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# Analysis of the evolution of wages since USMCA in the Mexican automotive industry

**Cesaire Chiatchoua**[1]
cchiatchoua@ipn.mx
https://orcid.org/0000-0001-8915-7562
Instituto Politécnico Nacional, Escuela Superior de Economía, México

**Rita Avila Romero**
riavilar@ipn.mx
https://orcid.org/0000-0002-4214-8105
Instituto Politécnico Nacional, Escuela Superior de Economía, México

## ABSTRACT

Undoubtedly, the arrival of large investments in Mexico in the automotive sector has constituted important competitive advantages in the recent 26 years that NAFTA has been in force, which has increased its participation in the percentage of manufacturing GDP and the contribution in the country's total exports. One of the negative aspects of this treaty has been the low wages received by skilled workers in the industry. As of 2020, this treaty was renegotiated with the implementation of the T-MEC, which allows us to set the objective of analyzing the evolution of wages from the T-MEC in the Mexican automotive sector. Through a quantitative methodology, using secondary data, the results show that average wages have evolved from 50 to 54.8 pesos per hour between 2019 and 2021. Annualizing for 2022, the wages of the assembly plants will close the year at 58.5 pesos per hour (2.9 dollars per hour). In other words, the salaries of the terminal Mexico Automotive Industry have increased by 0.30 dollars, or seen in another way, by 0.10 cents per year. This is equal to an annual increase of 3.8% and a cumulative increase of 11.5 percent.

***KEY WORDS:*** *Employees, transnational companies, investment, manufacturing, salary.*

[1] Autor principal

# Análisis de la evolución de los salarios a partir del T-MEC en la industria automotriz mexicana


**RESUMEN**

Indudablemente la llegada de cuantiosas inversiones a México en el sector automotriz ha constituido importantes ventajas competitivas en los recientes 26 años que lleva de vigencia el TLCAN lo que ha incrementado su participación en el porcentaje del PIB manufacturero y la contribución en las exportaciones totales del país. Uno de los aspectos negativos de este tratado ha sido los bajos salarios que perciben los obreros calificados en la industria mencionada. A partir de 2020 se renegoció este tratado con la implantación del T-MEC lo que permite plantear el objetivo analizar la evolución de los salarios a partir del T-MEC en el sector automotriz de México. Mediante una metodología cuantitativa, usando datos secundarios, los resultados muestran que los salarios promedio han evolucionado de 50 a 54.8 pesos por hora entre 2019 y 2021. Anualizando para 2022, los salarios de las ensambladoras cerrarán el año en 58.5 pesos por hora (2.9 dólares por hora). Es decir, los salarios de la Industria Automotriz de México terminal han aumentado en 0.30 dólares, o visto de otra forma, en 0.10 centavos de dólar por año. Esto es igual a un incremento anual de 3.8% y a un acumulado de 11.5 por ciento.



***PALABRAS CLAVE:*** *empleados, empresas trasnacionales, inversión, manufactura, sueldo.*

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## INTRODUCTION

Mexico has been in the eyes of large investors, as a potential country for the implementation of vehicle plants in such a way that it has positioned itself among the first producers of cars and auto parts worldwide, being the seventh vehicle producer and the fourth It exports the most only behind Germany, Japan and the United States and is the fifth largest auto parts production place in the world (behind China, the United States, Japan and Germany) in the world [1] y [2].

This has brought with it economic growth and development since the automotive industry is one of the main industries with the greatest contribution to GDP. According to [3], this sector represents 3% of Mexico's GDP and 18% of manufacturing production (the second most important industry after food). In addition, it is responsible for around 1.9 million jobs in the country and accounts for 32% of Mexico's total exports.

At the international level, [4] points out that growth has increased significantly since the entry into force of the North American Free Trade Agreement (NAFTA). While in 1993 the sector's exports were 10 billion dollars, in 2020 they were 148 billion dollars. All the big automobile manufacturers (Volkswagen, Nissan, General Motors, Honda, Audi, Toyota, BMW,) have plants in Mexico, which leads to an important auxiliary industry.

However, this significant growth has not brought the expected effect in terms of wages. For [5]:

In terms of the wages that are tied to manufacturing, Mexico also has one of the lowest wages, especially when compared to those paid in countries like the United States. In 2007, in Mexico, 2.49 dollars an hour were paid, while, for that same year, but in the USA, 17.27 dollars an hour were paid, that is, in Mexico, 6.93 times less was paid for the same manufacturing activity. The situation worsened in 2017, because while in Mexico they paid $2.28 an hour, in the US they paid $20.90 an hour; that is, 9.15 times less for the same job. The growth rate of wages paid in the Mexican manufacturing industry was negative (1.5%).

This shows that the increase in wages has not kept pace with the economic boom in the automotive sector. On the contrary, although productivity in Mexico has grown gradually in recent years, the

evolution of wages has been almost nil, except for the increase in wages on the northern border as of January 1, 2019. In the new treaty, the United States-Mexico-Canada Treaty (T-MEC), entered into force on July 1, 2020, stipulates that workers earn at least $16 an hour. This scenario opens the possibility of a salary increase; What has been the evolution of salaries in the Mexican Automotive Industry (IAM) since the T-MEC?

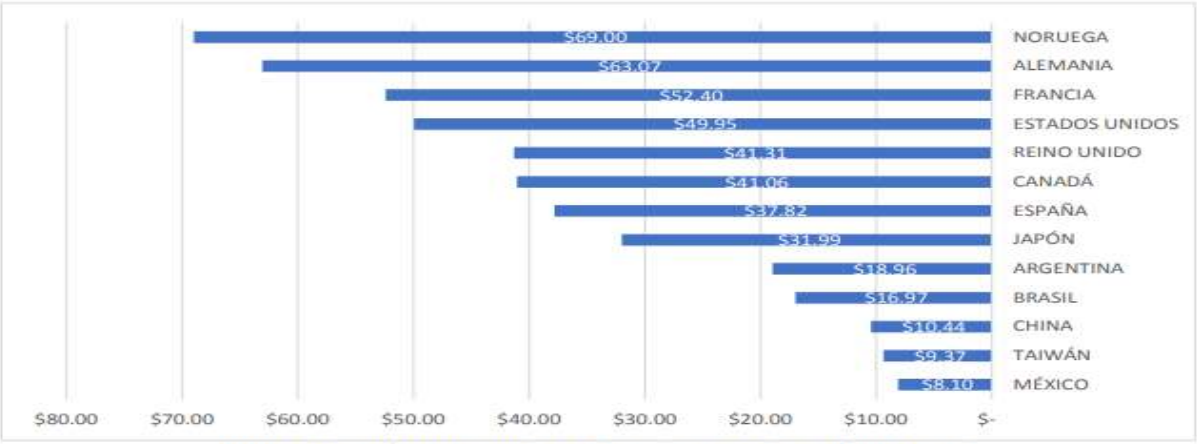
To answer this question, the following objective is proposed: to analyze the evolution of wages from the T-MEC in the automotive sector in Mexico. The second section discusses the competitive advantage of salary levels in the IAM. Section three details the structure of remunerations in the Automotive Industry. Section four analyzes the salary levels as well as the panorama of the IAM. Finally, the conclusions and recommendations are presented.

**Wages in the automotive industry installed in Mexico, competitive advantage?**

Undoubtedly, the arrival of large investments in Mexico has been the product of various factors and production conditions that together have constituted important competitive advantages in the recent 24 years that NAFTA has been in force. These advantages have been the main support for the IAM to consolidate, until it became the seventh assembler in the world, a situation that has made it possible to increase the prominence of this industry in the economy of our country, by going from representing 1.9 to 2.9 with respect to general GDP.

In addition to increasing its participation in the percentage of manufacturing GDP from 10.9 to 17.6%; as well as increasing its contribution to the country's total exports from 1.3% to 6.8%, between 1994 and 2016. Everyone knows that one of the main competitive advantages that Mexico has built in the last 24 years is that NAFTA is in force, are the low wages received by skilled workers in the automotive industry, which have already ranked as the lowest in the world.

**Graph 1. Wages in the automotive industry worldwide, 2015 (in dollars per hour)**




**Fuente: Elaboración propia con base en datos de INEGI y The Conference Board.**

When comparing the salaries of specialized workers who work in the automotive industry in the world, the high salaries received by workers in Norway, Germany, France, and the United States stand out. with $69.00, $63.07, $52.40, and $49.95 dollars per hour, which contrasts with the low wages of workers in Brazil, China, Taiwan, and Mexico, with $16.97, $10.44, $9.37, and $8.10 dollars per hour, respectively, in 2015.

However, the prevalence of low wages, although it has gradually translated into higher levels of production and exports, has not made employment grow at the same rate, which means that production per worker is increasing even at the expense of reducing sources of income. labor and worker income. That´s why [6].to achieve the competitiveness of the automotive sector, Mexico must not only review its salary policy upwards, but also focus on developing the factors that drive productivity such as innovation, the qualification of labor, public safety and macroeconomic conditions.

The case of the German firm BMW recently installed in Mexico is very illustrative, by investing a billion dollars to build a plant in San Luis Potosí that will employ 1,500 workers. For this, it has already negotiated a labor contract with the CTM in advance, guaranteed by the Ministry of Labor, where an initial salary of one dollar per hour and a maximum salary of 2.53 dollars are established for assembly line workers [7].

Additionally, the signing of "protection contracts" have caused labor costs in the automotive sector in Mexico to be among the cheapest in the world, a situation that has attracted new Korean, Japanese and German firms, which together with the U.A.E. installed here, have increased the number of automotive jobs by 543%, going from 122,000 to 785,000 during the period 1994-2016, but at the expense of paying the lowest industrial wages in the world [8]. Mexican assembly line employees earn about a tenth of what their U.S. counterparts earn; between 2006 and 2016 the base salaries of auto workers rose 20%, while in China they increased 157% in the same period [7].

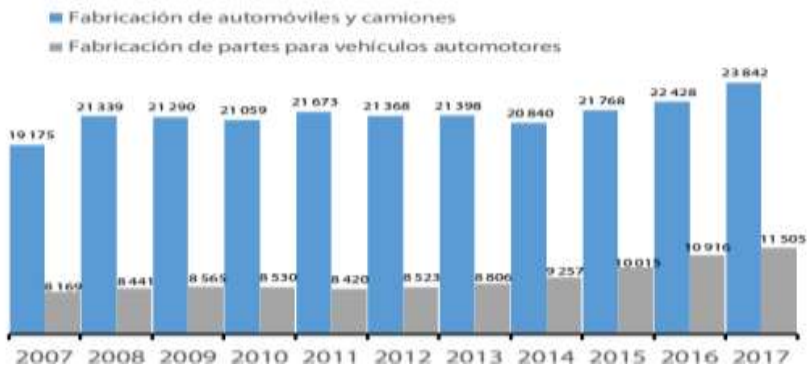
**Remunerations**

Remunerations in the Automotive Industry are made up according to the Monthly Survey of the Manufacturing Industry by:

- The salaries paid to workers that represent the most important part of the remunerations, being 46.1% of the total in 2017.
- They are followed by salaries paid to employees with 23.7%.
- And the social benefits that a company pays to its workers represent 30.2% of the total remunerations.

The remuneration of the personnel employed in the Manufacture of automobiles and trucks was located at 23,842 pesos per month on average in 2017, and in the Manufacture of parts for motor vehicles, at 11,505 pesos. On the other hand, it is seen that wages have a greater impact on the total percentage of remunerations, this may be due to the workers, (personnel directly related to the manufacture of vehicles), since they represent a greater weight compared to the workers. remaining employees who derive from the industry.

**Graph 2. Remuneration of employed personnel in the automotive industry. (Average current prices for the year).**




Source: INEGI. Encuesta mensual de industria manufacturera

Based on graph 2, it can be concluded that, in effect, people who work directly in the manufacture of cars and trucks receive a higher income compared to people who are dedicated only to the manufacture of parts for said vehicles, which to a certain extent makes sense since it makes it clear that the automotive terminal industry has more weight and logically will have a more competitive salary compared to the auto parts industry.

**Analysis of wages in the Mexican automotive industry**

The low wage income that has prevailed in Mexico for more than two decades has become one of the main factors that have attracted investment from large transnational companies that operate in the world. Additionally, there are other factors that attract foreign investors such as the 13 free trade treaties or agreements that our country has with almost 60 countries in the world, the productive and specialized workforce that Mexico has, in addition to the geographical proximity that we have. with the main labor market of the capitalist world, as is the United States; As well as the low cost of Mexican labor, it continues to be the main attraction for investment, because it means low production costs, a high level of productivity and large profits.

**Prospects of wages in the automotive industry installed in Mexico before the renegotiation of NAFTA**

After the renegotiation of NAFTA between Mexico, Canada and the US began, the advances are not significant and the talks are stagnant, meanwhile uncertainty has been growing and decisions on new investments have been postponed indefinitely, until they affect production and exports, as well as income and employment in the automotive industry for almost a year. The large automotive firms and auto parts supplier companies have postponed their investments and have shown great caution in the face of the situation facing our country, in relation to the rules of origin and what the supply chain will be like, but above all due to the request of the Trump government so that Mexico modifies the salary of workers up to 16 dollars per hour of work.

Additionally, the Trump government has threatened to impose a 25% tariff on all imported vehicles and auto parts, a situation that, coupled with the tax on steel and aluminum that it imposed since the beginning of June of 25% and 10%, respectively, threatens to end NAFTA and start a trade war in which hundreds of American companies and consumers would also be affected, in addition thousands of jobs would be lost in the American Union, which will contravene the campaign promises that Trump made to his followers.

After having applied a neoliberal policy for almost 35 years in general, and having put NAFTA into operation more than 24 years ago, in particular, we must recognize that unfortunately our country's economy depends 30% on the NAFTA and market dynamics with the U.S.A. in more than 80%; The future situation is not at all flattering, especially if we take into account the great difficulties that the Trump government has maintained to renegotiate NAFTA 2.0. For more than two decades, Mexico has attracted large amounts of FDI capital from Asia, Europe, Canada and, above all, the United States, aimed mainly at developing and consolidating a highly productive and competitive automotive sector, in addition to becoming an engine for exports, income and employment.

Among the main factors that attracted the interest of large world-class automotive firms, the proximity of Mexico to the U.S.A., the available infrastructure, the trade agreements, and treaties that our

country has with almost 60 countries in the world, the low taxes, the skilled and abundant labor; but above all the low wages that prevail throughout the manufacturing sector in general, and in the automotive industry in particular.

Additionally, the signing of the "protection contracts" that the automotive companies carry out with the CTM, to maintain very low wages among the specialized workforce, leads us to conclude, without a doubt, that low wages have become the main competitive advantage to attract new investment, a situation that has turned our territory into a maquiladora country, without its own technology, little added value, outdated of industrial value chains.

The cost of maintaining the salary as a competitive advantage has caused a greater impoverishment of the working class due to the low average income, a situation that has promoted the growth of underemployment and the informal economy, in addition to reducing the internal market and indirectly promoting, the migration of a greater number of Mexicans to the U.S.A. in search of employment or income that guarantees the sustenance of the family. It is urgent and cannot be postponed raising the income and perceptions of the working class, which leads to an improvement in their ability to purchase basic goods and services, and due to the multiplier effect, translates into higher sales, consumption, investment, employment, and income for the bulk of the population that currently subsists on a precarious income.

Next, [9] points out that:

Currently, each vehicle produced by a company in Mexico is on average $4,139 cheaper than doing it in the United States, part of that difference is due to labor costs. Also, the Colegio de México indicates that on average workers in the automotive industry are paid $3.14 an hour, while in the United States they are $28.6 and in Canada $26.34. In addition, the Automotive Research Center (CAR) reports that companies save up to 700 dollars in labor costs per assembled car in Mexico compared to the United States and in the American Union and Canada it costs around 1,800 dollars to assemble a car just taking labor cost into account, according to the Canadian workers union, which means that in Mexico 1,100 dollars are spent, almost 40 percent less. But the CAR also reveals that

the cost of the parts to manufacture a car in Mexico is 1,500 dollars cheaper compared to the United States, because there is also a matter of lower labor costs in the manufacture of these parts. Finally, "Mexico will continue to be competitive. If wages were raised to 16 dollars per hour, they would still be below those of the United States, but it is important that the industry in the country begins to move towards more specialized knowledge with research centers.

For his part, general director of the Mexican Association of the Automotive Industry (AMIA) explained that the requirement imposed by the T-MEC in value of labor content refers to 40% of a light car and 45% of a heavy, it must contain parts that have been manufactured in zones of wages of 16 dollars per hour. Additionally, he explained, that the rule does not imply increasing wages in Mexico, because the United States does not pay $16 an hour, there are places where the payment is below that level. It is a measure that has to do with the value of the vehicle more than with the salary, although the T-MEC establishes that 40% of the content of light cars and 45% of heavy cars must be manufactured by workers who earn at least minus the equivalent of $16 per hour. Given this, the automotive industry ruled out increasing salaries in Mexico.

Now, how have salaries behaved throughout 2020 -2022?

According to [10] average wages have evolved from 50 to 54.8 pesos per hour between 2019 and 2021. Annualizing for 2022, the wages of the assembly plants will close the year at 58.5 pesos per hour (2.9 dollars per hour). That is, terminal AMI salaries have increased by $0.30, or put another way, by $0.10 per year. This is equal to an annual increase of 3.8% and a cumulative increase of 11.5 percent. The foregoing shows that indeed, the T-MEC directly or not has favored the increase in wages in the IAM. The minimum wage increase policy also contributed to this wage increase.

**Prospects for the automotive industry**

The Treaty between Mexico, the United States and Canada (T-MEC) establishes new rules of origin for automotive merchandise, such as a higher Regional Value Content, essential auto parts requirements, purchases of steel and aluminum, as well as Labor Value Content. Therefore, the T-

MEC allows producers of certain vehicles to request an Alternative Transition Regime (RTA) that considers a longer transition period to ensure compliance with these new requirements.

On April 30, 2020, the "Agreement by which the Ministry of Economy informs producers of passenger vehicles or light trucks in North America the procedures for submitting applications was published in the Official Gazette of the Federation to use an Alternative Transition Regime in accordance with the Appendix to Annex 4-B of Chapter 4 of the Treaty between the United Mexican States, the United States of America and Canada". After receiving requests based on said Agreement, the Ministry of Economy has issued a favorable response to the following requests:

- Tesla, Inc.
- Volkswagen de México, S.A. de C.V.
- Volvo Car USA
- FCA México, S.A. de CV
- Hyundai Motor América
- Mazda Motor de México, S. de R.L. de C.V.
- Toyota Motor de México, S. de R.L. de C.V.
- Kia Motors México
- Kia Motors Manufacturing Georgia, Inc.
- Nissan Mexicana, S.A. de C.V.
- Ford Motor Company S.A. de C.V.
- Cooperation Manufacturing Plant Aguascalientes, S.A.P.I. de C.V

**Table 1. Alternative transition regime**

| REQUISITOS | Régimen Estándar | Régimen Transición Alternativo |
|---|---|---|
| **Periodo de Transición** | **3 años** | **5 años** (con posibilidad de extenderse a 7 años en función de los ciclos de los modelos de cada vehículo) |
| **Valor de Contenido Regional** | **75% Costo Neto (CN)** | **62.5% CN** |
| **Valor de Contenido Regional** | | |
| • Autopartes esenciales<br>• Motor<br>• Transmisión<br>• Carrocería y Chasis<br>• Eje<br>• Sistema de Suspensión<br>• Sistema de Dirección<br>• Batería Avanzada | **75% CN**<br>**u**<br>**85% Valor de Transacción (VT)** | **No aplica el requisito** |
| **Compras de Acero y Aluminio originario del T-MEC** | **70%** | **70%** |
| **Valor de Contenido Laboral** | **40% (vehículos pasajeros)**<br>**45% (camiones ligeros)** | **25%** |
| • Salarios altos en materiales y manufactura | **25%** | **10%** |
| • Investigación y Desarrollo o Tecnologías de la Información | **10%** | **10%** |
| • Salarios Altos en plantas de ensamble<br>• de motores, transmisiones o baterías avanzadas | **5%** | **5%** |

Source: D. Econosignal.

Table 1 reveals in detail how the new regime will work in 5 years, with the possibility of extending to 7 years depending on the life cycle of each vehicle, we can determine that the total cost at present or in the current regime is based on the regional content, which should correspond to 75%, and for the new regime it should be 62.5%, which presents a decrease for the ease of each region. The health emergency interrupted the production and supply chains of the automotive and auto parts industries, which were due to resume activities in June.

Some of the external factors experienced during this health emergency were the following:

• The emergency caused a disruption in all segments of AI, from the postponement of launches to new vehicle marketing schemes.

• In the North American region, the industry's reactivation plan depends to a large extent on the synchronization of the 3 OEM'S countries with their respective supply chains.

• Globally, production plans will have to be adjusted due to the drop in global demand for vehicles.

Some internal factors:

• The contingency caused shocks in supply (production stoppage) and demand (drop in sales and reduction in exports) with a negative impact on the industry.

• In sales, despite having negative results, the level was lower than estimated, mainly due to the intensification of new marketing channels (social networks, personalized virtual attention and offers available through these channels).

• The manufacture of auto parts was added to the list of essential activities, in order to resume operations and reactivate the supply chain, mainly to the United States, which restarted its operations on May 18, 2020.

Regarding the IAM, it is expected that the production level of Mexico in 2019 (3.8 million vehicles) will be reached again in 2024, due to the reduction of sales in the US market (a drop of - is forecast). 4.5 million, higher than the -2.8 million of the 2009 crisis). For this year, the reduction in production in Mexico will be close to 900,000 vehicles. The sale of vehicles in Mexico may not exceed one million units, which may recover its 2019 level by 2024, which is possibly one of the best years in the industry that will catapult it back to it.


**Graph 3. Annual variation anual (%).**

Source: D. Econosignal con información de IHS Markit. Para la tendencia se empleó tendencia de tipo polinominal, la cual se obtiene a partir de las fluctuaciones en los datos o por la cantidad de ajustes en los datos.

Production forecasts.

• Mexican production will recover its 2019 level (3.8 million vehicles) by 2024.

• In the first months after the reactivation, a production rate similar to that registered before the interruption will be reached, which will be related to the satisfaction of the global demand of certain brands, which do not have storage capacity.

• In the coming years, the slow recovery of sales in the US market (due to the drop in income levels and employment) will hinder Mexican production in the short and long term.

• In the domestic market, a gradual recovery in sales is expected, which could slightly boost production.

Sales forecasts

• The 2019 sales level (1.3 million vehicles) could recover by 2024.

• The sales forecast could be revised downward when the economic publication reveals the results of the confinement, in which it is expected that there will be a broad reduction in production and employment.

• In addition to sales, in the coming months, the delinquency level will be one of the main indicators to follow, because on the automotive loan portfolio.

**CONCLUSIONS**

It is a fact that the competitive advantage that Mexico has over other vehicle-producing countries is undoubtedly its qualified human capital at a low cost, and it will continue to be its forte, even despite the agreements established in the T-MEC that it proposed equal wage parity, or at least $16 per hour, for those employees directly involved in the manufacturing process, as is the case in the US and Canada.

However, this investigation not only showed that these salaries are not going to increase to be in tune with the other countries of North America, with the support that the United States does not pay 16 dollars an hour, since there are places where payment is below that level. It is a measure that has to do with the value of the vehicle more than with the salary, although the T-MEC establishes that 40% of the content of light cars and 45% of heavy cars must be manufactured by workers who earn at least

minus the equivalent of $16 per hour. Given this, the automotive industry ruled out increasing salaries in Mexico.

The results of this research show that terminal AMI salaries have increased by $0.30, or put another way, by $0.10 per year. This is equal to an annual increase of 3.8% and a cumulative increase of 11.5 percent, the foregoing is explained by the increase in investment, which will optimize and promote a higher level of production for the automotive sector, bringing with it an increase in sales. exports and an increase in the national consumption of vehicles, there will be greater economic growth for the assembly states, derived from the increase in the pace of economic activity generated by the industry.

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