

# Inequality, Living Standards and Growth: Two Centuries of Economic Development in Mexico

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“The biggest beneficiary of the Industrial Revolution has so far been the unskilled.”

Gregory Clark, *Farewell to Alms*

Clark's focus was rich countries. Is it true in other countries?

# Inequality and growth

- Studies find that economic growth within countries has not on average favoured one part of the income distribution over another (Ravallion and Chen 1997, Ravallion 2001, Dollar and Kraay 2002).

But:

- They use data that are often not comparable (Atkinson and Brandolini 2001)
- They study short- or medium-run changes.
- They refer to *averages*, to which there are many exceptions. These exceptions demand explanation.

Ahluwalia (1976) noted: “such processes should be examined in an explicitly historical context for particular countries”. This is the approach we follow.

- Differences in data definitions can lead to spurious results, so we document primary sources to ensure comparability over time.

# Inequality in history: Analytical narratives

- Study of inequality in history follows Kuznets (1955).
- Economic history of inequality pursued in recent years by Lindert, Milanovic, Williamson and collaborators.
- Recently championed by Thomas Piketty: combines new data with economic theory and political and institutional analysis.
- Following this tradition, we measure inequality with a new consistent dataset, and attempt to explain trends through both economic and political factors.

# Perspectives on industrialization and inequality

## The optimists:

- Clark: in the long run, industrialization benefits unskilled workers most.
- Kuznets: industrialization benefits a share of workers that rises over time.

## The pessimists:

- Piketty: economic dynamics increase inequality. Certain conditions – economic crises, and redistributive policies – can reduce it.
- Lewis: in his model industrialization does not benefit workers. Under certain conditions, in the long run the model no longer applies, and workers then do benefit.

# Measuring inequality in the long run

- We use the Williamson (1997) index: per worker GDP divided by 'typical' wages – which we will define in two ways.
  - Consistent with a move away from synthetic inequality indicators such as the Gini, based on their non-transparency.
    - Atkinson, Piketty et al.'s focus on top income shares
    - Palma's ratio of top decile to bottom 40%
  - Moreover, to study the long run one must use the data available.
  - The Williamson index has the two advantages: (a) focus on the living standards of the 'typical' household, and (b) it is possible to construct long-run data.
- ⇒ A complement to long-run series of tax data that in many cases document higher incomes but not the middle of the distribution.

# Wages

- Our main series is wages of *construction workers in Mexico City*.
- These are **low-skill urban capitalist wages**, which play an important role in both Kuznets and Lewis models.
  - ⇒ They are key to understanding **economic structure and the determinants of inequality**.
- But construction wages may move up or down the distribution, so may imply biased trends in inequality (Prados de la Escosura 2008).
- So we also use *median wages*. The Stiglitz Commission: “median consumption (income, wealth) provides a better measure of what is happening to the ‘typical’ individual or household than average consumption (income or wealth)” (Stiglitz et al, 2009).
- Thus we consider **mean incomes/median wages =  $Y/w_m$**  to be a **normatively-salient measure of inequality**.
  - ⇒ It measures how the typical worker benefits from total product.

# Wage sources

- Urban construction wage data are from:
  - 1800-1930: Challú y Gómez Galvarriato (2015), wages paid by schools, hospitals and other public institutions.
  - 1939-1985: industrial surveys including in Bortz (1987).
  - 1987-2015: Our calculations based on household surveys.
- We estimate national medians in years with a social table or census.
  - Estimates for 1800, 1827, 1845, 1905, 1929, 1950, 2005-2015.
  - This wage is rural. Estimates require more assumptions than construction wages and are less consistent over time.

⇒ Construction wages are more reliably measured, and relevant for models of industrialization and development.

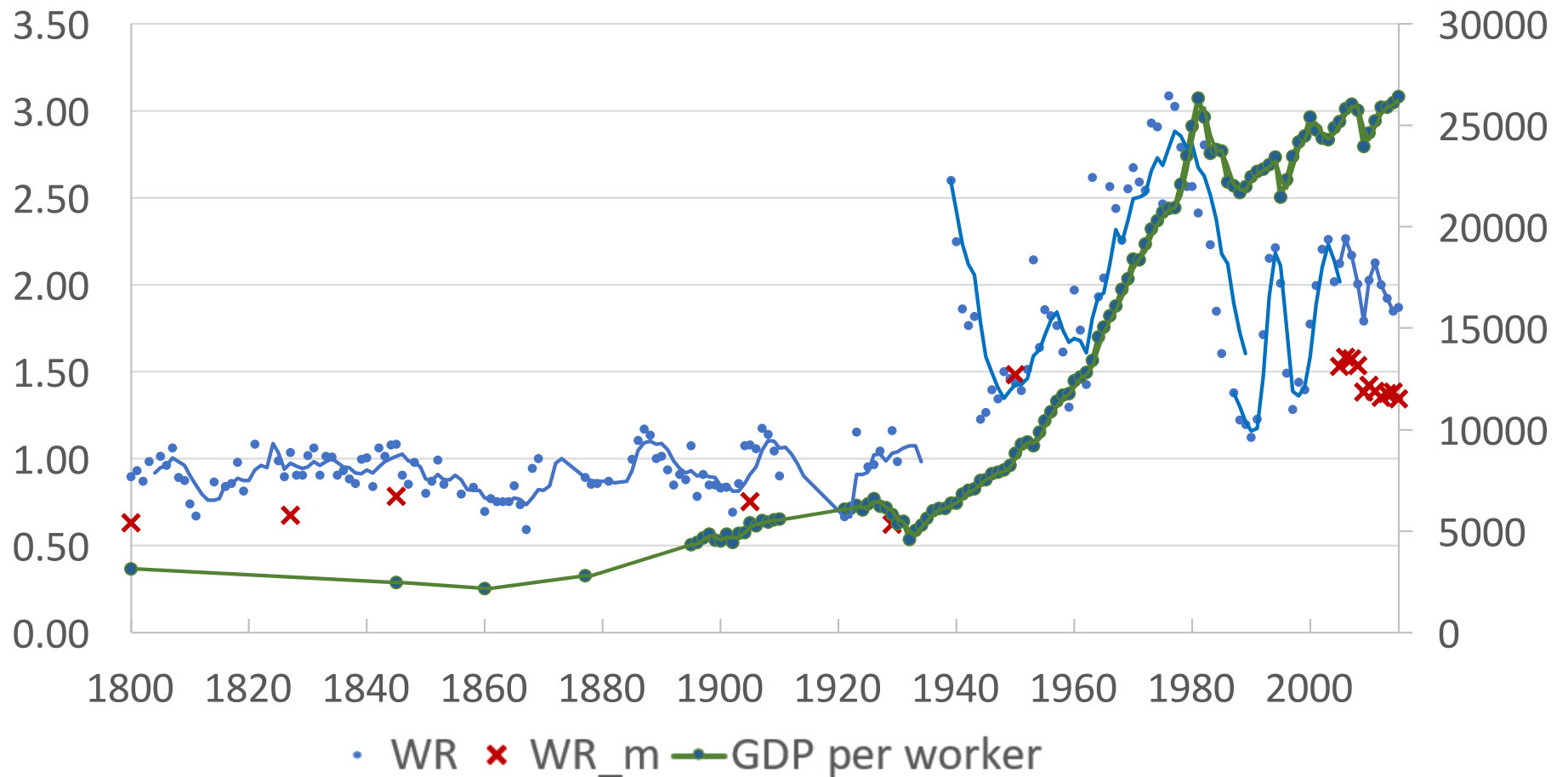
Median wage estimates are sparser and less reliable, but more normatively relevant.



# Prices and welfare ratios

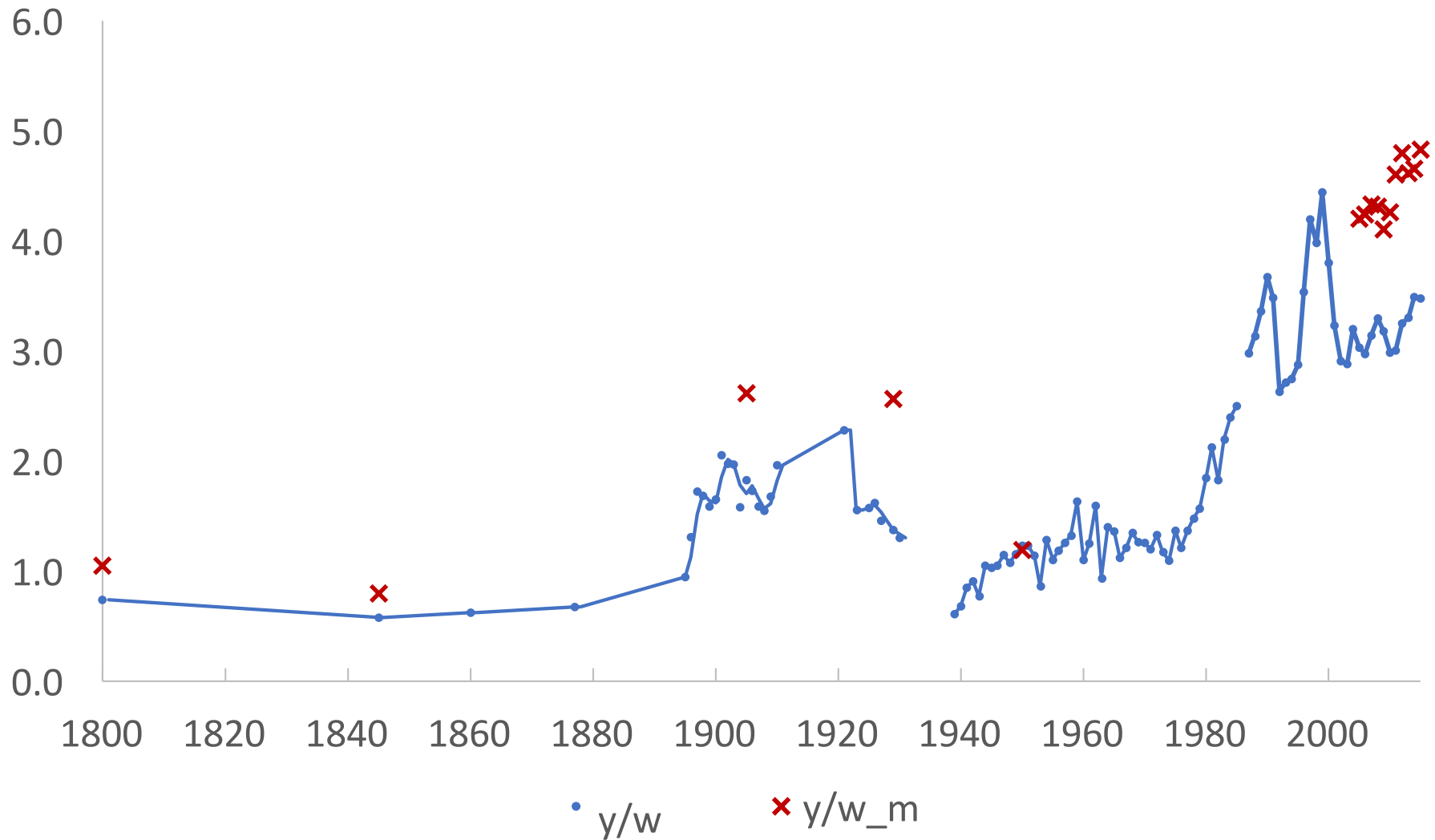
- We estimate the price of the same basic consumption basket over the whole period:
  - 1800-1930: Challú and Gómez-Galvarriato (2015)
  - 1939-2015: Our own calculations based on prices índices, and anchored to observed item-wise prices in 2015.
- Real wages are calculated as a *welfare ratio* equal to the wage divided by the cost of 3.15 baskets (Allen 2001).

# Construction wage, median wage, and GDP per worker



The low-skill urban wage is 38% to 58% above the median, except for 1950 when they are nearly equal.

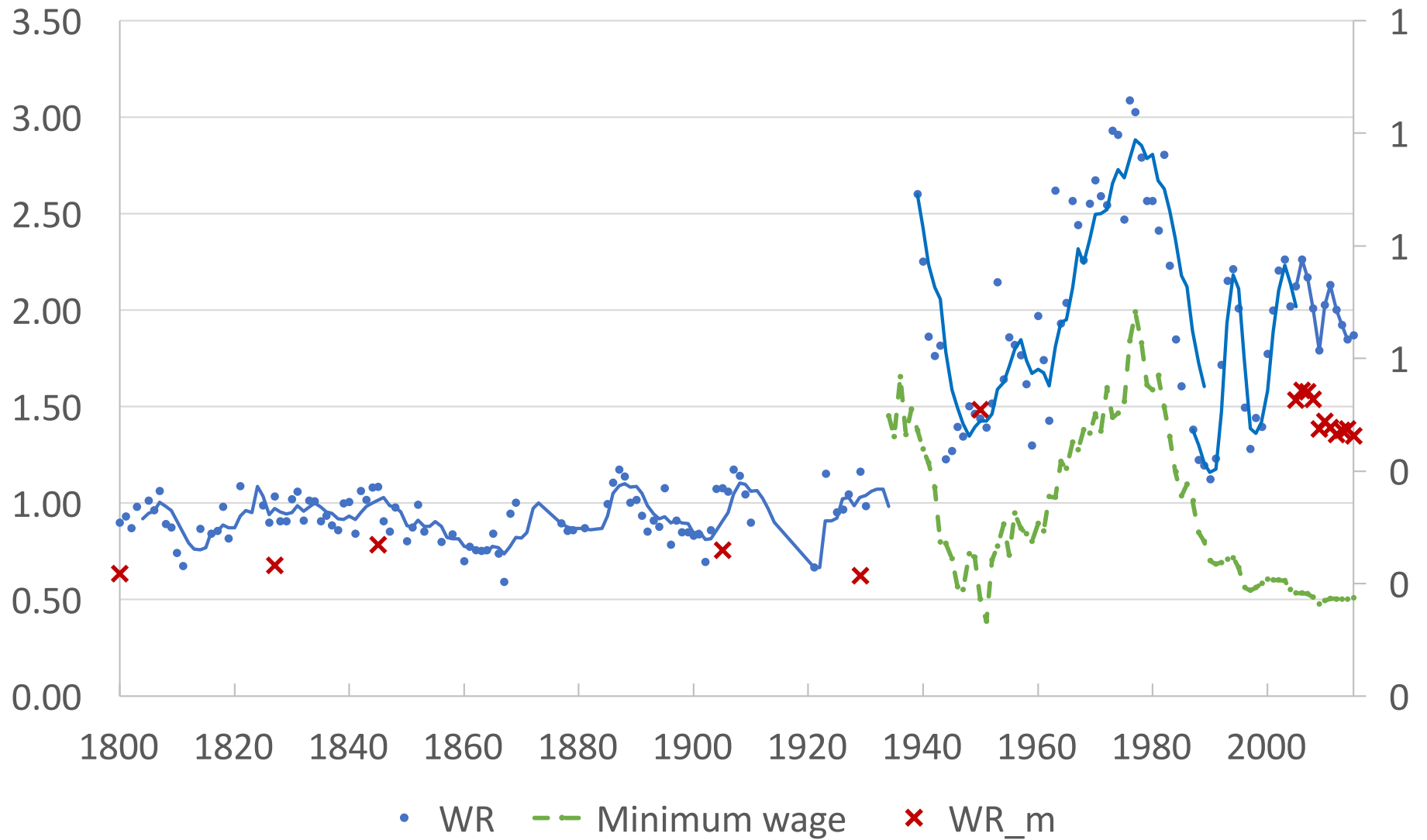
# Inequality in Mexico, 1800-2015: per worker GDP/wages



# 1800-1970s

- Inequality was low in the nineteenth century and first rose substantially from around 1890.
  - Export-led growth led to rising GDP, while real wages stagnated.
- Inequality declined from the 1920s and remained relatively low 1940-1970.
  - Both GDP and wages grew rapidly.
  - Rapid industrialization under ‘state-led development’ and the ‘Mexican miracle’, with powerful social actors including unions and agrarian organizations.
  - Land reform from 1930s reduced rural inequality, and rural productivity increased. Explains high median wage in 1950?
  - Political pressure supported a high minimum wage and high real wages, with subsidies to essential goods.
  - Household surveys 1950-1977 suggest a different story, but close examination reveals they are not comparable: **the common claim of a rise in inequality 1950-1977 is a myth.**

# The real minimum wage



# 1980s-2015

- Real wages collapsed in the 1980s, GDP stagnated.
  - Debt crisis, and no net per capita growth 1981-1996.
  - More important: explicit political neoliberal turn, with the decision to end state-led development and the existing political agreements, and to slash minimum wages and social spending.
- Inequality was highest around 2000, but in 2015 remained close to that peak.

# Inequality in the long run

Comparing 2000-2015 with 1800-1895:

**Real per worker GDP rose 8.5 times, while low-skill urban real wages rose 2.2 times and median wages rose 2.1 times.**

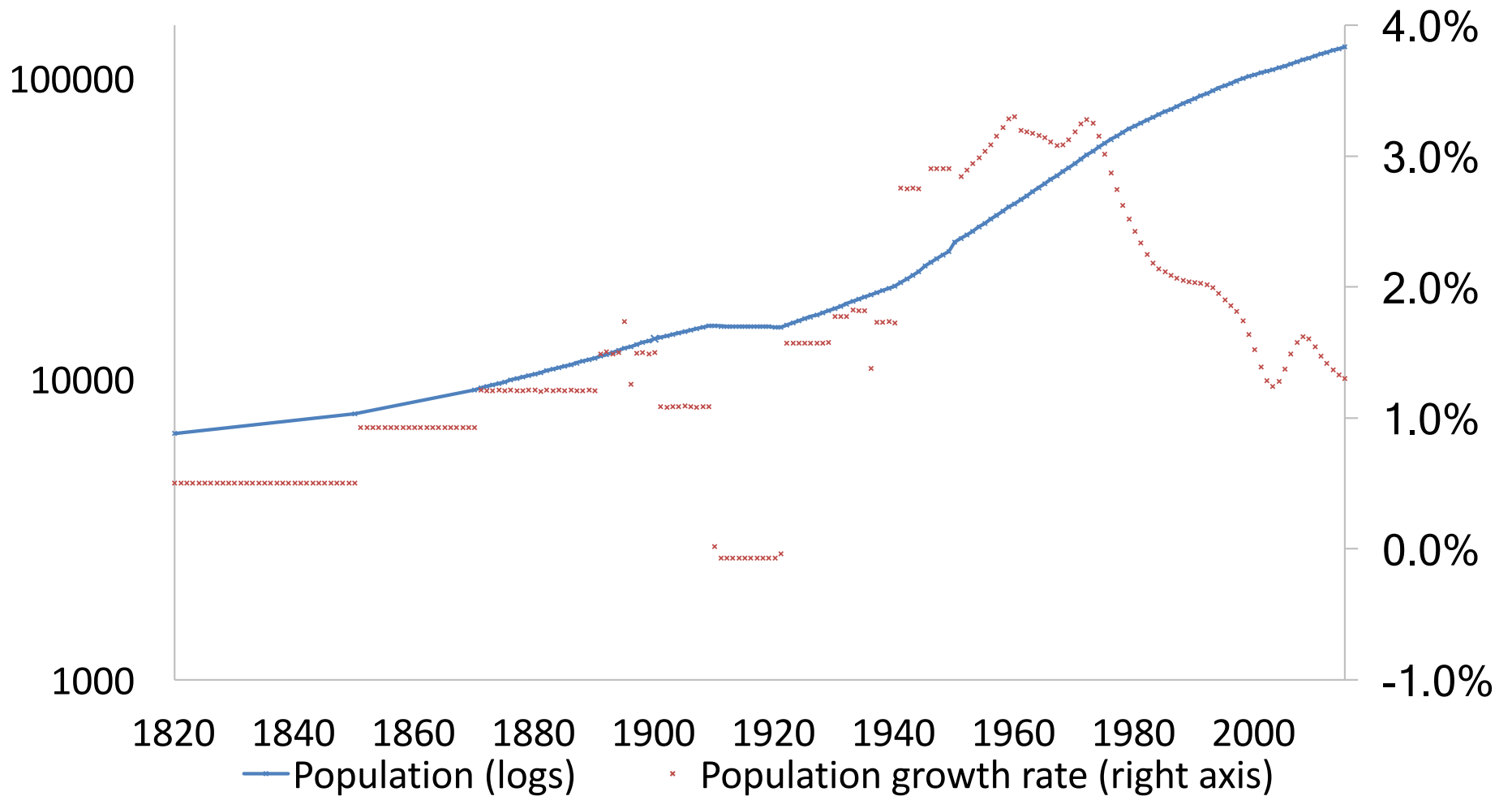
The construction wage can buy about 70% of the official poverty basket for a family. Consistent with this, the Mexican government estimates about half of the population is still below the poverty line.

# Why have wages stagnated so long?

- Lewis's (1954) model of a 'reserve army of labour' working for subsistence wages, keeping capitalist sector wages low.
  - Mexico had exceptionally-high population growth in much of the 20<sup>th</sup> C.
    - Exceeding 2.5% over 1940-1975, peaking in 1960 at 3.3%.
    - Europe had around 1% in mid-20<sup>th</sup> C.
- ⇒ Capitalist demand for workers never caught up with the supply of workers, keeping wages low.
- The rise in wages in the mid-20<sup>th</sup> C. was due to a combination of political pressures and economic forces – popular mobilization supported by rapid industrialization and growth.
  - No sign of a 'Kuznets curve'.



# Population levels and growth rates



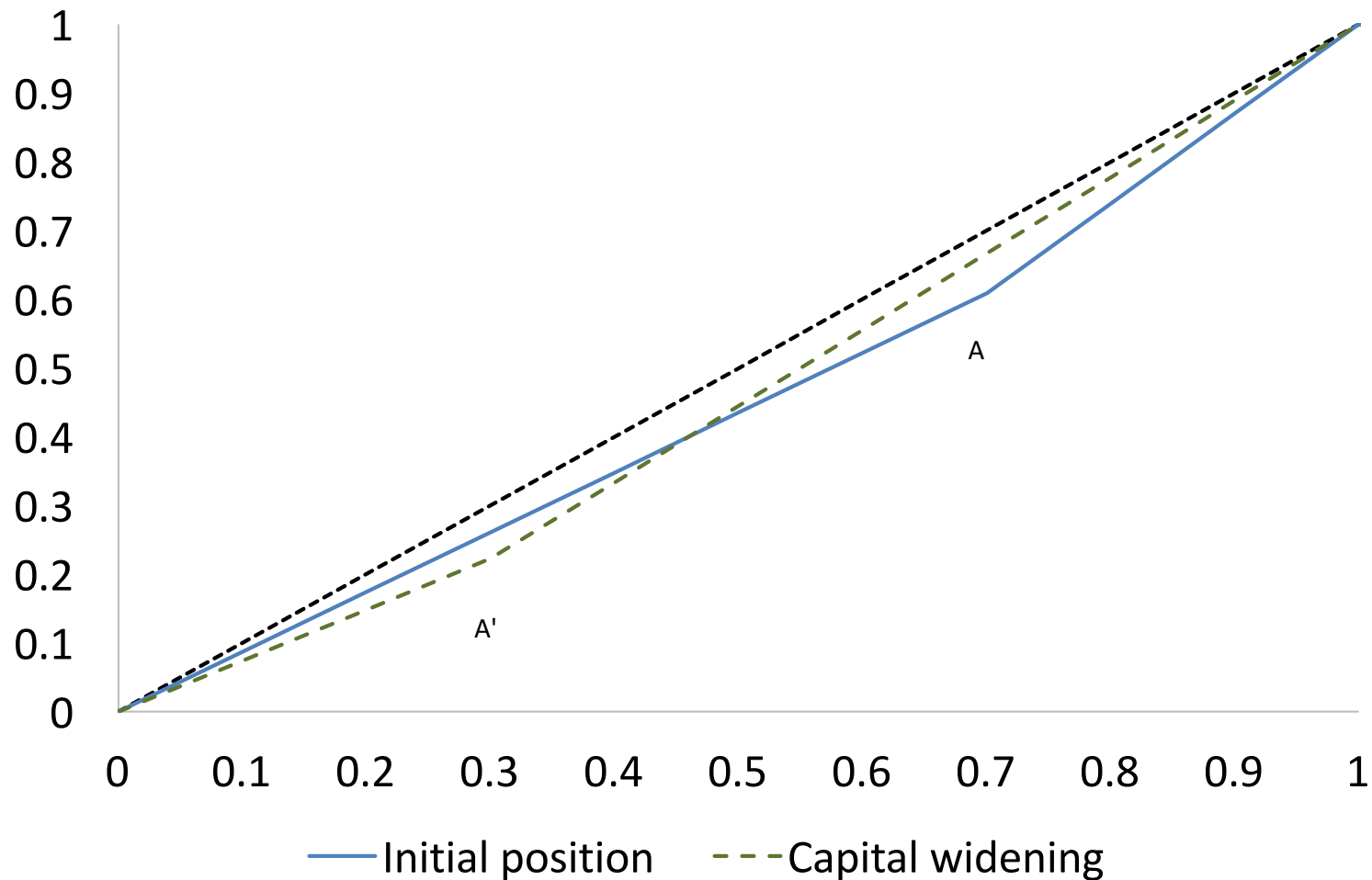
# Lewis vs. Kuznets

- Both are dualist models of development, with a traditional/subsistence sector and a modern/capitalist sector.
- Both models have two types of economic development:
  - Shift from subsistence sector to capitalist sector, i.e. capital widening
  - Technical change and capital deepening in the capitalist sector
- Because of their similarities they are sometimes conflated in ‘the Kuznets-Lewis model’.

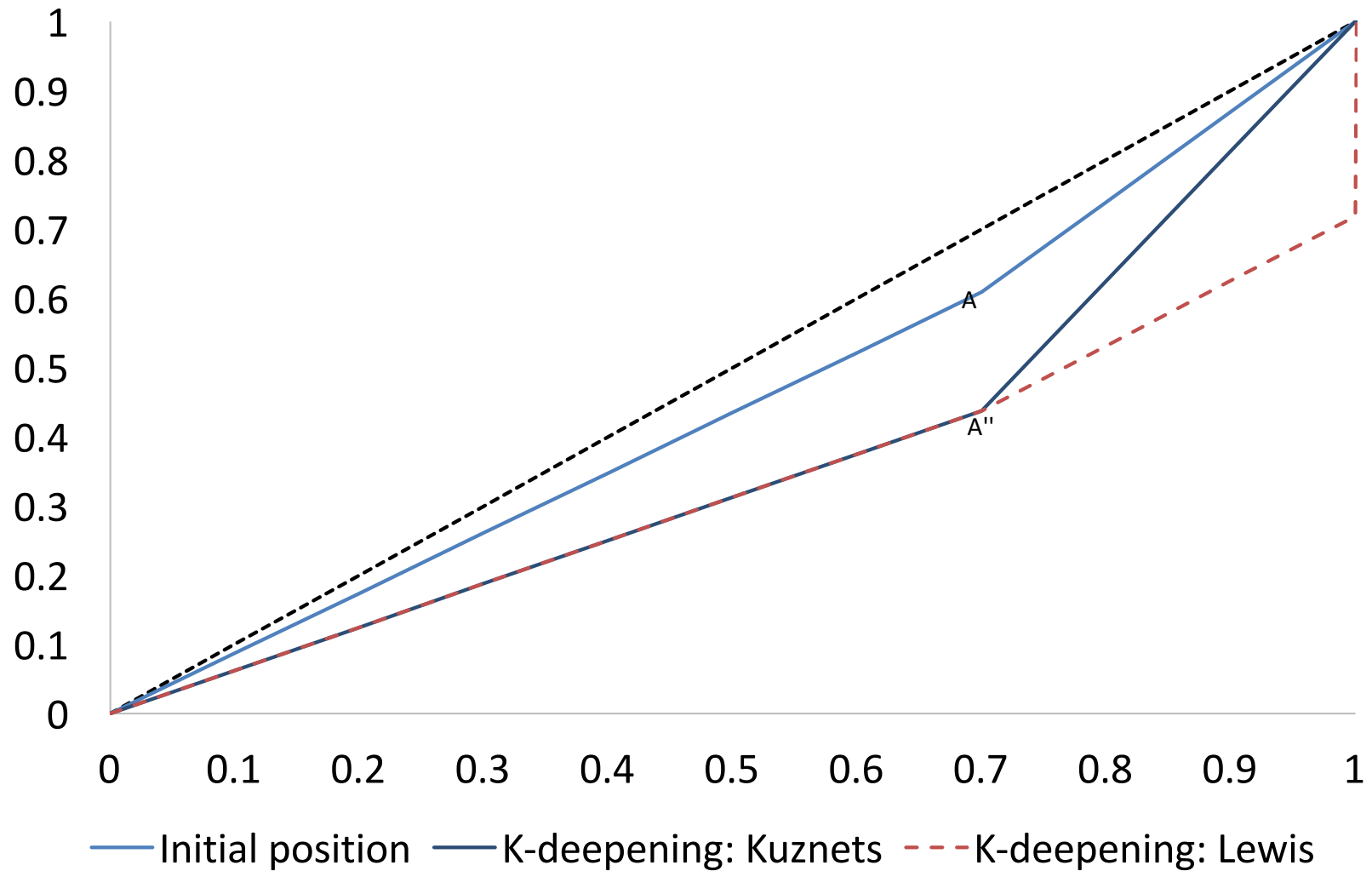
# Lewis vs. Kuznets

- The key difference is that Kuznets assumes immobility of labour between sectors, while Lewis assumes mobility.
- For this reason, capital deepening has different effects:
  - In Kuznets, workers in the capitalist sector are protected from competition from subsistence workers.  
⇒ Salaries in the capitalist sector rise with productivity; inequality *within* the sector remains constant.
  - Lewis assumes that wages stay constant as long as there is a ‘reserve army of subsistence labour’.  
⇒ All benefits of capital deepening go to capitalists.
- Both quantitative and qualitative evidence suggest much mobility in Mexico.

# Kuznets and Lewis Lorenz curves, initial position and capital widening



# Kuznets and Lewis Lorenz curves, capital deepening



# Conclusion

- In Mexico, low skilled workers have benefitted little from capitalist development: real GDP per worker has grown 8.5 times since the 19<sup>th</sup> C., while workers near the middle of the distribution saw their real wages little more than double, remaining close to subsistence.
- The economic explanation: The Lewis model, i.e. capitalist development never caught up with population growth.
- Under these circumstances, capitalist growth just leads to rising inequality: we find no *economic* mechanism for a reversal.
  - Contrary to Kuznets and Clark, but consistent with Piketty.

# Historical lessons on inequality

- The only period in which workers shared the benefits of capitalist growth was the 'Mexican miracle' of 1940s-1970s, a period of state-led development.
- But it was most likely political agreements, not just economic forces, that pushed up wages.
  - Economic forces gave *organized* labour bargaining power – so economic forces may have been necessary, but not sufficient.
- The pessimists are right that capitalist development cannot be relied on to produce inclusive growth. But since political mobilization can achieve substantive progressive redistribution, this supports action, not resignation.

## Welfare ratios: median wage and low-skill urban wage

	Median WR	Albañil	Ratio albañil/national median
1800	0.63	0.90	1.42
1827	0.68	1.03	1.53
1845	0.78	1.08	1.38
1905	0.75	1.08	1.43
1930	0.62	0.984	1.58
1950	1.48	1.44	0.97
2005-15	1.44	2.01	1.39

The low-skill urban wage is 38% to 58% above the median, except for 1950, a period of major economic changes (below).