The Intercompany Lending Effects on the Current Account Balance: Case of Former Yugoslav Republics

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Abstract

The thesis quantifies the effect of intercompany lending on the current account balance in the economies that used to be a part of the Socialist Federative Republic of Yugoslavia. The observed transaction represents a controversial part of the Foreign Direct Investments, often criticised for its debt nature and involvement in the tax evasion strategies. However, the data show that in the post-crisis period it represents the driving force of the foreign capital inflow and investments in the observed region. For the purpose of this study novel model averaging approach was employed as it allows cross-country and country-specific analysis, and provides a sound basis for the policy making. Additionally, as a way to overcome the limited data availability problem, and provide an additional robustness check, the panel regression fixed effects for 17 CESEE economies was done. The results of both models are significant and indicate that the observed transaction had a stabilising effect and brought a steady inflow of funds. Finally, obtained coefficients, which differ in magnitude and sign across countries and time, indicate the discrepancies in the level of development in the region and speak in favour of the necessity to implement country-specific policies.

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1. Introduction

The Intercompany Lending as a constitutive part of the Foreign Direct Investment (FDI), represent its controversial element, frequently underestimated because of its debt nature and involvement in the tax evasion strategies. However, the goal of the thesis is to observe it from another perspective and determine whether it had a positive effect on the selected group of countries when the Global Financial Crisis stroke.

The impact FDI has on growth has been a topic of many papers (Lim 2001; Li and Liu 2005; Hermes and Lensink 2003; Borensztein, De Gregorio, and Lee 1998). Some find that, especially for the transition economies, the presence of foreign investors created positive externalities, and helped them to integrate into the world market (DiMauro 2000), while some indicate that it contributed to the restructuring of formerly state-owned enterprises (Estrin et al. 2009). Positive findings further spurred vast literature about the determinants of the FDI in transition economies (Bevan and Estrin 2004; Resmini 2000). However, they all observe FDI as a total and disregard different nature of its components: Equity investment, Reinvested Earnings and Intercompany Lending (ICL).

When it comes to the existing literature about the ICL, it is mostly focused on the Corporate Finance, and the possibilities for transfer pricing (Buettner and Wamser 2007; Stewart 1977). Additionally, ICL is essentially a debt, and increases country's external exposure and consequently create outflows of capital in the form of the interest and principal payments. These facts, together with the higher scrutiny international organisations placed on it, contributed to its negative image. Although the topic of the analysis is to observe ICL from another perspective, it will not try to refute this negative view. The reason is that tax schemes used by MNC are usually not illegal, and we accept the assumption that all economic actors use all available resources to maximise their profits.

The goal of the thesis is to see what was the effect of the ICL on the observed economies, and how does that effect fit in its FDI nature. The economies included in the study share common past and were a part of the Socialist Federative Republic of Yugoslavia. All of them are small and open economies that depend on international financial flows. However, different timing and dynamics of transition led to varying levels of development and sensitivity to external shocks. Therefore, we will try to show that since the crisis hit the observed region, ICL became an essential element of the Total FDI inflow and that depending on the country's characteristics the magnitude of the effect differs.

The contribution of this thesis is that until now, at least to the best of author's knowledge, there is no paper that analyses ICL in the observed region from this perspective. Moreover, it quantifies the effect it had with the application of two models. The Panel Regression Fixed Effects, as the most commonly used model for this type of analysis, is used as a robustness check, while the Model Averaging as a novel technique is employed as the primary model. The reason is that the latter allows focusing on individual countries, provides separate estimates for each of them and enables cross-country comparison. Therefore, in this paper, it provides the tool for policy recommendations since it allows focus on characteristics of each country.

The thesis is organised as follows: Next section will give an overview of the ICL, and describe its role in the system of macroeconomic accounts and corporate finance. The transition history of the region and occurrences in the post-crisis period that inspired this analysis will be given in Section 3. The econometric analysis will follow and will be in detail explained in Section 4. Finally, the last part of the thesis will contain conclusion of the analysis, potential policy recommendations and limitations of the study. Additionally, Appendix 1. contains data that can be used for further analysis.

2. Intercompany Lending Overview

2.1 Methodology

The explanation of multidimensional nature of Intercompany Lending (ICL) can start with the External sector statistics. Together with three other components, National Accounts, Monetary and Financial Statistics, and Government Finance Statistics, it is a part of the Macroeconomic statistics. As a whole, this integrated system is a powerful tool used for decision making (Høst-Madsen and IMF 2007). Within the External sector statistics, government institutions compile Balance of Payments (BoP), International Investment Position (IIP) and External debt. Since each part of the Macroeconomic statistics has its internationally accepted methodology, countries are provided with guidelines that allow the creation of harmonised and comparable data sets. For the purpose of the thesis, only those relevant for cross-border ICL will be tackled.

First, the IMF Methodology that compiles the data on all transactions between the residents and non-resident entities is the *Balance of Payments and International Investment Position*, 6th Edition (BPM6) and it provides the official definition of the ICL (IMF 2009: 6.26):

"Intercompany lending is used to describe direct investment debt positions between affiliated enterprises".

This short definition can be further sectioned and explained:

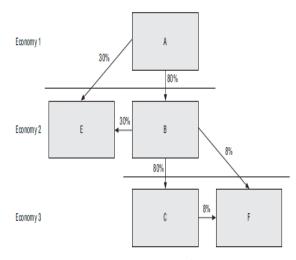
- Direct investment emphasises the underlying direct investment relationship¹ that already exists between the creditor and the debtor.
- Debt position— represents coverage of all transactions that include the repayment of
 principal and interest at some point in the future. Therefore, within this item, all debt
 positions, and not only loans, are included.

¹ "Direct investment relationship arises when an investor resident in one economy makes an investment that gives control or a significant degree of influence on the management of an enterprise that is resident in another economy" (IMF 2009:6.9)

- 3. **Affiliated Enterprises** are all companies that are in the direct investment relationship. For its identification, The Framework for Direct Investment Relationships is employed, and it further classifies companies into three categories (OECD and IMF 2008:3.4.3):
 - a. Direct investor(s), both immediate and indirect, commonly referred as mother companies are characterised by having the voting power;
 - Immediate direct investor has directly 10% or more of the voting power in the Direct investment enterprises,
 - Indirect-direct investor exercises its control through a chain of direct investment relationships.
 - b. Direct investment enterprises, usually referred as daughters, subsidiaries or branches represent companies being controlled by Direct investor(s);
 - c. Fellow enterprises are businesses that only have a common direct investor, without voting power in each other.

Based on the given explanation, on Figure 1, we can note that A is an ultimate controlling parent with immediate ownership in E and B, and indirect in C. Also, B, C, E and F are all direct investment enterprises of A, while examples of fellow enterprises are C, E and F.

Figure 1. Joint Ownership Scheme



Source: OECD (2008: Figure 3.4)

From the definition, we can note that the voting power and direct investment relationship as key features of FDI are not the results of the ICL. On the contrary, they are the underlying prerequisite necessary to consider this type of debt transaction as an FDI. The reason for its

reclassification from Other investments to FDI is the perception of the risk and obligation when direct investment relationship exists between the debtor and creditor. Naturally, we can assume that if the creditor is in any way related to its debtor, the conditions under which the debt is issued are different than in the case when these two sides are completely unrelated.

Additionally, it is important to point out that the debt positions between affiliated financial institutions are not included in the ICL and FDI. More precisely, the subsectors excluded are compatible with the following 2008 SNA classification (IMF 2014):

- Deposit-taking corporations, except the central bank;
- Money Market Funds (MMF);
- Non-MMF Investment funds;
- Other financial intermediaries, except insurance corporations and pension funds.

All principles mentioned so far are based on methodologies that are used simultaneously to compile BoP where flows, and IIP where stocks are being presented. Another methodology relevant for the External sector and ICL is the External Debt Statistics: Guide for Compilers and Users (IMF 2014). Therefore, besides being registered as a part of FDI, ICL is also a part of the country's External debt. Similarly, as it is separated within BoP and IIP, the External debt statistics follows the same logic and shows it as a separate item *Direct investment*: Intercompany lending. When observing the full classification and the structure of the External debt presentation, this item is in the end and excluded from all four main sectors - General Government, Central Bank, Deposit-taking corporations, except the Central Bank, and Other sectors. As it is already noted, the different nature of this debt causes this specific treatment. Finally, the standard presentation of ICL is consistent across all three parts of the External sector statistics and brakes it down by type (Table 1.). Additionally, although it is not compulsory and by convention ICL can be considered as long-term debt, the compilers are encouraged to provide the breakdown by maturity as well. Furthermore, when available, data on arrears can be presented. These splits further help in comparability of data with the National Accounts and Financial Statistics (IMF 2009).

Table 1. Presentation of the Intercompany Lending

Direct Investment: Intercompany Lending

Debt liabilities of direct investors to direct investment enterprises

Debt liabilities of direct investment enterprises to direct investors

Debt liabilities between fellow enterprises

Source: IMF (2009, 2014)

Before the next part of the analysis, and to conclude the previous, it is worth to mention again that the focus of this paper is on cross-border ICL, eligible to be recorded within External sector statistics, and not on all debt transactions that occur between the affiliated companies.

2.2. Corporate Finance

The second aspect from which ICL can be observed is the corporate finance perspective. Reasons, why affiliated companies decide to issue debt to one another, can be classified in the following way (Bragg 2013):

- to provide additional liquidity for those experiencing problems,
- to provide funds for new investments,
- to shift cash between affiliates that use a common currency.

At first glance, the business logic of this type of transaction seems reasonable, and it can be understandable why multinational companies (MNC) use it as a risk-management strategy. However, there are reasons why ICL earned a bad name, and they will be described further on. Current literature mostly observes the ICL from the tax reduction and transfer pricing perspective. As a capital transaction, it creates interest revenue for the creditor and respective costs for the debtor, and as such it has a different tax treatment. For the borrower, expenses incurred can be classified as a tax-deductible interest, that ultimately reduces the net taxable income. For the lender, the tax treatment depends on the particular tax system of the country, but in some countries, this type of revenue can be tax-free. Therefore, for both source and host country, it can cause the reduction of the tax base and their tax revenue.

Common knowledge tells us that the power of MNC depends on their ability to make the most out of the global presence. When deciding where to establish a new unit, they observe the opportunities for cost cutting. This meticulous process, among many other factors, also seeks for the possibilities for tax reductions (Devereux and Griffith 1998). Notably, the location and the structure of the whole MNC depends heavily on the taxation of host countries (Barrios et al. 2009). When it comes to ICL, the crucial element is to first establish a unit in a country with a low tax on interest income. In Europe, the most common destinations are corporate tax heavens Luxembourg, Netherlands, Ireland and Cyprus (Nielsen 2016). That unit then provides a loan to other affiliated units, and in return receives revenue in the form of interest payments which are barely taxed. The second step is that the borrowing unit, which is usually located in a country where interest is tax deductible, decreases its net taxable income (Mintz and Smart 2004). The resulting effect of this scheme is that tax rate differential is used to shift profit (Buettner and Wamser 2007).

The practice of moving headquarters to low-tax countries is commonly referred as the inversion. When we look at Ireland, it introduced 12.5% corporate tax rate as a way to attract FDI. As a consequence, today almost all global pharmaceutical and technological companies have their business units there. However, the size of the sector is not in proportion with the profit generated. In 2011, the pharmaceutical industry employed only 2% of the total workforce, while it generated 40% of total Irish corporate profit (Houlder, Boland, and Politi 2014). Therefore, we can see that even when the country implements policies, without an intention to become a tax-heaven, the synergy of MNC and the advisories can create actions that are exploiting possibilities of the global market and that result in lower tax revenue for host economies.

The need to do something against this increasing use of tax avoidance schemes made International organisations to get involved. Currently, one of the most influential projects is the OECD's initiative, titled *The Base Erosion and Profit Shifting Action* (BEPS), that seeks to regulate profit taxation on the international level, and it puts ICL under the greater scrutiny.

In the description of the project it is recognised that because of the possibility to do business across the globe, many MNC use tax avoidance strategies that are not illegal (OECD 2016). However, due to the fact that they can exploit gaps and mismatches that exist in the tax rules, they create a negative impact on all economies. What is particularly pointed out is the sensitivity of developing countries, since they rely heavily on the corporate income taxes. Furthermore, they have to make sure that their local businesses are protected, since on one side they have huge competition from the foreign companies, and on the other, most of them are not able to use the advantages of tax differentials.

The so-called "BEPS package" consists of 15 Actions (OECD 2015) that are set up to ensure taxation of profits in countries where it is generated through value creation. ICL is also covered by these actions, especially the interest deduction. The whole Action 4: Limiting Base Erosion Involving Interest Deductions and Other Financial Payments is dedicated to practices that prevent base erosion through the interest deductions. Also, Actions 8-10: Aligning Transfer Pricing Outcomes With Value Creation tackles the issue of profit splits between the affiliated companies and aims to ensure that those units, where no economic activity is performed, will not receive excessive returns on intercompany financing. More precisely, it will not be eligible to obtain more than risk-free return. Action 3: Designing Effective Controlled Foreign Company (CFC) Rules, recognises that some affiliates are only set up for tax deferral reason, and looks for ways to enable countries to tax their income. Additionally, Action 6: Preventing The Granting Of Treaty Benefits Inappropriate Circumstances, fights against treaty abuse and the existence of those units that exist only on paper.

Furthermore, the issue with the ICL is that they have to be in accordance with the "arm's length principle". This policy should provide that the price for a given transaction must be the same as if the transaction happened with the unrelated party or same as the market price. Therefore, in the case of ICL, this must be additionally checked since conditions under which

debt is issued can substantially differ than in situations where parties involved are not in the direct investment relationship (Neighbour 2002). However, when we think about the debt and current economic situation in the world, we can notice that due to increased risk and frequent defaults of borrowers, lenders have the right to ask for higher interest rates. On the other side, the monetary policy in the most powerful economies has been very expansive, and as a method to boost economic activity it uses the lending channel and reduces the rates to a bare minimum. This mismatch between the low monetary policy and high risk has posed difficulties on MNC since it became very hard to prove that internally issued debt complies with the "arm's length principle" (TPA Global 2016).

When it comes to the intra-company transactions and their pricing, US regulations propose the "best method rule" to be applied when defining what is the reference price ("Best Method Rule of Transfer Pricing" 2017). However, it is rather vague as it does not have a strict definition of which methods should be applied in different situations. A similar situation is with the OECD's *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, *OECD*, 2001 where several complex approaches are proposed (Neighbour 2002).

The use of these tax avoidance systems and other ways how to decrease tax obligations are one of the major services advisory firms provide and MNC with their Finance departments are most regular clients (Corrado et al. 2014). However, the unusual situation is that with all mentioned initiatives, consulting businesses are now reversing their role and emerge as advisors for making debt positions BEPS proof (TPA Global 2016). All of this, in addition to the attention created by the OECD initiatives, have strengthened the attitude that Intercompany debt positions have negative consequences and are used by the MNC to extract profits from host economies.

Finally, in this thesis, it will not be argued whether this attitude is correct or not. MNC have always been using their global presence to maximise profits, and that also includes tax

deduction schemes. However, it will be argued that some economies had benefited from this transaction, as it provided them with a constant inflow of funds since the outbreak of the Global Financial Crisis.

2.3. Risk Management

The ICL must not be observed only as a tax avoidance method but also as a strategy that MNC employ to optimise their resources and protect previously invested funds. Since the outbreak of the financial crisis, risk aversion among investors has risen, and it consequently led to the increase in ICL (ECB 2011). There are at least two reasons for this. First, affiliated companies located in the emerging markets were faced with tightening of credit conditions when the crisis stroke, and were unable to obtain necessary funds under conditions acceptable for them. Second, as the equity investments represent much pricier and riskier form of capital, direct investors needed something that would allow them to finance their subsidiary while preserving the flexibility. The solution was the ICL since they were able to provide a flow of funds for the affiliates, and at the same time, they created enough pressure to make them step up and work better in the crisis period. Therefore, we can see that the ICL creates an additional channel that enables better control of the affiliated enterprise. It can be compared to "the stick and the carrot" approach, where although the help is provided it comes with a certain price.

On top of this, ICL provides flexibility and decreases the cost of capital for MNC. First, as a loan, it generates payments of interest and principal. Additionally, these transactions are much less regulated than the repatriation of profits, and as previously explained, are frequently used to reduce the tax base. Second, they can be withdrawn from a country much faster and with less complication than in the case of Equity investment, where any reduction can be interpreted as a plan to leave the host economy. Furthermore, if they are used in a right way by the borrower, they can generate future income that can be repatriated. The possibilities and

flexibility this type of financing provides makes it particularly attractive among affiliates that have minor stakes in the borrowing unit, and are concerned with the riskiness of their exposures.

Furthermore, the facts that the borrower does not have to go through the same procedure as when taking a loan from the independent third-party lender makes this type of transaction even more desirable during the crisis when funds need to be provided fast. The most prominent advantages are the needlessness of credit applications, availability of funds in short notice, and sometimes conditions under which the debt is issued can be more favourable for the borrower than in the case when a commercial lender issues debt (Bragg 2013). Additionally, one of the possibilities is to convert debt into equity, and in that case, the affiliate has no obligation to return neither interest nor principal.

After the crisis, many posed the question about the sustainability of the positive effects of FDIs in the emerging economies (Starnawska 2015). Some researchers do find the evidence of the adverse effects of foreign capital. However, at this point in time, it is impossible to imagine that a country would choose to prohibit and expel foreign capital and then try to succeed in the global market on its own. For that reason, it is more useful to analyse practices that contribute to the host economy and create sustainable growth. Hebous and Weichenrieder (2010) noted that besides the tax-efficient effects for MNC, stabilising role of FDI increased through intercompany loans during the crisis. Data show that this happened in the countries of CESEE region in the aftermath of the crisis and that the FDI was mainly sustained by the increase in the level of intercompany loans that had an active role in stabilising capital flows (Gardo and Martin 2010). That occurrence is precisely what we would like to analyse in this thesis, just with the focus on the Former Yugoslav region.

3. Characteristics of the Region

The region chosen to be observed in the thesis comprises of small transition economies that rely heavily on foreign capital inflows, such as various forms of FDI, portfolio investments and other debt positions. However, countries that do not have an appropriate balance when it comes to the inflow of foreign funds can become highly dependent on it. For the observed economies, that vulnerability became evident when the crisis began, and inflow declined.

When it comes to the desirability of various forms of foreign capital, the FDI is by far the most wanted. The reason for that is their long-term commitment nature and the perception that it will bring new funds, the know-how of the developed world and technological spill-over. For the transition economies, it also helps whole transition process and fuels growth.

The following segment will provide a short history of the transition process for all Former Republics, where an emphasis will be on privatisation and FDI environment, as this is a prerequisite for ICL to start coming to the country.

3.1. Historical Background

Socialist system that existed in the Social Federative Republic of Yugoslavia (SFRY) was prominently different from the systems imposed in other countries "behind the iron curtain". Some of the essential characteristics of the so-called Yugoslav model were the existence of private ownership and worker self-management (Bokros 2013). Many agree that this model, which differed substantially from the Stalinist model because of its market-oriented characteristics, provided the best living standard for its citizens. Yugoslavia, before all other countries, started its gradual transition towards market economy at the beginning of the 1980s. However, it was not implemented properly, and even though government wanted to move more towards the market system, basic concepts of the transition were not implemented. First and foremost, liberalisation was not done. Self-management enterprises were not overly excited to allow necessary changes because they did not want to face fierce foreign competition

and did not want to come into the position where wages and number of employees would decrease. Furthermore, monetary policy was never fully autonomous, and high rates of inflation were perceived as something normal. Finally, each Republic was stubborn in conducting its own proliferate fiscal policy, not caring about the request from the Central Government and IMF about necessary macroeconomic stabilisation.

In 1989 Government tried to introduce "shock therapy" with the so-called "Program Ante Markovića" which on paper looked like a poster child of the transition and convergence to the market economy. Without getting too much into all of the proposed reforms, for this analysis, it is important to say that it introduced a very liberal Company law. It equalised the rights of the private and state ownership and allowed for the first time since the end of World War II that foreigners have more than 50% of shares in the domestic enterprises and that managers can freely hire and fire employees. Liberalisation, unfortunately, started late and had severe market disequilibrium as a consequence. As in many other countries, transition process was followed with output decline, inflation and massive unemployment (Bokros 2013). Take this and combine it with the rising nationalistic tensions and you get a disaster. In the following years, the raging civil war brought everything to a halt.

The first Republic to declare its independence was Slovenia. It is important to note that the war lasted in Slovenia for ten days. Therefore its transition was markedly different than in war-torn Croatia, Bosnia and Herzegovina and the Socialist Republic of Yugoslavia (Serbia and Montenegro). Additionally, unlike other post-soviet countries of Central Europe where the bitter memory of the previous system existed, Slovenia did not have the urge to break all links with the past. Moreover, some of the most prominent reformists were part of the old regime (Bebler 2002). Overall, the general feeling in Slovenia was that the time for a change has arrived and that market economy is the next phase of development.

As previously mentioned, transition in SFRY already started before the war, and many of the prerequisites for the transition were already met. Slovenia opted to use this as an advantage and was able to implement "gradualist approach" to transition. During the privatisation process, although several methods were employed, the most important one was the distribution of vouchers to the population (Mencinger 2004). However, when it comes to foreign capital, Slovenia did not experience as high inflow as other post-soviet countries during the 90s. Unlike them, it created administrative barriers on purpose. Additionally, it has an imminent problem of the small market (Mrak et al. 2004). Therefore, it had no other option than to base its initial development on export-oriented strategies, and it was able to use its membership in GATT (since 1994) and WTO (since 1995) wisely. However, this approach changed after it signed the Europe Agreement in 1999 when a wave of large-scale privatisations of state-owned enterprises (SOE) happened. The whole transitional process culminated on May 1st, 2004 when it became a member state of the European Union.

The next Republic to proclaim its independence was Croatia. Unlike in Slovenia, the transition process was postponed because of the conflict, and could not continue before it ended in 1995. Unlike Slovenia that had a gradual transition, Croatia speeded up the process and introduced "shock therapy". However, problems of devastated infrastructure, especially in the revenue-rich tourism, corruption, cronyism and lack of transparency, made the whole process slow (International Business Publications 2008).

The post-war political establishment was almost the same as before the war, with the addition of war veterans as a major political factor (Tripalo and Hornstein Tomic 2017). With this system in place, the first post-war phase of privatisation started, and it is the most criticised one since it allowed certain interest groups to acquire SOE for a low price. The second round began in 1998, and it was mass privatisation through the voucher distribution. The beneficiaries were war veterans, soldiers, and families of the killed and missing soldiers and civilians.

Similarly, as with Slovenia, the trigger point for Croatia's further development was the ratification of the Stabilisation and Association Agreement in 2001 when FDIs started coming in. The privatisation of major SOE was not done at this point, and it was postponed until 2012 (Bajo and Primorac 2016). The reason for that, as in many other Former Yugoslav Republics is that large SOE either create revenues for the budget or they create losses but employ a big number of people that represent electorate (Maldini and Paukovic 2016). Finally, Croatia also became an EU member on July 1st, 2013. However, because of the crisis, they were not able to benefit from it as much as Slovenia did.

The most devastating consequences of the Yugoslav wars can be observed in the Bosnia and Herzegovina. Here, not only the transition was needed, but also a post-war rebuilding. The additional constraint was imposed in the form of the more complex political system. The war had ended with the signing of the Dayton Peace Agreement, where it was agreed that the newly established country would comprise of two entities, the Federation of Bosnia and Herzegovina and the Republic of Srpska. Essentially, in order to preserve the peace, the country was divided among three major ethnic groups: Bosniaks, Croats and Serbs.

The reconstruction of the country started with the strong support from the international organisations, such as the World Bank, the European Bank for Reconstruction and Development and the European Union. The estimated amount is that between 1996 and 1999, approximately \$5.1 bn was donated (O'Brien 2004). The success story of the post-war period is an establishment of the Central Bank and currency board that provided stability of the new currency. However, privatisation was not that successful. The distribution of vouchers gave poor results, while many of the large SOE stayed in the government hands. Additionally, as in almost all other Former Republics, there was a problem of tax and customs evasion, smuggling, black market, divided economic space, budget deficits and heavy reliance on foreign aid. All of this created environment that is not attractive for foreign investors (Balázs 2011). The issue

with the large public sector, uncompetitive manufacturing sector, high unemployment and weak exports remain, and are still one of the primary tasks for the Government of Bosnia and Herzegovina (Goldstein, Davies, and Fengler 2001).

When it comes to integration, a significant shift for Bosnia and Herzegovina happened when EU Police Mission in Bosnia and Herzegovina (EUPM) in 2003 and European Force in Bosnia and Herzegovina (EUFOR) in 2004 came to replace former NATO and UN forces. Additionally, as a part of the Stabilisation and Association Process, it signed the Stabilisation and Association Agreement in 2008, which was later ratified in 2010. Entry into force happened five years later, and in February 2016 Bosnia and Herzegovina applied for the EU membership. Currently, it holds a status of a potential candidate.

Unfortunately, there are not many success stories in the post-dissolution period, and Former Yugoslav Republic of Macedonia (further in the text: Macedonia) is not an exception. The least developed Republic of SRFY was not involved in the war from 1991 to 1995. However, unlike Slovenia that had leading economy within SFRY and was able to continue on its own, Macedonia was not able to seize this situation and benefit from it.

The privatisation process that started in SFRY in 1990 went the furthest in Macedonia, and it was done through the system of "internal shares", where shares were distributed to employees under favourable terms. In 1991 this process was abolished, and the plan was to start a new phase of privatisation. However, it took two years to pass a new privatisation law which left enough room for the deterioration of the capital. Unfortunately, it was done on purpose since managers acted for their benefit, not undertaking investment opportunities and hoping that when the time comes, they will be able to buy the company for a lower price (Slaveski 1997). The new wave was based on case-by-case privatisation, and the Macedonian citizens were mostly interested in the purchase. Although Macedonia signed the Stabilisation and Association Agreement in 2001, the same year as Croatia did, it was not able to achieve the

same pace of development neither to attract the same amount of FDI. Since 2005 it has a status of the candidate country.

Besides the Republics that gained independence after the war, Serbia and Montenegro decided to continue the legacy of Yugoslavia and form the Federal Republic of Yugoslavia. During the 90s this country was faced with the war, hyperinflation, UN sanctions and frequently overlooked enormous brain drain (Bolčić 2002). Practically, the whole country was in the dark, and with the political elite that was doing nothing to change it.

One of the positive occurrences was that the war was not fought on the soil of the newly formed country and old industrial capacities survived. Those were later sold and became a source of revenue for the budget since Government had very limited options for income generation. The privatisation began in 1997. Of course, the foreign investors at the time were not even an option, and the shares were first offered to the workers. However, impoverished citizens were not able to provide enough for the day to day living, let alone to buy shares of the company. The ones who had money were closely related to the political elite and collected its capital during the war era. As a consequence of this "honest" privatisation, the new elite was able to buy whole industrial complexes for a little sum of money. In this case, we can draw a parallel to the situation in Croatia. At the end of this unfortunate decade, in 1999 the NATO bombing started. This intervention had a devastating effect on the economy because it destroyed already weakened industrial complexes. Additionally, the end of the bombing was marked with the adoption of Resolution 1244 that placed province of Kosovo and Metohija under the UN administration (further in the text: Kosovo*).

At the beginning of the millennium, political changes finally happened, and after a decade of suppression, Yugoslavia got a new, pro-European government. Additionally, we can consider that only after this change, transition started. The new Privatisation law was introduced in 2001, and auctioning of the remaining SOE started. Between 2002 and 2010, more than 2,400

enterprises were offered through public tenders and auctions and 700 more through capital markets (Sestovic and Miovic 2013). One part of SOE, those perceived as strategically important and most valuable, were kept in the state ownership as it was recognised that with time their value would grow. At the time everything was perceived as a well-established system, and citizens were welcoming the changes. However, the time tells a different story. When the whole process started, institutions were in a poor shape. After ten years of isolation and with corruption as a part of the common culture, many privatisations were poorly done. Instead of creating a legal framework and setting the legal system which would attract the best foreign investors, privatisation was done in a hurry. The most commonly heard comments about this privatisation concerned non-transparency, the inefficiency of the bureaucratic system and corruption.

Additionally, in 2006 Montenegro voted for independence in a referendum, and since then two countries have separate paths. Montenegro signed the Stabilisation and Association Agreement in 2007, and Serbia in 2008. For now, they both have a candidate status.

The conclusion of this part is that even though observed economies share common past, their process of economic integration was very different after the split. What we can note is that apart from Slovenia, for all other countries there were issues during the privatisation and transition process. Bureaucracy, non-transparency and corruption are the most frequently mentioned problems of the region. That fact is important to say since it increases the perception of risk foreign investors have, and it affects their decision whether to invest or not. Furthermore, if they decide to invest, they have to define whether the additional funds will be provided in the case of need, and what form those funds will have.

3.2 The Crisis Period

The topic of the thesis is the effect of the ICL inflows on the economies of interest after the start of the Global Financial Crisis. When compared across countries, flows of ICL show

similar trends among the observed and developed economies. After 2007, both groups experienced an increase in the share of ICL in the total FDI inflow. Furthermore, the same situation repeated when the Euro debt crisis was in full swing (Figure 2.).

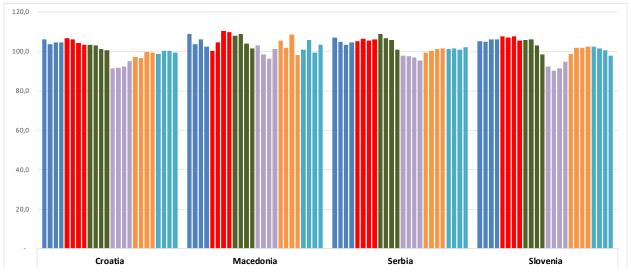
United States ----- United Kingdom Slovenia Switzerland 70 Sweden Spain Macedonia, FYR Singapore 60 **−**Portugal Norway New Zealand 50 Netherlands Bosnia and Herzegovina Luxembourg -Korea, Republic of 40 ____Japan Serbia, Republic of -Italy 30 -Israel ---Ireland Iceland 20 -- Montenegro -Greece -Germany 10 France Finland Nosovo* Denmark 0 012 2013 2014 2006 2007 2008 2009 2010 China, P.R.: Macao -China, P.R.: Hong Kong -Canada -10 Croatia ----Belgium ——Austria Australia -20

Figure 2. The share of Intercompany Lending in the Total FDI, inflow

Source of data: IMF

Before the crisis, countries in the Central and Southeastern Europe (CESEE) were experiencing positive growth rates. Additionally, it is notable that growth was resilient during the 2007 and first half of 2008. The reason is that the region was not as exposed to subprime market as other developed economies were (Gardo and Martin 2010). However, in September 2008, the crisis spread to the whole financial sector, and since countries in the Former Yugoslav region were highly dependent on foreign capital, and international banking sector, the crisis spread, and growth rates started to decline (Figure 3.).

Figure 3. Real GDP growth².



Source of data: WIIW

High growth rates and return on investment that existed before 2008 created keen interest of the foreign investors and banks in the whole CESEE region. It is notable to mention that at the end of 2008, almost 80% of the banking sector in this area was held by the foreigners (Gardo and Martin 2010). Although this type of vulnerability was not in focus before the crisis, it created significant liquidity problems after. The problem occurred when parent banks decided to withdraw funds from these markets so they can consolidate at home (Herrmann and Mihaljek 2010).

The importance of this reversal in banking capital flows is crucial for the analysis of the ICL. Therefore, the analysis will first review and compare debt flows registered within BoP as Other Investment, where data about the debt accrued by private and financial sector from the foreign lenders can be found. The reason for taking into account only these debt position and excluding any debt registered as Portfolio Investments from the analysis is that the capital markets in observed economies are not very developed, and companies usually do not issue bonds.

Data from Other investment, broken down into the Deposit-taking Institutions and Private sector, show the borrowing dynamics. As previously noted, when the crisis started, spill-over

² Qarterly data for this period are available only for these four countries

of problems from the parent banks to the banks in the CESEE economies happened as parents were not able to extend the loans in the same amount as earlier. Moreover, at the time the interbank market was disrupted (ECB 2012). Subsequently, this deteriorated the sum of money banks had available for the new loans in the host economies, and they reacted by tightening the credit conditions. Consequently, problems transferred to the private sector, that at the same time was faced with worsening of credit conditions both at home and abroad. The overall effect was that due to the increased risk, the terms under which companies located in the emerging economies could obtain a loan from the foreign or domestic commercial banks became very unfavourable.

Figure 4. Other Investments, liabilities 6,00E+09 4,00E+09 2,00E+09 0,00E+00 -2,00E+09 Serbia, Republic of -4.00E+09 1,20E+09 1,00E+09 8,00 E+08 6,00E+08 4,00E+08 2.00 E+08 0.00E+00 2007 2007 -2,00E+08 Bosnia erzegovina Macedonia, FYR and H Kosovo³ -4,00E+08 -6,00E+08 -8,00E+08 Other Sectors, Liabilities Deposit-taking Corporations, Liabilities

Source of data: IMF

From the Figure 4. it is readily visible how this situation looked in the region of Former Yugoslavia. All countries had a very volatile inflow of funds and experienced a significant drop in the inflow of loans from abroad. Moreover, in the Deposit-taking sector, some countries had a negative inflow, which proofs that deleveraging of the banks was one of the consequences of the crisis.

The next step of the analysis is the comparison of the Other investment and Intercompany loans inflows. The assumption here is that as a solution of all beforementioned impediments, foreign affiliates sent additional funds to the companies in the region.

14,000 12,000 10,000 8,000 6,000 4,000 2,000 0 2007 2008 2009 2010 201 2012 2007 2008 2009 2010 2011 2012 2007 2008 2009 2010 2011 2012 -2,000 Croatia Serbia, Republic of loveni -4,000 2,000 1,500 1,000 500 0 -500 Macedonia, FYR Montenegro Kosovo* Bosnia and Herzegovina Other liabilities Intercompany lending

Figure 5. Other Investments and Intercompany Lending, liabilities

Source of data: IMF

Comparison of the two indicators presented in the Figure 5. show that, although countries differ in the level and dynamics of the ICL inflow, there was no precipitous decline and reversals like in the Other investments. This is where we can see the FDI nature of the ICL and the concern of foreign affiliates for their subsidiaries. Some would argue that the additional funds were not provided in sufficient amounts and that they are sent in the form of the debt. However, it must be taken into account that the whole world was faced with the crisis and that multinational companies had to manage risk on the global level.

The final comparison in this section is the structure of FDI inflow on the country-by-country basis (Figure 6.). First, Croatia and Serbia, in 2008, had at the same time plunge in the Equity investment and growth in the ICL. Furthermore, it is important to note that the opposing movement of Equity investment and ICL in 2011 in Croatia represents the debt-to-equity swap. More precisely, it means that previously received capital in the form of ICL was transformed into Equity, which changed the nature of the initial transaction and made it free from the repayment obligation. Also, this had a positive effect on the Croatian External debt, which reduced by € 0.7 bn (Croatian National Bank 2012). Second, in Macedonia and Bosnia and Herzegovina, the decline in the Equity investment was so severe that ICL, although on the declining trend as well, had a stability role since the decrease was not as steep. Next is Montenegro, where Equity FDI peaked because part of their Energy sector was privatised in 2009. Finally, data show that in Slovenia, ICL had an adverse effect on Total FDI inflow in 2009. However, this changed in 2010 and 2011 when they surged. For Kosovo*, ICL apparently is not a crucial source of funds, since their Equity investments dominate in the overall inflow of FDI.

6,000 5,000 4,000 3.000 2,000 1,000 (1,000) Slovenia Serbia, Republic of (2,000) 2,000 1,500 1,000 2012 2012 2013 2010 2010 2012 2013 2007 2008 2010 2011 2011 2013 2008 2011 Macedonia, FYR Montenegro Bosnia and Herzegovina Kosovo* (500) Net Incurrence of Liabilities Equity and Investment Fund Shares Debt Instruments

Figure 6. The structure of FDI, inflow

Source of data: IMF

Based on these movements, we can see that countries differ when it comes to the structure of the Total FDI inflow. However, when it comes to the comparison of the two parts of FDI, we can note that the Equity investments are usually sent as an initial form of capital, necessary to establish direct investment relationship. Therefore, a decline that almost all countries experienced after 2007 was the normal reaction to the crisis, as new investments became rare. On the other side, ICL are sent when already established subsidiary experiences problems or has growth opportunities. Due to the global situation, we would argue that it was the former that induced them. To support this view, from the graphs it is noticeable that compared to all other inflows, ICL show certain robustness, and that they are a constant source of funds, available when other, more "important", sources of foreign capital come to a halt.

4. Econometric Analysis

The third chapter covers the econometrical analysis of the ICL. The initial step, before model selection, was to check the availability of data and to define which questions we would like to answer. In the very beginning, data availability for this particular topic and the region observed posed several constraints. First of all, the methodology for the compilation of the BoP has changed. Several shifts within its main components made old and newly compiled data uncomparable and disenabled their simple combination and creation of longer time series. An additional impediment is that majority of the observed economies are not EU members and do not have the same obligation to revise past data. Therefore, for them, monthly and annual BoP data compiled by the BPM6 principles can be found only as of 2007. Furthermore, since the initial idea was to work with the quarterly data, the problem was to of find all variables at that frequency. Also, even if found, series were not that long and sometimes methodologically uncomparable. Therefore, as a result of these issues, it was decided to use available annual data from relevant databases, such as IMF, World Bank, Eurostat and WIIW and preserve comparability across countries.

Initially, the idea was to use only the Panel Data Fixed Effects model. That idea was abandoned for several reasons, and the results of this model became a robustness check. From the data availability point of view, the problems were the small number of the observed economies and unbalanced panel with short time series. Therefore, in order to obtain convincing results that can serve as a robustness check, the dataset was broadened and populated with additional countries that had similar movements in the cross-border financial transactions during the crisis.

Another important reason for not using a panel regression is the fact that it does not allow a single country analysis and estimation of country-specific estimates. That possibility is crucial here since the answer we would like to get is how the observed economies differ from one another and how different was the magnitude of the ICL effect on the dependent variable.

The way to bypass aforementioned constraints and get needed results was to use Model Averaging as the primary model. This approach rests on the averaging of the results of several candidate models and gives more robust results (Hansen 2007). The major benefit is that it does not put a limitation in the form of one preferred model with predefined variables, and it allows the use of the larger set of variables out of which model creates various combinations and discrete sub-models. In the end, the final estimate is obtained by averaging results across all sub-models, where each receives a proper weight based on the suitable criterion.

The purpose of the models in this paper was to see whether ICL had any significant effect on the observed economies. Therefore, one of the most important macroeconomic indicators, the Current Account Balance (CAB) to GDP ratio was used as the dependent variable, while ICL with the set of other variables was used as an explanatory variable. CAB was chosen as it represents one of the core indicators United Nations Commission on Sustainable Development use to observe a sustainable development of the country (UN 2007). Additionally, the reason for choosing this stability indicator is that all observed economies are small and open transitional economies, and are highly dependent on foreign capital and international trade.

4.1. Model Averaging Approach

The idea for the model came from the article by Urosevic, Nedeljkovic and Zildzovic (2012) where the determinants of the CAB were observed for five economies of the CESEE region. Although the model is similar, the goal of the analysis is different. First, all determinants of the CAB in observed economies will not be analysed, but the focus will be given to the effect one particular type of transaction had. Second, for this model, FDI was broken down to the Equity investment and ICL, which made their effects comparable. That is important since it is frequently overlooked that these transactions are bundled together within FDI. Third, the aim of the model is to make a comparative analysis among the economies and see whether the heterogeneity in the ICL effects exists among them. Finally, the data used are comparable across countries, which allowed the robustness check of the results in the form of the panel data regression.

Previously it was mentioned that model averaging, unlike model selection, enables that all relevant information are taken into account by averaging the results of the candidate sub-models. Its resulting estimates consider both the uncertainty and bias that exist in each of the sub-models, which makes them more robust. However, the crucial element necessary for the optimal results is the criterion that assigns the weights to each of the sub-models. Two methods are proposed in the literature, Bayesian and Frequentist. While the first relies on the subjective determination of probabilities and weights, the second one uses well-known criterions. Although many criterions can be found in the literature, many of them exclude heteroscedasticity and non-nested setup which makes them unsuitable for the analysis of the CAB (Urosevic, Nedeljkovic and Zildzovic 2012). Therefore, as proposed by the Hansen and Racine (2012) for these conditions the best results are given by the Jackknife Model Averaging (JMA), that selects the weights by minimising a leave-one-out cross-validation criterion and provides estimator that is asymptotic equivalent to the lowest expected squared error. Liu (2012) further adjusted this model and made it applicable for the time series analysis, and it is the approach that will be used in this paper.

The regression model used can be described as follows³:

$$y_n = X_n \beta + u_n \tag{1}$$

$$E(u_n|X_n) = 0 (2)$$

$$E(u_n^2|X_n) = \sigma^2(X_n) \tag{3}$$

where y_n is the CAB to GDP ratio, X_n is the vector of independent variables, and β is the ordinary least square estimator. Also, u_n is the error term that does not preclude heteroskedasticity. If there is an assumption about M number of models, m = 1, 2 ... M, where each model is a sub-model and unique combination of independent variables X_n , then for each model there is a set of linear estimators that can be written as:

³ Description of the model is taken from the Urosevic, Nedeljkovic and Zildzovic (2012)

$$\tilde{\beta}_{m} = (X'_{m}X_{m})^{-1}X'_{m}y$$
 (4)

The final estimate of the model is derived as a weighted average of all sub-model estimations:

$$\tilde{\beta}_m = \sum_{m=1}^M \omega_m \, \tilde{\beta}_m \tag{5}$$

where ω_m is a set of weights which are non-negative and it sum is equal to one. As previously mentioned JMA selects the weights by minimazing the leave-one-out cross-validation criterion (CV), defined as:

$$CV_n(\omega) = \frac{1}{N} \omega' \tilde{u}'_{-i} \tilde{u}_{-i} \omega \qquad (6)$$

where $\tilde{u}_{-i} = (\tilde{u}_{-i, l}, ..., \tilde{u}_{-i, M})$ is a NxM matrix of leave-one-out residuals, where $\tilde{u}_{-i, m}$ are the residuals from the mth model estimated by least squares, excluding the ith observation. Finally, the JMA chooses ω_m which minimizes the $CV_n(m)$.

4.2. Variables for the Analysis

The variables selected for the model can be divided into two parts. The choice of the first set of variables was influenced by relevant publications (Aristovnik 2006; Caivano and Coniglio 2016; Loayza, Chong, and Calderon 1999).

- 1. <u>Lagged values of the Current Account Balance to GDP ratio</u> (*CAB_lag*) many papers find that the persistence of the CAB deficit exists and that countries need time to overcome shocks. Therefore, we expect the coefficient with a positive sign. The source of data for this variable was the WIIW database.
- 2. Oil balance to GDP ratio (Oil) commodity price changes affect significantly both oil importing and exporting countries. For the observed economies, the higher risk lies in the increase of the price, since all of them are net importers. Therefore, we again expect the sign to be positive. The source of data was the Eurostat database, where the balance of the International Trade in Mineral fuels, lubricants and related materials (SITC Rev. 4) served as a proxy.

3. Trade Openness (*Open*) – represents a weighted average, calculated as a share of country's foreign trade (X+M) in GDP. The effect can have both positive and negative sign, and the interpretation depends on the country's characteristics. For the open economies, such as the observed ones, this indicator can show the ability to generate profits from the international trade that consequently affects their ability to service external debt and attract more foreign capital necessary for future financing of the CAB. Additionally, openness can bring transfer of knowledge, technology, skills and overall total factor productivity, and it is usually connected to the GDP_{pc} growth (Figure 7.). However, this also can cause an increase in the CAB deficit. The source of data was the World Bank database.

8.6 8.7 Page 200 2002 2004 2006 2008 2010 2012 8.4 Page 2010 2012

Figure 7. The connection between the Trade Openness and GDP_{pc} growth

Source: World Bank website

4. Macroeconomic uncertainty (*Vix*) – as a proxy for the instability in the global markets, CBOE Volatility Index (VIX) was used. Uncertainty and its effect on the expectations can lead to the improvements in the CAB since both investors and households can decide to refrain from actions. However, it can also cause the withdrawal of foreign funds and increase the deficit. The sign can be either positive or negative, and data are obtained from the Federal Reserve Bank of St. Louis.

The second part of the variables was chosen based on the Intertemporal approach, which seeks to explain movements in the CAB as a result of the changes in the Savings and Investment. That interconnectedness between the macroeconomic accounts can be found in several methodologies (UN 2008; IMF 2009), and is summarised with the following identities:

Supply =
$$Output + M = Use = C + I + G + X + IC$$

GDP, expenditure approach:
$$Y = Output - IC = C + I + G + X - M$$

Where:

M = imports of goods and services

C =household consumption

G = government consumption

I = gross capital formation, investments

X = exports of goods and services

IC = intermediate consumption

Gross National Disposable Income: GNDY = GDP + BPI + BSI

GNDY is a sum of GDP (value created at the home economy) and income from abroad (value created elsewhere and imported). BPI and BSI are Balances of the Primary and Secondary income, respectively, and together with the trade balance (*X-M*), they constitute CAB.

Current Account Balance:
$$CAB = X - M + BPI + BSI$$

$$\rightarrow$$
 CAB= GNDY-(C+I+G) \rightarrow GNDY = CAB + C + I + G

Also **Gross Savings:**
$$S = GNDY - (C + G) = I + CAB$$

$$\rightarrow CAB = S - I$$

Therefore two identities define CAB. First one as a sum of net exports, net imports and net foreign income, and the second one that observes it as a difference between the savings and investment in the economy. The later allows us to use CAB to understand the movements in savings and investment in the economy. For example, if an economy experiences high CAB deficit, it means that it consumes more than it produces. If the domestic savings is not enough

to cover those expenses, then the funds must be provided from abroad. The inflow of funds will be then registered offsetting transactions within the Financial and Capital account of the BoP. Additionally, the identity from the BoP indicates that CAB is a counterpart of these two:

$$CAB = FA + KA^4$$

The next step in identifying final variables is deconstructing the previously mentioned identity CAB = S - I into Private investment and savings, and Government investment and savings.

$$S-I = Sp + Sg - Ip - Ig \rightarrow CAB = (Sp - Ip) + (Sg - Ig)$$

The chosen variables that affect these items are:

- 5. General Government Budget to GDP ratio (*F.bal*) As noted in the BPM6, identity *Sg-Ig* indicates that budgetary balance of the Government can have a big impact on CAB. In the case of an expansive fiscal policy that results in the higher CAB deficit, governments will have to increase their reliance on the foreign inflow of funds, such as government bond issuance or foreign loans. That, in turn, increases risk, and in the long run can cause problems, since it also means that next generations will have to either save more or pay higher taxes to service the foreign debt. Therefore the expected sign is positive, and the source of data was the WIIW database.
- 6. <u>GDP growth (GDP_gr)</u> real growth rates of GDP are commonly used to estimate the health of the economy. It shows whether the country is on the right track, or it is in danger of the recession. If the growth rates start to decrease or become negative, it is reasonable to expect that the investors and households will refrain from further actions, and wait to see what will happen next. That expectations element of the growth effect can lead to the improvement of the deficit. When it comes to the emerging economies, the assumption is that higher import and deficit follow the increase in the growth rates. Once, when the growth rates converge, it is expected that

⁴ Not the case in the practice, and discrepancies are shown as a separate item Net errors and omissions (IMF 2009).

these countries create a surplus and repay the debt generated for financing previous import. Therefore, the sign is expected to be negative, and the source of data was the WIIW database.

- 7. <u>Unemployment rate</u> (*Unem*) When it comes to the consumption of the households, one of the major elements that form the expectations and has the long-run effects is the unemployment rate. Economies that have problems with higher unemployment rates also have a problem with the lower level of domestic investments and production and need more foreign capital. However, it can also lead to the deterioration of the living standards in the economy and reduction of consumption that will improve the CAB. The sign of the coefficient can be both positive and negative. Source of data is the WIIW.
- 8. Foreign Direct Investments are one of the most important sources for financing CAB deficits in the transitional economies. The effect of the FDI depends on several factors, and the sign of the coefficient can be both positive and negative. In the long run, FDI can create positive effects and increase country's exports and decrease its deficit. However, it can also produce a higher outflow of capital through the income or interest payments, or it can increase the import of the equipment which can induce the deficit. Therefore, the interpretation depends on many factors, and it should be country specific.

As noted, for the purpose of this analysis distinction between the Equity investments and ICL is made. Both transactions are expressed in terms of GDP and only those that represent the liabilities of the country were taken into account. Source for both indicators was the IMF database.

- •Intercompany lending (*ICL*)—The effect of this variable on the CAB is the topic of the thesis, and the focus of the analysis will be on it. As a part of the FDI, it provides additional funds that countries use to generate future growth, and from that perspective, the effect can be both positive and negative. However, since it is a loan, it also creates outflow. One part of it is registered within CAB as an interest, and the other within the Financial account as a repayment of principal. Additionally, it can happen that the debt-to-equity swap happens, and in that case, the transaction will be netted out within the Financial account and Direct Investments.
- Equity investment (EQ) usually perceived as the true form of FDI, this type of flow should also bring future growth and improvement of the CAB. However, it also generates outflows in the CAB as repatriation of profit. In the case of the withdrawal, this transaction is shown in the Financial account.

Before the next step and the explanation of the models, it is important to note that for some of the countries final data for 2016 were not available from the mentioned sources. For those, preliminary data from The Statistical Offices and National Banks were used.

4.3. Panel Regression Results

The first model is the Panel Regression Fixed Effects for 17 CESEE economies. Since the initial dataset, composed of only observed economies, was small with short time series, additional countries had to be taken into account. Therefore the results obtained are relevant for almost all transitional economies in Europe, and besides Former Yugoslav Republics, Albania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia were included. The panel remained unbalanced and in Table 2., the starting year as of which data were used can be found.

Table 2. Starting year of the available dataset

Country	STARTING	Country	STARTING	Country	STARTING
	YEAR	COUNTRI	YEAR	COUNTRI	YEAR
Albania ¹	2007	Hungary	2002	Poland ¹	2004
Bosnia & Herzegovina ¹	2007	Kosovo*1	2006	Romania	2002
Bulgaria ¹	2007	Latvia	2002	Serbia ¹	2007
Croatia	2002	Lithuania ¹	2004	Slovakia ¹	2004
Czech Republic	2002	Macedonia	2002	Slovenia	2002
Estonia	2002	Montenegro ¹	2010		

¹ Some of the variables are not available for all years.

The final model that was estimated can be written as:

$$y_{in} = \alpha + X_{in}\beta + \gamma t_i + u_{in} \tag{7}$$

where y_{in} is the CAB to GDP ratio, X_{in} is the vector of independent variables, t_i is the trend dummy, and β and γ are coefficient estimates. Also, u_{in} is the error term.

Results from this model serve as a robustness check and should serve as a support of the results presented in the next segment, obtained by the model averaging technique. Both models use the same, previously explained variables. Additionally, the unit root tests for the whole panel was done. Since the unit root test failed to reject its existence for dependent and several control variables, the trend dummy variable was added to control for the trend. Results obtained before and after adding the trend dummy did not differ substantially, which is why we decided to accept the results of the panel regression and continue with the analysis.

Results of the model with the dummy presented in Table 3.

Table 3. Panel Regression Results

COEFFICIENTS	ESTIMATE	P-VALUE
Intercompany lending	-0.368	0.0306**
Equity investment	-0.011	0.8787
Oil balance	0.634	0.0047***
Trade Openness	0.176	0.0000***
GDP growth	-0.469	0.0000***
Unemployment	0.253	0.0007***
General Government Budget	0.132	0.3764
VIX	-0.008	0.3483
Dummy trend	0.0004	0.7613

^{**} significance at 5% level, *** significance at 1% level

The results show that the ICL effect on the CAB can be considered significant at the 5% level. Furthermore, it is interesting to see that there is no significance for the effect of the Equity investment. One way to explain this is that once initial investment happens in the form of the Equity investment, foreign investors opt to send additional funds in the CESEE region in the form of the ICL. The negative sign for ICL, obtained here, is expected for FDI in the transitional economies and implies that for each one p.p. increase in the ICL to GDP ratio, country's share of CAB deficit in GDP tends to grow by 0.37 p.p. relative to its mean value. Similarly, the effect of the GDP growth has an even higher adverse effect on the CAB which is again expected for these countries as they become more attractive to foreign investors and additional inflow of fund is provided. Therefore, the negative effect these variables have can also be beneficial as they relax CAB financing. Other variables that show significance and have the positive effect are Oil balance, Trade openness and Unemployment. The result for the Oil balance is also standard for the observed economies since all of them are non-oil producing countries, and it is expected that the direction of changes for these two balances match. Although the effect of Openness can have either direction, here the results show that higher trade openness reduces CAB deficit. That effect is in line with the assumption that trade openness has beneficial effects on the competitiveness of the country, and that with time it leads to the higher exports, lower deficit, and increase the resilience to the external shocks (Caivano and Coniglio 2016). Finally, the effect of the unemployment on the CAB is positive, which indicates that higher unemployment and following deterioration in the living standards lead to the contraction of the CAB deficit.

4.4. Jackknife Model Averaging Results

After panel regression results, and the significant negative effect of the ICL on CAB, the analysis can proceed with the results obtained by the model averaging. Here as well, the time series were tested for stationarity. First, for each country separately, the group test for all

variables was conducted. The result was the rejection of the Null-hypothesis about the existence of Unit Roots. Moreover, for each country and each variable, KPSS test was done. This test was chosen since it shows better performance on small samples (Bart, Franses, and Ooms 1998). Also, its Null hypothesis assumes the stationarity of the series, and for all, except for Montenegrin GDP growth, we failed to reject it. Results of all tests can be found in Table 4. For three series, we failed to reject the H_0 of the KPSS test only at the 1 percent significance level. However, based on the overall results from the group and individual test, we assume that the stationarity condition is met and continue the analysis with the model averaging.

Table 4. Jackknife Model Averaging, Unit Root Tests Results

	В&Н	Croatia	Kosovo*	Macedonia	Montenegro	Serbia	Slovenia				
Variables	Group test results										
arial	Rejected	Rejected	Rejected	Rejected	Rejected	Rejected H ₀	Rejected				
>	H_0	H ₀ at 10%	H ₀ at 5%	H_0	H_0	H ₀ at 5%					
			K	PSS test resul	lts						
CAB	0.392**	0.440**	0.107	0.306	0.326	0.416**	0.729***				
ICL	0.390**	0.230	0.302	0.185	0.144	0.347**	0.131				
EQ	0.251	0.282	0.332	0.223		0.205	0.348**				
Oil	0.211	0.137	0.314	0.175	0.287	0.407**	0.148				
Open	0.314	0.363**	0.231	0.389**	0.089	0.698***	0.391**				
GDP_gr	0.153	0.260	0.306	0.144	1.235/0.198	0.186	0.239				
Unem	0.135	0.292	0.261	0.560***	0.514***	0.196	0.382**				
F.bal	0.144	0.124	0.349**	0.226	0.253	0.165	0.267				
Vix	0.085	0.050	0.097	0.050		0.085	0.050				

Critical values of KPSS test of stationarity: 0.739 (significant at 1%), 0.463 (significant at 5%), 0.347 (significant at 10%), Null hypothesis is tested against the existence of Unit root.

The mentioned issue with the Montenegrin results came from the limited sample availability. The complete relevant data set was available only as of 2010. However, the data for GDP growth were available as of 2007, and if tested again on that longer series the result show lack of unit roots. That is why analysis for them was also done. However, because of the short time series, it had to be done with the reduced set of variables. In the end, with all these limitations in mind, we failed to obtain significant results for this country.

Previously it was noted that in this analysis only the effects of ICL would be in focus and heterogeneity across the economies. Results for the remaining variables and their p-values can be found in Table 1. in Appendix 1., and can serve for the future analysis. Furthermore, in order to understand better how important was ICL in comparison to other variables within the specific economy, the standardised coefficients will also be included in the analysis. Those were calculated as the product of the estimated coefficient and the ratio between the independent's and dependent's variable standard deviations.

The results of the model show a significant effect of almost all variables, except in the case of Montenegro, which is why it is excluded from the subsequent analysis. For remaining economies, the model provided significant ICL estimates (Table 5.), and for all of them, except for Kosovo*, the effect was negative. The interpretation of the results, for example for Macedonia, would indicate that one p.p. increase in the ICL to GDP ratio, would increase country's share of CAB deficit in GDP by 2.8 p.p., on average.

Table 5. Jackknife Model Averaging, Intercompany Lending Coefficients, by country

Country	ICL	p-value
Bosnia and Herzegovina	-1.868	0.022**
Croatia	-0.802	0.002
Kosovo*	3.837	0.003
Macedonia	-2.818	0.000
Serbia	-3.488	0.008
Slovenia	-0.650	0.004

The negative values of the estimates imply that for those economies that have persistent current account deficit, such as Bosnia and Herzegovina, Macedonia and Serbia, increase in the share of ICL in GDP is followed by the growth of the CAB deficit in the GDP. The same, opposite movement can be spotted for Slovenia and Croatia. However, for them, it is worth nothing, that both countries in recent years have a surplus in the CAB, that is followed by the negative inflow of total FDI. The only positive effect of ICL on CAB is derived for Kosovo*, and the possible

explanation is that since the inflow of ICL was on a very low level, it did not provide additional funds that would finance a higher share of CAB deficit in GDP.

Among the observed economies, the strongest negative effect has Serbia, then Macedonia and Bosnia and Herzegovina, while Slovenia and Croatia have a somewhat weaker effect. The magnitude of the results can serve as an indicator of the differences that exist among observed countries in the level of dependence on foreign investment inflows.

Furthermore, we include standardised coefficients into the analysis to find the relative importance each variable has within the country (Table 6.). Again, we can note that for all observed economies, ICL had a high contribution to the CAB movements. However, it was the largest in Kosovo* and Serbia. As previously noted, lack of ICL in Kosovo* may be an indicator of the constraint, and insufficient funds to finance the deficit. Moreover, the reason may be, that the stock of foreign equity is low and foreign investors still do not have an incentive to send ICL. The high negative value for the Equity investment, speaks in fafour of that. For Serbia, it is interesting to see that, when observed separately, ICL has a negative effect, while Equity investments have a positive effect on CAB, which may be a result of some successful privatisations that induced export. Therefore, here we can argue, that ICL are sent as a constant fuel that allows further growth of the initial investment and finances the CAB deficit, caused by the import of intermediary goods and equipment.

For Macedonia and Bosnia and Herzegovina, the contribution of ICL is also among the highest ones, and this is complementary with the previous results. For Bosnia and Herzegovina, that struggles to attract FDI (U.S. Department of State 2015), the highest contribution is derived for the Equity investment. That result may signal that this country still needs to attract the critical amount of Equity investments and that those obtained so far had an important effect on the financing of current CAB deficit. After that happens, the ICL's relative significance might increase. The results for Macedonia indicate that the highest contributions are for VIX and ICL,

which can suggest that this is a country highly dependent on foreign capital and highly sensitive to the movements in the world economy. For Slovenia and Croatia, the ICL contribution is not as important as for mentioned three countries. Additionally, the importance of other variables is somewhat balanced, and neither one has a distinguishably higher effect on the CAB. That may indicate that the effects on their CAB are well diversified and not overly dependent on one particular variable.

Table 6. Jackknife Model Averaging, Standardised Coefficients, by country

Variable	B&H	Croatia	Kosovo*	Macedonia	Serbia	Slovenia	
ICL	-0.482	-0.270	1.236316	-0.890	-0.688	-0.154	
CAB_lag	0.174	0.301	-0.081	0.519		0.367	
EQ	-0.879	-0.019	-0.800	-0.375	0.202	-0.105	
Oil	0.597	0.231	-0.203	-0.151	0.282	0.259	
Open		0.099	-0.033	0.327		0.257	
GDP_gr	0.088	-0.542	-0.664	0.717	-0.187	-0.152	
Unem	0.369	0.289	-0.031	-0.039	0.495	0.281	
F.bal	-0.151	0.119	0.331		0.451	0.002	
Vix	-0.233	0.127	-0.405	-0.916	-0.485		

The analysis can be further broadened when we observe how the contribution of ICL changed over the years (Figure 8.). Additionally, Figure 1. in Appendix 1, shows the contribution of all variables for each economy. We can see that for Serbia and Macedonia, the strength of the effect fluctuates but remains high, which is in line with the previously stated high dependency on foreign investment inflow. However, for Bosnia and Herzegovina, this contribution declines and can be explained by the very slow increase in the Equity investment inflows, and subsequent drop in the ICL inflow. As previously noted, its primary concern should be attracting Equity investments. Moreover, their CAB deficit has been contracting, and a model is indicating that the Unemployment plays an important role. In Slovenia and Croatia, the contribution was modest across years and became positive when countries started achieving a surplus in the CAB, and this is also in line with the previous analysis of the results.

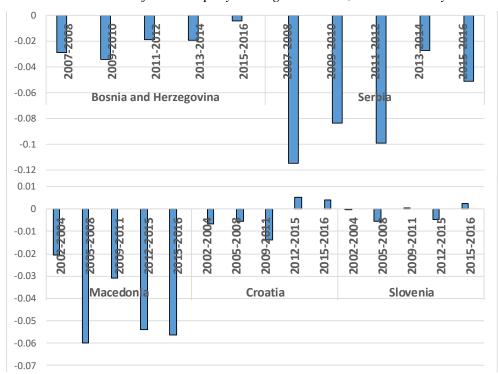
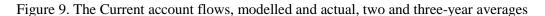
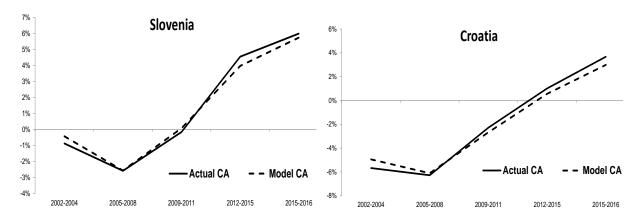


Figure 8. The contribution of Intercompany lending to the CAB, two and three-year averages

The final presentation of the results shows how well the model tracks CAB movements across the observed periods for all economies (Figure 9.).





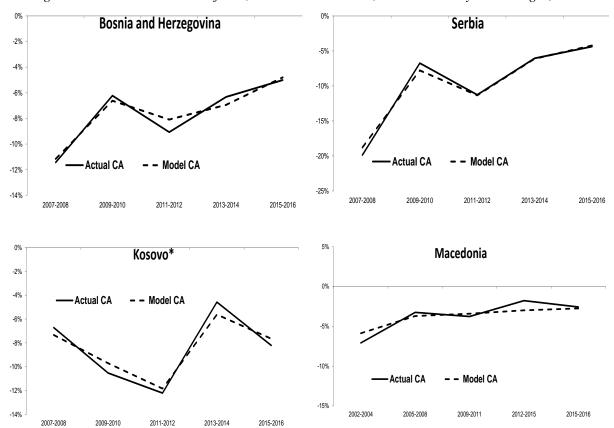


Figure 9. The Current account flows, modelled and actual, two and three-year averages, cont'd

5. Conclusion

5.1. Summary of Findings

The assumption from which this analysis was derived is that in the crisis periods, countries that are dependent on the foreign capital can face many problems if the sudden stop occurs. For the observed economies, September 2008 marked the beginning of the crisis and abrupt decline in the inflow of foreign funds. As a consequence, their growth rates deteriorated.

Since the observed region comprises of small and open economies, their recovery depends on their openness and occurrences in the world economy. In this case, the problem is that the contagion came from the developed countries. Consequently, markets on which they depended on were entangled in crisis as well, and their affiliates also faced problems.

By the time crisis has started, a significant part of the financial and also private sector in the observed economies was in foreign ownership. For many of them, high growth rates before the crisis were based on the inflow of foreign capital, as it provided fresh funds, transfer of technology, know-how, education of the labour force, and other positive externalities. It is important to note that in the whole CESEE region financial sector is mostly private and foreign owned, and that pre-crisis growth rates were greatly fueled by the loans provided by the major banking groups. However, as shown in this thesis, this inflow came to a halt.

Therefore, the private sector was in danger, and as an alternative, those that were in foreign ownership got an ICL. Although it shares some characteristics with the commercial banking loans, ICL is an FDI. The core element of FDI is the long-term commitment that MNC makes when it invests initial equity. Afterwards, the subsidiary is expected to function on its own and generate profits. Additional funds can be sent either because there are growth opportunities or in the case of problems. After the crisis, growth opportunities became rare, so we assume that ICL was sent as a support.

Reasons, why the ICL, and not some other form of capital was sent, can be observed from the risk management point of view. As explained before, for MNC they are more flexible, provide an additional channel of control and cost less. The worldwide crisis and perception of risk in the region made ICL reasonable option and influenced the amount sent. An additional element that proves this point are the debt-to-equity swaps. If we look again at the structure of the FDI for the observed economies (Figure 6.), movements in the FDI inflows show the existence of several debt-to-equity swaps, which imply risk management strategy of foreign investors. If they perceive the economy risky, and they want to keep flexibility in their capital flows, they can initially send funds in the form of the loan, and then, depending on the situation transform it into equity or pull it back. Luckily, for these economies, there was no stronger decline in the ICL that was not followed by the increase in the Equity investment⁵.

Furthermore, if we add that the majority of investments came into the region as the brownfield investments and that this source of Equity investments is almost dried up, then we can note that ICL are an FDI component that sustains the total inflow. Therefore, if we envision ICL as funds that fuel previously established direct investment and are an "introductory" form of current Equity investment, it is easy to comprehend the magnitude of the effect derived in the model and how the benefits of this FDI component are created.

Finally, the opponents of ICL can state that the outflow of capital through interest payments is draining the economy and that it increases External debt. The former is not relevant for the observed economies since the interest payments on ICL did not change substantially, and never surpassed the interest paid on other forms of debt⁶ (Figure 11.). As for the latter, debt exposures toward affiliated companies can be considered more sustainable because of their FDI nature. Furthermore, the frequently recorded debt-to-equity swaps have the same effect on External debt level as debt forgiveness.

⁵ In Croatia in 2015, debt-to-equity swaps occurred, and prevented even larger decline of total FDI since Equity investment plunged due to value adjustments and negative reinvestment of earnings (EBL News 2016).

⁶ Data for Montenegro and Kosovo* are not available

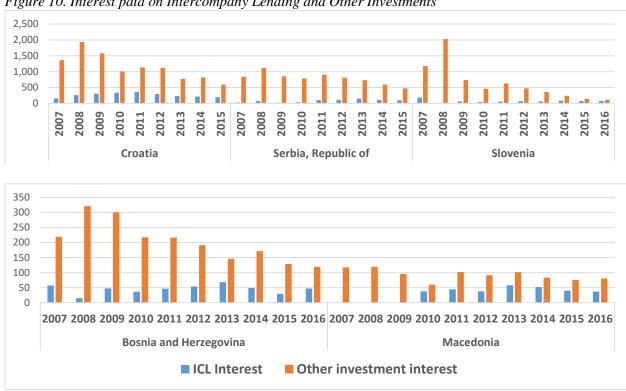


Figure 10. Interest paid on Intercompany Lending and Other Investments⁷

Source of data: IMF

5.2. Policy Implications and Recommendations

The goal of the thesis was to observe whether the ICL inflow had a significant effect on the observed economies. Two models that were done indicated that it did. For the majority of countries, that effect is negative, which is not surprising since in many of the observed economies domestic savings are not sufficient to finance investments, and additional funds must be imported. Therefore, when deciding which policy to pursue, increase in the CAB deficit because of the surge in investment should not be considered problematic, since, in the long run, it will generate growth.

Furthermore, the results obtained by the Model Averaging technique allows cross-country and country-specific analysis, and the results provide a sound basis for the policy recommendations. The difference that exists in the magnitude of the ICL effect among countries can indicate which are more dependent on the financing of the deficit by the foreign

⁷ Includes outflow for Other investment and Portfolio investment Interest

capital inflows. For Slovenia and Croatia, the coefficient is lower than for Serbia, Macedonia and Bosnia and Herzegovina, and also somewhat balanced with the effect of other variables within the country. That can indicate better diversification within the economy and higher levels of development, which is a proven fact for the given set of countries. Additionally, from the standardised coefficients, we can see the relative significance variable has within the economy, which indicates areas which need policy actions.

Essentially, when it comes to the policy implications for ICL, one crucial element must be taken into account. They are conditioned with the existence of the direct investment relationship, and their inflow is dependent on the policies that promote Equity investment. Therefore, countries should pertain to the implementation of policies that attract it, and consequently, inclusion in the multinational networks will bring higher performance (Alfaro and Chen 2010). Therefore, the set of the recommendation should be foremost concerned with the attraction of new Equity investments. In the past, foreign investors were mostly interested in privatisations and Brownfield investments. Since the potential for those is decreasing, it would be beneficial to promote Greenfield investments. Furthermore, as noted by Estrin and Uvalic (2016), FDI in the region was mostly focused on the financial sector, and not enough in the manufacturing, which may be a reason way these countries still are not able to integrate better into the global market and yield from the higher exports potential. In addition to that, for the majority of these economies, the full integration into the European Union would bring significant benefits. One of the biggest ones would be an improvement in the institutional quality that these economies lack. The severe effect of this is the increased perception of risk investors have, that ultimately undermines the higher inflow of foreign capital (Estrin and Uvalic 2013). Finally, when giving a policy recommendation, one must take into account the other side of the ICL. Even though in the thesis the focus was on the identification of the benefits from ICL, it must not be forgotten that it can induce transfer pricing. That is why the implementation of policies and participation in the initiatives such as the BEPS are of utmost importance. Ultimately, this can lead to a situation in which ICL are no longer perceived as the rent-seeking transactions and start to be perceived as a major advantage of those companies that are a part of the FDI circle.

5.3. Limitations of the Study and Future Research Possibilities

Certain limitations of the study exist, and they are mostly concerned with the availability of the data. The issue of the short time series may have impeded the econometric analysis that would yield more convincing results. The methodological changes and difficulties in finding relevant quarterly data further complicated the analysis. Additionally, it restrained the full potential of the Model Averaging technique, since the number of variables had to align with the number of observations available.

When we observe the region of interest, only two countries are members of EU and have more stringent rules when it comes to the availability of data sets. Others can choose to comply with them as it is not compulsory. Since in this thesis, the emphasis was on the comparability across economies, the same number of variables was used for all models. Therefore, for those countries where longer series are available, the data limitation can be surpassed, and the creation of more detailed analysis with additional variables can be done. Additionally, that can also provide a solid ground for other economies when the longer time series become available. Finally, the analysis does not have to stop at the effect of ICL, and data in Appendix 1. can also be a starting point for further research.

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Appendix 1.

Table 1. Coefficient estimates obtained by the Jackknife Model Averaging approach

	В	&Н	Cro	atia	_	ovo*		edonia	Mont	enegro	Sei	rbia	Slov	enia enia
Variable	Model Averaging Coefficients													
	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value
Intercept	-0.147	0.020	-0.062	0.000	-0.056	0.003	-0.087	0.000			-0.075	0.008	-0.077	0.000
ICL	-1.868	0.022	-0.802	0.002	3.837	0.003	-2.818	0.000	0.421	0.124	-3.488	0.008	-0.650	0.004
CAB_lag	0.134	0.011	0.322	0.000	-0.082	0.013	0.517	0.000	-0.394	0.016			0.412	0.000
EQ	-0.759	0.010	-0.009	0.000	-0.995	0.004	-0.688	0.000			0.566	0.011	-0.292	0.000
Oil	0.619	0.014	1.036	0.000	-0.378	0.015	-0.277	0.001	0.576	0.024	1.101	0.006	0.665	0.000
Open			0.067	0.000	-0.021	0.003	0.075	0.000	-0.179	0.024			0.060	0.000
GDP_gr	0.092	0.060	-0.624	0.000	-0.962	0.010	1.284	0.001	-0.191	0.072	-0.380	0.011	-0.156	0.001
Unem	0.561	0.020	0.428	0.000	-0.007	0.014	-0.034	0.000	-0.183	0.075	0.867	0.008	0.617	0.000
F.bal	-0.266	0.011	0.284	0.025	0.351	0.003	0.000		-0.305	0.079	1.443	0.014	0.002	0.002
Vix	-0.015	0.021	0.015	0.026	-0.029	0.007	-0.092	0.001			-0.067	0.004		

Figure 1. Contribution of variables to the CAB, Jackknife Model Averaging estimations

