countries of the region only
Ccp/inter-regions	cooperation capital that flows between regions and/or between regions and international investor countries
Ccp/inter-regions/ major.investors	cooperation capital made by major investor countries of the section -- i.e. here making the half of more of the Ccp/inter-regions
Ccp/inter-regions/ major.investors/Double	cooperation capital made by major investor countries of the section multiplied by 2 -- i.e. this amount serves to verify that major investors share their Ccp with the rest of countries in the section.
Ccp/inter-regions/ major.investors/Surplus	the difference that results from deducting Ccp (total) of the section from the double of Ccp made by major investor countries
Ccp/inter-regions/ major.investors/ Surplus.over.Lwf.received	this is deducting from the major investor countries' surplus in the section the Lwf received by major investor countries from the rest of investor countries.
Lwf	total of long-way-flows (Lwf) of the section/total world
Lwf/all.investors	long-way-flows invested by investor countreis of the section
Lwf/all.investors/Double	double of long-way-flows invested by investor countries of the section
Lwf/all.investors/Surplus	the difference that results from deducting Lwf (total) of the section from the double of Lwf made by investor countries - i.e. as for long-way-flows, not only major, but all investor countries play their role.
Lwf/major.investors	long-way-flows(Lwf) attributed to major investor countries only
Lwf/other.investors	long-way-flows(Lwf) attributed to the other investor countries of the section, than major investor countries

Annex 2
Conclusions on the model's application
to the international capital flows identifying

No	Normal results (model regularities)
(1)	Total world Section capital breaks down into: /(i) inter-regions and (ii) intra-region (i.e. added) / for both: (i) Ccp and (ii) Tv
(2)	Where(ver) major investors versus rest of investors, the latter appear to invest in the previous (countries) only: / Ccp/inter-reg./major.investors and Tv/inter-reg/major.investors approach the half amount of Ccp/inter-reg and Tv/inter-reg respectively. /S3 misses the major investors vs. the rest of investors
(3)	FDIstckBal/Cumulative = Lwf/all.investors/Double –/+ Lwf.
(4)	Basic model 2's formula is: *Tv/inter.reg/major.investors/surplus =* *=Ccp/inter-regions/major.investors/surpl.over.Lwf.received -/+ 1/2 Lwf/all. investors/surplus* in Sections 1and 2 is the same with: *Tv/inter-reg./all.investors/surplus = Ccp/inter-regions/all investors/Surplus - / + 1/2 Lwf/all.investors/surplus* in Section 3.

Annex 3
World's long-way flows detected with the help of the above model applied
→

Rank*	Investor	millions of US$	% of World stocks	Recipient	
				Region	**Countries**
1	Japan	-1331036	-5.7	South America	Brazil, Chile
				Oceania	All countries
2	United States	-960234	-4.1	Central Amer	Mexico
				-	Australia
				North Africa	All countries
				Middle Africa	All countries
				Southern Africa	South Africa, Mozambique
				-	New Zealand
3	Germany	-753546	- 3.2	East Asia	China
				South Asia	India
				C&E Europe	All countries
4	France	-735396	- 3.2	East Asia	China
				South Asia	India

				C&E Europe	All countries
5	Switzerland	-424243	-1.8	SE Asia	Singapore, Thailand, Indonesia
				SE Europe	All countries
6	Netherlands	-409459	- 1.8	East Asia	China
				South Asia	India
				C&E Europe	All countries
7	United Kingdom	-259701	-1.1	-	US
8	Spain	-227869	- 1.0	East Asia	China
				South Asia	India
				C&E Europe	All countries
9	Italy	-222351	- 1.0	East Asia	Hong Kong
				West Europe	Switzerland, Sweden
				CIS	Russian Fed.
10	British Virgin Isl.	-147267	- 0.6	-	US
11	Sweden	-145158	-0.6	SE Asia	Singapore, Thailand, Indonesia
				SE Europe	All countries
12	Korea, Republic of	- 126 543	- 0.5	Euro-Zone	Germany, France, Netherlands, Spain
				West Europe	Switzerland, Sweden
				CIS	Russian Fed.
13	Taiwan, China	- 120 717	- 0.5	Euro-Zone	Germany, France, Netherlands, Spain
				West Europe	Switzerland, Sweden
				CIS	Russian Fed.
14	Norway	-112140	-0.5	East Asia	Hong Kong
				Euro-Zone	Germany, France, Netherlands, Spain
				CIS	Russian Fed.
15	Canada	-87275	-0.4	-	US
16	Austria	-86750	- 0.4	East Asia	Hong Kong
				West Europe	Switzerland, Sweden

				CIS	Russian Fed.
17	Denmark	-66854	-0.3	East Asia	Hong Kong
				Euro-Zone	Germany, France, Netherlands, Spain
				CIS	Russian Fed.
18	Russian Federation	-60363	-0.3	Euro-zone	Malta, Belgium, Ireland, Portugal, Greece
				Near East	Turkey, Saudi Arabia, Israel, Emirates
19	Kuwait	-56246	-0.2	East Asia	Hong Kong
				Euro-Zone	Germany, France, Netherlands, Spain
				CIS	Russian Fed.
20	Luxembourg	-45829	- 0.2	East Asia	Hong Kong
				West Europe	Switzerland, Sweden
				CIS	Russian Fed.
21	Hong Kong, China	- 23 819	- 0.1	Euro-zone	Malta, Belgium, Ireland, Portugal, Greece
				Near East	Turkey, Saudi Arabia, Israel, Emirates
22	Angola	-15109	- 0.1	-	US
23	Qatar	-11871	-0.1	East Asia	Hong Kong
				Euro-Zone	Germany, France, Netherlands, Spain
				CIS	Russian Fed.
24	Finland	-9644	- 0.0	East Asia	Hong Kong
				West Europe	Switzerland,

					Sweden
				CIS	Russian Fed.
25	Cook Islands	-8954	- 0.0	South America	Brazil, Chile
26	Cyprus	-7403	- 0.0	East Asia	Hong Kong
				West Europe	Switzerland, Sweden
				CIS	Russian Fed.
30	Libya	-589	- 0.0	-	US

* According to *FDIstockBal* levels. See also Andrei & Andrei (2019, Annex 3, pp.346-347)

Annex 4
World's Cooperation capital investment flows
detected with the help of the above model applied

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Ord*	Investor (back in the former Lwf investor country)		Recipient (former Lwf investor)	
	Region	**Countries**	**Region**	**Countries**
	Section 1: "Eurasia"			
1	East Asia	China, Hong Kong**	Euro-zone	Germany, Netherlands, France, Spain
2	South Asia	India	Euro-zone	Germany, Netherlands, France, Spain
3	C&E Europe	Poland, Czech Rep, Hungary	Euro-zone	Germany, Netherlands, France, Spain
4	Euro-zone	Malta, Belgium, Ireland, Portugal, Greece	CIS	Russian Federation
			East Asia	Hong-Kong
5	Near East	Turkey, Saudi Arabia, Israel, Emirates	CIS	Russian Federation
			East Asia	Hong-Kong
6	SE Asia	Singapore, Thailand, Indonesia	West Europe	Switzerland, Sweden
7	SE Europe	Serbia& Montenegro	West Europe	Switzerland, Sweden
	Section 2: "America & partners"			
8	-	United States	-	United Kingdom
			-	Canada
			Caribbean	British Virgin Islands
9	Southern Africa	South Africa, Mozambique	-	United States
10	Central America	Mexico	-	United States

11	-	Australia	-	United States
12	-	New Zealand	-	United States
	Section 3: "Japan, in Pacific"			
13	South America	Brazil, Chile	-	Japan
14	Oceania	Papua New Guinea, French Polynesia	-	Japan

* There is just the order of capital sections to talk about.
** After also considering the Hong Kong's reinvestments in 3 (Further conclusions).