Research Article

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The Impact of Foreign Direct Investments on Poverty Reduction in the Western Balkans

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Abstract: This article empirically examines the impact of foreign direct investment (FDI) inflows on poverty in six Western Balkan countries and also considers other country characteristics, such as the human development index (HDI), corruption, investment freedom, economic freedom, trade openness, and fertility. The work presents estimations based on a generalized method of moments (GMM) estimator for panel data models with fixed effects during the period from 2002 to 2021. Our results show that FDI has significantly contributed to poverty reduction in the Western Balkan countries. However, attention should be paid to where and how FDI takes place as these investments should be directed at the productive sectors of the economy, thus leading to a higher impact on poverty and inequality. The study also finds that policies and institutions that support a country's economic freedom and openness are imperative for poverty reduction. In addition, poverty reduction in the Western Balkan region can be achieved through measures that contribute to the improvement of HDI and strengthen institutions to combat corruption. Nevertheless, the empirical results of the paper are subject to a number of drawbacks, such as the limited number of observations and the considerable amount of missing data, some of which is probably questionable, a phenomenon that is quite common for developing countries.

Keywords: foreign direct investment, Western Balkans, poverty alleviation, multinational enterprises, sustainable development goals

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1 Introduction

The world is subject to deepening economic disparity (Calvin et al., 2017), widespread poverty (Ferreira & Lugo, 2013), gender inequality (Kabeer, 2015), and environmental issues (Bakaki, Böhmelt, & Ward, 2020), which have led to urgent calls for global mobilization to tackle such cornerstone issues in the pursuit of improving human well-being (Sachs, 2012; Zhang, Zhu, Shi, & Cheng, 2018). To ensure prosperity for humanity and the planet as part of a new sustainable development agenda, these priorities all feature in the Sustainable Development Goals (SDGs). The SDGs have attracted considerable attention from academia and policymakers as a potential solution to alleviate poverty and hunger, protect the planet, and foster peace across the world (Sachs et al., 2019). The United Nations has highlighted 17 challenging goals paired with 169 targets in the pursuit of a global development approach to improve human well-being by the end of 2030 (United Nations, 2015). All countries across the world – both rich and poor – need to strike a balance to achieve economic growth, environmental sustainability, and social inclusion. By calling for a global partnership, drawing together governments, the private sector, and civil society, the world and its inhabitants should be able to enjoy prosperity and large-scale positive results.

This article discusses the role of foreign direct investment (FDI) in overcoming poverty in the post-communist countries known as the Western Balkan Six (WB6), namely Albania, Bosnia and Herzegovina (BiH), the Republic of North Macedonia (RNM), Kosovo, Montenegro, and Serbia, through the indirect channel of economic growth. FDI in these countries is mostly made by multinational enterprises (MNEs). By definition, these are integral to FDI and are promoted as potential drivers of continuous development. Since 2015, MNEs have been widely associated with the implementation of SDGs. Jones (1996) defines an MNE as "a firm that has operations or income-generating assets in two or more countries" (p. 4). MNEs are the main participants in FDI (Adewumi, 2007) and, as Jones (1996) points out, "FDI is conventionally used as a proxy to measure the extent and direction of MNE activity" (p. 4). MNE activities

are more pronounced in countries where the cost of doing business is low and that offer the highest profit-making prospects (Adewumi, 2007). The latter author makes it clear that the major reason why MNEs expand their activities into other countries is to maximize profits and wealth. However, Sethi, Guisinger, Phelan, and Berg (2003) suggest that MNE activity is higher in countries where the numbers of factors that attract FDI inflow outweigh the number of factors that discourage it.

Several studies have already underlined the importance of FDI inflows on the economic growth rates of developing countries in general (e.g., Hansen & Rand, 2006; Iamsiraroj, 2016; Tekin, 2012) or in specific regions such as India (Anitha, 2012), Africa (Gui-Diby, 2014), Malaysia (Haseeb, Hartani, Bakar, Azam, & Hassan, 2014), and Bangladesh (Reza, Fan, Reza, & Wang, 2018), to mention only a few.

The ex-communist countries of the Western Balkans, formerly outside the influence of global economic networks and sharing the same history, opened up to global trade and hence foreign investment, which was by no means a new phenomenon to them. FDI, among other tools, has been widely considered as a decisive ingredient of economic growth and improved living standards. Making social and economic changes required adopting efficient managerial techniques, as well as transferring know-how across borders that were undeveloped or even non-existent to host transitional economies. Furthermore, considering the benefits it offers host countries, FDI can be considered as a channel facilitating globalization and competitiveness. As all of the countries undergoing this transition have now experienced around 30 years of post-communist change, they provide a useful large-scale sample to evaluate the impact on poverty reduction of MNEs through FDI.

This politically complex and relatively poor region compared to the rest of Europe, has been the focus of particular attention as they have many features in common: similar historical background, similar transition process with high political and economic instability experiences, and an image problem. Another reason is its proximity to the European Union (EU) region and following the recently adopted European Commission Strategy for the Western Balkans on the prospect of accession to the EU.

With the downfall of the planned economy, great importance was given to the advancement of the Western Balkan countries. The penetration of foreign investments into these economies is considered a step forward in the development of the economy as a whole. Furthermore, most scholars confirm that FDI generates multiple benefits, such as the acquisition of new technology, employment creation, human capital development, contribution to international trade integration, domestic investment enhancement, and tax revenue generation (Jenkins & Thomas, 2002; World Bank, 2000). However, an empirical research gap still exists on the relationship between inflows of FDI, growth, and poverty reduction in the Balkans.

This article will attempt to investigate empirically how the arrival of foreign investments in these transition economies helps economic growth and poverty reduction. Thus, this study aims to reduce the gap by making an empirical contribution, seeking to answer the question of whether or not there is a positive link between foreign investments and poverty reduction (Klein, Peek, & Rosengren, 2002; UNCTAD, 2003).

The rest of the paper is organized as follows. Section 2 provides a brief literature review on the role of FDI in economic growth and poverty reduction. Section 3 presents an overview of the inflow of FDI in the Western Balkans from 1990 to 2018 and the methodology followed by empirical results and discussion (Section 4). Finally, Section 5 presents a set of conclusions and policy implications.

2 Literature Review: Economic Growth and Poverty Reduction

The Western Balkans have a combined GDP of US$ 89.1 billion (current dollars; World Bank, 2017), which is the equivalent of roughly half of Portugal's GDP. Therefore, according to the World Bank (2017), these countries are considered small economies, that is, they have low GDP per capita (34.3% of the EU average), volatile consumption growth, and low labor unit costs, and have gone through industry privatization reforms. Besides, as claimed by Akbar and Brad McBride (2004), these economies have recently seen progress for middle-income families, which are looking for better services and more qualitative products, which in turn makes MNEs more interested in investing. Since the demise of the communist regime and Yugoslavia's disintegration, regional stability and some economic advancement have occurred. Nevertheless, these countries were hit hard by the 2008 financial crisis, which caused economic stagnation and increased unemployment.

More than a decade after the crisis, the aim of gaining accession to the European Union and actively participating in global trade has intensified their efforts to attract FDI, which is seen as a crucial ingredient to promote economic growth and sustainable development. According to the OECD (2018), in 2016, the Western Balkans had an average GDP growth rate of 2.8% and regional average FDI inflows amounting to 5% of GDP

(well above the OECD average of 2.6%), originating mostly from the EU (60% EU). However, the flow of FDI into the Balkans has been inconsistent, mostly because this region has always been subject to geopolitical and economic instabilities. During the second half of the 1990s, these countries saw an increasing flow of investments amounting to approximately US$ 15.3 billion.

As a result of trade liberalization, an improved business environment, and accelerated reforms, investment flows surged after the 2000s. Hence, Albania received 17 times more FDI than in the early 1990s, whereas Serbia attracted around 20 times more. BiH and the RNM were among the countries that lagged behind with a lower increase in FDI. These increases in foreign investment flows over the last decade indicate a more favorable business environment for foreign enterprises. Moreover, procedures for setting up companies have been streamlined, but there is much more to be done to strengthen the connections between foreign and domestic firms.

FDI has been subject to extensive studies, especially after being identified as central to economic growth (e.g., Hansen & Rand, 2006; Iamsiraroj, 2016; Tekin, 2012) and sustainable development (Kardos, 2014), and an important requirement to narrow the poverty gap (Ferreira & Lugo, 2013). Cavusgil, Ghauri, and Akcal (2012), for example, point out that emerging economies can only progress through economic growth and that therefore it is important to look at economic development as the key to achieving poverty reduction. Some studies (e.g., Balasubramanyam, Salisu, & Sapsford,1996), however, report that FDI only positively correlates with economic growth under some conditions, such as in the presence of a sound infrastructure and a positive economic climate in the recipient country whereas Chakraborty and Nunnenkamp (2008) unambiguously suggest that FDI has no apparent contribution to economic growth.

2.1 FDI and Economic Growth

As it is considered a key ingredient of economic growth and development, it is not surprising that the literature on FDI and its impact on the economy is thriving. However, not all views totally concur on the impact of FDI on economic growth, with some authors questioning whether economic development prompts the need for FDI or vice versa. The OECD (2002) argues that there are five means through which FDI can affect economic growth in the anchor economy: transfer of technological advances and know-how; increase in competition; amelioration of human capital; consolidation of the host economy toward the world economy; and encouragement of more positive development of firms.

Apergis, Lyroudi, and Vamvakidis (2008), using a panel dataset of 27 transitional European economies, empirically showed that FDI has a better impact on economic growth, at least in transitional economies with high level of incomes and efficient privatization schemes.

In their empirical study, Borensztein, De Gregorio, and Lee (1998) find a growth impact on the host economy along with interaction with human capital. Dollar and Kraay (2004) suggest that economic development elevates the incomes of people below the poverty line in proportion with general growth. However, in the pursuit of economic growth, adequate levels of education and infrastructure are important to take full advantage of the benefits of FDI. Along the same lines, Bengoa and Sanchez-Robles (2003) argue that a country's financial stability is another prerequisite for a positive link between FDI and growth.

Furthermore, various studies have made use of different econometric approaches such as the Granger causality test as well as the Toda–Yamamoto test to examine the direction of the causality among FDI and economic growth. One example is by Chowdhury and Mavrotas (2006), who used the Toda Yamamoto method to examine the direction of causality between FDI and GDP growth for Thailand, Chile, and Malaysia. The findings for Chile show that GDP growth caused FDI net inflows and not the opposite. However, findings for Thailand and Malaysia show strong evidence of a bidirectional causality between GDP growth and FDI inflows.

Hansen and Rand (2006) back up these evidence of bidirectional causality even in the long run. Contrary to them, Carkovic and Levine (2002) showed no evidence, in their study of 72 countries, that economic growth can be accelerated by FDI inflows.

From another perspective, Kentor (1998) determined empirically that FDI initially has a positive effect on growth; however, in the long run, this impact is negative as dependency on foreign investments causes negative externalities, such as unemployment and income inequality. Another argument for FDI is that it can be more effective in boosting economic growth than domestic investment (Borensztein et al., 1998). This finding is consistent with the neoclassical growth theory (Solow, 1956; Swan, 1956), endogenous growth theory (Romer, 1986; Lucas, 1988), and modernization theory (Bengoa & Sanchez-Robles, 2003).

Various studies, such as by Hermes and Lensink (2003), emphasize the importance of financial market development. Utilizing a dataset of 67 countries, the

financial system of 37 countries was adequately developed to trigger economic growth via FDI inflows. Alfaro et al. (2010) back these findings through a theoretical model that formalizes a mechanism that highlight the role of financial markets in promoting growth through FDI inflows.

Some studies on the direct impact of FDI on growth show that FDI can also have a negative impact on economic development. Hence, Forte and Moura (2013) found that FDI can negatively impact the implementation of domestic economic policies; Mencinger (2003) highlights that funds raised via FDI inflows through mergers and acquisitions (M&As) may easily be spent on imports that can deteriorate the balance of payments and have a negative impact on the long-term economic growth of the host country; however, Meyer (2004) argues that M&As may not be effective for economic growth as they may only end in a change of ownership and not an increase in capital. Conversely, greenfield FDI, which adds new capital to the economy, may be more beneficial to the anchor economy. Mencinger (2003) analyzed eight Central and Eastern European Countries and finds a negative correlation between FDI and economic growth. Motivated by Mencinger (2003), and studying the same set of countries, Eller, Haiss, and Steiner (2006) deduce that the positive impact on the economy does not last forever, and thus that an influx of FDI is not always advantageous.

2.2 FDI and Poverty Reduction

The connection between FDI and poverty is complex. It can impact it directly through various channels like employment, output, and human capital (Tsai & Huang, 2007). However, there are also indirect channels like distribution effect or economic growth (Magombeyi & Odhiambo, 2017).

The extent to which FDI contributes to poverty reduction depends also on various characteristics such as the mode of entry of foreign investments and financing type, along with the nature of the host economy (Meyer, 2004). The mode of FDI entry is fundamental to defining whether FDI can be beneficial or not to poverty reduction. A greenfield investment or a joint venture stimulates the insertion of new capital and would likely add local spillovers (Sumner, 2005). Greenfield investments or a joint venture bring out new products that have no close replacements. This mechanism of FDI may ameliorate the prevailing unemployment and underemployment by further contributing to mitigate poverty. In this way, FDI's impact on poverty works through its impacts on employment. This impact has been considered a major one of FDI on poverty (Chudnovsky & López, 1999, IFC, 2000, Saravanamuttoo, 1999). On the other hand, FDI by way of a merger and acquisition is more probable of giving a pessimistic result in aiming for an in increase in welfare. This is because of the lack of new capital being transferred and also that employment may not be outweighed by technology transfer, managerial skill transfers, local sourcing spillovers, or increases in productivity or exports. Therefore, FDI may contribute to more unemployment if the mode of entry is through merger and acquisition. However, if FDI comprises the merger and acquisition of companies that are close to being shut down or bankrupt enterprises, it may help prevent potentially increased unemployment and therefore poverty (Hemmer & Hoa, 2002).

Many studies that investigated the empirical link between FDI and poverty reduction (such as Fowowe & Shuaibu, 2014; Gohou & Soumaré, 2012; Sharma & Gani, 2004, etc.) confirm the positive effect of FDI on HDI and poverty reduction. Assadzadeh and Pourqoly (2013), using human development index as a proxy variable for poverty, for 21 members of Middle East and North African countries in 2000–2009, showed that FDI had a significant and positive effect on poverty reduction. The study indicated that an increase in FDI boosts employment and middle-class income. On the other hand, Agarwal et al. (2017) using data from 1981 to 2011 empirically showed that FDI has had negative effect on poverty in India. However, for the same time span, studies in the South Asian Association for Regional Cooperation (SAARC) countries showed different empirical results. Although FDI had a positive effect in poverty reduction in Nepal and Sri Lanka, it showed poverty growth in Pakistan and Bangladesh.

Abor and Harvey (2008) examined, under the Stolper–Samuelson theorem, the effect of inward FDI flows to countries that have comparative advantages in labor-intensive sectors. The results showed that FDI flows tend to give rise to employment by adding more jobs by increasing median incomes and thus reducing poverty rates. On the other hand, Agénor (2004) asserted that the presence of rigidities in the labor market may impose difficulties in the Stolper–Samuelson theorem in the short term, which result in negative impact of FDI in poverty, especially when the benefits of FDI do not reach the low-income workers (Feenstra & Hanson, 1995).

The IMF (2000) analyzes the improvements that have been made in poverty reduction while increasing real incomes in developing countries. The results are discouraging, highlighting the widening gap between the rich and the poor. Some studies have shown that many of the beneficial impacts of FDI on poverty reduction are

attained from spillover effects, elevation of investment capital, and employment creation (Görg & Greenaway, 2004). A vast number of country-specific studies have enforced a general belief in the positive correlation between FDI and poverty reduction. This direct impact of FDI on poverty reduction has been found to be higher than indirect effects through GDP growth (Hung, 1999; Jalilian & Weiss, 2002). In contrast, Huang, Teng, and Tsai (2010) report a negative correlation between poverty reduction and FDI in a study of 12 countries in East Asia and Latin America between 1970 and 2005. In general, the literature that communicates a negative or insignificant effect of FDI on poverty comes under the dependency theory, which accounts for the underdevelopment of the developing countries and maintains that the nature of development triggers poverty. It is essential to emphasize that the relationship between FDI and poverty is not the same for all countries and depends on a number of factors, such as technological gap, quality of institutions, and incentives to attract FDIs, as well as the nature of FDI – greenfield or mergers and acquisitions.

2.3 FDI, Economic Growth and Poverty Reduction

An important issue that needs to be addressed is whether poor people ultimately benefit from economic growth. In other words, does economic growth alleviate poverty? The general assumption of the literature that examines the connection among FDIs and economic growth and how they influence poverty alleviation is that economic growth is an instrument to mitigate poverty but its results can differ from country to country (Hanim, 2011) and its effectiveness can differ. The possible reasons for these variable results include empirical techniques and proxy variables for poverty, sample sizes, and timeframes. Although most studies have found a positive link between economic growth and the alleviation of poverty, a few of them have reported that FDI has a negative or clearly insignificant impact on poverty reduction. Using regression analysis of the growth of average income for the poorest 20% and the poorest 40% against GDP growth per capita, Roemer and Gugerty (1997) show that, in general, poor people gain from an increase in economic growth. Put differently, a rise in GDP per capita is directly translated into income growth for the poorest 40%.

Klein Michael et al. (2001) argues that FDI is a channel through which economic growth improves welfare. Therefore, it is considered a crucial instrument for poverty alleviation (Hanim, 2011). From an economic perspective, FDI inflows mean more capital injection, which is good for economic development. Technological advancements aided by FDIs have a major impact in continuing economic prosperity and societal progress. Moreover, there is the social side of the positive consequences that foreign subsidiaries bring to host countries, which is new job creation as well as the improvement of local skills, thus contributing to welfare. However, this can be successful only if the ratio of new openings is higher than FDI-related unemployment. In other words, FDI can be efficient in job creation in sectors that depend heavily on hand-operated jobs (e.g., agriculture).

Bourguignon (2004) examines the importance of income distribution in poverty alleviation. He argues that economic growth affects poverty alleviation through effective income distribution. Furthermore, from the macroeconomic perspective, FDIs can be beneficial to host countries through positive revenue transfer.

2.4 FDI Patterns in the Balkans

The transition economies of the Western Balkans include countries that have relinquished centralized planning and have moved toward a market economy. Some other identifying elements include acknowledgment of private property, privatization, opening up to global trade and foreign investment, low GDP per capita, volatile consumption growth, and low labor unit costs. Furthermore, as stated by Akbar and Brad McBride (2004), these economies have recently seen progress in middle-income families that look for better services and better-quality products, promoting MNEs' interest in investing in these countries. Besides, the transition to a market economy has been accompanied by the significant process of deindustrialization. All of these economies relied excessively on the industrial sector during the Soviet era (Estrin & Uvalic, 2014). Today, the Western Balkan countries have changed to become substantially service economies. Nevertheless, the aftermath of the geopolitical conflicts of BiH (1992–1995), Kosovo (1998–1999), and the disintegration of the Yugoslavian Federation generated enduring economic drawbacks associated with weak macroeconomic performance and exclusion from international trade and financial flows, all of which made investors apprehensive about investing in these countries. This set of events delayed economic reforms by prioritizing political rehabilitation. Therefore, collectively, FDI stock in the first decade (Kosovo not included) amounted to US$8.5 billion, comprising only 6.5% of total FDI inflow in the transition economies. Foreign companies also showed a pattern of being wary to

invest in these countries even though they are all post-communist countries and have experienced radical changes in all aspects of their economies.

The Western Balkan countries compete to attract foreign investment, which is seen as an important source of capital given the enormous lack of domestic savings in these countries. The FDI inflows during the communist period were minimal. Albania managed to attract a few foreign investments in the first post-communist years. The countries that attracted the most investment toward the end of the decade were Serbia, Montenegro, and the RNM, which saw some FDI inflow from 1997 onward. Serbia and Montenegro had attracted US$1 billion by the end of the post-communist decade, whereas the RNM had attracted US$540 million.

Improved economic and geopolitical conditions, paired with trade liberalization among countries, privatization programs, a better business environment, and deeper economic ties with the EU, were the main reasons behind the upsurge of FDI in the 2000s (Figure 1). In Albania, BiH, and the RNM (UNCTAD, 2017), FDI flows increased by 20–27% a year. Collectively, until 2010, FDI stock amounted to US $190 billion, with the biggest recipient being Serbia. The growth of FDI in Serbia surged mainly due to the privatization of its mobile network operator Mobtel, which was acquired by the Norwegian company Telnor. Other greenfield investments, including Ball Packaging, Vip Mobile, and Microsoft's Development Center, made a major contribution to increasing inflows. Albania saw major growth in FDI mainly due to the privatization of the oil refinery complex ARMO for about €125 million. High FDI in financial services in 2008 was the result of the purchase of shares in Banka Popullore and Union Bank by foreign investors (Foreign Direct Investment Report, Albania 2011, UNDP). The RNM also experienced an increase in FDI, mostly because of the privatization of state-owned enterprises and the acquisition of major companies and banks (UNCTAD, 2012). A major contributor was the sale of Makedonski Telecom to Magar Telekom. Since 2007, greenfield projects such as free trade zones have been the largest sources of FDI inflows into the country. Flows to the financial and insurance sectors have also been large, albeit volatile.

For a long time, Kosovo did not have a standardized system to organize the collection of FDI data. Therefore, we have referred to the World Bank data of FDI inflows from 2004. FDI in Kosovo from 2008 to 2015 was focused on diversified economic sectors, such as real estate, construction, and the financial sector, followed by the transport and telecommunication sectors (KPMG, 2017). The amount of FDI in euros received in Kosovo in 2014 was lower than in previous years. The failed telecom privatization, a weak business environment, and domestic political turbulence in 2014 were among the factors that contributed to the substantial decline of net FDI in 2014. The state is looking to improve the factors that have impeded attracting foreign investments, such as corruption, organized crime, and the judicial system.

The higher level of FDI in 2015 indicates signs of a solid recovery. The increase in FDI in 2015 was due to a higher inflow of investments although FDI in Kosovo continues to be highly dependent on developments in the

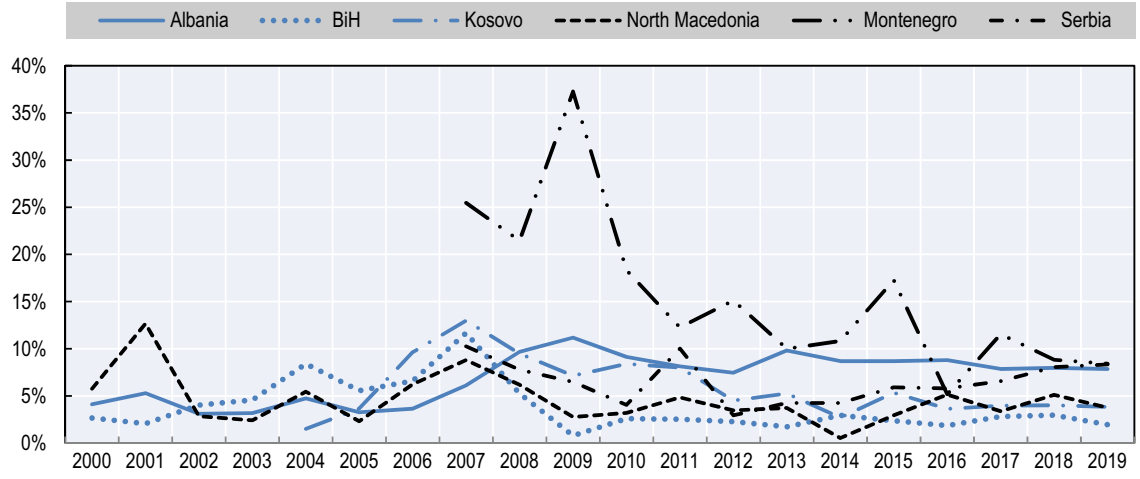

Figure 1: FDI inflows as a percentage of GDP (2000–2019). Sources: UNCTAD (2017), World Investment Report 2017: Investment and the Digital Economy, http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1782; for Kosovo: World Bank (2017), World Development Indicators 2017 (database), https://openknowledge.worldbank.org/handle/10986/26447.

economies of the Eurozone countries, where most of the FDI comes from.

From 2008 onward, the consequences of the global financial crisis were reflected in the FDI inflows to the Western Balkans. The fragility of FDI flows was related partly to the large share of inward FDI from the EU; economic woes had particularly negative knock-on effects for FDI in the subregion, which almost halved. The industry composition of inflows to Western Balkan countries worked against it during the financial crisis; investment had not been diversified and was concentrated mainly in industries such as finance and retail (UNCTAD, 2013).

However, the database shows us that since 2013 Western Balkans have been attracting US$ 5 billion of foreign investments annually (UNCTAD, 2017), with about half going to Serbia (the largest economy in the Balkans). Table 1 displays the evolution of FDI net inflows (% of GDP) for Western Balkan countries since 2000. It follows that in 2019, buoyed by competitive production costs and access to EU markets, Montenegro, Serbia, and Albania were the largest recipients in relative terms of FDI net inflows measured as a percentage of their GDP (8.42, 8.33, and 7.86% respectively) whereas BiH, RNM, and Kosovo were the countries with the lowest ratios in the region (1.95, 3.76, and 3.84% respectively). The Western Balkan countries have since avoided the general downward trend. In fact, in 2016, FDI stocks represented over 40% of GDP in the Western Balkans, reflecting the important role that FDI plays in these countries. Table 1 shows that even in 2017, 2018, and 2019, FDI net inflows have been relatively sizeable (Table 1) providing support for economic growth, job creation, and innovation and technological progress.

Table 2 shows the top five FDI investors in the Western Balkan countries since 2000. It shows that during the last two decades, Western Europe has been the primary source of foreign investments in the Western Balkans. Investment in the Balkans also comes from the Russian Federation, Turkey, the United States, etc. emphasizing the high concentration of FDI sources, which in turn confirms the region's high dependency. Regional cooperation plans aimed at attracting investment to the Western Balkan countries were initiated under the umbrella of the Central Eastern Free Trade Area and are expected to support FDI in the region. Albania and Serbia have also benefited from Chinese investors who have emerged as a new source of foreign investments.

Table 3 shows the key impact variable, the poverty headcount ratio (HCR), at $1.90 a day (2011 purchasing power parity [PPP]), expressed as a percentage of population for all the Western Balkan countries since 2000.

Table 1: Foreign direct investment, net inflows (% of GDP)

Country	Albania	North Macedonia	Montenegro	Serbia	Kosovo	Bosnia and Herzegovina
2000	4.11	5.77				2.65
2001	5.29	12.66				2.06
2002	3.10	2.84				4.03
2003	3.17	2.41				4.56
2004	4.75	5.44			1.50	8.40
2005	3.26	2.32			3.65	5.56
2006	3.65	6.23			9.62	6.58
2007	6.11	8.80	25.47	10.25	12.97	11.67
2008	9.68	6.17	21.45	7.77	9.48	5.26
2009	11.17	2.76	37.27	6.49	7.13	0.79
2010	9.14	3.20	18.32	4.05	8.40	2.58
2011	8.14	4.84	12.27	10.01	7.99	2.53
2012	7.45	3.47	15.12	2.94	4.51	2.28
2013	9.82	3.72	10.00	4.26	5.25	1.72
2014	8.69	0.54	10.82	4.25	2.70	2.94
2015	8.69	2.95	17.26	5.91	5.33	2.36
2016	8.81	5.15	5.18	5.80	3.63	1.85
2017	7.86	3.37	11.54	6.56	3.96	2.82
2018	7.95	5.14	8.82	8.05	4.01	2.95
2019	7.86	3.76	8.42	8.33	3.84	1.95

Source: The World Bank data. Retrieved online from https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?end=2018&locations=BA-AL-MK-RS-ME-XK&start=2000 (November 2020).

Table 2: Top five FDI investors (Share in inward FDI stock, 2017)

Country	Albania	RNM	Montenegro	Serbia	Kosovo*	BiH
Austria		14		12	6	19
Canada	15					
Croatia						17
Germany		7		8	9	
Greece	19	10				
Italy			15			
Netherlands				9		
Russian Federation			12	6		5
Serbia			5			15
Slovenia		7			7	7
Switzerland	14				7	
Turkey	7				11	
United Arab Emirates	7		8			
United Kingdom		10				
United States of America			4	6		
Other	38	52	56	59	60	37
	100	*100*	*100*	*100*	*100*	*100*

* Latest available data for Kosovo, 2015. Source: https://unctad.org/Sections/dite_dir/docs/WIR2019/WIR19_tab22.xlsx.

2.5 Sectoral Distribution of FDI Across the Balkans

Although FDI in the Balkan countries, determined by institutional circumstances, geographical position, and the EU membership process, has had a distinct sectoral allocation across areas, financial services and telecommunication were at the beginning of the transition of the Balkans the principal recipients of FDI distribution, notably due to privatization.

Table 3: Poverty headcount ratio at $1.90 a day (2011 PPP) (% of population)

Country	Albania	North Macedonia	Montenegro	Serbia	Kosovo	Bosnia and Herzegovina
2000						
2001						0.3
2002	1.6					
2003					1.9	
2004						0.2
2005	0.9				3.5	
2006					3.6	
2007						0.1
2008	0.3					
2009		9.8			3.2	
2010		10.4			2.5	
2011		9.1			1.7	0.1
2012	0.8	6.9	3.4	5.3	0.6	
2013		5.2	3.2	5.8	0.3	
2014	1.6	4.5	1.7	6.9	1	
2015	1.1	5.5	1.4	6.6	0.7	
2016	0.9	4.3	2.5	6.4	0.8	0.2
2017	1.3	4.6		5.4	0.4	
2018		3.4				
2019						

Source: The World Bank data. Retrieved online https://data.worldbank.org/indicator/SI.POV.DDAY?end=2018&locations=BA-AL-MK-RS-ME-XK&start=2000 (August 2021).

During the second half of the 1990s, FDI increased rapidly in the financial sectors of the transition economies in the Balkans, fostered by market-based reforms, financial liberalization, transformation of the one-tier bank system into a two-tiered banking system, privatization of domestic banking institutions, and preparations for EU membership. According to the OECD (2018), the manufacturing sector accounted for the greatest share of FDI stocks in North Macedonia (36% of FDI stock), Serbia (32%), Bosnia and Herzegovina (28%), and Kosovo (12%) whereas financial intermediation accounted for 17–18% of FDI stock across economies (the banking sector accounts for the majority of financial sector foreign direct investment, FSFDI) whereas communications and transport account for 2–28%. The main determinant of FDI in the Balkans is attributed to cost efficiency as EU investors locate export-oriented activities in the region to serve their home markets. With respect to FSFDI, the Balkans represent high economic growth opportunities for foreign banks as their banking systems are weak. However, as the OECD (2020) highlights, such a "composition of FDI stock in the Western Balkans underlines the region's vulnerability against the pandemic's impact" (p. 20).

3 Data Description and Methods

3.1 Variables

FDI occurs when MNEs, mostly headquartered in Western industrialized countries, invest in enterprises located in another country either by buying an existing business or by starting a completely new one (Apodaca, 2010). As such, FDI in this study is conceptualized as MNEs operating in the Western Balkans.

This study aims at determining the effects of FDI on poverty in the Western Balkans. The dependent variable is the poverty level. To measure poverty, income distribution and income inequality, a number of indicators have been used in the literature, such as HCR, average monthly income/consumption expenditure of people below the poverty line, the poverty gap ratio, the Gini index, the income shares of the bottom 20% of the population, etc.[1] Primarily, we use HCR to measure poverty, defined as the percentage of people living in households in which the consumption or income per person is below the poverty line. HCR is measured using the international poverty line of US$1.9 a day (based on 2011 PPP) provided by the World Bank development indicators (WDIs). In addition, two alternative indicators are used to measure the poverty level and income distribution, such as the poverty gap and Gini index, in order to provide some robustness checks for the estimated results of the econometric analysis. The poverty gap reflects the intensity of poverty in a nation, showing the average shortfall of the total population from the poverty line, whereas the Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution.

Factors that drive FDI flows into developing countries (usually from developed countries) include an abundant supply of cheap labor, growth rate, trade openness, corruption, investment freedom, etc. The data on GDP and trade openness (i.e., the sum of exports and imports of goods and services measured as a share of gross domestic product) are provided by the WDIs, data on investment freedom come from the Heritage Foundation (HF), and those relating to the perception of corruption are from Transparency International (TI), which ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and businesspeople, using a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean. A description of the variables and the respective information sources are provided in Table A1.

In the empirical analysis, apart from FDI inflows as our primary explanatory variable, we have employed some additional control variables, in line with the literature review provided earlier in this study.

3.2 Other Indicators

The rule of law holds to the belief that countries with well-built rules will absorb more FDI due to the strong legal and political safeguards, which eventually will guarantee high levels of financial security. Gohou and Soumaré (2012) used the rule of law as a control variable as a determinant of efficient business environment and institutional quality. Their study showed that rule of law in African studies negatively impacted FDI inflows which led to higher poverty.

Financial market development is a core determinant for FDI inflows. What we anticipate is that countries with well-established financial markets are more attractive to

1 For further information on the utilization of these poverty measures, please refer to World Bank (2021), OECD (2021), IDE-JETRO (2021).

enterprises that would want to invest in host countries. In this case, local financing acts as a safeguard instrument. Developed financial markets contribute toward cost reductions of external finance for foreign subsidiaries as well as enable foreign investing companies to control asymmetric information by making use of the local knowledge on risk and market opportunities. In other words, host countries with underdeveloped financial markets are more likely to discourage FDI as it may impose more risks and costs to source countries. Several authors have included financial development in their model, including Gohou and Soumaré (2012).

To ameliorate our empirical analysis, we have considered labor force as a control variable. Various studies show that labor-intensive FDI is more effective in poverty reduction. Nevertheless, the level of compensation is crucial in determining the degree to which the poverty rate is lowered. In other words, if foreign companies compensate the labor force above the poverty line FDI will be successful in poverty alleviation. Several studies have included labor force in their empirical analysis, including Assadzadeh and Pourqoly (2013), Bengoa and Sanchez-Robles (2003), Ghaith, Niaz Ahmad, and Lacheheb (2017), Louzi and Abadi (2011).

3.3 Sample and Data

This article makes an empirical contribution by trying to better understand whether there is a positive link between FDI and poverty reduction in the Western Balkans. Our estimation sample consists of six Western Balkan countries over the period 2002–2021, as data before this period are scarce for some of the considered variables and often of questionable quality. In addition, during this period, the WB6 countries experienced the largest recorded inflows of FDI and made considerable progress in alleviating poverty. The data have an annual frequency given that most of the selected indicators are only published yearly. After data were extracted from the information sources such as WDIs, HF, EBRD, and TI, according to the respective selected variables as described in Section 3.2, they were compiled into a single, unified, and cohesive data set structured as a dated panel, which is unbalanced as there are still some missing values at some time observations for some of the countries. The selection of the variables to be included in the model and their combination in different specifications was guided by the theoretical and empirical literature, as well as by the technical requirements of the estimation methodology, which are explained in detail in Section 3.4.

3.4 Method

The impact of FDIs on poverty reduction is estimated using equation (1):

$$\mathrm{POV}_{it} = \alpha_0 + \alpha_1 \mathrm{POV}_{it-1} + \beta X'_{it} + u_i + v_{it}, \tag{1}$$

where POV_{it} represents poverty in country i at time period t and

$$X = [\mathrm{FDI}_{it}, \mathrm{HDI}_{it}, \mathrm{IIF}_{it}, \mathrm{IEF}_{it}, \mathrm{TO}_{it}, \mathrm{FERT}_{it}, \mathrm{REM}_{it}, \mathrm{CREDIT}_{it}; \mathrm{LABOUR}_{it}; \mathrm{LAW}_{it}; \mathrm{PROPERTY}_{it}; \mathrm{CPI}_{it}],$$

FDI_{it} represent the foreign investments; HDI_{it} denotes the Human Development Index taken from the UNDP Human Development Report; IIF_{it} denotes the index of investment freedom in country i at time period t; IEF_{it} denotes the index of economic freedom in country i at time period t; TO_{it} denotes the trade openness in country i at time period t; FERT_{it} is the fertility rate defined as the number of births per woman and measured by the WDIs; REM_{it} indicates personal remittances received as a percentage of GDP; CREDIT_{it} presents the credit to private sector in percentage of GDP; LABOUR_{it} shows the labor force participation rate as a percentage of total population of age over 15 years old; LAW_{it} signifies the rule of law; $\mathrm{PROPERTY}_{it}$ refers to property rights, and CPI_{it} represents a measure of corruption as the corruption perceptions index in country i at time period t; however, u_i and v_{it} represent the unobservable country-fixed effects and idiosyncratic shocks, respectively, assuming that these two components are orthogonal such that: $E[u_i] = E[v_i] = E[u_i v_{it}] = 0$.

Two methodologies are used to estimate equation (1): fixed effects and a dynamic GMM panel data estimator (Arellano & Bond, 1991; Hansen, 1982). Fixed effects estimation corrects for problems such as omitted variable bias that may arise from pure cross section regressions and takes account of the unobservable country-specific effects, which are assumed to be fixed parameters to be estimated (Islam, 1995).

However, given the nature of our model and the selected variables, there is a possibility of a reverse causation between poverty and the explanatory variables, and such endogeneity problems could arise from several channels. For instance, feedback effects could exist between poverty and FDIs. As poverty falls, households will spend more on goods and services, which will in turn increase production and attract more investments (both domestic and foreign). Thus, poverty could also influence FDI. The fixed effects model is not able to address this endogeneity problem. Thus, in addition, we apply to our fixed-effect dynamic panel estimation the one-step difference GMM estimator devised by Arellano and Bond (1991).

The issue of the endogeneity between the lagged dependent variable (POV_{it-1}) and the fixed-effect u_i can be easily accommodated by taking the first differences of equation (1) as follows:

$$\Delta POV_{it} = \alpha_1 \Delta POV_{it-1} + \beta \Delta X_{it}^{'} + \Delta v_{it}, \quad (2)$$

where $\Delta v_{it} = v_{it} - v_{it-1}$.

Although the first-difference transform of the regression equation removes the country-specific fixed effect (u_i), the endogeneity problems still exist. For example, POV_{it-1} in $\Delta POV_{it-1} = POV_{it-1} - POV_{it-2}$ is still mathematically correlated with v_{it-1} in $\Delta v_{it} = v_{it} - v_{it-1}$. Moreover, if any regressors other than the lagged dependent variable are endogenous, those endogenous regressors will also be correlated with the error term (Δv_{it}) and will result in biased estimated coefficients.

In order to address this endogeneity problem, an Arellano–Bond difference GMM estimator is employed. This estimator instruments a first-differenced endogenous regressor in the transformed regression equation (2) with its lagged levels. The main idea behind this estimator is that past (lagged) levels are often predictive of current changes (Δx_{it}). Further, second or even deeper lagged levels of an endogenous regressor (x_{it-k} for $k \geq 2$) are available as instruments for its first-differenced endogenous regressor (Δx_{it}) because unlike the mean-deviation transform in standard fixed-effect estimations, second or deeper lagged levels of the endogenous regressor (x_{it-k} for $k \geq 2$) remain orthogonal to the error term ($\Delta v_{it} = v_{it} - v_{it-1}$) (Roodman, 2009).

However, the validity of lagged levels as instruments depends on the process of the error term (Δv_{it}) in the first-difference regression equation (2). For example, if v_{it} follows an AR (1) process, then x_{it-2} is no longer a valid instrument for Δx_{it} and so even deeper lags (x_{it-k} for $k \geq 3$) need to be used as instruments. Therefore, the Arellano–Bond test is applied to control for the presence of autocorrelation in the first-differenced residuals and to determine the number of lags available for instruments. Then, the Hansen test is used to determine whether over-identifying restrictions are valid in our estimations.

4 Results and Discussion

Table 4 presents the estimated results based on the GMM approach. Column (1) reports the coefficients of FDI and corruption, which are the only factors included in the baseline estimation. Alternative specifications are estimated by successively adding the other control variables to the regression, as shown in the next columns of the table.

Information on the descriptive statistics of all of the variables included in the model can be found in Table A2. The average value of poverty incidence (POV) is 2.9,

Table 4: GMM estimation results, where the dependent variable is poverty headcount ratio

Explanatory variables	Model								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
POV (−1)	0.267**	0.246**	0.265**	0.237**	0.252**	0.236**	0.254**	0.257**	0.242**
FDI	−0.077**	−0.053*	−0.056*	−0.036*	−0.045*	−0.031*	−0.037*	−0.052*	−0.046*
HDI	−0.010*	−0.011*	−0.008*	−0.009**	−0.014**	−0.011*	−0.010*	−0.013*	−0.011*
IIF		−0.013*							
IEF	−0.033*							−0.057*	
TO			−0.007						
FERT				0.001					
REM	−0.084**		−0.063**						
Rule of law					−0.012*				
Labor force participation						−0.052*			
Credit		−0.027*					−0.033*		
Property								−0.015	
CPI									0.038
Obs.	120	120	120	120	120	120	120	120	120
J-stat. (p-value)	0.395	0.201	0.326	0.514	0.205	0.279	0.184	0.223	0.217
AR (1)	[0.16]	[0.11]	[0.02]**	[0.02]**	[0.03]**	[0.01]**	[0.02]**	[0.03]**	[0.05]*
AR (2)	[0.23]	[0.35]	[0.18]	[0.78]	[0.71]	[0.36]	[0.48]	[0.27]	[0.53]

Note: *** denotes significance at 1%; ** significance at 5%; * significance at 10%.

indicating that around 3% of the population in the Western Balkan countries live below the poverty line. Poverty incidence ranged from a maximum of 10.4 for North Macedonia to the lowest level of 0.06 for BiH. The standard deviation of 2.75 suggests that poverty incidence in the Western Balkan countries is spread over a narrow range of values indicating slight disparities of poverty levels in the considered countries.

An analysis of correlation coefficients was carried out to investigate pairwise correlations of the explanatory variables, the results of which are presented in Table A3. A correlation between two individual variables higher than 0.8 can cause serious multicollinearity problems in the model (Field, 2005), considerably undermining its empirical power. All of the correlation coefficients are less than 0.8 indicating no problematic presence of multicollinearity.

Initially, the stationarity properties of the data are assessed by applying standard techniques, i.e. the augmented Dickey–Fuller (ADF) unit root tests and the Phillips–Perron (PP) Fisher chi-square tests. Both tests are built on the same null hypothesis that the panel variables are stationary. The test results show that overall, all of the series can be characterized as integrated of order one (1) (Table A4).

As seen in Table 4, FDI results are negatively related to poverty headcount in all specifications. The coefficient on FDI is statistically significant at 5 and 10% levels of significance, thus implying that FDI inflows have significantly contributed to poverty reduction in the Western Balkans region. These findings are in line with other empirical studies (e.g., Calvo & Hernandez, 2006; Gohou & Soumaré, 2012; Zaman, Iqtidar, Muhammad, & Ahmad, 2012) as well as with theories outlining the benefits of FDI to alleviate poverty.

HDI, as a measure of average achievement in key aspects of human development (having a long healthy life, being knowledgeable, and having a decent standard of living), plays an important role in poverty reduction efforts in the Western Balkan countries.

Investment freedom, which captures the restrictions on the movement of both domestic and international capital, is associated with lower poverty. In particular, a 1% increase in this index is associated with a decline of about 0.01% in the incidence of poverty, with all other variables unchanged.

Like investment freedom, economic freedom contributes significantly to poverty reduction, but its effect is greater than that of investment freedom. This result is quite reasonable given that investment freedom is only one of the many components included in economic freedom. The latter also comprises the freedom to trade with foreigners; an absence of overregulation of markets; government size; sound money and price stability, including the labor market; and civil liberties, including the security of property rights, rule of law, and protection from government malfeasance, which all together can have substantial benefits on poverty alleviation. Other empirical studies (Andersen & Babula, 2008; Edwards, 1997) find that open economies have experienced faster growth.

Higher fertility rates aggravate poverty since having several children strains the budgets of poor families, reducing available resources to feed, educate, and provide health care (Birdsall & Griffin, 1993); however, its effect is statistically insignificant for the Western Balkans.

Our results find that international remittances have a strong statistically significant negative impact on poverty as they may be directly received by the members of poor families. Poverty headcount would decline by 0.063–0.084 units with a 1 percentage point increase in international remittances. Similar results on the positive effects of remittances on poverty reduction are also confirmed by Campos and Lardé de Palomo (2002) for Central America, Adams (2004) for Guatemala, Taylor, Mora, and Adams (2005) for Mexico, and Adams and Page (2005) for 71 developing countries.

Higher levels of financial development and credit to GDP ratios lead to lower levels of poverty in the Western Balkans, all else held constant. This relation is driven by higher demand for financial services as the poor earn more income and it is in line with empirical studies conducted for other countries.

Rule of law that serves as a proxy for business environment and institutional quality has a negative effect on the level of poverty. Gohou and Soumaré (2012) find similar results for African countries. Property rights represent an assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state. For the Western Balkans, the coefficient of the variable capturing property rights results to have a negative sign, but its effects is statistically insignificant.

The statistically significant negative coefficient of labor force participation is also supported by other empirical studies such as Hanim (2021) for Indonesia and Erum, Hussain, and Yousaf (2016) for the SAARC countries.

The last but not the least explanatory variable, corruption, is positively related to a rise in poverty with statistically significant results in all specifications. This is in line with our expectations, as corruption is an issue of major concern in the Western Balkans, and corresponds to the findings of other studies (Chetwynd, Chetwynd, & Spector, 2003; Dincer & Gunalp, 2012; Gupta, Davoodi, & Alonso-Terme, 2002) and the two main theoretical approaches: the “economic model” and the “governance model,” accentuating the undesirable economic effects of

Table 5: GMM estimation results, where the dependent variable is poverty gap

Explanatory variables	Model								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
POV (−1)	0.327**	0.312**	0.310**	0.311**	0.321**	0.319**	0.305**	0.357**	0.322**
FDI	−0.005**	−0.007*	−0.005*	−0.006*	−0.005*	−0.003*	−0.007	−0.005*	−0.005*
HDI	−0.0007*	−0.0011*	−0.0006*	−0.001**	−0.001**	−0.001**	−0.0006*	−0.001*	−0.001*
IIF		−0.008*							
IEF	−0.011*							−0.008*	
TO			−0.0005						
FERT				0.0002					
REM	−0.003**		−0.004**						
Rule of law					−0.004*				
Labor Force Participation						−0.0023*			
Credit		−0.0012*					−0.0013*		
Property								−0.006	
CPI									0.006
Obs.	120	120	120	120	120	120	120	120	120
J-stat. (p-value)	0.125	0.141	0.256	0.141	0.325	0.164	0.304	0.207	0.312
AR(1)	[0.03]	[0.07]	[0.05]	[0.03]	[0.04]	[0.02]	[0.01]	[0.01]	[0.03]
AR(2)	[0.15]	[0.32]	[0.34]	[0.21]	[0.23]	[0.33]	[0.38]	[0.35]	[0.29]

Note: *** denotes significance at 1%; ** significance at 5%; * significance at 10%.

corruption. Corruption, by itself, does not produce poverty, but it has direct consequences on economic and governance factors, as well as intermediaries that in turn produce poverty. Corruption impedes economic growth by discouraging foreign and domestic investment, taxing and inhibiting entrepreneurship, lowering the quality of public infrastructure, decreasing tax revenues, and distorting the composition of public expenditure (Chetwynd et al., 2003).

In addition, similar model specifications are estimated by using alternative measures for poverty, such as poverty gap and the Gini index, in order to provide some robustness checks. The estimated results are reported in Tables 5 and 6, respectively.

Overall, the results obtained using alternative poverty measures are reconfirmed and FDI flows contribute significantly to poverty alleviation in the Western Balkans. Several diagnostic tests are performed to verify that all model specifications satisfy all of the necessary assumptions. In all of the tables we report the outcomes of the Arellano and Bond (1991) test for first- and second-order autocorrelation of the residuals. These consistently show that we cannot reject the null hypothesis of no second-order autocorrelation. As the estimator is in first differences, first-order autocorrelation does not imply inconsistent estimates. Robust estimators are used to correct for heteroscedasticity. The Hansen test is used to determine whether over-identifying restrictions are valid in our estimations. If we cannot reject the null hypothesis, the model is supported, and this is the case throughout the article (see the p-values at the bottom of the tables) (Roodman, 2009).

The results of GMM regressions are similar to those of the fixed effects, which are reported in Table A5. The signs before the coefficients are the same and the magnitude of their effects is slightly different between the two estimation methodologies.

At the end of the empirical analysis, it is worth mentioning that the results are subject to a number of drawbacks. An important limitation of the analysis is the small number of observations, coupled with a considerable fraction of missing data that is probably of questionable quality, which is quite common for developing countries. This prevents us from including more variables in the regressions to have a broader picture of the factors behind the level of poverty in the Western Balkan countries. A further problem arises from the multidimensional notion of "poverty" (Hulme, 2010), which is not considered in this study. Hence, other proxies and explanatory variables could be more appropriate to measure "poverty."

5 Conclusions and Policy Implications

Growth is a cornerstone ingredient of poverty reduction so that the penetration of MNEs in transition economies

Table 6: GMM estimation results, where the dependent variable is Gini index

Explanatory variables	Model								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
POV (−1)	0.817***	0.854**	0.732**	0.641**	0.722**	0.706**	0.810**	0.804**	0.791**
FDI	−0.018*	−0.008*	−0.014*	−0.010*	−0.015*	−0.004	−0.006*	−0.004	−0.016*
HDI	−0.0003*	−0.0001*	−0.0002*	−0.0004*	−0.0003	−0.0005*	−0.0008*	−0.0003*	−0.0001*
IIF		−0.004*							
IEF	−0.0088							−0.0029*	
TO			−0.0005						
FERT				0.001					
REM	−0.001**		−0.005**						
Rule of law					−0.003				
Labor force participation						−0.002*			
Credit		0.0001					−0.0007		
Property								−0.0023	
CPI									0.038
Obs.	120	120	120	120	120	120	120	120	120
J-stat. (*p*-value)	0.223	0.116	0.216	0.417	0.356	0.613	0.375	0.501	0.103
AR(1)	[0.09]	[0.11]	[0.02]	[0.07]	[0.01]	[0.03]	[0.13]	[0.04]	[0.02]
AR(2)	[0.18]	[0.57]	[0.84]	[0.47]	[0.29]	[0.66]	[0.81]	[0.36]	[0.39]

Note: *** denotes significance at 1%, ** significance at 5%; * significance at 10%.

has been crucial in promoting economic growth, thus contributing to poverty reduction.

Using a panel database for 6 Western Balkan countries over the period 2002–2021, this study conducts an empirical investigation of the effects of FDI inflows on poverty in Western Balkan countries, also considering other country characteristics, such as the human development index, investment freedom, economic freedom, trade openness, fertility, remittances, rule of law, labor force participation, private credit, property rights, and corruption. Although poverty remains high in this region, considerably few empirical studies have been conducted to examine how poverty has been affected by FDI. Understanding the factors behind these high rates of poverty can help to orient efforts to encourage a conducive environment for poverty reduction.

The fixed effects and GMM estimation results show that FDI has significantly contributed to poverty reduction in the Western Balkan countries. The sensitivity of this result is tested by trying several specifications of the model through the inclusion of diverse variables that may influence poverty, as well as by utilizing as a dependent variable different measure of poverty and income distribution like poverty gap and the Gini index.

Nevertheless, the analysis carried out in this work is a first step toward the investigation of the effects of FDI on poverty reduction in the Western Balkan countries and additional explanatory variables should be taken into account in order to give a broader picture on this issue, such as: economic and social infrastructure, institutional quality, financial market development and financial inclusion, political risk, macroeconomic performance and prospects, fiscal stability, etc. Moreover, our study is subject to some data limitations, especially for the country of Kosovo.

FDI's contribution to poverty alleviation and welfare enhancement is crucial to the Western Balkan Countries, which are economically more vulnerable than other European Countries. Therefore, the governments of these countries should incentivize and propose "open door" policies for FDI, improve the business climate through effective regulatory reforms, invest more in improving aspects of human development, ensure political stability, and create a sound and stable macroeconomic environment.

Coordinated regional cooperation between the Western Balkan countries and other more developed European states to redirect FDI inflows to small and poor economies would boost the economy of these low-income countries and reduce income differences among them. National governments should also pay attention to where and how FDI takes place and develop their bargaining power with the aid of effective policies to attract FDI to the most productive sectors of the economy, which have a higher impact on poverty and inequality reduction.

At the same time, governments should implement policies and regulations that aim to maximize the benefits of FDI for the poor, or at least to protect them from the possible negative effects of the presence of foreign companies.

These policies could include restrictions on FDI to certain industries or sectors with the aim of defending local small and medium enterprises from competition from foreign firms; policies to diminish the dependency of domestic industries on imports and to develop production linkages between FDI and local companies; a regional minimum wage aimed at guaranteeing a reasonable income for workers; etc.

Finally, a detailed sectorial analysis using individual country disaggregated data would be very instructive and helpful, especially for policymakers, in order to identify the sectors where FDI is highly beneficial to the economic welfare of the Western Balkan countries. Additionally, a study of the impact of the global financial crisis on FDI inflows would contribute to the current available literature for these economies. However, these important questions will be considered in future research.

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References

Abor, J., & Simon, H. (2008). Foreign direct investment and employment: Host country experience. *Macroeconomics and Finance in Emerging Market Economies*, *1*, 213–225.

Adams, R. H. Jr. (2004). *Remittances and poverty in Guatemala. Policy Research Working Paper, No. 3418*. Washington DC: The World Bank. https://openknowledge.worldbank.org/handle/10986/13996. License: CC BY 3.0 IGO.

Adams, Jr. R. (2005). *Remittances, household expenditure and investment in Guatemala. Policy research working paper 3532*. Washington, DC: World Bank.

Adams, Jr. R., & Page, J. (2005). Do international migration and remittances reduce poverty in developing countries? *World Development*, *33*(10), 1645–1669.

Adewumi, S. (2007). *The impact of FDI on growth in developing countries. An African experience* (pp. 1–18). (Masters Dissertation). Jönköping, Sweden: Jonkoping International Business School. Available at http://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-711.

Agénor, P.-R. (2004). The economics of adjustment and growth. United States: Harvard University Press. doi: 10.2307/j.ctv1ns7mrh.

Agrawal, P. (2005). Foreign direct investment in south Asia: Impact on economic growth and local investment. *Multinationals and Foreign Investment in Economic Development*, *1*, 94–118. doi: 10.1057/9780230522954_5.

Agarwal, M., Atri, P., & Kundu, S. (2017). Foreign direct investment and poverty reduction: India in regional context. *South Asia Economic Journal*, *18*(2), 135–157. 10.1177/1391561417713129.

Akbar, Y. H., & Brad McBride, J. (2004). Multinational enterprise strategy, foreign direct investment and economic development: The case of the Hungarian Banking industry. *Journal of World Business*, *39*(1), 89–105. doi: 10.1016/j.jwb.2003.08.001.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2010). Does foreign direct investment promote growth? Exploring the role of financial markets on linkages. *Journal of Development Economics*, 91, 242–256. doi: 10.1016/j.jdeveco.2009.09.004.

Andersen, L., & Babula, R. (2008). The link between openness and long-run economic growth. *Journal of International Commerce & Economics*, *2*(31), 1–20. Available at https://www.usitc.gov/publications/332/journals/openness_growth_link.pdf.

Anitha, R. (2012). Foreign direct investment and economic growth in India. *International Journal of Marketing, Financial Services and Management Research*, *1*, 108–125. Available at http://indianresearchjournals.com/pdf/IJMFSMR/2012/August/8.pdf.

Apergis, N., Lyroudi, K., & Vamvakidis, A. (2008). The relationship between foreign direct investment and economic growth: Evidence from transition countries. *Transition Studies Review*, *15*(1), 37–51. doi: 10.1007/s11300-008-0177-0.

Apodaca, C. (2010). Do global strategies for poverty eradication in sub-saharan Africa work? an assessment of several international macroeconomic policies. *Journal of Third World Studies*, *27*(2), 109–134. doi: 10.2307/45194713.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, *58*(2), 277. doi: 10.2307/2297968.

Assadzadeh, A., & Pourqoly, J. (2013). The relationship between foreign direct investment, institutional quality and poverty: Case of MENA countries. *Journal of Economics, Business and Management*, *1*, 161–165. doi: 10.7763/joebm.2013.v1.35.

Bakaki, Z., Böhmelt, T., & Ward, H. (2020). The triangular relationship between public concern for environmental issues, policy output, and media attention. *Environmental Politics*, *29*(7), 1157–1177. doi: 10.1080/09644016.2019.1655188.

Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign direct investment and growth in EP and is countries. *The Economic Journal*, *106*(434), 92–105. doi: 10.2307/2234933.

Bengoa, M., & Sanchez-Robles, B. (2003). Foreign direct investment, economic freedom and growth: New evidence from Latin America. *European Journal of Political Economy, Economic Freedom*, *19*(3), 529–545. doi: 10.1016/S0176-2680(03)00011-9.

Birdsall, N., & Griffin, C. C. (1993). *Population growth, externalities, and poverty. Working paper* (Vol. 1158). Washington, DC: World Bank Publications.

Borensztein, E., De Gregorio, J., & Lee, J.-W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, *45*(1), 115–135. doi: 10.1016/S0022-1996(97)00033-0.

Bourguignon, F. (2004). *"The poverty-growth-inequality triangle". Working paper 125* (pp. 1–30). New Delhi: Indian Council for Research on International Economic Relations (ICRIER).

Calvin, K., Bond-Lamberty, B., Clarke, L., Edmonds, J., Eom, J., Hartin, C., …, Wise, M. (2017). The SSP4: A world of deepening inequality. *Global Environmental Change, 42*(January), 284–296. doi: 10.1016/j.gloenvcha.2016.06.010.

Calvo, C. C., & Hernandez, M. A. (2006). *Foreign direct investment and poverty in Latin America*. England: Leverhulme Centre for Research on Globalisation and Economic Policy, University of Nottingham.

Campos, R., & Lardé de Palomo, A. (2002, May). *Invirtamos en Educación para Desafiar el Crecimiento Económico y la*

Pobreza. San Salvador: Fundación Salvadoreña Para el Desarrollo Económico y Social.

Carkovic, M., & Levine, R. E. (2002). Does foreign direct investment accelerate economic growth? *SSRN Electronic Journal*, *1*, 1–23. doi: 10.2139/ssrn.314924.

Cavusgil, S. T., Ghauri, P. N., & Akcal, A. A. (2012). *Doing business in emerging markets*. Newbury Park, California: SAGE Publications, Inc.

Chakraborty, C., & Nunnenkamp, P. (2008). Economic reforms, FDI, and economic growth in India: A sector Level analysis. *World Development*, *36*(7), 1192–1212. doi: 10.1016/j.worlddev.2007.06.014.

Chetwynd, E., Chetwynd, F., & Spector, B. (2003). Corruption and poverty: A review of recent literature. *Management Systems International*, *600*, 5–16.

Chowdhury, A., & Mavrotas, G. (2006). FDI and growth: What causes what? *The World Economy*, *29*(1), 9–19. doi: 10.1111/j.1467-9701.2006.00755.x.

Chudnovsky, D., & López, A. (1999). A missed opportunity: Foreign investment and sustainable development in Argentina. *Rethinking foreign investment for sustainable development* (pp. 77–96). Cambridge University Press. doi: 10.7135/upo9781843313243.007.

Dincer, O. C., & Gunalp, B. (2012). Corruption and income inequality in the United States. *Contemporary Economic Policy*, *30*(2), 283–292. doi: 10.1111/j.1465-7287.2011.00262.x.

Dollar, D., & Kraay, A. (2004). Trade, growth, and poverty. *Economic Journal*, *114*(493), F22–F49. doi: 10.1111/j.0013-0133.2004.00186.x.

Edwards, S. (1997). Trade policy, growth, and income distribution. *American Economic Review*, *87*(2), 205–210.

Eller, M., Haiss, P., & Steiner, K. (2006). Foreign direct investment in the financial sector and economic growth in central and Eastern Europe: The crucial role of the efficiency channel. *Emerging Markets Review*, *7*(4), 300–319. doi: 10.1016/j.ememar.2006.09.001.

Erum, N., Hussain, S., & Yousaf, A. (2016). Foreign direct investment and economic growth in SAARC countries. *Journal of Asian Finance, Economics and Business*, *3*(4), 57–66.

Estrin, S., & Uvalic, M. (2014). FDI into transition economies. *Economics of Transition*, *22*(2), 281–312. 10.1111/ecot.12040.

Feenstra, R. C., & Hanson, G. H. (1995). *Foreign investment, outsourcing and relative wages*. NBER Working Paper No. w5121, Available at SSRN: https://ssrn.com/abstract=225186.

Ferreira, F. H. G., & Lugo, M. A. (2013). Multidimensional poverty analysis: Looking for a middle ground. *World Bank Research Observer*, *28*(2), 220–235. doi: 10.1093/wbro/lks013.

Field, A. (2005). Discovering statistics using SPSS. *Anuario de Psicología/The UB Journal of Psychology*, *37*(1), 195–196.

Forte, R., & Moura, R. (2013). The effects of foreign direct investment on the host country's economic growth: Theory and empirical evidence. *Singapore Economic Review*, *58*(3), 1. doi: 10.1142/S0217590813500173.

Fowowe, B., & Shuaibu, M. I. (2014). Is foreign direct investment good for the poor? New evidence from African countries. *Economic Change and Restructuring*, *47*(4), 321–339. doi: 10.1007/s10644-014-9152-4.

Ghaith, A., Niaz Ahmad, M. N. B., & Lacheheb, Z. (2017). The impact of foreign-direct Investment on economic growth in Malaysia: The role of financial development. *International Journal of Economics and Financial*, *7*(3), 382–388.

Gnangnon, S. K. (2020). *Does poverty deter foreign direct investment flows to developing countries?* Preprints 2020, 2020110230. doi: 10.20944/preprints202011.0230.v1.

Gohou, G., & Soumaré, I. (2012). Does foreign direct investment reduce poverty in Africa and are there regional differences? *World Development*, *40*(1), 75–95. doi: 10.1016/j.worlddev.2011.05.014.

Görg, H., & Greenaway, D. (2004). Much ado about nothing? Do domestic firms really benefit from foreign direct investment? *The World Bank Research Observer*, *19*(2), 171–197. doi: 10.1093/wbro/lkh019

Gui-Diby, S. L. (2014). Impact of foreign direct investments on economic growth in Africa: Evidence from three decades of panel data analyses. *Research in Economics*, *68*(3), 248–256. doi: 10.1016/j.rie.2014.04.003.

Gupta, S., Davoodi, H., & Alonso-Terme, R. (2002). Does corruption affect income inequality and poverty? *Economics of Governance 3*, *1*(March 2002), 23. doi: 10.1007/s101010100039.

Hanim, W. (2011). *Gender equality and economic growth*. Indonesia: PRESS UNPAD Bandung.

Hanim, W. (2021). How does foreign direct investment (FDI) reduce poverty? Application of the triangular hypothesis for the Indonesian case. *Review of Integrative Business & Economics*, *10*, 400–411.

Hansen, H., & Rand, J. (2006). On the causal links between FDI and growth in developing countries. *World Economy 29*, *1*(January 2006), 21–41. doi: 10.1111/j.1467-9701.2006.00756.x.

Hansen, L. P. (1982). Large sample properties of generalized method of moments estimators. *Econometrica*, *50*(4), 1029–1054. doi: 10.2307/1912775.

Haseeb, M., Hartani, N. H., Bakar, A., Azam, M., & Hassan, S. (2014). Exports, foreign direct investment and economic growth: Empirical evidence from Malaysia (1971–2013). *American Journal of Applied Sciences*, *11*(6), 1010–1015.

Hemmer, H., & Hoa, N. T. P. (2002). *"Contribution of foreign direct investment to poverty reduction: The case of Vietnam in the 1990s" Entwicklungsökonomische Diskussionsbeiträge*. No. 30, Justus-Liebig-Universität Gießen.

Henrik, H., & Rand, J. (2006). On the casual links between FDI and growth in developing countries. *The World Economy*, *29*(1), 21–41.

Hermes, N., & Lensink, R. (2003). Foreign direct investment, financial development and economic growth. *Journal of Development Studies*, *40*(1), 142–163. doi: 10.1080/00220380412331293707.

Huang, C.-H, Teng, K.-F., & Tsai, P.-L. (2010). Inward and outward foreign direct investment and poverty: East Asia vs. Latin America. *Review of World Economics*, *146*(4), 763–779. doi: 10.1007/s10290-010-0069-3.

Huay, C. S., & Bani, Y. (2018). Remittances, poverty and human capital: Evidence from developing countries. *International Journal of Social Economics*, *45*(8), 1227–1235. doi: 10.1108/ijse-10-2017-0454.

Hulme, D. (2010). *Global poverty: How global governance is failing the poor* (Vol. 44). New York: Routledge.

Hung, T. T. (1999). *Impact of foreign direct investment on poverty reduction in Vietnam*. IDS Program, GRIPS.

Iamsiraroj, S. (2016). The foreign direct investment–economic growth nexus. *International Review of Economics & Finance*, *42*(C), 116–133.

IDE-JETRO. (2021). Accessible at: https://www.ide.go.jp/English/Research/Topics/Soc/Poverty/overview.html.

IFC (International Finance Corporation). (2000). Paths out of poverty: The role of private enterprise in developing countries. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/14041.

IMF Factsheets. (2000). The IMF's poverty reduction and growth facility (PRGF), http://www.imf.org/external/np/exr/fa cts/prgf.htm

Inoue, T., & Hamori, S. (2019). Financial inclusion, remittance inflows, and poverty reduction in developing countries: evidence from empirical analyses. World Scientific Publishing Co. Pte. Ltd. Available at https://EconPapers.repec.org/RePEc:wsi:wsbook:11231.

Islam, N. (1995). Growth empirics: A panel data approach. *Quarterly Journal of Economics*, *110*(4), 1127–1170. doi: 10.2307/2946651.

Jalilian, H., & Weiss, J. (2002). Foreign direct investment and poverty in the ASEAN region. *ASEAN Economic Bulletin*, *19*(3), 231. doi: 10.1355/AE19-3A.

Jenkins, C., & Thomas, L. (2002). *Foreign direct investment in Southern Africa: Determinants, characteristics and implications for economic growth and poverty alleviation*. CSAE, University of Oxford. CREFSA, London School of Economics. Available at https://assets.publishing.service.gov.uk/media/57a08d4640f0b652dd00188e/R7619FDIrep2002-02.pdf.

Jones, G. (1996). *The evolution of international business: An Introduction*. London and New York: Routledge. Available at https://eh.net/book_reviews/the-evolution-of-international-business-an-introduction/.

Jushi, E., Hysa, E., Cela, A., Panait, M., & Voica, M. C. (2021). Financing growth through remittances and foreign direct investment: Evidences from Balkan countries. *Journal of Risk and Financial Management*, *14*(3), 117. doi: 10.3390/jrfm14030117.

Kabeer, N. (2015). Gender, poverty, and inequality: A brief history of feminist contributions in the field of international development. *Gender & Development*, *23*(2), 189–205. doi: 10.1080/13552074.2015.1062300.

Kardos, M. (2014). The relevance of foreign direct investment for sustainable development. Empirical evidence from European union. *Procedia Economics and Finance*, *15*, 1349–1354. Available at https://core.ac.uk/download/pdf/82058613.pdf.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (September 2010). *The worldwide governance indicators: Methodology and analytical issues*. World Bank Policy Research Working Paper No. 5430. Available at SSRN: https://ssrn.com/abstract=1682130.

Kentor, J. (1998). The long-term effects of foreign investment dependence on economic growth, 1940–1990. *American Journal of Sociology*, *103*(4), 1024. doi: 10.1086/231295.

Klein, M., Aaron, C., & Hadjimichael, B. (2001). *Foreign direct investment and poverty reduction*. 2613. 10.1596/1813-9450-2613.

Klein, M. W., Peek, J., & Rosengren, E. S. (2002, June). Troubled banks, impaired foreign direct investment: The role of relative access to credit. *American Economic Review, 92*(3), 664–682. doi: 10.1257/00028280260136309.

KPMG. (2017). *Investment in Kosovo* (KPMG Report, ed. 2017). Available at https://assets.kpmg/content/dam/kpmg/bg/pdf/Investment-in-Kosovo-2017.pdf.

Louzi, B. M., & Abadi, A. (2011). The impact of foreign direct investment on economic growth in Jordan. *IJRRAS*, *8*(2), 253–258.

Lucas, Jr. R. E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, *22*(1), 3–42. doi: 10.1016/0304-3932(88)90168-7.

Magombeyi, M. T., & Odhiambo, N. M. (2017). Foreign direct investment and poverty reduction. *Comparative Economic Research. Central and Eastern Europe*, *20*(2), 73–89. doi: 10.1515/cer-2017-0013.

Mencinger, J. (2003). Does foreign direct investment always enhance economic growth? *Kyklos*, *56*(4), 491–508. doi: 10.1046/j.0023-5962.2003.00235.x.

Meyer, K. E. (2004). Perspectives on multinational enterprises in emerging economies. *Journal of International Business Studies*, *35*(4), 259–276. doi: 10.1057/palgrave.jibs.8400084.

OECD. (2002). *Foreign direct investment for development: Maximising benefits, minimising costs*. Paris: OECD Publishing.

OECD. (2018). *Competitiveness in South East Europe: A Policy outlook 2018, competitiveness and private sector development*. Paris: OECD Publishing. doi: 10.1787/9789264298576-en.

OECD. (2020). *The covid-19 crisis in the western Balkans. Economic impact, policy responses, and short-term sustainable solutions*. Paris: OECD Publishing. Available at http://www.oecd.org/south-east-europe/COVID-19-Crisis-Response-Western-Balkans.pdf. Accessed November 19, 2020.

OECD. (2021). Available at: https://www.oecd.org/.

Reza, S. M., Fan, H., Reza, T., & Wang, B. (2018). The impact of foreign direct investment inflows on economic growth: Evidence from Bangladesh. *Journal of Business and Retail Management Research*, *12*(January), 212–223.

Roemer, M., & Gugerty, M. K. (1997). *Does economic growth reduce poverty?* (*CAER II, Discussion paper 5*). Cambridge, MA: Harvard Institute for International Development.

Romer, P. M. (1986). *Increasing returns, specialization, and external economies: Growth as described by Allyn Young. Working Paper 64*. Rochester Center for Economic Research.

Roodman, D.. (2009). How to do Xtabond2: An introduction to difference and system GMM in Stata. *The Stata Journal*, *9*(1), 86–136. doi: 10.1177/1536867X0900900106.

Rossi, J., & Dupont, G. (2020). Foreign direct investment as a tool for poverty alleviation. *Wealth creation and poverty reduction: breakthroughs in research and practice*. (pp. 357–368). doi: 10.4018/978-1-7998-1207-4.ch020.

Sachs, J. D. (2012). From millennium development goals to sustainable development goals. *The Lancet*, *379*(9832), 2206–2211. doi: 10.1016/S0140-6736(12)60685-0.

Sachs, J. D., Schmidt-Traub, G., Mazzucato, M., Messner, D., Nakicenovic, N., & Rockström, J. (2019). Six transformations to achieve the sustainable development goals. *Nature Sustainability*, *2*(9), 805–814.

Saravanamuttoo, N. (1999). *Foreign direct investment and poverty reduction in developing countries*. Canada: Turn Course Solutions, Canadian International Development Agency.

Sethi, D., Guisinger, S. E., Phelan, S. E., & Berg, D. M. (2003). Trends in foreign direct investment flows: A theoretical and empirical analysis. *Journal of International Business Studies*, *34*(4), 315–326. doi: 10.1057/palgrave.jibs.8400034.

Sharma, B., & Gani, A. (2004). The effects of foreign direct investment on human development. *Global Economy Journal*, *4*(2), 1850025. doi: 10.2202/1524-5861.1049.

Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics*, *70*(1), 65–94. doi: 10.2307/1884513.

Sumner, A. (2005). Is foreign direct investment good for the poor? A review and stocktake. *Development in Practice*, *15*(3–4), 269–385. doi: 10.1080/09614520500076183.

Swan, T. W. (1956). Economic growth and capital accumulation. *The Economic Record*, *32*(2), 334–361. doi: 10.1111/j.1475-4932.1956.tb00434.x.

Taylor, J. E., Mora, J., & Adams, R. (2005). *Remittances, inequality and poverty: Evidence from rural Mexico* (Unpublished manuscript). University of California, Davis, CA United States.

Tekin, R. B. (2012). Economic growth, exports and foreign direct investment in least developed countries: A panel granger causality analysis. *Economic Modelling*, *29*(3), 868–878.

Tsai, P.-L., & Huang, C.-H. (2007). Openness, growth and poverty: The case of Taiwan. *World Development*, *35*(11), 1858–1871. doi: 10.1016/j.worlddev.2006.11.013.

UNCTAD (Ed.). (2003). *FDI policies for development: National and international perspectives* (World investment report 2003). New York: United Nations.

UNCTAD. (2012). *Towards a new generation of investment policies* (World investment report 2012, Vol. 486). Geneva: United Nations.

UNCTAD. (2013). *Global value chains: Investment and trade for development* (World investment report 2013). New York and Geneva: United Nations.

UNCTAD. (2017). *Beyond austerity: Towards a global new deal* (Trade and Development Report 2017, n.d. 34). New York and Geneva: United Nations. Available at https://unctad.org/system/files/official-document/tdr2017overview_en.pdf.

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development knowledge platform*. New York, NY. Available at https://sustainabledevelopment.un.org/post2015/transformingourworld/.

World Bank. (2000) *World development indicators 2000*. Washington, DC: World Bank. Available at https://databank.worldbank.org/source/world-development-indicators. Accessed August 10, 2021.

World Bank. (2017). *Governance and the law* (World Development Report 2017). Washington, DC: World Bank. Available at https://www.worldbank.org/en/publication/wdr2017.

World Bank. (2021). Available at https://www.worldbank.org/en/home. Accessed August 3, 2021.

Zaman, K., Iqtidar, A. S., Muhammad, M. K., & Ahmad, M. (2012). Macroeconomic factors determining FDI impact on Pakistan's Growth. *South Asian Journal of Global Business Research*, *1*(1), 79–95. Available at ezproxy.bu.edu/10.1108/20454451211207598.

Zhang, S., Zhu, D., Shi, Q., & Cheng, M. (2018). Which countries are more ecologically efficient in improving human well-being? An application of the index of ecological well-being performance. *Resources, Conservation and Recycling*, *129*(February), 112–119. doi: 10.1016/j.resconrec.2017.10.015.

Appendix

Table A1: Variable description and data sources

	Variable label	Description	Source
1	POV	**Head count ratio** is defined as the percentage of people living in households with consumption or income per person below the poverty line. HCR is measured using the international poverty line of US$1.9 a day (2011 PPP) provided by the World Bank **Poverty gap** reflects the intensity of *poverty* in a nation, showing the average shortfall of the total population from the *poverty* line **Gini index** measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution	World Bank Development Indicators (WDIs)
2	FDI	Foreign direct investment, net inflows as a percentage of GDP	World Bank Development Indicators (WDIs)
3	CPI	The corruption perception index captures the perceived levels of public sector corruption, as determined by expert assessments and opinion surveys. It is a composite index, a combination of 13 surveys and assessments of corruption, collected by a variety of reputable institutions. It ranges from zero to 100, with zero indicating high levels of corruption and 100 indicating low levels	Transparency International
4	HDI	HDI is a summary measure of three indexes: life expectancy at birth, years of schooling for adults aged 25 and older, and expected years of schooling for children of school entering age, and gross national income per capita	UNDP Human development report
5	IIF	The index of investment freedom measures restrictions on the movement of capital, both domestic and international	Heritage Foundation
6	IEF	The index of economic freedom takes a comprehensive view of economic freedom. The 12 aspects measured in this index are grouped into four broad categories: 1. Rule of law (property rights, judicial effectiveness, and government integrity) 2. Government size (tax burden, government spending and fiscal health) 3. Regulatory efficiency (business freedom, labor freedom, and monetary freedom) 4. Market openness (trade freedom, investment freedom, and financial freedom)	Heritage Foundation
7	TO	Trade openness measured as the sum of exports and imports of goods and services measured as a share of GDP	World Bank Development Indicators (WDIs)
8	FERT	Fertility measured as the total number of births per woman	World Bank Development Indicators (WDIs)
9	REM	Personal remittances received as a percentage of GDP	World Bank Development Indicators (WDIs)
10	Credit	Credit to private sector in percentage of GDP	EBRD
11	Labor	Labor force participation rate as a percentage of total population of age over 15 years old	World Bank Development Indicators (WDIs)
12	Law	Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, that is, ranging from approximately −2.5 to 2.5	Worldwide Governance Indicators (WGI[1])
13	Property	Property rights measures the degree to which a country's laws protect private property rights and the degree to which its government enforces those laws	Heritage foundation

[1]For further details on WGI, see Kaufmann, Aart, and Mastruzzi (2010). "The Worldwide Governance Indicators: Methodology and Analytical Issues".

Table A2: Summary of descriptive statistics for Western Balkans, 2002–2021

	HCR	POV GAP	GINI	FDI	HDI	IIF	IEF	TO	FERT	REM	LAW	LABOR	CR	PROP	CPI
Mean	2.9	1.4	34.2	7.0	0.74	60.2	60.8	89.6	1.7	0.12	−0.36	0.5	43	37	34.7
Median	2.5	0.5	33.8	5.5	0.74	65.0	61.9	86.7	1.6	0.11	−0.35	0.5	42	35	34.0
Maximum	10.4	6.1	42.8	37.4	0.83	75.0	71.3	138.8	2.7	0.7	0.3	0.6	83	70	46.0
Minimum	0.1	0.0	26.3	0.5	0.67	10.0	37.4	52.2	1.3	0.02	−0.9	0.3	9.6	10	23.0
Std. Dev.	2.75	1.6	4.6	5.6	0.04	14.7	6.6	18.7	0.3	0.1	0.25	0.1	12.9	14.7	5.9
Skewness	0.89	1.2	−0.1	2.5	0.03	−1.9	−1.3	0.4	1.1	4.14	−0.05	−0.8	0.16	0.1	−0.1
Kurtosis	3.00	3.3	1.9	11.5	2.17	6.6	4.9	2.7	3.8	26	2.6	2.8	3.8	2.6	2.2
Jarque-Bera	5.9	10.5	2.2	427	2.8	114.2	42	3.6	26	2494	0.8	12.1	2.5	0.8	2.9
Probability	0.05	0.005	0.3	0.0	0.25	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.3	0.7	0.2
Sum	141.4	59.6	1,505	746.7	71.2	5,960	5,841	10,220	181	12.6	−38	49	3,448	3,702	3,124
Sum Sq. Dev.	326	110.0	908	3,306	0.16	21,146	4,187	39,357	11.4	0.9	6.8	0.5	13,084	21,418	3,154
Obs.	44	44	44	106	96	99	96	114	108	102	108	99	80	99	90

Table A3: Correlation matrix for Western Balkans (2002–2021)

	FDI	HDI	IIF	IEF	TO	FERT	REM	LAW	LABOR	CREDIT	PROPERTY	CPI
FDI	1.000											
HDI	0.389	1.000										
IIF	−0.277	0.279	1.000									
IEF	0.045	0.38	0.287	1.000								
TO	0.093	0.374	−0.084	0.529	1.000							
FERT	0.453	0269	0.178	0.41	−0.09	1.000						
REM	0.75	0.085	−0.20	−0.29	−0.22	0.26	1.000					
Law	0.304	0.680	−0.007	0.220	0.587	0.032	0.092	1.000				
Labor	0.216	0.436	−0.006	0.631	0.457	0.132	−0.229	0.292	1.000			
Credit	0.286	0.424	−0.159	−0.039	0.378	−0.306	0.266	0.729	0.018	1.000		
Property	0.207	0.649	0.208	0.597	0.465	0.360	−0.107	0.365	0.501	−0.001	1.000	
CPI	0.081	0.668	0.178	0.355	0.543	−0.032	−0.082	0.831	0.378	0.580	0.415	1.000

Table A4: Panel unit root test results

Variable	ADF – Fisher chi-square			PP – Fisher chi-square		
	Intercept	Intercept and trend	None	Intercept	Intercept and trend	None
ΔHCR	[0.06]	[0.08]	[0.02]	[0.001]	[0.000]	[0.000]
ΔPOV_GAP	[0.003]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]
ΔGINI	[0.04]	[0.03]	[0.000]	[0.000]	[0.000]	[0.000]
ΔFDI	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
ΔCPI	[0.019]	[0.041]	[0.000]	[0.000]	[0.000]	[0.000]
ΔHDI	[0.001]	[0.002]	[0.014]	[0.000]	[0.000]	[0.000]
ΔIFI	[0.001]	[0.004]	[0.000]	[0.000]	[0.000]	[0.000]
ΔEFI	[0.000]	[0.005]	[0.000]	[0.000]	[0.000]	[0.000]
ΔTO	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
ΔFertility	[0.000]	[0.001]	[0.000]	[0.001]	[0.001]	[0.000]
ΔREM	[0.000]	[0.006]	[0.000]	[0.001]	[0.001]	[0.000]
ΔLAW	[0.000]	[0.000]	[0.000]	[0.001]	[0.001]	[0.000]
ΔLabor	[0.007]	[0.000]	[0.000]	[0.001]	[0.001]	[0.000]
ΔCredit	[0.02]	[0.000]	[0.000]	[0.001]	[0.001]	[0.000]

Note: The values in brackets represent the respective *p*-values.

Table A5: Fixed effects regression results

Explanatory variables	Model								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
POV (−1)	0.285**	0.273**	0.280**	0.259**	0.301**	0.274**	0.311**	0.324**	0.302**
FDI	−0.103*	−0.092*	−0.079*	−0.054*	−0.067*	−0.072*	−0.069*	−0.081*	−0.055*
HDI	−0.021*	−0.016*	−0.018*	−0.013**	−0.010**	−0.015*	−0.031*	−0.008*	−0.027*
IIF		−0.024*							
IEF	−0.045*							−0.072*	
TO			−0.013						
FERT				0.005					
REM	−0.101**		−0.078**						
Rule of law					−0.027*				
Labor force participation						−0.039*			
Credit		−0.037*					−0.043*		
Property								−0.031	
CPI									0.022
C	14.6	−10.0	−5.02	4.33	−5.54	−1.92	−10.4	−6.94	−5.37
Obs.	120	120	120	120	120	120	120	120	120
Adjusted R^2	0.903	0.895	0.907	0.906	0.905	0.902	0.909	0.908	0.911

Note: *** denotes significance at 1%; ** significance at 5%; * significance at 10%.