SOCIAL EXPENDITURE ON CHILEAN WORKERS' INCOME, 1886-2010.

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MAIN MOTIVATION:

• QUESTION: To what extent did state social contributions worsen a negative narrative of workers' total money income or act as compensation to correct it? At what points in time?

• HYPOTHESIS: Contributions were almost nonexistent until 1930, modest between 1930 and the late 1950s, managed to rise in the 1960s, but were again severely reduced in the 1970s and 1980s, and finally, have failed to cooperate significantly in raising total incomes since 1990.

• LITERATURE REVIEW: There are important works on the Social Security System and the evolution of Social Expenditure in Chile (Arellano, Larrañaga, Ruiz-Tagle, Contreras, Solimano, Atria et. al.), but most of them have been linked to underemployment and labor segmentation, their incidence on inequality and poverty lines, as well as their relationship with macroeconomic aggregates. D. Ahumada, J. P. Arellano and Hermann Von Gesdorf, García de Freitas and Gerardo González have studied the Obligatory Workers' Insurance Fund, pensions and housing subsidies, respectively, but without calculating their contributions to autonomous income, Ignacio Irarrázaval being the one who has come closest from the distributive side and Alberto Arenas from the social protection side. The difficulty in obtaining total monetary income per worker rested on the absence of a reliable wage series that at least covered from the first decades of the twentieth century, an absence satisfied by 1886-2009 (Matus and Reyes, 2021).
**SOURCES AND CONSTRUCTION METHODOLOGIES**

- **Wages:** The Matus and Reyes series up to 2009 expressed in 1929 pesos (2021) was used, which was extended by Matus up to 2010 and deflated into 2010 pesos. The sources can be found in detail in Matus (2009), Reyes (2017) and Matus and Reyes, 2021).

- **Social Expenditure:** State expenditures executed in 3 social functions up to 2000 (Education, Health and Housing) collected by José Jofré, posted in 2012 on the Economic History & Cliometrics Lab page, by José Díaz, Gert Wagner and Rolf Lüders and could be extended up to 2001 thanks to the collaboration of José Díaz.

  - They were then extended to 2010 by applying the inter-annual variations provided by DIPRES for the same items between 2000 and 2010.

  - These data were converted to Social Expenditure (E+S+V) per inhabitant, and after passing them through the labor force, converted to Social Expenditure (E+S+V) per worker.

  - They were then converted to daily amounts -using number of working days in each year- and finally deflated in the same way as wages to express them in 2010 pesos.
PLACE CURRENTLY OCCUPIED BY WAGES AND STATE CONTRIBUTIONS IN THE STUDY OF LIVING CONDITIONS

1. Biological dimension
   - Food
   - Health (diseases)
   - Mortality (infant)
   - Height

2. Stock of wealth and accumulated assets and access to social security.
   - Real estate (rural or urban properties)
   - Movable goods
   - Access and level of Human Capital

3. Income flows dimension (purchasing power)
   - Wages
   - Government subsidies and transfers
   - Other income (rents, capital income)
   - Other benefits

4. Non-monetary dimension
   - Access to participation
   - Relative position in relation to others (inequality)
   - General degree of satisfaction

Monetary income (CASEN)
- Earned income
- Other income
- State subsidies & contributions
+ Self-employment income
HOW LIVING CONDITIONS ARE STUDIED ACCORDING TO TIME AND SOURCES

- Biological dimension
  - Stock dimension and access to basic services

Living conditions

Late Middle Ages to 18th century

- Biological dimension
  - Stocks and access to basic services dimension
  - Income flows-income (purchasing power) dimension

Living standards

Since the middle of the 18th century

- Biological dimension
  - Stocks and services dimension
  - Income flows
  - Non-monetary dimension (participation, inequality and satisfaction)

Quality of life

Since the 2nd half of the 20th century (multidimensional concept of well-being)

Prehistory, Antiquity and Early to High Middle Ages

Late Middle Ages to 18th century

Since the middle of the 18th century

Living standards

Quality of life
The very evolution of the concept that identifies human well-being (conditions, levels and quality of life) reflects the growth of expectations of what we consider well-being.
THESE LEVELS ARE NOT IN HARMONY WITH EACH OTHER, SO THEY DO NOT EVOLVE SYNCHRONOUSLY.

Tabla 2. Indicadores del nivel de vida durante la revolución industrial en Gran Bretaña

<table>
<thead>
<tr>
<th>Año</th>
<th>PIB per cápita</th>
<th>Salarios reales</th>
<th>Estatura</th>
<th>Esperanza de vida</th>
<th>Mortalidad infantil</th>
<th>Alfabetización</th>
<th>Escolarización</th>
<th>IDH</th>
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<tr>
<td>1760</td>
<td>1.803</td>
<td>-</td>
<td>171,1</td>
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<td>1780</td>
<td>1.787</td>
<td>100</td>
<td>164,6</td>
<td>35,81</td>
<td>173</td>
<td>49,5</td>
<td>1,5</td>
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<td>1800</td>
<td>1.936</td>
<td>103</td>
<td>164,6</td>
<td>40,02</td>
<td>145</td>
<td>52,5</td>
<td>1,8</td>
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<td>1820</td>
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<td>111</td>
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<td>154</td>
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<td>2.209</td>
<td>114</td>
<td>165,6</td>
<td>40,89</td>
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<td>1850</td>
<td>2.846</td>
<td>137</td>
<td>164,7</td>
<td>39,50</td>
<td>156</td>
<td>61,5</td>
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CHILE'S POOR WAGE PERFORMANCE UP TO 2005


Episode 1
1905-1915

Episode 2
1931-1932

Episode 3
1953-55

Episode 4
1972-1973

¡36 years!

Episode 5
1982-1985

4.410 (2005)
STATE CONTRIBUTIONS IN SOCIAL SECURITY (PENSIONS), SUBSIDIES AND OTHER SOCIAL FUNCTIONS CURRENTLY DISTORT RATHER THAN HELP

Real Wages, Daily Social Expenditure x worker (E+S+V), (P+S+O) 1886-1929, in 2010 pesos.
EXPRESSED AS % GDP AND COMPARED WITH SOCIAL SECURITY EXPENDITURE - MEASURED FRAGMENTARILY BY GARCIA AND SPURS (2022) - SOCIALE(E+S+V) FOLLOWS THE SAME GENERAL TRENDS SHOWN BY SOCIAL EXPENDITURE UP TO 1972. SOCIALEXP THEN DIVERGES, DUE TO ITS DIFFERENT NATURE AND THE GRADUAL REPLACEMENT OF OLD SYSTEMS BY PRIVATE PROVIDERS. IN ANY CASE, THE COMPARISON PROVIDES AN IMPETUS TO IMPROVE THE MEASUREMENT OF THE IMPACT OF SOCIAL EXPENDITURE ON WORKERS’ MONETARY INCOME.

ONLY SINCE 1990 HAS IT RISEN ON ITS OWN MERIT AND ESPECIALLY SINCE 2005, IT HAS REACHED A SIGNIFICANT % IN WAGES (OVER 35%), EVEN THOUGH IT HAS GROWN IN NET TERMS SINCE THAT YEAR.
- The rise in wages + social exp up to 1970 coincides with fall in inequality, although misalignment between 1971-1974 calls for another explanation.

- Subsequent sharp fall in wages until 1985 coincides with rise in inequality, despite increase in social exp until that year. This relationship is reaffirmed between 1986 and 1988 due to stagnation in social exp.

- Since 1990, as wages do not recover and only social exp rises, inequality does not fall, but when wages recover to the 1969 level in 2005 and social exp continues to rise, total monetary income rises and inequality is reduced.

Gini decreases again only when wages recover to the 1969 level and socialE (E+S+V) continues to rise.
This vision contributes to a realistic and critical look at our recent past, but it also provides a moderate optimism, driven by the intense lessons learned in recent decades after a tortuous and dramatic period. All this should reinforce the collective capacity to take lessons from the past and think more about the future.

¡Thank you very much!