MINIMUM WAGE EFFECT ON CONSUMPTION: A REGULATORY CONTEXT

Enkeleda Shehi *, Mateus Habili **

* Tirana Business University College, Tirana, Albania
** *Corresponding author,* ICN Business School, Nancy, France
Contact details: ICN Business School, Campus Artem, 86 Rue Sergent Blandan, 54000 Nancy, France

OPEN ACCESS

How to cite this paper: Shehi, E., & Habili, M. (2025). Minimum wage effect on consumption: A regulatory context. *Journal of Governance & Regulation, 14*(3), 205–213. https://doi.org/10.22495/jgrv14i3art19

ISSN Print: 2220-9352
ISSN Online: 2306-6784

Received: 15.12.2024
Revised: 23.03.2025; 23.04.2025; 16.08.2025
Accepted: 02.09.2025

JEL Classification: E21, E31, F43, J3
DOI: 10.22495/jgrv14i3art19

Abstract

In managing the economy of a country, monetary policies and instruments that promote employment are the most important instruments in the hands of the government. The path followed by the developing and post-communist countries is sometimes different because of other obstacles appearing in their economic development. Amongst the strategies used is that of the minimum wage increase policy, which effects to increasing buyers purchasing power and promoting employment growth, but not in all cases the effect of the minimum wage is the same, in the study of Jung et al. (2021) the 1 percent increase in the minimum wage brings a 0.5 percent decrease in real retail trade, in the study of Alonso (2022), the minimum wage has a positive effect. The country under study is Albania. The study's methodology is based on a multiple regression model and the ordinary least squares (OLS) method. The period studied is from January 2014 to December 2022. Some of the conclusions of the study are that the growth of gross domestic product (GDP) brings a negative impact on consumption, the growth of inflation brings a positive impact on consumption, and the increase in the minimum wage brings a positive impact on the aggregate demand, an argument that shows that it affects the increase in consumption.

Keywords: Minimum Wage, Consumption, GDP Growth, Inflation

Authors' individual contribution: Conceptualization — M.H.; Methodology — E.S. and M.H.; Formal Analysis — M.H.; Writing — Original Draft — E.S.; Writing — Review & Editing — E.S. and M.H.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

Acknowledgements: This article is funded by the National Agency for Scientific Research and Innovation (NASRI), within the framework of the project "Enhancing capacity for the development of small and medium enterprises in Tirana", implemented by Tirana Business University.

1. INTRODUCTION

Developing countries face more problems of poverty and low purchasing power, these problems push governments, mainly of developing countries, to use many economic instruments, one of which is the minimum wage. The case of Albania is a case that represents a concrete example of the application of increasing the minimum wage in order to increase the purchasing power and well-being of citizens. Since the Albanian economy comes from a "dark" economic period during the communist period, the level of difficulty of managing public finances has increased, for a series of factors, including the minimum wage. The application of the minimum wage has positive and negative aspects in the economy of a country. The research problem is to measure the impact of the minimum wage on consumption in Albania.

Aiming to elaborate on this purpose, the following research questions arose:

RQ1: Which is the relevant relationship between minimum wage and consumption in Albania?

RQ2: Which is the econometric formula appropriate to explain this relationship?

RQ3: What is its significance?

RQ4: What is the direction/sign of this relation?

RQ5: Are the conclusions, findings in line with the literature and best practices?

If one refers to practices on minimum wage distribution, categorization, increase policy, etc. he/she can find out that in the world there are many practices that are applied depending on the country itself, factors like: the tradition or historical treatment of this issue, the size of the country, the regional divizion within the country, the status of economic development of the country, the structure of the employment, the level of inequality in the country, government attitude towards increasing standards of living, etc.

A not very common example of the minimum wage is China, where in a certain region there are 2000 wage levels, the labor market is the largest in the world with 800 million workers, and where the minimum wage affects on average wage of one member of a family or 18% of urban families. While consumption is one of the most important indicators to measure the purchasing power and poverty level of families (Ravallion et al., 2009), based on some studies, there has not been a connection between the minimum wage and the impact of consumption on it, mainly in developing countries. In Western countries, the strategies and approaches of countries to minimum wages are criticized for the effects, that bring to the level of unemployment or to the formalization of jobs, elements that bring increased competition and displacement of employees from one country to another (Rama, 2001; Comola & De Mello, 2011; Fang & Lin, 2015). Many researchers are skeptical of the effect that the minimum wage has on consumption because a policy of increasing the minimum wage can simply replace a part of remittances or other transfers, with an impact on increasing disposable income. This effect was evidenced in the study for the United States of America (USA) by Dube (2017). The strategy of increasing the minimum wage has been applied with a higher frequency recently. This strategy has been used mostly in developing countries (Neumark et al., 2003).

The application of this strategy in developing countries is driven by several factors, such as the level of inequality that is present in these countries and the government's attitude toward increasing the standard of living. The minimum wage is an instrument that is mostly applied to reduce inequality between different regions and within one region in different periods. There is data supporting the existence of fluctuation between different regions and in different periods, an element that shows that the minimum wage is influenced by many micro and macroeconomic factors. The research aim is to identify the effect of the minimum wage on consumption.

Most studies on the topic of minimum wage focus on its effect on employment (Wang, 2012). There are studies that show that an increase in the minimum wage does not necessarily impact employment (Dube et al., 2019), but it may influence employee motivation (Choi & Rainey, 2014). The study aims to measure the effect of the minimum wage on consumption, meaning to measure the effect of a factor that indirectly influences consumption, thus the effect on an observed variable.

The research gap that the study attempts to fill is when, where, and how the minimum wage strategy should be applied. This is based on the study by Marginean and Chenic (2013).

This study is important because it measures the indirect effect of the minimum wage and paves the way for further research in this field, as there are many latent and mediator variables that have an indirect impact on consumption. There are numerous variables that either influence or are influenced by the minimum wage. The contribution of this study lies in the field of the impact of the minimum wage on consumption in developing countries, where individuals are more sensitive to increases in income.

The increase in the minimum wage has a positive effect on consumption. This finding highlights the importance of implementing the minimum wage strategy on individual consumption in developing countries. It also shows that in developing countries, individuals rely primarily on their wages as a source of income, and a large number of people earn wages close to or at the minimum wage level.

The impact of inflation on consumption is small and positive, which suggests that the inflation level is offset by the increase in income or savings resulting from the rise in the minimum wage, and does not have a significant impact on consumption.

The factors not considered in this study affect consumption to a large extent. The conclusion points out that many latent variables have a significant impact on the dependent variable.

The increase in the minimum wage affects the reduction of employment, which indicates that a higher minimum wage, combined with the formalization of workplaces, has a negative effect. This is because the cost for businesses increases, leading them to reduce the number of employees. Therefore, the increase in the minimum wage also affects the fight against informality in workplaces.

The structure of the paper is as follows. Section 2 reviews the relevant literature, focusing on the impact of the minimum wage on employment and consumption, and, particularly, the minimum wage and consumption in Albania. Section 3 analyses the methodology that has been used to conduct empirical research, showing that the econometric method of multiple regression is used. Section 4 gives the empirical evaluation using the ordinary least squares (OLS) model and statistical testing. Section 5 provides a discussion. The final Section 6 presents the conclusions of this paper.

2. LITERATURE REVIEW

2.1. The impact of the minimum wage on the economy

Based on the analysis of the effect of the minimum wage in Vietnam, the impact of the minimum wage rise/increase in 2005 on the employment and the profit of companies was very small (Nguyen, 2013; Nguyen, 2017). Based on Nguyen (2023), the effect of an increase in the minimum wage has brought a decrease in the number of employees, whereas from the 10% increase in the minimum wage, the number of employees has decreased by 1%. The data showing that the negative effect of the minimum wage does not impact employment,

according to Neumark and Shirley (2021), suggests that increasing the minimum wage leads to higher employment, according to Manning (2021). Based on Hau et al. (2020), an increase in the minimum wage results in a decrease in unemployment in foreign firms. According to Pérez Pérez (2020), the volatility of the minimum wage only balances formal and informal wages. Meanwhile, according to Alonso (2022), an increase in the minimum wage leads to a moderate but not long-term increase in consumption.

Based on Hansen et al. (2016), minimum wages have an impact on reducing wage inequality. In the analysis of the minimum wage strategy, the level of unemployment should be taken into consideration as an important factor, an element related to the concept of spatial heterogeneity. This concept has to do with the categorization of low wages with a focus on the division in areas and regions, where the division was in metropolitan and urban cities (Neumark et al., 2013). To better analyze the effect of the minimum wage, the employees who are affected by the effect of the minimum wage should be analyzed as an element that has an impact on the potentially affected employees. This theory analyzes country-specific changes in employee categories in densely populated countries. In denser areas, this effect has a greater impact (Neumark et al., 2013). Based on other researchers, the minimum wage does not affect employment (Schmitt, 2013). But in his study, Schmitt (2013) says that the increase in the minimum wage translates into an additional cost for the employer, and this encourages the employer to reduce the number of employees; therefore, in the application of the strategy, one should take this into consideration when increasing the minimum wage.

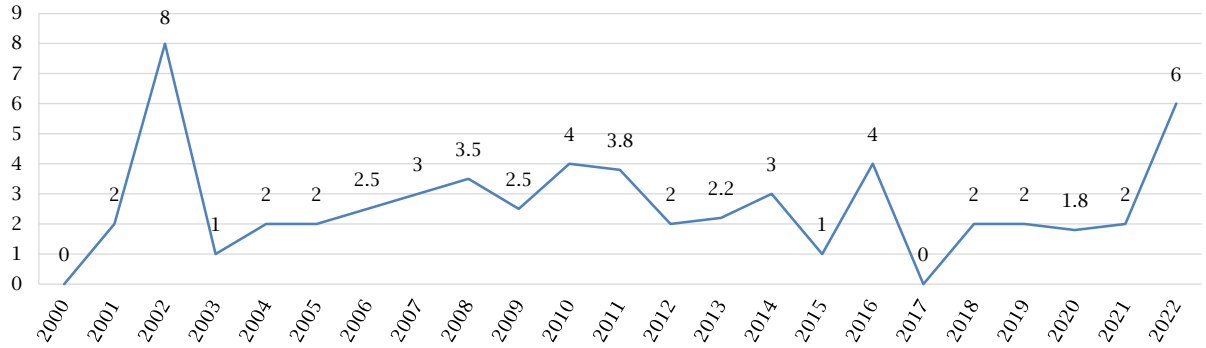
2.2. The impact of the minimum wage on consumption

Based on Jung et al. (2021), the 1% increase in the minimum wage brings a 0.5% decrease in real retail trade. It has also been found that with the increase in the minimum wage, consumption increases, and the increase in consumption increases the possibility that it will increase gross domestic product (GDP). Based on a study by Mansoor and O'Neill (2021), it turned out that with the increase in the minimum wage, there was no negative impact on employment, an element that contradicts other studies on this topic, and shows that there are other elements that influence employment such as inflation, the exchange rate, etc., but the study was conducted in India where there is a high number of minimum wages, a fact that shows that the responsiveness of economic parameters is affected also from the absence/missing of the unified value of the minimum wage. It should be emphasized that the increase in the minimum wage does not necessarily lead to an increase in consumption; it depends a lot on the level of compatibility between the minimum wage and prices. According to Alonso (2022), the minimum wage has a positive effect both in regions with low wages and in regions with high wages in Canada, so the effect is the same in both regions with low wages and in regions with high wages. High minimum wage in Canada has a positive impact on consumption, and the impact is more evident in the long term than in the short term. Based on Renkin et al. (2022), the minimum wage has an impact on the increase in the prices of food goods in retail stores in the USA for the period 2001 to 2012. This is caused by the increase in costs for the businesses, which in the end, is transmitted to the consumer as an added cost, so the effect brought by the increase in the minimum wage leads to the increase in prices, and if this strategy is adopted, the domino effect must be taken into consideration. The minimum wage has an impact on exports, an element that brings an improvement in purchasing power. Referring to Alonso (2022), who analyzed the effect of the minimum wage on the volatility of consumption with a focus on retail sales in the USA, he found that the minimum wage is an effective policy that has a positive impact on aggregate demand, and redistribution to employees with low wages brings an increase in aggregate consumption. Changes in minimum wages, unemployment rates, and the quality of the education system are the main factors for emigration driven by high consumption (Topalović & Hampel, 2023).

2.3. Minimum wage and consumption in Albania

In Albania, the minimum wage is calculated as a net wage, after it is deducted by the removal of taxes, health, and social insurance contributions. The minimum wage is set by law, and currently, in 2024, it is 40,000 Albanian leks (ALL). Theoretically, the minimum wage of the year t is the minimum wage of the year (t - 1), indexed/increased by the inflation rate of the previous year (t - 1). The aim of this indexation is to preserve the purchasing power of the citizens, i.e., in the year t the same amounts of goods and services can be purchased as in the year (t - 1). But this was not what happened in Albania, during the years/periods under research. The employees bore the financial cost of not increasing the minimum wage. Taking into account the period from 2001 to 2022, it has resulted that the highest loss in absolute terms was experienced in the year 2016. In this year, individuals have ALL 19,066 (less) if it would had been applied indexation strategy as in the year 2013. Consequently, the financial cost to employees was very high. The same, or non-indexation policy for the minimum wage, is followed in the years 2003, 2004, 2007, 2014–2016, 2018, 2020, and 2022. In 2022, there was an increase of ALL 2,000 in absolute terms, but the increase was not enough to cover the increase in prices. For the first three months of 2022, the losses were equal to ALL 1,800, while for the second six months, the losses were ALL 3,098, and the total loss was about ALL 4,898. Regarding the public sector, the indexation of wages for the period from 2001 to 2020 has been smaller than inflation. For example, in 2016, the difference is calculated as equal to ALL 16,832 (i.e., less than if the inflation indexation was applied). If one takes into consideration the minimum wage in the public and the private sector, it results that for the period 2015–2020, because the average of the minimum wage was not indexed, the loss was ALL 24,661 (Open Data Albania [ODA], 2022).

Figure 1. Minimum wage in Albania (period 2000–2022)



Source: Authors' elaboration based on ODA's (2022) data.

3. RESEARCH METHODOLOGY

The methodology of the study is based on the study of Bittner (2023), where he measured the effect of minimum wage on consumption. The purpose of our research paper is to measure the impact of the minimum wage on consumption in Albania. To study this, the econometric method of multiple regression is used. Based on this method several variables need to be defined, such as *Consumption* is taken in average amount for each month because is yearly measured, the dependent variable, and the variables like *Inflation* is taken monthly, *Minimum wage* is taken monthly, *GDP growth* is taken monthly, but average monthly, which will be considered as the independent variables, those variables are taken in the study because all of them have a big impact in *Consumption* and on buying power. Also, they have a relationship with each other based on literature, also the model is which is based on the model of Nguyen (2023). The estimation of the parameters of the regression equation is realized with the OLS method based on the study of Jung et al. (2021), while the alternative method that can be applied is Post-Keynesian/Kaleckian growth models based on Brenck and Carvalho (2020). The data, time series, consists of monthly data from January 2014 to December 2022, due to data availability, this period was chosen after the implementation of the *Minimum wage* increase strategy and the periodic measurement of *Consumption* began, and this period was taken into study after a government with the same political approach was in power in Albania, so to analyze the phenomenon while avoiding the factor of changing political approach. A total of 108 values (i.e., month values) were taken for each variable.

The study is based on secondary sources of information obtained from the Bank of Albania and the Institute of Statistics of Albania.

Table 1. Correlation

Variable	*LINFLATION*	*LCONSUM*	*LMIN_WAGE*	*LGROW_G*
LINFLATION	1	0.27739	0.42128	0.44999
LCONSUM	0.27739	1	0.68384	0.27328
LMIN_WAGE	0.42128		1	0.6449
LGROW_GDP	0.44999		0.6449	1

Note: LINFLATION — Inflation, LCONSUM — Consumption, LMIN_WAGE — Minimum wage, LGROW_G — GDP growth.
Source: Authors' elaboration.

Based on the correlation table, the correlation between *Inflation* and *Consumption* is 0.27. This shows a positive relationship, when the *Inflation* increases, *Consumption* also increases, but it should be emphasized that the increase in *Inflation* leads to an increase in *Consumption* up to a certain level/point. In the relationship between the *Minimum wage* and *Consumption*, there is a positive correlation of 0.68, which shows that with the increase of the *Minimum wage*, *Consumption* increases as purchasing power increases, and individuals are inclined to consume more. The relationship between economic growth and *Consumption* results in 0.27, a positive relationship shows that with the increase in economic growth, *Consumption* also increases. In itself, *Consumption* is an instrument that has an impact on economic growth, so economic growth increases the possibility that *Consumption* will increase.

4. RESULTS

The data of the study will be tested through the unit root test through the application of the augmented Dickey-Fuller test (ADF), to test whether or not the data has a unit root. The test shows that wage, economic growth, and consumption should be placed in the one-time difference to be suitable for the equation. After this step, the most suitable functional form must be analyzed.

Table 2. Augmented Dickey-Fuller test

Factor	*p-value (lag 0)*	*p-value (lag 1)*
Minimum wage	0.30	0.000
Inflation	0.009	-
GDP growth	0.73	0.000
Consumption	0.61	0.000

Source: Authors' elaboration.

As shown in Table 3 below, the OLS coefficient of determination R^2 is equal to 80%, showing the percentage of independent variables that explain the dependent variable. The initial model estimated with OLS is presented in Eq. (1).

Table 3. Initial model evaluations with the OLS method

Model	*Variable*	*Coefficient*	*Std. error*	*t-stat*	*p-value*
Model 1 (Consumption)	Constant	5947.217	467.4720	12.72208	0.0000
	GDP growth	-2033.633	519.0896	-3.917691	0.0002
	Inflation	108.4574	122.5890	0.884724	0.3783
	Minimum wage	0.095287	0.012086	7.884076	0.0000
	R^2	0.800565			
	Adj. R^2	0.834716			
	SSR	12629974			
	F	28.42850			
	Prob (F-statistic)	0.000000			

Note: SSR — sum of squared residuals.
Source: Authors' elaboration.

$$Consumption = 5{,}947.217 + 108.4574 * Inflation + 0.095287 * Minimum\ wage - 2{,}033.633 * GDP\ growth \quad (1)$$

Then, it is analyzed which is the best form for the model through the Ramsey regression equation specification error test (RESET). The model that will have the predicted values squared, cubed, and in the fourth power is presented in Eq. (2).

Table 4. Ramsey RESET test

Model	*Variable*	*Coefficient*	*Std. error*	*t-stat*	*p-value*
Model 1 (Consumption)	Constant	5947.217	467.4720	12.72208	0.0000
	GDP growth	-2033.633	519.0896	-3.917691	0.0002
	Inflation	108.4574	122.5890	0.884724	0.3783
	Minimum wage	0.095287	0.012086	7.884076	0.0000
	R^2	0.800565			
	Adj R^2	0.834716			
	SSR	12629974			
	F	28.42850			
	Prob (F-statistic)	0.000000			
Model 2 (Consumption nonlinear)	Constant	52689361	21679072	2.430425	0.0168
	Inflation	1312147.	538922.3	2.434760	0.0167
	Minimum wage	1152.923	473.5156	2.434815	0.0167
	GDP growth	-24606266	10106126	-2.434787	0.0167
	$FITTED^2$	-2.844833	1.174238	-2.422706	0.0172
	$FITTED^3$	0.000297	0.000123	2.411001	0.0177
	$FITTED^4$	-1.16E-08	4.84E-09	-2.399510	0.0182
	R^2	0.691385			
	Adj R^2	0.661170			
	SSR	11691645			
	F-statistic	16.26308			
	Prob F	0.000000			

Source: Authors' elaboration.

$$Consumption = 52{,}689{,}361 - 1{,}312{,}147 * Inflation - 1{,}152 * Minimum\ wage - 24{,}606{,}266 * GDP\ growth - 2.84 * FITTED^2 + 0.000297 * FITTED^3 - 1.16E - 0.8 * FITTED^4 \quad (2)$$

Based on the test values and the raised hypotheses, the linear model is the best form, not the quadratic form.

After the analysis of the linear or quadratic form, it is analyzed whether the linear or logarithmic form is the most appropriate form. For this analysis, the ADF test was applied, and it result is as follows below. The logarithm model estimated with the OLS method is presented in Eq. (3).

Table 5. Comparison between the lin-lin and log-lin models

Model	*Variable*	*Coefficient*	*Std. error*	*t-stat*	*p-value*
Model 1 (Consumption)	Constant	5947.217	467.4720	12.72208	0.0000
	GDP growth	-2033.633	519.0896	-3.917691	0.0002
	Inflation	108.4574	122.5890	0.884724	0.3783
	Minimum wage	0.095287	0.012086	7.884076	0.0000
	R^2	0.800565			
	Adj R^2	0.834716			
	SSR	430.1			
	F-statistic	28.42850			
	Prob F	0.000000			
Model 2 (Logarithmic consumption)	Constant	4.658347	0.526249	8.851978	0.0000
	LINFLATION	0.003420	0.006097	0.560965	0.0057
	LMIN_WAGE	0.404157	0.051797	7.802655	0.0000
	LGROW_GDP	-0.245961	0.090490	-2.718104	0.0042
	R^2	0.817942			
	Adj R^2	0.897573			
	SSR	0.179116			
	F-statistic	2.42841			
	Prob F	0.000000			

Source: Authors' elaboration.

$$Consumption = 0.18 + 0.001 * LINFLATION - 0.018 * LMIN\_WAGE + 0.000760 * LGROW\_GDP \quad (3)$$

In summary, the difference between Model 1 (lin-lin) and Model 2 (log-lin) is as follows below.

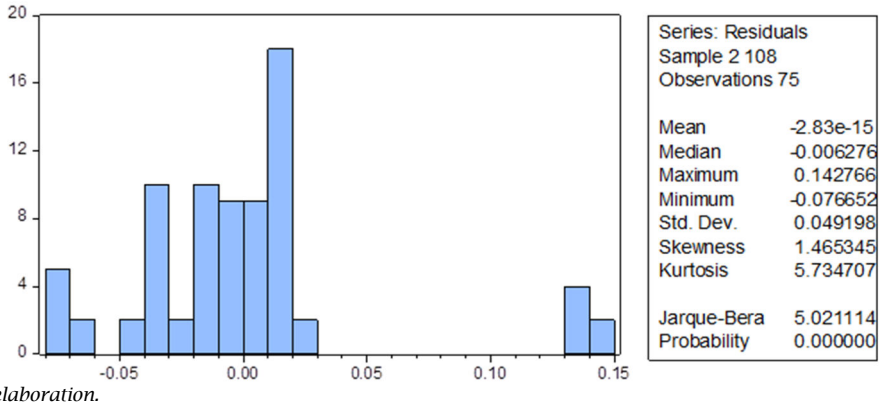
Table 6. Indicators for comparing models

Indicator	*Model 1 (lin-lin)*	*Model 2 (log-lin)*
R^2	0.800565	0.817942
Adj R^2	0.834716	0.897573
SSR	430.1	0.179116
F-statistic	28.42850	2.42841
Prob (F-statistic)	0.000000	0.000000

Source: Authors' elaboration.

Based on the indicators, it turned out that the best form for the model is the logarithmic form since the indicators have higher values. After analyzing the ideal form of the model, we will analyze whether the data has a normal distribution or not. The Breusch-Pagan test (BP) will be applied for this purpose, and the results are shown below.

Figure 2. Residual model



Source: Authors' elaboration.

Based on the data of the model, it turned out that the data have a normal distribution, so another condition for the model is fulfilled. In homoscedasticity testing, it is seen whether the values are central or change in different segments. For this, the BP test was applied, and from this test, the following result was found. Based on the results of Table 7, the estimated model would be as in Eq. (4).

Table 7. Breusch-Pagan test

Variable	*Coefficient*	*Error stand.*	*t-stat*	*p-value*
Constant	0.189363	0.049459	3.828686	0.0003
LINFLATION	0.001035	0.000573	1.805815	0.0452
LMIN_WAGE	-0.018196	0.004868	-3.737803	0.0004
LGROW_GDP	0.000760	0.008505	0.089409	0.9290
R^2	0.218836			
Adj R^2	0.185829			
SSR	0.001582			
F-statistic	4.629983			
Prob F	0.000518			

Source: Authors' elaboration.

$$Consumption = 0.18 + 0.001 * LINFLATION - 0.01 * LMIN\_WAGE - 0.24 * LGROW\_GDP \quad (4)$$

Based on the heteroskedastic test, it has resulted that:

- H_0: *The model is homoscedastic.*
- *H1: The model is heteroskedastic.*

The null hypothesis (H_0) is rejected if Fobserved > Fcritical = 5 (with 1% significance level).

It turned out that the observed Fisher value is 4.62 and 0.000, which means that H_0 is not rejected and the model is homoscedastic, so another element of the OSL method is fulfilled.

If we refer to the lin-lin model and the Durbin-Watson test statistic, for this statistic the value is 0.36. This tells us that the model could not show serial correlation. From the model significance testing has resulted that Fv = 2.42 and Fisher's probability is 0.000. Since the probability value is smaller than the critical value of 5% then the model is statistically significant and can be used for predictions, while testing coefficients has resulted that:

- $|\beta_0| = 4.65$, p-value = 0.000 is statistically significant;
- $|\beta_1| = 0.003$, p-value = 0.0057 is statistically significant;
- $|\beta_2| = 0.404$, p-value = 0.000 is statistically significant;
- $|\beta_3| = -0.24$, p-value = 0.0042 is statistically significant.

The interpretation of the coefficient:

- $\beta_0 = 4.65$. If all variables: *Inflation*, *Minimum wage*, and *GDP growth* are zero, *Consumption* is 4.65 or 465%, an element that shows that other variables that were not taken into the study have a very high impact on *Consumption*. This could be a future research topic to take into consideration to analyzing other variables in analysis.
- $\beta_1 = 0.003$. In *ceteris paribus* conditions, if the *Inflation rate* increases by 1%, then *Consumption*

will increase by 0.3%. It shows a positive effect, where with the increase in *Inflation*, *Consumption* increases, but it should be emphasized that the change in *Inflation* brings a positive impact at a certain level for the economy of a country, then it brings a negative effect, the increase in *Inflation* to a certain extent can be associated with an increase in income, and the increase in income can be higher than the increase in *Inflation*, an element that does not affect *Consumption*. This can be a future research to identify the level at which *Inflation* brings a positive effect.

• $\beta_2 = 0.404$. In *ceteris paribus* conditions, if the *Minimum wage* increases by 1%, then *Consumption* will increase by 40.4%. This shows that the increase in the *Minimum wage* also increases *Consumption*, an element that shows that the increase in the *Minimum wage* increases purchasing power, but it can also affect the perception of consumers that, with the increase in the *Minimum wage*, they have more income to spend. In this case, future research can be the exploration of the consumers' perception of the increase in the *Minimum wage*.

• $\beta_3 = -0.24$. In *ceteris paribus* conditions, if *GDP growth* increases by 1%, then *Consumption* will decrease by 24%. This shows that the increase in GDP has affected the purchasing power, an element that shows that if *GDP growth* is based on elements that negatively affect purchasing power, this brings a negative effect on *Consumption*. This can be a future research which elements that GDP negatively affects the *Consumption*.

5. DISCUSSION

The impact of inflation on consumption has a positive effect in this study, but this is in contradiction to the result of Olusola et al. (2022), where inflation has a negative impact, and in line with the result of Osuji (2020).

The impact of minimum wage has a positive effect in this study, but this is in contradiction and in linearity to result of the study of Várošová et al. (2024) where the minimum wage has negative effect on consumption in Western and Northern Europe and Italy, and in the Central and Eastern European has a positive effect.

The impact on economic growth is negative in this study, which is in contradiction with the result of the study of Jammeh (2022), and a study with a negative effect of GDP growth isn't found; it can be a future research measuring the effect of GDP growth on consumption.

An increase in the minimum wage affects the growth of employees by influencing the increase in aggregate demand, an element that indirectly impacts consumption. This conclusion is in line with the study, where consumption is affected by an increase in the minimum wage (Oyvat, 2023).

According to Kreiner et al. (2018), the effect of the minimum wage on youth employment has a high elasticity, which suggests that the minimum wage does impact employment. However, in this case, the study is fragmented for a specific purchasing power category — youth.

According to Christl et al. (2018), there is a non-linear relationship between employment and the minimum wage, which indicates that there is no clear relationship between these variables. This conclusion contradicts the findings of the study.

There is no consensus among researchers regarding the effect of the minimum wage on employment, and indirectly on purchasing power and consumption. Some researchers agree that there is a relationship, while others disagree on its existence.

6. CONCLUSION

It has been found that the increase in the minimum wage affects the reduction in employment. The profit earned by companies because of reduced employment is too small to be considered as an important impact of the minimum wage increase. The data shows that the application of the strategy of increasing the minimum wage affects the number of employees, but it is not clear the amount of growth up to which it turns to have its negative effect on employment, the same situation as in Albania where the increase in the minimum wage is linked to informality in the Albanian labour market. This might be a topic for further research and to be considered in other studies or research papers.

Another conclusion is that the increase in the minimum wage contributes to a change in wage structure or wage fragmentation. The increase of the minimum wage leads to different fragmentation of wages, reducing the differences between the average wage and the minimum wage. This fact might motivate companies towards informality in the declaration, where companies can declare employees with the minimum wage. This phenomenon is also evident in Albania when many companies declare a high number of employees with minimum wages, evading contributions and taxes, harming the state budget, through bad declarations. The overall impact might be an increase in informality.

Another conclusion is that the increase in the minimum wage leads to an increase in consumption. The positive impact on consumption is in countries that have regions with different minimum wages (both in regions with high minimum wages and in regions that have low minimum wages). However, it has not been determined yet to what extent this positive impact comes; therefore, this constitutes an area that can be further studied in the future.

Another conclusion is that the increase in the minimum wage leads to an increase in the prices of retail goods, which constitutes a negative effect brought by the strategy of increasing the minimum wage. It should also be emphasized the fact that which are the categories of goods and services that are impacted by the minimum wage increase, and what is the measure of the negative effect on the purchasing power and then on consumption. This is another topic to be further explored by different studies in the future.

The increase in the minimum wage brings a positive impact on the aggregate demand, an argument that shows that the amount of goods demanded by individuals, businesses, and the government increases, thus affecting the increase in consumption.

From the empirical analysis, it has been found that the factors that are not taken into account in this study affect consumption to a high extent. This emphasizes the need for extending the model to include those other missing factors that contribute to consumption. Other researchers can undertake more detailed analysis in the future, as our main

concern was to keep the model simple, based on data from existing sources, and not to suffer the risk of making the model more complicated or undertaking other surveys/research to collect data.

From the empirical analysis, the impact of inflation on consumption is too small and positive, which constitutes a paradox since inflation in itself has a negative impact on purchasing power. In this case, the measure of inflation is not so impactful as to limit consumption, and the reason behind this might be that categories of goods are those categories of goods that are not related to the category of goods that is consumed the most; this also constitutes a research gap.

Another conclusion from the empirical analysis is that the increase in the minimum wage has a positive effect on consumption, an expected result based on economic theories where the increase in income increases the possibility of an increase in consumption. While the increase in GDP brings a negative impact on consumption, this shows that the increase in GDP is mainly based on factors that have a negative impact on consumption, like taxes.

There is a lack of scientific studies measuring the impact of the increase in the minimum wage on consumption, as all studies are oriented towards measuring the impact of the minimum wage on employment. This makes the study a starting point for future research to measure the impact of the minimum wage on consumption, because measuring the effect of the minimum wage is important for the macroeconomic policies of the country, as well as for political decisions and for the level of taxation, the tax on goods in the basket, business tax relief, citizen welfare, employment, informality and the pension scheme, the importance of this study based on these elements opens the possibility of measuring the effect of the minimum wage strategy on other macroeconomic and political elements, as well as contributing to the decision-making of governments, mainly in developing countries. Taking into account certain categories of products in consumption that are linked to the necessity of consuming, that product is an element that should be addressed in the future to measure the impact of the minimum wage on consumption. Additionally, the importance of this study lies in its contribution to governments in different countries for their decision-making process. Furthermore, a future study on the level at which the minimum wage impacts consumption would be highly significant for minimum wage decisions and state budgets, serving as an indicator for improving the economy of a country. Another important contribution of the study is the relationship between informality and the effect brought about by the minimum wage. A future study to measure the impact of the minimum wage on informality would be valuable for governments, as it could be used as a strategy to combat informality. An important contribution of the study is the positive impact that the minimum wage has on consumption. This provides an impetus for future studies to explore which categories of consumption experience this positive effect and to what extent. A study of interest would also be to identify the reasons why, in some countries, the effect of the minimum wage is positive, while in others, it is negative.

Some limitations of the study include the fact that the variables used are not the final variables, meaning that we cannot definitively say that these variables precisely measure the relationship between the minimum wage and consumption.

The availability of data is another limitation of the study, as there is a lack of monthly data on consumption.

Additionally, the consumption data collected includes consumption from all categories, not just the main categories. This could affect the measurement of the relationship between the minimum wage and consumption. Another limitation of the study is the absence of a precise indicator that shows the specific value at which the minimum wage has a positive or negative effect on a particular economy.

REFERENCES

Alonso, C. (2022). Beyond labor market outcomes: The impact of the minimum wage on nondurable consumption. *The Journal of Human Resources, 57*(5), 1690–1714. https://doi.org/10.3368/jhr.58.1.0518-9524R2

Bittner, J. (2023). How do changes in the minimum wage affect household consumption? *Statistika: Statistics and Economy Journal, 103*(1), 5–29. https://doi.org/10.54694/stat.2022.23

Brenck, C., & Carvalho, L. (2020). The equalizing spiral in early 21st century Brazil: A Kaleckian model with sectoral heterogeneity. *Structural Change and Economic Dynamics, 55*, 298–310. https://doi.org/10.1016/j.strueco.2020.07.007

Choi, S., & Rainey, H. G. (2014). Organizational fairness and diversity management in public organizations: Does fairness matter in managing diversity? *Review of Public Personnel Administration, 34*(4), 307–331. https://doi.org/10.1177/0734371X13486489

Christl, M., Köppl-Turyna, M., & Kucsera, D. (2018). Employment effects of minimum wages. *Ifo DICE Report, 16*(4), 3–8. https://www.ifo.de/DocDL/dice-report-2018-4-koeppl-turnya-christl-krucsera-january.pdf

Comola, M., & De Mello, L. (2011). How does decentralized minimum wage setting affect employment and informality? The case of Indonesia. *Review of Income and Wealth, 57*(S1), 79–99. https://doi.org/10.1111/j.1475-4991.2011.00451.x

Dube, A. (2017). *Minimum wages and the distribution of family incomes* (IZA Discussion Paper No. 10572). Institute of Labor Economics (IZA). https://doi.org/10.2139/ssrn.2923658

Dube, A., Giuliano, L., & Leonard, J. (2019). Fairness and frictions: The impact of unequal raises on quit behavior. *The American Economic Review, 109*(2), 620–663. https://doi.org/10.1257/aer.20160232

Fang, T., & Lin, C. (2015). Minimum wages and employment in China. *IZA Journal of Labor Policy, 4*(1), Article 22. https://doi.org/10.1186/s40173-015-0050-9

Hansen, H., Rand, J., & Torm, N. (2016). *The impact of minimum wage adjustments on Vietnamese wage inequality.* International Labour Organization (ILO).

Hau, H., Huang, Y., & Wang, G. (2020). Firm response to competitive shocks: Evidence from China's minimum wage policy. *The Review of Economic Studies, 87*(6), 2639–2671. https://doi.org/10.1093/restud/rdz058

Jammeh, I. Y. (2022). The effects of annual GDP growth on consumption spending: Evidence from West African countries. *International Journal of Social Sciences Perspectives, 11*(2), 93–104. https://doi.org/10.33094/ijssp.v11i2.656

Jung, Y. C., McFarlane, A., & Das, A. (2021). The effect of minimum wages on consumption in Canada. *The Economic and Labour Relations Review, 32*(1), 65–89. https://doi.org/10.1177/1035304620949950

Kreiner, C. T., Reck, D., & Skov, P. E. (2018). *Do lower minimum wages for younger workers raise their employment? Evidence from a Danish discontinuity* (Working Paper No. 05/18). Center for Economic Behavior & Inequality (CEBI). https://doi.org/10.2139/ssrn.3255446

Manning, A. (2021). The elusive employment effect of the minimum wage. *Journal of Economic Perspectives, 35*(1), 3–26. https://doi.org/10.1257/jep.35.1.3

Mansoor, K., & O'Neill, D. (2021). Minimum wage compliance and household welfare: An analysis of over 1500 minimum wages in India. *World Development, 147*, Article 105653. https://doi.org/10.1016/j.worlddev.2021.105653

Marginean, S. C., & Chenic, A. S. (2013). Effects of raising minimum wage: Theory, evidence, and future challenges. *Procedia Economics and Finance, 6*, 96–102. https://doi.org/10.1016/S2212-5671(13)00119-6

National Bureau of Statistics (NBS). (2013). *China statistical yearbook 2013*. China Statistics Press. https://www.stats.gov.cn/sj/ndsj/2013/indexeh.htm

Neumark, D. (2018). The employment effects of minimum wages: Some questions we need to answer. *Oxford Research Encyclopedia of Economics and Finance*. https://doi.org/10.1093/acrefore/9780190625979.013.137

Neumark, D., & Shirley, P. (2021). *Myth or measurement: What does the new minimum wage research say about minimum wages and job loss in the United States?* (NBER Working Paper No. 28388). National Bureau of Economic Research (NBER). https://doi.org/10.3386/w28388

Neumark, D., Cunningham, W., & Siga, L. (2003). *The distributional effects of minimum wages in Brazil: 1996–2001* (Working Paper No. 2003.23). Public Policy Institute of California. https://ssrn.com/abstract=448983

Neumark, D., Salas, J. M. I., & Wascher, W. (2013). *Revisiting the minimum wage — employment debate: Throwing out the baby with the bathwater?* (NBER Working Paper No. 18681). National Bureau of Economic Research (NBER). https://doi.org/10.3386/w18681

Nguyen, C. V. (2013). The impact of minimum wages on employment of low-wage workers. *The Economics of Transition, 21*(3), 583–615. https://doi.org/10.1111/ecot.12022

Nguyen, C. V. (2017). Do minimum wages affect firms' labor and capital? Evidence from Vietnam. *Journal of the Asia Pacific Economy, 22*(2), 291–308. https://doi.org/10.1080/13547860.2016.1276697

Nguyen, C. V. (2023). *The impact of minimum wages on employment: Evidence from a lower middle-income country* (GLO Discussion Paper No. 1253). Global Labor Organization (GLO). https://www.econstor.eu/bitstream/10419/270426/1/GLO-DP-1253.pdf

Olusola, B. E., Chimezie, M. E., Shuuya, S. M., & Addeh, G. Y. A. (2022). The impact of inflation rate on private consumption expenditure and economic growth — Evidence from Ghana. *Open Journal of Business and Management, 10*(4), 1601–1646. https://doi.org/10.4236/ojbm.2022.104084

Open Data Albania (ODA). (2022, May 11). *Minimum wage and loss of consumption power from lack of actual indexation*. https://ndiqparate.al/?p=17401&lang=en

Osuji, O. (2020). Effect of inflation on household final consumption expenditure in Nigeria. *Journal of Economics and Development Studies, 8*(1), 104–111. https://www.researchgate.net/publication/342619534

Oyvat, C. (2023). *Minimum wage, aggregate demand and employment: A demand-led model* (Greenwich Working Paper No. GPERC95). University of Greenwich: Political Economy, Governance, Finance and Accountability. https://gala.gre.ac.uk/id/eprint/43693

Rama, M. (2001). The consequences of doubling the minimum wage: The case of Indonesia. *Industrial & Labor Relations Review, 54*(4), 864–881. https://doi.org/10.2307/2696117

Ravallion, M., Chen, S., & Sangraula, P. (2009). Dollar a day revisited. *The World Bank Economic Review, 23*(2), 163–184. https://doi.org/10.1093/wber/lhp007

Renkin, T., Montialoux, C., & Siegenthaler, M. (2022). The pass-through of minimum wages into U.S. retail prices: Evidence from supermarket scanner data. *The Review of Economics and Statistics, 104*(5), 890–908. https://doi.org/10.1162/rest_a_00981

Schmitt, J. (2013). *Why does the minimum wage have no discernible effect on employment?* (CEPR Report). Center for Economic and Policy Research (CEPR). https://cepr.net/documents/publications/min-wage-2013-02.pdf

Topalović, A., & Hampel, D. (2023). Causes of the "brain drain" problem in selected Western Balkan countries. *WSEAS Transactions on Business and Economics, 20*, 2300–2314. https://doi.org/10.37394/23207.2023.20.198

Várošová, N., Viskotová, L., & Hampel, D. (2024). The impact of minimum wages on consumption in EU countries. *WSEAS Transactions on Business and Economics, 1,* 1511–1522. https://doi.org/10.37394/23207.2024.21.123

Wang, X. (2012). When workers do not know — The behavioral effects of minimum wage laws revisited. *Journal of Economic Psychology, 33*(5), 951–962. https://doi.org/10.1016/j.joep.2012.05.004