

“Results of the study for proposing the increasing amount to the Minimum Wage for 2020 and its repercussions”

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- **The Minimum Wage had an historic recuperation in 2019, however, still represents very serious lags that decrease the living quality of the working class.**
- **For the Minimum Wage to reach the purchasing power of 1976, it should increase 281%; while to level the GDP growth per capita of the neoliberal period, the increase should be 349%.**
- **For 2020, the Minimum Wage could increase in a nominal range between 24 and 25% to reach an amount of \$ 128.60 per day without the inflation exceeding the monetary policy objective (3% +/- 1%).**
- **It is recommended and of highest priority to continue with a policy to increase the purchasing power of wages in order to reach dignified levels.**

Key Words

Minimum Wage; Neoliberalism; Purchasing Power; Macroeconomic Stability

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Introduction

In the context of the discussions that will be developed in this days between the laborer, patronal and governmental sectors through the National Minimum Wages Commission (CONASAMI), for fixing the increase of the minimum wage for 2020, the OISAD presents the principal results of the study realized for determining the increase so that in a responsible way, it retrieves the purchasing power of wages, maintaining the stability of the macroeconomic variables, particularly, the employment level and the inflation.

It must be considered that the wages lost more than three fourths of its purchasing power during the period between 1982 to 2018 and that it had negative consequences for the population life quality and the general economy. In the counterpart, the government of the current sexenium has been committed to apply a sustained wage recuperation to reduce the existing gap.

On January of 2019 the minimum wage increased 16.2%, passing from 88.36 to 102.68 daily pesos what meant the highest increasing in the last 36 years. Additionally, an economic zone was established in the border county's with the United States, where the wage increased 100%, to get to 176.72 daily pesos, a fact without precedents in the national history. Increasing the wage level affect principally two variables: Inflation and unemployment; however, based on different studies, between them the one presented on the bulletin 01/19, we can point out that the effects weren't significative, so that the macroeconomic stability maintained during 2019.

For 2020 it's essential to continue with this policy, so on, economic and social studies are necessary so that they contribute to decision taking of all involucrated parties, privileging above all the social wellness.

The recuperation of the purchasing power has two significant parts, the domestic and the international orders. In the last one, it must be pointed that the requirements of the Commerce Agreement between United States–Mexico–Canada (USMCA). Respecting to the domestic order, we highlight that the effects of the increasing wages would have over the economic dynamism and the general wellness of the labor class.

USMCA and the increased wage

During the renegotiation of NAFTA, the topic about wage levels was aborded in the sense that the American and Canadian syndicates have pressed their governments to expose the social dumping that is a result of the de la wage gap between México and their commerce partners.

It doesn't stops being paradoxical that while in Mexico most of the principal critics to the treatment are based in the poor performance of wages, the posture of the past government was of maintaining intact the labor la structure. Two arguments animated this posture, the first one in reference to the liberal economic model, which prescribes that the market determines the wages levels, through the offer and demand of work; the second argument that was used was that the legislation and the labor regulations are internal affairs to the governments and that they must stay out of the treats and agreements with other countries.

Local economy must grow to the same rhythm as the external commerce does so that it can guarantee a sustained wage increasing. In Mexico, the external commerce represents about 65% of GDP and grows to an average rhythm of annual 10%, however, this isn't reflected in the wages of the jobs orientated to exportation, that, even if they are major at national level, they can be over 25 times lower than their counterparts in United States and Canada.

Increased consumption and the Aggregate Demand

The increase in wages and the recuperation of the acquisitive power stimulate consumption and with it the internal market is dynamized. In an aggregated demand model this is traduced in the growth of the Gross Domestic Product. Advantage must be taken of the fact that the consumer confidence is on a highly historical level and so on, more propensity to consumption.

The most tangible result is the 7% growth of sales during the “Buen Fin” with respect to the 2018 edition, which the Secretary of Economy, Graciela Márquez, has attributed to the improvement of wages.

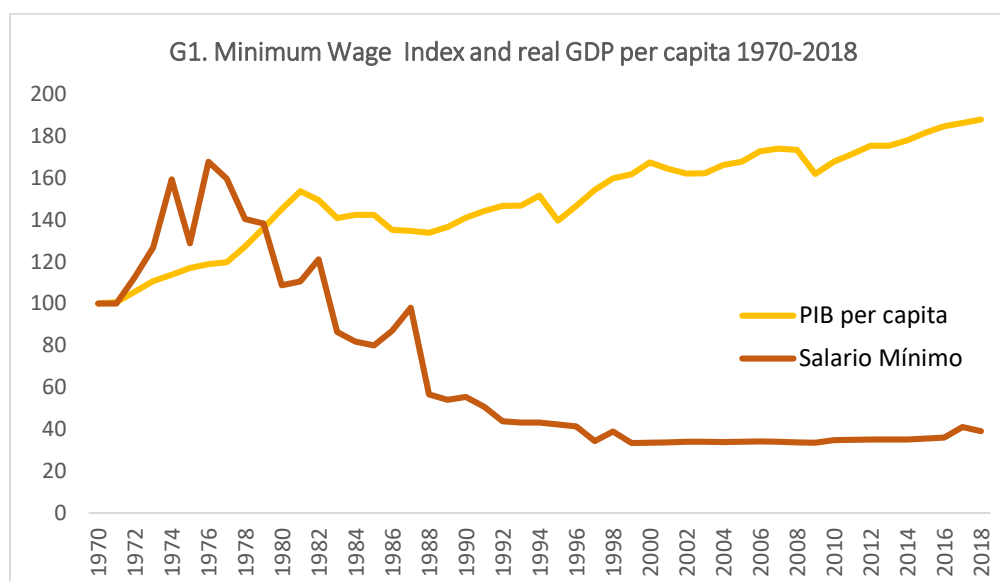
General Wellness of the Labor Class

The labor poverty, which refers to people that while having a job don't have an enough income to acquire a food basket, decreased in 2019 regarding the last trimester of 2018. Although in the third quarter increased again, it maintained a point below the same period of the last year, so on, it results indispensable to continue with a politic that relieves the situation of the poorest.

The proposal of wage growth for 2020

If we consider the historical behavior of wages, we observe that during the late seventies, (under the industrializer model) the minimum wage was growing over the Gross Domestic Product *per capita*, as shown in graph 1. If we take as the base year 1970=100, both indexes were equal on 1979, after in 1976 wages reached their highest level on history. After this point wages started to fall, before the crisis of debt in the eighty years.

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Own elaboration with data from CONASAMI and INEGI

For the actual wages to recover the purchasing power of 1970, there must be a real increasing of 126%; if they had to be at the 1976 level the growth must be of 281%. However, these static comparisons are incorrect, as well as the comparison must be done according to the dynamism that the economy had, so on, to match wages again with the *GDP per capita*, wages must increase 349%, what mean that the minimum wage must be equivalent to \$462.00 daily or \$13,875 pesos monthly.

This reflects the severity of the situation in which our country is involved, and it must be corrected as brief as possible.

Various actors, including the patronal sector agree that the wage recuperation is necessary, as to dignify the life of workers as to dynamize the intern market. However, the fundamental difference of the postures has been in the sense of urgency which they must recuperate. The next table recollects some proposals that have been expressed over the next growth and go through the 10th and the 30th %:

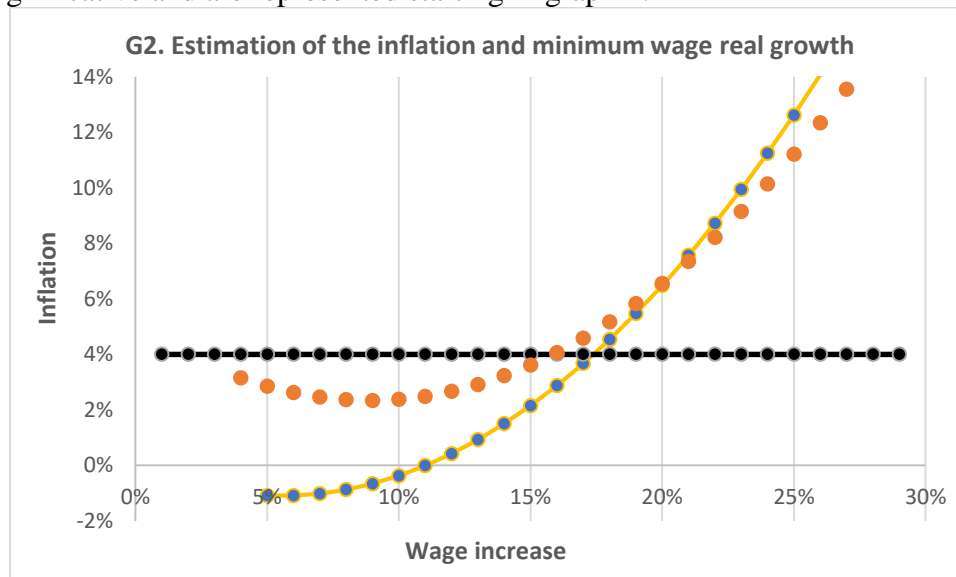
Table 1. Purposals of Wage Growths

Sectors/Organizations	Purpose in Pesos	%
Confederación Patronal de la República Mexicana (Coparmex)	\$117.72 - \$127.76	14-24%
Confederación Autónoma de Trabajadores y Empleados de México (CATEM)	\$132.00	29%
Credit Suisse	\$118.00	15-16%
BBVA	\$112.80	10%
Observatorio Salarios de la Universidad Iberoamericana	\$133.38	27-30%
Confederación Revolucionaria Obrero y Campesina (CROC)	\$130.00	28%

If the statistical parameters of the GDP growth *per capita* are considered, we obtain that during the period of 1990-2018, it had an annual average of 1.16%, considering that wages and the GDP growth simultaneously, with a confidence level of 99% (+/-3 sigma), wage must grow in real terms between the 0.11% (on its lower level) and 11.01% (on its upper level). So, counting with the goal inflation of Banxico, wage growths must be in the order of the 3.12% and 15.01% just as the BBVA and Credit Suisse agents purpose y el such as the lower level of COPARMEX.

With this increase, if all the other variables stay constant (*Ceteris Paribus*), the most optimist increasing wage level (15.01%), Will take 8 years in recovering the wage level of 1970; 2 sexeniums to recover the level of 1976 and 16 years to match with the GDP *per capita* index.

The premise, however, must be the urgency for reaching the living dignity wage as soon as possible and at the same time with a sense of responsibility. To obtain an optimum level of wage growth, an econometric model of the correlation between inflation and minimum wage for 58 periods, as shown in the methodologic attachments. The individual variables as in the joint model resulted significative and are represented starting in graph 2.



Own elaboration

Using different confidence levels, according to the period of time considered, the wage growth to maintain an inflation below 4%, must be between the 15 and the 18% but in real terms, what means that the nominal growth must be in the range of 18 and 22%, closer to the proposal of COPARMEX.

However, the previous model just considers the growths to the Minimum Wage (W_m) as determinants of the inflation, a perception that becomes biased if we consider that according to the National Poll of Occupation and Job (ENOE-INEGI), the occupied population that earns until 1 minimum wage only represents the 19%. In a formal job, workers that perceive the minimum

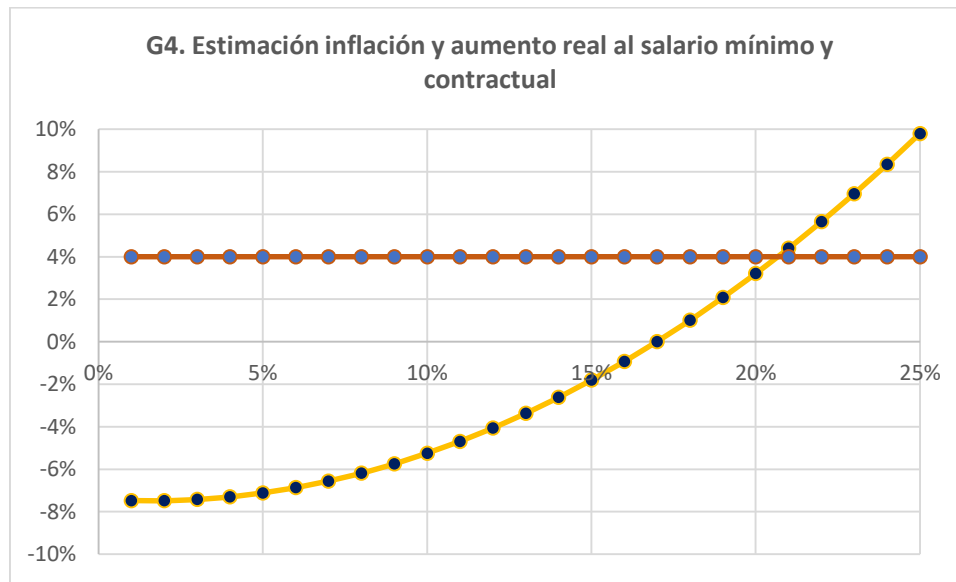
wage is the 0.7%, so that, the effects of the growth to the minimum wage have a minor effect over the inflation rather than the set of all wage levels.

As the minimum Wage is deindexed as a parameter of measurement since 2016, there is no possibility of an effect that drags over other prices, even over the rest of the wages. Although the growth of 2019 caused also a growth in contractual wages, this one represented only 2% real. Graph 3 shows the comparisons between the real growths to the minimum and contractual wages. It is observed that the contractual wage has more smoothed movements than the minimum wage does and if they follow the same trend, the contractual growths are more moderated.



Own elaboration

For considering the previous information a new model was purposed, which can be found in the methodologic attachments, where the effects of the contractual wages are considered on inflation. As expected, the coefficients of the contractual wages are bigger than the ones from the minimum wages and so on have a higher weight in the determining the inflation. The joint effects are shown in graph 4.



Own Elaboration

An econometric model of both variables indicates that before a real increase of 16% in minimum wages, the contractual wages grow only in 2%. So that, if we consider that the minimum wages grow more for the next period and the contractual wages recover more than real 3%, maintaining the objective inflation of Banxico, the minimum wage could grow until 21% real or between 24 and 25% nominal, which is the closest propose to syndical confederations, even to the one presented by the Wage Observatory of the Iberoamericana University in Puebla, which reached the result with a different methodology.

Is accurate to make clear that the economic variables can be modified by different factors and that in real life there are no unidirectional variables, so that, the use of econometric models for projecting scenarios, must be taken as approximations. It is not discarded that externalities can always exist, however, we also considerate that, in an advance for letting behind the postulates of the neoclassic school, the social part must be above the economic.

In this same sense we open a taboo debate about inflation. The most orthodox currents have established as a macroeconomic objective the stability of prices, in which we agree, but a range-goal of 3% (+/-1%) has been established, a number that seems arbitrary because it lacks solid fundamentals. We considerate that the stability of prices is an efficient indicator just when it maintains the purchasing power of people, during the period of 1990 to 2018 low inflation levels were achieved, but at the same time wages fell to their lowest history levels. Un nivel estable de inflación mayor al 4%, con un mayor poder adquisitivo de los salarios, podría ser benéfico, incluso para reactivar la economía.

By last, we emphasize that, if it is possible to grow wages to higher rates without the macroeconomic variables being altered because of the government intervned cheatfully in the labor market to bump wages, so that the actual wages don't come from a real market formation. A proof can be seen between the gap of growth between the GDP per capita and wages (graph 1)

or in Jiménez, Andrade y Flégl (2019). Wages must reach their market level through extraordinary growths (Independent Amount of Recuperation) and subsequently the market could balance the values.

We can conclude that continuing with extraordinary growths to the minimum wage will heal the situation of the poorest people in our country; the journey is still large, because the lag of almost 4 decades is very wide, even reaching the purchasing power of 1976, a Living Wage isn't reached, because in that moment neither the wage was enough in the form that our constitution points out; that the macroeconomic variables won't get out of the fixed objectives, but, on the other side, it will benefit the GDP growth. The actual conditions show solid stability there is no hint of an inflationary menace, just as the constant reduction of the reference rates by the Banco de México reflect, staying tuned to the bearish cycles of the rest of the economies. This study pretends to contribute according to the responsible agreements to which the involucrated parties must get.

Methodological notes

1. A model was proposed for correlating the effects of the growths to the wage regarding the inflation, with an observation of 58 periods (1960-2018), as shown in (1)

$$\Delta\pi = -a_1 \left(\Delta\frac{W}{P}\right) + a_2 \left(\Delta\frac{W}{P}\right)^2 + U_t \quad (1)$$

Where, it follows a second grade relation between both variables thanks to the exponential effects that the wage growths would have over the inflation: $\Delta\pi$, represents the changes on inflation; $\Delta\frac{W}{P}$, are the changes on the real wages referents to minimum wages, a_1 and a_2 , are the coefficients of each variable and U_t , the random variable.

The results are presented below in (2)

$$\begin{aligned} \Delta\pi &= -0.3987 \left(\Delta\frac{W}{P}\right) + 3.614 \left(\Delta\frac{W}{P}\right)^2 \\ P_{value} &= (0.230) \quad (0.003) \end{aligned} \quad (2)$$

The periods of high volatility of the inflation of the eighty's debt crisis were excluded and a model with 29 observations was made (1989-2018), which results are shown in (3) and it is seen that the significance of the variables grew.

$$\begin{aligned} \Delta\pi &= -0.3693 \left(\Delta\frac{W}{P}\right) + 2.506 \left(\Delta\frac{W}{P}\right)^2 \\ P_{value} &= (0.104) \quad (0.001) \end{aligned} \quad (3)$$

The assignation of values to $\Delta \frac{W}{P}$ in both models reveals that a real growth of 15 to 18% or 18 to 22% nominal would generate an inflation close to 4%, between the inflationary goal of Banxico.

2. In order to include the effects of the changes in the contractual wages over the inflation, a model for watching the effects of the growths in the contractual wages starting from the growths in the minimum wages from the period 1992-2019 was proposed, as shown in (4)

$$\Delta \frac{W_m}{P} = \beta + \alpha \Delta \frac{W_c}{P} + U_t \quad (3)$$

Where, $\Delta \frac{W_m}{P}$, represents the changes in the real minimum wages; $\Delta \frac{W_c}{P}$, the changes in the real contractual wages; β y α , are the coefficients of each variables and U_t , the random variable.

Los resultados se muestran a continuación en (5)

$$\Delta \frac{W_m}{P} = -0.006 + 0.125 \Delta \frac{W_c}{P} \quad (3)$$

$P_{value} = (0.07)$

It is noted that for each percentual point of growth in the minimum wage the effect in the contractual is only of 0.12.

So, the effects of the contractual wages were included regarding the inflation as seen in (6)

$$\Delta \pi = -a_1 \left(\Delta \frac{W_c}{P} \right) - a_2 \left(\Delta \frac{W_m}{P} \right) + a_3 \left(\Delta \frac{W_m}{P} \right)^2 + U_t \quad (6)$$

It is assumed that the quadratic effect is of the variable that corresponds to minimum wages because according with a model of expectations adaptive to inflation, the first change of the year is given in the minimum wages and the other wages adjust considering this reference. Results are shown in (7).

$$\Delta \pi = -1.85 \left(\Delta \frac{W_c}{P} \right) - 0.09 \left(\Delta \frac{W_m}{P} \right) + 3.147 \left(\Delta \frac{W_m}{P} \right)^2 \quad (7)$$

$P_{value} = (0.102) \quad (0.001) \quad (0.000)$

The above results show that, even when $\Delta \frac{W_c}{P}$ has a significance level of 90%, the values of R^2 (85%) y F (44.9) show a high significance level of the model joined together. With this values it is shown that a nominal growth between 24 and 25% of wages maintains an inflation level of 4%.

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