



The impact of macroeconomic factors on the level of deposits in the banking sector, an empirical analysis in the Western Balkan countries

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Abstract

Purpose: The principal objective of this study is to analyse the impact of macroeconomic factors on the level of deposits in the banking sector in Western Balkan countries.

Design/methodology/approach: The impact of macroeconomic factors on the levels of deposits in the countries mentioned will be analyzed through econometric models. With reference to the applied models, the dependent variable will be the level of deposits, whilst the independent variables will be the interest rate on deposits, marginal rates, GDP, inflation and broad money. In order to achieve the research target set, the research will be based on secondary data which will be analyzed through the STATA program.

Findings: The interest rate plays a key role in banking systems because it determines the benefits of the difference between the interest rate on loans and the interest rate on deposits. However, exposure to risk is often present because banks provide long-term loans financed by short-term deposits, and this involves the so-called interest rate risk.

Practical Implications: One of the most important channels of monetary policy transmission in an economy is interest rates. Macroeconomic factors and the financial sector structure in the economy of a country have a significant impact on determining the interest rate elevation.

Originality/Value: The analyzed period (2005-2017) is a compelling period for competent conclusions.

1. Introduction

Interest expenditure represents the cost of money that the borrower has to pay to the lender for the use of borrowed money over a specified period of time, under previously defined terms. Money assets borrowed by individuals, bonds and institutions, are used by participants in the financial and banking system to provide loans to their clients to achieve their objectives, depending on the sector where they operate.

The setting of interest rates on borrowed financial funds, as deposits from people or businesses, and interest rates on loans granted to economic and non-economic entities, are correlated and mutually impacted. The banking sector is constantly impacted by different risks due to the objective difficulties of turning illiquid assets to liquid assets when they have to be returned to the lender. Thus, in cases of a negative performance by a commercial bank published in the media as negative news on the current and future performance of a bank, depositors will seek to withdraw their deposits as soon as possible.

Such a situation affects the liquidity reduction of the banks, failing to meet the requirements of depositors in these situations. From this point of view, the analysis of factors affecting a bank in panic has a major impact on the performance of financial sustainability in the banking system. The analysis of the stability of deposit levels represents an important factor in the banking system, given that they are the main source of financing of the credit activity of banks.

The first part of the paper analyzes the basic scientific literature to which the authors of this research refer to. The authors will analyze different meanings of interest rates and deposit rates, factors affecting the interest rate, risks pertaining to the interest rate and its effects on bank profitability.

In the second part of the paper there is a description of the methodology that the authors apply in verifying the objectives of the paper. This section includes research questions and hypotheses, and the hypothesis testing methods used for arguing the objective set out. The secondary data collected from the banking sector will be tested with econometric models with the STATA program. The outcomes of the research will be presented at the end as conclusions and recommendations.

2. Literature review

2.1. Definition of interest and deposit rates

Interest represents the value that the borrower has to pay to the lender for the use of borrowed money. The interest structure consists of two components:

1. The real interest rate, which represents the price of the loan under the conditions of internal economic equilibrium, assuming a zero rate of price increase and zero inflation. It represents the countervalue that the borrower has to pay for the temporary use of borrowed money.

2. Nominal interest rate represents the sum of the real value and interest rate and the expected inflation rate (Fisher's effect) (Shllaku, 2007).

Saving represents the postponement of consumption for a certain period of time, or the spending of funds in money. So saving is the opposite of consumption and it depends on consumption and on the disposable income. The most popular saving is money saving, which citizens deposit in financial institutions. When depositing money, citizens benefit from a certain level of interest. Deposited assets may be:

- Long-term - during which time money cannot be withdrawn and in this case the interest rate is higher.
- Unlimited time, where money can be withdrawn at any moment and the interest rate earned is smaller and less beneficial (Limani, 2013).

2.2. Interest rate theories

In the market of goods and services within an economy, the price level is created by the impact of supply and demand on those goods and services. Similarly, in the financial market, the key interest rate determinants are the supply and demand of money (money borrowed). There are two significant theories which illustrate the tendency to clarify creation and interest rate changes: **classical theory** and **liquidity theory** (Falzon, 2013).

2.2.1 Classical theory

The interest rate is determined by the interaction of the demand forces for capital (or investments) and the savings supply. The interest rate on the capital requirement (or demand for savings to invest in capital goods) and savings bids will be determined by the market. If there is any change in the investment or investment bid, the situation will change accordingly to it and, for this reason, the balance of interest rate will change. (Dornbusch, 2011). This theory assumes that when the supply of savings exceeds the demand for investment, the interest rate on savings will decline, discouraging savings on the one hand and encouraging investments on the other. Similarly, if investment demand exceeds savings, the interest rate on savings increases to discourage investment and encourage savings.

2.2.2 Liquidity theory (Keynesian)

In determining a balanced interest rate, the liquidity theory starts from money supply and demand for money. Hence, the interest rate dependence can be explained through the supply and demand for money. Money supply represents the amount of money created by the Central Bank and the system of depository institutions of the national economy. The increase

of the money supply means the increase of deposits in depository institutions which represent the main source of creation of borrowed money (Dornbusch, 2011).

An increase in money supply means an increase in the borrowed money supply and, in this case, the interest rate has a downward movement. Money demand represents that part of the total amount of money which is divided by the non-banking sector for liquidity purposes. The increase in demand for money means the withdrawal of the greater amount of money from circulation in order to ensure the necessary liquidity of the non-banking sector. As a result, the amount of money in circulation decreases, hence, the amount of borrowed money decreases, affecting interest rate growth (Abel, Bernanke, & Croushore, 2019).

2.3. Modern interest rate theory

Hicks (1939) has used Keynesian theory as a presentation method which shows that productivity, liquidity preference, and money supply are all the necessary elements in a full theory of interest rate setting. According to Hansen (1953), "*A condition of equilibrium is achieved when the desired volume of cash is equal to the amount of money offered when the marginal efficiency of capital equals the interest rate and at the end when the volume of investments equals to the desired volume of savings*" (Hansen, 1953).

Thus, in the modern interest rate theory, savings, investments, liquidity preference, and the amount of money are integrated into different levels of income and all help for a certain contribution to the determination of the interest rate (Abel, Bernanke, & Croushore, 2019).

Modern interest rate theory can be explained by the savings and investment curve. This is a curve that explains a family's relationship with savings and investments. This curve shows the equity of savings and investments in different levels of income and norms of interest. The savings curve shows that the increase of savings can be a cause of income increase. It means, savings help income increase. Considering the level of norms of interest, investment level increases with the income level increase (Romer, 2019).

2.4. Factors affecting the interest rate

Inflation

The influence of inflation on interest rate can be best explained by *Fisher's Effect*. Fisher reached the conclusion that the expected rate of inflation and interest rates are in proportion to each other. The expected high inflation rate means higher interest rates, and vice versa.

Monetary policy

Those applying monetary policy try to anticipate future interest rate trends. They constantly observe different economic indicators to see if the economy is growing fast. For example, if the economy is

approaching full capacity, inflation is likely to increase and interest rates increase. Therefore, they look at statistics such as:

- Inflation is always the main factor that affects the interest rate increase.
- GDP growth (If GDP growth is above inflation, then rising interest rates increase with inflation), unemployment (low unemployment shows the potential for rising inflation)
- Exchange rate (depreciation increases inflationary pressures) (Dornbusch, 2011).

Market expectations

The volume of demand in the real sector results in an increase in prices of goods and services. Consequently, expansionary phases are usually accompanied by higher inflation rates. Market participants are forecasting price growth in the future, so the expected inflation rate effect is present which affects the growth of the market interest rate (Abel, Bernanke, & Croushore, 2019).

2.5. Interest rate risk and its effects on banks profitability

Major market risks arise from changes in financial market prices such as exchange rates, interest rates and goods prices. Interest rate risk is the risk associated with changes in market interest rates which may adversely affect the bank's financial position. Admission of this risk constitutes a normal reality for banks and can be an important source for increasing profits and increasing the value of shares and equity (García, 2017). The immediate impact of interest rate change is reflected in the bank profits through the decline in net interest income.

The long-term impact of interest rate changes is on the economic value of bank assets, liabilities and off-balance sheet items. In order to avoid these risks which arise from the change in interest rates, a good management strategy should be applied. We must first get acquainted with the forms of interest rate risks. Each form of interest rate risk has an impact on the institution income on benefits, assets and liabilities.

Repricing risk

As financial intermediaries, banks face some form of interest rate risks. The most frequent form is the interest rate risk that arises from the maturity date (for fixed rates) and the re-evaluation (of the floating rate) of assets, liabilities and capital. For example, a bank that has made long-term fixed-term financing through a short-term deposit may face a decline in revenue after the interest rate rises. This happens if the cash flow on the loan is fixed until the end of the maturity, while the deposit is short-term and the interest rate may change (Hull, 2015).

Yield curve risk

When the yield curve becomes steeper (increases), this means that the difference between the long-term and short-term interest rate increases. In this case, long-term bond prices will decrease to short-term bonds (Machiraju, 2008).

Basis risk

These arise when there is a perfect correlation between earned and paid interest rates in different instruments with similar repricing features. One example of basis risk is if a bank makes a one-year (US dollar) revaluation on a monthly basis. This loan is financed by a LIBOR short-term deposit (which is also revalued on a monthly basis), thus, this may present the risk as the index value between the two rates may change (Saunders & Cornett, 2019).

The risk from options:

This risk arises as a result of difficulties to manage options as they are complicated instruments and because they take different forms of contracts through which the bank may have built its assets, liabilities and equity (García, 2017).

It was mentioned above that it is a common phenomenon for banks to refer to interest rate risk as a the result of fluctuations and interest rate changes. The change in the interest rate may have two threatening effects, that of profitability and that of the economic side. In the perspective of profitability, the interest rate change may affect the reduction of interest income and general income. Any inconsistency in cash flows is exposed to net interest income. Therefore, as a rule, banks estimate the sensitivity of net interest income every three months because net income determines the carrying amount of equity that interests shareholders and investors. From the economic point of view, the interest rate risk could cause trouble to the institution in accounting, since the bank is exposed to inconvenient interest rate changes. This may affect current and future capital influencing the change of balance positions. This means that the values of the asset and liability positions can be changed.

Good management of interest rate risk includes the implementation of four basic elements: the appropriate board and high management oversight, policies and procedures with adequate risk management, appropriate risk measurement, monitoring and control functions and comprehensive controls of internal and independent audits.

3. Financial development with particular emphasis on deposits in Western Balkan countries

For more than 4 decades, countries of the Western Balkans region have been governed by the communist (socialist) system of politics and the economy was planned around the epicenter of the communist (socialist) state financial system until the early years of the 1990s. The transformation

from the communist economic system into the free-market economic capitalist system and the development of financial market systems in the Western Balkan countries was very difficult and began after the 1990s (Osmani, 2017).

One of the most important features of Western Balkan countries during the centralization period (the communist-socialist system) was the control of the state over society and economy. While both the capital and the production were provided directly by the state, it was forbidden to equip individuals with means of production and the entire economic life was regulated in a foreseen manner by the state. Because of this, the financial system of the Balkan countries was very close to a mechanism that included registration of government decisions regarding the distribution of financial resources to enterprises and various public sectors (World Bank Group, 2018).

In the early stages of political and economic transition in the Western Balkans region, some other developments took place that shocked the banking sector in the initial stages of transformation. In some parts of former Yugoslavia in the early 1990s, the state blocked the savings of citizens in foreign currencies. As a consequence, citizens, instead of transferring their savings in foreign currencies to the national bank system they preferred to keep out of bank foreign currency for a long time. Another factor that obstructed the development of the banking sector was the fact that some banks manipulated people. For example, Yugoslawski and Dafiment banks in Serbia claimed that they would give 10 to 12 percent interest in savings in foreign currency and after collecting savings from the people they left the scene.

Another example, which left many negative consequences for the economic and financial system, occurred in Albania in the mid 90s. The distinguishing feature of the informal credit market was the extremely high interest rates which in 1993 moved from 6-8% per month to reach levels of even over 10% per month, lasting till the end of 1996 and early 1997.

Internal state institutions such as the Albanian Government, the Bank of Albania and the international institutions such as the IMF, the World Bank and other economic and financial institutions were mostly surprised by the devastating consequences of the so-called phenomenon "Raising and Destroying Pyramid Schemes in Albania" (Osmani, 2017)

The bankruptcy of all pyramid schemes in mid-1997 had a very high cost for depositors nominally weighing \$ 1.7 billion and accounting for 64% of the GDP of the country (Osmani, 2017). Currently, assets of the financial system in the Balkan countries are in the hands of foreign commercial banks. Meanwhile, other financial activities, such as, the provision of pension funds, continue to remain at a low level. Foreign investors have played an important role in privatizing banks in the Balkans. Thus, the share of foreign banks in the banking sector in the countries of the region ranged between 75-

95%. The presence of foreign banks was necessary, secure, transparent and led to appropriate arrangements for the financial markets to be developed and created.

As the focus of this research is on deposits as a major part of the banking system, the trend present in all Western Balkan countries has been decreasing. The average interest rate on deposits in Kosovo is as low as 2.64%, Albania (4.33%), Bosnia and Herzegovina (2.89%), Macedonia (4.90%), Montenegro (3.08%) and Serbia has the highest interest rate (7.75%).

Table 1: Deposit interest rate in Western Balkan countries (2005-2017)

Year	Kosovo	Albania	Bosnia & Herzegovina	Macedonia	Montenegro	Serbia
2005	2.50%	5.09%	3.56%	5.50%	4.99%	15.44%
2006	2.53%	5.23%	3.69%	4.71%	5.40%	11.00%
2007	3.11%	5.66%	3.56%	5.03%	3.35%	7.50%
2008	4.13%	6.80%	3.49%	6.19%	4.10%	15.25%
2009	4.21%	6.77%	3.60%	7.77%	3.86%	7.00%
2010	4.00%	6.42%	3.16%	7.47%	3.26%	9.00%
2011	3.40%	5.86%	2.80%	6.09%	3.25%	7.25%
2012	3.40%	5.42%	3.18%	5.17%	3.26%	8.75%
2013	3.50%	4.16%	3.01%	4.44%	2.91%	7.00%
2014	0.60%	1.91%	2.66%	3.71%	2.13%	5.50%
2015	0.80%	1.39%	2.06%	2.90%	1.45%	2.50%
2016	1%	0.83%	1.58%	2.50%	1.06%	2.50%
2017	1.10%	0.77%	1.21%	2.22%	1.02%	2.00%

Source: Processing of data by the author

Foreign banks which bring with them important innovations of technical and financial knowledge, have made a significant contribution to strengthening the banking sector of the Balkan countries. However, the banking sector of the Balkan countries is more vulnerable to international economic crises due to the weight of foreign capital they have.

4. Empirical studies on the factors affecting the level of deposits

The amount of deposits is very important to the banking system as this affects bank decisions to maintain a stock to deal with unpredicted future situations. However, the level of deposits of a bank can be viewed as a positive evaluation as they affect the bank's liquidity growth. At the same time, they serve as sources of funding for the bank and if the bank performance will be negative, then depositors may influence its retirement by withdrawing deposits.

Meanwhile, there are many unpredictable and impossible factors banks cannot manage. These factors are macroeconomic factors whose value varies depending on the country's economic situation. They will affect the behavior of the contributors, affecting bank decisions (Yeyati, Sturzenegger, & Reggio, 2010), (Ozen et.al, 2014). Authors explain this hypothesis, starting from the fact that the deterioration of macroeconomic indicators of the country will affect the decline in the value of a bank assets (it will also affect the decline in the value of deposits). Therefore, even though bank financial factors may be positive, different events in macroeconomics might trigger actions that might have a adverse effect on the banking system. So, depositors who withdraw deposits from their bank, will promote the same behavior to depositors of other banks, thus effecting the entire banking system. The economic activity of a country and GDP are closely related to inflation. According to authors (Demirguç-Kunt & Detragiache, 1998) their study of the determinants of banking crises in developed and developing countries, shows that low GDP is expected to have an impact on the growth of interest rates (of loans and deposits) since when the deposit interest rate drops, we have an encouraging situation for deposit growth. An opposite situation would happen if we had GDP growth and inflation cuts.

Another important factor influencing deposit performance is the broad money which presents all the money in the form of financial instruments that can easily be converted into currencies. According to the report by (MFSM) (MFSCG) - Money, Liquidity, Loan, and Debt - IMF show that the more instruments the banks have, the more liquid it will be. However, these instruments must be interchangeable and transferable. Since broad money has a positive impact on bank liquidity growth, it has a positive indirect impact on deposits, because it will lead to an increase in liquidity, and it will lead the depositors to increase their trust in the system.

According to authors Turhani and Doda (2016), the results of the analysis show that GDP has an insignificant impact on deposits in Albania, while inflation and interest rates on deposits have a negative impact. This seems normal as the study was conducted for periods when there was a financial crisis in these countries (Turhani & Doda, 2016).

Another study, closer to the results of this paper, has been the study by authors Mushtaq and Siddiqui in 2016. The study was conducted in the context of Islamic and non-Islamic banks. In non-Islamic banks, inflation has no impact on the level of deposits, a result similar to the results of this paper. While the interest rate and broad money have proved to have a significant positive impact on deposits (Mushtaq & Siddiqui, 2016).

5. Methodology of scientific research and econometric results

Questions of this research relate to the discovery of the nature of the interest rate impact on savings.

Research questions are:

1. What is the interest rate impact on deposit performance?
2. What is the impact of marginal interest rates on deposit performance?
3. What is the impact of GDP on deposit performance?
4. What is the influence of Inflation on deposit performance?
5. What impact has broad money on deposit performance?

To give a useful answer to the questions raised above, the below hypotheses will be tested. The hypotheses raised are:

Table 2: Proposed hypotheses of study

<i>H1: An increase in the interest rate has a positive impact on the performance of deposits.</i>
<i>H2: An increase in marginal interest rate has a positive impact on deposit performance.</i>
<i>H3: GDP has a positive impact on deposit performance.</i>
<i>H4: Inflation has a negative impact on deposit performance.</i>
<i>H5: Growth of broad money has a positive impact on deposit growth.</i>

Source: Data Processing by Authors (2019)

This will be achieved through a well-defined methodology and strategy. Methods that will assist in finalizing the project and testing the hypothesis are a mix between the long-term study method and case studies. As it has been mentioned above, the research questions are straightforward, but the paper contains a more detailed study of them.

In order to have more reliable results, the authors used a case study approach which is an integral part of this research, and the long-term study method will help in collecting retrospective data which will enable them to see changes over the years. After that, all data collected could be compared to study the impact that the interest rate has had on deposits. The appropriate strategy for this research is supposed to be a comparative one (how it was and how it is now). This will be achieved through harmonized data obtained from reports and publications on our country web site.

The data used to finalize this research is the secondary data of the 6 Western Balkan states obtained from annual and monthly reports published by Central Banks and various web sites over a period of 17 years. In order to get outcomes from this data, an econometric model was constructed which is based on several stages of econometric analysis. Initially, hypotheses were formulated on the basis

of research questions that in our case were focused on the impact of deposit interest rates on deposit performance.

However, in order to achieve more accurate research, five other macroeconomic factors have been used. They are considered significant and have a strong impact on deposit performance.

$$Y_t = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Y_t - Deposit growth rate (dependent variable), b_0 - free parameter, X_1 - Interest rate on deposit (independent variable), X_2 - Margin interest rate (independent variable), X_3 - GDP(independent variable), X_4 - Interest (independent variable), X_5 - Broad Money (independent variable) and e - error term.

Table 3: Regression analysis fixed effect, random effect, regression Hausman Taylor and GMM model: impact of macroeconomic factors on deposit performance

Increase of deposits	Linear Regression	Fix Effect	Random Effect	Hausman Taylor Regression	GMM model: Arelano bond test
Interest Norm on Deposits	0.491 * (0.041)	0.745 * (0.017)	0.491 * (0.017)	0.662 * (0.019)	0.876 * (0.017)
Margin Norm of Interest	0.910 ** (0.002)	1.632 ** (0.001)	0.910 ** (0.001)	1.285 *** (0.000)	2.144 *** (0.000)
GDP	0.632 ** (0.002)	0.735 ** (0.002)	0.632 ** (0.002)	0.734 ** (0.001)	0.753 ** (0.003)
Inflation	0.027 (0.061)	-0.095 (0.465)	0.027 (0.056)	0.017 (0.757)	-0.258 (0.206)
Broad money	0.789 *** (0.000)	0.705 *** (0.000)	0.789 *** (0.000)	0.712 *** (0.000)	0.627 *** (0.000)
R - Squared	0.838	0.841	0.834		

Source: Calculation by Authors (2019)

The above chart results indicate that 5 different econometric models (linear regression, fixed effect, random effect, Hausman Taylor regression and GMM model) have been used for testing hypotheses. This analysis is done to see what impact each of the five macroeconomic variables has on the conduct of deposits in the Balkan countries.

As one can see, all models give us roughly similar results. At the interest rate on deposits level, we have different significance levels (0.017-0.041), depending on the model used, which means that for

each interest rate growth unit there is an increase in the deposit level for (0.491-0.876) units. This indicates that the interest rate and the deposit level have a positive correlation.

The margin interest rate is also seen to have a positive correlation (0.000-0.002) which means that for each margin interest rate growth unit we have deposits growth for (0.910-2.144) units. The economic growth factor, as can be seen from the results, also had a strong impact on the growth of deposits, where for each unit of GDP growth there was an increase of deposits for (0.632-0.753) units. From the table we can also notice that the most important factor in this analysis was the broad money with a significance level of 0,000 in all models, where it is noticed that the greater the value of this factor, the higher the increase of deposits per level (almost the same level). This analysis shows that inflation is not a significant factor and has no impact on the level of deposits.

Table 4. Summary of hypothesis outcomes

Hypothesis	Decision	Impact
H1: An increase in interest rate has a positive impact on deposit performance.	Accepted	Positive
H2: An increase in the margin interest rate has a positive impact on deposit performance.	Accepted	Positive
H3: GDP is a positive factor in deposit performance.	Accepted	Positive
H4: Inflation is a factor with a negative impact on deposit performance.	Not accepted	
H5: Broad money Growth has a positive impact on deposit growth	Accepted	Positive

Source: Calculation by Authors (2019)

From the above, we can conclude that the first hypothesis implies that the deposit ratio is a factor of significance for deposit growth and that it has a positive relation. The second hypothesis is also accepted. So, we have a positive relationship between marginal rate and deposit growth.

With reference to the third hypothesis, the alternative hypotheses was confirmed. So, we have a positive impact on deposits and GDP. The fourth hypothesis is not accepted as inflation is not a significant factor in this analysis. The fifth hypothesis is proved, there is a positive correlation between the growth of broad money and deposits.

Conclusions

This research analyzes the impact of macroeconomic factors on the level of deposits in the banking sector in the Western Balkan countries. The impact of macroeconomic factors on deposit levels in the countries concerned has been analyzed through econometric models. The analyzed period (2005-2017) is a compelling period for competent conclusions. In the framework of the applied models, the

dependent variable was the deposit level, while independent variables were interest rate on deposits, marginal rates, GDP, inflation and broad money.

The econometric model test found that, from the macroeconomic factors, only inflation was assessed as an unimportant factor in determining the interest rate and the level of deposits. The results determine as important macroeconomic factors, the interest rate on deposits, the marginal rate, the level and the growth of GDP and the level of money.

In the analyzed period, all the countries of the Western Balkans experienced, without exception, the stabilization and development of the banking sector. They also saw the increase of deposits and the reduction of the interest rate on deposits and the increase of loans and the reduction of the interest rate on loans. The global financial crisis during 2008-2010 did not significantly affect the banking sector of these countries and as a result of this crisis, this sector recognized gradual but continuous progress.

In different countries in the Western Balkans, deposit growth trends and interest rate decline trends vary from the lowest interest rate in Kosovo to the highest in Serbia due to more factors not targeted in this research. The blocking of the integration process of most of the Western Balkan countries in NATO and the EU and frozen political disputes (Kosovo-Serbia and B. Herzegovina-Serbia) create unforeseen political and security risks and directly impact the banking sector and deposits, as a highly redistributive element of the loan potential of commercial banks.

Bibliography

- Abel, A., Bernanke, B., & Croushore, D. (2019). *Macroeconomics*. The Wharton School of the University of Pennsylvania.
- Demirguç-Kunt, A., & Detragiache, E. (1998). The Determinants of Banking Crises in Developing and Developed Countries. *IMF Staff Papers*, vol. 45, issue 1, 81-109.
- Dornbusch, R. (2011). *Macroeconomics*. University of Washington.
- Falzon, J. (2013). *Bank Performance, Risk and Securitization*. University of Malta.
- García, F. J. (2017). *Financial Risk Management, Identification, Measurement and Management*. Library of Congress Control Number: 2016958311.
- Hansen, A. H. (1953). *A Guide to Keynes*. New York: McGraw-Hill.
- Hicks, J. R. (1980). "IS-LM: An Explanation," *Journal of Post Keynesian Economics* 3, no. 2: 139-154.
- Hull, J. (2015). *Risk Management and Financial Institutions*. John Wiley & Sons, Inc., Hoboken, New Jersey.
- Limani, M. (2013). *Microeconomics*. Pristina: Business College.

- Machiraju, H. (2008). Modern commercial banking. New Delhi: New Age International Publishers.
- Mushtaq, S., & Siddiqui, D. (2016). Effect of interest rate on bank deposits: evidences from Islamic and non-Islamic economies. Munich Personal RePEc Archive.
- Osmani, R. (2017). Improved business climate and FDI in the Western Balkans. *Journal of Economic and Social Studies*, 6 (1), 5–23.
- Ozen, E., Letife, O., Spiteri, Grima, S., Bezzina, F. (2014). Investigating Causality Effects in Return Volatility among Five Major Futures Markets in European Countries with a Mediterranean Connection. *Journal of Financial Management, Markets and Institutions*. Volume 2, July-December, no. ISSN: 2282-717X. pp. pp. 207-220. Il Mulino.
- Romer, D. (2019). *Advanced Macroeconomics*. Mc Graw Hill.
- Saunders, A., & Cornett, M. (2019). *Financial Markets and Institutions*. McGraw-Hill Education.
- Shllaku, X. (2007). *Money and economic activity*. Skopje: Vatra.
- Turhani, A., & Doda, H. (2016). The determinative factors of deposits behavior in banking system in Albania.
- World Bank Group. (2018). *Western Balkans Regular Economic*. World Bank Group.
- Yeyati, E., Sturzenegger, F., & Reggio, I. (2010). On the endogeneity of exchange rate regimes. *European Economic Review*, vol. 54, issue 5, 659-677.