Salary basket and value of the labor force of Mexico

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ABSTRACT
The essay first examines the relations between the rate of surplus value and the value of the labor force. It then focuses on the examination of the determinants of the value of the labor force: real wages, annual work hours, and labor productivity in the branches that produce wage-goods. Along with the formal analysis, the values assumed by such variables in the Mexican economy during the validity of the neoliberal model are quantified. Here we observe a strong decrease in the hourly value of the labor force (increase in the rate of surplus value), in which the decrease in real wages plays a key role.

Keywords: rate of surplus value, value of the labor force, royal wage, labor productivity, inflation, goods-wage producing sector.

1 INTRODUCTION

In every complex theoretical body (or “great paradigm”) we find blocks that work at the highest level of abstraction and others that come close and “bump into” the most concrete realities. A rigorous deductive process must mediate between these spaces (usually referred to as the "hypothetical deductive method") in which what Marx called "ascent from the abstract to the concrete of thought" materializes.

The concrete, now understood as concrete-material, is also the space for possible empirical verifications of the hypotheses handled by the theoretical corpus of the case. Let us remember that, in any theoretical system that claims to be scientific, the moment of empirical verification of the hypotheses used is absolutely vital. And it is worth remembering: The most abstract hypotheses that a complex and deep theory handles as a rule cannot be verified empirically in immediate terms. But this does not exempt these hypotheses (or laws) from empirical verification or testing. How does the problem work here? What the most mature sciences show is that the concepts and laws that arise at the most abstract level gradually link up with others that work in somewhat more concrete spaces. Here prevail the hypothetical deductive
method and the demands of strict logical coherence that it requires. After all, the most concrete hypotheses
—rigorously connected to the most abstract ones— are the ones that must face the empirical test, which
means that not only the immediate concrete hypothesis is verified (approved or rejected) but also those
with a higher level of abstraction. and, therefore, more general and decisive. In other words, in this case,
the mediated or “indirect” empirical test operates. Among some “followers” of Marx and his political
economy, on many occasions we find a high contempt for empirical data and, consequently, for the factual
verification of the theory and its central hypotheses. This is unfortunate, since the demands of scientific
work are abandoned and the way is opened to wild and incongruous speculation. Thus emerges a kind of
empty scholasticism in which puns —said with shifty eyes— replace rigorous thought. Others believe that
Marx was the ancestor of that German Nazi who said that "nothing swims", a phrase so deep that not even
millions of neurons are capable of deci It is the world of the magicians of the tribe, of the old sorcerers.

If we review Capital, Marx's magnum opus, we can see the colossal effort of its author to verify
or empirically illustrate his hypotheses. In volume I, for example, the chapters on the working day, relative
surplus value and original accumulation are impressive due to the brutal effort to collect the information
available on the corresponding topics. It is even thought that the failure to publish volume III of his opus
magnum during his lifetime is due to his stubborn insistence on accumulating more and more factual
information on the evolution of agrarian property and income in the Russian case (which he considered
representative, like English, for the Industrial Revolution).

Moreover, if we compare the empirical content of Capital with the great economics texts published
in the time of the mature Marx, we could see that — quite contrary to what ignorant followers think—
Marx was a real fan of empirical testing. of his hypotheses. If we compare his work with texts published
around 1870, such as those by Walras, Karl Menger or a Bohm- Bawerk, in which factual information
does not exist (perhaps due to the somewhat Kantian theoretical apriorism of such authors, who were
fathers of the neoclassical school), Marx should be condemned as a sick empiricist. By at least by certain
"Marxologists" (or rather marketers), not coincidentally anchored in now very "soft" disciplines such as
current Latin American philosophy and sociology, in which conceptual and factual rigor is replaced by
vagueness and games of words that are brandished with infinite pedantry. 2

Marx (1959a: 331n), in any case, is very far from English empiricism.

For example, he points out that "the English [...] like to consider the first empirical way of
manifesting things as the foundation of these"; also indicates that:

The external form of economic relations, as it appears on the surface of the phenomena, in their
real existence and also, therefore, in the ideas with which the representatives and agents of these
relations claim to see clearly in them, differs. much and is, in reality, the inverse, the opposite of
its inner nuclear form, although hidden, and the concept that corresponds to it [Marx, 1959b: 210].
From this ontic assumption, he deduces his famous epistemological precept: "all science would be superfluous, if the way of manifesting things and their essence coincided directly" (Marx, 1959b: 757). The structure of the real-material outlined and handled by Marx, of visible and less significant outer layers, together with more internal, less visible and more decisive (that is, essential) layers in the dynamics of the whole, is amply confirmed by the hardest contemporary sciences. It is worth insisting: it is a matter of theoretically connecting the essential with the exteriority of the phenomenon and thus explaining it, with which the apparent ceases to be so and becomes an expression, already understood, of the most essential and internal.

The work that follows falls within the field of empirical estimates on the evolution of central categories of the economy, such as the value of the labor force and the rate of surplus value. It is framed in some general hypotheses:

a) based on the most developed capitalist countries, there is a secular upward trend in the rate of surplus value and, consequently, a downward trend for the hourly value of labor power; b) the rate of secular rise is relatively low (as an annual average), and it is basically based on the increase in labor productivity, since the length of the annual working day falls considerably and the real wage-year also rises quite a lot; c) what has been noted is valid for the very long-term trend, there are periods in which jumps and movements opposite to the secular are observed; d) in the period of the neoliberal accumulation pattern, what is characteristic is a very strong increase in the rate of surplus value and the corresponding drop in the hourly value of the labor force. These movements are basically based on the decline in real wages, a phenomenon that also operates on the periphery of the system, where Mexico is located.

2 BASIC CATEGORIES: BRIEF REVIEW

2.1 FROM THE RATE OF SURPLUS VALUE TO THE VALUE OF LABOR POWER

To. Brief scope on the rate of surplus value

The rate of surplus value (p) is a category that reflects the most essential relationship of the capitalist regime, which is established between capitalists and salaried workers. Its level and evolution have a decisive impact on central macroeconomic variables: the distribution of income, the level of national income, the rate of profit, the rhythms of accumulation and, consequently, the growth of the product. In Marx's definition, the rate of surplus value (p) is understood as a quotient, which has in the numerator the mass of annual surplus value (P) and in the denominator the amount of the annual variable capital (V), which is the payment made by the capitalists when buying productive workforce. That is, we have that p=P/V. Thus, the rate of surplus value could be interpreted as a distributive variable, since it relates the part of the added value (WA) or national income (YN=WA), which is appropriated by capital (P) with respect to the part appropriated by the workers (V). In passing, let us remember that the added
value (WA) or national income (YN) is equal to the sum of the annual mass of surplus value and the total variable capital. In other words, we have that WA=V+P. In this expression, care must be taken in the economic interpretation. It is not that the levels of V and P determine the added value, but it is this, determined independently, that is broken down into the amount received by workers (V) and that received by capitalists (P). Marx warned: "although the value of the salary does not determine that of the merchandise, the value of these (which enter into the worker's consumption) determines the value of the salary."7 If only the distribution of national income were interested, it could It would be even better to refer the annual mass of surplus value (P) to the level of This quotient between surplus value and added value (P/ WA) has been called the “extended reproduction potential of the system” (pra), which defines the part of the national income that remains in the hands of the capitalist class and, at the same time, the part of the economic surplus in that income or added value. For this potential for expanded reproduction (pra), connected to the rate of surplus value, we can write:

\[
\frac{\nu a \cdot PP - P}{WA \cdot V + P} = \frac{P}{V(1+p)} - \frac{P}{1+p}
\]

(1)

\[
p = \frac{for}{1 - for}
\]

(2)

Suppose that surplus value is equal to 80% of national income. That is, we have a pra=0.80 and, consequently, if equation (2) is applied, it follows that the rate of surplus value is equivalent to 0.8/0.2 = 4.0. If we start with the rate of surplus value, using equation (1) we would have that the potential for expanded reproduction would be equal to 4/5=0.80.

Why does Marx refer the mass of annual surplus value to variable capital and not to annual added value? In order to answer, we can begin by remembering that the capitalist spends what is called variable capital (V). By doing so, it manages to dispose of such work capacity and uses it in the corresponding production processes. If we assume that the labor deployed operates as "socially necessary labor" (it operates in average social conditions and produces what the market is able to buy at the offer price of the respective good), we will have that the live labor deployed will be recognized as value. Once this condition is satisfied, we will have that the added value starts to depend on the total live labor expended (WA=Tv). As a rule, this added value is greater than the variable capital spent (WA>V), and, consequently, there is a surplus or surplus value (P=WA–V), which is appropriated by the capital. Then, since Marx defines the rate of surplus value equal to P/ V, we can already understand that the category is measuring (or “showing”) the return —for capital— of what it spends to buy labor power. That is, in absolute terms,
2.1.1 The value of labor power and the rate of surplus value

The total variable capital that the capitalist spends in the year is equivalent to the annual value of the total labor power that he uses. This magnitude also indicates the value of the goods that the working class (including families) consumes in the year, that is, the value of the total annual salary basket. This magnitude can be expressed in terms of the total productive living labor ($T_v$) expended in the year, multiplied by the value-hour of the labor force ($V_{hft}$). This value-hour measures the value of what the worker and his dependents consume on average per hour worked. That is, $V=(T_v)(V_{hft})$. We also have that $T_v=YN$. Therefore:

Be seen that there is a clear inverse relationship between the rate of surplus value and the value of labor power. If the rate of surplus value is equal to 2.0, the hourly value of labor power will be $1/3=0.33$. In other words, for each hour worked, one third (20 minutes) will be applied to pay the worker and the 40 minutes the rest go to the capitalist. If the rate of surplus value rises to 4.0, the hourly value of labor power is reduced to $1/5=0.20$. In hourly magnitudes, we would have 12 minutes (a fifth of an hour). It can also be seen that if the hourly value of labor power were equal to one, the rate of surplus value would be zero: this economy would not generate economic surplus. That is, everything that is produced must be applied to the preservation of the producers. Until the Neolithic revolution, this was the typical situation of humanity.

In capitalism, the ability to work, better known as "labour power", comes to operate as a commodity, as an object that is bought and sold. Like all merchandise, it functions with a certain value. It is known that the value of a commodity is given by the "socially necessary labor time" that it costs to produce the corresponding commodity.

For the workforce, it is produced or generated by the personal consumption of the worker. In other words, the result of personal consumption, in this case, is the labor force of the operator, his ability to work. Therefore, its value must be equivalent to the value of the goods consumed by the worker and his family. We can remember Marx: “the value of labor power is the value of the means of life necessary to ensure subsistence of its possessor” (Marx, 1959a: 124). Or, in the same sense: "the value of labor power is reduced to the value of a certain sum of means of life" (Marx, 1959a: 124).

The elements that intervene as immediate determinants of the value of the workforce are indicated in what follows. To do this, we will use matrix language in the simplest possible terms.
2.2 MATRIX OF THE QUANTUM OF WORKER CONSUMPTION

What is sought in this case is to identify the type of goods consumed by the worker family; at the same time, the amount of those goods that are consumed.

\[ [Q]^1,n = [q_1, q_2, q_3, ..., q_n]^1,n \]  

(3)

Rows=1 and Columns=n.

The matrix (or row vector) \([Q]^1,n\) describes the wage basket in terms of the goods that make it up and the quantities of each of them that are consumed. In other words, it allows us to better visualize the patterns of consumption that in a certain period are typical of the working class. When workers operate with low living standards (or “reduced real wages”), something typical in underdeveloped countries, the variety of goods that make up the wage basket is reduced. When living standards rise, a diversification of worker consumption emerges. Likewise, there is usually, in most cases, an increase in the amounts consumed; for example, more meat is consumed. At the same time, the so-called “inferior goods” are reduced or simply disappear, those that “fill” more but feed very little. Here, too, the appearance of new products can be seen, which, if certain requirements are met, become part of the “basket”. For example, radios emerge and end up being a common product in the workers’ basket, although after a few decades these products begin to be replaced by televisions.

2.3 MATRIX OF THE UNIT VALUES OF GOODS- WAGES

By "goods-wages" we mean the goods that make up the wage basket. That is, they are goods consumed by salaried workers.

In this case, the first step must identify the goods that make up the salary basket. We already know this information according to the matrix of workers' consumption. The second step is to know the “unit value” or “social cost” of those goods-wages.
Remember that between unit value and productivity an inverse relationship is established.

River of good descends Other things being equal, this reduces the value of the previous wage basket, which, if the value of labor power is to be maintained, allows the worker to consume more and, especially, to diversify his consumption.

Expression (4) is equivalent to (5) below. Obviously, here we have the matrix of the inverse of the productivities:

\[
[WU]_{n,1} = \begin{bmatrix}
\psi W_1 \\
\psi W_2 \\
\vdots \\
\psi W_n \\
\end{bmatrix}
\]

Suppose, by way of illustration, that the productivity of labor in the branches that produce goods-wages (agriculture in particular, clothing-producing industries, etc.) is very low. Consequently, the unit value of these goods is very high. Under these conditions, it is very probable that the bulk of the labor force will have to be applied to the generation of wage-goods, even though the real wage is very low. Among other implications of this data, there is one that should be underlined: the possibility of employing workers in the industrial sector becomes difficult and onerous. In short, the industrialization process, key to any development process, becomes very difficult, almost impossible. As Marx points out, "the smaller the part of the working population that has to work in the production of the essential means of life, the greater the part available for the execution of other works" (Marx, 1959a: 429). Therefore, an upward jump in labor productivity in agriculture is an indispensable condition for dynamic industrial development. In general terms, it can also be argued that the possibilities of significant diversification in wage consumption patterns basically depend on the levels reached by productivity in the branches that produce wage-goods, especially the most essential goods, such as food.

2.4 ANNUAL VALUE OF THE SALARY BASKET

In this case, based on our previously defined matrices, we arrive at a scalar: instead of a series or set of data, we arrive at a single data or magnitude. That is, we identify the value of the workforce (in
hours of social work) for a given period. Here, we choose the year as the reference period. Therefore, the data to be reached is the total value of the salary basket in a year.

Consider the type 1 good, which is part of the annual worker consumption.

We know its unit value and the amount of it consumed. For example, let us suppose that it is about shirts; each shirt has a unit value of two hours of social work and 10 shirts are consumed in the year. We multiply 10 by 2 and we get 20 hours. This is the value of the shirts consumed in the year. Thus, good is done for good until all those who make up the salary basket are completed.

Then, the value of the salary basket as a whole is found out. In matrix terms, we can write:

\[
\begin{bmatrix}
10 \\
20 \\
30 \\
\vdots \\
Q_n
\end{bmatrix} \cdot \begin{bmatrix}
W_1 \\
W_2 \\
W_3 \\
\vdots \\
W_n
\end{bmatrix} = 
\begin{bmatrix}
q_1 \\
q_2 \\
q_3 \\
\vdots \\
q_n
\end{bmatrix}
\]

\[
= [(q1)(WU1) + (q2)(WU2) + (q3)(WU3) + \ldots + (q_n)(WUn)]
\]

\[
V_{aft} = \sum(qi)(WUi) \quad (i=1, 2, \ldots, n)
\]

where \(V_{aft}\) is the annual value of the labor force.

It should be noted that with the indicated procedure we can go from vector magnitudes to scalar magnitudes, which are easier to handle in simpler statistical approximations and easier to quantify.

We can reach the same result with the level of productivities by branch. In these cases, we can write:

\[
\begin{bmatrix}
\frac{q_1}{F_1} + \frac{q_2}{F_2} + \frac{q_3}{F_3} + \ldots + \frac{q_n}{F_n}
\end{bmatrix} = \sum \frac{q_i}{F_i} = V_{aft}
\]

(6.1)

The annual value of the salary basket indicates the total social work time spent in the production of the goods that make up the salary basket. For this reason, an equivalence follows: such a value indicates the labor time socially necessary to "produce" the working labor force.

In other words, we arrive at what is known as the value of labor power. It is worth noting: in expression (8.1) it is clear that the amount of goods consumed by the worker can increase without raising
the value of labor power; even, this value can decrease. To do this, it is enough that the productivity of labor increases in the appropriate proportions.

2.5 THE VALUE OF LABOR POWER AND THE RATE OF SURPLUS VALUE

If we multiply the annual value of the labor force (which represents the total social labor hours spent in the production of the goods that make up the wage basket) by the productivity in the branches that produce these “wage-goods” (Fbs), we obtain the real annual salary (Sra). I mean:

\[ \text{Mrs} = (Fbs)(Vaft) \]  

(7)

\[ Vaft = \frac{Ms}{Fbs} \]  

(7.1)

By dividing by the annual working day, we obtain the hourly value of the labor force:

\[ \text{Vhft} = \frac{Sra}{(Jta)(F_b)} = \frac{Srb}{(F_b)} \]  

(8)

As can be seen in the last expression, the Vhft falls if the annual real wage falls, if the working day is lengthened, and if labor productivity rises in industries that produce wage-goods. It rises, if the reverse situations occur.

What about the rate of surplus value (p=P/V)? We can remember that:

\[ p = \frac{P}{V} = \frac{(WA \cdot V)}{V} = WA/V \cdot V/V \]

\[ \frac{1}{Vhft} - 1.0 = \left[ \frac{(Jta)(F_b)}{Sra} \right] 1.0 \]

(9)

In the last expression it can be seen that the determinants of the value of labor power also function as determinants of the rate of surplus value, although they do so in an inverse sense. Here we can see that a) if the working day is lengthened, the rate of surplus value rises, a mechanism that Marx calls “absolute surplus value”; b) if labor productivity rises, the surplus value rate also rises, a mechanism that Marx calls “relative surplus value”; c) finally, we have that, if the real salary decreases, the rate of surplus value increases, Marx does not name this mechanism (he does not seem to consider it relevant in the long term).
and we can call it the “retrograde” method, as long as it is based on the reduction of the standard of living of the working class.

3 NEOLIBERAL MEXICO: EMPIRICAL ESTIMATES

3.1 THE FIRST PHASE: A VIOLENT ATTACK ON THE WORKING CLASS

In Mexico, for 36 years now, a pattern of accumulation has prevailed that strongly depresses the standard of living of the working class; we are referring to the so-called neoliberal accumulation pattern. As is well known, this model operates with a high level of the rate of surplus value, which causes a regressive distribution of income and, due to its impact on aggregate demand, generates low rates of product growth.

In this section we will present estimates of the value of the labor force in Mexico in the aforementioned period. We will do so based on previous estimates of the rate of surplus value, in such a way that we proceed to deduce the level reached by the value of labor power. The great reduction in the value of labor power In the last year (1981) of the import substitution model, the surplus value rate was 3.1 (Dardón, Valdivieso and Valenzuela, 1999).

At the end of the eighties, after the first neoliberal government came to an end, the rate of surplus value reached a level of 5.5, that is, it rose by 77.4%. This means that the hourly value of the labor force in 1981 was 0.244, that is, the worker appropriated 14 minutes and 38 seconds of the hour worked, while in 1989 it reached a level of 0.153, that is, he appropriated 9 minutes and 12 seconds of the hour worked.

Note that if the rate of surplus value was 3.1, we can estimate the hourly value of labor power. That is to say:

\[ V_{hl} = \frac{1}{1+p} = \frac{1}{1+3.1} = \frac{1}{4.1} = 0.244 \]  

(10)

This implies that 24.4% of the hour worked passes into the hands of the worker and 75.6% remains in the hands of the capitalist. Translating 0.244 into astronomical time (calendar-hours), we obtain that the hourly value of the labor force is equal to 14 minutes with 38 seconds per hour worked. In other words, what the worker (himself and his dependents) consumes on average per hour worked has a production cost — or value — equivalent to a little less than 15 minutes.

In this period, labor productivity in the goods-salary sector was practically stagnant, so raising the rate of surplus value via the relative surplus value mechanism was practically impossible.

In addition, if we assume (to simplify) that the length of the work day did not change, we have that the mechanism carried out was to raise said rate by the most regressive route: drastically reduce the living
standards of the Mexican working class. The blow was very strong, in just a decade the real salary per hour worked was reduced by nearly 40%, which, it is worth at least indicating, represented a strong political blow against the working class and the beginning of the rupture of the historic alliance of the working class with the Institutional Revolutionary Party (PRI) (government party) and, through this channel, with industrial capital. This has typified the shift from the pattern of accumulation based on import substitution (or “inward development”) to the neoliberal pattern.

Therefore, it is not surprising that little more than 99% of the increase in the rate of surplus value is due to the reduction in real wages. Even if productivity in the wage goods sector remains constant $(1+f_2=1.0)^{13}$ as observed in table 1, then the lower real wages would explain

<table>
<thead>
<tr>
<th>Year</th>
<th>rate of surplus value</th>
<th>$v/h$</th>
<th>$l(F_2)$</th>
<th>$l(S/h)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>3.1</td>
<td>0.244</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1988</td>
<td>5.5</td>
<td>0.153</td>
<td>96.7</td>
<td>60.9</td>
</tr>
<tr>
<td>1989</td>
<td>5.5</td>
<td>0.153</td>
<td>99.9</td>
<td>62.9</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Year</th>
<th>$l(S/h)$</th>
<th>$m^*$</th>
<th>$l(S/h)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>1988</td>
<td>4 713.5</td>
<td>7739.8</td>
<td>60.9</td>
</tr>
<tr>
<td>1989</td>
<td>5842.34</td>
<td>9288.3</td>
<td>62.9</td>
</tr>
<tr>
<td>1981-1989*</td>
<td>65.3%</td>
<td>76.2%</td>
<td>−5.6%</td>
</tr>
</tbody>
</table>

a Average growth rate.

100% of the total increase in the rate of surplus value. It should be added that the sharp fall in real wages was mainly due to the high inflation rates experienced during the eighties, when annual inflation fluctuated around 76.2% (see table 2).

3.2 SECOND MOMENT: SLOWLY FALLING VALUE OF LABOR POWER

After the great leap in the rate of surplus value begins a period in which it remains relatively stable, but at a high level. Although in recent years it has begun to rise slowly.
The surplus value rate went from 5.38 in 1990 to 6.38 in 2013, that is, there was an increase of 18.6%. From 1990 to 1994 the rate of surplus value decreased by 12.5%, but with the crisis of 1995-1996 it jumped to 22.3%. From then on, it drops to 2001 (−14.1%), and then rises to 2013 (28.9%), and certainly up to the present date (2015).

**Table 3. Rate of surplus value, hourly value of labor power and necessary labor time (ttn)**

<table>
<thead>
<tr>
<th>Year</th>
<th>rate of surplus value</th>
<th>vtn</th>
<th>ttn</th>
<th>Year</th>
<th>rate of surplus value</th>
<th>vtn</th>
<th>ttn</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>5.38</td>
<td>0.157</td>
<td>9m 25s</td>
<td>2002</td>
<td>5.06</td>
<td>0.165</td>
<td>9m 54s</td>
</tr>
<tr>
<td>1991</td>
<td>5.20</td>
<td>0.161</td>
<td>9m 40s</td>
<td>2003</td>
<td>5.46</td>
<td>0.155</td>
<td>9m 17s</td>
</tr>
<tr>
<td>1992</td>
<td>4.91</td>
<td>0.169</td>
<td>10m 8s</td>
<td>2004</td>
<td>5.71</td>
<td>0.149</td>
<td>8m 57s</td>
</tr>
<tr>
<td>1993</td>
<td>4.73</td>
<td>0.175</td>
<td>10m 28s</td>
<td>2005</td>
<td>5.84</td>
<td>0.146</td>
<td>8m 49s</td>
</tr>
<tr>
<td>1994</td>
<td>4.71</td>
<td>0.175</td>
<td>10m 28s</td>
<td>2006</td>
<td>6.02</td>
<td>0.142</td>
<td>8m 35s</td>
</tr>
<tr>
<td>1997</td>
<td>5.76</td>
<td>0.148</td>
<td>9m 53s</td>
<td>2007</td>
<td>6.12</td>
<td>0.140</td>
<td>8m 26s</td>
</tr>
<tr>
<td>1998</td>
<td>5.58</td>
<td>0.152</td>
<td>9m 7s</td>
<td>2009</td>
<td>5.88</td>
<td>0.145</td>
<td>8m 43s</td>
</tr>
<tr>
<td>1999</td>
<td>5.30</td>
<td>0.159</td>
<td>9m 31s</td>
<td>2010</td>
<td>6.27</td>
<td>0.138</td>
<td>8m 15s</td>
</tr>
<tr>
<td>2000</td>
<td>5.16</td>
<td>0.162</td>
<td>9m 44s</td>
<td>2011</td>
<td>6.48</td>
<td>0.138</td>
<td>8m 6s</td>
</tr>
<tr>
<td>2001</td>
<td>4.95</td>
<td>0.168</td>
<td>10m 5s</td>
<td>2012</td>
<td>6.38</td>
<td>0.136</td>
<td>8m 8s</td>
</tr>
</tbody>
</table>


This means that the value of the labor force went from 0.157 in 1990 to 0.136 in 2013. In other words, the worker appropriated 9 minutes and 25 seconds in 1990, while in 2013 it was 8 minutes and 8 seconds. The information is presented in Table 3.

To. Recent evolution of the determinants of the value-hour of the labor force

According to expression (10), the hourly value of the labor force depends on two key variables: 1) the real wage per hour and 2) labor productivity in the sector producing wage-goods. In what follows we examine the behavior of these variables.

Labor productivity in the wage-goods sector: we manage

Two approximations to the productivity of the goods-salary sector.

First. We consider three large wage-goods producing sectors: a) agriculture, breeding and exploitation of animals, forest exploitation, fishing and hunting; b) electricity, gas and water, subsectors from 311 to 315 of the manufacturing industry, and c) transport, mail and storage, serv instructional cios, health services. In a previous study, Valenzuela (1984) considers agriculture and divisions I and II of manufacturing (classification of old national accounts) as wage-goods-producing sectors, and makes the weights depend on the participation of the occupant. tion of each sector in the total employment of the goods-salary producing branches.

This work also notes that the productivity index of the sector that produces the wage basket should be carried out with other types of weights. These would have to be deducted from the relative weight of
each type of good (or “use value”) in the average salary basket. This procedure is much more complex, but it seems the most adequate and precise. In the approximation that we are using now, as in Valenzuela (1984), the weights have been estimated in a very coarse and aggregate manner. But we have attempted a somewhat more precise approximation (although still very coarse) by handling not the gross domestic product (GDP) but the share of the living labor expended by each sector over the total living labor of the wage-goods sector.

For the weights we use the following formal expressions:

$$\hat{y}_i = \frac{T_{vi}}{Tv}$$

$$I(F_{bs}) = I(F_1)(\hat{y}_1) + I(F_2)(\hat{y}_2) + I(F_3)(\hat{y}_3)$$

(11)

$I(F_1)$ is the productivity index of subsector 1: agriculture, breeding and exploitation of animals, forest use, fishing and hunting; $I(F_2)$ is the productivity index in electricity, gas and water, subsectors 311 to 315 of the manufacturing industry; $I(F_3)$ is the productivity index in transportation, educational services, health services; $\hat{y}_1$ is the relative weight of the living labor of subsector 1 over the total living labor of the wage-goods sector; $\hat{y}_2$ is the relative weight of the living labor of subsector 2 over the total living labor of the wage-goods sector; $\hat{y}_3$ is the relative weight of the living labor of subsector 3 over the total living labor of the wage-goods sector. The results are presented below.

In agriculture, breeding and exploitation of animals, forest use, fishing and hunting, productivity rose 10.63% in the period, that is, a weak 0.44% per year. In the electricity, gas and water sector, manufacturing industry: 311-315 productivity increased by 79% (2.56% annual average).

This sector is the one experiencing the highest productivity growth.

In transportation, mail and storage, educational services, health services, productivity rose 17%, that is, a rate of 0.7% per year. As we can see, productivity in the wage-goods sector grows 22.3% in the period, which is equivalent to a meager 0.9% per year. Once again, we find something to underline: in the Mexican neoliberal model, the mechanism of relative surplus value has been playing a relatively minor role. For the same reason, the growth or relative stability (at a very high level) of the rate of surplus value is associated with low wage levels, which, in turn, tends to be closely connected with low rates of economic expansion, high levels of unemployment and openly authoritarian political regimes.

Second. The following approximation to estimate the evolution of productivity in wage-goods was carried out using partial productivity indices and weighted according to the relative weight of workers’ consumption expenditure. In studies such as Isaac and Valenzuela (1999) this exercise is carried out, but for a previous period.
Firstly, we review the National Survey of Household Income Expenditure (enigh) prepared by the National Institute of Statistics and Geography (inegi). The results of said survey show the main items of expenditure by population decile (from the poorest to the richest). We take from decile II to decile V, part of the population where the Mexican working class is surely found.

Second, we estimate the partial indices of the subsectors that make up the goods-salary sector. Because we associate them with the expenditure items that we will consider as subsectors, we will have eight partial indices.

Third, each partial index is made up of subindices (or other partial indices) that represent the branches that produce the goods for each item of expenditure (see diagram 1). For example, for the first partial index, the item of expenditure (subsector) “food and clothing”, is made up of four sub-indices:

1) agriculture, breeding and exploitation of animals, forest use, fishing and hunting; 2) food industry; 3) beverage and tobacco industry, and 4) food and beverage preparation services.

In order to integrate the partial index, each sub-index was weighted by the relative weight of live labor of each branch in the total live labor of the subsector.

<table>
<thead>
<tr>
<th>Year</th>
<th>( l(F_1) )</th>
<th>( l(F_2) )</th>
<th>( l(F_3) )</th>
<th>Year</th>
<th>( l(F_1) )</th>
<th>( l(F_2) )</th>
<th>( l(F_3) )</th>
</tr>
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<tbody>
<tr>
<td>1990</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>2002</td>
<td>106.4</td>
<td>135.2</td>
<td>106.5</td>
</tr>
<tr>
<td>1991</td>
<td>102.0</td>
<td>102.7</td>
<td>101.0</td>
<td>2003</td>
<td>112.4</td>
<td>125.2</td>
<td>106.0</td>
</tr>
<tr>
<td>1992</td>
<td>98.6</td>
<td>106.7</td>
<td>100.7</td>
<td>2004</td>
<td>105.5</td>
<td>133.5</td>
<td>106.0</td>
</tr>
<tr>
<td>1993</td>
<td>98.0</td>
<td>111.1</td>
<td>105.5</td>
<td>2005</td>
<td>107.0</td>
<td>139.0</td>
<td>109.2</td>
</tr>
<tr>
<td>1994</td>
<td>97.0</td>
<td>112.4</td>
<td>105.7</td>
<td>2006</td>
<td>107.0</td>
<td>144.1</td>
<td>112.5</td>
</tr>
<tr>
<td>1995 (continued)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>104.0</td>
<td>117.0</td>
<td>102.4</td>
<td>2007</td>
<td>111.5</td>
<td>151.4</td>
<td>112.6</td>
</tr>
<tr>
<td>1997</td>
<td>106.6</td>
<td>119.6</td>
<td>108.0</td>
<td>2008</td>
<td>111.8</td>
<td>158.1</td>
<td>111.9</td>
</tr>
<tr>
<td>1998</td>
<td>100.2</td>
<td>121.4</td>
<td>107.3</td>
<td>2009</td>
<td>116.2</td>
<td>162.4</td>
<td>105.1</td>
</tr>
<tr>
<td>1999</td>
<td>97.9</td>
<td>121.3</td>
<td>106.3</td>
<td>2010</td>
<td>109.5</td>
<td>169.3</td>
<td>111.7</td>
</tr>
<tr>
<td>2000</td>
<td>101.4</td>
<td>123.1</td>
<td>110.7</td>
<td>2011</td>
<td>107.4</td>
<td>176.4</td>
<td>113.8</td>
</tr>
<tr>
<td>2001</td>
<td>100.4</td>
<td>130.0</td>
<td>108.3</td>
<td>2012</td>
<td>110.5</td>
<td>179.0</td>
<td>117.0</td>
</tr>
</tbody>
</table>

Source: prepared from the System of National Accounts (scn) of Mexico, corresponding years.
Table 5. Productivity index in the goods-salary sector

<table>
<thead>
<tr>
<th>Year</th>
<th>(Fbs)</th>
<th>Year</th>
<th>(Fbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>100.0</td>
<td>2002</td>
<td>112.5</td>
</tr>
<tr>
<td>1991</td>
<td>102.0</td>
<td>2003</td>
<td>112.4</td>
</tr>
<tr>
<td>1992</td>
<td>100.7</td>
<td>2004</td>
<td>110.8</td>
</tr>
<tr>
<td>1993</td>
<td>103.0</td>
<td>2005</td>
<td>112.9</td>
</tr>
<tr>
<td>1994</td>
<td>102.3</td>
<td>2006</td>
<td>115.2</td>
</tr>
<tr>
<td></td>
<td>105.6</td>
<td>2007</td>
<td>118.0</td>
</tr>
</tbody>
</table>

nineteen ninety five
nineteen ninety six
nineteen ninety seven
nineteen ninety eight
nineteen ninety nine
2000
gen2001

Source: own elaboration based on previous tables and scn, corresponding years.

Table 6. Worker consumption basket, Mexico 1992-2012* (percentages of the total)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Food, beverages and tobacco</td>
<td>46.6</td>
<td>46.4</td>
<td>44.8</td>
<td>49.9</td>
<td>42.6</td>
<td>45.1</td>
</tr>
<tr>
<td>2. Dress and footwear</td>
<td>6.8</td>
<td>5.1</td>
<td>5.6</td>
<td>5.4</td>
<td>5.1</td>
<td>4.6</td>
</tr>
<tr>
<td>3. Housing and housing services</td>
<td>8.4</td>
<td>9.8</td>
<td>9.4</td>
<td>11.4</td>
<td>11.5</td>
<td>10.1</td>
</tr>
<tr>
<td>4. Furniture and home</td>
<td>8.2</td>
<td>7.4</td>
<td>7.0</td>
<td>7.8</td>
<td>6.6</td>
<td>5.4</td>
</tr>
<tr>
<td>5. Health care</td>
<td>3.0</td>
<td>3.7</td>
<td>3.8</td>
<td>4.2</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>6. Transportation</td>
<td>10.3</td>
<td>10.5</td>
<td>11.9</td>
<td>14.9</td>
<td>15.1</td>
<td>14.6</td>
</tr>
<tr>
<td>7. Education and leisure</td>
<td>7.0</td>
<td>8.0</td>
<td>0.1</td>
<td>8.0</td>
<td>8.8</td>
<td>8.8</td>
</tr>
<tr>
<td>8. Personal care</td>
<td>5.8</td>
<td>0.1</td>
<td>0.0</td>
<td>7.2</td>
<td>7.0</td>
<td>7.2</td>
</tr>
<tr>
<td>9. Spending transfers</td>
<td>0.7</td>
<td>0.8</td>
<td>1.0</td>
<td>1.4</td>
<td>1.8</td>
<td>1.9</td>
</tr>
</tbody>
</table>

* Total monetary expenditure.

Source: enigh, inegi, corresponding years.

In this case, the food and beverage subsector has the following composition of total live labor: 71.8% for branch (i), 12% for branch (ii), 2.8% for branch (iii) and, finally, 13.4% for branch (iv). Other subsectors are made up of fewer branches. Even a single branch. For example, the health subsector is made up of the branch of health services and social assistance.
In the transport subsector we only include the branch of ground passenger transport. This refers to transportation by buses, mobile cars, "combis", "trolleybuses", light trains, subways, taxis and others. Based on the INEGI, it includes urban and suburban transport recognized as collective transport of metropolitan routes.

It is in the personal care subsector that we have a big problem, which, due to the statistical availability and current aggregation, we cannot solve satisfactorily. It has been related to the branch of the chemical industry, where soaps, lotions, body creams, etc. are produced, but also other types of products that have nothing to do with personal care, such as fertilizers, pesticides, paints, and more. The problem is that they cannot be disaggregated and see the weight of each one, in order to know what to attribute to personal care and what not. We can only assume that the evolution of productivity in this branch reflects the evolution of productivity in the subsector.
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USSR Academy of Sciences (1985). The dialectic and general scientific research methods (volumes 1 and 2). Havana: Academy of Sciences of the USSR.


