TEFMJ

Trends in Economics, Finance and Management Journal

VOLUME 6 | ISSUE 2

ISSN: 2671-3357

BALKAN JOURNALS

TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

VOLUME 6 | ISSUE 2
e-ISSN 2671-3365

Trends in Economics, Finance and Management © 2024, TEFMJ

Volume 6 - Issue 2 | December 2024

Address of the Editorial Office
Makedonsko - Kosovska Brigada Str. 1000, Skopje, Republic of North Macedonia

tefmj.ibupress.com

Published by Balkan University Press

Open access, peer-reviewed, bi-annual academic journal | e-ISSN: 2671-3365 | ISSN print: 2671-3357

Contents

TEFMJ TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

Determinants of Foreign Portfolio Investment in the Western Balkan Countries

Bujar Chahili

DOI: https://doi.org//10.69648/FTXY1458

Trends in Economics, Finance and Management (TEFMJ), 2024; 6(2): 1-12

ijtns.ibupress.com

Online ISSN: 2671-3365

Application : 01.12.2024

Revision : 10.12.2024

Acceptance : 24.12.2024

Publication : 30.12.2024

Chahili, B. (2024). Determinants of Foreign Portfolio Investment in the Western Balkan Countries. Trends in Economics, Finance and Management Journal, 6(2), 1-12. https://doi.org//10.69648/FTXY1458

Bujar Chahili

Mother Teresa University

Correspondence concerning this article should be addressed to Bujar Chahili, at the e-mail address: bujar.cahili@unt.edu.mk

BALKAN JOURNALS

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 (Faruqee, 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:

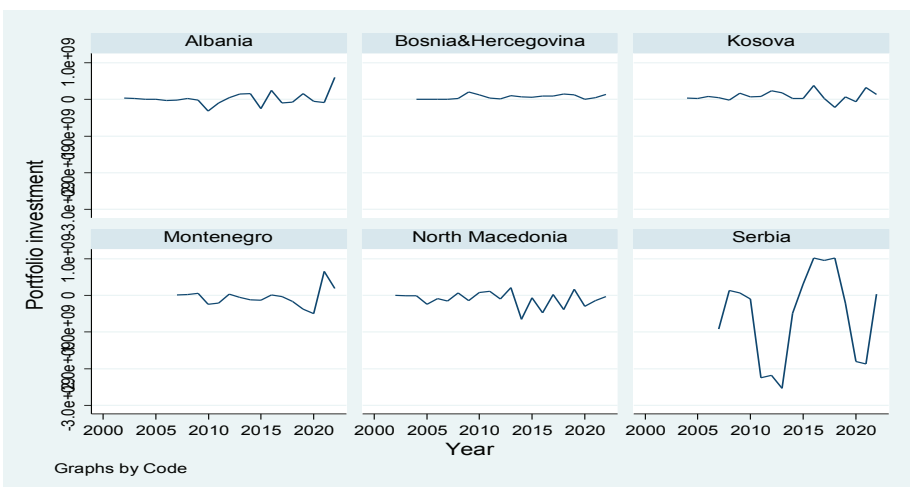
Descriptive Statistics

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 prob>chi2=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 spin 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.

References

Agarwal, R.N. (1997). Foreign portfolio investment in some developing countries: A study of determinants and macroeconomic impact. Indian economic review, pp.217-229.

Ang, J.B. (2008). Determinants of foreign direct investment in Malaysia. Journal of policy modeling, 30(1), pp.185-189.

Aurangzeb, & A. Ul Haq. (2012). Impact of Foreign Capital Inflows on Economic Growth in Pakistan. European Journal of Economics, Finance and Administrative Sciences, 46.

Chukwuemeka, P., Ekeocha, C. Stella., Malaolu, V., & Oduh, M. Onyema. (2012). Modelling the long run determinants of foreign portfolio investment in Nigeria. Journal of Economics and Sustainable Development, 3(8), 194-205.

Daly, K., & Vo, X. V. (2013). The determinants of home bias puzzle in equity portfolio investment in Australia. International Review of Financial Analysis, 27, 34-42. http://dx.doi.org/10.1016/j.irfa.2012.05.005 development in a globalized world

Egly, P. V., Johnk, D. W., & Liston, D. P. (2010). Foreign Portfolio Investment Inflows to the United States: The Impact of Risk Aversion and US Stock Market Performance. North American Journal of Finance and Banking Research, 4(4), 25-41.

Faruqee, H., Li, S., & Yan, I. K. (2004). The Determinants of International Portfolio Holdings and Home Bias (Vol. 4). Washington, DC: International Monetary Fund.

Fayyaz. A., Draz, M. U., & Yang, S. C. (2015). Determinants of Foreign Portfolio Inflows: Analysis and Implications China. Asian http://dx.doi.org/10.2139/ssrn.2542610

Fosu, O. E., & Magnus, F. J. (2006). Bounds Testing Approach to Cointegration: An Examination of Foreign Direct Investment, Trade and Growth Relationships. American Journal of Applied Sciences, 3(11), 2079-2085. http://dx.doi.org/10.3844/ajassp.2006.2079.2085

Garg, R., & Dua, P. (2014). Foreign portfolio investment flows to India: Determinants and analysis. World Development, 59, 16-28. http://dx.doi.org/10.1016/j.worlddev.2014.01.030

Gee, C. S., & Karim, M. Z. A. (2011). FDI's Country of Origin and Output Growth: The Case of Malaysia's Manufacturing Sector, 1991-2006. Applied Econometrics and International Development, 1(1), 161-176.

Ghose, A. K. (2004). Capital inflows and investment in developing countries. Geneva: Internaational labour Organization. Employment Strategy Papers, No. 2004/11.

Hefeker, C., & Busse, M. (2005). Political Risk, Institutions and Foreign Direct Investment (No. 315). Hamburg Institute of International Economics (HWWA).

Hefeker, C., & Busse, M. (2005). Political Risk, Institutions and Foreign Direct Investment (No. 315). Hamburg Institute of International Economics (HWWA).

Hussain, M., & Goswami, B. (2022). Sector Specific Determinants of Foreign Portfolio Investment Inflows in India: A Panel ARDL Approach. Global Business Review, 0(0). https://doi.org/10.1177/09721509221137204

Kargi, B. (2014). Portfolio in Turkish economy, and a long-termed relation between foreign direct investments and the growth, and the structural breakage analysis (1980-2012). Journal of Academic Research in Economics, 6(1), 70-81.

Khan, M. Z. (1996). Prospects for private capital flows and financial sector development. The Pakistan Development Review, 35(4), 853-883. Retrieved from http://www.jstor.org/stable/41260003

Knill, A. M. (2005). Can Foreign Portfolio Investment Bridge the Small Firm Financing Gap around the World? (Vol. 3796). World Bank Publications. http://dx.doi.org/10.1596/1813-9450-3796

Lo Duca, M. (2012). Modelling the time varying determinants of portfolio flows to emerging markets (August 23, 2012).

Haider, M. A., Khan, M. & Abdulahi, E. (2016), "Determinants of Foreign Portfolio Investment and its Effects on China'' International Journal of Economics and Finance; Vol. 8, No. 12; E-ISSN 1916- 9728.

Ngowi, H. P. (2001). Can Africa increase its global share of foreign direct investment (FDI)? West Africa Review, 2(2).Smimou, K. (2014). International Portfolio Choice and Political Instability Risk: A Multi-Objective Approach. European Journal of Operational Research, 546-560. http://dx.doi.org/10.1016/j.ejor.2013.01.024

Omisakin, O., Oluwatosin, A. D. E. N. Y. I. Y. I., & Ayoola, O. M. O. J. O. L. A. I. B. I. (2009). Foreign direct investment, trade openness and growth in Nigeria. Journal of Economic Theory, 3(2), 13-18.

Parthapratim P. (2010). Foreign portfolio investment Stock market and economic development: A case study in India. In book: Capital Without Borders; DOI: 10.2307/j.ctt1gsmzdw.11

Qayyum, U., & Haider, A. (2012). Foreign aid, external debt and economic growth nexus in low-income countries: The role of institutional quality. The Pakistan Development Review, 97-115.

Singhania, M., & Saini, N. (2018). Determinants of FPI in Developed and Developing Countries. Global Business Review, 19(1), 187-213. https://doi.org/10.1177/0972150917713280

Smimou, K. (2014). International Portfolio Choice and Political Instability Risk: A Multi-Objective Approach. European Journal of Operational Research, 546-560. http://dx.doi.org/10.1016/j.ejor.2013.01.024

Waqas, Y., Hashmi, S. H., & Nazir, M. I. (2015). Macroeconomic factors and foreign portfolio investment volatility: A case of South Asian countries. Future Business Journal, 1(1), 65-74. http://dx.doi.org/10.1016/j.fbj.2015.11.002

TEFMJ TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

DOI: https://doi.org//10.69648/QYTX1435

Trends in Economics, Finance and Management (TEFMJ), 2024; 6(2): 13-27

ijtns.ibupress.com

Online ISSN: 2671-3365

Application : 02.12.2024

Revision : 8.12.2024

Acceptance : 24.12.2024

Publication : 30.12.2024

Bejaj, A. (2024). Impact of Foreign Direct Investment on Income Inequality: The Case of Kosovo. Trends in Economics, Finance and Management Journal, 6(2), 13-27. https://doi.org//10.69648/QYTX1435

Anila Bejaj

Faculty of Economy, University of Tirana, Albania

Correspondence concerning this article should be addressed to Anila Bejaj

Email: nilailabejaj@gmail.com

BALKAN JOURNALS

Impact of Foreign Direct Investment on Income Inequality: The Case of Kosovo

Anila Bejaj

Abstract

Foreign direct investment (FDI) is often seen as a key driver of economic growth and development, but its impact on income distribution remains still inconclusive. Thus, this served as a motivation to examine how foreign direct investment (FDI) influences income inequality in Kosovo, a country with a young population and high unemployment that shapes its economic and social patterns. The study focuses on the period from 2009 to 2019, using a Vector Error Correction Model (VECM) to explore the long-term relationship between FDI and income inequality, measured by the Gini coefficient. The findings reveal that FDI inflows have a significant impact on income inequality in Kosovo. This research tries to fill the gap in the literature by analyzing Kosovo's unique socioeconomic, political, and demographic context. The results provide insights for policymakers seeking strategies to attract investment and promote economic growth while addressing income disparities.

Keywords: Foreign direct investment (FDI), income inequality, Vector Error Correction Model (VECM).

Introduction

Foreign direct investment (FDI) is vital in addressing poverty and income inequality globally. Previous research indicates that while FDI tends to increase income inequality in developed nations, it often reduces it in developing countries. The effect of FDI on income inequality is a significant concern for several reasons. First, high-income inequality can impede economic growth (Cingano, 2014). Second, individuals concerned about their relative income often prefer living in a more equitable society (Figini & Görg, 2011; Sylwester, 2005). Rising income inequality could undermine efforts to alleviate poverty, a pressing issue for developing nations that depend heavily on FDI. Social stability is crucial for economic progress in these regions.

Kosovo's economic structure offers a specific case for studying the relationship between income distribution and foreign direct investment (FDI). This study focuses on Kosovo due to its significant development potential, labor market patterns, and pronounced income disparities. Investigating how FDI affects income inequality in this context is particularly important, given the limited research on Kosovo compared to other Balkan countries.

Factors such as high unemployment, education, and not enough developed social services significantly influence income inequality in Kosovo. FDI plays a twofold role in this dynamic: while it can exacerbate wage gaps by favoring skilled labor, it also has the potential to create jobs and raise wages. Understanding these impacts is essential for addressing labor market disparities. Unlike its more developed Balkan neighbors, Kosovo presents specific challenges and opportunities that require deeper research. This study aims to fill this gap and provide insights for policymakers seeking to balance economic growth with social equity.

The structure of the paper follows with the review of relevant previous studies; the third section presents the dynamics of income inequality and foreign direct investments over time; the fourth section details the research design, including data collection strategies and regression analysis; the fifth section presents empirical findings, describing the results and their relevance; the final section includes conclusions and recommendations.

Literature Review

This section reviews previous research on the impact of Foreign Direct Investment (FDI) on income inequality, which can generally be grouped into four categories based on their findings. The first one consists of the research showing that FDI increases income inequality in host countries. For example, Wu (2005) found that more competitive labor markets as a result of increasing FDI lead to greater income inequality due to a widening wage gap between workers in state-owned enterprises and those in foreign firms. Similarly, Lessmann (2013) observed that FDI increased regional income inequality in China after the 1980s reforms, although this effect disappeared post-1990. Herzer and Nunnenkamp (2013) demonstrated that FDI had a positive short-term impact on income inequality in eight European countries from 1980 to 2000. Jaumotte et al. (2013), using panel data from 51 countries over 23 years, found that financial globalization associated with FDI contributes to increased income inequality. Bogliaccini and Egan (2017) showed that in 60 middle-income countries, FDI in the service sector had a positive effect on income inequality.

The second category of studies is those that find a negative relationship, indicating that FDI reduces income inequality. Jensen and Rosas (2007) found that increased FDI in Mexico from 1990 to 2000 led to reduced income inequality, particularly benefiting the lower-middle class. Chintrakarn and Chen. (2011) discovered that FDI negatively impacts income inequality in the long run across U.S. states. Ucal et al. (2016) found that in Turkey, FDI had a negative effect on the Gini coefficient, reducing income inequality in both the short and long term from 1970 to 2008.

The third category of studies includes those showing that the relationship between FDI and income inequality is complex and non-linear. Chen (2016) observed that while FDI can reduce income inequality through job creation and economic growth, it also increases the rural-urban income gap in China. Kaulihowa (2017) found that in sixteen African countries from 1980 to 2013, FDI's impact on income inequality was U-shaped: initially improving income distribution but worsening inequality at higher levels of FDI. Figini and Görg (2011) found a non-linear relationship in developing countries, where FDI initially increased income inequality, but the effect diminished as FDI inflows grew. In developed countries, FDI inflows tended to decrease income inequality, though this relationship was not always robust.

The fourth category of studies are those that depend on variable selection and model specification as well as those that do not find any significant relationship. Thus,

some studies have identified patterns suggesting that FDI's impact on income inequality depends on specific circumstances, such as economic development stage or country conditions. Franco and Gerussi (2013) found no significant impact of FDI on income distribution in seventeen transition countries from 1990 to 2006. Sylwester (2005) concluded that while FDI promotes economic growth in less developed countries, it does not necessarily increase income inequality.

Overall, research shows that the relationship between FDI and income inequality is context-dependent and varies based on factors such as country conditions, development strategies, and methodological approaches. There is no consensus on whether FDI increases or decreases income inequality, highlighting the need for more detailed studies focused on specific developing countries to better understand these dynamics.

Overview of FDI and Income Inequality in Kosovo

The key objectives and policies of a country include sustainable economic growth, trade liberalization, improvement of overall business climate, and attraction of foreign direct investment (FDI). Kosovo is actively working to create development policies within this context, focusing more on improving the business climate and attracting investment. Numerous organizations are working together with the international community and different donor agencies to accomplish these goals. Developing human capability and offering financial support or co-financing for development projects are the primary areas of their combined efforts. Because foreign direct investments (FDIs) have a significant impact on the economy, they play a critical role in a nation's economic activities.

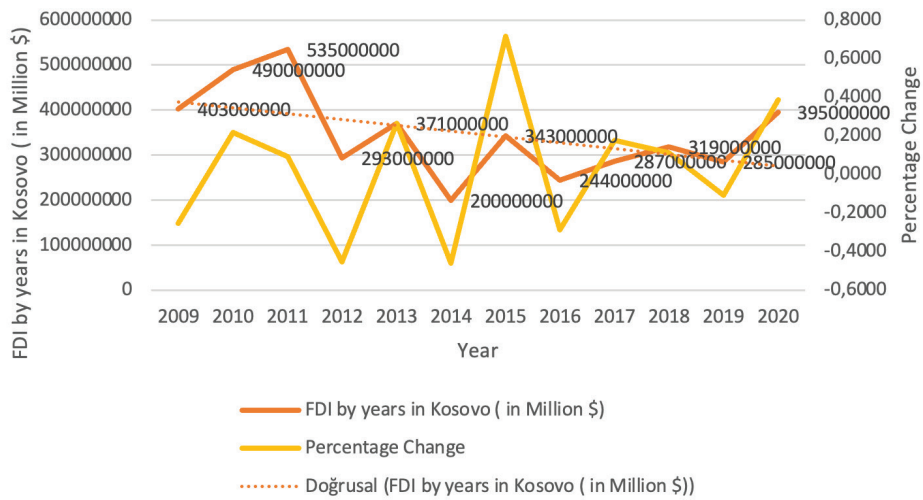
The Trend of FDI in Kosovo

In the last decade, due to internal political problems, the fragility of state institutions, the perception of high levels of corruption, and the inefficiencies of justice institutions, there has been a decline in the level of FDI flows in Kosovo. As shown in Fig. 1 (orange curve), there was a downward tendency in FDI, especially from 2011 to 2014, but fortunately, this negative trend was broken in 2015, when the total amount of FDI amounted to $343 million. The highest level of FDI was in 2010 at $535 million, while the lowest was $200 million in 2014. Based on the yellow curve in Fig. 1, the average total change in FDI flows over 12 years was 71.8%, and after dividing the amount gained by the number of years, the average increase in FDI inflows was only 5.98%. The graph

line that reflects FDI flows over the years in Kosovo shows that the fluctuations have been very large, with a downward trend for most of the period considered. This is seen from the average FDI change over the years and from the trend line, as shown in the graph above. This is quite alarming and should serve as a signal that this topic receives the attention of policymakers to support sustainable development.

Figure 1.

The Trend of FDI in Kosovo in Millions $ (2009-2020)



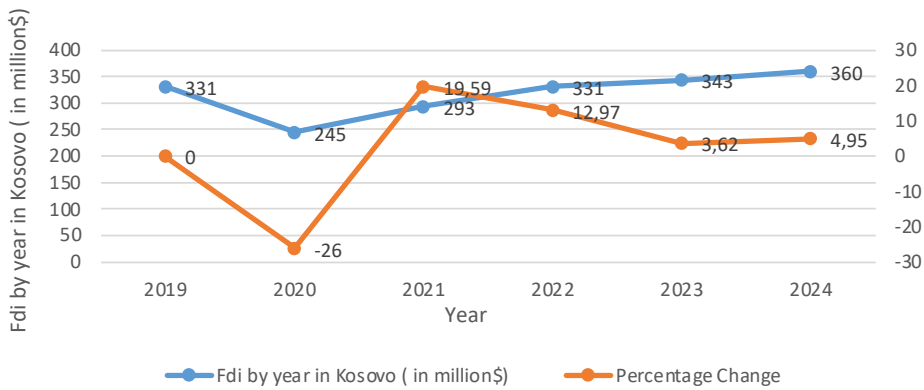
Source: Author's calculations based on World Development Indicators data

Kosovo's foreign direct investments for 2020 were 395 million US $, which makes an increase of 38.43% related to 2019 but are still significantly lower than the Foreign direct investments stock of 535 million US $ attracted in 2011, but almost 50% higher than the FDIs realized in 2014 in a nominal value of 200 million US $. Yet, the recent decline of FDIs was marked in 2019, which was a 10.5% decline related to 2018, while the foreign direct investments in 2018 were 320 million US $, presenting an increase of 11.05% related to 2017.

In 2020, considering the pandemic COVID-19 period, FDI experienced a dramatic growth of 26%, followed by a recovery in the post-COVID-19 period, reaching an increase of 19.59% in 2021. During 2022 and 2023, FDI increased by 12.97% and 3.62%, respectively. The estimated FDI for 2024 shows a further increase of 4.95%, suggesting continued investor interest and confidence in Kosovo's economic stability and growth prospects.

Figure 2.

FDIs in Kosovo in Millions for the Period 2020-2024

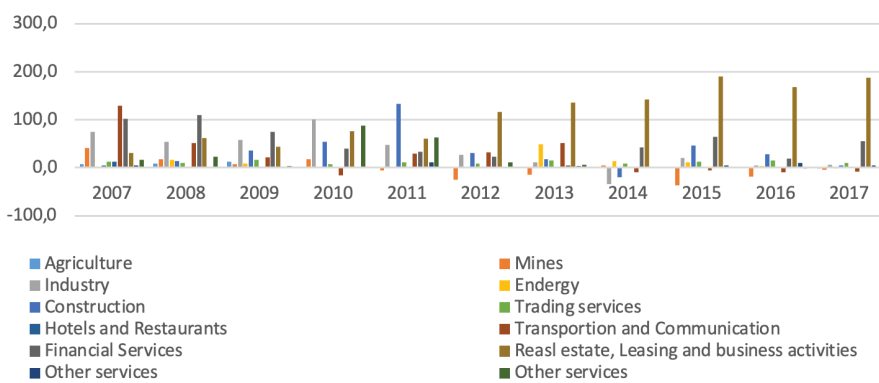


Source: Author's calculations based on World Development Indicators data

Overall, the figures indicate a recovery trajectory from the sharp decline in 2020, with steady growth in subsequent years, though at a slowing rate. This pattern underscores the importance of maintaining and enhancing economic stability and investor confidence.

Figure 3.

FDIs in Kosovo by economic activity



Source: Author's calculations based on CBK data, 2018

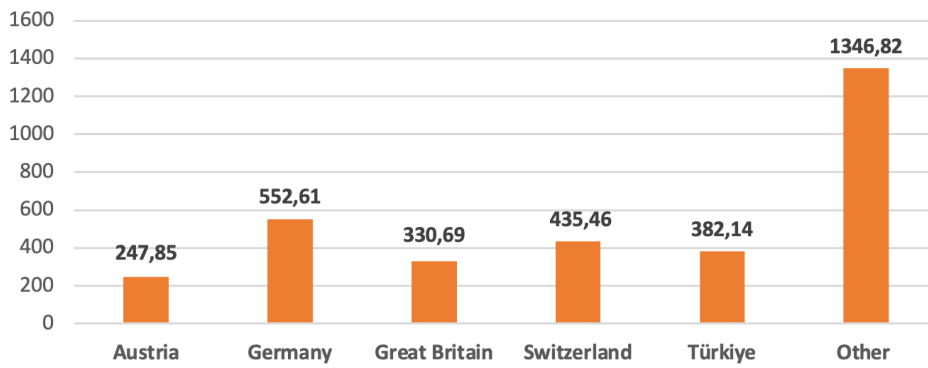
The overview of FDI by economic activity shows that at times some sectors have faced withdrawal of investments from the Kosovo market. In this context, to the greatest extent, the mining sector is worth around 105.2 million euros, and transportation and communication are worth 48.1 million euros.

FDI in Kosovo by Country of Origin

According to Fig. 4, investors from EU countries are the primary contributors to foreign direct investment (FDI) in Kosovo.

Figure 4.

FDIs in Kosovo by Top Five Countries



Source: Author's calculations based on CBK data.

The top five countries investing in Kosovo are Germany, Switzerland, Türkiye, the UK, and Austria. Collectively, businesses from these countries have invested around €2 billion, representing 59.13% of the total FDI in Kosovo. Between 2007 and 2017, Germany was the leading investor, contributing €552.6 million, which is 16.77% of the total investment during this period.

Income Inequality

Rising income inequality is a common phenomenon in many countries around the world. There are a higher number of studies that show both its magnitude and severity and attempt to diagnose its causes. Unfortunately, such a debate has not found a place in the sphere of public discussion in Kosovo. Indeed, poverty remains more pronounced here as a topic. However, poverty is often accompanied by high levels of economic inequality. Hence, it should be the duty of any progressive government to use all its powers to address not only the symptoms but especially the

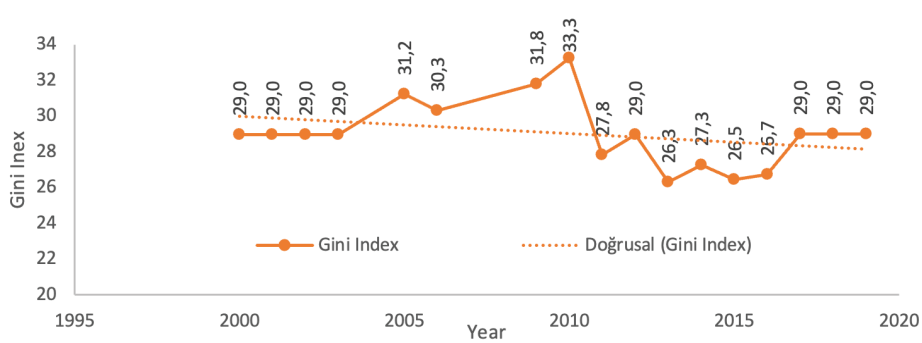
causes of both wealth and income inequality. However, income inequality is a growing problem in many countries around the world.

There are a lot of factors that interconnect and impact income inequality in Kosovo, like economic structure, education skills, foreign direct investment (FDI), social and demographic factors, political issues, and international patterns. These factors impact the economy, driven by remittances and service sectors while leaving manufacturing and agriculture undeveloped. All this leads to higher income inequality. Another factor that drives a significant income disparity is the low quality of education and gender inequality. Differences between urban and rural areas contribute to income distribution because they create wage disparities. Corruption, institutional frameworks, and governance and redistribution have a high impact on income inequality. Remittances, inadequate social safety, and welfare programs, the primary mission of which is to provide financial support to families, worsen income inequality. Addressing Kosovo's income inequality requires a comprehensive approach, focusing on job creation, labor market improvements, sustainable economic growth, and an increase in the quality of education.

In Kosovo, inequality has deepened, with the richest 1% having more income than the poorest 30%. In the period 2016–2020, the richest 1% in Kosovo owned, on average, 9% of all income from work (i.e., salary) before tax or 8.7% of all income from work after-tax payment. In the same period, the poorest 30% owned, on average, 6.1% of all pre-tax labor income or 6.3% of all after-tax labor income. The Gini coefficient, developed by Corrado Gini, measures income or wealth inequality within a group.

Figure 5.

Income Inequality Trend in Kosovo Measured Through GINI Index



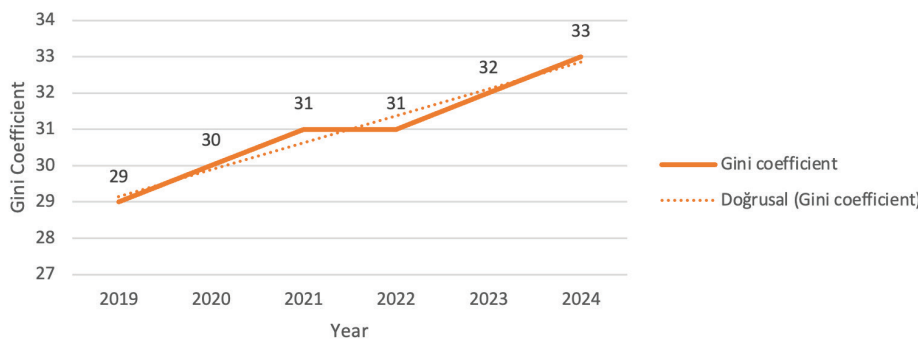
Source: Author's calculations based on World Development Indicators data.

Ranging from 0 (perfect equality) to 1 (maximum inequality), it shows how evenly income is distributed. A higher Gini coefficient indicates greater inequality. Income inequality is a significant concern in economic development, affecting social and economic stability.

Income inequality levels in Kosovo are moderate to low, showing a gradual downward trend from 2010 to 2015 and a slight upward trend from 2015 to 2019. A Gini coefficient of 29 points shows that inequality has remained constant from 2017 to 2019.

Figure 6.

Income inequality trend (GINI index) in Kosovo (2019-2024)



Source: Author's calculations based on World Development Indicators data.

As is shown in Figure 6, the Gini coefficient for Kosovo has shown fluctuations between 2019 and 2024. For 2019, the Gini coefficient was approximately 0.29, reflecting moderate income inequality. Subsequent years saw slight variations due to economic changes and policy impacts. The Gini coefficient remained relatively stable, around 0.30 during 2020, and in 2021–2022, the coefficient experienced some fluctuation but was generally around 0.31. The coefficient showed an increase to about 0.32 during 2023, indicating a rise in income inequality. Recent estimates suggest a slight increase to approximately 0.33 in 2024. These figures indicate a trend of increasing income inequality over these years, driven by various economic and social factors.

Methodology and Data

Data Description and the Model

This study uses secondary data collected from the Central Bank of Kosovo and the World Development Indicators, for 11 years, 2009–2019. The variables included in the econometric model are described in the following.

Foreign Direct Investment (FDI) Net Inflow (as % of GDP) represents the net investment inflows into an economy, including equity capital, reinvested earnings, and other long-term and short-term foreign capital. **The Gini Coefficient,** denoted by $Gini^{coff}$, measures income inequality within an economy. A Gini index of 0 indicates perfect equality, while an index of 100 represents extreme inequality. Extensive research has explored the relationship between FDI and income inequality. The econometric model for this study shows how changes in FDI impact income distribution, using the Gini coefficient to assess variations in inequality relative to foreign investment inflows.

The specified econometric model is:

$$Gini^{coff}=\beta_0+\beta_1 FDI+\varepsilon_t$$

Where, $Gini^{coff}$ is the dependent variable and FDI is the independent variable, whereas ε_t is the error term.

Research Methodology

The methodology used in this study is the Vector Error Correction Model (VECM). The initial step involves conducting a stationarity test, commonly referred to as the unit root test. If the series data are non-stationary but integrated in the same order (e.g., I(1)), it indicates that there is a linear combination of the series that is stationary. In this case, a VECM, also known as the restricted VAR model, is used to estimate the relationships among the variables while accounting for their cointegration.

The unit root test helps determine whether the data are stable enough for further analysis. Testing the order of integration for each variable is essential to identify whether the data are non-stationary and to ascertain how many differences are needed to achieve stationarity. Several methods can test for stationarity, with this study employing the Augmented Dickey-Fuller (ADF) test.

Following the examination of stationarity, the next step is to determine the level of cointegration among the variables using the Johansen test. This test evaluates

whether there are long-term relationships among the variables that exhibit stochastic trends and potential unit roots. The Johansen test is preferred over the Engle and Granger test because it accommodates multiple long-run relationships and is based on the ADF test, which considers only a single long-run relationship.

Results and Discussion

The study tests the presence of unit roots, starting with levels and followed by the first difference, using ADF tests. The results show that the series were non-stationary (mean, variance, and covariance are not constant over time) in first difference form (see Table 1) but was stationary in the first difference.

Table 1.

Unit Root Test Results (First =Difference) ADF Test

Variable	Statistic	p-value	Integration Level
Gini	-4.6	0.0001	**I (1)**
FDI	-5.36	0.0000	**I (1)**

Source: Author's calculations

Therefore, concluding that VECM analysis can be performed on these two series in the first difference. *Thus, it is worth concluding that all variables are turned to stationary and are integrated of order one I(1)s.* Subsequently, the cointegration test is performed.

Table 2.

Cointegration Test

```
Johansen tests for cointegration
Trend: constant                                          Number of obs =       9
Sample:  2011 - 2019                                              Lags =       2
-------------------------------------------------------------------------------
                                                                   5%
maximum                                              trace    critical
  rank    parms        LL         eigenvalue    statistic     value
    0       6      -27.117214.      16.4864       15.41
    1       9      -18.915793      0.83838        0.0836*     3.76
    2      10       -18.87401      0.00924
-------------------------------------------------------------------------------
```

* selected rank

H0: no cointegration equation

Ha: Cointegration

Source: Author's calculations

Rejection at the 5% level occurs when the Trace statistic exceeds the 5% critical value, leading to the rejection of the null hypothesis. If these statistics do not surpass the critical value, there is insufficient evidence to reject the null hypothesis. The (Table 2) provides a row for each value of r representing the number of cointegrating equations. In this case, since the trace statistic at r=0 is 15.41, which is greater than the critical value, we reject the null hypothesis of no cointegrating equations. Conversely, the trace statistic at r=1 is 0.0836, which is less than the critical value of 3.76, so we cannot reject the null hypothesis that there is one cointegrating equation. Johansen's method suggests that r=1 should be accepted as the number of cointegrating equations if the null hypothesis is not rejected. The sign "*" in the Trace statistic at r=1 signifies that this value of r is selected by Johansen's multiple-trace test procedure.

The cointegration test defines whether a long-run relationship exists among the variables. Therefore, it is concluded that the series are co-integrated and a long-run relationship exists among the variables, in this case between FDI and Gini index. For that reason, the vector error correction (VECM) mechanism was applied and an estimation of short-run and long-run dynamics is performed.

Table 3.

VECM Model Long-Run Results.

```
Cointegrating equations

Equation           Parms    chi2     P>chi2
-------------------------------------------
_ce1                   1   17.30392   0.0000
-------------------------------------------

Identification:  beta is exactly identified


Johansen normalization restriction imposed
------------------------------------------------------------------------------
        beta |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
_ce1         |
   giniindex |          1          .       .       .            .           .
         fdi |   4.402334   1.058305     4.16   0.000     2.328095    6.476574
       _cons |  -48.01522          .        .       .            .           .
```

Source: Author's calculations

Considering the long-run equation presented in (Table 3), the coefficient of FDI is positive; however, we would reverse the sign of the coefficient when interpreting the effect of the independent variables on the dependent variable for the VECM model because the software presents the cointegrating equation in a normalized form. Thus, to interpret the long-run equation, we reverse the sign, observing that FDI has a negative impact on income inequality, which is significant at a level of 0.1%. This means that in the analyzed period, the increase in FDI contributed to the decrease in income inequality. Another important element that should be interpreted is the ECT coefficient. It represents the speed at which the variables return to equilibrium after a short-run deviation from the long-run relationship. A negative sign indicates that the variable is adjusting toward the long-run equilibrium. Thus, the ECT coefficient in this model is (-0.1814), which is statistically significant at the 0.1 level because the p-value = 0.0000 <0.001, suggesting that previous year deviations from long-run equilibrium are corrected for within the current year at a speed of 18.14%. Regarding the short-run effects, it was found a positive relationship between FDI and the Gini coefficient was statistically insignificant.

Table 4.

Jarque-Bera test

Equation	chi2	df	Prob > chi2
D_giniindex	1.118	2	0.57169
D_fdi	0.071	2	0.96524
ALL	1.189	4	0.87989

Eigenvalue stability condition

Eigenvalue	Modulus
1	1
-.567925	.567925
.5618977	.561898
-.406065	.406065

The VECM specification imposes a unit modulus.

Source: Author's calculations

Furthermore, a Jarque – Bera test is performed after the VECM model to check whether the residuals (errors) of the model follow a normal distribution. Since the p-values for the three equations are greater than 0.05, we do not reject the null hypothesis (Table 4). This suggests that the residuals are approximately normally distributed, which supports the assumptions of the model.

However, the main limitation of the model is the very low number of observations due to lack of data for a wider time spin, as time series regression models require a large sample size.

Conclusion

This paper investigates the effects of Foreign Direct Investment (FDI) on income inequality in Kosovo. Using annual time series data from 2009 to 2019, the study analyzes the short and long-term impacts of employing the Vector Error Correction Model (VECM).

The analysis reveals a long-term inverse relationship between FDI and the Gini coefficient. Specifically, FDI appears to decrease income inequality in the long run, with a significant effect at the 0.1% level, suggesting that FDI inflows contribute to the decrease of income inequality in Kosovo. While FDI has a positive but insignificant short-term effect on income inequality consistent with studies by Franco and Gerussi (2013) and Sylwester (2005).

The negative long-term coefficient implies that as Kosovo attracts more FDI, the economic benefits likely spill over to various sectors, potentially leading to job creation, which in turn helps lower-income groups. This suggests that FDI inflows are not only a driver of economic growth but also a key contributor to reducing disparities in income. The magnitude of the effect emphasizes the importance of maintaining policies that promote foreign investment as part of a broader strategy for inclusive economic development.

References

Bogliaccini, J. A., & Egan, P. J. (2017). Foreign direct investment and inequality in developing countries: Does sector matter? Economics & Politics, 29(3), 209–236.

Cingano, F. (2014). Trends in income inequality and its impact on economic growth. OECD Social, Employment and Migration Working Papers, No. 163. OECD Publishing. Retrieved from http://dx.doi.org/10.1787/5jxrjncwxv6j-en

Chen, C. (2016). The impact of foreign direct investment on urban-rural income inequality. China Agricultural Economic Review, 8(3), 480–497.

Chintrakarn, P., & Chen, Y. Y. (2011). Do unions impact efficiency? Evidence from the US manufacturing sector. Contemporary Economic Policy, 29(3), 431–440.

Figini, P., & Görg, H. (2011). Does foreign direct investment affect wage inequality? An empirical investigation. The World Economy, 34(9), 1455–1475.

Franco, C., & Gerussi, E. (2013). Trade, foreign direct investments (FDI) and income inequality: Empirical evidence from transition countries. The Journal of International Trade & Economic Development, 22(8), 1131–1160.

Herzer, D., & Nunnenkamp, P. (2013). Inward and outward FDI and income inequality: Evidence from Europe. Review of World Economics, 149(2), 395–422.

Jaumotte, F., Lall, S., & Papageorgiou, C. (2013). Rising income inequality: Technology, or trade and financial globalization? IMF Economic Review, 61(2), 271–309.

Jensen, N. M., & Rosas, G. (2007). Foreign direct investment and income inequality in Mexico, 1990–2000. International Organization, 61(3), 467–487.

Kaulihowa, T. (2017). Essays on FDI and welfare dynamics in Africa (Doctoral dissertation, Stellenbosch University).

Lessmann, C. (2013). Foreign direct investment and regional inequality: A panel data analysis. China Economic Review, 24, 129–149.

Sylwester, K. (2005). Foreign direct investment, growth, and income inequality in less developed countries. International Review of Applied Economics, 19(3), 289–300.

Ucal, M., Haug, A. A., & Bilgin, M. H. (2016). Income inequality and FDI: Evidence with Turkish data. Applied Economics, 48(11), 1030–1045.

Wu, X. (2005). Will foreign capital inflow alleviate income inequality? Journal of the Asia Pacific Economy, 10(4), 528–550.

World Bank. (n.d.). World Development Indicators. Retrieved from https://databank.worldbank.org/

Central Bank of Kosovo. (n.d.). Retrieved from https://bqk-kos.org/

TEFMJ TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

DOI: https://doi.org//10.69648/WCIZ8915

Trends in Economics, Finance and Management (TEFMJ), 2024; 6(2): 29-42

ijtns.ibupress.com

Online ISSN: 2671-3365

Application : 01.12.2024

Revision : 14.12.2024

Acceptance : 24.12.2024

Publication : 30.12.2024

Bejaj, O. (2024). Impact of Public Debt on Foreign Direct Investment: The Case of Albania. Trends in Economics, Finance and Management Journal, 6(2), 29-42. https://doi.org//10.69648/WCIZ8915.

Impact of Public Debt on Foreign Direct Investment: The Case of Albania

Oltjon Bejaj

Luarasi University, Tirana, Albania

Correspondence concerning this article should be addressed to Oltjon Bejaj,

Email:oltjonbejaj@gmail.com

Abstract

Public debt is a key macroeconomic indicator that shapes a country's reputation. It remains a significant economic policy challenge for governments in less developed countries due to high debt levels. The aim of this paper is to investigate the relationship between Albania's public debt and foreign direct investments (FDI). For that purpose, first a descriptive research design is employed and second the data are examined through VAR (Vector Autoregression) and Granger causality tests. The VAR autoregression results indicate that in the short term, public debt and FDI are not significantly correlated. In addition, the Granger causality tests reveal no significant causality between FDI and public debt or between exchange rates and public debt. However, there is a bi-directional causality between FDI and exchange rates. Policymakers should focus on debt management, economic openness, and infrastructure development to create a favorable environment for attracting foreign investment. The findings underscore the need for balanced fiscal policies to support long-term economic growth and investment stability.

Keywords: Public debt, Foreign Direct Investment (FDI), VAR (Vector Autoregression), Granger Causality Tests.

BALKAN JOURNALS

Introduction

According to Abbas and Christensen (2007), public debt shapes a country's image in international markets and is a key determinant of inward foreign direct investment (FDI) flows. The global flow of transnational investments has surged significantly due to increased internationalization and the globalization of firms. Companies are relocating their capital to countries where they see opportunities to maximize their returns (Sharifi-Renania & Mirfatah, 2012). Foreign direct investment (FDI) refers to investments made by one country directly into the assets and resources of another country. FDI is crucial for the future development of all nations, particularly Albania. It generates numerous benefits for the entire economy, which cannot be fully captured as part of the host country's income (Ribeiro, Vaicekauskas, & Lakstutiene, 2012). For developing countries, FDI is essential as it provides resources that can lead to optimal economic development (Imimole & Imoughele, 2010), particularly given their issues with low domestic savings, low tax revenue, low productivity, and limited foreign exchange earnings. Ostadi and Ashja (2014) found that external debt significantly negatively impacts FDI. Rising foreign debt undermines investor confidence and creates negative economic expectations, thereby reducing investment. Their findings also suggest that a larger government size negatively affects the attraction of foreign investment, consistent with the crowding-out effect, where government presence reduces private sector involvement. This paper is organized as follows: The initial section presents the topic; the second section examines relevant existing research; the third section gives an overview of public debt and foreign direct investment (FDI), providing a descriptive analysis; the fourth section outlines the data collection process and methodology; the fifth section explores the empirical results; and the concluding section provides conclusions and recommendations.

Literature Review

The empirical literature on the relationship between public debt and FDI reveals conflicting results. For instance, Ostadi and Ashja (2014) investigated the link between external debt and foreign direct investment (FDI) in D-8 member nations from 1995 to 2011. They used panel data analysis to investigate the effects. The data showed that external debt has a strong negative impact on FDI. Rising levels of foreign debt were found to reduce investor confidence and promote pessimistic expectations about future economic prospects, resulting in a drop in investment

inflows. Furthermore, the study found that government size had a detrimental influence on foreign investment. In contrast, when GDP and population size were utilized as controlled variables, they were found to have a positive influence on FDI attraction.

Ogunjimi (2019) conducted a study to examine the impact of different components of state government debt—namely domestic and external debts—on various types of investment, including domestic investment and foreign direct investment (FDI) in Sri Lanka, both in the short and long terms. The research utilized the ARDL bounds testing approach, covering the period from 1980 to 2020. The study found that, in the short term, domestic debt enhances FDI inflows. However, over the long term, it tends to crowd out FDI. On the other hand, external debt was found to have a significant negative relationship with FDI inflows in the short term, as anticipated. Yet, in the long run, external debt does not appear to have a significant effect on FDI. Oche, Mah, and Mongale (2016) conducted an empirical study of the impact of state debt on foreign direct investment (FDI) in South Africa from 1983 to 2013. They conducted their investigation using the Vector Error Correction Model (VECM). The author's long-run findings demonstrated a positive and statistically significant link between public debt and FDI, implying that higher levels of public debt are associated with greater FDI inflows. Additionally, a positive and significant relationship between interest rates and FDI in South Africa was discovered. However, their study found an insignificant negative link between the exchange rate and FDI, implying that exchange rate swings had little impact on foreign investment. In their study, Jilenga, Xu, and Gondje-Dacka (2016) investigated the impact of external debt and foreign direct investment on Tanzanian economic growth. They analyzed co-integration using time-series data and the ARDL (Autoregressive Distributed Lag) model, as well as the limits test approach. Their findings revealed that, in the long run, external debt boosts economic growth while FDI has a detrimental influence on growth. These findings are consistent with the conclusions reached by Wamboye (2012), who also supported the idea that external debt contributes positively to economic growth despite FDI's negative influence on GDP.

Sánchez-Juárez and García-Almada (2016) investigated the relationship between public debt, public investment, and economic growth in Mexico. They used dynamic panel data models and the generalized method of moments (GMM) in their investigation. Their findings revealed that public debt is favorably connected with public investments, which in turn contribute to increased economic growth. Build-

ing on this, Agyapong and Bedjabeng (2019) conducted additional studies to investigate the effects of public debt and foreign direct investment (FDI) on financial development in African economies. Their research found a substantial positive relationship between external debt and FDI and financial development, implying that greater levels of external debt and FDI are linked to better financial sector development in these economies. Morrissey and Udomkerdmongkol (2012) investigated the impact of governance on foreign direct investment (FDI) in developing countries through a qualitative study. According to the author's findings, countries with great governance had higher total investment, including both private and foreign direct investment. However, they discovered that FDIs can drive out private investment. The evidence consistently suggests that public debt influences FDI levels, although the nature of this impact is complex and varies by circumstance. In light of the COVID-19 epidemic, several economies have increased their debt levels in an attempt to supplement revenue streams, sparking fresh interest in researching the relationship between public debt and FDI.

Overview of Public Debt and Foreign Direct Investments in Albania

Foreign Direct Investments

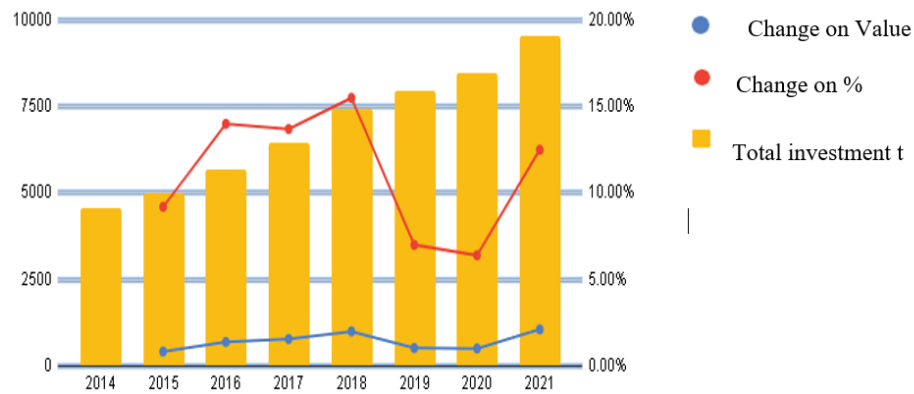
Foreign Direct Investment (FDI) in Albania has shown resilience and growth over recent years, driven by sectors such as energy, infrastructure, and manufacturing. The COVID-19 pandemic initially disrupted FDI flows, but recovery began in 2021 with notable contributions from countries like Switzerland and the Netherlands. Investments have been particularly focused on reconstruction efforts following the 2019 earthquake and pandemic-related economic support. Ongoing reforms and improved business conditions have further boosted investor confidence. Looking ahead, Albania is expected to continue attracting FDI in sectors such as tourism, real estate, and renewable energy. In 2023, FDI continued to grow, driven by ongoing government initiatives to attract foreign capital and improvements in the investment climate. Sectors like renewable energy and real estate particularly benefited from foreign investments. During 2024, expectations are for further growth in FDI, as Albania is working ahead on its regulatory framework, diversifying its economy, and improving infrastructure. Despite the positive trends, challenges persist, such as bureaucratic inefficiencies, corruption, and infrastructural deficits that can inhibit FDI growth. The government has recognized these issues and is working on reforms to address them. Albania has undertaken measures such as tax incentives, easier ac-

cess to permits, and improved transparency in regulatory processes to attract foreign investments and create a more welcoming business environment.

FDI stock in Albania represents the total value of foreign-owned assets in the country, including capital and net loans extended to resident companies. Over recent years, Albania has experienced growth in FDI stock (Chart 1), reflecting increasing interest from international investors.

Chart 1.

Foreign Direct Investment Stock in Albania, change in value and %



Source: National Bank of Albania

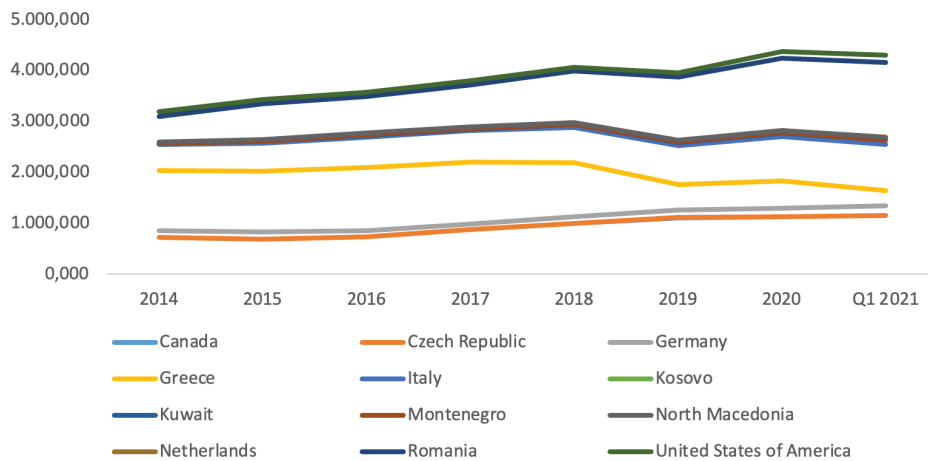
In 2020, foreign business investments in Albania reached 9.5 billion euros, marking a 12% increase. Switzerland and the Netherlands were the leading investors, while Greece reduced its investments by withdrawing some of its companies. In 2021, FDI grew to 9.53 billion euros, a 12.5% rise from the previous year's 8.5 billion euros. Major investors included Switzerland, the Netherlands, Canada, Italy, and Turkey, with Swiss investments totaling 1.76 billion euros (18% of the total) and Dutch investments at 16%. Swiss foreign investment increases are tied to the TAP gas pipeline, while Dutch investments are linked to Statkraft's Devoll Hydropower. Greece, Bosnia, Panama, and Kuwait all cut their investments (Chart 2). Albania now requires enterprises to identify the origin and ultimate owner of foreign investments, which are critical for calculating economic growth and must be reflected in the balance of payments.

In 2021, Albania saw significant FDI activity, with the Netherlands, Canada, and Italy leading in investment, holding over 1 billion euros. Neighboring countries like Greece, Kosovo, North Macedonia, and Montenegro also contributed varying

amounts in investments, respectively, with 257,139, 62, and 2.7 million euros. Greece, Panama, and Kuwait saw notable increases in their investments, while Eastern European nations, including the USA, Hungary, and Germany, showed growing interest in investing in Albania. The rise in reported investment values partly reflects new Albanian legislation requiring clear disclosure of the final beneficial owner of investments. This legislation led to more accurate reporting and reclassification of previously ambiguous investments rather than a true increase in asset values.

Chart 2

The stock of inward FDI in Albania based on origin in million euro (2014-2021)



Source: Ministry of Finance, Institute of Statistics, edited by the author

Public Debt

The public debt comprises both domestic debt (government bonds and Treasury bills) and external debt (loans from international institutions and bilateral agreements). A significant portion of foreign debt has been from concessional sources, which helps reduce the burden on public finances. Throughout the years, the Albanian government implemented various reforms to improve fiscal management, enhance tax collection, and control budget deficits. This included reforms aimed at reducing public expenditures and increasing efficiency in public investments. In 2021, after the COVID-19 pandemic, Albania's public debt rose significantly, reaching approximately 78% of GDP. The increase was attributed to fiscal measures to mitigate the pandemic's economic impact. The debt level remained relatively high in 2022, around 74% of GDP, as the economy began to recover. The

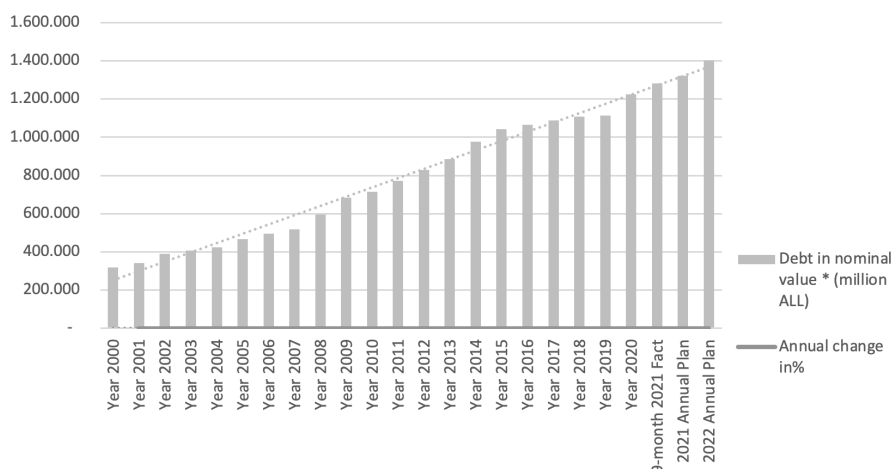
government continued to borrow to finance infrastructure projects and social welfare programs. Public debt was reported at about 70% of GDP in 2023, showing a slight improvement due to efforts aimed at fiscal consolidation and increased revenues from economic growth. Projections indicated that public debt might stabilize around 68%–70% of GDP during 2024, benefiting from improved revenue collection and economic performance.

For 2020, the public debt was estimated at 1.22 billion ALL, or 77.9% of GDP, reflecting an increase of 111.6 billion ALL, or 10%, from 2019.

Since 2019, Albania's public debt has increased primarily due to higher government borrowing. This borrowing was driven by a growing deficit resulting from reduced revenue and increased spending in 2020, influenced by the need for post-earthquake reconstruction and the economic fallout from the COVID-19 pandemic. In 2020, revenue dropped to 425.9 billion ALL, down by 34.4 billion ALL (7.5%) from 2019. Expenditures rose to 536.2 billion ALL, an increase of 44.3 billion ALL (9%) compared to the previous year. The reconstruction fund for 2020 was set at 32 billion ALL, with 29 billion ALL from the State Budget and 3 billion ALL from grants. The issuance of a 650 million euro Eurobond in June 2020, with a 7-year maturity and a 3.5% interest rate, also contributed to the rise in public debt.

Chart 3

Performance of Public Debt (in millions ALL) & annual change in % (2000-2022)

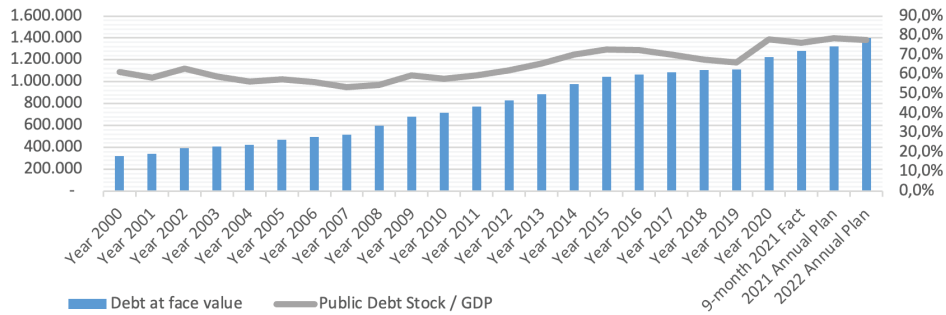


Source: Ministry of Finance, (2021), edited by the author

From 2000 to 2022, the public debt-to-GDP ratio experienced significant fluctuations due to varying economic and fiscal conditions.

Chart 4

Public Debt Stock and as Percentage of GDP (2000-2020)

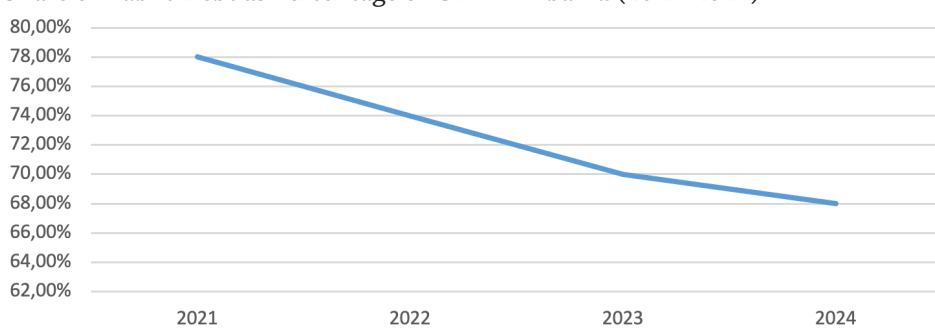


Source: Ministry of Finance (2021), edited by the author,

In 2000, the ratio was low, reflecting economic stability and limited government borrowing. Over the years, it gradually increased as public debt rose with growing expenditures and borrowing needs. The ratio saw substantial spikes during the 2008 global financial crisis and the COVID-19 pandemic, driven by expansive fiscal measures and increased borrowing for economic support. The trend of rising debt continued through the 2010s, peaking in 2020 due to pandemic-related spending. The ratio remained high in 2022 as governments addressed ongoing recovery and reconstruction needs. Projections for 2024 suggest that the ratio will stay elevated due to continued borrowing for recovery and infrastructure investments.

Chart 5

Share of Public Debt as Percentage of GDP in Albania (2021-2024)



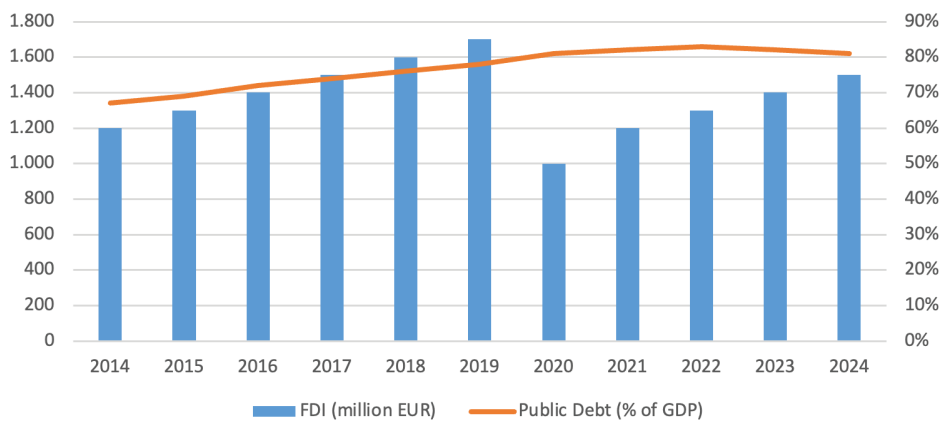
Source: Ministry of Finance, edited by author

From 2021 to 2024, Albania experienced both challenges and opportunities regarding public debt management and foreign direct investment. While public debt has shown signs of stabilization due to fiscal reforms and economic recovery, FDI inflows have spurred growth in key sectors, reflecting a positive trajectory for the Albanian economy. The government's ongoing efforts to create a conducive investment climate are crucial to sustaining this momentum.

The relationship between Foreign Direct Investment (FDI) and public debt in Albania from 2014 to 2024 reveals a dynamic interplay between economic growth, investment flows, and fiscal policies.

Chart 6

Public Debt and FDI in Albania (2014-2024)



Source: Ministry of Finance of Albania (2023), Institute of Statistics, edited by the Author

Albania experienced moderate FDI inflows during 2014 and 2015 with relatively stable public debt. FDI supported economic growth and infrastructure development, contributing to fiscal stability amid fiscal challenges. In 2016 and 2017, FDI increased due to improved business conditions and greater international investment. However, rising public debt occurred due to increased government spending on infrastructure and public services, funded in part by borrowing. Both FDI and public debt grew from 2018 to 2019. FDI continued to support economic expansion and development, while ambitious fiscal policies and infrastructure investments led to higher public debt. The COVID-19 pandemic led to a significant decline in FDI due to global uncertainty, while public debt surged as the government increased borrowing for pandemic relief and economic support. FDI began to re-

cover gradually with economic stabilization and recovery efforts during 2021 and 2022. However, public debt remained high due to continued borrowing for pandemic relief and recovery. In 2023, FDI and public debt remained closely linked. Efforts to attract FDI were aimed at boosting economic growth, but high public debt constrained fiscal flexibility. FDI is expected to be crucial for economic recovery and growth in 2024. Public debt is anticipated to remain high due to ongoing infrastructure investments and recovery efforts. In summary, while FDI has positively impacted Albania's economic development, rising public debt, especially during global crises, has posed challenges. Balancing these factors is crucial for maintaining investment and economic stability.

Data Description and Methodology

This study utilizes secondary data collected from the Ministry of Finance of Albania, the World Development Indicators (WDI), and Trading Economics, covering a period of 22 years from 1999 to 2020. The analysis uses annual data. The variables included in the econometric model are defined as follows:

- **Foreign Direct Investment (FDI)**: Net inflows of FDI as a percentage of Gross Domestic Product (GDP).
- **Public Debt (PDebt)**: Measured as a percentage of GDP.
- **Exchange Rate (EXCH)**: Measured using an index.

The econometric analysis aimed to assess the relationship between public debt, exchange rate, and FDI is done using the following function:

$FDI=f(Pdebt,EXCH)$

The first step is to determine if a time series is stationary or non-stationary. The study applied the Augmented Dickey-Fuller (ADF) test. This step is crucial for confirming the stationarity of each variable before proceeding with further analysis. Once the stationarity of each time series is checked, the next step is to assess the level of cointegration among the variables using the Johansen test. This test checks whether the stochastic trends in the variables, which are expected to contain unit roots, exhibit a long-term relationship. Essentially, the cointegration test helps determine if there is a long-run equilibrium relationship among the variables. If the test indicates that the variables are cointegrated and have a long-run relationship, the study uses the Vector Error Correction Model (VECM) for analysis. If no long-term relationship was found, the VAR model was deemed more appropriate for the analysis.

Empirical Results

Firstly, testing for the presence of unit root was performed, starting with levels and followed by the first difference, using ADF tests. The results showed that the series was non-stationary in levels, and it generated the first difference between them. It was found that variables included in the model were integrated in the same order, that is, I (1), for this reason a cointegration analysis was performed. Cointegration analysis identifies whether two or more non-stationary time series are linked by a long-term equilibrium relationship, even if their individual series are non-stationary.

Table 1

Stationarity test

Variable	Statistic	p-value	Integration
D_FDI	-3.92	0.0019	**I(1)**
D_Pdebt	-4.278	0.0005	**I(1)**
D_Exch	-3.288	0.00154	**I(1)**

Author's calculations

Based on the results of Table 1, the series for the three variables are turned to stationary in their first difference. The test statistic is greater than the critical value, which means they are integrated of order one, I(1). After establishing that the series are stationary at the first order, the next step is to perform the cointegration test (Table 2).

Table 2

Johansen Cointegration Test

Johansen tests for cointegration

Trend: constant — Number of obs = 21
Sample: 2000 - 2020 — Lags = 2

maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	12	-164.78076.	18.8062*	29.68	
1	17	-159.16226	0.41439	7.5692	15.41
2	20	-156.09873	0.25306	1.4421	3.76
3	21	-155.37766	0.06637		

H_0: no cointegration equation
Ha: Cointegration
Author's calculations

The results of the cointegration test in Table 2 show that the rank is 0 in the Johansen cointegration test, which means there are no cointegrating relationships among the non-stationary variables. Therefore, we do not reject the null hypothesis, indicating that there are no cointegrated equations. This implies that the series do not share a long-term equilibrium relationship, but they may still be analyzed for short-term dynamics. Given the absence of cointegration, the VAR mechanism seems to be an appropriate model for analyzing the relationship between the variables, after which was performed a Granger causality test. This test helps identify if past values of Public Debt can cause FDI and vice versa, thus revealing any causal relationships between these two variables.

Table 3

Granger Causality test

Alternative Hypothesis	Chi-square	Probability	Decision	Level of significance
Public debt causes FDI	1.6835	0.431	Reject	--
Exchange rate causes FDI	7.5702	0.023**	Accept	5%
FDI causes public debt	3.0966	0.213	Reject	--
Exchange rate causes public debt	0.07848	0.962	Reject	--
FDI causes exchange rate	3.8971	0.142	Reject	--
Public debt causes exchange rate	5.7749	0.056*	Accept	10%

Author's calculations

The results in Table 3 indicate that Public Debt (Pdebt) does not Granger-cause Foreign Direct Investment (FDI), as the p-value is 0.431, which is greater than the 5% significance level. However, because of the p-value (0.023<0.05), exchange rate causes FDI, based on the same criteria FDI causes exchange rate. Bi-direction causality is shown between variables (FDI and Exchange rate) but at different levels of significance, respectively 10% and 5%.

Conclusion

This study explored the relationship between public debt and the inflow of Foreign Direct Investment (FDI) in Albania over the period from 1999 to 2020. To conduct this investigation, a Johansen Cointegration test and a Vector Autoregression (VAR) model, after which was performed a Granger Causality test.

The VAR model was used to analyze the short-term relationships among the variables; however, there was not a significant relationship between public debt and FDI. The Granger Causality test was utilized to assess the temporal dynamics between the variables, identifying whether past values of one variable could predict future values of another. However, the test's evidence proved the lack of causality between public debt and FDI, as well as the exchange rate and public debt. However, there is evidence of bidirectional causality between Foreign Direct Investment (FDI) and the Exchange rate.

Considering the results of the study, the government policy makers need to push a reform agenda on public debt so as to attract more FDI in the Albanian economy. A higher investor's confidence in the domestic market acts as a stimulus in attracting FDI inflows. To efficiently manage and perhaps reduce public debt, the government should consider implementing a number of strategic measures targeted at boosting economic development and strengthening fiscal stability.

References

Abbas, A., & Christensen, J. (2007). The Role of Domestic Debt Markets in Economic Development: An Empirical Investigation for Low-income Countries and Emerging Markets. IMF Working Papers. WP/07/127.

Agyapong, D., & Bedjabeng, K. A. (2019). *External Debt Stock, Foreign Direct Investment, and Financial Development: Evidence from African Economies*. Journal of Asian Business and Economic Studies. Volume 27. Issues 1.

Imimole, B., & Imoughele, L. (2010). *Determinants and Sustainability of External Debt in a Deregulated Economy: A Co-integration Analysis from Nigeria (1986-2010)*. American International Journal of Contemporary Research, 4(6), 28-36.

Jilenga, M. T., Xu, H., & Gondje-Dacka, I. M. (2016). *The Impact of External Debt and Foreign Direct Investment on Economic Growth: Empirical Evidence from Tanzania*. International Journal of Financial Research, 7(2), 154-162.

Morrissey, O., & Udomkerdmongkol, M. (2012). *Governance, Private Investment, and Foreign Direct Investment in Developing Countries*. World Development, 40(3), 437-445.

Oche, M. O., Mah, G., & Mongale, I. (2016). *The Effects of Public Debt on Foreign Direct Investment in South Africa (1983-2013): An Empirical Analysis*. Risk Governance and Control: Financial Markets and Institutions, 6(4), 448-456.

Ostadi, H., & Ashja, S. (2014). *The Relationship Between External Debt and Foreign Direct Investment in D8 Member Countries*. Walia Journal, 30(3), 18-22.

Ogunjimi, J. (2019). *The Impact of Public Debt on Investment: Evidence from Nigeria*. DBN Journal of Economics & Sustainable Growth, 1–27. Retrieved from https://ssrn.com/abstract=3466870.

Ribeiro, H. N. R., Vaicekauskas, T., & Lakstutiene, A. (2012). *The Effect of Public Debt and Other Determinants on the Economic Growth of Selected European Countries*. Economics and Management, 17(3), 914-921.

Sánchez-Juárez, I., & García-Almada, R. (2016). *Public Debt, Public Investment, and Economic Growth in Mexico*. International Journal of Financial Studies, 4(2), 6.

Sharifi-Renania, H., & Mirfatah, J. (2012). *The Impact of Exchange Rate Volatility on Foreign Direct Investment in Iran*. Department of Economics, Khorasgan Branch, Islamic Azad University, Isfahan, Iran.

Wamboye, E. (2012). *Debts (Public and External) and Growth*. Croatian Operational Research Review (CRORR), 3.

TEFMJ TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

DOI: https://doi.org//10.69648/LNIP6122

Trends in Economics, Finance and Management (TEFMJ), 2024; 6(2): 43-51

ijtns.ibupress.com

Online ISSN: 2671-3365

Application : 03.12.2024

Revision : 10.12.2024

Acceptance : 24.12.2024

Publication : 16.01.2025

Celik, B. (2025). Intertwinement of Culture Industry, Technology and Mass Consumption: A Scoping Review. Trends in Economics, Finance and Management Journal, 6(2), 43-51. https://doi.org//10.69648/LNIP6122

Bilal Celik

Bayburt University, Bayburt, Türkiye

https://orcid.org/0000-0001-6253-3177

The author(s) declare no conflicts of interest.

Correspondence concerning this article should be addressed to Asst. Prof. Bilal Celik

Email: bcelik@bayburt.edu.tr

BALKAN JOURNALS

Intertwinement of Culture Industry, Technology and Mass Consumption: A Scoping Review

Bilal Celik

Abstract

This essay uses Horkheimer and Adorno's work on the culture industry to analyze the link between technology and mass consumption. While the digital world has enormous potential to facilitate communication, transcend spatial boundaries, and promote free expression, the utopian promise of this world is undermined by their mirroring of real-world market systems, the exploitation of labor, and the blurring of the line between entertainment and consumption. The culture industry thesis provides a useful starting point for theorizing the digital world and explaining why this place has become a mirror of mass consumption. Within this scope, this study aims to provide conceptual clarity and to contribute to efforts of theorization, considering three main concepts, namely, culture industry, technology, and mass consumption, and correlations between them, which were analyzed based on existing literature.

Keywords: culture industry, technology, mass consumption.

Introduction

Consumption is not just about buying extravagant goods or liberating wants and/or needs, but it is also a system of the manipulation of signs, a system of communication, such as language, and an exchange system or ideological values system (Baudrillard, 1998). In other words, "consumption is not, contrary to conventional wisdom, something that individuals do and through which they find enjoyment, satisfaction, and fulfillment. Rather, consumption is a structure (or Durkheimian social fact) that is external to and coercive over individuals" (Baudrillard, 1998, p.15). Moreover, according to Veblen (1899) consumption is a sort of performance that entails the priority of prestige. In sociological terms, consumption is not merely the act of using goods but rather encompasses a multitude of activities that occur before, during, and after the usage of an item.

Mass consumption entails the general buying behavior of individuals towards items and services offered in the marketplace. This trend of purchasing is expanding as an increasing number of products and services become standardized and accessible to all (Sassatelli, 2007; Hochschild, 2011; Boström, 2020). In this context, it may be suggested that the culture industry and mass consumption are deeply intertwined because the culture industry fuses time-honored concepts with well-known ideas to craft entirely new works. In all areas, products designed for large numbers of people are made mostly according to a plan, which greatly affects how they are used (Adorno & Rabinbach, 1975). Thus, this theoretical study aims to explore the concepts of culture industry and mass consumption in the context of technological empowerment while contributing new insights to the existing literature.

The Culture Industry

The concept of culture industry was developed by critical theorists Theodor Adorno (1903–1969) and Max Horkheimer (1895–1973). The core idea of the culture industry involves transforming culture into marketable goods and converting individual emotions and ideas into profitable commodities (Adorno & Horkheimer, 2002). The culture industry primarily critiques the homogeneity observed in mass media forms such as films, television programs, and mainstream music (Gunster, 2000). In another explanation, the culture industry precisely refers to "products which are tailored for consumption by masses, and which to a great extent determine the nature of that consumption, are manufactured more or less according to plan." (Adorno & Rabinbach, 1975, p. 12). All the branches have a uniform shape

and can interlock like a puzzle. They form a system with very few gaps. This has become achievable by contemporary technical capabilities or in other words advancements in modern technology (Adorno & Rabinbach, 1975). As Shi (2022) claims, individuals in the cultural industry typically assume a weak and non-active position. Even, individuals have become mere cogs in a machine created by the culture industry that encourages incessant consumerism (Akdemir, 2016).

The culture industry, which is a significant component of modern capitalist society, encompasses all aspects of entertainment, like Hollywood films and the ambient music played in elevators. Because the integration of culture and entertainment arises from a growing disregard for cultural values and the transformation of enjoyment into an endeavor that necessitates profound reflection (Horkheimer & Adorno, 2002). Thus, its effect on consumers arises from entertainment. Culture is now simply used to improve industrial performance, and the main target of production is profit. Art products, for example, are prepared for mass consumption and profit without any concern for aesthetics. As also stated by Horkheimer and Adorno (2002), media in the culture industry creates standardized experiences for anyone who consumes it. The diversity of content in mass media is not genuine. Although the slight variations among different text types give them an impression of uniqueness, this notion is misleading. It primes individuals to make use of products derived from the culture industry. Long hours of hard work can exhaust individuals, making it difficult for them to fully appreciate their leisure time. Consequently, they find joy in whatever forms of entertainment the culture industry provides.

Advertising as an Elixir of the Culture Industry

Advertising not only drives people to crave certain items but also affects how individuals view themselves as objects of consumption (Akdemir, 2016). In this regard, Horkheimer and Adorno (2002) state that advertising might be seen as an elixir of the culture industry. Because in this system, every product is able to benefit from advertising. The power of the system is hidden behind advertisements. Anything without advertising is seen as worthless in terms of money (Akdemir, 2016). Even in wartime when products are unobtainable, they are still advertised just to keep the industrial power. For example, in 1943, Parker's Pen Company launched an advertisement to inform the public that their pens remained available for purchase, although supplies were reduced due to metal shortages (WCSU Archives, 1943).

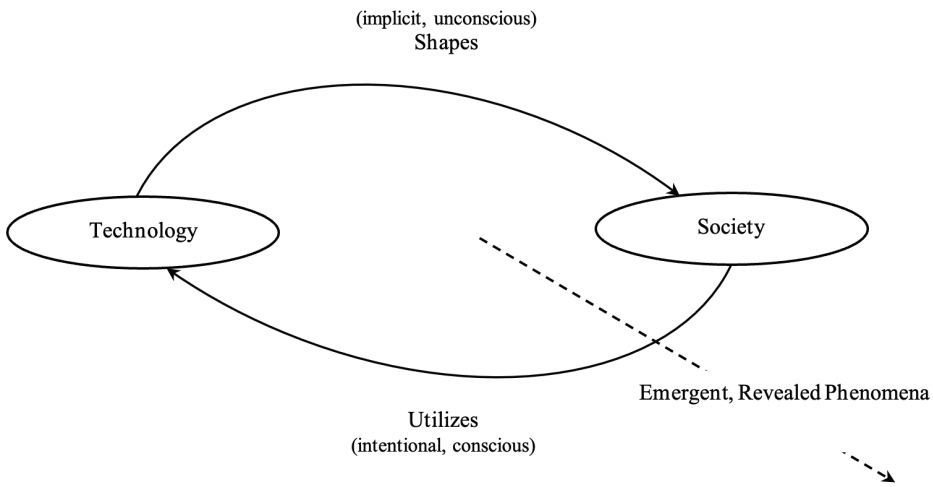
The culture industry operates similarly to an assembly line, systematically and methodically creating its products much like a manufacturing facility. This phenomenon occurs not only in studios but also when producing low-cost biographies, fictional documentary novels, and mainstream music. This method proves to be quite efficient for advertising by allowing significant sections to be isolated and adjusted. They become disconnected from any real meaning and can be used for purposes outside of the original work (Horkheimer & Adorno, 2002). Marcuse (2007), in the "One-Dimensional Man," supports that these kinds of products create a new way of life, and this has been embraced by a number of people who are from different classes of society. As a result, advertisement values create new and different lifestyles. In other words, "most of the prevailing needs to relax, to have fun, to behave and consume in accordance with the advertisement, to love and hate what others love and hate, belong to this category of false needs" (Marcuse, 2007, p.7). Kline and Leiss (1978) state that advertisers engage in activities beyond merely presenting products for sale. They also foster a sense of identity that is linked to the significance of those products. Consequently, it is accurate to assert that a central tenet of the culture industry, which highlights the impact of advertising, has been substantiated.

The Culture Industry and Technological Empowerment

Technology is clearly important in how some people view modern society in a negative way. Feenberg (2005) thinks that the Frankfurt School's idea about this is *"dystopian,"* meaning it sees a very dark or scary future. Adorno and Horkheimer (1997) share Heidegger's (2013) perspective that technology contributes to the detrimental elements of a society that prioritizes numerical data and control mechanisms. They contend that an emphasis on control may diminish the deeper significance of life despite the fact that meaning is crucial to the human experience (Kirkpatrick, 2020). Mesch (2009) says that technology is not only an integral component of society but is also created by individuals within it. The example by Berthon et al. (2005) provided below clarifies the links between technology and society. This figure indicates that technology and society have a reciprocal impact on one another. According to this viewpoint, technology affects the ways in which individuals make their purchases. Consumers not only consume but also produce.

Figure 1

Technology and Society (Berthon et al., 2005, p. 111)



The term *"posthuman consumption"* signifies the interaction of desires and goods within settings profoundly impacted by technological advancements and media influences (Giesler, 2004). Thus, today's marketers utilize digital platforms to impact the buying decisions of consumers (Mesch, 2009). Technology, combined with current media, is allowing music and media companies to find novel methods for making money (Aydin, 2020). The rationale behind the technology is the rationale of control itself. What remains unmentioned is that the increasing power of technology in our lives is largely driven by those who possess the greatest wealth and influence in society. Today, technical rationality signifies the use of technological means and decision-making processes to exert control and influence over people (Horkheimer & Adorno, 2002).

Fuchs (2014) suggests that the tools of social media are seen as a statement of alternating time regimes which contemporary society has been exposed to, in particular, in relation to leisure and labor time (play labor), and time of production and consumption *"prosumption"*. Therefore, the time spent on social media is not only consumption or leisure time but also productive time (Fuchs, 2014). The culture industry theory supports this notion. As stated by Horkheimer and Adorno (2002), individuals not only create items but also purchase and utilize them. Horkheimer and Adorno (2002) try to demonstrate their basic belief that modern society has become extremely mechanical, and the influence of technology over this cannot be

denied. For instance, technology has created a new generation. *"The Net-generation"* (Mesch, 2009). Net-generation means that people use technology, and at the same time, these people are shaped by technology into a different structure of the community, and this is the result of the technology of the culture industry. *"NetSlaves"* also support the criticism of Horkheimer and Adorno (2002) about the culture industry: "The NetSlaves are not simply a typical form of labor on the Internet; they also embody a complex relation to labor that is widespread in late capitalist societies" (Terranova, 2000).

The Culture Industry and Mass Consumption

According to Marcuse (2007) the main target of the culture industry is to dominate society in order to exploit effectively mental and natural resources. Horkheimer and Adorno (2002) argue that the advanced industrial society employs the culture industry to manipulate and dominate people in innovative ways. People are not just using their free time. They are also finding ways to make more free time to enjoy products from the culture industry. In the meantime, companies and creators in the cultural field are focused on devising new strategies to capture the interest of a broader range of people. For producers and business owners, free time means having extra resources or money that they can use to improve or increase their production. In contrast, free time for most people is about having fun and enjoying products from the culture industry (Laskar, 2021).

Gilbert (2013) states that;

> "[T]his trend spilled out of the cultural realm and into economics. What began as the modernist revolution in aesthetics became a revolution in lifestyle, as advertisers and manufacturers took up the trend toward self-fulfillment now ubiquitous in art and transformed it into a business model, which celebrated hedonistic mass consumption and individual possession."

Society today is profoundly affected by technological advancements derived from the culture industry. Users feel a greater sense of autonomy when they navigate the digital world, including the Internet. Yet, technology embedded in popular culture often restricts individuals in society, transforming them into mere cogs within a system to enable greater creation and purchasing of goods. The rise of digital technology has created an era in which information holds great significance and can be traded like any other commodity. People engage with them even when they recognize that they are designed to market something. Individuals are anticipat-

ed to behave authentically according to a specific standard and select the kind of mass-produced product that suits their preferences. Research organizations show charts that look like political ads, dividing people into groups based on how much money they make. They use colors like red, green, and blue to represent different income levels (Horkheimer & Adorno, 2002). Nowadays, the culture industry features social media, cinema, and music, contributing to the development of numerous additional markets for consumer goods. This also helps businesses to grow. Our daily lives are filled with pictures, products, and experiences promoted by the culture industry (Laskar, 2021).

Conclusion

This article primarily focused on the culture industry at the level of technological empowerment that serves to reproduce mass consumption. Boström (2020) states that social life is permeated by mass and excess consumption. Therefore, it is predicted that understanding these mechanisms may help reduce mass/excess consumption. Digital technology is evolving at a rapid pace. Staying current with the rapidly changing conditions poses a major difficulty. To remain competitive, organizations must quickly adjust to the ever-changing nature of digital technology (Rezigue, 2023). This scenario prompts individuals to purchase numerous items, resulting in mass consumption. Another example is social media platforms that find users (consumers) at an unpredictable pace with digitalization. These platforms have not been considered a huge industry in the time of Adorno and Horkheimer. However, today, social media platforms have a number of effects on society, so much so that it has led to the development of a new consumer culture. This appears to provide evidence for the theory of the culture industry. Because it supports Adorno and Horkheimer's argument that the influences of the culture industry over consumers are created by entertainment. Society is encouraged to produce more and consume more by means of entertainment. Thus, people are becoming cogs in the machine to an ever greater extent, even though they think they are free (Horkheimer & Adorno, 2002). Research conducted in the future might enhance our understanding of the ways in which ideas from the culture industry will adapt as technologies by focusing on more specific areas such as artificial intelligence, machine learning, and virtual reality continue to advance.

References

Adorno, T. W., & Rabinbach, A. G. (1975). Culture industry reconsidered. *New German Critique, 6*(12), 12-19. https://doi.org/10.2307/487650

Adorno, T.W. & Horkheimer, M. (1997). *The Dialectic of Enlightenment,* London: Verso

Akdemir, A. (2016). Globalization and Adorno's industrialization of culture. *Uludag University Faculty of Arts and Sciences Journal of Philosophy 26*(26), 181-186.

Archives, W. (1943). *Parker Pen Company advertisement; "Rationed in production to meet the needs of war" · Western CT State University Archives' Digital Collections.* Creative Commons Share and Share Alike Lincence Except Where Noted, https://archives.library.wcsu.edu/omeka/exhibits/show/world-war-ii-in-life-magazine-/item/4648

Aydın O. T. (2020). From Culture Industry to Digital Capitalism. *Journal of Social Policy Conferences, 0*(79), 277-298. https://doi.org/10.26650/jspc.2020.79.0003

Baudrillard, J. (1998). *The Consumer Society: Myths and Structures.* Sage Publications Ltd.

Berthon, P., MacHulbert, J., & Pitt, L. (2005). Consuming Technology: Why Marketers Sometimes Get it Wrong. *California Management Review, 48*(1), 110-128. https://doi.org/10.2307/41166330

Boström, M. (2020). The social life of mass and excess consumption. *Environmental Sociology, 6*(3), 268–278. https://doi.org/10.1080/23251042.2020.1755001

Feenberg, A. (2005). Critical Theory of Technology: An Overview. *Tailoring Biotechnologies, 1*(1), 47-64.

Fuchs, C. (2014). Digital prosumption labour on social media in the context of the capitalist regime of time. *Time & Society, 23*(1), 97-123. https://doi.org/10.1177/0961463X13502117

Giesler, M. 2004. "Special Session Summary Consuming Cyborgs: Researching Posthuman Consumer Culture." In NA - Advances in Consumer Research. Vol. 31, edited by B. E. Kahn and M. F. Luce, 400–402. Valdosta, GA: Association for Consumer Research.

Gilbert, A. (2013). The culture crunch: Daniel Bell's The Cultural Contradictions of Capitalism. *Thesis Eleven, 118*(1), 83-95. https://doi.org/10.1177/0725513613500383

Gunster, S. (2000). Revisiting the Culture Industry Thesis: Mass Culture and the Commodity Form. *Cultural Critique, 45,* 40–70. https://doi.org/10.2307/1354367

Heidegger, M. (1977). *The Question Concerning Technology and Other Essays,* New York: Garland Publishing, Inc.

Hochschild, A. (2011). Emotional life on the market frontier. *Annual Review of Sociology, 37*(1), 21–33. https://doi.org/10.1146/annurev-soc-081309-150137

Horkheimer, M. & Adorno, T. (2002). The Culture Industry: Enlightenment as Mass Deception. In G. Noeri (Ed.), Dialectic of Enlightenment (pp. 94-136). Redwood City: Stanford University Press. https://doi.org/10.1515/9780804788090-007

Kirkpatrick, G. (2020). Technical politics: Andrew Feenberg's critical theory of technology. Manchester University Press.

Kline, S. & Leiss, W. (1978). Advertising, Needs, And "Commodity Fetishism" Canadian *Journal of Political and Social Theory, 2*(1), 5-30.

Laskar, M., H. (2021, Mar 24). Culture Industry and Mass Consumption. Doing Sociology. https://doingsociology.org/2021/03/24/culture-industry-and-mass-consumption-mahmudul-hasan-laskar/#

Marcuse, H. (2007). *One-Dimensional Man,* London and New York: Routledge Classic.

Mesch, G. S. (2009). The internet and youth culture. *The Hedgehog Review, 11*(1), 50-60

Rezigue, I. (2023, Mar 9). The future of Entertainement: How digital technologies are revolutionizing the Industry? Medium. https://medium.com/digital-society/the-future-of-entertainement-how-digital-technologies-are-revolutionizing-the-industry-d645099f46bf

Sassatelli, R. 2007. *Consumer Culture. History, Theory and Politics*. SAGE Publications Ltd.

Shi, Y. (2022). Dialectic of Mass Culture: How culture industry shaped the masses. *Advances in Social Science, Education and Humanities Research,* https://doi.org/10.2991/assehr.k.220110.198

Terranova, T. (2000). Free labor: Producing Culture for the Digital Economy. *Social Text, 18*(2), 33–58. https://doi.org/10.1215/01642472-18-2_63-33

Veblen, T. (1899). *The theory of the leisure class.* New York: The Macmillan Company.

TEFMJ TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

De-Merger and Its Effect on Performance: A Case Study of Piramal Enterprise Limited

DOI: https://doi.org//10.69648/RVPL2804

Trends in Economics, Finance and Management (TEFMJ), 2024; 6(2): 53-80

ijtns.ibupress.com

Online ISSN: 2671-3365

Application : 01.12.2024

Revision : 12.12.2024

Acceptance : 24.12.2024

Publication : 30.12.2024

Gupta, A., & Singh, N. P. (2024). De-Merger and Its Effect on Performance: A Case Study of Piramal Enterprise Limited. Trends in Economics, Finance and Management Journal, 6(2), 53-80. https://doi.org//10.69648/RVPL2804

Anjali Gupta
N.P Singh

Anjali Gupta

Research Scholar, School of Business Management & Commerce, MVN University, Palwal-121105, Haryana, India

N.P Singh

Professor, School of Business Management & Commerce, MVN University, Palwal-121105, Haryana, India

BALKAN JOURNALS

Abstract

This research paper presents the analysis of the demerger of Piramal Enterprises Limited into two entities, Piramal Pharma Limited and Piramal Financial Services Limited. The research paper examines the impact of demergers on the share prices of Piramal Enterprise Limited, Piramal Financial Services Limited, and Piramal Pharma Limited. On May 8, 2024, PEL completed a reverse merger with its subsidiary, Piramal Capital & Housing Finance Limited (PCHFL), and the combined entity, Piramal Finance Limited (PFL). In addition, the research paper examines the impact of this demerger on the financial metrics such as net sales, net profit, return on equity, and market capitalization. In this manner, the study highlights pre- and post-demerger fluctuations in these metrics, showcasing the demerger's impact on the entities' financial performance. The study also delves into the demerger process, the reason behind the demerger, and its framework in the context of relevant regulations and emphasizes the growing importance of demergers as a strategic tool for business growth.

Keywords: financial performance, operational efficiency, growth opportunities & shareholder value

Introduction

The management of business entities is highly dependent on the effectiveness of corporate strategic decisions and the implementation of these strategic decisions. Management has always been concerned with generating adequate profits from corporate activities for its shareholders and future growth. However, no one can assure with certainty that the firm's policies or strategic decisions will be effective in every case. External factors such as market conditions in the context of firms' acceptability of products and services, economic scenarios, and technological and political factors have an everlasting impact on a firm's performance. The management of a business must develop and implement the best possible policies, keeping in view the internal and external factors. One of the popular strategies that emerged during the 20th century was demerger. Dittmar (2013) reported that demergers were first seen in the USA in the 1920s. It became extremely popular during the 1950s across many countries across the globe (Singh et al. 2009). With time, it became an important policy instrument in all parts of the world. Njeri (2013) reported that the insurance sector was the most active in terms of demergers, carve-outs, split-offs, and break-ups in Kenya. Smith (2015) observed that the telecommunications sector in Europe, which observed many regulatory changes and intense market competition, experiences the highest frequency of demergers and carve-outs. Gonzalez (2017) highlighted that the mining sector witnessed a significant number of split-offs and break-ups due to volatile commodity prices. Chen (2018) reported that the technology sector, notably in China and India, leads in terms of a number of carve-outs and demergers, fuelled by the innovation and market expansion strategies of the firms. The healthcare sector in the United States has seen a surge in demergers and spin-offs, particularly among pharmaceutical companies focusing on specific therapeutic areas, as noted by Roberts and Thompson (2018). Furthermore, Smith and Williams (2020) analyzed the factors of the retail sector in Australia that had experienced a wave of demergers, with major conglomerates breaking into smaller entities to better adapt to market dynamics and consumer preferences.

In the Indian context, demerger, as defined by the Company's Act of 2013 (Ministry of Corporate Affairs, 2013), represents a corporate restructuring in which an entity is separated into two or more entities. These entities can be created as standalone entities, sold, or liquidated. It permits large companies to be separated into multiple companies. Section 2(19AA) of the Income Tax Act, 1961 of India defines a demerger as "the transfer of one or more undertakings from a demerged company

to another company." The phrase has meaning because it shows the scope of legislation concerning demergers.

Keeping this in view, this research paper presents an analysis of Piramal Enterprises Limited, which is demerged into Piramal Financial Services Limited & Piramal Pharma Limited (later known as Piramal Healthcare Limited), and the impact on the performance of Piramal Enterprises Limited as a result of demerger. The objectives are to comprehend the financial and operational performance of Piramal Pharma Limited & Piramal Financial Limited, the de-merged entities of parent company Piramal Enterprises Limited, i.e.:

1. To identify reasons for the demerger of the Piramal Enterprise Limited into Piramal Pharma Limited & Piramal Financial Limited.
2. To study the impact on the capital structure and the market valuation of new entities visa-a-vis Piramal Enterprise Limited.
3. To study the operating performance of Piramal Enterprise Limited visa-a-vis its demerged entities.

To achieve these objectives, this research paper follows a structure of seven sections, starting with a section on brief introduction and followed by the framework of demerger in section 2.0, a literature review in section 3.0, an explanation of the research methodology in section 4.0, results and discussion on the conducted analysis on the reasons behind the demerger and the financial and operational performance before and after the demerger in section 5.0, the impact of the demerger on the financial performance of Piramal Pharma Limited & Piramal Financial Limited in section 6.0.

Framework of Demerger in Regard to Indian Companies Act 2013 and Income Tax Act 1961

According to the Indian Companies Act (Ministry of Corporate Affairs, 2013), demerger can take place in India as part of an arrangement under Section 230 or through the sale of an undertaking via Section 180(1) (a) of the Companies Act 2013. The framework of the arrangement may include the payment of consideration to the demerged firm or its shareholders. It is not necessary to move all properties along with liabilities to the resulting firm. The transferred properties and/or liabilities can be valued at shared values, which are determined based on an agreement between the parties concerned or as per a valuation report provided by

an independent valuer, ensuring compliance with applicable accounting and legal standards.

The provision in the Income Tax Act (Government of India, 1961) states that merger and demerger is a regular feature of the corporate world, and it is duly recognized by Indian Income tax laws. As per the income tax laws, conformance to the norms of "tax neutrality" is a must as part of restructuring requirements. The provisions as mentioned in section 2(19AA) of the Income Tax Act, 1961, state that unless the context otherwise requires, the term demerger to companies means the transfer, under a scheme of arrangement under sections 391 to 394 of the Companies Act (Government of India, 1956), by a demerged company of its one or more undertakings to any resulting company. As per the income tax laws, the seller company is liable to pay capital gain tax on capital profit earned through slump sales. Here are four methods of divestiture such as:

- **Spin-off:** It is a process by which a division or department is converted into a separate company. Shareholders get equity shares in the new company that is created. It is done for better accountability and also profitability accounting. The objectives for spin-offs are (i) focusing on core competency, (ii) enhancing responsibility, and (iii) dividing family business.
- **Split-off:** It is a process by which a single company is divided into two or more companies without any company being a subsidiary. The shareholder gets the shares in all the companies created.
- **Sell-off:** It is the sale of a part firm to a third party. The shareholders of the selling firm do not either get cash or securities. The selling company usually receives cash for the sale.
- **Equity crave-out:** Equity crave-out is the sale of shares of a subsidiary company getting additional cash. Cash is available only to the holding company and not to the shareholders. Venture capital and private equity have contributed to a major extent to the equity crave-out deals.

Piramal Enterprises Limited (PEL) recently went through the demerger process, which was classified as a spin-off. In this kind of corporate restructuring, a corporation creates a new, independent company and distributes shares of the new entity to its existing shareholders.

Review of Literature

The demergers and their financial implications provide a detailed examination of corporate restructuring's multidimensional effects, as seen across various global markets and industries. The literature covering these effects is reviewed in the following part.

Cecchetti (2017) and Rose (2010) emphasized the connection between corporate financial strategies and broader economic systems. Cecchetti's (2017) mentioned that financial ratios help in assessing corporate health, Rose (2010) explored comprehensive insights into effective bank management practices and financial services, highlighting strategies for optimizing financial performance, managing risk, and enhancing customer service within banking institutions.

Singh et al. (2009) focused on demergers in India, emphasizing their strategic role in eliminating negative synergies and restructuring during mature phases of the companies to enhance organizational efficiency. Kirchmaier (2003) examined wealth creation from demergers in Europe, revealing significant positive outcomes and shareholder approval, indicating their financial benefits. Bergh and Lim (2008) explored shareholder reactions to demergers in Europe, finding positive responses that underscore demergers' perceived benefits in value creation and strategic realignment across different regions.

Paramasivan (2009) and Brigham and Houston (2010) mentioned that the principles of financial management and corporate restructuring apply universally across different types of organizations and economic conditions. These studies collectively illustrate the complex dynamics of financial management in the context of demergers, highlighting the importance of strategic planning and effective fund management.

Chai et al. (2018) discussed the long-term benefits, of Australian spin-offs and concluded favourable stock performance. Basak (2016) reported Unilever India Exports Limited's demerger from Hindustan Unilever Limited revealed that this strategic move, assessed through both traditional and modern performance measures, resulted in value creation for stakeholders.

Metha et al. (2019) and Padmanabhan (2018) used statistical methods to measure market reactions, noting mixed instant responses but generally positive abnormal returns, suggesting an overall favorable perception of demergers. Vyas et. al (2015) and Zakaria & Arnold (2012) reported significant positive returns following de-

merger announcements in Indian and Malaysian companies highlighting the context-dependent nature of such corporate actions.

Bao (2017) presents a case where demerger activities at ABN AMRO Bank had little impact on financial performance, illustrating that not all demergers lead to immediate financial benefits. Duguleana (2021) shows post-demerger improvement in financial metrics for Romanian companies and emphasizes the role of internal management in the context of external conditions. Baba et al. (2021) analyzed post-demerger profitability ratios and organizational structure. They inferred that financial performance is not significantly changed but strategic refocusing is a key benefit of demerger.

Based on these studies, it can be inferred that demerger has a positive impact on the performance of the majority of companies with exceptions. This research paper's literature review, as shown in Table 1, also presents an analysis of the impact of demerger on the performance of newly emerged entities and the citations of the findings.

Table1.

Review of Literature

	Authors	Objective	Result	Citations
2003	Kirchmaier	Study wealth creation from demergers in Europe	Found significant positive wealth creation and shareholder approval	44
2009	Paramasivan	Discuss broad financial management theories	Highlighted the universal application of financial management across different organizational types	473
2008	Bergh & Lim	Explore shareholder reactions to demergers in Europe	Positive shareholder reactions to demergers	338
2009	Singh et al.	Compare effects of demergers in India	Elimination of negative synergies, often as strategic restructuring in mature phases	22
2010	Brigham and Houston	Explore the complexities and multifaceted nature of finance	Emphasized the intricacies of finance in asset acquisition and capital funding	553

2012	Zakaria & Arnold	Examine impact of demerger announcements on Malaysian market	Significant positive returns, influenced by spin-off nature and market conditions	4
2015	Vyas et. al	Investigate effects of demerger announcements on stock returns in India	Significant positive returns post-demerger	15
2016	Basak	Analyze long-term financial value post-demerger of Unilever India	Increased financial value, emphasized strategic refocusing	8
2017	Bao	Evaluate the financial performance of ABN AMRO Bank post-demerger	Minimal impact on financial performance	10
2017	Cecchetti	Discuss the use of financial banking ratios	Illustrated the use of ratios as crucial for assessing financial health and operational efficiency	513
2018	Chai et al.	Examine long-term benefits of spin-offs in Australia	Favourable stock performance up to 24 months post-event	1
2018	Padmanabhan	Study market responses to demerger announcements	Generally positive abnormal returns indicating favourable market perception	7
2019	Metha et al.	Assess market reactions to demerger announcements	Mixed immediate reactions but generally positive abnormal returns	1
2021	Baba et al.	Analyse profitability ratios and organizational structure post-demerger	No significant changes in financial performance, but strategic refocusing noted as key benefit	1
2021	Duguleana	Explore impact of demergers on financial metrics in Romanian companies	Improvement in financial metrics post-demerger, highlighting effective internal management	3

Source: Compiled by Author (s)

Table2.

Summary of Demergers in Indian Companies

Year	Company	Demerged in to		Sources
16-12-2010	Hero Honda Limited	Hero Motor Crop Limited	Honda Limited	1,2 & 3
27-11-2012	Zuari Global Limited	Zuari Agro Chemicals Limited	Zuari Global Limited	2 & 3
15-04-2013	NRB Bearings Limited	NRB Industrial Bearings Limited	NRB Bearings Limited	1,2 & 3
12-06-2013	Orient Paper & Industries Limited	Orient Cement	Orient Paper & Industries	2 & 3
14-08-2013	ITC Limited	ITC Limited	ITC hotel Limited	2 & 3
01-10-2013	Future Retail Limited	Future Lifestyle Fashions Limited	Future Retail Limited	2 & 3
24-10-2013	Century Plyboards Limited	Star Ferro & Cement Limited	Century Plyboards Limited	2 & 3
11-11-2013	Jindal Poly Firms Limited	Jindal Poly Inv. & Fin. Limited	Jindal Poly Firms Limited	1,2 & 3
24-01-2014	Welspun Crops Limited	Welspun Crops Limited	Welspun Enterprises Limited	2 & 3
02-07-2014	Marico Limited	Marico Kaya Enterprises Limited	Marico Limited	2 & 3
31-07-2014	Gulf Oil Corporation Limited	Gulf Oil Lubricants India Limited	Gulf Oil Corporation Limited	2 & 3
18-12-2014	Polaris Financial Technology Limited	Intellect Design Arena Limited	Polaris Financial Technology Limited	2 & 3
02-03-2015	Greenply Industries Limited	Greenlam Industries Limited	Greenply Industries Limited	2 & 3
23-10-2018	Ganesh Benzoplast Ltd (GBL)	GBL chemical Ltd	GBL LPG Private Limited	2 & 3
23-07-2021	Jubilant Life Sciences limited (JLS)	Jubilant Pharma limited	Jubilant Life Sciences Limited	1,2 & 3
31-10-2021	Piramal Enterprises Limited	Piramal Pharma limited	Piramal Financial Services Limited	1,2 & 3
12-01-2022	GMR Infrastructure Limited	GMR Airports Infrastructure	GMR Power and Urban Infra	1,2 & 3

03-05-2022	Dhampur Sugar Mill limited	Dhampur Bio Organic limited	Dhampur Sugar Mill limited	2 & 3
03-04-2023	Haldiram Snacks and Food limited	Haldiram Snacks limited	Haldiram Food limited	2 & 3
20-07-2023	Reliance Investment Limited	Jio Financial Services Limited	Reliance Investment Limited	2 & 3

Source: Compiled and adapted according to:

1. Trade Brains. (2023, July 1). Popular demergers in India. Retrieved March 25, 2024, from https://tradebrains.in/popular-demergers-in-india/

2. Moneycontrol. Demerger news and updates. Retrieved March 25, 2024, from https://www.moneycontrol.com/news/tags/demerger.html

3. Business Standard. (2015, March 31). Demerged entities emerge as value creators. Retrieved March 25, from https://www.business-standard.com/article/companies/demerged-entities-value-creators-115033100894_1.html

Additionally, table 2 highlights examples of successful demergers in India, such as the separation of Hero MotoCorp from Hero Honda, etc. These demergers have often resulted in enhanced financial performance by allowing companies to focus on their respective core businesses. For instance, Hero MotoCorp, after its demerger, achieved significant growth in market share and profitability by concentrating on the two-wheeler segment and Hero Honda mainly on the four-wheeler segment.

Research Methodology and Data

The research methodology of the study is exploratory and based on secondary data collected from different sources on the internet, websites, and company reports. The data of the balance sheet, profit and loss statement, and cash flow statement are considered for the purpose. The interpretation of the net profitability ratio, net sales, market capitalization, total value of addition, return on capital employed, earning per share, debt to equity ratio, and dividend per share can reveal financial success. Inventory turnover ratios, asset turnover ratios, current asset turnover ratios, working capital turnover ratios, and total capital employed ratios can be used to assess operating performance. To analyze the impact of demerger, the restructuring net profitability ratio, debt to equity ratio, inventory turnover ratios, asset turnover ratios, current asset turnover ratios, working capital turnover ratios, and total capital employed ratios of financial and operational performance are considered in this study.

The usage of case studies in analyzing the impact of demergers on financial performance is crucial for understanding the nuanced effects of such corporate actions. Case studies provide in-depth insights into specific instances, allowing researchers to explore the complexities and outcomes associated with demergers in real-world contexts. For example, the case study of **Piramal Enterprises Limited** illustrates how the demerger into distinct financial services and pharmaceutical entities led to improved financial metrics, such as increased net profitability and enhanced operational efficiency. This aligns with findings from Gupta and Singh (2021), who emphasized the strategic benefits of demergers, including better resource allocation and focus on core competencies. Similarly, the demerger of **Hindustan Unilever Limited** into separate entities, as analyzed by Basak (2016), demonstrated significant value creation for stakeholders. The case study approach allowed for a detailed examination of financial ratios and market reactions, providing evidence of the positive impact of demergers on shareholder value.

This study analyzes data (both quantitative & qualitative) of the demerger of Piramal Enterprises Limited into Piramal Pharma Limited and Piramal Financial Services Limited available from different sources. These sources are annual reports, financial statements, press releases and existing literature. The collected data was analyzed in the context of the impact on financial metrics and shareholder wealth. Financial data such as net sales, net profit, return on equity, and market capitalization were compiled to assess the performance of Piramal Enterprises Limited and its demerged entities.

Result and Discussion

This section presents the analysis of qualitative and quantitative data collected for the purpose from different sources to achieve the three objectives of the research.

Reasons Behind the Demerger of Piramal Enterprise Limited

This section analyzes the statements with respect to the factors, i.e.reasons responsible for the demerger of Piramal Enterprise Limited into two entities, Piramal Pharma Limited and Piramal Financial Services Limited.

Reason1. Simplification of the Corporate Structure:

Singh (2021) reported that the demerger would simplify the business process. Kumar (2022) mentioned that it would simplify the corporate structure. Poddar

(2021) inferred that the objective of the demerger of Piramal Enterprises Limited was to simplify the company structure and create more focus by dividing the business into two demerged entities. The Press Release (2021) by Piramal Enterprises announced the company's decision to split and streamline its corporate structure. Business Today (2021) also concluded that the demerger would simplify the corporate structure of Piramal Enterprises Limited by forming two listed entities: Piramal Financial Services and Piramal Pharmaceuticals.

Reason 2. Large Pharma Company in India:

Business Today (2021) reported that, because of the demerger, Piramal Pharma Limited will become a large Indian-listed pharmaceutical company with established capabilities in contract development and manufacturing, global distribution of complex hospital generics, and a substantial presence in the consumer products market in India. The press release (2021) further highlighted that Piramal Pharma Limited is expected to be one of the prominent pharmaceutical companies listed on both the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). This indicates that one of the key motivations behind the demerger was to establish a significant pharmaceutical entity.

It is evident from the data given in table 3 that Piramal Pharma Limited is still to become the largest company.

Table 3

Market Capitalisation of Big Pharma Companies in India (2022-2023)

Rank	Companies Name	No. of shares	Share price (INR)	Market capitalisation (Million (INR))	Market capitalisation (USD Million)
1	Sun Pharmaceutical ltd.	2381603774	1,590	3786750	45,291.80
2	Cipla Ltd	799777290	1,526.65	1220980	14,603.65
3	Divis Laboratories Ltd.	262635291	4,587.35	12,04,800	14,410.13
4	Zydus Lifesciences Ltd.	991753356	1,192	11,82,170	14,139.46
5	Dr. Reddys Laboratories Ltd.	163788533	6,846.45	11,21,370	13,412.26
6	Torrent Pharmaceuticals Ltd.	338306165	2,950.70	9,98,240	11,939.55
7	Apollo Hospitals Enterprise Ltd.	142425518	6,414.30	9,13,560	10,926.73

8	Max Healthcare Institute Ltd.	959173155	911.9	8,74,670	10,461.58
9	Mankind Pharma Ltd.	398285899	2,164.40	8,62,050	10,310.64
10	Lupin Ltd.	449318674	1,823.65	8,19,400	9,800.52
11	Aurobindo Pharma Ltd.	555724700	1,399.20	7,77,570	9,300.20
12	Alkem Laboratories Ltd.	115772397	5,362.85	6,20,870	7,425.98
13	Abbott India Ltd.	20626357	28,311.35	5,83,960	6,984.51
14	Glaxosmithkline Pharmaceuticals Ltd.	170091779	2,560.50	4,35,520	5,209.08
15	Biocon Ltd.	1174783580	358.1	4,20,690	5,031.70
16	Glenmark Pharmaceuticals Ltd.	275412506	1,412.10	3,88,910	4,651.60
17	Fortis Healthcare Ltd.	744494659	486.8	3,62,420	4,334.76
18	Gland Pharma Ltd.	165746021	2,016.70	3,34,260	3,997.95
19	Global Health Ltd.	269073017	1,209.30	3,25,390	3,891.86
20	Ipca Laboratories Ltd.	251422089	1,234.10	3,10,280	3,711.13
21	Syngene International Ltd.	400360842	748.25	2,99,570	3,583.04
22	Ajanta Pharma Ltd	122865738	2,243.75	2,75,680	3,297.30
23	JB Chemicals & Pharmaceuticals Ltd.	152717345	1,776.55	2,71,310	3,245.03
24	Laurus Labs Ltd.	533946131	467.8	2,49,780	2,987.52
25	Narayana Hrudayalaya Ltd.	198419414	1,252.70	2,48,560	2,972.93
26	Dr. Lal Pathlabs Ltd.	82150839	2,997.90	2,46,280	2,945.66
27	Pfizer Ltd.	45601816	4,867.35	2,21,960	2,654.77
28	Suven Pharmaceuticals Ltd.	254832812	847.85	2,16,060	2,584.21
29	Natco Pharma Ltd.	171355871	1,237.95	2,12,130	2,537.20
30	Poly Medicure Ltd.	96613080	2,096.30	2,02,530	2,422.38
31	Piramal Pharma Ltd.	1304622396	153.6	2,00,390	2,396.78

Source: Compiled and adapted according to

1. MoneyWorks4Me. *Top pharma companies in India*. MoneyWorks4Me. Retrieved April 6, 2024, from https://www.moneyworks4me.com/best-index/bse-stocks/top-pharma-companies-in-india/

2. Companies Market Cap. (2023). On Holding market capitalization. Retrieved April 6, 2024, from https://companiesmarketcap.com/on-holding/marketcap

Reason 3. To Make Piramal Enterprises a Large NBFC in India:

The press release (2021) of Primal Enterprises mentioned that Fininvest Private Limited, the non-banking financial company (NBFC), will amalgamate with Piramal Enterprises Limited to create a large listed NBFC. Business Today (2021) also reported that the amalgamation of Fininvest Pvt Ltd with Piramal Enterprises Limited will result in the formation of a large, listed non-banking financial services (NBFC) entity.

Reason 4. Enhance Global Competition

Singh (2021) and Kumar (2022) both suggested that the demerger would enhance the global competitiveness of Piramal Pharma Limited. Similarly, Poddar (2021) indicated that the demerger could boost the company's competitiveness globally. These assertions were further reflected in the Press Release (2021) and Business Today (2021), which highlighted the potential for increased global competitiveness post-demerger.

Reason 5. Future Growth

Business Today (2021) reported that, according to experts, the demerger will boost the valuation and future growth prospects by transforming Piramal Pharma Limited into an independent entity rather than a subsidiary of a non-banking financial company (NBFC). The Press Release (2021) of Piramal Enterprises also highlighted that the valuation and future growth outlook for Piramal Pharma Limited as an independent entity would be more positive compared to its previous status as a subsidiary of a non-banking financial company (NBFC). Poddar (2021) mentioned that the valuation and potential for future growth of Piramal Pharma Limited as an independent entity would be higher than when it was a subsidiary of an NBFC. Additionally, Kumar (2022) suggested that the valuation and future growth prospects would be better realized by establishing Piramal Pharma Limited as an independent entity instead of being a subsidiary of Piramal Enterprises Limited.

Reason 6.Unlocking Shareholder Value

EDT (2021) reported that the demerger of Piramal Enterprises Limited was expected to unlock significant shareholder value by creating two distinct listed entities—Piramal Pharma Limited (PPL) and Piramal Enterprises Limited (NBFC). This strategic move was anticipated to allow each business to concentrate on its specific sector, which could have led to potentially higher valuations for both enti-

ties. Akash (2021) indicated that the separation enabled the management teams of both entities to focus solely on their respective industries, which may potentially lead to more streamlined decision-making, improved operational efficiency, and more agile responses to market opportunities.

Reason 7. Operational Efficiency

Kumar (2022) stated that with the consolidation of operations into two distinct entities, the demerger had been designed to enhance operational efficiency, enabling faster decision-making and resource allocation in both sectors.

IST (2022) mentioned the Board of Piramal Enterprises Limited approved the demerger of its pharma business, simplifying the corporate structure to enhance operational efficiency. The separation into two listed entities, Piramal Enterprises Limited (NBFC) and Piramal Pharma Limited, aimed to create a sharper focus for each entity, allowing for more efficient management, resource allocation, and accelerated growth.

Financial Ratios of Piramal Enterprises Limited & its Demerged Entities

This section presents the financial performance and wealth creation of Piramal Enterprises Limited, and its demerged entities Piramal Pharma Limited and Piramal Financial Services Limited which is referred to as Piramal Enterprise Limited at stock Market.

Table 4

Financial Ratios & Other Parameters Before Demerger of Piramal Enterprises Limited

Particular	Pre- demerger									
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Net Sales (₹ Million) ($ Million	11534.0 (216.07)	14031.0 (239.43)	18431.0 (302.14)	24014.0 (374.6)	35165.0 (523.28)	37662.0 (578.52)	32886.0 (505.16)	36714.0 (536.75)	20128.0 (285.9)	18247.0 (246.24)
Net Profit (₹ Million) ($ Million)	1307.2 (24.48)	-2315.6 (-39.52)	-3700 (-60.66)	3727.4 (58.14)	10611.5 (157.94)	7767.8 (119.32)	5184.7 (75.80)	-8619.8 (-122.43)	1448.5 (19.55)	399 (5.37)
RONW (%)	1.17	-2.19	-4.05	3.25	8.71	5.38	2.42	-4.41	0.68	13.93
ROCE (%)	1.12	1.51	-3.75	2.92	5.86	4.51	2.04	8.19	7.87	15.71
EPS (₹)	7.7	-13.4	-21.4	21.6	61.49	44.83	28.52	-43.4	6.87	9.11
Debt-Equity Ratio (%)	0.11	0.42	0.64	0.33	1.02	0.54	0.56	0.58	0.31	0.04

Market Capitalisation ($ Billion)	1.64	1.54	2.26	2.6	4.11	7.72	6.24	4.35	4.4	8.47
DPS (₹)	17.5	17.5	52.5	20	17.5	21	25	28	14	0
Total Value Addition (₹ Million) ($ Million	5711.4 (107)	3702 (63.17)	4350.8 (71.32)	3845.1 (59.99)	4241.2 (63.11)	3713 (57.04)	6830.7 (99.86)	5175.8 (73.52)	6675.3 (90.09)	981 (13.20)
Net Profitability Ratio (%)	11.33	-16.5	-20.07	15.52	30.17	20.62	15.76	-23.47	7.19	2.18
Inventory Turnover Ratio	4.32	5.36	6.13	7.48	9.37	10.98	2.23	2.05	4.75	1.27
Asset Turnover Ratio	8.39	8.58	10.89	14.61	13.16	14.78	0.11	0.1	5.83	0.06
Current Asset Turnover Ratio	6.37	3.53	4.91	4.71	10.04	9.67	6.67	12.61	7.38	5.81
Working Capital Turnover Ratio	35.8	14.3	5.57	17.15	6.84	8.59	5.13	3.41	3.09	20.77
Total Capital Employed Ratio	4.55	16.95	25.27	18.59	5.95	13.57	8.13	7.68	7.73	5.21

Source: Compiled and adapted from Moneycontrol. Piramal Enterprises: Balance sheet. Retrieved March 6, 2024, from https://www.moneycontrol.com/financials/piramalenterprises/balance-sheetVI/PH05, and Piramal Enterprises Limited. (2012–2021). Annual reports (2012–2024). Piramal Enterprises Limited. https://www.piramal.com/investor/piramal-enterprises-limited/financial-reports/quarterly-results/

Table 5

Financial Ratios & Other Parameters After the Demerger of Piramal Enterprises Limited Into Piramal Pharma Limited and Piramal Financial Services Limited

Particular	Piramal Pharma Limited			Piramal Financial Services Limited			Piramal Pharma Limited + Piramal Financial Services Limited		
Year	2022	2023	2024	2022	2023	2024	2022	2023	2024
Net Sales (₹ Million) ($ Million	29775.7 (378.8)	33495.9 (408.5)	43253.1 (518)	19277.8 (245.3)	22120.7 (269.8)	27862.3 (333.7)	49053.5 (624.09)	55616.6 (78.25)	71115.4 (851.68)
Net Profit (₹ Million) ($ Million)	3430.5 (43.6)	695 (8.5)	3912.2 (46.9)	5722.8 (72.8)	143333 (1748)	4740.5 (56.8)	9153.3 (116.45)	144028 (1756.4)	8652.7 (103.63)
RONW (%)	6.76	1.32	5.82	59.63	2.47	2.19	27.54	1.78	4.4
ROCE (%)	8.61	4.04	8.39	10.87	5.24	2.19	9.5	4.52	5.96
EPS (₹)	2.91	0.58	3.05	600.56	24.02	20.5	603.47	24.6	23.55
Debt-Equity ratios (%)	0.22	0.31	0.17	0.36	0.25	0.36	0.58	0.56	0.53
Market Capitalisation ($ Billon)	1.65	2.2	3.45	2.38	2.51	2.83	4.03	4.71	6.28
DPS (₹)	0	0	0.11	31	33	10	31	33	10.11
Total value Addition (Million)	3409.7 (43.38)	4347 (53.01)	2668.6 (31.96)	4811.1 (61.21)	29093.5 (354.8)	10389.8 (124.4)	8220.8 (104.59)	33440.5 (407.81)	13058.4 (156.39)
Net Profitability ratio,	11.08	2.01	8.91	25.71	299.53	12.69	18.65	150.77	10.33
Inventory Turnover ratios	2.23	1.79	1.57	1.87	0	0	2.07	1.39	1.22
Asset Turnover ratios,	0.48	0.45	0.5	0.07	0.15	0.12	0.28	0.3	0.31

Current Asset Turnover ratios,	15.2	14.3	13.1	6.15	0.73	0.91	10.7	7.5	6.93
Working Capital Turnover ratios	67.5	84.3	40.7	103.3	0.85	1.06	85.4	42.6	20.3
Total Capital Employed ratios	47.8	40.4	70.8	5.06	4.83	7.11	26.4	22.6	39

Source: Compiled and adapted from: Moneycontrol. Piramal Enterprises: Balance sheet. Retrieved March 6, 2024, from https://www.moneycontrol.com/financials/piramalenterprises/balance-sheetVI/PH05; Piramal Pharma Limited. (2021–2024). Annual reports (2021–2024). Piramal Pharma Limited. https://www.piramal.com/investor/piramal-pharma-limited/financial-reports/annual-reports/

Piramal Enterprises Limited. (2021–2024). Annual reports (2012–2024). Piramal Enterprises Limited. https://www.piramal.com/investor/piramal-enterprises-limited/financial-reports/quarterly-results/

***$: US$, DPS: Dividend per share.

From the data presented in Table 4 and Table 5, it can be inferred that before the demerger, Piramal Enterprises Limited demonstrated significant growth in net sales, rising from ₹11,534.0 million INR in 2012 to ₹18,247.0 million INR in 2021. Despite this growth in sales, net profit fluctuated, ranging from ₹1,307.2 million (US$216.07 million) in 2012 to ₹399 million (US$5.37 million) in 2021. The company's net profitability ratio showed a decline over the years, reflecting the challenges in maintaining consistent profit margins. In terms of operational efficiency, key ratios such as Return on Net Worth (RONW) and Return on Capital Employed (ROCE) exhibited considerable volatility, peaking at 27.54% and 9.50% in 2022, respectively, but then sharply declining to 1.78% and 4.52% by 2023. Despite these fluctuations, Earnings Per Share (EPS) and market capitalization demonstrated an overall upward trend, suggesting that the company was able to generate value for its shareholders despite challenges in profitability. Additionally, the debt-to-equity ratio remained low, indicating that the company used minimal leverage, with the ratio falling from 0.11 in 2012 to 0.04 in 2021, signalling a conservative approach to financing.

After the demerger, the financial performance of both Piramal Pharma Limited and Piramal Financial Services Limited improved significantly. Combined net sales for both companies rose substantially to ₹4,905.35 million (US$588.64 million) in 2022, and further increased to ₹5,561.66 million (US$667.40 million) in 2023, marking an increase of 168.83% in 2022 and 13.38% in 2023 compared to 2021. The combined net profit surged, particularly for Piramal Financial Services Limited, which saw its profit rise from ₹915.33 million in 2022 to ₹14,402.8 million in 2023, an increase of 166.78% in 2022 and 320.67% in 2023 compared to 2021. The post-demerger period also witnessed improvements in key financial ratios, such as RONW and ROCE, which saw significant increases in 2022, reflecting better capital efficiency. Additionally, EPS experienced a notable boost, signalling improved shareholder returns. While the debt-to-equity ratio increased slightly post-demerger, it remained within manageable limits, with both companies showing a prudent approach to financial leverage. Market capitalization and total value addition also experienced substantial growth, further underlining the positive impact of the demerger on the companies' financial health and value creation.

However, despite an increase in net sales, Piramal Pharma Limited experienced a decline in net profit from 2022 to 2023. This decline was largely attributed to higher operational costs related to capacity expansions and necessary maintenance. The EBITDA margin decreased from 19% in 2022 to 12% in 2023, highlighting the negative impact of increased expenses. The company's inventory turnover ratio and asset turnover ratio showed mixed results, indicating challenges in effectively managing resources. Specifically, the Contract Development and Manufacturing Organization (CDMO) business faced difficulties, although there was a recovery towards the end of the year. Furthermore, the India Consumer Healthcare segment underperformed, exacerbating the overall decline in profits. Additionally, increased borrowings and higher interest rates led to a rise in finance costs, further squeezing net profits. The working capital turnover ratio and current asset turnover ratio reflected the company's efforts to improve short-term asset management, though profitability pressures persisted.

In summary, prior to the demerger, Piramal Enterprises Limited showed growth in net sales and market capitalization but faced challenges with fluctuating net profits and returns. Key ratios such as net profitability, debt-equity, and total capital employed indicated that while sales were growing, operational efficiency and profitability were under strain. Post-demerger, both Piramal Pharma Limited and Piramal Financial Services Limited saw marked improvements in net sales, net

profit, and market capitalization, along with better returns on equity and capital employed. These improvements were accompanied by enhanced operational ratios, including inventory turnover, asset turnover, working capital turnover, and current asset turnover ratios, reflecting the positive operational and financial impact of the demerger on both companies.

Impact of Demerger

The demerger of Piramal Enterprises Limited into Piramal Pharma Limited (PPL) and a financial services company is viewed positively by the investors and shareholders. It facilitated specialized management and targeted development strategies, which increased shareholder value. Bandose (2022) mentioned that Piramal Pharma Limited, following the demerger from Piramal Enterprises Limited, integrates two subsidiaries (Piramal Pharma Limited & Piramal Financial Services) of Piramal Enterprise Limited to achieve a focus on both organic and inorganic growth strategies. The demerger looks to leverage existing assets and increase valuation, with no additional tax obligations projected because of the restructuring. It resulted in optimal corporate operations and market presence in two sectors of the economy. This restructuring permits both companies to continue to operate independently, with their own unique management and governance structures, potentially leading to more efficient operations and targeted performances (Piramal Group 2021). Shareholders obtain direct share allocation in Piramal Pharma Limited , allowing them to keep positions in both the newly formed companies, possibly leading to higher valuations and performance in their respective markets.

Impact of Demerger on Financial Performance

The demerger of Piramal Enterprises Limited into separate financial services and pharmaceutical entities is expected to have a major financial impact and maximize wealth for both companies and their shareholders. ICICI Securities valued Piramal Enterprises Limited's financial services valued at Rs 33,200 core, post-demerger (annual report FY22). The Piramal Enterprises Limited is estimated to achieve an 8-9% return on equity during FY24. The demerger also seeks to optimize capital utilization and achieve a net debt-to-equity ratio of 3.5-4.5 times over the next five years, with goals of doubling assets under management by 2027 and considerably increasing retail disbursements. This is yet to be seen. On the pharmaceutical side, Piramal Enterprises Limited's demerger signifies the consolidation of its pharma business under Piramal Pharma Limited, which is estimated to deliver near-term

growth of roughly 15% and perhaps 25%-28% over the following three years. According to the Piramal Annual Report 2022, Piramal Pharma Limited plays a pivotal role in the contract development and manufacturing organization (CDMO) industry, bolstered by a strong product pipeline and extensive global production and distribution capabilities. The pharmaceutical division's strategic goals include growing its complicated generics and consumer healthcare solutions. Piramal Enterprises Limited shareholders were expected to receive four Piramal Pharma Limited shares along with every Piramal Enterprises Limited share, indicating an obvious financial benefit from the demerger process. This restructure aims to provide more focused management and strategic flexibility to both the financial services and pharmaceutical fields, potentially boosting shareholder value and market performance. The demerger allows each firm to concentrate on its core competencies, operational efficiency, and development objectives while avoiding the limits of a diverse conglomerate structure.

Impact in the Form of Representation on the Board

Prior to the demerger, the representation on the board is significantly influenced by the need to align with the distinct business priorities of the upcoming separate entities. The restructuring phase often leads to changes in board membership and composition to better reflect the strategic goals of each sector-focused company. For instance, the demerger of Piramal Enterprises Limited resulted in the formation of independent boards for its Financial Services and Pharmaceuticals divisions, each equipped with a management team tailored to its specific operational needs.

This shift in board representation is crucial as it allows for more focused governance, enabling each entity to concentrate on its core competencies and strategic objectives. By establishing dedicated boards, the companies can enhance decision-making processes and accountability, ultimately fostering improved operational efficiency and stakeholder engagement.

In summary, the pre-demerger impact on board representation is vital for setting the foundation for effective governance and strategic direction in the newly formed entities.

Post Demerger

Piramal Enterprises Limited's demerger and simplification of the corporate structure are likely to influence the board of directors' representation before the demerger. The demerger resulted in the formation of separate sector-focused listed companies in Financial Services and Pharmaceuticals, each of which has its board of directors and management team. This means that pre-demerger board participation changed to meet the distinct businesses' unique business priorities. As a result, the demerger most likely resulted in changes to the board of directors' membership and structure to better correspond with the new independent listed corporations. (Board of director's Report 2012-2023 & Piramal Group (2021))

Table 6

Member of Board of Piramal Enterprises Limited Before and After Demerger

Piramal Enterprises Limited	Piramal Pharma Limited	Piramal Financial Services limited
Mr. Vaghul	Mr. Peter De Young	Mr. Rajiv Mehrishi
Dr. Swati Piramal	Mr. Vivek Valsaraj	Mr. S Ramadorai
Ms. Nandini Piramal	Mr. Jairaj Purandhare	Mr. Suhail Nathani
Mr. Anand Piramal	Mr. S Ramodorai	Ms. Shikha Sharma
Mr. S. Ramadorai	Ms. Vibha Paul Rishi	Dr. Swati Piramal
Mr. Gautam Banerjee	Mr. Sridhar Gorthi	Mr. Kunal Bahl
Mr. Suhail Nathani	Ms. Nathalie Leitch	Mr. Gautam Doshi
Ms. Anjali Bansal	Mr. Neeraj Bhardwaj	Ms. Anjali Bansal
Mr. Kunal Bahl		Mr. Puneet Dalmia
Mr. Khushru Jijina		Ms. Anita George
Mr. Rajesh Laddha		Mr. Anand Piramal
Mr. Vijay Shah		Ms. Nandini Piramal
Mr. Deepak Satwalekar		Mr. Vijay Shah
Source:		

Source: Adapted according to: Piramal Pharma Limited. (2021;2023). AGM report 2021. Piramal Pharma Limited. https://www.piramal.com/investor/piramal-pharma-limited/corporate-governance/board-committees/; Piramal Enterprises Limited. (2021;2023). AGM report 2021. Piramal Pharma Limited. https://www.piramal.com/investor/piramal-enterprises-limited/corporate-governance/board-of-directors/

Demerger Scheme

The demerger of Piramal Enterprises Limited was executed via a stock swap which aimed to simplify the corporate structure without involving cash flow and to enhance global competitiveness. As reported by Pilla (2022), in the Composite Scheme of Arrangement of Piramal Group (2021) and the Valuation Report of Piramal Group (2021), Piramal Enterprises Limited shareholders received 4 (four) fully paid-up equity shares of Piramal Pharma Limited, each with a face value of Rs. 10, for every 1 (one) fully paid-up equity share of Piramal Enterprises Limited with a face value of Rs. 2 that they held. This arrangement allowed shareholders to retain their existing holding in Piramal Enterprises Limited while also acquiring a proportionate stake in Piramal Pharma Limited.

Share Price Before and After Demerger

Table 7 shows the share performance of Piramal Enterprises Limited (PEL) and its demerged two entities, i.e., Piramal Financial Services Limited (PFSL) and Piramal Pharma Limited (PPL) visa-visa values of Nifty (National Stock Exchange (NSE) Index). It can be inferred from the data given in Table 7 that PEL's shares have witnessed up and down to the extent that a large decline of -22.63% was seen in September 2022. During this period, the correlation with the NSE Index was modestly positive, showing some alignment with larger market movements. Following the demerger, the focus shifts to PFSL and PPL. PFSL experienced a wide range of monthly value of share, from a significant gain of 18.58% in June 2023 to a sharp decline of -14.09% in March 2023. Correlation data reveals a moderate positive relationship between both PEL and PPL with the market index early on, suggesting their share movements were somewhat aligned with the overall market trends. However, there's no on-going correlation data for PFSL and PPL post-demerger. The share prices of Piramal Financial Services Limited and Piramal Pharma Limited rose from June to October 2023 due to strong financial results, successful capital raising through a rights issue, debt reduction, and strategic market expansions.

Table 7

Price of Share (₹) of Piramal Enterprise Limited Before and After Demerger

	Piramal Enterprises Limited (PEL)		Piramal Financial Services Limited (PFSL)		Piramal Pharma Limited (PPL)		
Months	Share Price	Change with previous Month (%)	Share Price (Face value)	Change with previous Month (%)	Share Price (Face value)	Change with previous Month (%)	NSE Index (Yearly Market valuation)
Sep-21	1421.59 (2)		-		-		17,718.90
Oct-21	1,424.85 (2)	0.29%	-		-		17,833.05
Nov-21	1,324.41 (2)	-0.75%	-		-		17,051.15
Dec-21	1447.93(2)	0.08%	-		-		17,244.50
Jan-22	1,410.09 (2)	-2.68%	-		-		17,301.05
Feb-22	1,202.82 (2)	-17.23%	-		-		16,481.60
Mar-22	1,272.39 (2)	5.46%	-		-		17,519.20
Apr-22	1,249.10 (2)	-1.86%	-		-		17,329.25
May-22	1,077.18 (2)	-15.96%	-		-		16,578.45
Jun-22	965.33 (2)	-11.58%	-		-		15,774.50
Jul-22	1,040.02 (2)	7.18%	-		-		17,079.50
Aug-22	1,064.50 (2)	2.29%	-		-		17,414.95
Sep-22	868.00 (2)	-22.63%	-		-		16,798.05
Oct-22	-	-	850.80 (2)		159.52 (10)		17,910.20
Nov-22	-	-	829.00 (2)	-2.63%	131.84 (10)	-21.00%	18,625.70
Dec-22	-	-	834.70 (2)	0.68%	112.74 (10)	-16.94%	18,259.10
Jan-23	-	-	866.95 (2)	3.72%	103.22 (10)	-9.22%	17,731.45
Feb-23	-	-	773.90 (2)	-12.02%	77.05 (10)	-33.97%	17,383.25
Mar-23	-	-	678.35 (2)	-14.08%	67.63 (10)	-13.93%	17,210.35 ($2.51 B)
Apr-23	-	-	736.75 (2)	7.93%	69.14 (10)	2.18%	17,950.40
May-23	-	-	771.90 (2)	4.55%	79.98 (10)	13.55%	18,594.20
Jun-23	-	-	948.00 (2)	18.56%	91.21 (10)	12.31%	19,076.85

Jul-23	-	-	1,023.00(2)	7.33%	102.44 (10)	10.96%	19,666.35
Aug-23		-	1,058.90 (2)	3.39%	102.85 (10)	0.40%	19,375.55
Sep-23		-	1049.35 (2)	-0.91%	102.05 (10)	-0.78%	19,581.20
Oct-23		-	980.00 (2)	-7.07%	103.00 (10)	0.92%	19,232.95
Nov-23		-	933.00 (2)	-5.03%	126.45 (10)	18.54%	20,108.50
Dec-23		-	930.00 (2)	-0.32%	138.90 (10)	8.96%	21,737.65
Jan-24		-	916.25 (2)	-1.50%	144.80 (10)	4.07%	21,487.25
Feb-24		-	916.00 (2)	-0.02%	132.45 (10)	-9.32%	21,935.20
Mar-24		-	853.00 (2)	-7.39%	132.95 (10)	0.38%	22,163.60 ($2.63 B)
	0.65		0.48		0.60		

Source: Compiled and adapted from: Investing.com. Piramal Healthcare historical data. Investing.com. Retrieved December 6, 2023, from https://in.investing.com/equities/piramal-healthcare-historical-data; Live Mint. Piramal Enterprises share price: NSE, BSE. Live Mint. Retrieved December 6, 2023, from https://www.livemint.com/market/market-stats/stocks-piramal-enterprises-share-price-nse-bse-s0003118/

3.National Stock Exchange of India. Piramal Enterprises Limited (PEL) - Equity Quotes. National Stock Exchange of India. Retrieved December 6, 2023, from https://www.nseindia.com/get-quotes/equity?symbol=PEL; Yahoo Finance. Piramal Enterprises Limited (PEL.NS) - Historical Data. Yahoo Finance. Retrieved December 6, 2023, from https://finance.yahoo.com/quote/PEL.NS/history/

Conclusion

Based on the data presented in earlier sections, it can be concluded that demerger has an impact on financial performance metrics such as net sales, net profit, return on equity, return on capital employed, earnings per share, debt-equity ratios, and market capitalization before and after the demerger. The analysis revealed the ups and downs of financial parameters following the demerger, highlighting how the separation has influenced the financial performance of the two newly formed enti-

ties. The demerger of Piramal Enterprises Limited into separate financial services and pharmaceutical entities is also expected to have a positive impact on financial performance and shareholder value with the creation of distinct sector-focused listed companies.

The study emphasized the growing importance of demergers as a strategic tool for business growth, enabling companies to reassess their corporate structures and make informed decisions. Additionally, this study provided essential insights into the financial performance and market dynamics of these companies, offering valuable implications for investors and stakeholders seeking to understand their growth trajectories and relationships with broader market trends. According to the main research question, the demerger of Piramal Enterprises Limited into Piramal Pharma Limited and Piramal Financial Limited reflects a strategic move to enhance operational efficiency, optimize valuations, and unlock growth potential. This separation allows both entities to focus on their respective industries, creating long-term value for stakeholders and shareholders. Overall, the demerger aims to optimize corporate operations, enhance valuation, and strengthen market presence for both entities.

References

Piramal Pharma Limited. (2021;2023). *AGM report 2021*. Piramal Pharma Limited. https://www.piramal.com/investor/piramal-pharma-limited/corporate-governance/board-committees/

Investing.com. *Piramal Healthcare historical data*. Investing.com. Retrieved December 6, 2023, from https://in.investing.com/equities/piramal-healthcare-historical-data

Companies Market Cap. (2023). On Holding market capitalization. Retrieved April 6, 2024, from https://companiesmarketcap.com/on-holding/marketcap

Piramal Enterprises Limited. (2012–2021). Annual reports (2012–2024). Piramal Enterprises Limited. https://www.piramal.com/investor/piramal-enterprises-limited/financial-reports/quarterly-results/

Piramal Enterprises Limited. (2021;2023). *AGM report 2021*. Piramal Pharma Limited. https://www.piramal.com/investor/piramal-enterprises-limited/corporate-governance/board-of-directors/

Live Mint. *Piramal Enterprises share price: NSE, BSE*. Live Mint. Retrieved December 6, 2023, from https://www.livemint.com/market/market-stats/stocks-piramal-enterprises-share-price-nse-bse-s0003118/

Piramal Enterprises Limited. (2021–2024). Annual reports (2012–2024). Piramal Enterprises Limited. https://www.piramal.com/investor/piramal-enterprises-limited/financial-reports/quarterly-results/

National Stock Exchange of India. *Piramal Enterprises Limited (PEL) - Equity Quotes*. National Stock Exchange of India. Retrieved December 6, 2023, from https://www.nseindia.com/get-quotes/equity?symbol=PEL

Yahoo Finance. *Piramal Enterprises Limited (PEL.NS) - Historical Data*. Yahoo Finance. Retrieved December 6, 2023, from https://finance.yahoo.com/quote/PEL.NS/history/

Baba, C. M., Duguleană, C., Dincă, M. S., Duguleană, L., & Dincă, G. (2021). The Demerger Impact upon Sustainable Development of Economic Entities: Evidence from Romania. *Sustainability*, *13*(15), 8316.

Bandose, V. "Piramal Enterprises demerger news: Check record date, share ratio - what investors should know August 30 Retrieved on March 25, 2024 from"https://www.zeebiz.com/market-news/news-piramal-enterprises-demerger-news-check-record-date-share-ratio-what-investors-should-know-196272.

Bao, J. (2017). Evaluating the impact of mergers and demergers using the DuPont method: A case study of ABN AMRO Bank. *Finance Research Letters,* 21, 58-64.

Basak, S. (2016). Evaluating investor value post demerger: A case study of Unilever India Exports Limited. *Journal of Corporate Finance,* 38, 150-165.

Bergh, D. D., & Lim, E. N. K. (2008). Learning how to restructure: Absorptive capacity and improvisational views of restructuring actions and performance. *Strategic Management Journal,* 29(6), 593-616.

Brigham, Eugene F., Houston, Joel F. 2010. Essentials of Financial Management 2nd ed. Cengage Learning Asia, Singapore.

Business Today. (2021). Piramal board approves demerger of pharma biz, financial services, October 8. Retrieved on March 25, 2024 from "https://www.businesstoday.in/latest/corporate/story/piramal-board-approves-demerger-of-pharma-biz-financial-services-308799-2021-10-08."

Cecchetti, S. G., & Schoenholtz, K. L. (2017). *Money, banking, and financial markets*. McGraw-Hill.

Chai, D., Wernerfelt, B., & Zinkhan, G. (2018). The performance of spin-offs and related market dynamics in Australia. *Australian Journal of Management,* 43(3), 423-444.

Chen, L. (2018). Carve-outs and demergers in the Asian technology sector: Innovation and market expansion. *Asian Business Review,* 12(1), 55-70.

Companies Market (2024) Market Capitalization of Piramal Pharma, May 10. Retrieved on May 28 from " https://companiesmarketcap.com/piramal-pharma/marketcap/"

Dittmar, A. (2004). Capital structure in corporate spin-offs. *The Journal of Business*, 77(1), 9-43.

Duguleana, C., & Duguleana, L. (2021). Financial Profitability of Demerged Companies. Bulletin of the Transilvania University of Brasov. *Series V: Economic Sciences,* 14(63), 173-182.

EDT (2024). Piramal Pharma Limited Announce result for Q4 and FY 2024, May10. Retrieved on May 28, 2024 from "https://www.marketscreener.com/quote/stock/PIRAMAL-PHARMA-LIMITED-145512665/news/Piramal-Pharma-Limited-Announces-Results-for-Q4-and-FY2024-46694040/

Gonzalez, R. (2017). Split-offs and break-ups in the Latin American mining sector: A focus on Chile and Peru. *Latin American Journal of Economics*, 35(4), 210-225.

Government of India. (1961). *The Income Tax Act, 1961*. Government of India. Retrieved from https://www.indiacode.nic.in/bitstream/123456789/2435/1/a1961-43.pdf

ICRA (2024). Piramal Enterprises Limited: Update on Material Event; matured instruments withdrawn, May 16. Retrieved on August 14, 2024, from https://www.icra.in/Rating/GetRationalReportFilePdf?id=127526

Institute of Company Secretaries of India. (n.d.). *Corporate restructuring*. Retrieved from https://www.icsi.edu/media/portals/0/CORPORATE%20RESTRUCTURING.pdf

IST (2022). NCLT approves demerger of Piramal Enterprises August 12. Retrieved on August 24, 2024 from https://www.livemint.com/companies/news/nclt-approves-demerger-of-piramal-enterprises-11660319023843.html

Kirchmaier, T. (2003). The performance effects of European demergers. European Financial Management, 9(4), 451-471.

Kumar, B. (2022). Piramal Enterprises demerger gets NCLT approval; what it means for the two entities, August 13. Retrieved on March 25, 2024 from" https://www.zeebiz.com/companies/news-piramal-enterprises-demerger-gets-nclt-approval-what-it-means-for-the-two-entities-194001."

MarketScreener. (n.d.). *Piramal Pharma Limited*. Retrieved from https://www.marketscreener.com/quote/stock/PIRAMAL-PHARMA-LIMITED-145512665/

Metha, R., Haria, R., Dholaria, S., Bharucha, E., Tarphe, Y., & Shah, H. (2019). IMPACT OF DEMERGER'S NEWS ON SHARE PRICE. *International Journal of Engineering Applied Sciences and Technology*, *4*(06), 133-137.

Ministry of Corporate Affairs. (2013). *The Companies Act, 2013*. Government of India.

Moneycontrol. *Piramal Enterprises: Balance sheet*. Retrieved March 6, 2024, from https://www.moneycontrol.com/financials/piramalenterprises/balance-sheetVI/PH05

MoneyWorks4Me. *Top pharma companies in India*. MoneyWorks4Me. Retrieved April 6, 2024, from https://www.moneyworks4me.com/best-index/bse-stocks/top-pharma-companies-in-india/

Njeri, N. A. (2013). The effect of the separation of life assurance and general insurance on the financial performance of insurance companies in Kenya. *An Unpublished MBA Thesis Submitted to School of Business University of Nairobi, Nairobi*.

Padmanabhan, P. A. (2018). Do demerger announcements impact Shareholders Wealth? An empirical analysis using event study. *Vision*, *22*(1), 22-31.

Paramasivan, C. (2009). *Financial management*. New Age International.

Pilla, V. (2022) NCLT approves demerger of pharma business from Piramal Enterprises, August 12. Retrieved on March 25, 2024 from https://economictimes.indiatimes.com/industry/healthcare/biotech/pharmaceuticals/nclt-approves-demerger-of-pharma-business-from-piramal-enterprises/articleshow/93527356.cms?from=mdr

Piramal Pharma Limited. (2021–2024). Annual reports (2021–2024). Piramal Pharma Limited. https://www.piramal.com/investor/piramal- pharma-limited/financial-reports/annual-reports/

Poddar, N. (2021). Piramal Enterprises demerger aims to make co structure simpler & more focused, says Ajay Piramal, October 7. Retrieved on March 25, 2024 from https://www.cnbctv18.com/business/piramal-enterprises-demerger-aims-to-make-co-structure-simpler--more-focused-says-ajay-piramal-11031162.htm.

Press Release (2021). Piramal Enterprises Announces Demerger and Simplification of Corporate Structure; To Create Two Separate Listed Entities in Financial Services and Pharmaceuticals, October 7. Retrieved on March 24, 2024 from https://www.piramal.com/wp-content/uploads/2021/10/PR_Piramal-Demerger_October-7-2021.pdf."

R, Drushti. (2021) Valuation Report of Piramal Group October 5. Retrieved on March 23, 2024, from https://www.piramal.com/wp-content/uploads/2021/12/Valution-Report.pdf."

Roberts, D., & Thompson, M. (2018). *Corporate Demergers in the U.S. Healthcare Sector: Strategic Focus and Shareholder Value*. American Journal of Business, 33(1), 23-40.

Rose, Peter S. 2010. Bank Management & Financial Services. McGraw-Hill education, Singapore.

Singh, B. (2021) Composite Scheme of arrangement of Piramal Group Retrieved on March 24, 2024 from https://www.piramal.com/wp-content/uploads/2021/11/Composite_Scheme_of_Arrangement.pdf.

Singh, R., Bhowal, A., & Bawari, M. V. (2009). Impact of demerger on shareholders' wealth. *Enterprise Risk*, *1*(1), 44-59.

Singh, R., Bhowal, A., & Bawari, V. (2009). Impact of Demerger on Shareholders' Wealth. *Enterprise Risk Management,* 1(1) 44-59.

Singh, S. (2021). Piramal group to demerge financial, pharma biz into separate listed entities, October 7. Retrieved on March 25, 2024 from " https://www.livemint.com/companies/news/piramal-group-to-demerge-financial-pharma-biz-into-separate-listed-entities-11633603477756.html."

Smith, J. (2015). The impact of regulatory changes on demergers and carve-outs in the European telecommunications sector. Journal of European Business Studies, 23(2), 123-145.

Smith, J., & Williams, K. (2020). *Retail Sector Demergers in Australia: Strategic Realignments and Market Adaptation*. Australasian Journal of Business and Social Science, 45(2), 98-115.

Vyas, P., Pathak, B. V., & Saraf, D. (2015). Impact of Demerger Announcement on Shareholder Value Evidence from India. *Journal of Management & Public Policy*, 7(1), 13-26.

Zakaria, N., & Arnold, G. C. (2012). Do Malaysian focus-increasing spin-off firms underperform?. *Asian Academy of Management Journal of Accounting & Finance*, *8*(1) 91-123.

TEFMJ TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

DOI: https://doi.org//10.69648/TNNC7924

Trends in Economics, Finance and Management (TEFMJ), 2024; 6(2): 81-91

ijtns.ibupress.com

Online ISSN: 2671-3365

Application : 03.12.2024

Revision : 07.12.2024

Acceptance : 24.12.2024

Publication : 30.12.2024

Bilalli, D. (2024). Determining the Threshold of Public Debt in the Western Balkan Countries. Trends in Economics, Finance and Management Journal, 6(2), 81-91. https://doi.org//10.69648/TNNC7924

Determining the Threshold of Public Debt in the Western Balkan Countries

Diellza Bilalli

Diellza Bilalli
International Balkan University

Abstract

Public debt is a very important tool that allows countries to access finance and reach their goals. However, taking a high amount of debt, more than a country can handle, can hamper economic growth or even cause an economic downturn. That is why it is very important for countries to manage their debt effectively so that the debt is sustainable and contributes to economic growth. Each country can tolerate a different level of debt without it causing trouble for its economy, and it is quite important for them to find the point where if the public debt exceeds, it might negatively impact their economy. This research paper intended to find if public debt affects economic growth by using the fixed effect and random effects model and then using the Hausman test to decide which model is more appropriate, as well as the threshold of public debt in Western Balkan countries, by using the pooled OLS model, to determine if a non-linear relationship exists between public debt and economic growth and finding the turning point. According to the obtained results, a non-linear inverted U-shaped relationship exists, and the results suggest that public debt positively impacts economic growth until it reaches 46% of the GDP, and if the debt exceeds this level, it starts to negatively impact economic growth.

Keywords: debt, public, threshold, growth, economy

BALKAN JOURNALS

Introduction

Public debt is a very important aspect of the economy of a country since it plays a crucial role in economic development. It allows governments to overcome economic challenges effectively, ensuring to not delay or obstruct the achievement of long-term development goals of a country. Public debt needs to be properly managed and involves strategic planning and mitigation of various risks associated with borrowing, such as interest rate risk, exchange rate risk, and default risk.

This research investigates whether public debt is managed effectively in Western Balkan countries and if it affects economic growth. Public debt can be used sustainably, meaning to finance and support areas that will continue to contribute to the long-term development and growth of the country, such as investments in education systems, healthcare facilities, and basic utility infrastructures, and job creation, which will create value and increase the development of its population, and as a result, the countries economy. However, if the public debt only supports activities that do not generate value in the future, such as payments for unemployment benefits, pensions, debt, etc., it can widen the budget deficit and accumulate high levels of debt. This, in turn, can have very negative effects on its economy and population since a high level of debt can result in higher taxation for its citizens as a means for paying back the interest and debt, which reduces the disposable income for the citizens, as well as, funds can be diverted towards paying up the debt, away from productive investments in education, healthcare, and infrastructure, etc.

Problem Statement

The increasing levels of public debt raise concerns regarding the potential impacts on economic growth, and this topic is widely researched throughout the literature. There are concerns that debt is not used in a productive way and that accumulating debt will negatively impact economic growth. This research will reveal the level of debt that positively affects the economic growth in Western Balkan Countries. Determining this point is quite important for a country as it allows it to borrow responsibly since borrowing more than a country can handle can lead to economic stagnation or even economic decline.

Research Questions and Research Hypothesis

This research intends to answer the following questions:

- Does public debt impact economic growth in Western Balkan Countries?
- What is the threshold of public debt in Western Balkan Countries?

By testing the following hypothesis:

- H0: Public debt has no significant effect on the economic growth
- Ha: Public debt has a significant effect on the economic growth

Literature Review

Public debt is an important aspect of a country's economy that needs to be analyzed and has been widely researched. Most of the authors investigate the impact that public debt would have on economic growth. Other authors try to find the level of public debt that would contribute positively to economic growth. Different countries, depending on their size, development, and economy, have different thresholds and can handle different debt levels without negatively impacting their economic growth. Finding the threshold of public debt on economic growth helps countries to understand their capacity and to foster long-term economic stability, growth, and development without falling into too much debt, which might negatively impact them. For example, Caner et al. (2019) analyzed data from 1995-2014 across 29 OECD countries, and the analysis revealed a negative and statistically significant relationship between public and private debt variables and economic growth when this level reaches 137% of the GDP. However, Lim (2019), by analyzing data from 41 countries over 64 years, found a negative relationship between growth and debt. Other authors found that debt negatively impacts economic growth in the long term but positively affects economic growth in the short term (Abubakar & Mamman, 2020), while Jacobs et al. (2020) found that negative growth rates increase public debt levels and not the other way around.

The level of public debt that can contribute to economic growth depends also on the institutional development of the countries. Vinokurov (2020) went one step ahead and split countries based on their institutional development, and the estimates for the debt threshold for countries with weak institutions is 35-40% of the GDP, while for the countries with strong institutional development, the threshold

is 50-60% of the GDP. The threshold for transition countries of Western Balkans is 58.2% of the GDP, for Eastern Europe is 71.9%, and for Central European countries is 81.6% (Fetai et al., 2020). Rexhepi and Zeqiraj (2023) found that the threshold is between 40-61% of the GDP, but in the Balkan countries, this threshold is lower when compared to the Visegrad Countries and Baltic Countries, and the negative impact on economic growth if raising the debt above the threshold is stronger than in the other groups of countries analyzed. Based on these analyses, the more developed the country is, it can sustain a higher level of debt and better manage the public debt to contribute to economic growth. Srivastava et al. (2021) found out that Japan has a debt sustainability threshold of 176% of the GDP. Japan currently is operating with a debt of 260% of its GDP, indicating that this high level of debt might not be contributing to economic growth effectively. When analyzing the threshold for North Macedonia, studies found that the debt contributes to economic growth when it reaches around 30% of the GDP, while levels above that point will negatively impact the growth (Kjosev, et al, 2021). When analyzing the debt threshold of Western Balkan countries, Bexheti et al. (2020) found that public debt positively affects Western Balkan economies until it reaches 50.87% of the GDP, and if it exceeds this level, it will deteriorate economic growth.

Research Data and Methodology

The main purpose of this paper is to investigate the relationship between public debt and economic growth for the last two decades and determine the so-called 'threshold', more specifically by analyzing data from 2002-2022 for the Western Balkan Countries, namely, North Macedonia, Albania, Serbia, Bosnia and Herzegovina, and Montenegro. Kosovo was excluded due to missing data in several of the indicators used in this analysis. In order to test if public debt affects economic growth, to what degree, and in which direction, panel data analysis using the fixed effect and random effect models was used, and the Hausman test was performed to choose the more appropriate model. In order to test if a non-linear relationship exists between economic growth and debt, another model, the pooled OLS model, was used, which included the squared values of debt.

As a dependent variable, the economic growth is measured by gross domestic product annual growth, obtained by the World Bank database, while the independent variable was the level of Public Debt, measured by the General Government Debt as % of GDP indicator, obtained from the International Monetary Fund. As control

variables in the model, the following indicators were used: trade as a percentage of GDP, Gross Fixed Capital Formation, Population Growth, and Life expectancy.

The following table presents the variables included in this research, including a brief explanation regarding the acronyms, how they are measured, and the source from where they were obtained.

Table 1

Variables and Explanation

Variable	Acronym	Measured in:	Source
Gross Domestic Product Growth	GDPG	Percentage (annual growth)	World Bank
Public Debt	D	General Government Debt as % of GDP	IMF
Debt Squared	D^2	Percentage	Own calculation
Trade	T	Percentage of GDP	World Bank
Gross Fixed Capital Formation	GFCF	Percentage of GDP	World Bank
Population Growth	PG	Annual growth in %	World Bank
Life Expectancy	LE	Years	World Bank

Source: authors calculations

The following equation model was taken into consideration:

$$GDPG=\beta_0+\beta_1 D+ \beta_2 GDPG\_1+ \beta_3 T+ \beta_4 GFCF+ \beta_5 PG+ \beta_6 LE \quad (1)$$

$$GDPG=\beta_0+\beta_1 D+ \beta_2 D^2+ \beta_3 GDPG\_1+ \beta_4 T+ \beta_5 GFCF+ \beta_6 PG+ \beta_7 LE \quad (2)$$

Where we have:

GDPG- representing the dependent variable, measuring the economic growth

GDPG_1- representing the GDP growth from the previous period

D- representing the independent variable, the level of Debt

D^2- representing the independent variable, the squared level of Debt

T- representing the control variable, trade as % of GDP

GFCF -representing the control variable, gross fixed capital formation % of GDP

PG- representing the control variable, population growth

LE-representing the control variable, life expectancy

The following table represents the descriptive statistics of the data included in the analysis. The period analyzed is from 2002-2022, with 105 observations. The average annual economic growth in Western Balkan Countries in the analyzed period is 3.17%, with a standard deviation of 3.48, reaching a minimum economic decrease of 15% and reaching a maximum value of 13%. The level of debt in Western Balkan countries, on average, is 49% of the GDP, and its maximum value reaches 107% of the GDP. Trade in Western Balkan countries, on average, reaches 93% of the GDP, while the gross fixed capital formation, on average, is 23% of the GDP.

Table 2

Descriptive Statistics

Western Balkan Countries					
Variables	**Obs**	**Mean**	**Stand dev**	**Min value**	**Max value**
GDPG	105	3.173794	3.483175	-15.30689	13.04346
D	105	49.37445	17.09681	18.70922	107.3498
T	105	93.54624	20.54113	56.86639	168.8249
GFCF	105	23.58971	5.283001	13.3	39.22
PG	105	-.5379729	.5463871	-2.517058	.4007508
LE	105	75.68127	1.586994	72.28536	79.282

Source: Authors Calculations.

The data were analyzed by using the two models, the fixed/random (1) model to check if public debt affects economic growth, and the pooled OLS (2) model to test if there exists a non-linear relationship between public debt and economic growth.

The results from the regression analysis will serve as a base for analyzing the turning point, also called the "threshold," where the effect of debt on economic growth starts changing. The threshold is found using the following formula:

Threshold= (-β1)/2β2

Where:

β_1 is the coefficient of the linear debt variable

β_2 is the coefficient of the squared debt variable

If $\beta_1 < 0$ and $\beta_2 > 0$, and both coefficients are significant, then a non-linear U-shaped relationship exists between the variables

If $\beta_1 > 0$ and $\beta_2 < 0$, and both coefficients are significant, then a non-linear, inverted U-shaped relationship exists between the variables.

Empirical Findings

Since this research intends to evaluate if the public debt is used effectively and if this translates to a better economy for the country, this section reveals the results of the analysis made using the fixed and random effect model. The results reveal important information about the relationship between the analyzed variables, how they are related, and in what direction. The following table presents the results of the fixed effect mode.

Table 3

Results from the Fixed and Random Effects Model.

	FIXED EFFECTS model	RANDOM EFFECTS model
GDPG_1	-.2161607	-.1924701
Debt	-.0809815	-.0333793
Trade	.0933018	.0066607
GFCF	.0582467	.2300914
PG	1.410622	.3732961
LE	-1.303747	-.4241244
p > | t |	(0.000)	(0.0275)
Observation Nr. of groups	99 5	1039 38
F test	6.18	
Chi 2		3.48
Model	FE	RE
testparm	F(4,88) = 5.32 Prob > F = 0.0007	
Hausman test		
chi2(1) Prob>chi2	23.54 0.0006	

Source: Authors' calculations

The number of observations in this analysis is 99, and they are grouped into five groups. Based on the results obtained from the Hausman test, having a value of p=0.0006, the fixed model is more suitable for this analysis at a 1% significance lev-

el. Based on this model, there is a significant negative relationship between public debt and economic growth, so a one percentage point increase in the public debt as a percentage of GDP decreases economic growth by 0.08 percentage points. According to the results of the analysis, the results indicate that increasing levels of public debt may impede economic growth. According to the results, H0 is rejected and Ha, that public debt affects economic growth is accepted.

The next part of the analysis by using the pooled OLS model, tends to investigate if there exists a non-linear relationship between public debt and economic growth. In this model, the squared value of debt is introduced.

Table 4

Results of the pooled OLS model testing if a non-linear relationship exists between Debt and Economic Growth in Western Balkan Countries in the period 2002-2022.

Dependent variable *GDPG*	*β*	*Standard dev.*	*t*	*P>|t|*
GDPG_1	-.2031726	.1013349	-2.00	0.048
Debt	.2337516	.0967818	2.42	0.018
Debt Squared	-.002505	.0008814	-2.84	0.006
Trade	.0032627	.0179831	0.18	0.856
GFCF	.2589114	.0747013	3.47	0.001
PG	.3620057	.6620029	0.55	0.586
LE	-.5079559	.2593846	-1.96	0.053
Obs	99			
Prob > F	0.0033			
R-squared	0.2043			
Adj R-squared	0.1431			
Root MSE	3.2938			

Source: authors calculations

As the model suggests that there is a non-linear relationship, the next part will focus on finding the turning point, by using the vertex formula meaning to find the point until which debt positively affects economic growth. Based on the literature a U shape exists if both coefficients are significant, and B1 is negative, while B2 is positive. In case both coefficients are significant and B1 is positive, while B2 is negative, a non-linear, inverted U-shaped relationship exists. In this case, B1 is

positive, while B2 is negative, therefore, by using the results obtained from the regression analysis and inserting in the threshold equation then we have:

Threshold = (-0.2337516)/(2 × (-0.002505)) = 46.65%

Once we solve the equation, we obtain that the threshold of public debt in Western Balkan Countries is 46.65% of the GDP. This suggests that as debt levels increase to 46.65% level, it will have a positive effect on economic growth, but as debt exceeds this level, the effect of debt on growth starts to diminish and eventually turns negative, meaning it starts to negatively impact growth.

Discussion of the Results

The above results of the analysis made, investigating the relationship between public debt and economic growth show important information that there is a significant relationship between the analyzed variables, indicating that if public debt is managed effectively and if it reaches a certain level, in our case 46% of the GDP, it might contribute to the economic growth of Western Balkan Countries. The results indicate that a one percentage increase in the level of public debt is likely to approximately decrease economic growth by 0.08%, holding other factors constant. However, the results from the pooled OLS suggest that in Western Balkan countries, there is a non-linear relationship between debt and economic growth and that public debt positively impacts economic growth until it reaches a certain point, and as this point is exceeded, it starts to have a negative effect on the economic growth.

While debt can foster growth, the level of debt that one country can manage is quite important, since if debt reaches higher levels that the countries can handle, it becomes unsustainable, as payment of the interest can crowd out other productive spending that can contribute to economic growth. As different countries have different capacities, it is quite important for them to analyze the threshold of the public debt. Even though the Maastricht criteria recognize that the level of public debt should not exceed 60% of the country's GDP, each country has a different capacity. Therefore, knowing the limitations is crucial for managing the debt effectively and ensuring that it contributes positively to economic growth.

In the case of Western Balkans, according to the results of this analysis, the ideal level of public debt is less than what is foreseen with the Maastricht criteria, being at 46% of the GDP. This suggests that Western Balkan countries have the capacity to handle their debt obligations until they reach a level of around 46% of their GDP

without compromising economic growth. This reflects the level of debt that can be managed and the countries can afford interest payment, and ensure debt stability while increasing economic growth.

Conclusion

The analysis indicates a significant relationship between public debt and economic growth in the Western Balkan Countries. There is a non-linear, inverted U-shape relationship between the variables, indicating that public debt can positively impact economic growth until it reaches a certain level, in this case, 46% of the GDP. If the debt exceeds this level, it begins to negatively impact the economy. Public debt as a tool is quite important for economic growth, provided that it is managed effectively and is maintained within sustainable limits. According to the results, the null hypothesis (H0) that public debt has no significant effect on economic growth is rejected, and the alternative hypothesis is accepted. The results from the fixed effects model suggest that a 1 percentage point increase in public debt is likely to decrease GDP growth by 0.08%, holding other factors constant. However, the results from the pooled OLS suggest since there is a non-linear, inverted U-shape relationship between the variables, public debt positively affects the economic growth in Western Balkan countries until it reaches around 46% of the GDP, and if it exceeds this point, the effect on economic growth tends to become negative. The findings suggest that for Western Balkan Countries, the threshold is much lower, in comparison to the Maastricht criteria, and it has a more limited capacity to manage high levels of debt without jeopardizing economic stability.

Limitations of the Study

Even though the research provided important information on the relationship between the level of public debt and economic growth, which served as a base to establish the threshold of public debt in Western Balkan Countries, the study can be improved by including more variables that affect economic growth.

References

Abubakar, A. B., & Mamman, O. S. (2020). Permanent and transitory effect of public debt on economic growth. *Journal of Economic Studies, 48*(5), 1064–1083 https://doi.org/10.1108/JES-04-2020-0154

Bexheti, A., Sadiku, L., & Sadiku, M. (2020). The impact of public debt on economic growth: Empirical analyses for Western Balkan countries. In M. Janowicz-Lomott, K. Łyskawa, P. Polychronidou, & A. Karasavvoglou (Eds.), *Economic and financial challenges for Balkan and Eastern European countries* (pp. 13–32). Springer. https://doi.org/10.1007/978-3-030-39927-6_2

Caner, M., Fan, Q., & Grennes, T. J. (2019). Partners in debt: An endogenous nonlinear analysis of interaction of public and private debt on growth. *SSRN*. https://doi.org/10.2139/ssrn.3186077

Dunayev, B. (2013). Dynamics of public debt management. *Cybernetics and Systems Analysis, 49*(6), 865–876.

Fetai, B., Avdimetaj, K., Bexheti, A., & Malaj, A. (2020). Threshold effect of public debt on economic growth: An empirical analysis in the European transition countries. *Zbornik radova Ekonomskog fakulteta u Rijeci: Proceedings of Rijeka Faculty of Economics*, 38(2), 381–406.

International Monetary Fund. (2022). General government debt—Percentage of GDP. *International Monetary Fund*. https://www.imf.org/external/datamapper/GG_DEBT_GDP@GDD/CHN/FRA/DEU/ITA/JPN/GBR/USA/FADGDWORLD

Jacobs, J., Ogawa, K., Sterken, E., & Tokutsu, I. (2020). Public debt, economic growth and the real interest rate: A panel VAR approach to EU and OECD countries. *Applied Economics, 52*(12), 1377–1394.

Kjosev, S., Noveski, M., & Kjoseva, N. M. (2021). Public debt threshold in the Republic of North Macedonia. *Management: Journal for Theory and Practice Management*. https://doi.org/10.7595/management.fon.2021.0018

Lim, J. J. (2019). Growth in the shadow of debt. *Journal of Banking and Finance, 103*, 98–112. https://doi.org/10.1016/j.jbankfin.2019.04.002

Noveski, M., & Kjosev, S. (2020). Government indebtedness and economic growth in North Macedonia. In *Proceedings of the International Conference on Economic and Business Trends in the Sustainable Finance Field*, 10–20. https://doi.org/10.47063/EBTSF.2020.0001

Rexhepi, G., & Zeqiraj, V. (2023). The threshold effect of public debt on economic growth: The case of the new European Union member states. *Journal of Governance & Regulation, 12*(2), 194–199. https://doi.org/10.22495/jgrv12i2art18

Srivastava, D. K., Bharadwaj, M., Kapur, T., & Trehan, R. (2021). Evolution of government debt and its sustainability in Japan and Germany: two contrasting cases. *Social Science Research Network*. https://doi.org/10.2139/ssrn.3878714

Vinokurov, E., Lavrova, N., & Petrenko, V. (2020). Optimal debt and the quality of institutions (EFSD Working Paper No. 20/4). Eurasian Fund for Stabilization and Development.

TEFMJ
TRENDS IN ECONOMICS, FINANCE AND MANAGEMENT JOURNAL

BALKAN JOURNALS

VOLUME 6 | ISSUE 2 | DECEMBER 2024 tefmj.ibupress.com