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Determinants of Foreign Portfolio Investment in the Western Balkan Countries

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Abstract

Securities and other capital inflows of assets that may be held by other foreign nations make up international portfolio investments. An investor who makes a foreign portfolio investment (FPI) gains indirect ownership of financial assets. So, this study aims to investigate the main determinants of FPI in Western Balkan Countries. Key variables included in the study are portfolio investment, GDP per capita growth, foreign direct investment (FDI), external debt (EXD), inflation, population, real interest rate, and regulatory quality, sourced from the World Bank. The methodology employed involves panel data regression analysis using fixed and random effects, allowing the observation of the influence of economic, demographic, and institutional factors across time and entities. It is important to observe if FPI is determined by economic growth and other considered potential determinants. The findings indicate that the portfolio investment of Western Balkan countries is significantly influenced by GDP per capita growth, external debt, inflation, and real interest rates.

Keywords: Foreign portfolio investment, GDP per capita growth, external debts, inflation, real interest rate, Western Balkan Countries.

Introduction

Foreign portfolio investment refers to foreign investment or capital entry into the country. Foreign portfolio investment is essentially the foreign investors' purchase of the stocks and shares of the host nation. In the previous ten years, there has been a lot of discussion and heated disagreement among economists over foreign portfolio investment. Over the past century, international investors have shifted their capital towards emerging economies, changing the trajectory of foreign portfolio investment. According to data from the World Bank, since 1996, foreign portfolio investments have grown dramatically in the Western Balkan nations. A variety of factors influence foreign investors' decisions to make investments in other countries (Agarwal, 1997; Ang, 2008; Hussain & Goswami, 2022). Principally, the country's political and social stability, as well as economic progress. In developing countries, portfolio flows are viewed as crucial for addressing the savings-investment gap and supplying foreign exchange to fund current account deficits. Meanwhile, investors from developed nations allocate funds to portfolios in various countries to mitigate risk and maximize returns. (Singhania & Saini, 2017).

Studying the economic foundations that induce foreign investors to make investments in the host nation is the main focus of this research. Due to its shorter duration than foreign direct investment (FDI), foreign portfolio investments are becoming an increasingly prevalent occurrence. The overseas investor made their investment while keeping an eye on economic data, speculating on the market's potential boom. Due to the fact that FPI is a short-term investment with substantial returns, its popularity has grown significantly.

Foreign investors' investments in the host nation are a reliable source of revenue and aid in meeting the nation's capital requirements. The international dimensions of corporate operations have risen significantly in the last few years, which is indicative of economic activity. Globally, the volume of cross-border transactions has increased, bringing national economies closer together not only in terms of products and services but also in terms of financial claims of all types. A higher level of market integration has been attained as a result of lowered regulatory barriers across nations, cheaper communications costs, and cheaper travel and transportation expenses. This trend toward globalization is seen in the rise in both imports and exports globally as a percentage of each nation's GDP when it comes to actual products and services. As a result, there has been a direct and indirect internationalization of consumption patterns.

In addition to providing a reliable source of revenue, foreign investment in the host countries helps the country meet its capital requirements. Foreign investors are more inclined to invest in their home market (Daly & Vo, 2013). Home bias is the term used to describe this phenomenon. To entice international investors to invest in their states, host countries must adopt a variety of actions. For example, less restrictions on the movement of cash and an alluring investment opportunity given the economy's notable growth rate.

Literature Review

Current research indicates that capital inflows and outflows are significant, with the spatial component playing a critical role in the international flow of money (Faruquee, Li, & Yan, 2004; Portes & Rey, 2005; Lo Duca, 2012).

The transaction cost and the size of the host country's market determine the amount of capital inflow. The key factors influencing the country's capital movement, according to the IMF reports, are market size, asymmetric knowledge, and transaction costs. The portfolio investment is propelled by these key elements. The driving variables for portfolio investments are altered by significant market events and shocks. After the market tensions have diminished, foreign investors are highly concerned about regional development. On the other side, investors began to panic due to the intense tension in the homeland, and they began to transfer their money out of the nation or region.

Lo Duca (2012) states that the GDP growth rate, market efficiency, and better return expectations are the main factors influencing capital inflows. These elements are crucial in drawing in foreign investment. By attracting foreign investment, all of these elements improve the macroeconomic standing of the nation and aid in closing the current account deficit. It steers the economy in the direction of growth. On the other hand, the nation's economic devastation may result from this type of investment due to its volatility. Under normal circumstances, foreign portfolio investments are highly advantageous as they have a great effect on the economy.

According to Garg and Dua (2014), foreign portfolio investments have increased five times in emerging nations. Up till 2010, the amount invested in overseas portfolios was 128 billion dollars. The countries of China, India, Brazil, and South Africa have shared the majority of foreign portfolio investments. 70 percent of the global foreign portfolio investment is held by three countries: China, India, and Brazil. China receives the lion's share of international portfolio investments due

to its phenomenal growth over the past thirty years. The Chinese reforms began in the agriculture sector in 1978 and eventually extended throughout the entire economy. China's private sector had enormous growth between 1978 and 2005.

Fayyaz et al. (2015) state that GDP growth, market size, market efficiency, and better-expected returns are the primary drivers of foreign portfolio investments. These factors also significantly influence the movement of foreign portfolio investments. Any nation that has these elements in stable form attracts steady inflows of cash from throughout the globe. When it comes to China, the biggest factor influencing foreign portfolio investment in the nation is its external debt. FDI, GDP growth, and currency rates are a few of the key factors that influence foreign portfolio investments.

Waqas et al. (2015) state that the macroeconomic conditions of the host nation are the primary determinant of foreign portfolio investment. They investigated the connection between foreign portfolio investment volatility and macroeconomic variables in India, Sri Lanka, Pakistan, and China. The study demonstrates that macroeconomic conditions have a major impact on the volatility of international portfolio investments. The volatility of foreign portfolio investments is lower in host nations with high interest rates, foreign direct investment, currency depreciation, reduced inflation, and faster GDP growth rates. This shows that the country's steady macroeconomic environment draws in more international portfolio investors and that the stable economic conditions of the host nation reduce the volatility of foreign portfolio investments.

A study by Fosu & Magnus (2006) and Omisakin et al. (2009) suitably determined that foreign capital inflow is regarded as a vital means of transferring to increase the hoard of treasuries for local speculation. A different argument made by Ngowi (2001) is that developing nations, particularly those in Africa, need a large inflow of foreign capital to bridge the gaps between savings and foreign exchange while also requiring a quick ratio of capital accumulation to progress in order to overcome the prevailing insufficiency in these nations.

According to the analysis by (Ghose, 2004; Knill, 2005), foreign investors prefer rising nations over established ones due to their better rates of return. While it's possible that foreign investors are keen to profit from this high yield ratio, the issue of high manufacturing costs and biased venture inducements is a completely different matter. As we take into consideration the current circumstances, foreign portfolio investments, or FPIs, are rising to prominence as a kind of investment

in many different nations. The primary goals of investing abroad are, on the one hand, to generate income and, on the other, to diversify the investors' risk. Many authors have argued against it in the collected works, regardless of the aforementioned benefits of foreign capital influx or foreign portfolio investment in the congregation country.

A study by Kargi (2014) and Busse and Hefeker (2005) disputes the idea that portfolio investments follow the risk of an abrupt stop if the economy or depositors' perceptions change, giving rise to financial and economic disasters. The robust legal framework and favorable business environment are recognized as the main draws for foreign investment. The stability of the monetary market and other factors influence financiers' decisions on portfolio investments, which can lead to portfolio investment drift, considering the findings of Masoud and Abu Sabha (2014). No matter how vibrant a capital market could be, FPI would not be drawn to an unhelpful business environment and a weak legal framework.

The host country's surrounding nations have an impact on the FPI as well, both positively and negatively. The security of their money is a major concern for the overseas investor. The country's political stability and the predicted rate of return are related. When making investments, foreign investors typically favor politically stable nations over less stable ones. To protect their money, international investors move their investments from politically unstable to politically stable nations. According to Chukwuemeka, Stella, Odhu, & Onyema (2012) and Smimou (2014), the cultural traits of both the investing and host countries play a significant role in determining foreign portfolio investments in the host nation.

As to Khan's (1996) assertion, the most notable feature of private capital inflows into Pakistan is portfolio investment, along with non-resident foreign currency deposits and other short-term capital. However, there is a chance of a disruption in these flows in the near future. This flow reversal ultimately causes a banking crisis, which in turn causes instability in the interest rate and exchange rates. One of the main causes of rising portfolio flows to attractive markets is the expectation of rapid economic growth in developing nations, which is typically reflected in better returns on investment. The investigation of Khan (1996) found that portfolio inflows have proven to be more reversible than other forms in developing countries because of their intrinsically capricious nature.

Research Methodology

This study uses panel data analysis. Panel data sets are those that incorporate cross sections (entities) and time periods. This study focuses on two methods for panel data analysis: fixed effects and random effects. The Hausman test is used to assess whether a fixed effects model or a random effects model is more suitable for the used sample of panel data.

The general form of the panel regression equation can be expressed as follows:

$$FPI_{it} = \Phi_i X_{it} + \alpha_i + \varepsilon_{it}$$

Where FPI_{it} is the dependent variable representing the countries' foreign portfolio investment (FPI) at time t ; whereas X_{it} is a vector of explanatory variables for country i at time t (potential determinants of FPI); Φ_i is the coefficient of the vector capturing the impact of the explanatory variables on FPI. The country-specific fixed effects are represented by α_i . The error term, ε_{it} , representing unexplained variation in FPI for country i at time t .

The Data

The data are obtained from the World Development Indicators provided from World Bank. There are used eight variables spanning the years 2002 through 2022. The variables considered for this analysis are presented in the following table.

Table 1:

Variable Description

Variables	Variable dependence & independence
FPI = Portfolio Investment covers transactions in equity securities and debt securities, in \$ US.	DEPENDENT VARIABLE
GDP = GDP per capita growth (annual growth)	INDEPENDENT VARIABLE
FDI = Foreign Direct Investment (net inflows)	INDEPENDENT VARIABLE
EXD = External debt stocks, total \$ US	INDEPENDENT VARIABLE
INF = Inflation (based on consumer price index)	INDEPENDENT VARIABLE
POP = Population, total	INDEPENDENT VARIABLE
RIR = Real Interest Rate	INDEPENDENT VARIABLE
RG = Regulatory quality	INDEPENDENT VARIABLE

Table 2 summarizes important statistics, including mean, standard deviation, minimum and maximum values, i.e., descriptive statistics for the variables utilized in the regression model. This helps in providing an accurate appearance of the data, such as central tendency, and variability of the data that the regression models use.

Table 2:

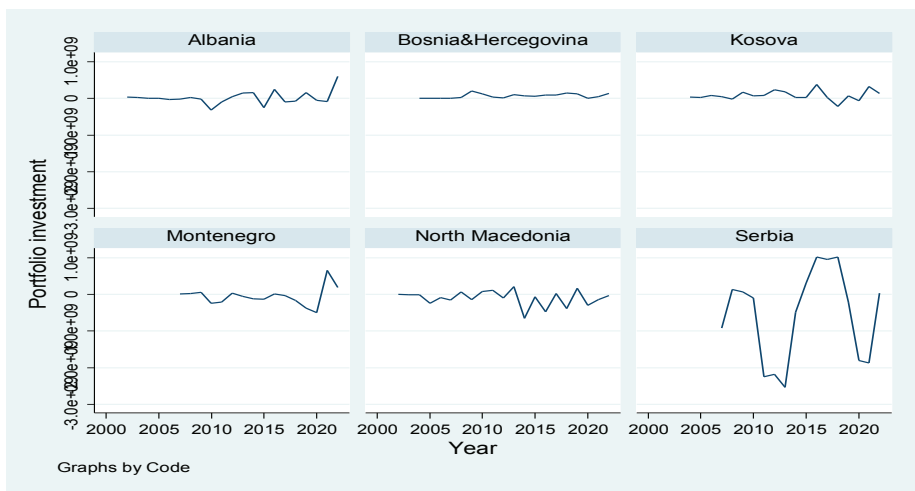
Descriptive Statistics

Variables	Observations	Mean	St.Deviation	Min	Max
FPI	112	-7.67e+07	5.19e+08	-2.53e+09	1.02e+09
GDP	119	3.698958	3.578814	-15.20847	13.42593
FDI	114	9.64e+08	1.08e+09	7693780	4.93e+09
EXD	122	1.02e+10	1.01e+10	7.53e+07	4.42e+10
POP	126	3028374	2106475	609828	7496522
RIR	97	4.3742	5.215422	-13.58051	17.72507
INF	119	3.91638	3.702974	-2.83313	19.50922
RG	118	52.19821	9.8465	27.94118	70

Source: Authors' calculation

Figure 1:

Investment Portfolio in the Western Balkan Countries



Source: World Development Indicators, World Bank

Figure 1 presents the trends of portfolio investment in Western Balkan Countries. As can be seen from the graph, Serbia has had fluctuations in its investment portfolio. Most notably, from 2009 to 2014, the country saw significant volatility in its portfolio investment. In 2020, however, it is possible that the COVID-19 pandemic had an impact on the decline in portfolio investment. The two countries with the steadiest portfolio investments are Kosovo and Bosnia and Herzegovina. The chart indicates that Albania and Montenegro experienced a rise in portfolio investment after 2020. The country with the most volatility is North Macedonia. It might be said that the portfolio investment has had fluctuations between 2010 and 2020.

Empirical Results

The models provide significant insights into the relationships between economic variables and portfolio investment. Reflecting the results of the Hausman test, it has been carefully considered the model selection. This approach ensures which factors significantly impact portfolio investment.

The fixed-effects regression suggests that GDP per capita, external debt stocks, inflation, and real interest rate significantly influence portfolio investment. However, other factors like FDI, total population, and regulatory quality do not show significant effects on portfolio investment.

Table 3:

Fixed Effects Results

	Coef.	Std. Err.	t	P > t 	[95% Conf. Interval]	
GDP	1.70e+07	7035251	2.42	0.018	3001436	3.10e+07
FDI	8202636	6010433	1.36	0.176	-3770760	2.02e+07
EX	.0581498	.0187434	3.10	0.003	.0208111	.0954884
POP	-170.7483	180.6512	-0.95	0.348	-530.624	189.1274
INF	4.33e+07	1.62e+07	2.66	0.009	1.09e+07	7.56e+07
RIR	3.73e+07	1.44e+07	2.60	0.011	8738534	6.59e+07
RQ	-6644720	5563272	-1.19	0.236	-1.77e+07	4437885
_cons	-1.52e+08	5.06e+08	-0.30	0.765	-1.16e+09	8.56e+08

Source: Authors' calculation

In this model, GDP per capita has a statistically significant positive impact on portfolio investment, other variables including foreign direct investment (FDI), population, inflation, real interest rate, and regulatory quality do not show significant effects in this model, indicating that the considered explanatory variables do not significantly affect the portfolio investment.

Table 4:

Random Effects Statistics Results

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
GDP	1.58e+07	7635176	2.07	0.038	852406.5	3.08e+07
FDI	-1028959	5086260	-0.20	0.840	-1.10e+07	8939929
EX	.0034674	.0103006	0.34	0.736	-.0167214	.0236562
POP	-23.15618	40.84942	-0.57	0.571	-103.2196	56.90722
INF	-166998.2	1.50e+07	-0.01	0.991	-2.96e+07	2.92e+07
RIR	2859512	1.29e+07	0.22	0.824	-2.24e+07	2.81e+07
RQ	-2498992	3736558	-0.67	0.504	-9822511	4824527
_cons	8.85e+07	2.57e+08	0.35	0.730	-4.14e+08	5.91e+08

Source: Authors` calculation

The Hausman test suggested that the random effects model is the most suitable model for these data, as the $\text{prob} > \chi^2 = 0.3294$ is not less than the significance level, so the null hypothesis cannot be rejected and this suggests that the random effects model is appropriate.

Limitations of the Study

Since some countries attained independence after 2000, the yearly statistics for each state differ and it is an unbalanced panel. The data are based for the time span from 2002 till 2022 because of this. As a result, the estimated effects of considered potential determinants on FPI may be distorted or be biased due to the missing data or omitted variables.

Conclusion

Panel regression analysis was used in this work to examine some potential factors that might influence foreign portfolio investment (FPI) in Western Balkan Countries between 2002 and 2022. Specifically, fixed effects and random effects models were applied. The analysis highlighted the significant impact of GDP per capita, external debt, inflation, and real interest rates in the fixed effect model. However, in the random effects, only GDP per capita has a significant effect on portfolio investment, and based on the Hausman test, this is the suitable model.

Interestingly, while empirical research and literature consistently identify GDP growth as a significant driver of financial penetration, the contributions of other factors seem to differ depending on the model used. To better understand the determinants, future studies should examine the temporal dimensions of these correlations in greater detail and consider other control factors as well as dynamic modeling.

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