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Determination of the minimum wage for 2022 based on the unemployment rate and its comparison with inflationary conditions

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Abstract

The pandemic crisis has been altering key economic variables, such as the unemployment and inflation rates. In this paper, an analysis of minimum wage projections for 2022 is conducted based on unemployment, inflation and minimum wage levels, according to INEGI. First, using the bivariate normal distribution, it is shown that the unemployment rate could reach lower rates than the 4.08% reported in July 2021; based on this, a relationship between the minimum wage level and the unemployment rate is estimated before and after this threshold. It is found that, if an increase in the level of the minimum wage could be possible by December, this would be achieved if unemployment were lower than 4.08%. In addition, the inflation and minimum wage results are shown, concluding in both scenarios that increases in the minimum wage could be expected between 20% and 28% over the 141 pesos reported at the beginning of this year.

Key Words: Minimum wage, inflation, unemployment, forecast.

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Introduction

What the severity of the pandemic has left in terms of crises and economic variables is well known. For example, El Financiero (2021) mentions an inflation rate value close to 6% and that, due to the simple nature of the increase in prices, a lower unemployment rate would be speculated by the simple fact of the Phillips theory (Romer, 2002).

Furthermore, inflation rates should be compensated, although not by an increase in the employment level, through a reasonable increase in purchasing power via the minimum wage (Jiménez-Bandala et.al., 2019; Jiménez-Bandala et.al., 2020). In contrast to neoclassical postulates, where the low influence of wage changes on the price level (inelastic relationship) can be explained in our country by the arbitrary manipulation of the labor market by the government during the period from 1982 to 2018.

In this paper, based on data for unemployment, inflation and historical minimum wage levels reported by INEGI (2021), two estimates are made, one to support the relationship between minimum wage levels and historical inflation rates, and the other to support the relationship with the unemployment rates. For the latter, a threshold is proposed to determine the relationship between unemployment rates before and after the pandemic. The threshold is based on a bivariate normal distribution, showing that the probability of unemployment rates being below 4.08% is 0.001, given the unemployment pre-pandemic level.

In addition to the introduction, the structure of the paper begins with a literature review. Subsequently, the methodological approach is presented, followed by a graphical and analytical analysis, with the corresponding results and consequences. Finally, the conclusion and discussion of the study are shown.

Literature review

The wage restraint that led to a decline in the real wage (loss of purchasing power of wages) altered the slope of the labor demand curve, turning it insensitive to changes in wage, as explained by Jiménez-Bandala, Flegl et.al. (2019). A similar approach is presented by Campos-Vázquez and Esquivel (2020) when analyzing the combined effect of reducing the value added tax (VAT) and doubling the amount of the minimum wage in the Mexico-US border municipalities. Among the causes of the null effects are the low participation of wages in the Gross Domestic Product (GDP) and the low percentage of workers earning minimum wages out of those earning the minimum.

Regarding the analysis shown to dissociate the relationship between unemployment and inflation rates and the possible increase in the minimum wage, it is not relevant to show the relationship between unemployment and inflation, which is reflected in the well-known Phillips curve, arguing that, if companies tend to set low prices, it would be at the cost of a reduction in human resources. In this regard, Agénor and Bayraktar (2010), based on empirical estimates, highlight the influence of other variables in the Phillips curve, such as debt costs, which are crucial at least for some countries such as Mexico and Korea. Meanwhile, León and Alvarado (2015) analyze the credit market in Mexico, observing that the existence of few banking companies limits the credit creation, producing negative effects on the employment rates and, therefore, on economic growth. Speaking of monetary policy, these decisions are common when

high inflation and unemployment rates are observed. However, Sanchez (2020) mentions that interest rate decreases could have an impact on inflation and unemployment rates.

Although the COVID-19 pandemic altered the unemployment rates, which had been falling, a new drop in this variable can be noticed after a year and a half, which shows a potential economic recovery due to different factors. In this regard, García and Cruz (2017), based on an analysis for Latin America in the period 2000-2013, note that the key factor to promote the decrease in unemployment was the stimulation of effective demand. The above shows that recovery goes along with the increase in consumption, i.e., if people start purchasing, more production will be required and thus a higher level of employment. In China, for example, the increase in domestic consumption was key to lowering unemployment rates, and an insurance policy was even created in this regard (Maiza and Bustillo, 2016).

Although the pandemic influenced a new employment activity, the so-called home-office, considering that companies could choose this new smart way of working, Alderete (2019), through a regression model applied to 63 countries, justifies the above, since technology levels were statistically significant for the unemployment levels. This is an indication that less technology-enabled countries may not be labor-enabled for post-pandemic conditions.

This paper shows that the unemployment rates behavior was crucial to determine the minimum wage levels. This goes along with what Ruiz and Ordaz (2011) suggested, stating that the objective of the Mexican government in terms of employment since the 1980s has been achieved, and that is why unemployment represents the most important challenge in terms of economic policy for the country. Moreover, changes in unemployment are not only due to random issues such as the pandemic, but also to gender, education and demographic issues (Hernández, 2020).

Methodology

The methodology used to estimate the increase in the minimum wage through unemployment and inflation is linear regression. Although, for the relationship with the unemployment rate, a threshold whose existence is justified through a conditional probability was determined. For this reason, the bivariate distribution methodology is cited, in particular for the bivariate normal distribution.

Thus, the bivariate normal distribution for the vector $\mathbb{x} = (X, Y)$, is given by,

$$\mathbb{x} = (X, Y)) \sim N_{Biv}(\mu_X, \mu_Y, var(X), var(Y), \rho_{X,Y}),$$

Where, μ_X, μ_Y are the mean vector components, likewise for $var(X), var(Y)$, which refer to the variances. And finally, $\rho_{X,Y}$ is the correlation coefficient between X and Y.

The literature (Wakerly, Mendenhall and Sheaffer, 2008) states that if, $(X, Y) \sim N_{Biv}(\mu_X, \mu_Y, var(X), Var(Y), \rho_{X,Y})$, then the distribution of Y given that X, has the following distribution,

$$(Y|X = x) \sim N(E(Y|X = x), var(Y|X = x)) \quad (1)$$

where, $E(Y|X=x)$ and $var(Y|X=x)$, are the conditional expectation and conditional variance, which can be obtained as follows,

$$E(Y|X=x) = \mu_Y + \rho_{X,Y}\frac{\sigma_Y}{\sigma_X}(x-\mu_X) \qquad (2)$$

and

$$var(Y|X=x) = var(Y)\left(1-\rho_{X,Y}{}^2\right) \qquad (3)$$

based on this, probabilities can be found, such as,

$$P(Y<y|X=x)=p$$

Econometric methodology

An econometric analysis is intended to show the importance (or not) of a variable; such significance must fulfill two conditions: i) the intuitive part reflecting the expected theoretical analysis and, ii) the statistical significance showing the lowest prediction error of the independent variable on the dependent variable. Thus, we estimate linear models as follows,

$$Y_i = a_0 + a_1X_{1i} + a_2X_{2i} \ldots + a_{\mathrm{k}}X_{\mathrm{k}i} + U_i \qquad (4)$$

Where, Y_i is the variable explained through the explanatory and observed variables $X_1, X_2, \ldots, X_k,$, and i and i is an index that refers to the observation. Finally, U_i is an error term that considers uncontrollable factors, such as a crisis, a war, a drought, among other unexpected events.

On the other hand, the explanatory variables in (4) are quantitative by nature, however, sometimes it is very useful to introduce qualitative variables, such as income differences by country, region, economic size of the country, gender, marital status, among others. To consider the effects of qualitative variables on the dependent variable, we can modify the econometric model as follows,

$$Y_i = a_0 + a_1X_{1i} + a_2X_{2i} + \cdots + a_kX_{ki} + a_{k+1}D_iX_{1i} + U_i \qquad (5)$$

Where, D is a dichotomous variable that represents the quality (or not) of a fact, for example,

$$D_i = \begin{cases} 1 & \text{, if the country is in Central America} \\ 0 & \text{, otherwise} \end{cases}$$

Therefore, we can find the effects of the values $X_1, X_2, \ldots, X_k$, on Y, as follows,

$$Y_i = a_0 + a_1X_{1i} + a_2X_{2i} + \cdots + a_kX_{ki} + a_{k+1}D_iX_{1i} + U_i \qquad (6)$$

Analysis and Results

Our starting point is the relationship between the unemployment rate and the possible increase in the minimum wage. Based on the unemployment rate information reported by INEGI (2021), Figure 1 shows the distribution of this unemployment rate from 2019 to March 2020[5]. Besides the fact that the histogram appears to be a normal distribution, note that the mean of this unemployment rate is 3.54, almost the pre-pandemic average.

In addition to Figure 1, note the behavior of the unemployment rate before the pandemic in Table 1. Observe that the unemployment rate was never above 4%, and the unemployment rate exceeded 3.67% in only 5% of the cases, which, by then, was a reasonable unemployment rate. On the other hand, both Figure 1 and Table 1 show that, 95% of the time, pre-pandemic unemployment was between 3.27% and 3.719%, which shows the prevailing health of the economy prior to the pandemic.

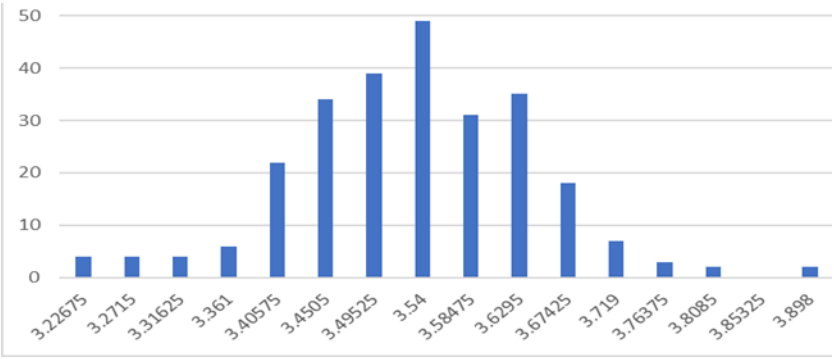

Figure 1. Unemployment distribution 2019-mar2020.

Source: Compilation based on data from INEGI (2021).

[5] Note that, from the monthly pre-pandemic unemployment rate data, daily random numbers are generated for January 2019 to February 2019 (before the pandemic), based on the official unemployment rate figures reported for that period.

Interval	Lower Limit	Upper Limit	Relative Frequency	Cumulative Frequency
1	3.182	3.22675	0.015	0.015
2	3.22675	3.2715	0.015	0.031
3	3.2715	3.31625	0.015	0.046
4	3.31625	3.361	0.023	0.069
5	3.361	3.40575	0.085	0.154
6	3.40575	3.4505	0.131	0.285
7	3.4505	3.49525	0.150	0.435
8	3.49525	3.54	0.188	0.623
9	3.54	3.58475	0.119	0.742
10	3.58475	3.6295	0.135	0.877
11	3.6295	3.67425	0.069	0.946
12	3.67425	3.719	0.027	0.973
13	3.719	3.76375	0.012	0.985
14	3.76375	3.8085	0.008	0.992
15	3.8085	3.85325	0.000	0.992
16	3.85325	3.898	0.008	1.000

Table 1. Pre-pandemic unemployment rate frequencies.

Source: Compilation based on data from INEGI (2021).

The behavior of unemployment observed after the pandemic is shown in Figure 2[6] and Table 2. In Figure 2, the level of unemployment went up to about 5.5% and, in Table 2, it is observed that the lowest 5% of unemployment does not exceed 3.7%, i.e., the pandemic magnified unemployment rates dramatically.

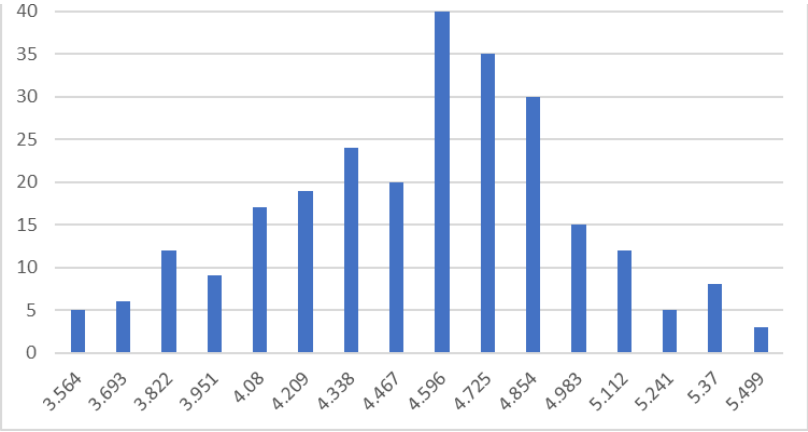

Figure 2. Unemployment distribution Apr2020-Sep2021.

Source: Compilation based on data from INEGI (2021).

[6] The same randomized analysis was performed for post-pandemic unemployment data.

Interval	Lower Limit	Upper Limit	Relative Frequency	Cumulative Frequency
1	3.435	3.564	0.019	0.019
2	3.564	3.693	0.023	0.042
3	3.693	3.822	0.046	0.088
4	3.822	3.951	0.035	0.123
5	3.951	4.08	0.065	0.188
6	4.08	4.209	0.073	0.262
7	4.209	4.338	0.092	0.354
8	4.338	4.467	0.077	0.431
9	4.467	4.596	0.154	0.585
10	4.596	4.725	0.135	0.719
11	4.725	4.854	0.115	0.835
12	4.854	4.983	0.058	0.892
13	4.983	5.112	0.046	0.938
14	5.112	5.241	0.019	0.958
15	5.241	5.37	0.031	0.988
16	5.37	5.499	0.012	1.000

Table 2. Post-pandemic unemployment rate frequencies.

Source: Compilation based on data from INEGI (2021).

Furthermore, table 2 shows that 95% of the post-pandemic unemployment rate is between 3.69% and 5.24%, as opposed to the values in table 1, where the value of 3.69, which is the 5th percentile of the post-pandemic unemployment rate, was the 97th percentile before the pandemic. Again, the employment outcome of the pandemic is evident.

What is shown in Figures 1 and 2 and the corresponding tables is justified in Figure 3, where the maximum value of the unemployment rate before the pandemic does not approximate the minimum value of the unemployment rate after the pandemic. In addition, a possible relationship between the unemployment rates before and after the COVID-19 pandemic can be observed, i.e., pre-pandemic unemployment rates were dropping, as well as post-pandemic unemployment rates. This suggests a certain relationship between unemployment rates before and after the pandemic.

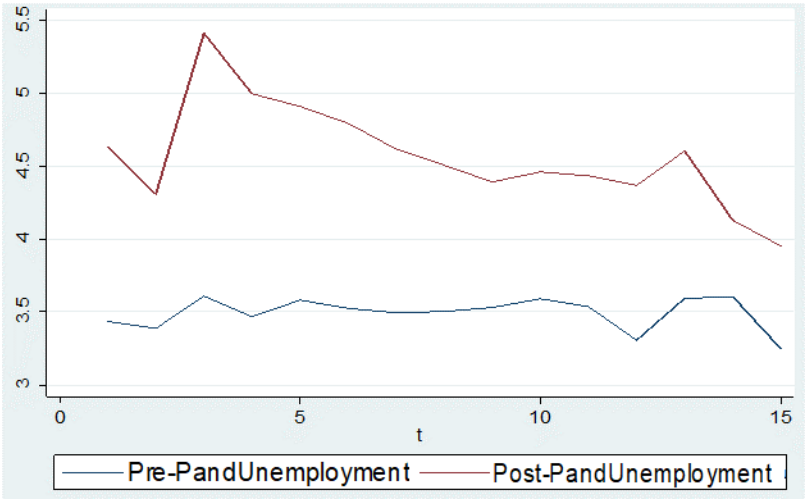

Figure 3. Pre-pandemic and post-pandemic unemployment.

Source: Compilation based on data from INEGI (2021).

Thus, let X be the pre-pandemic unemployment rate and let Y be the post-pandemic unemployment rate. According to Figures 1 and 2, we can assume that,

$$X \sim N(\mu_X = 3.494, \sigma^2 = 0.0121) \text{ y } Y \sim N(\mu_Y = 4.475, \sigma^2 = 0.154),$$

moreover, given the observation in Figure 3 regarding the relationship between the behavior before and after the pandemic, and given that the correlation coefficient is, ρ_XY=0.481; without loss of generality, it can be assumed that the random vector (X,Y) has a normal bivariate distribution, i.e.,

$$(X, Y) \sim N_{Biv}(3.494, 4.475, 0.0121, 0.154, 0.481),$$

where, the information for the means, variances and correlation coefficient were obtained from information reported by INEGI (2021).

Based on the suggestion observed in Figure 3, part of this analysis is focused on finding the probability of reaching unemployment rates lower than the 4.08% reported by the media (Statista, 2021), given that pre-pandemic unemployment rates were 3.6% (Infobae, 2021). Thus, our objective is to support the probability of assuring unemployment rates to be lower than 4.08% by the end of the year, given the pre-pandemic unemployment rates, i.e., $P(Y < 4.08 | X = 3.6)$.

For this purpose, it is known from (1) that,

$$Y|X = x \sim N(E(Y|X = x), var(Y|X = x))$$

where, according to (2) and (3),

$$E(Y|X = 3.6) = 4.4775 + 0.481 \frac{0.392}{0.11}(3.6 - 3.494) = 4.65$$

$$var(Y|X = 3.6) = 0.154(1 - 0.481^2) = 0.183$$

based on this,

$$P(Y < 4.08|X = 3.6) = 0.001 \qquad (*)$$

That is, according to Statista (2021), the unemployment rate in Mexico reached 4.08% in July 2021 and is expected to fall, but considering the pre-pandemic reference rate of 3.6%, the results show that this is very unlikely to occur, with a probability of .1%. Indeed, the post-pandemic unemployment behavior replicates the pre-pandemic unemployment rate, although it is highly uncertain to reach the pre-pandemic levels, at least in the short term.

To understand the idea behind the expression (*), we shall analyze the relationship between unemployment and minimum wages for the period from 2019 to October 2021. Note that, while the unemployment figures are monthly, the minimum wage levels are annual (see Table 3).

Date	Minimum Wage
01/01/2000	37.9
01/01/2001	40.35
01/01/2002	42.15
01/01/2003	43.65
01/01/2004	45.24
01/01/2005	46.8
01/01/2006	48.67
01/01/2007	50.57
01/01/2008	52.59
01/01/2009	54.8
01/01/2010	57.46
01/01/2011	59.82
01/01/2012	62.33
27/11/2012	62.33
01/01/2013	64.76
01/01/2014	67.29
01/01/2015	70.1
01/04/2015	70.1
01/10/2015	70.1
01/01/2016	73.04
01/01/2017	80.04
01/01/2018	88.36
01/01/2019	102.68
01/01/2020	123.22
01/01/2021	141.7

Table 3. Minimum wage history.

Source: CCII (2021).

To obtain monthly minimum wage data, with normal distribution, the following steps were performed,

i) Data from 2019 to 2021 was selected, as these are the dates considered for unemployment rates. Also, note in Table 3 that the figures are already significant from 2019 onwards and it is worth considering the effects of this administration.
ii) An average of 2020 to 2021 figures was considered to avoid interrupting a possible increase during this period; the average was 132.46 pesos per day.
iii) To involve the value of 102.68 from 2019, the difference of the average generated with the value of 2019 is made, which, when divided, is considered a possible standard deviation[7] , i.e, $standard\ deviation = \sigma_{wage} = 14.89$.

The data obtained with the unemployment rate information is shown in the Appendix table. Thus, let,

$Y_t \coloneqq$ minimum wage for $t = 1, 2, \dots, 34$, based on the report of the firm Contaduría y Consultoría Integral Inteligente (CCII, 2021), and

[7] Due to the fact that the generated data is normal, the empirical rule applies, where it is established that, $P(-2\sigma < x - \mu < 2\sigma) = 0.95$ Therefore, the distance from the created mean (132.46) to the value of the 2019 salary (102.68) is considered as two standard deviations.

$X_t :=$ unemployment rate for[8] $t = 1, 2, \ldots, 34$, based on INEGI (2021).

The relationship between unemployment rates and minimum wages is shown in the following expression,

$$\widehat{Y}_t = 4.557 + 0.0758X_t \qquad (7)$$
$$P_{value} \qquad (0.013)$$

As the unemployment rate increases, expression (7) shows that firms value those employees who stay, i.e., the limited labor supply implies an increase in wages. Although in (7) the unemployment rate is significant ($P_{value} = 0.013$) and could be intuitively correct, the period under analysis does not consider the negative effects of the pandemic nor the decreases in the unemployment rate since the pandemic started (see table in the Appendix).

Given the above, an analysis of the effects of unemployment on the minimum wage before and after the pandemic is made. For this purpose, Figure 4 shows the relationship between the wages in Table 3 and the annual unemployment data. Note that the unemployment rate is higher than the logarithm of the wage at a value close to 4.08 of unemployment. Above this value, unemployment is lower than the logarithm of the wage, especially for unemployment values above 4.08. Thus, the result shown in (*) is related, in addition to the fact that it becomes relevant.

Figure 4. Wage and unemployment behavior over the last 15 years.

Source: Compiled by the authors

On this basis, let

$$D_t = \begin{cases} 1 \; if \; unemployment > 4.08 \\ 0 \; if \; unemployment \leq 4.08 \end{cases}$$

and the expression to be estimated is as follows,

[8] Annual unemployment values were based on monthly data averages for each year, accordingly. And, since the unemployment information starts in 2005, the data was then standardized with the minimum wage.

$$Y_t = a + bD_t + cX_t + dD_tX_t + u_t$$

whose estimated value is,

$$\widehat{Y_t} = 3.281 + 2.0065D_t + 0.431X_t - 0.515D_tX_t \qquad (8)$$
$$P_{value} \qquad (0.000) \quad (0.000) \quad (0.000)$$

Observe in (8) that both the unemployment rate and the threshold (D_t) representing the different effect of the unemployment rate on the minimum wage level, are significant. Thus, for values of $unemployment > 4.08$, i.e. $D_t = 1$ the relationship between minimum wages and unemployment is,

$$\widehat{Y_t} = 5.287 - 0.0846X_t \qquad (9)$$

and for $unemployment \leq 4.08$, i.e. $D_t = 0$,, the relationship is,

$$\widehat{Y_t} = 3.281 + 0.431X_t \qquad (10)$$

While (10) still values the drop in unemployment rates on the value of the minimum wage (see the positive sign), expression (9) acquires relevance since it recommends the authorities to take action on the rising unemployment rates. That is, if the authorities control the unemployment rate and commit themselves to lowering it, there would be an opportunity to reach the CONASAMI value of 173 pesos per day. Some minimum wage projections are shown in Table 4, subject to unemployment values.

If 2022 unemployment rate is:	Estimated Minimum Wage		
6	119.0598848		
5.5	124.2097663		
5	129.5824036		
4.5	135.1874319	Percentage Increase	Growth
4	141.0349032	0.000247540	0.02475403
3.6	145.8944711	0.034712561	3.47125613
3	153.4995753	0.088649470	8.86494699
2.5	160.13913	0.135738511	13.5738511
2	167.0658757	0.184864367	18.4864367

Table 4. Minimum wage forecasts for 2022.

Source: Compiled by the authors.

According to Table 4, if unemployment rates decrease, it is a good sign to set minimum wages higher. Specifically, when values reach 4%, a rise from the early year value of 141 pesos could be observed, which, although it is unlikely to reach those unemployment rates, employment

strategies should be considered in order to reach those minimum wage levels. Even if a pre-pandemic unemployment level (3.6%) could be reached by 2022, a minimum wage of 145 pesos could be set. But, if conditions are favorable and we return to 2% unemployment rates, a minimum wage of 167 pesos could be set, which is approximately an 18.5% increase over 2021; a very close figure to what CONASAMI proposed for 2022.

The wage increase based on price levels for 2022

The impact on inflation of the wage increase was calculated based on the following variables:

Table 5. Variables in the multivariate regression models

Literal	Variable	Definition
$\Delta\pi$	Annual inflation rate	Annual percentage change in the price level, for the period from 1960 to 2021. (INEGI, 2021)
$\frac{w}{P}$	Real wages	Purchasing power of wages, calculated by deflating nominal minimum wages using the implicit GDP deflator. (INEGI, 2021)

Source: Compiled by the authors.

To correlate wage increases with inflation, the model in (11) is proposed with a 61-period observation (1960-2021).

$$\Delta\pi = -a_1\left(\Delta\frac{w}{P}\right) + a_2\left(\Delta\frac{w}{P}\right)^2 + U_t \quad (11)$$

Where, a second-degree relationship exists between the two variables due to the exponential effects of wage increases on inflation: $\Delta\pi$, representing changes in inflation; $\Delta\frac{w}{P}$, are the changes in real wages related to the minimum wage.

High volatile inflation periods from the 1980s debt crisis were excluded and a model with 29 observations (1989-2018) was run. To include the effects of changes in contractual wages on inflation, a model was initially proposed to observe the impact of increases in the contractual wage, based on increases in minimum wages over the period 1992-2019, as shown in (12)

$$\Delta\frac{W_m}{P} = \beta + \alpha\Delta\frac{W_c}{P} + U_t \quad (12)$$

Where, $\Delta\frac{W_m}{P}$,, represents the changes in real minimum wages; $\Delta\frac{W_c}{P}$,, the changes in real contractual wages. The effects of contractual wages regarding inflation rates were then included as in (13).

$$\Delta\pi = -a_1\left(\Delta\frac{W_c}{P}\right) - a_2\left(\Delta\frac{W_m}{P}\right) + a_3\left(\Delta\frac{W_m}{P}\right)^2 + U_t \quad (13)$$

It is assumed that the quadratic effect is given by the minimum wage variable, because, according to an adaptive expectations model for inflation, minimum wages are the first change of the year and the other wages are adjusted considering this benchmark.

For the analysis developed here, it was necessary to assume that inflation has an exogenous component that depends on factors associated with world trade rather than domestic variables. Furthermore, it was necessary to consider the fact that the inflationary horizon will remain for at

least 12 months, with no potential return to the Central Bank's target during this period; thus, the inflation rate could have a new target level of 5.5% for the upcoming year.

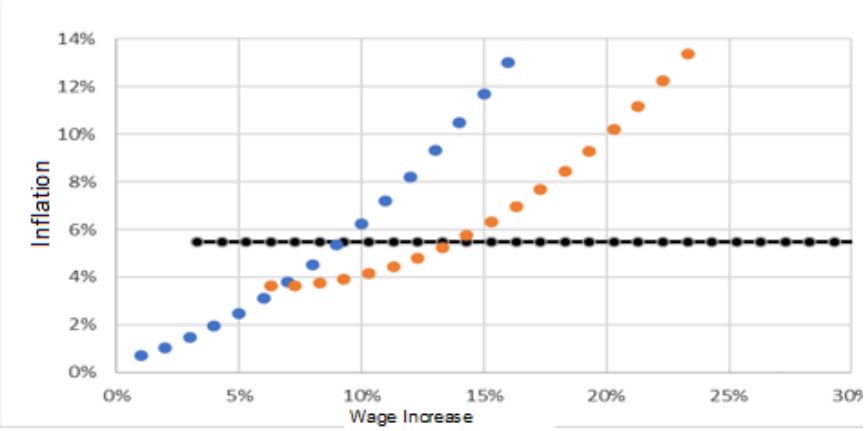

Figure 5. Minimum Wage increase forecasts (Upper and Lower bound)

Source: Compiled by the authors.

The estimates are shown in Figure 5, where it is observed that the wage increase in 2022 could be between 9 and 14% to reach between 232.59 and 243.26 pesos per day for the border municipalities and between 154.45 to 161.53 pesos per day for the rest of the country, without fear of a drag effect on the general price level, as expected in previous years.

However, it should also be noted that, according to the National Survey of Occupation and Employment (INEGI, 2021), the increase in the Minimum Wage has a direct impact on 24.7% of workers, and although the extraordinary increases have also been favorable for other salary levels, they have not been replicated in the same magnitude, and therefore, the price level would not have a greater associated effect. According to recent polls, the employers' representatives have proposed a 5% increase, while the workers' representatives have requested a 25% increase. The first suggestion is not consistent with the current situation as it does not even compensate the current year's inflation rate. On the other hand, the 25% increase request, although desirable due to the purchasing differential explained above, would have to be verified by a model designed to preserve the stability of the remaining macroeconomic variables.

Conclusions

Estimates for the 2022 minimum wage level were proposed, based on the unemployment and inflation rates. Regarding the unemployment rate, the pre-pandemic and post-pandemic conditions were shown, suggesting that the pre-pandemic conditions implied an overestimation of people holding on to their jobs. And the post-pandemic conditions show that the unemployment rate, which has been rising, would have to be increased by 18% over the 2021 rate.

Regarding the inflation rate, the correlation between inflation and wage increases was analyzed with an econometric model considering 62 periods (1958-2021); with the resulting model, the intervals for a wage increase that would keep inflation lower than or equal to 5.5% were calculated. The global inflationary pressure demands a wage increase for next year in order for

purchasing power to remain constant, while recovering from the losses of the neoliberal policy period. In comparison with the year 1976, the highest purchasing power ever recorded, the current wage still has a three-quarters gap. However, this inflationary pressure calls for greater caution in wage movements to avoid contagion effects on general price levels.

Since the relationship between unemployment rates and the minimum wage value is based on a specific threshold, the figures should be revised, as some authors (Gaytán and Cantú, 2014) have faced problems regarding the underreporting of labor income, due to self-employment issues and a lack of employer's labor records. These problems are more prevalent in sectors such as agriculture, commerce, and restaurants, where informality and the size of the company prevail. Thus, we should be cautious expecting the unemployment rate to drop, and even conservative considering that it could reach pre-pandemic levels, as evidenced by the low probability of 0.1% shown in the expression (*).

Furthermore, the limitations of econometric models for scenario forecasting should be addressed with the appropriate cautions; externalities should be considered and, above all, social aspects should be valued over economic aspects. Finally, we emphasize that the policy for the purchasing power recovery of wages must be continued, since, as demonstrated, neither inflation nor the employment rate were affected and they contributed to reduce the negative effects of the pandemic.

Literature

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