



“Effect of the increase in the Minimum Wage on the employment level”

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- **Based on the statistics provided by the IMSS, the number of jobs was not affected by the increase in the minimum wage of January 2019.**
- **The dynamics of job creation were also not affected by the salary increase, either at the national level or at the disaggregated level in the north of the country.**
- **The analysis of the statistical results does not coincide with those obtained by BANXICO and methodological errors of the central bank study are highlighted. “Results of the study for proposing the increasing amount to the Minimum Wage for 2020 and its repercussions”**

Key Words

Minimum Wage; Employment; Econometric Analysis; Macroeconomic Stability

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Introduction

In order to analyze the impact that this year's minimum wage increase had on the level of employment, the International Salary Observatory of La Salle University developed a study whose results are shown below.

In January 2019, the Minimum Wage increased 16.2%, from 88.36 to 102.68 pesos per day; which meant the highest increase in the last 36 years. Additionally, an Economic Wage Zone was established in the border municipalities with the United States where the salary increased 100%, to reach 176.72 pesos a day, an unprecedented event in national history.

According to different macroeconomic models of the labor market, increases in wages mainly affect two variables: positively the level of prices (inflation) and negatively the level of employment.

However, the wage increase decreed would not have such effects mainly for two reasons. The first refers to the increase in response to a historical process of deterioration of the purchasing power of wages. During the period 1982-2018, on 25 occasions the increase in the minimum wage was below inflation, which meant that the real salary decreased to a quarter of what it represented before the 1980s.

Wage containment was the mechanism used to contain inflation, however, it had serious consequences on the general impoverishment of the population. This containment can be considered a type of state intervention in a market, as it represents a price control over the labor force, so that the labor market is [ba] strongly distorted and therefore does not reflect the real levels of supply-demand relationship, including jobs that were not assessed with the minimum wage (Jiménez-Bandala, Andrade and Fleg, 2019).

The second reason that argues that the salary increase does not affect both variables is that it is decreed exclusively for the population that receives a minimum wage that represents less than a quarter of formal employees, so its incidence would have little significant effects on the economy as a whole.

As it has been observed, in the first half of 2019 the general price level has remained within the objective of the monetary policy (3% +/- 1%), in fact, the annual inflation rate as of August was of 3.16%, the lowest since October 2016 (INEGI, 2019a). Inflationary containment has been supported by the price of energy sources that declined in real terms 1.5% last month. Therefore, it cannot be affirmed that there is no evidence that the unprecedented wage increase has affected the price level.

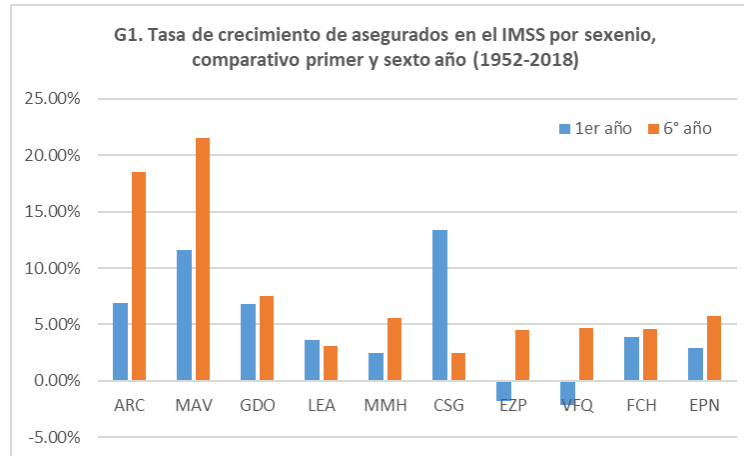
With regard to the second variable, the level of employment, interpretations may vary depending on the data and the models used for its measurement. The unemployment rate in July was 3.6% (INEGI, 2019b), just 0.1% higher than the one reported in December 2018 (prior to the salary increase). It is important to note that with respect to the fourth quarter of 2018, the economically

active population (PEA) increased 1.62%, that is, with a greater mass available for work, unemployment did not increase. Therefore, it cannot be affirmed that the unprecedented wage increase has affected the level of employment.

Rhythms and Trends regarding employment

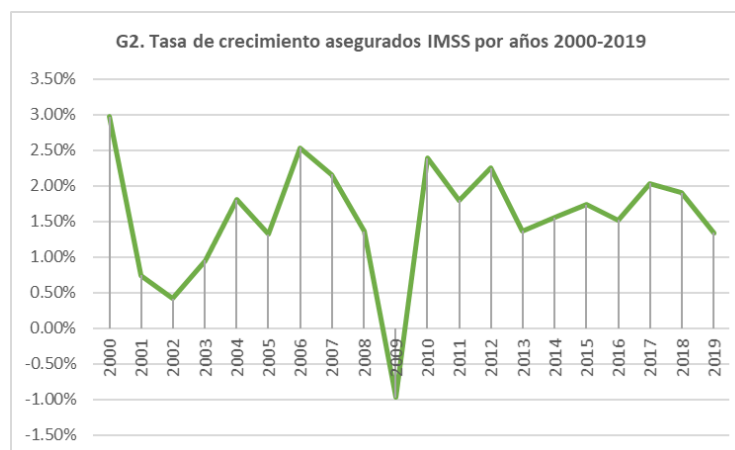
Some studies and analyzes recently published in the media have alluded to the comparison of current employment with the first half of last year. While they point out that the employment growth rate is positive; the rate of employment generation if it has a negative rate; that is, less jobs are being generated than last year. This is true if we consider that from January to July 2019, 306 thousand jobs were generated; while in the same period of 2018 they were 530 thousand.

The previous comparison is erroneous in many ways because it should be considered that 2018 was the last year of a six-year term of government and 2019 the first. In graph 1 we show the behavior of employment growth rates in the first and last year of each six-year period of the last 66 years; it is observed that in the 10 six years presented, only in two, the first year of government presented a higher employment growth rate than in the last year; in the rest, the first year of government the employment growth rate was lower than in the last year, even during the six years of Ernesto Zedillo (EZP) and Vicente Fox (VFQ) the first year of government had negative rates.



Own Elaboration

The above is clearer in a comparison of the first quarter of each year, as shown in graph 2. The negative slope of 2000 to 2001 is observed, (Fox); 2006 to 2007, (Calderón); 2012 to 2013, (Peña Nieto) and also from 2018 to 2019 (López Obrador). In fact, López Obrador's negative slope is smaller compared to Fox and Peña Nieto.



Own Elaboration

Therefore, the comparison that reflects a more accurate behavior of the rate of employment generation should consider equal periods (early six years). During the first semester of Peña Nieto (January-July 2013) 300 thousand 689 jobs were created; In the current sexennium (January-July 2019) 306 thousand 014 jobs have been created. Therefore, we cannot say that the rate of employment generation has been affected.

In the April-June 2019 quarterly report of Banco de México (Banxico), published on August 28, a box entitled “Recent Evolution of Employment Affiliated to IMSS at Sectorial and Regional Level” was included, which states that “[...] The revision to the minimum wage that entered into force in January 2019, [influenced] the deceleration of formal employment that has been registered during the year ”(Banxico, 2019, p.32), according to a Counterfactual analysis, the greatest dynamism was lost in the Northern Border Zone, where the salary increased twice as much as in the rest of the country; In total nationwide, nearly 52,000 formal jobs were stopped. The box concludes by suggesting to return to salary increases prior to 2019 so that the level of employment is not affected.

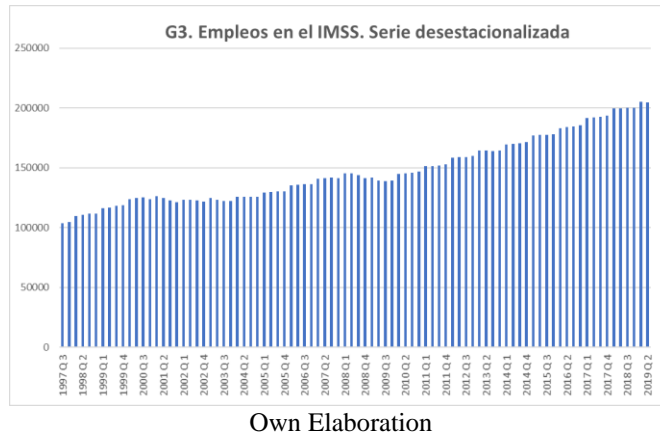
The above is worrisome for this Observatory because it would mean eliminating the real possibility of recovering the minimum wage at levels prior to the 1982-2018 period. It is more worrying when we detect serious methodological errors in its analysis; So more than a technical study can be considered a political pamphlet. The monetary authority cannot lose seriousness or rigor in order to defend an economic policy.

As we have pointed out, the “slowdown” in the generation of jobs responds to cyclical circumstances, so they cannot be considered a real trend. To verify this, we formulate the null hypothesis that the generation of formal jobs presented an atypical change from the first quarter of 2019.

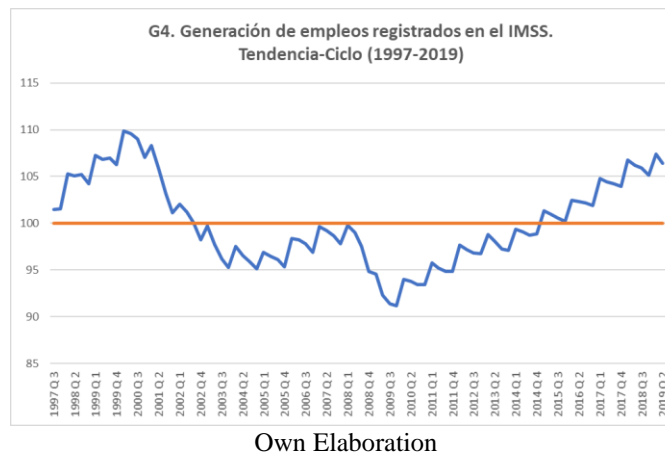
The employment data of the Mexican Social Security Institute were taken during the period 1997-T3 to 2019-T2; the components of seasonality, trend and cycle were identified and isolated to analyze the real behavior of the data, the results are shown in graph 3. It is observed that, with

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seasonally adjusted data, the number of jobs grew during the first quarter of 2019, It fell slightly in the second quarter, but remained above the level reported in the last quarter of 2018.

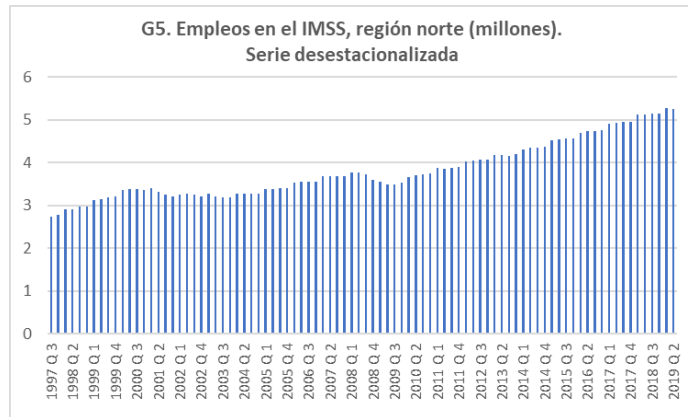


On the other hand, if we analyze the trend-cycle (graph 4), the generation of jobs did not lose dynamism in the long-term model, quite the contrary, in 2019-T1 an increase was observed very similar to that observed in past periods and at 2019-T2 it was 106.38 basis points.

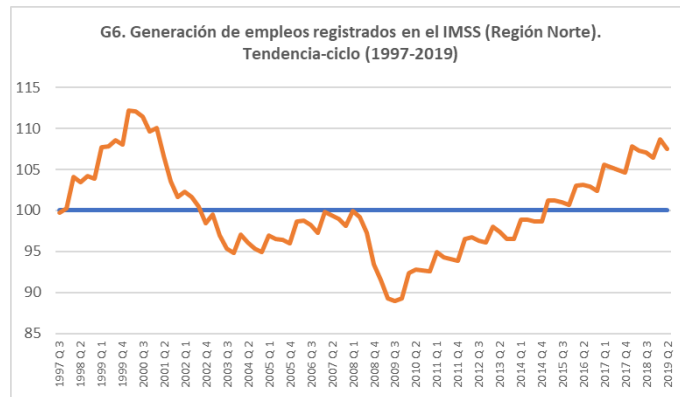


If we analyze only the data reported for the Northern Region of the IMSS, (where the Border Strip is located that increased its salary by 100%) the behavior is similar to the national one, both in the seasonally adjusted data (graph 5) and in the cycle trend (graph 6).

Effect of the increase in the Minimum Wage on the employment level



Own Elaboration



Own Elaboration

Consequently, atypical variation in the behavior of employment dynamics is not shown, but its secular tendency was not interrupted, so that the null hypothesis that employment has presented any alteration or in the set of employment cannot be accepted. national data, or when we disaggregate for the northern region of the country. A time series analysis shows a causal relationship between the behavior of a variable (Y_t) with respect to time (t), and where $t = 1, 2, \dots, n$, corresponds to the period considered and u_t shows the disturbance at every moment t, as in (1) When the estimate was made for the temporary data of the level of unemployment, no alteration in the behavior was observed, so it is fruitless to perform another type of causal analysis with the objective variable.

$$Y_t = a + bt + u_t, \tag{1}$$

This is consistent with the causal analysis study presented by the National Minimum Wages Commission, where it uses two methods (synthetic controls and differences in differences) whose results indicate that the increase in salary had no effect on employment registered with the IMSS (CONASAMI, 2019).

It is important to emphasize that Banxico's results lack validity, among other causes, for the following reasons:

a) The period of study it takes is too short to determine exactly the components of a series of time (seasonality, cycle, trend and irregularities), as already demonstrated if we consider longer periods of time the results are different. The period that Banxico takes (4 years) ignores the cyclic sexennial conditions.

b) The counterfactual analysis of Banxico compares non-comparable years, since it considers the jobs generated between January and April 2019 with January and April 2018, that is, an end of six years with a start, as rates were shown in this study of employment generation of the first year are less than that of the last year of the sexennium.

c) Banxico includes wrong assumptions in its model. If we consider that the salary increase came into force in January, the impact on employment dynamics is not immediate because in the short term there is rigidity due to contracts, either with suppliers (companies must meet production commitments and could not decrease it) or with the workers (for the employment contract), therefore, if there was an effect on the level of employment this would be delayed, any visualization should be done in a long-term model (time series) and not in the short period that analyze Banxico.

d) Another wrong assumption is that Banxico considered that the increase in salary had an impact on the total working population when it only affected those who obtained the minimum wage.

e) Banxico makes causal relationships without sufficient sustenance. He points out that the biggest cause of loss of dynamism in employment in the northern border strip is due to the salary increase, but other factors such as the United States-China trade war and the tariffs that were taxed to Mexico, mainly due to steel. If most of the employment in that strip is geared towards the maquila of the mechanical metal industry, it is clear that it was going to show less dynamism than the rest of the country, although it has been shown in the time series that this was not the case.

f) Banxico makes exacerbated conclusions. Even assuming without granting that its model was correct, the results show that 52 thousand formal jobs were stopped, compared to the more than 20 million jobs in the country, the difference would be equivalent to only 0.24% of the total, a very small number for the national benefit that implies the distribution of income by the salary increase.

With regard to the distribution of the population by income level, we observe that in the second quarter of 2019 the trend that accentuated in the six-year periods of Calderón and Peña Nieto continued, jobs that perceive more than 3 are decreasing minimum wages and increase those who receive between 1 and up to 2 minimum wages. This same trend has been repeated in the northern states of the country, where 12% of the population received the minimum wage in the second quarter of 2018 and grew to 21% in the second quarter of 2019, even so, there is an increase real

salary mass close to 6%, which means that, although the trend of reducing high-wage jobs continues to decline, as a whole workers are earning more than in 2018.

We can conclude that there is no evidence to support a hypothesis that this year's salary increases affected the level of employment registered with the IMSS, neither in the national group, nor in the disaggregated by northern region. The foregoing can be explained by the state's tricky intervention in the labor market during the period where economic policies were applied from the supply approach generated a distortion that does not reflect the real movements of supply and demand (Jiménez-Bandala, Andrade and Flegl, 2019); This would mean that until reaching the true level of equilibrium, salary increases will not affect the level of employment. This Observatory assumes the task of carrying out the corresponding calculations to propose salary increases in subsequent years that allow the recovery of the purchasing power of wages and thereby achieve a higher level of well-being of the most impoverished population segments.

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