



REEVALUATING THE ROLE OF FOREIGN DIRECT INVESTMENT IN ALBANIA'S ECONOMIC GROWTH: POLICY IMPLICATIONS FOR GROWTH AND OPENNESS

Miti, Florian, *University "Ismael Qemali" Vlore, Albania, florian.miti@univlora.edu.al*

Abstract: *Based on the standard vector error correction model with quarterly data, this study focuses on the relationship between inflows of exports, foreign investments together with Gross Domestic Product, of the last two decades (2004-2024) in Albania to research in both the short-run dynamics and the long-run trends. A drawback of using diverse secondary data with differing methods of data collection and especially dealing with the economic transition period, is that it presents a challenge in terms of data reliability which may result in controversial conclusions even for studies on the same country.*

By applying the impulse analysis, it reveals that foreign direct investment inflows cause an almost negligible (positive) fluctuation in exports and a (negative) fluctuation in GDP in the long run. Conversely, exports, after a short-term negative impact, lead to an increase in FDI inflows in the long run and a slight increase in the GDP level. Finally, GDP has a positive effect on both variables. The result, therefore, is very important as it suggests that the government policy should focus more on openness, growth and exports—devaluating thus the role of FDI inflows for the economy, at least in the short term.

Keywords: *Impulse analysis; FDI; Economic transition; GDP; Short-run dynamics; Long-run*

1. Introduction

Foreign direct investment (FDI) is considered a significant determinant of the economy of any host country, and therefore, many studies have focused on the role of foreign direct investment in these economies. Of particular interest have been the economies in transition, which, although in different stages of development, all these countries have been characterized by similar economic situations and similar mechanisms of post-communist economic recovery. FDI plays a very important role in these countries since the foreign investments add knowledge and capital that the host country lacks, and they also by creating new jobs. Regarding to the albanian economy, foreign investors have shown an ever-increasing interest in foreign direct investments, mainly because of its potentials in terms of natural resources, geographical position, climate, labor force, etc. In this context, Albania is constantly trying to establish development policies and other important measures to create the most suitable business environment and the most favorable investment climate.

The aim of the study is to empirically assess the short-term and long-term relationship among the variables taken into consideration to arrive at some causal conclusions regarding the impact that foreign direct investments may have on domestic exports and vice versa.

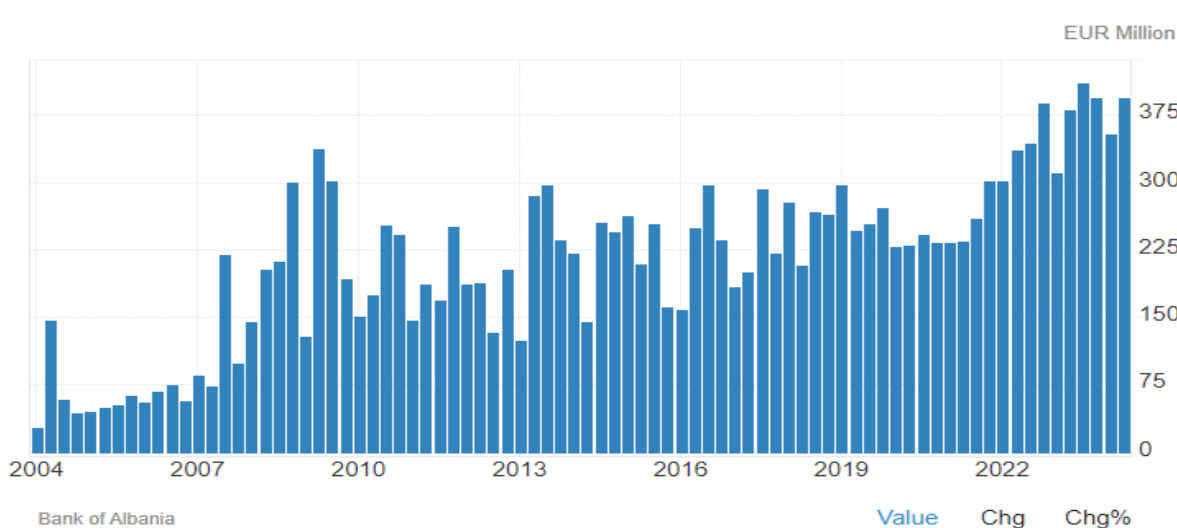
In the case of Albania, particularly, the decisive role played by FDI in the economies of countries in transition, the empirical data, made available by institutions like Bank of Albania, Albanian Investment Development Agency (AIDA), INSTAT, etc., are fragmented and not sufficiently stable in the methodology of their collection. One of the most important economic indicators, such as the Gross Domestic Product, turns out to be published in a quarterly series only after 2008, being published annually in the years before that.

This article consists of seven sections. The first section introduces the reader to the Albanian environment of foreign investments. The second section presents a general framework about previous literature and studies. While in the third section, the methodology used in this study is presented, followed by the fourth section, which details the econometric analysis along with the presentation of data and the empirical implementation and testing of hypotheses. The fifth section presents the results, followed by the limitations of the sixth section. The last section summarizes the conclusion of the study.

1.1 FDI background in Albania

Albania has a favourable geographical position to benefit from the implementation of international projects and to attract new investors. Like all developing countries, Albania has shown an increasing interest in foreign direct investments. Thanks to the reforms taken by the governments over the years, foreign investments have had a significant growth in the last two decades especially in sectors such as mining and processing of minerals, telecommunications, banking, and energy (shown in Figure 1 below). Referring to data from the Bank of Albania in 2023, energy and mining constitute the vast majority of the total stock of FDI, followed by the information and communication sector with 16% and financial services with 14%. Manufacturing accounts for less than 10% of all the country's FDI. According to the Albanian Investment Development Agency (AIDA), European countries remain the main source of foreign direct investments in Albania which, in the end of 2020, account for 54.2% of the total FDI stock.

Figure 1: FDI quarterly flow from 2004-2024



Source: Bank of Albania/ <https://tradingeconomics.com/>

Through the secondary data provided by INSTAT from 2004 to 2024 period, it is evident that the pandemic of 2020 also impacted the inflow of foreign investments, bringing the investments flow in the Albanian economy to the 2016's level. Thus, according to the data, the decline in FDI was

by 140 million Euros or 13% less than in the year 2019. It was particularly in the second quarter of 2020 when the closure of economic activity resulted in the greatest fall. Foreign direct investment started the recovery process by the end of 2020 with a total value of 940 million Euro. The industry of mineral extraction and fuel faced the greatest impact during the second the period of 2020, due to the importance that raw materials and especially fuels have on global markets.

During 2022, FDI increased by 37 % compared to the previous year, which is equal to 1.37 billion Euro.

According to the Bank of Albania, the highest volume of foreign investments in the fourth quarter of 2022 comes from Netherlands—71.8 million Euro, —followed by Italy with 37.7 million Euro and Austria with 27.4 million Euro.

The largest volume of investments from non-residents in the fourth quarter of 2022 impacted the sectors of mining and quarrying, real estate, and finance and insurance, with 66.4 million Euro, 66 million Euro, and 65.8 million Euro, respectively. This is reflected also in the volumes of the country's exports where ferroalloys count for 10.4 % of the total, followed by energy production and crude oil extraction shown in Table 1 below.

Table 1. Albanian exports by composition in 2022.

Category	Percentage (%)	Subcategories	Subcategory Percentages
Ferroalloys	10.4%	Raw Iron Bars, Raw Aluminum, Scrap Iron	1.44%, 1.35%, 0.91%
Electricity	6.66%	-	-
Crude Petroleum	6.5%	-	-
Footwear Parts	7.51%	Textile Footwear, Rubber Footwear	0.74%, 0.74%
Leather Footwear	6.21%	-	-
Non-Knit Men's Suits	3.07%	Knit Women's Suits, Knit Sweaters	1.82%, 0.92%
Insulated Wire	2.79%	Electric Motors	0.61%
Chromium Ore	2.73%	Refined Petroleum, Copper Ore	0.90%, 0.85%
Perfume Plants	1.48%	-	-
Processed Crustaceans	1.17%	Processed Fish	0.71%
Paper Containers	1.45%	-	-
Other Exports	Various	Various subcategories	Various

Source: OECD

Table 1, presents the main Albanian export categories in percentage shares, and their subcategories. The sector of mineral extraction and textile make the vast part of the Albanian exports.

2. Literature Review

Previous studies concerning the factors determining FDI in countries in transition have majorly assessed factors such as market size, which are essential for Foreign Direct Investment in economies in transition (Botrić and Škuflić, 2006; Falk 2015) and factors of gravity that explain the pattern of FDI in Southeast European countries (Mateev, 2008).

Others are proximity, trade barriers, tax policy and tax incentives, labor costs, and regional integration. Demekas et al. (2005) showed that gravity factors explain a large part of the flows of FDI in transition economies, including Southeast European countries, taking into consideration of course the business environment and the political environment, which are of great importance for

foreign direct investments. Janicki and Wunnava (2004) suggest that international trade is perhaps the most important and determining factor of FDI in countries with economies in transition.

Because of data quality and different methodology of data collection, evaluating the impact of FDI in transition economies is difficult either methodologically and practically (Welfe, 2013; Weyerstrass, 2008 and 2001). In general, impacts of FDI may be affected by the state of governance. Weak institutional frameworks, military or ethnic conflicts, and instability may inhibit development, while democratic movements and political stability may be beneficial for economic, political, and social development (e.g., Aisen and Veiga, 2013; Clemens, 2010; Jong-A-Pin, 2009).

Eren and Zhuang (2015) have investigated the various impacts of different types of FDI on the economic developments in 12 new EU member states between 1999 and 2010 and found that neither mergers and acquisitions nor greenfield investments influence the economic growth. Similarly, Nath (2009) examines the FDI inflows and their impact on real GDP growth per-capita for 13 transition economies across Central and Eastern Europe and the Baltic region from 1991 to 2005 showing that FDI has no significant influence on the economic growth of these economies compared to trade and domestic investment.

Similarly, the FDI literature on Albanian economy during the transition period is characterized by some unclear conclusions:

Boriçi and Osmani (2015) investigated the link of FDI on economic growth in Albania. Applying the cointegration analysis of time-series data, they discovered a significant long-run relationship between FDI and GDP growth. They recommended that Albania should invest more in its economy in order to attract more FDI.

Hysa and Hodo (2016) investigated the real effects of FDI on economic growth in Albania through the cointegration method with quarterly data from 1991 to 2012. Empirical findings reveal a great correlation between GDP growth and the ratio of FDI to GDP, thus proving significant support for economic growth.

Beyond these results, Golitsis et al. (2018) tested the effect of remittances and FDI on economic growth, using quarterly data between 1996 and 2014 from the World Bank. Using the Granger causality test and the VAR test, they found that remittances cause economic growth in both the short and long term while FDI appeared to be unrelated to economic growth. This would indeed indicate that transfers from emigration to support their families are much more significant than FDI.

Also, Demeti and Rebi (2014) maintained the argument that FDI does not support the promotion of economic development in Albania. The study used data from the period between 2002 and 2013 and used Pearson's correlation coefficient and Granger's causality test. This study, however, found a positive relationship between FDI and labor productivity, which is the main indicator of economic development. The reasoning for this was that the most productive sectors of Albania have attracted more FDI during this period, bringing as an example the hydropower sector, which occupied a substantial part in Albania's FDI stock during this period.

Similar results are shown by Jakšić et al. (2018) who argue that FDI in the case of the Croatian economy have a negative effect on exports, as it is mostly directed into the service sector rather than the industrial sector.

Recently, Hobbs, S., Dimitrios P., and Mostafa E. A. (2021), evaluated the case of Albania with annual data collected from 1992 to 2016 and proved the existence of long-run relationships between trade, economic growth, and FDI. They proved that exports were more effective in stimulating economic growth than FDI, because, according to VECM tests, the dependence of exports and GDP growth was more significant. In conclusion, while their study failed to establish causality from FDI inflows to exports, support for reverse causality from exports to FDI inflows is strong. This result seems

to corroborate the assertion that Albania's increasingly open trade policies have been attractive to foreign investors. This is most likely because trade liberalization is simultaneously associated with higher exports and FDI inflows.

In general, in the case of Albania, the empirical results are unclear and the role of FDI inflows in economic growth or development as well as in the impact on the host country's exports is not clearly predicted. On the other hand, most findings suggest that economic growth and development cause increased FDI inflows.

Albania's commercial policies can be characterized as promoting exports. As the trend in most transition economies show, when FDI increases, so do exports. Therefore, research on the relationship between FDI, trade, and GDP will help to understand the effectiveness of Albania's open trade policies more appropriately than the narrow research between FDI and GDP.

The limitations associated with previous studies are due to the fact that the time series span is relatively small since these research are mostly based on annual data, which results only in a few observations. Such small data does not allow to put in the model a sufficient number of variables that would help in better explanations of how macroeconomic variables interact with each other, as well as provide more reliable results from econometric tests.

3. Methodology

Although many studies have investigated the link between FDI, economic growth, and exports, there have been very many difficulties in quantifying this relationship due to the use of various econometric methods and explanatory variables, which are often unique for new studies, and as a result, this leads to biased results and controversy over the interpretation of the results (Sapienza, 2010).

Since studies on the case of Albania have provided ambiguous results for the relationship of the above variables, and there are still few studies that found that there may be a bidirectional or endogenous relationship of FDI, the interest in deepening these relations in more details and up to date data is used to test the relationship and impact between FDI, exports and economic growth using the same econometric methods, which will lead to a better understanding of the causal influences between the variables.

The following research questions can shed more light on a better understanding of the impact between FDI, exports and economic growth for this particular economy:

- H_1 : What is the impact of FDI inflows and economic growth in GDP on Albanian exports?
- H_2 : And what are the effects of exports and GDP on FDI inflows?

To answer the above questions a general macroeconomic model is used with the variables as follows:

$$\text{Exports} = f(\text{Exports}_{-k}, \text{FDI}_{-k}, \text{GDP}_{-k})$$

$$\text{FDI} = f(\text{FDI}_{-k}, \text{Exports}_{-k}, \text{GDP}_{-k})$$

Where FDI represents the incoming flows of Foreign Direct Investments measured in millions of Euro; Exports represent economic openness; GDP is the Gross Domestic Product, measured by time unit t .

The time series data will be tested for unit roots, then Granger causality will be tested between the variables, as well as co-integration and the Error Correction Model (VECM) to investigate the short- and long-run relationships between FDI- ves, exports and economic growth.

The general VECM model can be written as follows:

$$\Delta Y_t = \alpha_0 + \sum_{j=1}^k \beta_j \Delta Y_{t-j} + \sum_{j=1}^k \delta_j \Delta X_{t-j} + \phi_1 Z_{t-1} + \varepsilon_t$$

where Z is the error correction term (ECT) and represents the OLS residuals from the long run cointegration regression. This model can be expressed in two equations according to the two hypotheses presented above:

$$\Delta \ln \text{Exp}_t = \alpha_1 + \sum_{j=1}^k \beta_{11j} \Delta \ln \text{Exp}_{t-j} + \sum_{j=1}^k \beta_{12j} \Delta \ln \text{FDI}_{t-j} + \sum_{j=1}^k \beta_{13j} \Delta \ln \text{GDP}_{t-j} + \phi_1 \text{ECT}_{t-1} + U_{1t} \quad (1.1)$$

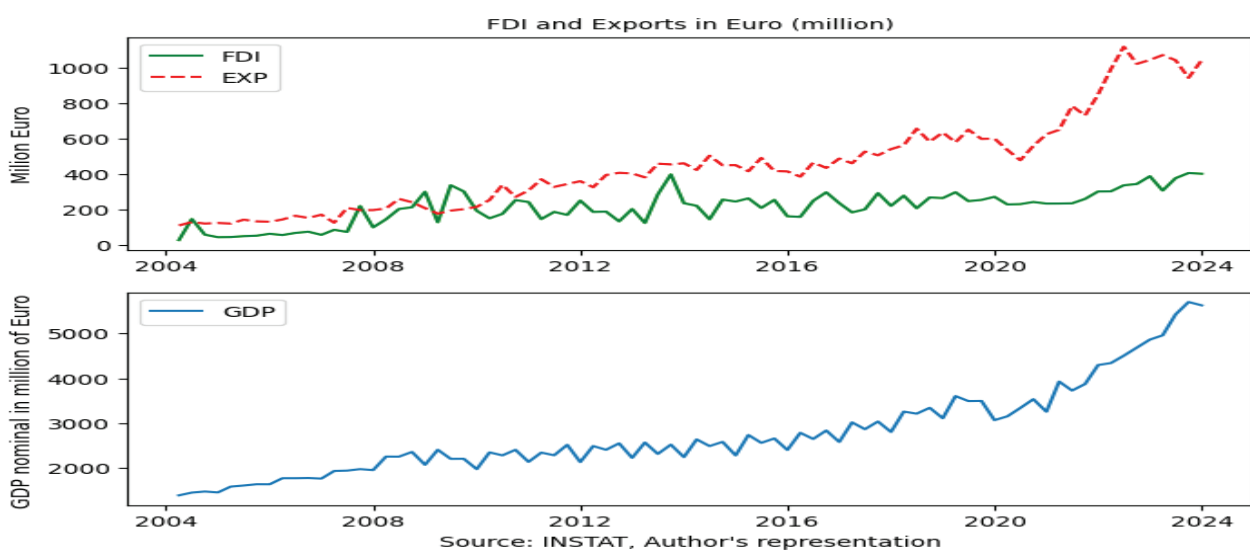
$$\Delta \ln \text{FDI}_t = \alpha_2 + \sum_{j=1}^k \beta_{21j} \Delta \ln \text{FDI}_{t-j} + \sum_{j=1}^k \beta_{22j} \Delta \ln \text{Exp}_{t-j} + \sum_{j=1}^k \beta_{23j} \Delta \ln \text{GDP}_{t-j} + \phi_2 \text{ECT}_{t-1} + U_{2t} \quad (2.1)$$

Where α_1 and α_2 are the constants of the two equations and ECT_{t-1} is the error correction term with a delay period, where k denotes the length of the delay, while β_j and ϕ_j are the coefficients to be estimated and U_t represents the uncorrelated disturbance terms. Note that the error correction term is related to the fact that the deviation of the last period from the long-run equilibrium affects the short-run dynamics of the dependent variable. Thus, the ECT coefficient, ϕ , measures the speed at which the dependent variable returns to equilibrium following a change in the independent variable.

3.1. Data Description

The analysis in this study is conducted using secondary data, made available from the Bank of Albania, INSTAT, and AIDA. The data used are quarterly ($n = 80$) starting from the first quarter of 2004 to the first quarter of 2024. This means that, unlike previous studies, which were based on annual data of the two post-communist decades, we can add more detailed and qualitative information thus enabling statistically more reliable results due to the higher number of observations used. The time-series data for GDP are presented in millions of the national currency and are not seasonally adjusted. For the period 2004-2007, the data have uniform distribution, as quarterly measurements of the GDP in Albania started to be available from 2008 onwards. The other variables employed include FDI and total quarterly exports given in millions of Euro from the first quarter of 2004 to the first quarter of 2024 as shown in Figure 2, below.

Figure 2: Quarterly Flows of FDI, GDP, and Exports.



Source: Bank of Albania, INSTAT, Author's representation

4. Empirical Analysis

To assess whether the variables are stationary or not, the Augmented Test Dickey and Fuller (1979) is used. Meanwhile, to see if the variables are co-integrated, that is, if there is a long-term relationship between the variables, Johansen's test (1988) and Stock and Watson's test (1988) were used. Using the VECM model, the long-term equilibrium after a shock to the independent variables is studied, and finally, the short-term dynamics between the variables under study are evaluated using the Granger test of causality to determine the direction of causality between them.

4.1.1 The ADF test for stationarity

The variables need to be stationary, which means that each variable needs to be tested for the existence of a unit root, and this is done by the Augmented Dickey–Fuller test.

The null hypothesis is based on the fact that for any series, the series is non-stationary because it has a unit root. The alternative hypothesis states that the series is stationary, so it does not have a unit root. Therefore, in order to reject the main hypothesis, one should have that the ADF t-statistic is less negative than the critical value for any chosen level of significance.

We can see in the Table 1 below that for the data at the current level of significance, the null hypothesis cannot be rejected since the t-statistic is greater than the critical values (5%) for all the three variables tested. These variables can be stationary in their first order difference.

Table 2. ADF Test for of unit root for FDI, Exports, GDP.

Dependent Variable	Null Hypothesis	t-Statistic	Prob.	Result
EXP_EUR at level	Unit root	0.522534	0.9865	yes
D(EXP_EUR) first difference	Unit root	-11.34246	0.0001	no
GDP_EUR at level	Unit root	2.682207	1.0000	yes
D(GDP_EUR) first difference	Unit root	-4.676948	0.0000	no
FDI_EUR at level	Unit root	-3.492889	0.0107	yes
D(FDI_EUR) first difference	Unit root	-8.916650	0.0000	no

Source: Author

4.1.2 Cointegration test

From the above fact that our time series are first-order integrated, the cointegration test by Johansen has been applied to check whether there is a long-run relationship between the variables. In this regard, the following two tests have been carried out: the *trace rank test* and the *maximum eigen value test*.

The null hypothesis is that cointegration does not exist, so $r = 0$. The alternative hypothesis says that at least one cointegrating relationship is present.

The second basic null hypothesis is that there is at most one cointegrating equation: $r = 1$. Its alternative hypothesis would be that there is more than one cointegrating equation. The basic null hypothesis will be rejected if the trace statistic would be less than its critical value. On the other hand, if the trace statistic is greater than its critical value, then the basic null hypothesis is rejected.

Table 3, shows the result of a test of the three first-order series for cointegration in the third rank between them. Since the t-statistic values exceed the critical values under the alternative hypothesis of more than one cointegrating equation, this alternative is accepted, showing that there are three cointegrating first-differencing equations of one lag.

Table 3. Cointegration Rank Test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.506561	103.5160	29.79707	0.0000
At most 1 *	0.359202	49.83293	15.49471	0.0000
At most 2 *	0.189946	16.00978	3.841466	0.0001
**Trace test indicates 3 cointegrating eqn(s) at the 0.05 level				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.506561	53.68305	21.13162	0.0000
At most 1 *	0.359202	33.82316	14.26460	0.0000
At most 2 *	0.189946	16.00978	3.841466	0.0001
Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

4.1.3 The VECM Model

According to Johansen's testing, there exists cointegration between FDI, exports, and GDP. It is possible to come up with an estimate of the speed of adjustment in the long-run equilibrium of variables after a shock through error correction (ECT), which should be negative and have a value higher than 5% of critical value of significance.

The VECM's coefficient estimations between FDI, exports, and GDP when applied on equations 1.1 and 2.1 can be reformulated in:

$$D(\text{LOG_EXP}) = (-0.003764)(\text{LOGEXP}(-1)) - 5.326\text{LOGFDI}(-1) + 6.952\text{LOGGDP}(-1) - 32.7837 + (-0.247951)D(\text{LOGEXP}(-1)) + (0.003)D(\text{LOGFDI}(-1)) + (0.729)D(\text{LOGGDP}(-1)) + (0.020213) \quad (1.2)$$

$$D(\text{LOG_FDI}) = (0.060407)(\text{LOGEXP}(-1)) - 5.326\text{LOGFDI}(-1) + 6.952\text{LOGGDP}(-1) - 32.783 + (0.766264)D(\text{LOGEXP}(-1)) + (-0.284814)D(\text{LOGFDI}(-1)) + (0.4626)D(\text{LOGGDP}(-1)) + (-0.006729) \quad (2.2)$$

From the test results, the error correction term when FDI inflow is the dependent variable is negative (-0.341541) and statistically significant [$t = -3.18074 < -1.96$] indicating a long-term impact of exports to FDI. A shock to exports causes FDI to recover by approximately 34% per quarter, reaching the equilibrium after three periods. On the other hand, the error correction term when the dependent variable is the flow of exports, is positive and statistically insignificant, which shows that there is no long-term impact of FDI towards exports.

The same case is observed for the relationship between FDI inflows and GDP where the error correction term when the dependent variable is FDI inflow is negative -0.295145 and statistically significant [$t = -3.71067 < -1.96$] and indicating a long-term impact of GDP towards FDI. A shock in GDP causes FDI to recover by approximately 30% per quarter, reaching equilibrium after three periods. On the other hand, the error correction term when GDP is the dependent variable, although it is negative, results statistically less insignificant, indicating that there is a weaker (4%) long-term impact of FDI towards GDP.

So, from the analysis of the used model-VECM, it results that FDI inflows do not have a long-term impact either on the level of exports or on economic growth-GDP. On the contrary, both exports and Albanian economic growth have a long-term impact on FDI inflows.

4.1.4 Granger Causality Test

Through Granger causality tests we can investigate the existence of causality in the short term between FDI, exports and GDP.

From Table 4, the null hypothesis stating that FDI does not cause Exports, cannot be rejected, since the F statistic is below the critical value and the probability is above 0.05. On the contrary, the null hypothesis stating that Exports do not cause FDI, can be rejected, since the F statistic is above the critical value and the probability is below 0.05.

Table 4. Granger causality test for Exports and FDI

Null Hypothesis:	Obs	F-Statistic	Prob.
LOGEXP does not Granger Cause LOGFDI	78	7.98156	0.0007
LOGFDI does not Granger Cause LOGEXP		0.00253	0.9975

Source: Author

From Table 5, below, the causality relationship remains as in the case of GDP and FDI, only in contrast, the causality relationship from FDI to GDP is not very important relative to the second hypothesis rejected convincingly.

Table 5. Granger causality test for GDP and FDI.

Null Hypothesis:	Obs	F-Statistic	Prob.
LOGFDI does not Granger Cause LOGGDP	78	3.10285	0.0509
LOGGDP does not Granger Cause LOGFDI		6.30378	0.0030

Source: Author

As for the short-term relationship between Exports and GDP, in Table 6, the causality relationship from economic growth, GDP, to exports is very strong, but this does not reverse the direction since the basic hypothesis that Exports cannot be rejected do not cause GDP.

Table 6. Granger causality test for GDP and exports

Null Hypothesis:	Obs	F-Statistic	Prob.
LOGEXP does not Granger Cause LOGGDP	78	0.22025	0.8028
LOGGDP does not Granger Cause LOGEXP		13.5835	1.E-05

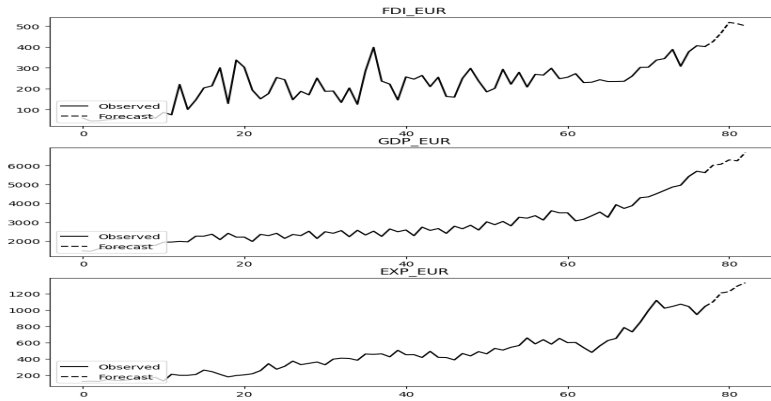
Source: Author

Thus, from the above, there exists a one-way flow of causality from Exports to FDI and from GDP to exports. However, bi-directional causality has been established only in the combination between GDP and FDI inflows, which, is not very strong.

5. Results

The VECM model for quarterly data predicts an upward trend for all three variables in the next 5 periods; however, FDI inflows are characterized by greater fluctuation compared to exports that are also expected to continue growing.

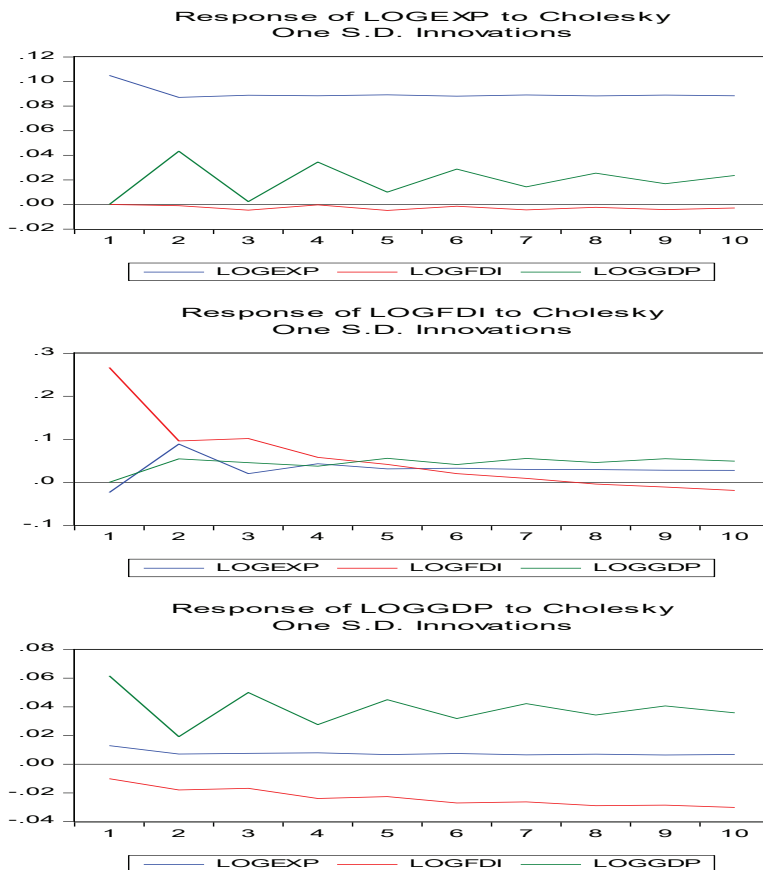
Figure 3. VECM forecast for the next 5 periods of each time series:



Source: INSTAT, author's calculation

Finally, in Figure 4, we see how the effect caused by the change of one variable on other variables will be in the long term (10 periods).

Figure 4. Response of the variables to the impulse changes in each of them in the next 10 periods.



Source: Author

In the first graph where there are presented the responses of the three variables to a shock in exports (in blue line), we see that this shock applied to the same variable (export growth), it remains stable over time indicating that shocks to export growth have a minor impact on the exports themselves, while it causes a significant variability in foreign direct investment (in red line), implying that FDI inflow is sensitive to changes in export growth and no significant fluctuations on GDP growth (in green line).

In the second graph, after the shock in FDI on the same variable (in red line), there is an initial sharp decline in FDI itself and then a stabilization showing a short-term volatility then its returning to equilibrium. As for the remaining two variables, both export growth (in blue line) and GDP (in green line) exhibit a minimal reaction to a shock in FDI, indicating that these remain unaffected by short term fluctuations in FDI.

Finally in the last graph, export growth (in blue line) remains stable to shocks in GDP, while FDI shows a larger reaction to GDP shocks, but not as severe as in the previous graph and a moderate sensitivity to GDP itself. Overall FDI is the most volatile variable in the presence of economic shocks, showing significant short-term fluctuations on both internal and external changes while export is the most stable variable, being unaffected to shocks in exports, FDI, or GDP, indicating that export growth remains mostly unaffected by economic fluctuations.

The impact of shocks on GDP seems to be more moderate, if compared to that on FDI showing more stability but still displaying some sensitivity to changes. The result, therefore, is very important as it suggests that the government should focus more on trade openness, growth and exports—devaluating thus the role of FDI inflows.

6. Limitations

A problem encountered with studies that have used different secondary data for different countries is their instability as a result of different methods of data collection. Data quality from countries under transition is also not guaranteed. This leads to the fact that the same studies carried on the same countries to result in controversial conclusions.

The fact that the analysis of the model used (VECM) indicates that the FDI inflows do not have a long-term impact either on the level of exports or on economic growth (GDP) is probably related to the composition of these investments. In fact, most of the FDI stock is invested in the energy sector (while the domestic demand for energy is steadily increasing) and in hydrocarbon-mining sector which is focused on mineral extraction rather than in investing in the processing technology of these minerals.

7. Conclusion

Although Albania enjoys a favorable geographical position, relatively low labor costs, and some fiscal incentives, it still ranks among the countries with the lowest inflow of foreign capital in the region, recording much lower levels of FDI than its actual potential. Several barriers in attracting such investments are found in the political instability of the country, its weak infrastructure, and corruption.

In contrast to prior studies, which relied on truncated annual data, this study uses more detailed and better quality of the information by employing quarterly data, thus enabling statistically more reliable results from the higher number of observations used.

The analysis with the VECM model indicates that FDI inflows do not have a long-term impact either on the level of exports or on economic growth (GDP). On the contrary, both exports and

economic growth have a long-term impact on FDI inflows. This relationship is also verified by Granger causality tests for the short term which showed causality in only one direction.

Overall FDI is the most volatile variable in the presence of economic shocks, showing significant short-term fluctuations on both internal and external changes while export is the most stable variable, being unaffected to shocks in exports, FDI, or GDP, indicating that export growth remains mostly unaffected by economic fluctuations.

This is likely due to the fact that, over these years, foreign investments have primarily resulted from the privatization of small, medium, and large state-owned enterprises and have been mainly focused on labor-intensive industries or have been oriented towards residential real estate transactions.

These results constitute an important information for policy-making as it supports the idea that the focus of government policies should be oriented towards economic opening and export growth, thereby undervaluing the role of FDI inflows.

8. References.

1. Aisen, A., & Veiga, F. J. (2013). How does political instability affect economic growth? *European Journal of Political Economy*, 29 151–167.
2. Boriçi, Y.K., and Osmani, E. (2015) Foreign Direct Investment and Economic Growth in Albania. *Economics*, 3, 27–32.
3. Botrić, V., and Škuflić, L. (2006) Main Determinants of Foreign Direct Investment in the Southeast European Countries. *Transition Stud Rev* 13, 359–377
<https://doi.org/10.1007/s11300-006-0110-3>
4. Clemens, W. C. (2010). Ethnic peace, ethnic conflict: Complexity theory on why the Baltic is not the Balkans. *Communist and Post-Communist Studies*, 43(3), 245–261.
5. Demekas, D.G.; Horváth, B.; Ribakova, E.; Wu, Y. (2005) Foreign Direct Investment in Southeastern Europe: How (and how much) can policies help?
6. Demeti, A., and Rebi, E. (2014) Foreign direct investments (FDI) and Productivity in Albania. *Interdisciplinary Journal of Research and Development*, 1, 7–14.
7. Dickey, D. A., and W. A. Fuller. (1979) Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association* 74: 427–31
8. Eren, M., & Zhuang, H. (2015). Mergers and acquisitions versus greenfield investment, absorptive capacity, and economic growth: Evidence from 12 new member states of the European Union. *Eastern European Economics*, 53(2), 99–123. <https://doi.org/10.1080/00128775.2015.1033240>
9. Falk, M. (2015). The relationship between FDI through backward linkages and technological innovations of local firms: Evidence for emerging economies. *Eastern European Economics*, 53(5), 424–438. <https://doi.org/10.1080/00128775.2015.1065507>
10. Granger, C. W. (1988). Causality, cointegration, and control. *Journal of Economic Dynamics and Control*, 12(2-3), 551-559.
11. Golitsis, P., Avdiu, K., and Szamosi, L.T. (2018) Remittances and FDI Effects on Economic Growth: A VECM and GIRFs for the Case of Albania. *Journal of East-West Business*, 24, 188–211.
12. Hobbs, S., Paparas, D., and AboElsoud, M.E. (2021) Does Foreign Direct Investment and Trade Promote Economic Growth? Evidence from Albania. *Economies*, 9(1), 1.
<https://doi.org/10.3390/economies9010001>

13. Hysa, E., and Hodo, L. (2016) Foreign direct investment and economic growth in Albania: A co-integration analysis. *International Economics*, 234–244.
14. Jakšić, S., Erjavec, N., & Cota, B. (2018). The role of foreign direct investment and labor productivity in explaining croatian regional export dynamics. *Central European Journal of Operations Research*, 27(3), 835–849. <https://doi.org/10.1007/s10100-018-0583-2>.
15. Janicki, H.P., and Wunnava, P.V. (2004) Determinants of foreign direct investment: empirical evidence from EU accession candidates. *Applied Economics*, 36(5), 505–509.
16. Johansen, S. (1988) Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control* 12: 231–54.
17. Jong-A-Pin, R. (2009). On the measurement of political instability and its impact on economic growth. *European Journal of Political Economy*, 25(1), 15–29.
18. Mateev, M. (2008) Corporate governance problem and its implications for transition economies. *Corporate Ownership & Control*, 5(3-3), 335–348.
19. Nath, H. K. (2009). Trade, foreign direct investment, and growth: Evidence from transition economies. *Comparative Economic Studies*, 51(1), 20–50.
20. Sapienza, E. (2010) Foreign Direct Investment and growth in Central, Eastern and Southern Europe. *Investigación Económica*, 69, 99–138.
21. Segal, M. R. (2004). Machine learning benchmarks and random forest regression.
22. Sherstinsky, A. (2020). Fundamentals of recurrent neural network (RNN) and long short-term memory (LSTM) network. *Physica D: Nonlinear Phenomena*, 404, 132306.
23. Welfe, W. (2013). The models of the Middle and East European Countries. In: *Macroeconometric Models. Advanced Studies in Theoretical and Applied Econometrics*, vol 47. Springer, Berlin, Heidelberg, 123–190. https://doi.org/10.1007/978-3-642-34468-8_9
24. Weyerstrass, K. (2008). Economic policies on Slovenia's road to the euro area. *Economic Systems*, 32(1), 92–102. <https://doi.org/10.1016/j.ecosys.2007.09.003>
25. Weyerstrass, K., Haber, G., & Neck, R. (2001). SLOPOL1: A macroeconomic model for Slovenia. *International Advances of Economic Resources*, 7(1), 20–37.