

## Effect of the minimum wage on employment and the poor population in Mexico, 1980-2019

### Efecto del salario mínimo sobre el empleo y la población pobre en México, 1980-2019

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#### Abstract

This research seeks to contribute to the discussion and empirical evidence of the effects of the minimum wage on the main socio-economic factors. The objective was to determine how the behavior of the minimum wage has influenced formal employment and the population in poverty in Mexico, from 1980 to 2019. Two linear regression models were estimated, using the ordinary least squares method. From his estimation, a negative relationship was found between the minimum wage and the two dependent variables: formal employment, as well as with the population in wealth poverty.

**Minimum wage, Formal employment, Population in poverty**

#### Resumen

La presente investigación busca contribuir a la discusión y evidencia empírica de los efectos del salario mínimo sobre los principales factores socioeconómicos. El objetivo consistió en determinar cómo el comportamiento del salario mínimo ha influido sobre el empleo formal y la población en pobreza en México, en el periodo 1980 a 2019. Se estimaron dos modelos de regresión lineal, mediante el método de mínimos cuadrados ordinarios. A partir de su estimación se encontró una relación negativa entre el salario mínimo y las dos variables dependientes: el empleo formal, así como con la población en pobreza de patrimonio.

**Salario mínimo, Empleo formal, Población en pobreza**

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## Introduction

Since its creation, the minimum wage has been an issue of great importance in all countries, as mentioned by Arango, et. to the. (2008), this is a labor law dating from 1890, derived from the maritime strike in New Zealand, according to the authors, “this was the culmination of the efforts of the unions to secure legal status and obtain the protection of a mandatory minimum wage and better employment conditions”. (p. 211)

Reyes (2011), indicates that at the level of international regulations, the first initiative on setting minimum wages was in 1928, through Convention 26 of the International Labor Organization (ILO), followed by conventions 99 and 131. Derived from this, was that, during the first half of the twentieth century, in different countries legislation began to emerge in this regard, the objective of which was that the setting of a minimum wage allowed “to protect the lowest-income workers, establishing an effective and dignified wage floor”. (p. 6)

According to the same author, the establishment of the minimum wage in Mexico dates back to those years as a result of the Mexican Revolution, “among their achievements, workers had the incorporation of a minimum wage into their national constitution, in order to prevent it from falling. below the minimum necessary to satisfy their needs and those of their family”. (p. 5); And as in Latin American countries, in Mexico, the legislation on this matter had the “social objective of reducing poverty and inequality through significant increases to the minimum wage”. (p. 6)

However, as Moreno, et al. (2014), since the middle of the last century and up to the present, the behavior of the real minimum wage has gone through different stages, which are due to the performance of the Mexican economy.

According to Reyes (2011), “during the years of industrialization via import substitution, wages in Mexico had moments of decline and recovery. In the post-war era... the minimum wage lost half of its purchasing power”. (p. 7)

Subsequently, in the period from 1950 to 1976, there was an upward trend, in these years the real minimum wage quadrupled and the economic situation of the country allowed the real Gross Domestic Product (GDP) to grow at an average annual rate of 6.0% and low inflation (Reyes, 2011; Moreno, et al., 2014); According to Escobar (2014), it was in 1977 when it reached its highest point; however, according to Moreno, et al. (2014), as of this year "their nominal adjustments lagged slightly behind inflation." (p. 81)

From 1977 to 1982, according to Escobar (2014), it presented a slight decrease of 1.3% per year, and in the following 10 years, from 1982 to 1992, it was the most critical period in the country regarding this type of salary, since presented its worst fall being 6.3%, which accumulated a drop of 63.6%. From 1992 to 1995 as well as from 1995 to 2003, the decline was slightly less, 2.0 and 2.5% per year respectively. In general, Moreno, et. to the. (2014), indicate that from 1980 to 1995, the minimum wage lost 66.0% of its purchasing power.

In this context, Munguía (2019), states that from the eighties, Mexico based its economy on the export sector and foreign direct investment (FDI), however, the development of the country's industry was not achieved and due to the On the contrary, a simple packaging model with little added value and poorly paid jobs was chosen, which implied keeping the minimum wage below inflation, that is, that average wages did not grow, these actions being an open policy of the Government, since three decades ago.

Finally, Escobar (2014) mentions that from 2003 to 2014, the minimum wage maintained a constant behavior and, as stated by Munguía (2019), this was due to the stabilization policy, which implied that wages remained stagnant, since companies in Mexico granted salary increases, equivalent to the increase in the minimum wage. In addition, Escobar (2014), states that according to the National Council for the Evaluation of Social Development Policy (CONEVAL), at least between 2005 and 2014, the minimum wage was not enough to cover the essential needs of individuals in urban areas, much less when considering the whole family, so the fall in the minimum wage, especially since the eighties, translates into an increase in poverty and inequality in Mexico.

Within the aforementioned period, according to Moreno, et. to the. (2014), perhaps the situation more:

The dramatic impact of Mexico's deteriorating minimum wage is manifested when compared with the level of the per capita poverty line. In 2011, Mexico was the only country in the region in which the minimum wage was lower than this line; a ratio of 0.66, well below the rest of the region. (p. 84)

Therefore, according to the same authors, the minimum wage, "in real terms has deteriorated sharply for decades." (p. 80)

Furthermore, as Reyes (2011) puts it, in some countries including Mexico, the institution in charge of setting minimum wages is the National Minimum Wage Commission (CONASAMI), however, "corporatism and lack of of an independent unionism that represents the interests of the workers in CONASAMI ... have given rise to the precariousness of work and wages that millions of Mexicans live today". (p. 7)

Due to this, Munguía (2019) indicates that the initial objective for which this salary was established is not being met, therefore, in 2014, various organizations and institutions raised the need for an increase in it. In 2016, the wage policy went from being a "measure to contain inflation to a policy of wage recovery". (p. 10), which continues to date; however, the current government has the objective of a faster recovery of the minimum wage so that it reaches at least the family welfare line.

For the ILO (2007), "wages are a complex issue because they represent an essential part of employers' labor costs and the main source of income for workers." (p. 1), which is why the salary level and the mechanisms used to set them have important repercussions, both at the level of the economy and society; These wage setting mechanisms are timely in the decisions made by companies and workers (microeconomics field), as well as at the macroeconomic level (inflation, employment, productivity and consumption).

Based on the above, this research seeks to contribute to the discussion and empirical evidence of the effects of the minimum wage on the main socioeconomic factors; Therefore, the objective of this paper was to determine how the behavior of the minimum wage has influenced two of the main socioeconomic variables in Mexico: formal employment and the population in poverty of wealth, from 1980 to 2019. Given that both the evidence Theoretical as well as empirical does not show a consensus between the results obtained, it is that in this investigation the sign that is expected to be obtained with respect to the parameters of the independent variables is not specified.

### *Theoretical aspects*

The minimum wage has been and continues to be a controversial issue and widely discussed in the economic literature, which is why, according to Arango, et. to the. (2008), there is no consensus on "the effects of the minimum wage on such fundamental issues as employment, the formation of human capital and the well-being of the population." (p. 213); while Del Carpio & Pabón (2015) add that, "the effect of the minimum wage on the labor market and productivity is ambiguous from a theoretical and empirical point of view". (p. 3); since an increase in the minimum wage can have positive and negative repercussions both at the employment level, and in general on other economic and social variables (Campos, et al., 2017; Jiménez, 2018).

### *Theoretical aspects of the minimum wage on formal employment*

As already mentioned, the vast majority of studies on the minimum wage analyze its impact on employment levels, both in developed and developing countries. But the question to answer is, what would be the effect of an increase in the minimum wage on employment?

In this regard, Miranda (2018) indicates that from the point of view of economic theory, the impact generated by the minimum wage policy "on employment depends on the type of market in which companies compete to hire workers. In a competitive market, the minimum wage could generate unemployment". (p. 3)

In this sense, Del Carpio & Pabón (2015), point out that:

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In this case, the magnitude of the reduction in employment will depend on the elasticity of labor demand. However, there are other alternative market models that would explain why in the face of increases in the minimum wage it is possible to expect increases in labor demand. In a monopsony labor market, employers would be in a position to impose a lower wage than they would pay in a competitive market. Therefore, the introduction of a minimum wage obliges employers to pay a higher wage than they offer in a one-time market. If the minimum wage is set above the monopsony wage, but below the perfect competition wage, it is possible to increase the level of employment. (p. 6)

#### *Theoretical aspects of the minimum wage on poverty*

Apart from employment, Arango, et al. (2008), mention that another of the important objectives of the minimum wage policy has been "to increase the income of poor families that have some of their members in the labor force." (p. 222); that is, as mentioned above, the minimum wage not only has effects on employment, but also on labor income, poverty and well-being.

According to Lustig & McLeod (1995), an important question to consider is: What is the impact of increases in the minimum wage on poverty? (p. 111)

As with the effects on employment, there is also no consensus on the effects of the minimum wage on poverty. According to Gindling (2018), increasing this type of salary in developing countries can have two opposite effects: increase or reduce poverty, which depend on the characteristics of the labor market.

In this regard, Lustig & McLeod (1995) state that the standard model establishes that:

The impact on poverty must be negative, that is, a higher minimum wage results in higher poverty rates ... because a higher minimum wage would result in a reduction of employment in the formal sector, increasing the supply of informal labor and putting pressure on, in this way, their wages down. (p. 110)

However, even if an increase in the minimum wage produces the standard increase in formal sector unemployment, under certain assumptions, an increase in the minimum wage can, in fact, increase the wage of informal sector workers ... if one allows individuals who lose their job in the formal sector choose between moving to the informal sector or waiting their turn for a job in the formal sector, the impact of wages in the informal sector will depend on the relative size of the elasticity of demand for employment in the formal sector. If it is inelastic enough, then there will be an increase in the informal sector wage and total unemployment. Depending on the net effect, that is, on whether the wage effect predominates over the unemployment effect, poverty can also decrease. (Lustig & McLeod, 1995, p. 114)

The same authors also point out that:

In developing countries their labor markets are characterized by the presence of an informal sector ... In the developing world there is scattered evidence which seems to indicate that the majority of the poor are in the informal sector and that the majority of workers in the sector informal are poor. (p. 113)

Gindling (2018) adds that this decrease in poverty may be insignificant, since this type of wages in developing countries is for workers in the formal sector, who in number are few in relation to the number of workers in the informal.

Also, according to Lustig & McLeod (1995):

The workers who benefit directly from increases in the minimum wage are not usually the poorest ... in the developing world most of the poor work in the informal sector where the possibility of being poor is higher. (p. 110)

Thus, if minimum wage legislation does not cover a large group of informal workers, higher minimum wages are unlikely to reduce poverty; if the workers affected by the minimum wage are secondary workers in the family, higher minimum wages will not reduce poverty; And if higher minimum wages cause workers to lose jobs in the formal sector, they are unlikely to reduce poverty. (Gindling, 2018, p. 1)

*Empirical evidence of the effect of the minimum wage on formal employment and poverty*

Considering the definition of minimum wage, which is established in the Magna Carta, Reyes (2011) points out that, "the minimum wage must be sufficient to satisfy the normal needs of a head of the family in the material, social and cultural order, and to provide compulsory education for children". (p. 6)

Given its importance, Jiménez (2018) indicates that the role that has been assigned to it, as well as the discussion and research on its economic and social effects have been widely addressed; So the first studies that emerged on the subject focused on analyzing the impact of the minimum wage on employment and inequality; In this sense, Del Carpio & Pabón (2015) state that although the empirical evidence of the effects of the minimum wage, especially in the labor market, has been generated mainly in developed countries, more studies of this type have recently emerged focused on the developing countries. However, according to the same authors, these investigations are not limited only to the effects of the minimum wage on income and employment, since, according to the observed empirical evidence, while in some countries the minimum wage is used as a policy instrument to reduce poverty and inequality, in others, it is done to improve labor productivity or correct inefficiencies in the labor market.

As in the case of the theoretical aspects, regarding the empirical evidence there is also no consensus about the effect that an increase in the minimum wage causes on employment, poverty and other socioeconomic factors.

According to Miranda (2018), despite the existence of a significant number of empirical studies on the minimum wage in the last 25 years, there is no consensus on the effects it causes on employment, so part of this The explanation lies in the fact that "the results are associated with the type of methodology applied, the databases available, the type of worker considered affected, the industry where they work and the institutional characteristics of the country." (p. 3)

Which is why the empirical evidence of the relationship between minimum wage and employment shows conflicting results; for which two major stages can be distinguished:

As Miranda (2018) expresses, the first is the one recorded at the beginning of the 90s, in which the investigations coincided in the sense that the effects of the minimum wage on employment were negative, according to the It is established by the neoclassical theory of perfect competition in the labor market; the common denominator of these studies was that they used cross-sectional data or time series; however, these methodologies were criticized. In this regard, Brown, et. to the. (1982), cited by Arango, et al. (2008), carried out a "survey of the evidence and the conclusions of different analyzes made for the United States", finding that "increases in the minimum wage tend to reduce employment, especially of the young population". (p. 213-214)

A second stage is recorded from the first half of the 90s, where Card & Krueger (1994), cited by Arango, et al. (2008), conducted pioneering studies and compared the levels of employment in fast food restaurants in New Jersey and Pennsylvania before and after the increase in the minimum wage that occurred in New Jersey in 1992, the result of which was that "the increase in the minimum wage Not only did it not negatively affect employment in this place, but on the contrary it increased ". (p. 214)

In this regard, Campos, et al. (2017), add that, according to the studies carried out, "the effects that an increase in the minimum wage could have on employment... show that when the initial level of the minimum wage is relatively low, a modest increase does not have negative effects on the job". (p. 207)

Likewise, as expressed by Arcidiácono (2015), if there is any decrease in employment, it turns out to be of low economic significance.

However, the empirical evidence already presented refers to developed countries, which have very different socioeconomic characteristics from those of developing countries. Therefore, according to Miranda (2018), the empirical evidence previously explained for developed countries can hardly be applied to emerging countries. In this sense, the impact that the minimum wage has on the labor market will depend, among others, "on the percentage that the minimum wage represents with respect to the wages of the economy, the number of workers covered, respect for the law, the institutional characteristics of each economy and the existence of informal markets". (p. 7)

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In the case of developing countries, when analyzing the minimum wage-employment relationship, it is important to take into account that one of the characteristics that occurs in these types of countries is the high rate of informality, and this may imply that “before increases in the minimum wage, individuals who were previously employed in the formal sector become unemployed”. (Arcidiácono, 2015, p. 5)

According to the same author, neither at the level of developing countries is there a consensus regarding the results obtained from the minimum wage-employment relationship; Since despite the fact that many of them show empirical evidence in favor of the negative effect of the minimum wage on employment, these effects tend to be of little economic significance. On the other hand, there is also empirical evidence in favor of positive results of the minimum wage on employment.

On the other hand, just as there are conflicting results regarding the empirical evidence of the effects of the minimum wage on employment, the same happens in the case of the effect that the minimum wage has on poverty.

According to Lustig & McLeod (1995), studies conducted for developing countries are unclear, as some have found that:

Minimum wage legislation hurts jobs and the poor while others find the opposite. Some studies are based on econometric analysis while others observe the behavior pattern of the variables for specific periods of time ... various studies that use some form of regression analysis to investigate the relationship between the minimum wage and the wages of the unskilled sector or informal and between minimum wage and employment. Some of these studies find a positive relationship between the minimum wage and the average wage of the unskilled or the income of the self-employed. Others find that the sign of the relationship between the minimum wage and the wages of skilled workers varies between countries and that the relationship between the minimum wage and the wages of unskilled workers is weak. (p. 115)

Here is some of the research linking the minimum wage to employment and poverty in developing countries.

Campos, et al. (2017), developed a study, where:

They analyzed the effects of the increase in the minimum wage on wages and employment in Mexico. For which the minimum wage is standardized in two areas of the country at the end of 2012. Using data from the National Survey of Occupation and Employment (ENOE), a cross-sectional econometric analysis and a panel analysis were carried out at the individual level. The results of the first indicated that, on average, the hourly wage of workers in zone B increased between 1.6 and 2.6% and, in the case of salaried workers, between 1.8 and 3.3%. Panel analysis produced similar results; And although the cross-sectional analysis does not reveal an impact in terms of employment, the panel data indicated that the probability of being an informal (formal) worker decreased (increased) among those affected by the wage increase. (p. 205)

Kaplan & Pérez (2006), analyzed:

The effect of minimum wages on labor income in Mexico. With data panels from the National Urban Employment Survey (ENEU), as well as information from the Mexican Institute of Social Security (IMSS), it was found that changes in the real minimum wage present a positive effect on the change in labor income for all wage groups, this effect being weaker in the case of workers who earn several times the amount of the minimum wage. (p. 139)

Hernández & Lasso (2003), investigated:

The effects of the legal minimum wage (SML) on employment in Colombia, in a function of labor demand, taking into account the substitution effect and the income effect induced by the increase in the minimum wage ... for the period 1984-2000, based on in the quarterly information of the Household Surveys. One of the main conclusions of the study is that the net effect of the SML on employment is positive, both for the population covered and for the population not covered by it, when the substitution effect and the income effect are considered together. On the other hand, it is shown that the demand for labor is determined by the economic cycle rather than by changes in the prices of production factors. (p. 117)

Lustig & McLeod (1995), analyzed:

The relationship between minimum wage and poverty in developing countries. The analysis is carried out for a cross-section of countries, through regression of changes in poverty rates with respect to changes in the minimum wage and other variables that could affect poverty levels. The results show that the minimum wage and poverty are inversely related; that is, an increase in the real minimum wage is accompanied by a reduction in poverty. (p. 109)

## Materials and methods

In this section, the variables used are described, and the econometric models used are presented..

### Description of the variables

The following variables were used in the present study:

#### Dependent variables

Among the dependent variables used in the research are: formal employment (EmpFormal<sub>t</sub>) and the population in wealth poverty (Pobrezat<sub>t</sub>).

The variable EmpFormal<sub>t</sub>, refers to the population employed in the formal sector. It was decided to analyze the relationship between the minimum wage and formal employment; because the minimum wage directly affects employees in the formal sector. The information for this variable was obtained from the Macroeconomic Analysis Center (CAMACRO), for the period 1980 to 2019.

The second dependent variable is [Poverty]<sub>t</sub>, that is, population in wealth poverty, which refers to:

The insufficiency of disposable income to acquire the food basket and to make the necessary expenses in health, education, clothing, housing and transportation, even if all the disposable income in the home were used exclusively for the acquisition of these goods and services. (CONEVAL, s / f).

For this research, the population in poverty of patrimony was used, as it is considered the closest to the concept of minimum wage, established in article 23 of the Political Constitution, as mentioned previously.

The information for the poverty variable, as well as its analysis corresponds to the period 1992 to 2019, which was obtained from CAMACRO and CONEVAL.

### Independent variable

The independent variable was the real minimum wage at 2018 prices (Salmint). This was calculated by deflating the nominal minimum wage with the national consumer price index (INPC), base for the second half of 2018. The nominal minimum wage is released by CONASAMI.

### Econometric models

To determine the influence of the minimum wage on formal employment and the population in poverty of wealth in Mexico, the following models were used, whose structural form was the following:

$$EmpFormal_t = \alpha_0 + \alpha_1 Salmin_t + \mu_i \quad (1)$$

$$Pobrezat_t = \beta_0 + \beta_1 Salmin_t + \varepsilon_i \quad (2)$$

Where:

$\alpha_0, \dots, \alpha_n; \beta_0, \dots, \beta_n$ , are the parameters to be estimated for each of the equations:  $\mu_i$  and  $\varepsilon_i$ , are the error terms that are introduced in the models and that are distributed independently and identically with zero mean and constant variance;  $t$ , is the annual periodicity of the data (from 1980 to 2019); Salmint, is the real minimum wage (at constant 2018 prices); EmpFormal<sub>t</sub>, is the population employed in the formal sector (number of people); Pobrezat, is the population in poverty of heritage (number of people).

To estimate the coefficients or parameters of each of the explanatory variables, the Statistical Analysis System (SAS) package was used, using the Ordinary Least Squares (OLS) method.

## Results and discussion

This section presents the statistical and economic results.

### Statistic analysis

The statistical analysis in both models was based on the coefficient of determination ( $R^2$ ), the value of the F-calculated ( $F_c$ ), and the t-student for each of the estimators from the analysis of variance. To test the statistical significance of the fitted regression equations, the following sets of hypotheses were considered,  $H_0: \alpha_1 = \alpha_2 = \dots = \alpha_n = 0$  vs  $H_a: \alpha_1 = \alpha_2 = \dots = \alpha_n \neq 0$ ;  $H_0: \beta_1 = \beta_2 = \dots = \beta_n = 0$  vs  $H_a: \beta_1 = \beta_2 = \dots = \beta_n \neq 0$ .

Dependent variable Independent variables	
<b>Equation 1</b>	
<i>EmpFormal<sub>t</sub></i>	<i>Salmin<sub>t</sub></i>
Coefficient	-35919
t <sub>c</sub>	-3.88
P-value	0.0004
R <sup>2</sup> = 28.41 F-value = 15.08 Prob > F = 0.0004	
<b>Equation 2</b>	
<i>Poverty<sub>t</sub></i>	<i>Salmin<sub>t</sub></i>
Coefficiente	-115673
t <sub>c</sub>	-7.06
P-value	<0.0001
R <sup>2</sup> = 57.37 F-value = 49.79 Prob > F = <.0001	

**Table 1** Analysis of variance

Source: Own elaboration with the results of the statistical package SAS

The results of the analysis of variance are shown in table 1. The EmpFormalt and Pobrezat models revealed that the global test for each of them was significant, since the  $F_c = 15.08$  and  $49.79$  was greater than the  $F_t$ ,  $0.5(1, 38) = 4.098$  respectively, with a significance level of 5.0% ( $\alpha = 0.05$ ), so that in each of the models the null hypothesis ( $H_0$ ) is rejected in favor of the alternative hypothesis ( $H_a$ ), which indicates that at least one of the parameters estimated by the regression will be different from zero. According to the  $R^2$  statistic, the EmpFormalt and Pobrezat variables were explained by 28.41 and 57.37% respectively by the minimum wage (Salmint).

With respect to the individual test, the independent variable in the two models was significant; since as can be seen in the same table 1, the real minimum wage (Salmint) corresponding to equations 1 and 2 presented a  $|t_c| = -3.88$  and  $-7.06$  for EmpFormalt and Pobrezat respectively, which was higher in each case than  $t_{t, 0.05(38)} = 2.02$ , so the null hypothesis is rejected in favor of the alternative, this implies that, the Estimated parameters of the independent variables were different from zero.

Furthermore, as the same table shows, the p-value of each of the independent variables included in the equations was lower than the significance level (0.05), with a confidence level of 95.0%.

### Economic analysis

The estimated models for formal employment and the population in poverty of heritage (EmpFormalt and La Pobrezat), were the following:

$$\widehat{EmpFormal} = 19992333 - 35919 Salmin \quad (3)$$

$$\widehat{Pobreza} = 64490320 - 115673 Salmin \quad (4)$$

As commented in previous sections, there is no consensus regarding the effect caused by the increase in the minimum wage on formal employment and the level of poverty, neither from a theoretical nor an empirical point of view, this, both at the level of developed countries as well as the level of poverty. developing, as this effect can be both positive and negative; Due to this, in the case of this investigation, the expected sign for the parameters  $\alpha_1$  and  $\beta_1$  is not specified. However, in the case of the present investigation, the results obtained, which contribute to the empirical evidence of this type of study, were the following:

The estimation of equation 1, yielded a value of  $\alpha_1 = -35919 < 0$  (equation 3); which indicates a negative relationship between the real minimum wage and formal employment.

On the other hand, the estimation of equation 2, resulted in a value of  $\beta_1 = -115673 < 0$  (equation 4), said estimated value refers to an inverse relationship between the minimum wage and the population in poverty of patrimony (Poverty); that is, by increasing the minimum wage, the population in poverty of wealth in Mexico decreases.

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## Conclusions

According to the statistical and economic results obtained in the present investigation, the following is concluded:

The empirical evidence of the relationship between the minimum wage and employment, according to Del Carpio & Pabón (2015), indicates that, "much of the literature identifies aggregate effects such as reductions in formal employment... especially when the level of The minimum wage that is established is very high". (p. 7); which does not correspond to the historical context of developing countries, since as the same author mentions, "in the majority of studies for Mexico it is found that increases in minimum wages have not generated losses in the general level of employment due to the low minimum wage levels". (p. 5); In addition to this, other research suggests that "the effects of this policy on employment can be null and even positive in situations in which companies exercise some degree of monopsonic power in the labor market." (p. 8)

However, in the estimated equation 3 of this research, the value of the parameter  $\alpha_1$  was negative, which indicates that, for the study period, when the real minimum wage increases, formal employment in Mexico decreases. However, despite this negative relationship, if we go back to the statistical results despite the fact that both the global test and the individual test for the independent variable (which in this case was the minimum wage) were significant, it can be seen that the minimum wage explains a very low percentage of formal employment (EmpFormal), since it presents an R2 value of 20.71%; So these results suggest that the small increases in the real minimum wage in Mexico throughout the study period have caused a negligible negative effect on employment; Therefore, in accordance with what was mentioned by Del Carpio & Pabón (2015), "moderate increases in the minimum wage do not necessarily generate significant job losses". (p. 7), which was what resulted in this research, therefore, the result obtained is consistent, given the characteristics of developing countries such as Mexico.

As in the relationship between minimum wage and formal employment, in the case of its effects on poverty, there is no consensus regarding its theoretical or empirical evidence, since the results obtained by the different studies have been both positive as negatives.

For the case of this research, the results of the estimated equation 4 show an inverse relationship between the minimum wage and the population in wealth poverty ( $\beta_1 < 0$ ), that is, by increasing the real minimum wage, poverty decreases of patrimony; However, despite the fact that both the global test of the model and the individual test were significant, the R2 statistic indicated that the real minimum wage in Mexico explains a low percentage of the decrease in the population facing this type of poverty (R2 = 58.75%). Therefore, these results suggest that the inverse relationship between minimum wage and poverty is not very significant.

In this sense, according to the literature on the subject in developing countries such as Mexico, as mentioned by Lustig & McLeod (1995):

The workers who benefit directly from increases in the minimum wage are often not the poorest in the country. In the developing world most of the poor work in the informal sector where the possibility of being poor is highest. (p. 110)

That is why, according to the same authors, an increase in the minimum wage does not significantly affect the reduction of poverty figures; Added to this, as the authors themselves mention, "even if it can be shown that the existence of the minimum wage reduces poverty, this may not be the most efficient way to achieve this objective." (p. 111)

Due to the above, and as has been mentioned in some way, in general in developing countries and specifically in Mexico, the minimum wage has not met the objective for which it was created. As mentioned by Moreno, et. to the. (2014):

Since the late eighties, the minimum wage has been at the bottom of the wage distribution, which suggests that the minimum wage has ceased to be an axis of wage gravity in the Mexican economy ... given that its value continued to decline in terms real, by 2000 it had completely ceased to be binding. (p. 86)

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