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Indirect FDI: Some Lessons Learned[1]

Kálmán Kalotay[2]

Abstract

This review presents some lessons learned about indirect foreign direct investment (FDI), mostly over the past decade. Indirect FDI denotes investment projects, in which the ultimate owner is different from the immediate investor. The review categorizes the literature of the 2010s and early 2020s into three main threads: one focusing on the developmental aspects of the phenomenon, another one with a fiscal–legal–regulatory approach, and a third one raising questions about the quality and reliability of FDI data or special aspects such as the relationship between sanctions and outward FDI. This review also highlights improvements in FDI data collection on ultimate investors over the past decade, based on the example of three Visegrad countries. In this respect, important progress has been achieved. Prospects for future research on indirect FDI are quite promising, especially via interdisciplinary approaches and aiming at improving the coverage and the quality of relevant data. Ultimately, the quality of the evaluation of indirect FDI hinges, more than anything, on the availability of empirical evidence.

JEL: F21, F23, H26, H71

Keywords: indirect FDI, round tripping, transhipped FDI, ultimate investors, taxation, investment treaties

Introduction

Indirect foreign direct investment (FDI) is a widespread and complex phenomenon of the current world economy. Thinking it over logically, it is quite normal that multinational enterprises (MNEs) transfer their capital through third countries before investing it in the

[1] A preliminary version of this review was presented at the 3rd Visegrad Conference, Institute of World Economics, Centre for Economic and Regional Studies, Eötvös Loránd Research Network, Budapest, Hungary, 22–23 May 2023, under the title 'Indirect FDI: Lessons 11 Years After a First Paper'. The author is grateful for the comments and suggestions received, and remains responsible for all remaining errors.
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final destination, and for very different reasons: strategic, financial, regulatory or other. Indirect FDI has been present in the world economy for a while, though it took more time to notice than 'classical' FDI. In the initial stages, it seemed normal that going abroad itself was challenging due to the liability of foreignness, and investors would logically choose the most direct route to host countries, not transfers via third countries.

The world turned out to be more complex than that. In the 1990s, it became quite visible that at least some projects selected the indirect route. It had to be questioned what this phenomenon was and why it existed. This review attempts to sum up some of the answers found, especially in the past decade. The author aims to present the summary in a rather impartial way, though not avoiding own assessments of strengths and weaknesses of the literature when he feels that there is such a need.

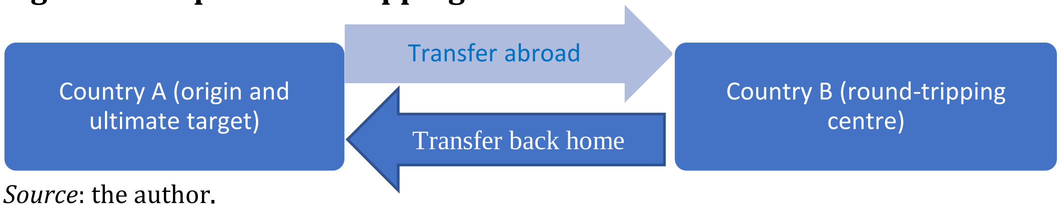
Of the concept of indirect FDI

The two main forms of indirect FDI are round tripping and transhipment. The number of 'transit' or 'transfer' countries may be one or various (figures 1 to 4). In fact, UNCTAD (2016) has found that the number of transfer centres can be as high as seven in some cases.[3] Transhipment can be realized either via existing affiliates or special purpose vehicles (SPVs) – also called special purpose entities (SPEs) – created explicitly to contain financial risk.

Simple round tripping has a very straightforward mechanism (figure 1). Capital leaves the country of origin (country A) to get the nationality of another country (country B), which in most cases has a more stable or more favourable regulatory environment, offers more protection, or offers more interesting fiscal treatment. Then, in a second phase, capital is transferred back to country A but as a 'national' of country B. If country A offers benefits to foreign investors, it is a plus, as the capital has become 'foreign' thanks to its round tripping.

[3] See also Mintz and Weichenrieder (2010) for similar observations on German inward and outward FDI data. They use the term of tiers of ownership.

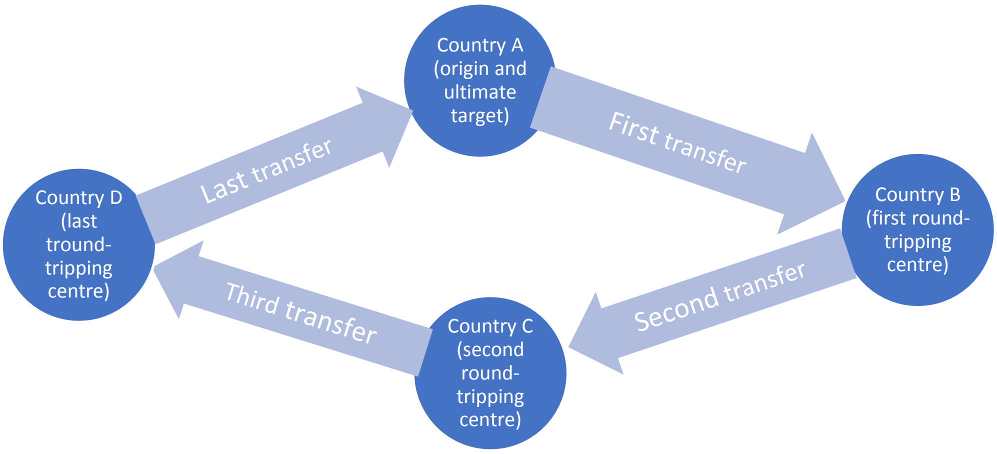
Figure 1. Simple round tripping



Source: the author.

The mechanism and motivation of complex round tripping is similar but the number of transfer countries is more than one. In figure 2, we show the case of three transfer countries (B, C, D). In reality, that number can be smaller or bigger. Complex round tripping is used in particular when it is important for the owner of the capital to blur its origin.

Figure 2. Complex round tripping



Source: the author

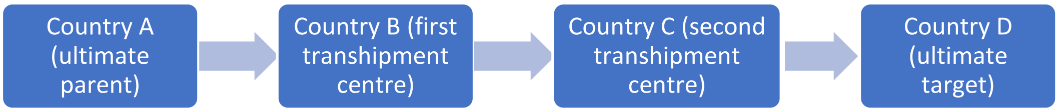
In simple transhipment (figure 3), capital leaves the country of the ultimate parent (country A) to enter the transit country (country B), from where it is reinvested in the ultimate country (country C). While the mechanism is simple, the reasons for the use of such mechanisms may be complex (see below).

Figure 3. Simple transhipment

Source: the author.

In complex transhipment, the number of transit countries is more than one. In figure 4, we show the case of two transhipment centres. The multiplication of intermediate countries can in particular the blur the origin of the investment and of the investor.

Figure 4. Complex transhipment



Source: the author.

Though this review focuses on the two main forms of indirect FDI presented in figures 1 to 4, it also refers to others such as the transfer of corporate headquarters abroad via corporate inversion, which changes the nationality and the location of the investor.

Of indirect investors' motivations

The *motivations* of MNEs for engaging in indirect FDI are complex, and in many cases multiple. The most important is corporate strategy delegating to affiliates decisions on investment in third countries (Kalotay 2012b). Ultimate owners may consider the use of geographically and/or culturally closer affiliates more beneficial by way of better understanding the local ways of doing business. There may be also logistical and organizational reasons for choosing the services of transfer countries.

Tax or regulatory advantages are another main consideration motivating indirect FDI. Transhipment or round tripping via well selected third countries results in lower taxes, so does investment through countries that have favourable double taxation treaties (DTTs) with the country of ultimate investment. Some firms, especially those undertaking capital-intensive and risky projects, may go for indirect FDI to get protected by the relatively strong bilateral investment treaty (BIT) of the transit country. For round tripping, in addition to tax advantages and treaty protection, motives also include escape from potential uncertainties in the country of origin, too.

There may be also political reasons for engaging indirect FDI. There are firms that wish to conceal their origins as much as possible in order to avoid unfavourable treatment or special scrutiny by the host country. This is particularly true to State-owned and State-influenced MNEs. If political relations between the host and home country are good, the umbrella offered by the home country may be an advantage. However, when relations are tense, that relationship adds to the negative effects of the liability of foreignness (for the example of Russian MNEs, see Panibratov 2016).

Just like in any other activities, some indirect FDI may be related to semi-legal or illegal activities, including corruption (cf. Zander 2021). In some cases such as the Panama Papers scandal in 2016, the public had the impression that such motivations drive the bulk of indirect FDI. However, we have no evidence so far about the frequency of illegal activities within the phenomenon. In fact, most of the cases revealed under the Panama Papers fall outside the scope of indirect FDI. In this respect, we also need to stress that for indirect FDI to happen, there is not necessarily a need for the mediation of offshore financial centres; there are many transactions that take place through other non-offshore countries. It is also to be added that most of the offshore activities fall outside the definition of indirect FDI.

Of the emergence of the indirect FDI literature

Given such major reasons for the existence of indirect FDI, it is not surprising that the author of these lines was not the person who first put the spotlight on the phenomenon and gave a name to it. To our best knowledge, researchers at and around the Vienna University of Economics and Business Administration were, at the end of the last century and the beginning of the current one, who already asked what indirect FDI was, what its economic and employment effects could be (Altzinger and Bellak 1999) and how it affected the investing firms and their home countries (Altzinger et al. 2003). They suggested that the impact of indirect could be less strong than that of direct FDI.

If there had been earlier pathbreakers on the topic that he ignores, the author of these lines presents his excuses to them. What matters though is that, till 2012, the debate had been limited and the topic in general underresearched (Kalotay 2012b).[4]

The role of this author, almost a decade later, was an attempt to conceptualize and systematize what we knew about the phenomenon, prompting an international discussion about the phenomenon. He was requested by Karl P. Sauvant from the Columbia University, curious about what this indirect FDI meant, to prepare a succinct *FDI Perspective* (Kalotay 2012a), which he developed further in an academic article in the same year (Kalotay 2012b). To make sure that this time the effect would be there, Karl P. Sauvant had commissioned also another *Perspective* on the related issue of investor nationality (Hirsch 2012). As for the referees of the *Perspective* on indirect FDI, Christian Bellak and Andreja Jaklič of the first Vienna-centred research group were involved, alongside with Gábor Hunya and Magdolna Sass. Everything was done to control the quality of the analysis.

The *Perspective* (Kalotay 2012a) was found to be very interesting and thought provoking by some people, especially by Supachai Panitchpakdi, the then Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), where the author of these lines passed most of his active life (1990–2021). That praise and encouragement was enough for him to continue and elaborate the topic (see Kalotay 2012b), despite the resistance of some colleagues who wanted him to withdraw the *Perspective*, arguing that they were just preparing a material for the upcoming (2012) *World Investment Report* (*WIR*), and the latter should get the full limelight when talking about the topic.

As the author of these lines suspected, there was no such material in the making.[5] *WIR2012* (UNCTAD 2012) focused on the renewal of investment policies. It would take four more years till a *WIR* would touch upon the issue of investor nationality; in fact the

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[4] There were nevertheless some studies such as Masso et al. (2008) that picked up the developmental impact (employment) question and concluded, similarly to Altzinger and Bellak (1999), and especially Altzinger et al. (2003), that the effects of indirect FDI are less pronounced than those of direct FDI, especially in the case of outward FDI.

[5] This workplace conflict had evidently negative effects on the author's post-2012 career prospects at UNCTAD. However, elaboration on that issue is beyond the scope of this review, focusing on the substance of indirect FDI.

chain of investor ownership (UNCTAD 2016). It was thus the right moment to reinvigorate the international debate.

In hindsight, the author of these lines had good luck with the timing of his materials. They came out when people were more ready to discuss indirect FDI. It was indeed a period when the fiscal element of indirect FDI came to the fore of discussion (see Mintz and Weichenrieder 2010), making it possible to link together different threads of analysis. Readers should recall that the article (Kalotay 2012b) was published in a journal (*The Journal of World Investment & Trade*) whose majority audience was of the legal profession. By the end of May 2023, the *Perspective* had reached 14 independent citations and the journal article 95.[6]

Of the role of the Institute of World Economics

Authors and co-authors from the Institute of World Economics of the Centre for Economic and Regional Studies, Budapest, Hungary – cooperating with analysts from other institutions whenever necessary – have played an active role in analysing different aspects of indirect FDI over the past decade. As it will be mentioned later on, one of the issues that they picked up early on was the quality of FDI data, with implications for the conclusions of quantitative studies. The interest of the Institute was largely prompted by its focus on developments in the countries in transition, especially the Visegrad countries, in which indirect FDI plays a major role both in inflows and outflows. Without claiming to be exhaustive, one can mention among the landmark studies, Antalóczy and Sass (2015), Weiner (2015), Sass (2017), Weiner (2017), Sass and Vlčková (2019), S. Gubik et al. (2020), Sass (2021), and Sass and Tabajdi (2023).

The Institute of World Economics also played a leading role in highlighting cases of ‘virtual indirect’ investment (Sass et al. 2012), when the share of a foreign institutional investor exceeds 10 per cent, or even owns the majority of shares, and still the company does not become a foreign affiliate because no individual investor exceeds the 10 per cent

[6] As for citations with DOI, the Holy Grail of most metrics, the *Perspective* had 3 and the journal article 40. See https://m2.mtmt.hu/api/publication/2191222 and https://m2.mtmt.hu/api/publication/2182139. These are good numbers for such a highly specialized topic.

threshold and because the MNE keeps its local management – such as in the case of the Hungarian oil company MOL. The author of this review recalls the arguments of Magdolna Sass, Katalin Antalóczy and Andrea Éltető about this case, the baptism of the phenomenon – it had to be called somehow – and the birth of the article about it. This was a fascinating case because it was about, so to speak, a first carving out from indirect FDI.

Of the main threads and recent advances of the indirect FDI literature

The literature of the 2010s and early 2020s on indirect FDI is typically interdisciplinary, involving economic, business, legal, social, and political aspects. It can be categorized into three main threads (table 1). The explanations for indirect FDI by different authors in different threads quite often reflect the motivations for MNEs engaging in such activities described in the relevant section above. The main threads are:

1. one focusing on the *developmental aspects* of the phenomenon, following what Altzinger and Bellak (1999) and Altzinger et al. (2003) initiated, including the productivity and employment question, but also the business strategy aspects and the human rights / social responsibility aspects of indirect FDI;
2. another one with a *fiscal–legal–regulatory approach*, following the footsteps of Mintz and Weichenrieder (2010); and
3. a third one raising questions about the quality and accuracy of *FDI data* or *special aspects* such as the relationship between sanctions and outward FDI, a hot topic in Russia, especially since the military attack on Ukraine started in February 2022, which in itself is a continuation of a conflict started back in 2014.

The author of these lines is surprised to note that the number of studies on the productivity and employment issue is rather limited and deals with relatively small case studies (see e.g., Sarwar and Mubarik 2014, and Shpak 2020). They nevertheless do indicate a difference between the effects of direct and indirect FDI, usually with a more pronounced developmental impact in the former. This is a thread that definitively needs more elaboration and studies in the future.

Table 1. Summary of selected advances in the indirect FDI literature in the 2010s and early 2020s

Main thread	Area	Examples of literature
Developmental aspects	Productivity and employment	Sarwar and Mubarik (2014), Shpak 2020
	Business strategy considerations (targeting regional markets, geographical and cultural proximity)	Aykut et al. (2017), S. Gubik et al. (2020), Sass and Tabajdi (2023)
	Human rights / social responsibility aspects, 'conduit FDI'	Suppa and Bureš (2020), Casella (2019)
Fiscal–legal–regulatory approach	"Phantom" interpretation of indirect FDI	Damgaard et al. (2019), Financial Times (2019), Zhan (2019)
	MNEs benefitting from tax competition	Gao and Liu (2021), Erokhin (2023), Fan et al. (2023)
	'Treaty shopping'	Lee (2015), Baumgartner (2016), Tomashevskiy (2021), Couet (2021)
FDI data issues and other special aspects	'Through a glass darkly'	Antalóczy and Sass (2015), UNCTAD (2016), Sass and Vlčková (2019), Hennart and Sutherland (2022)
	Sanction hopping (Russia)	Liuhto (2015), Bulatov (2017), Kalotay and Weiner (2022)

Source: the author's collection and evaluation of information

Another, more dynamic part of the literature deals with business strategy considerations, such as targeting regional markets, and geographical and cultural proximity. The author of these lines, when writing his *Perspective* (Kalotay 2012a), used the example of Adam Opel AG's investment in Poland, which at time belonged to General Motors (GM) and was used for reasons of regional strategy and cultural proximity to spearhead GM's entry in that market. The question has since then expanded to round tripping in a major World Bank study (Aykut et al. 2017), and the issue of transhipment in Asian FDI in the Visegrad Group (S. Gubik et al. 2020) and automotive outward FDI from the Visegrad Group and Austria (Sass and Tabajdi 2023). These studies have shown that the transhipment and round-tripping boxes of figures 1 to 4 are far from being empty. The play and important and active role in FDI flows and their management.

There are also studies that point out that indirect FDI has human rights / social responsibility aspects, or to be precise, some MNEs are motivated to avoid or at least limit such liabilities (see Suppa and Bureš 2020). It is linked to the outsourcee company issue, though the 'transit' company in principle could not be treated as an entity outside the MNE network.

There is also literature picking up Mintz's and Weichenrieder's (2010) terminology of 'conduit FDI' (Casella 2019), in which the transhipment centre is presented as a partly active agent of corporate strategies; at least more active than some of the fiscal–legal–regulatory literature (see below) presents it.

In the fiscal–legal–regulatory literature, the most visible and most discussed part deals with the tax avoidance or optimization issue. The debate touches upon the International Monetary Fund (IMF), the *Financial Times* and *fDi Intelligence*, to mention the most influential fora (see Damgaard et al. 2019, Financial Times 2019, Zhan 2019). It is not fully surprising as it is related in the current efforts of the Organisation for Economic Co-operation and Development (OECD) and the Group of Twenty (G20) for a global minimum tax (see more in Kalotay 2022). This thread prefers using the term "phantom FDI", which would suggest that the round-tripping and transhipment boxes of figures 1 to 4 would be (practically) empty. All decisions are taken by the corporate headquarters, and the units transit countries do only tax avoidance or undue exploitation of BIT protection.

Over the past years, the expression of phantom FDI has spread like bushfire in the popular literature, denoting both the "phantom" interpretation of indirect FDI and any investment project that claims to create value without manufacturing nuts and bolts – sometimes the combination of the two.[7] This is not fully surprising as the view that FDI must be manufacturing is one of the most stubbornly held among policy makers and the public at large. This also applies to the Hungarian strategy after 2010, under which automotive, and recently battery, projects are promoted by large amounts of public funds while investors in services and infrastructure are strongly encouraged to sell their assets to local owners close to the government.

[7] As a curiosity, in 2012 Dumitru Slonovschi from the Republic of Moldova suggested to call this type of FDI "false FDI" (Slonovschi 2012). That name did not stick.

One of the most often cited cases of "phantom FDI" chastized for claiming undue gains is the case of the British Virgin Island-registered Process and Industrial Developments Ltd. (owned by Irish nationals) against the Ministry of Petroleum Resources of the Federal Republic of Nigeria (Jus Mundi 2023). In 2017, an ad-hoc arbitration court awarded US$6.6 billion plus interest to the investor for the collapse of a project of a gas processing plant, on which physical work had not been started. In 2023, the case was still under appeal before a London court for annulment. The claim of the Nigerian party was that it is absurd to get compensated for a loss that does not include physical assets, only the collapse of a signed deal and a loss of expected income (signed back in 2010).

This insistence on attracting manufacturing FDI contradicts the theory of value chains according to which the smallest value creation is in the manufacturing phase, and the highest at the two ends of the chain. This idea has been popularized by the so-called smile or smiling curve, discussed since the early 1990s: the first mentions referred to case of the Taiwan-based electronics producer Acer.[8] If countries wish to avoid the middle-income trap and increase the value added, they would need to promote non-manufacturing FDI, in addition to blue-collar work.

Related to the major political debate is the literature on indirect FDI providing benefits to MNEs from tax competition. These studies, one of the youngest branches of the literature (see e.g., Gao and Liu 2021, Erokhin 2023, Fan et al. 2023), start with similar assumptions as the "phantom FDI" literature: indirect FDI is mostly or exclusively about fiscal optimization.

It is to be kept in mind that the aspects of indirect FDI represent a very small part of the vast literature on MNEs and tax avoidance. Most of those studies deal with the fiscal issue from a perspective different from that of indirect FDI, even when covering the issue of offshore financial centres.

Yet another branch presents indirect FDI as an entry point to protection of BITs or DTTs (Lee 2015, Baumgartner 2016, Tomashevskiy 2021, Couet 2021). These legal studies elaborate on what Mintz and Weichenrieder (2010) coined 'treaty shopping'.

[8] For an international business approach to the smile curve, see e.g., Mudambi (2008).

Indeed, there is no straightforward answer to the question if and to what degree the transhipped or round-tripped FDI is protected by the treaties. The global minimum tax is indeed an example where a plurilateral agreement limits the use of such treaties.

The authors of a third thread of literature have less a priori assumptions about indirect FDI. They simply wish to get a clear answer to the question of who invests in your country (cf. Kalotay 2012a). Hennart and Sutherland (2022) claim that, beside theory, data is the key challenge in international business research, and they refer to indirect FDI. As Antalóczy and Sass (2015) have pointed out, we have seen through a glass darkly. Or as Sass and Vlčková (2019) have invited us, we have to look behind the data. Investor nationality matters (UNCTAD 2016).

A special case of search for ultimate investors relates to sanction hopping, especially in Russia, the country most concerned by that measure since 2022 – but already functioning under them, though under a lesser intensity, after 2014 (see Liuhto 2015 and Bulatov 2017).[9] Work has already started on finding out how the indirect FDI or Russian MNEs adapt to the new wave of stronger sanctions, for example through the inversion of corporate headquarters, but also the reconfiguration of foreign assets, with unavoidable shrinking in certain foreign presence, even after using the indirect FDI techniques (cf. Kalotay and Weiner 2022).

One can observe with keen interest the burgeoning literature on indirect FDI. In general, one should not discard any new approach, although one may have critical remarks about those, such as the school on "phantom FDI", that aim to simplify that analysis of an otherwise complex phenomenon to purely fiscal considerations.

Of the efforts to get better data on ultimate investors

At the end of the day, we need to know who invests in a country and how much if we want to gauge the developmental impact of the given project(s). Round tripping inflates the FDI numbers, both inflows and outflows, in addition to giving false information about the

[9] As Alexei Kuznetsov (2022) has noted it, these Russian MNEs follow 'non-classic' strategies in their investment projects abroad.

nationality of the investors. Transhipping does not increase the volume of FDI but distorts its geography.

Under these circumstances, statisticians can do two things: Either they resort to additional data (especially operational data on MNEs), or try to improve existing data collection. In the case of indirect FDI, both happens, and naturally efforts started well before the publication of the two studies of this author in 2012 (Kalotay 2012a and 2012b).

One public effort includes the so-called FATS statistics, denoting originally Foreign Affiliates Trade in Services, part of the international trade in services, and now Foreign AffiliaTes Statistics in general. These data, rich in details, have the advantage of covering both inward and outward FDI but present the inconvenience that they are not directly comparable with original FDI data. Collection of FATS data started in the early 2000s, and now covers a broad range of developed countries, in particular.

Another way of improving the veracity of public FDI data was offered with the release, in 2009, of the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) of the IMF, in collaboration with the OECD and UNCTAD. This revision targeted, among others, the breaking down of the sequence of ownerships at offshore financial centres as confidentiality limited identification of ultimate beneficial owner. Most of the confidentiality has been since lifted, and quite often, but not always, the chain of ownership can be followed.

The main advantage of the BPM6 data on ultimate investors is that they are comparable with the data on immediate investors. The main limitation is that they are only reported on the inward FDI side (flows and stocks). Those who need outward FDI numbers for outward investment, need to resort to the mirror data of the partner countries, provided that they are available, and hoping that they are comparable.

To be noted is that there are also private data sources from which it is possible, at least to some degree, follow the chain of ownership in multinational groups. These days many researchers use for instance the Orbis database, property of Bureau van Dijk, A Moody's Analytics company (since 2017), which claims having data on more than 450 million companies worldwide.[10] However, these data banks cannot either overcome the confidentiality issue. In fact, confidentiality can more easily invoked in case of private entity data collection than in case of official information requests.

In this section, focus is on FDI data on ultimate investors. We ask how data collection has improved for the Visegrad group, as in this group of countries, indirect FDI plays a prominent role. Luckily, three of the four countries (Czechia, Hungary and Poland) have such data, and for relatively recent times. These circumstances allow us to draw conclusions from statistics available as of May 2023 from the OECD and UNCTAD (see tables 2 to 4).

As a context, we have to keep in mind that the number of countries of the world reporting inward FDI positions by ultimate investing economy is relatively small, and covers mostly developed economies. They include the United States, Canada, the United Kingdom, and also at least 14 of the 27 EU members: Cyprus, Czechia, Germany, Denmark, Estonia, Spain, Finland, France, Greece, Hungary, Italy, Poland, Portugal, and Romania. However, coverage outside the OECD membership is very limited.

Let us be optimistic: the glass is already half dim, not more fully. Despite remaining and persistent shortcomings, most of the data make sense. The author of these lines is leading his readers through the data of the 20 largest ultimate investors in the three countries. He does make a difference between those countries for which the ultimate investment is much higher than the immediate investment and those for which the reverse is true. Wherever ultimate investment dominates, the country is supposed to be the source of technology and jobs, but using transhipment centres to arrive to the Visegrad countries. This may be so because of the considerations described in the previous section, or their combination. These countries usually have relatively high corporate taxes at home. Conversely, the 'transit centres' provide less ultimate and more immediate investment. They are often offshore jurisdictions. Finally, this review is also showing the reader the round-tripped part of investment, which is quite high in Czechia, a bit less in Poland, and not among the top 20 sources in Hungary. It is also focusing on

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[10] Source: https://www.bvdinfo.com/en-gb/our-products/data/international/orbis, accessed 9 June 2023

the so-called counter-intuitive cases because the most probably indicate a failure in lifting the veil of confidentiality.

In Czechia and Poland, national investors show the largest and second largest difference between ultimate and immediate investment (the latter being logically zero), proving the importance of round tripping. In Hungary, national investors do not figure in the top 20. With a stock of US$1 122 million only, they arrive only to the 30th position. Naturally that does not exclude the possibility of Hungarian firms using foreign countries for transhipping their outward FDI, although again in this respect, they may be behind the Czech multinationals (see Sass and Vlčková 2019).

As for transhipped FDI, Germany, the United States, Italy and Japan are the most frequent sources of investment using transit countries to target Czechia, while in Poland, United States, Germany, Japan, United Kingdom and France are the most frequent ultimate investors going through third countries. In the case of Hungary, the United States and Canada dominate, indicating very probably SPV investment. On the other extreme, the most popular transhipment centres with the largest difference in favour of immediate FDI are for Luxembourg, the Netherlands, Cyprus and Austria in the case of Czechia, for the Netherlands, Austria and Belgium in the case of Hungary, and for Luxembourg, the Netherlands, Belgium and Austria in the case of Poland.

Let us highlight also the cases in which the chain of ultimate reporting is almost surely broken. That applies to investment from Jersey to Czechia and Poland, in which ultimate investment is reported to be higher than immediate investment. The same applies to investment from the British Virgin Islands, Ireland and Malta to Hungary, which are not likely centres for ultimate investment as the statistics would suggest. Also among the Czech data, Korean, Swedish and Spanish immediate investment is reported to be smaller than ultimate investment, while these nations are usually not perceived as offshore, transhipment centres. The same observation applies to Danish and Italian investment in Poland.

Table 2. Czechia: Inward FDI stock by immediate and ultimate investor country, ranked by ultimate investor, US$ million, 2020

Rank	Economy /territory	By ultimate investor	By immediate investor	Ultimate - immediate
1	DEU: Germany	42 639	29 027	13 612
2	CZE: Czechia	31 115	0	31 115
3	AUT: Austria	17 147	20 120	-2 973
4	USA: United States	13 379	2 284	11 095
5	FRA: France	13 101	12 676	426
6	NLD: The Netherlands	8 096	32 865	-24 769
7	ITA: Italy	7 913	5 602	2 311
8	CHE: Switzerland	6 919	8 025	-1 106
9	BEL: Belgium	6 900	6 307	593
10	GBR: United Kingdom	6 257	5 576	681
11	SVK: Slovakia	5 194	5 967	-774
12	JPN: Japan	4 778	2 491	2 287
13	POL: Poland	3 939	4 034	-96
14	CYP: Cyprus	3 550	9 169	-5 619
15	KOR: Korea, Republic of	3 455	4 063	-608
16	SWE: Sweden	2 977	3 471	-494
17	LUX: Luxembourg	2 017	31 226	-29 209
18	JEY: Jersey	1 452	-42	1 494
19	ESP: Spain	1 357	1 743	-387
20	TWN: Taiwan Pr. of China	1 220	248	972

Table 3. Hungary: Inward FDI stock by immediate and ultimate investor country, ranked by ultimate investor, US$ million, 2020

Rank	Economy /territory	By ultimate investor	By immediate investor	Ultimate – immediate
1	USA: United States	175 457	946	174 511
2	CAN: Canada	21 965	311	21 653
3	DEU: Germany	21 549	19 729	1 820
4	CHE: Switzerland	18 971	5 711	13 259
5	IRL: Ireland	11 730	-1 607	13 336
6	AUT: Austria	9 894	12 395	-2 502
7	MLT: Malta	9 580	394	9 185
8	KOR: Korea, Republic of	6 773	4 502	2 271
9	FRA: France	5 987	4 983	1 004
10	GBR: United Kingdom	5 529	3 659	1 870
11	JPN: Japan	4 051	1 857	2 193
12	ITA: Italy	3 750	2 927	822
13	VGB: British Virgin Islands	3 720	146	3 574
14	TWN: Taiwan Pr. of China	3 492	35	3 457
15	CHN: China	3 479	420	3 059
16	IND: India	3 308	0	3 307
17	NLD: The Netherlands	3 303	19 301	-15 998
18	ISR: Israel	2 899	-296	3 195
19	JEY: Jersey	2 422	1 452	970
20	BEL: Belgium	2 244	2 917	-673

Source: the author’s calculations, based on UNCTAD data and OECD data, accessed in May 2023

Table 4. Poland: Inward FDI stock by immediate and ultimate investor country, ranked by ultimate investor, US$ million, 2020

Rank	Economy /territory	By ultimate investor	By immediate investor	Ultimate – immediate
1	DEU: Germany	54 261	45 322	8 939
2	FRA: France	27 728	23 107	4 621
3	NLD: The Netherlands	26 706	53 375	-26 668
4	USA: United States	24 901	4 294	20 608
5	GBR: United Kingdom	15 425	9 664	5 761
6	ESP: Spain	13 752	13 601	152
7	POL: Poland	13 370	0	13 370
8	AUT: Austria	9 171	10 862	-1 691
9	CHE: Switzerland	7 527	8 137	-610
10	JPN: Japan	7 453	1 196	6 257
11	ITA: Italy	6 244	6 548	-304
12	SWE: Sweden	6 046	4 981	1 066
13	KOR: Korea, Republic of	5 753	4 555	1 198
14	DNK: Denmark	4 862	5 696	-834
15	BEL: Belgium	4 006	8 804	-4 798
16	PRT: Portugal	3 821	1 844	1 977
17	FIN: Finland	2 767	1 822	945
18	LUX: Luxembourg	2 575	33 916	-31 341
19	CAN: Canada	2 235	367	1 868
20	NOR: Norway	2 169	1 969	201

Source: the author's calculations, based on UNCTAD data and OECD data, accessed in May 2023.

Data from the three Visegrad countries indicate that we can already draw valuable lessons from a comparison between ultimate and immediate investor statistics, at least for those countries that provide regular and relatively reliable (credible) reporting. However, we still need to watch them with a critical eye and spot those irregularities in which the chain of reporting is still broken. In sum, the dimness of the glass has not yet fully dissipated.

Of the indirect FDI aspects of sectoral analysis

For both the analysis of immediate investment and of ultimate investors, the cross cutting analysis of sectors and geographical sources of FDI are among the most challenging but also most promising avenues of science. This is particularly true to the Visegrad countries where the priorities of investment promotion are often limited to a handful of activities, such as electronics and automotive. Analysts in this context have to decide which thread they are following. In most cases, the fiscal–legal–regulatory paradigm offers less guidance as the main question for these countries is not the maximization of fiscal revenues but the creation of jobs and the improvement of skills. In this context, the business-strategy oriented approaches are more relevant, as well as the search for a 'statistical' answer to the question of who invests in the country, as that determines to a large extent the developmental impact.

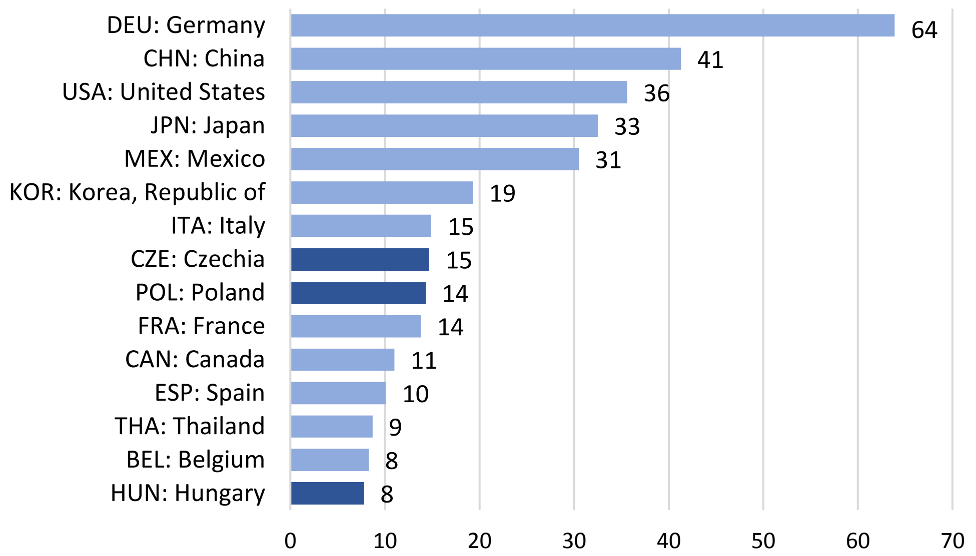
In the Visegrad group, one possibility is to look at the case of electronics industry as probably the most salient example of what Sanjaya Lall (2000) classified as high-technology sector (for a case study, see Sass 2015). However, it is even more interesting to analyse the automotive value chain as an example of a middle-technology sector, which is otherwise closely related to electronics and dominates investment promotion for blue-collar jobs in the four Visegrad countries.

As a result of vigorous investment promotion,[11] three Visegrad countries figure among the world's largest automotive parts exporters (Czechia is 8th, Poland is 9th, Hungary is 15th), closely integrated with the world's number one supplier, Germany (figure 5). The combined exports of the three Visegrad countries amounted to almost US$37 billion in 2021, representing more than 9 per cent of the estimated world total of US$400 billion.[12] They also have investment links with large automotive markets other than Germany, especially China, Japan, and the Republic of Korea, in particular via inward FDI from those countries.

[11] For a recent analysis of the Hungarian government's efforts to attract battery production, see Éltető (2023). Naturally these red-carpet projects do not involve indirect FDI.

[12] Source: https://www.worldstopexports.com/automotive-parts-exports-country/, accessed 9 June 2023

Figure 5. Three Visegrad countries figured among the world's 15 largest automotive parts exporters in 2021 (US$ billion)



Source: the author, based on data from https://www.worldstopexports.com/automotive-parts-exports-country/, accessed 9 June 2023

From the angle of indirect FDI, it is particularly relevant to compare the tiers of ownership (see Mintz and Weichenrieder 2010, and UNCTAD 2016) with the tiers of suppliers in automotive manufacturing. The 1st and 2nd tier suppliers are typically foreign affiliates, which sometimes arrive via transit countries, and in the automotive outward FDI of the Visegrad countries, these affiliates, and not so often the indigenous firms, that are at the source of going abroad (see Sass 2000, and Sass and Tabajdi 2023, for pathbreaking studies). To be added a complication of the analysis: The analysis of the cases involving outward FDI requires a multiple methods and data because ultimate investment is reported only on the inward FDI side, not on the outgoing one.

The Visegrad group is just one possible example where the cross-cutting issues of indirect FDI and value chains can provide us interesting policy conclusions in the automotive sector. Similar exercises could be done at least in the case of large and dynamic emerging-market players with important foreign presence in their sector, such as China, Mexico or Thailand, to mention a few (cf. figure 5). In case of a lack of statistics on ultimate investors, FATS data, information from private databases and company level data can also be used to follow the link between tiers of investment in the automotive sector and tiers of ownership in FDI.

In a similar vein, indirect FDI and value chains could be analysed in other global sectors, such as textile and garments, focusing on the key emerging-market players of Bangladesh, Brazil, India, Indonesia, Pakistan, Thailand, Turkey, and Viet Nam, to name them in alphabetical order, seeking again signs of interaction between indigenous firms, inward foreign investors and outward foreign investment.

Of the future of research on indirect FDI

Looking into the future, it is quite safe to predict that in the upcoming years, indirect FDI will remain a very exciting interdisciplinary topic for research, and in many countries of the world, including the ones not covered in this succinct review. These studies may offer the possibility of blending different approaches and different threads. For instance, as mentioned above, the tiers of ownership in indirect FDI can be compared with tiers of supply chains, highlighting both the similarities and the differences.

Fruitful future research will always have to be open to interdisciplinarity and cross-cutting methods, even if they are more complex and less welcome by those who insist on staying in the framework of already set methodological circles. There would be also a need for more interaction between the different threads of indirect FDI analysis. At the current stage, research in the different threads does not always speak to the others, or at least not sufficiently. It seems to be particularly true to the fiscal–legal–regulatory literature, which often uses highly specialized legal approaches and methods.

The quality of future research on indirect FDI may also hinge on the capacity of scholars to avoid the temptation of explaining the phenomenon through the lens of "phantom FDI" only. Beside the fact that not all projects named "phantom" are related to indirect FDI, which can lead to confusion, it is a way to simplify the complexities of indirect FDI. In general, it would be more exact to talk about the 'financialization' of FDI as a result of indirect flows (cf. Kalotay 2020, pp. 24–27), which still recognizes an active role for the affiliates and units involved in those 'financialized' transactions. This is particularly evident in the case of SPVs/SPEs, which do not produce any nuts and bolts but are still far from being empty boxes.

Still, there should be no illusion that "phantom FDI" will remain in the political and popular discourse as a colourful metaphor. However, we need a more nuanced approach from science, which should stick to the more neutral indirect term.

The most promising avenue for future research would be the improvement of data reporting. On the one hand, as highlighted in this review, the reduction of confidentiality could lead to more reliable conclusions of the real ultimate investors in existing statistics. On the other hand, the coverage of reporting could be extended to many more economies, especially the relatively less developed ones, for which those types of statistics are sorely missing. And in the long term, the big black box of outward FDI by ultimate target would need to be tackled, in parallel with improvements in the inward FDI statistics of ultimate beneficial owners.

References

Altzinger W, Bellak C (1999): Direct versus Indirect FDI: Impact on domestic exports and employment. *Working Paper Series "Growth and Employment in Europe: Sustainability and Competitiveness"* № 9. Vienna University of Economics and Business Administration. https://epub.wu.ac.at/400/1/document.pdf

Altzinger W, Bellak C, Jaklič A, Rojec M (2003): Direct Versus Indirect Foreign Investment from Transition Economies: Is there a difference in parent company/home country impact? In: Svetličič M, Rojec M (eds.), *Facilitating Transition by Internationalization: outward direct investment from Central European economies in transition*. Aldershot: Ashgate. ISBN 9780754631330, pp. 91–108. https://doi.org/10.4324/9781315255583

Antalóczy K, Sass M (2015): Through a Glass Darkly. *Külgazdaság* 1 (S1), 34-61. http://real.mtak.hu/29247/

Aykut D, Sanghi A, Kosmidou G (2017): What to Do When Foreign Direct Investment Is Not Direct or Foreign: FDI round tripping. *World Bank Policy Research Working Paper* № 8046. https://doi.org/10.1596/1813-9450-8046

Baumgartner J (2016): *Treaty Shopping in International Investment Law*. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198787112.001.0001

Bulatov A (2017): Offshore Orientation of Russian Federation FDI. *Transnational Corp.* 24 (2), 71–89. https://doi.org/10.18356/ed298a0d-en

Casella B (2019): Looking through Conduit FDI in Search of Ultimate Investors – a probabilistic approach. *Transnational Corp.* 26 (1), 109–146. https://doi.org/10.18356/8A8B094C-EN

Couet MA (2021); Round-Tripping in International Investment Law: A teleological assessment. *The J. of World Investment & Trade* 22 (3). 459–501. https://doi.org/10.1163/22119000-12340215

Damgaard J, Elkjaer T, Johannesen N (2019): The Rise of Phantom Investments. *Finance & Development* 56 (3), 11–13. https://www.imf.org/external/pubs/ft/fandd/2019/09/pdf/the-rise-of-phantom-FDI-in-tax-havens- damgaard.pdf

Éltető A (2023): Aspects of electric vehicle battery production in Hungary. *Institute of World Economics Working Paper* № 271. http://doi.org/10.13140/RG.2.2.24504.93441

Erokhin D (2023): Tax Effects on FDI – just a rerouting. *WU International Taxation Research Paper* № 2023-02. Vienna University of Economics and Business Administration. https://doi.org/10.2139/ssrn.4423426

Fan H, Liu Y, Tian S, Wang X (2023): Firm Outward Direct Investment and Multinational Activity under Domestic Taxes. *Economic Inquiry* 61 (3), 605–628. https://doi.org/10.1111/ecin.13142

Financial Times (2019): Phantom Investment Calls for Exorcism. *FT.com* 10 September. https://www.ft.com/content/44de0898-d2fb-11e9-a0bd-ab8ec6435630

Gao M, Liu X (2021): Tax Burden, Institutional Environment and Foreign Direct Investment Flow: From the perspective of asymmetric international tax competition. *China Finance and Economic R.* 10 (1), 66–85. https://doi.org/10.1515/cfer-2021-0004

Hennart JF, Sutherland D (2022): International Business Research: The real challenges are data and theory. *J. of International Business Studies* 53 (9), 2068–2087. https://doi.org/10.1057/s41267-022-00566-y

Hirsch S (2012): Nation States and Nationality of MNEs. *Columbia FDI Perspectives* N° 57. 23 January. https://doi.org/10.7916/D86W9K60

Jus Mundi (2023): P&ID v. Nigeria: Process and Industrial Developments Ltd. v. The Ministry of Petroleum Resources of the Federal Republic of Nigeria – Opinion of the United States Court of Appeals for the District of Columbia Circuit. *Jus Mundi*. Accessed 7 June 2023. https://jusmundi.com/fr/document/decision/en-process-and-industrial-developments-ltd-v-the-ministry-of-petroleum-resources-of-the-federal-republic-of-nigeria-opinion-of-the-united-states-court-of-appeals-for-the-district-of-columbia-circuit-friday-11th-march-2022

Kalotay K (2022): Is the Global Minimum Tax a Threat to Hungary's FDI Promotion Policy? In: Knežević B (ed.), *The 8th Annual International Academic AIB-CEE Chapter Conference on Knowledge and Sustainability in International Business, Zagreb, Croatia, 14th till 16th September 2022: Conference Booklet*. Zagreb: University of Zagreb. ISBN 9789533461878, pp. 111–114. https://drive.google.com/file/d/1NKhj7ZKd4oBU_DbIlxKWJBjp294qhLFu/view?usp=sharing

Kalotay K (2020): A Quarter Century of Global Foreign Direct Investment: A shifting landscape. In: Rivera-Batiz FL, Spatareanu M (eds.), *Encyclopedia of International Economics and Global Trade, vol. 1: Foreign Direct Investment and the Multinational Enterprise,* Singapore: World Scientific. ISBN 9789811200533, pp. 11–43. https://doi.org/10.1142/9789811200595_0002

Kalotay K (2012a): Does It Matter Who Invests in Your Country? *Columbia FDI Perspectives* N° 66. 30 April. https://doi.org/10.7916/D8BK1MRP

Kalotay K (2012b): Indirect FDI. *The J. of World Investment & Trade* 13 (4), 542–555. https://doi.org/10.1163/221190012X649841

Kalotay K, Weiner Cs (2022): The Impact of Sanctions on Russian Business Abroad and Hungarian Business in Russia: Parallel stories of adjustment. In: Casanova L, Miroux A (eds.), *Emerging Market Multinationals Report 2022: Reinventing global* *value chains*. Ithaca, NY: Cornell SC Johnson College of Business. ISBN 9781732804265, pp. 110–117. http://real.mtak.hu/158854/

Kuznetsov A (2022): Phenomenon of Direct Investments that are not Associated with "Classic" TNCs. *World Economy and International Relations (MEiMO)* 66 (1), 91–99 (in Russian). https://doi.org/10.20542/0131-2227-2022-66-1-91-99

Lall S (2000): The Technological Structure and Performance of Developing Country Manufactured Exports, 1985–98. *Oxford Development Studies* 28 (3), 337–369. https://doi.org/10.1080/713688318

Lee J (2015): Resolving Concerns of Treaty Shopping in International Investment Arbitration. *J. of International Dispute Settlement* 6 (2), 355–379. https://doi.org/10.1093/jnlids/idv011

Liuhto K (2015): Motivations of Russian Firms to Invest Abroad: How do sanctions affect Russia's outward foreign direct investment? *The Baltic Region* 4 (26), 4–19. https://doi.org/10.5922/2079-8555-2015-4-1

Masso J, Varblane U, Vahter P (2008): The Effect of Outward Foreign Direct Investment on Home-Country Employment in a Low-Cost Transition Economy. *Eastern European Economics* 46 (6), 25–59. https://doi.org/10.2753/EEE0012-8775460602

Mintz JM, Weichenrieder AJ (2010): *The Indirect Side of Direct Investment: Multinational Company Finance and Taxation*. Cambridge, MA: MIT Press. ISBN 9780262014496. https://mitpress.mit.edu/9780262014496/the-indirect-side-of-direct-investment/

Mudambi R (2008): Location, Control and Innovation in Knowledge-intensive Industries. *J. of Economic Geography* 8(5), 699–725. https://doi.org/10.1093/jeg/lbn024

Panibratov A (2016): Home Government Influence on Russian MNEs: balancing control against interest. *International J. of Emerging Markets* 11 (4), 474–496. https://doi.org/10.13140/RG.2.1.3753.5761

S. Gubik A, Sass M, Szunomár Á (2020): Asian Foreign Direct Investments in the Visegrad Countries: What are their motivations for coming indirectly? *DANUBE: Law and Economics R.* 11(3), 239–252. https://doi.org/10.2478/danb-2020-0014

Sarwar N, Mubarik MS (2014): Foreign Direct Investment (FDI) and Employment: a case of Province of Punjab, Pakistan. *The Economics and Finance Letters* 1 (4), 59–65. https://doi.org/10.18488/journal.29/2014.1.4/29.4.59.65

Sass M (2021): Multinationals from Post-socialist Countries: How large their foreign investments can be? In: Andreff W (ed.), *Comparative Economic Studies in Europe: A thirty year review*. Cham: Palgrave Macmillan. ISBN 9783030482954, pp. 227–248. https://doi.org/10.1007/978-3-030-48295-4_12

Sass M (2020): Outward FDI in the Automotive Industries of the Visegrad Countries: a sign of increased international competitiveness of indigenous companies? In: Šaroch S (ed.), *ICAI 2020: Proceedings of the 1st International Conference on*

Automotive Industry, 12–13 November. Mladá Boleslav: Škoda Auto University. ISBN 9788076540163, pp. 231–238. http://real.mtak.hu/116624/

Sass M (2017): Latecomers May Be Admitted: Foreign direct investment between the CEE countries. In: Szent-Iványi B (ed.), *Foreign Direct Investment in Central and Eastern Europe: Post-crisis perspectives*. Cham: Palgrave Macmillan. ISBN 9783319404967, pp. 99–126. https://doi.org/10.1007/978-3-319-40496-7_5

Sass M (2015): FDI Trends and Patterns in Electronics. In: Galgóczi B, Drahokoupil J, Bernaciak M (eds.), *Foreign Investment in Eastern and Southern Europe after 2008: Still a lever of growth?* Brussels: ETUI. ISBN 9782874523908, pp. 257–296. https://www.etui.org/publications/books/foreign-investment-in-eastern-and-southern-europe-after-2008-still-a-lever-of-growth

Sass M, Antalóczy K, Éltető A (2012): Emerging Multinationals and the Role of Virtual Indirect Investors: The case of Hungary. *Eastern European Economics* 50 (2), 41–58. https://doi.org/10.2753/EEE0012-8775500203

Sass M, Tabajdi G (2023): Automotive Outward FDI from the Visegrad Countries and Austria: Do indigenous companies invest abroad? In Hlavatý I (ed.), *Central and Eastern Europe in the Changing Business Environment*. Bratislava: Vydavatelstvo Ekonóm. ISBN 9788022550642, pp. 225–235. https://doi.org/10.18267/pr.2023.kre.2490.18

Sass M, Vlčková J (2019): Just Look behind the Data! Czech and Hungarian outward foreign direct investment and multinationals. *Acta Oeconomica* 69 (S2), 73–105. https://doi.org/10.1556/032.2019.69.S2.4

Slonovschi D (2012): New dimensions of the international investment process. *Economica: Scientific and didactic journal* 20 (2), 69–77. https://ase.md/files/publicatii/economica/ec_2012_2.pdf

Shpak S (2020): Employment and Productivity Effects of Round-trip FDI. *National Bank of Ukraine*. Kyiv, 27 January. https://bank.gov.ua/admin_uploads/article/wp_nbu_2020-1_Shpak_eng.pdf

Suppa A, Bureš P (2020): Can Multinational Corporations be Responsible for Human Rights Violation of its Outsourcee Company? Response of national or international law? *International and Comparative Law R.* 20 (1), 153–179. https://doi.org/10.2478/iclr-2020-0007

Tomashevskiy A (2022): Networked Capital: indirect investment and BIT formation. *Business and Politics* 24 (1), 36–56. https://doi.org/10.1017/bap.2021.11

UNCTAD (2016): *World Investment Report 2016. Investor Nationality: policy challenges*. New York, Geneva: United Nations. https://doi.org/10.18356/9d7da2eb-en

UNCTAD (2012): *World Investment Report 2012: Towards a new generation of investment policies*. New York, Geneva: United Nations. https://doi.org/10.18356/5f5c0728-en

Weiner Cs (2017): International Expansion of Russian Multinationals: A focus on home-country push factors, Europe and five CEE countries. *Institute of World Economics Working Paper* № 236. https://doi.org/10.13140/RG.2.2.13322.36808

Weiner Cs (2015): Tracking Russian FDI in Hungary. In: Deák A (ed.), *The End of an Era in Eurasia? Conflict in Eastern Ukraine and economic downturn in the post-Soviet space*. East European Studies № 6. Budapest: Institute of World Economics. ISBN 9789633016275, pp. 120–168. https://ssrn.com/abstract=2837232

Zander T (2021): Does Corruption Matter for FDI Flows in the OECD? A gravity analysis. *International Economics and Economic Policy Papers* 18 (2), 347–377. https://doi.org/10.1007/s10368-021-00496-4

Zhan J (2019): Phantom Investment Meets the Ghostbusters. *fDi Intelligence* 12 December. https://www.fdiintelligence.com/article/76249