Lisbon School of Economics & Management
Universidade de Lisboa

Macroeconomics 1

AT2.2: Labour market: politics and institutions

2025-2026

Theory 2.2

Class outline:

- Labor market policies and their effects
- Unions
- Segmented labor markets

Theory 2.2

Readings

- The CORE Team. (2023). *The Economy 2.0: Macroeconomics* (módulos 2.4-2.6)

Labour market policies and their effects

Employment and unemployment policies

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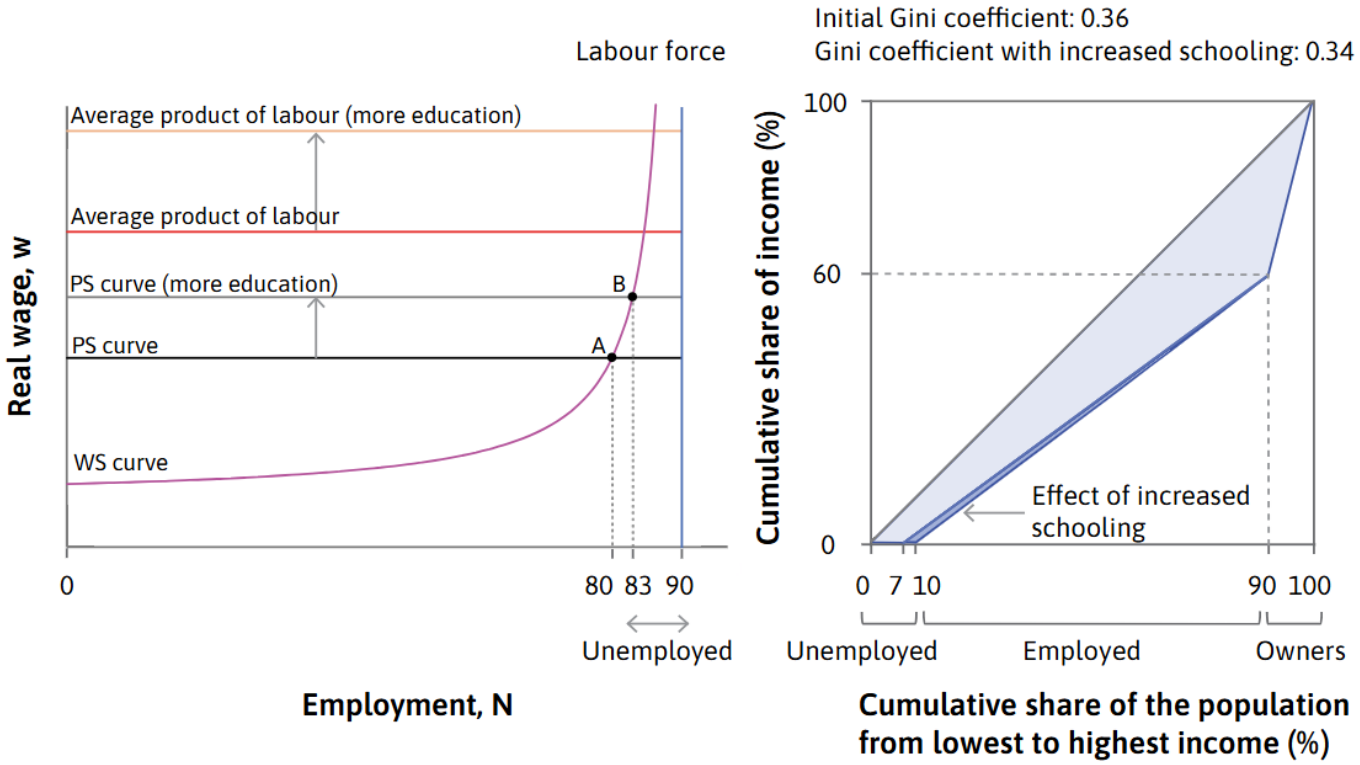
Governments can act in many ways (through policies and institutions) on the **functioning of the labor market**, employment, and unemployment:

- by **defining and regulating contract types**,
- legislating on the **ease and cost of dismissals**,
- setting eligibility conditions for **unemployment benefits**,
- allocating resources to **vocational training** and the **labor market integration** of the unemployed, and so on.

At this point, we examine—within the framework of **the WS–PS model** (and subject to its assumptions)—some **of the effects of these policies**.

Policy #1: education and vocational training

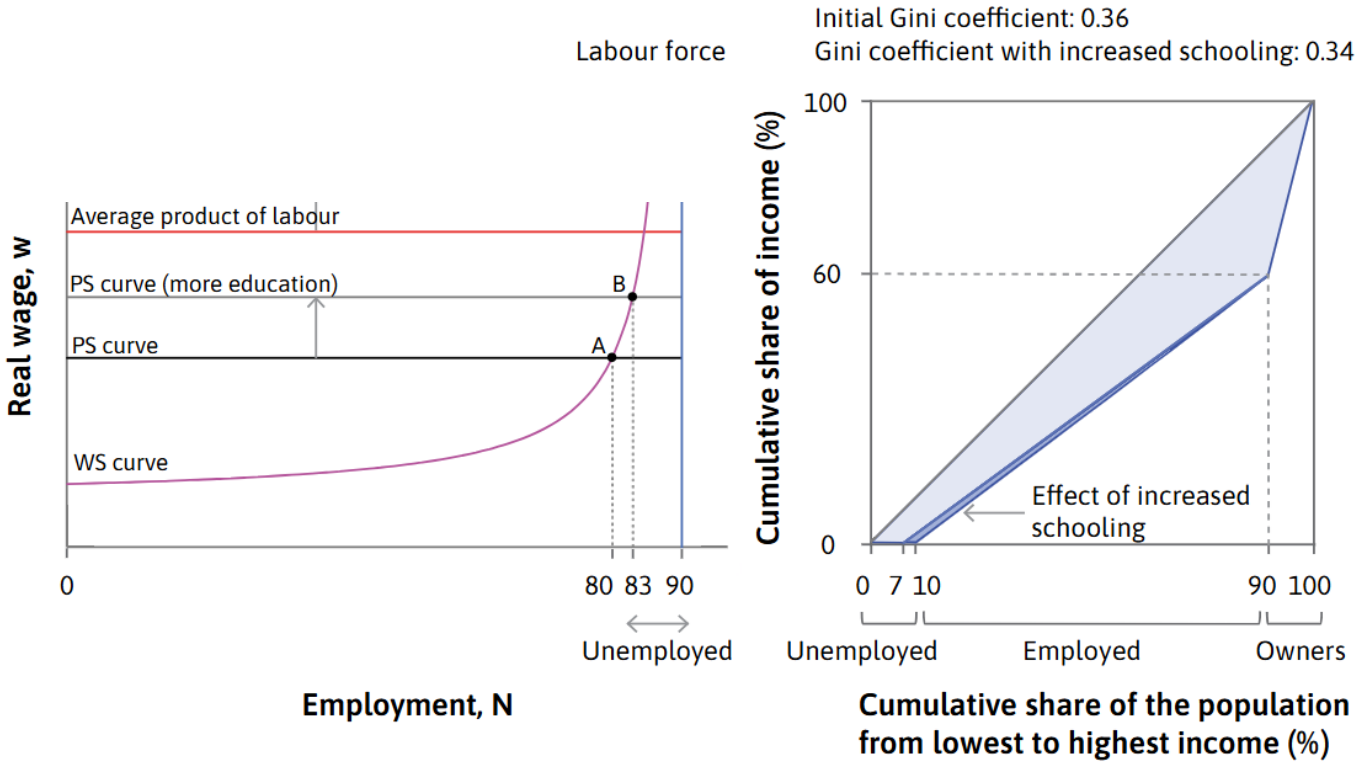


Suppose the **government increases spending** on **education and vocational training** in such a way that:

1. workers become **more productive** (**λ** increases);
2. everything else remains unchanged, including the distribution of income between profits and wages (**σ** and **1 – σ**).

We also assume that this increase in spending is financed by a reallocation of expenditure, **with no increase in taxes** (we will analyze the effect of a tax increase later on).

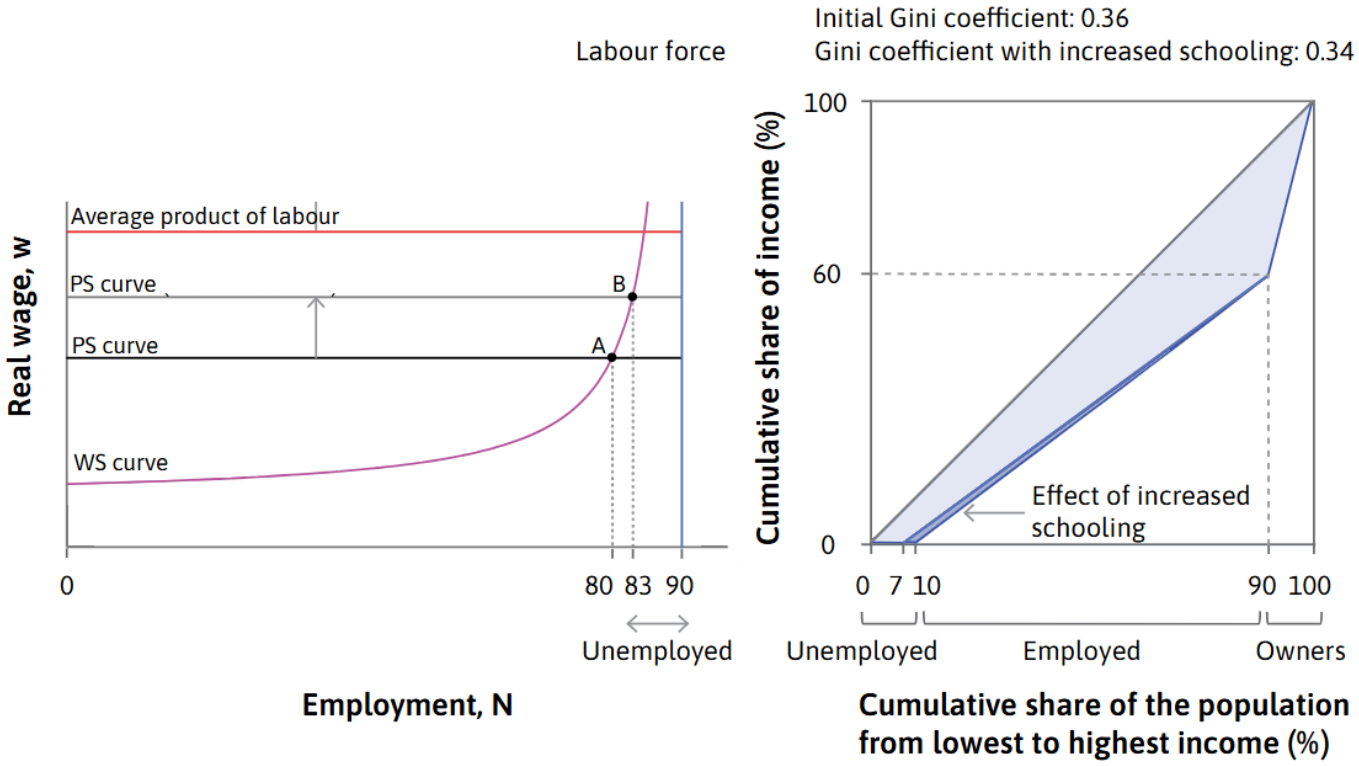
Policy #1: education and vocational training



Under these conditions:

- The **PS curve shifts upward**, and the economy moves from equilibrium **A** to the new equilibrium **B**;
- the real wage **w** and employment **N** increase;
- **unemployment decreases**;
- **inequality decreases** (due to the reduction in unemployment; the increase in wages does not affect inequality because **profits increase in the same proportion**).

Policy #2: wage subsidy

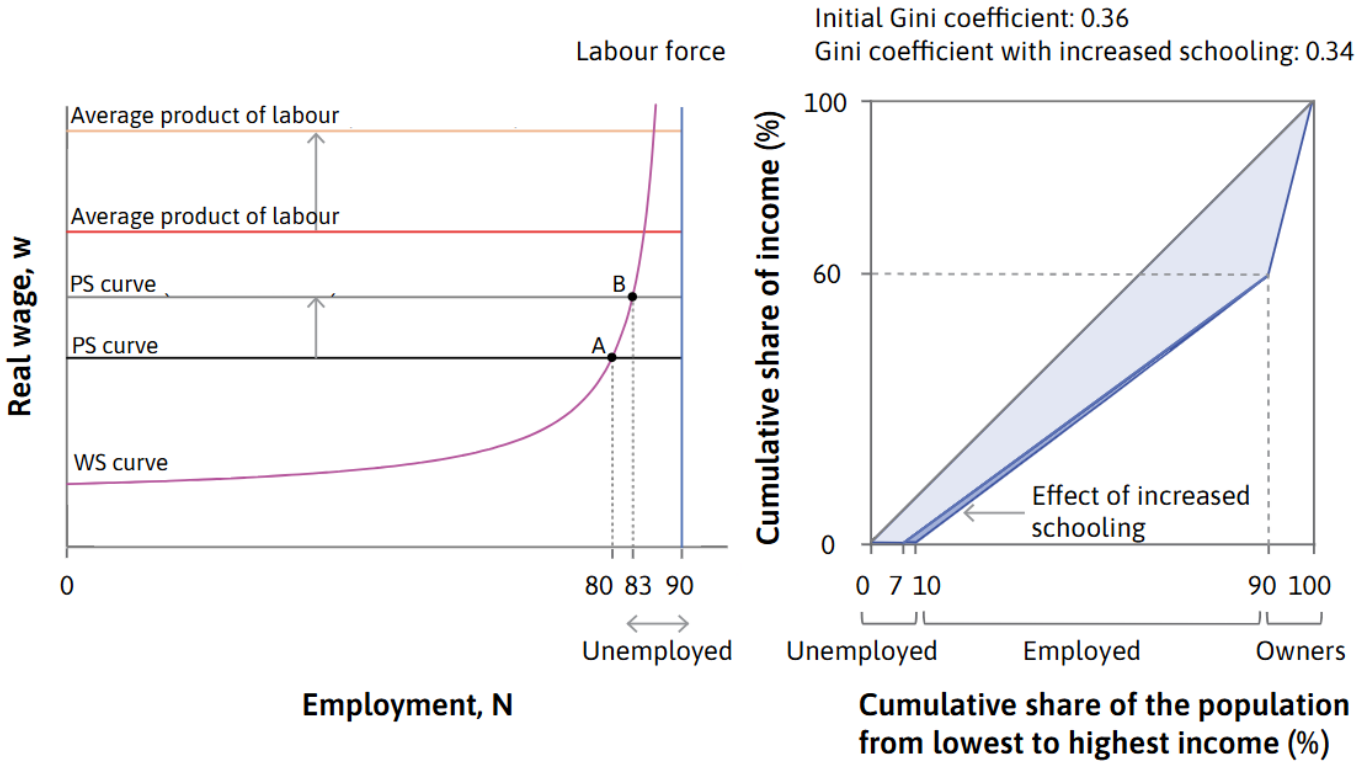


Another possible policy is to provide a **hiring subsidy** ("wage subsidy").

This is a **payment by the state** intended to **increase the wage received** by **workers or to reduce labor costs for firms**, with the aim of encouraging hiring and increasing workers' incomes.

For example, the state pays **10% of each worker's hourly wage**.

Policy #2: wage subsidy



The hiring subsidy **reduces labor costs for firms** (which, in this model, are the only cost).

Since the **markup remains unchanged**, the final **prices** of the goods sold by firms **fall proportionally**.

As **P** decreases, **w = W / P** increases → this leads to an **upward shift of the PS curve**.

Resulting effects identical to an increase in productivity. Now operating through the **PS curve**: higher employment, a higher real wage, lower unemployment, lower inequality (due to the reduction in unemployment).

Policy #3: Unemployment benefits

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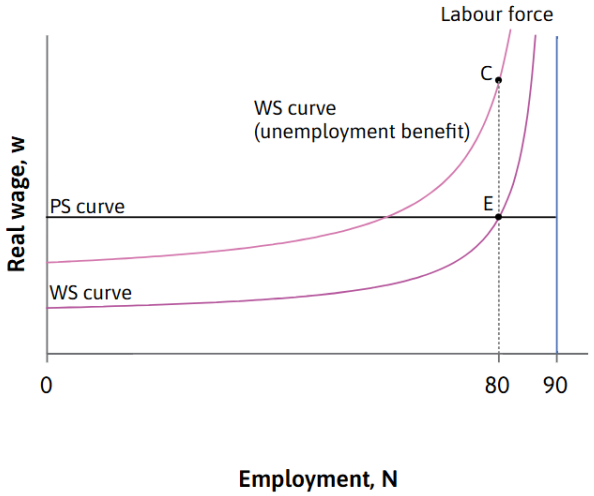
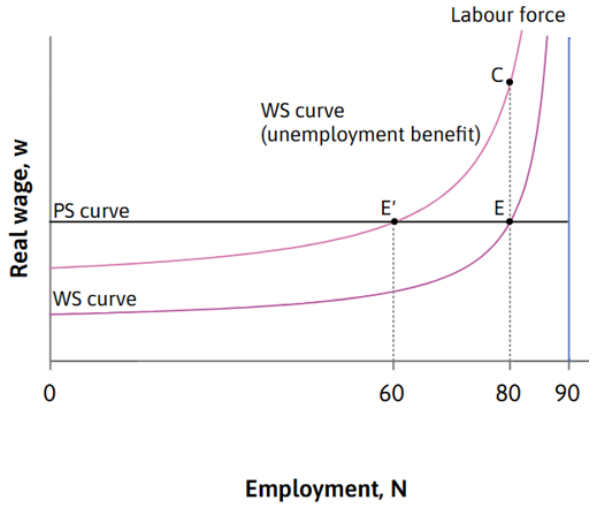
Unemployment benefits are a monetary transfer that **provides income to workers who are unemployed**, in order to prevent abrupt and adverse fluctuations in the living standards of workers and their families, and to avoid negative personal and social consequences.

They are usually **subject to conditions regarding:**

- **benefit levels** (often lower than the income earned while employed), maximum duration (to encourage job search),
- **prior contributions** (only those who have contributed for a minimum period are entitled),
- **obligations** (e.g. accepting job offers or participating in vocational training),
- **cause of unemployment** (typically only those who were dismissed, and not those who resigned, are eligible).

Policy #3: Unemployment benefits



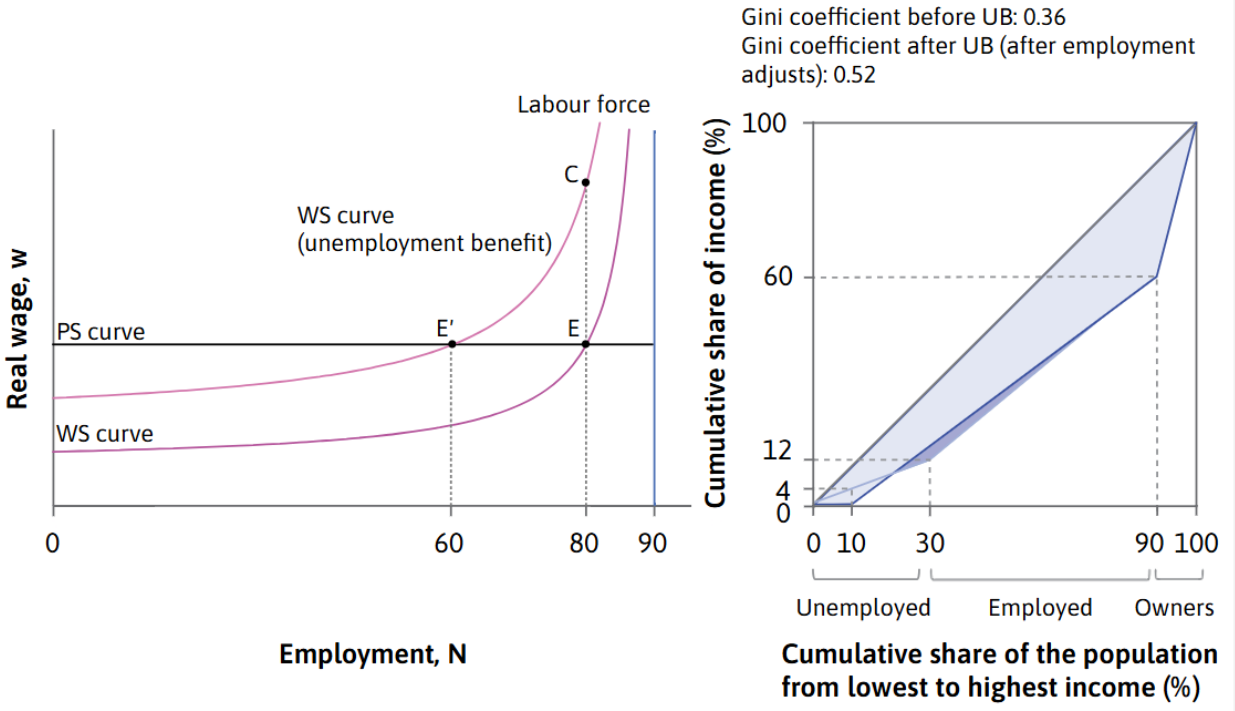


Within the **WS–PS model**, the introduction (or increase) of unemployment benefits raises workers' **reservation wage** (their outside option in the event of dismissal). Consequently, it shifts the **WS curve upward and to the left**.

In a first stage (top panel), the economy moves to point **C**, with a higher real wage and the same level of employment.

However, if the **markup** and the **markdown** remain unchanged, **the increase in labor costs reduces firms' profits, leading them to cut production and raise prices.** The economy then converges to a new equilibrium **E'**, with the real wage unchanged relative to the initial situation and a **lower level of employment**.

Policy #3: Unemployment benefits

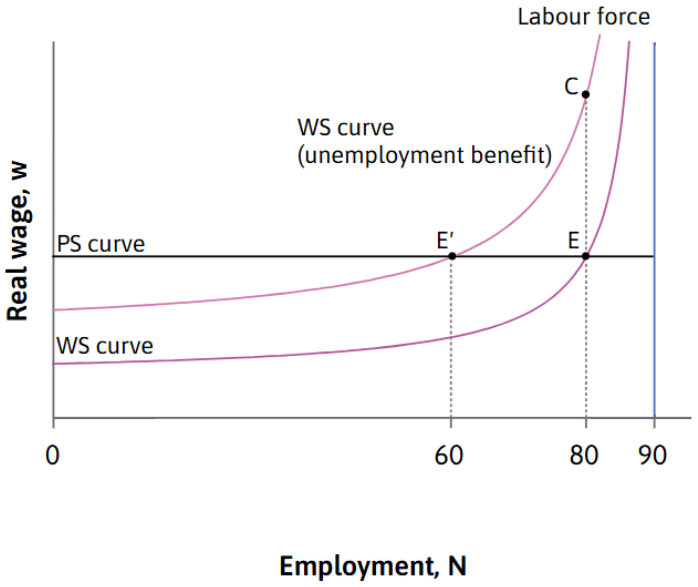


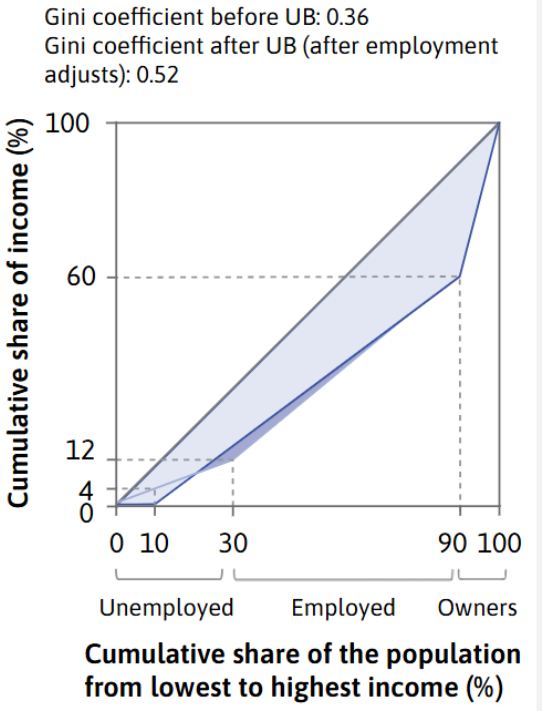
In the new equilibrium **E'**, from the perspective of inequality, there are **two opposing effects**:

1. there are **more unemployed workers** than at **E**, which **increases inequality** (if the benefit is lower than workers' wages);
2. but those **unemployed workers** now receive a **non-zero income**, unlike before, **which reduces inequality**.

The overall effect on inequality depends on the relative magnitude of these two effects. In the example shown on the left, **inequality increases** (the Gini coefficient rises).

Policy #3: Unemployment benefits





Under these conditions, the increase in unemployment (and possibly in inequality) is an **unintended consequence** of a policy aimed at ensuring income for unemployed workers.

Note **that we are assuming** (by hypothesis) that the introduction of unemployment benefits **does not affect firms' markdown**.

If instead we assumed that **unemployment benefits increase workers' bargaining power**, thereby reducing the markdown:

Alongside the upward shift of the **WS** curve. we **would also have an upward shift of the PS** curve, which could **lead to different effects on real wages, employment/unemployment, and inequality**.

Policy #3: Unemployment benefits

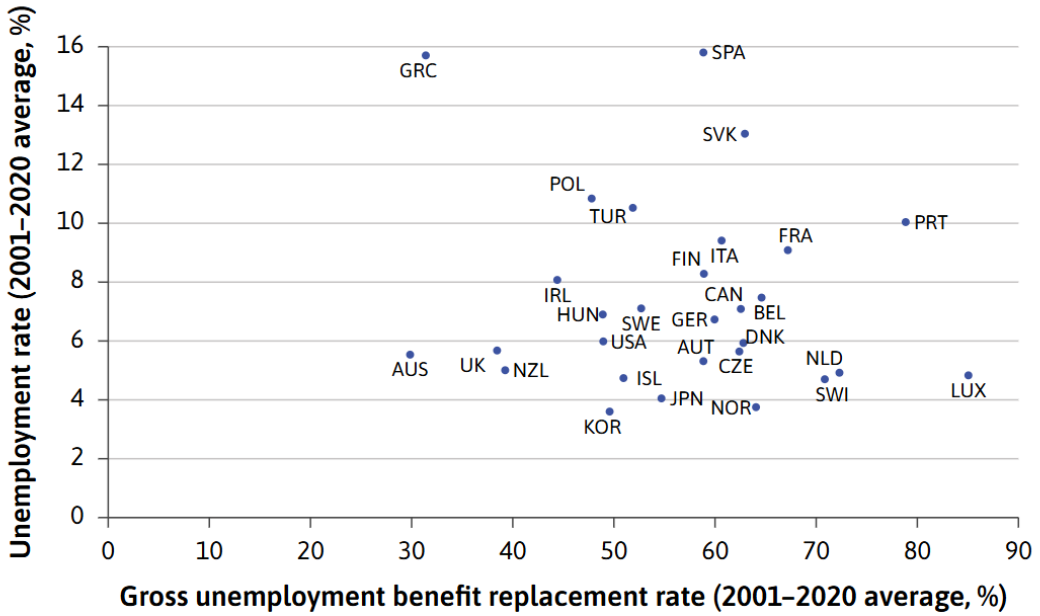


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Figure 2.11 Unemployment benefit generosity and unemployment rates across the OECD (2001–2020). The gross unemployment benefit replacement rate is an average for the economy of how much of a person's pre-tax earnings is replaced by unemployment benefits.

This illustrates a more general point: **the conclusions of models depend on the assumptions that are made**.

In the real world, **empirical evidence** (at least for the sample shown in the figure—OECD countries, 2001–2020) **does not suggest** the existence of a **relationship between the generosity of unemployment benefits and the unemployment rate**.

Source: The CORE textbook.

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Unions

Unions

Trade unions are organizations that **collectively represent workers** with the aim of defending their economic, social, and professional interests.

They operate mainly through **collective bargaining with employers**, seeking better wages, working conditions, hours, safety, and job stability, as well as by representing workers in labor disputes.

Their main bargaining tool is the strike (or the threat of a strike): the interruption of workers' participation in the production process.

Unions

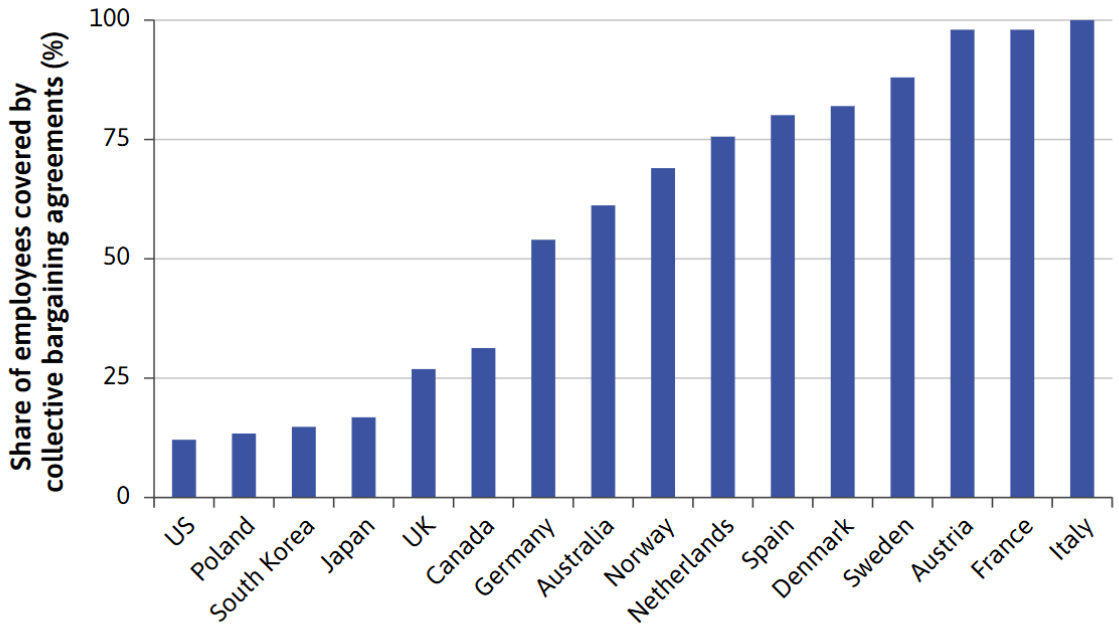

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Figure 2.13 Share of employees whose wages are covered by collective bargaining agreements (2017–2020). Note that this does not measure union membership as a share of employees (called union density).

The coverage of collective bargaining varies greatly across countries.

In Portugal, the comparable OECD measure ("Adjusted bargaining coverage rate") was 73.6% in 2018.

This level of coverage has a significant influence on workers' bargaining power in the labor market.

Unions

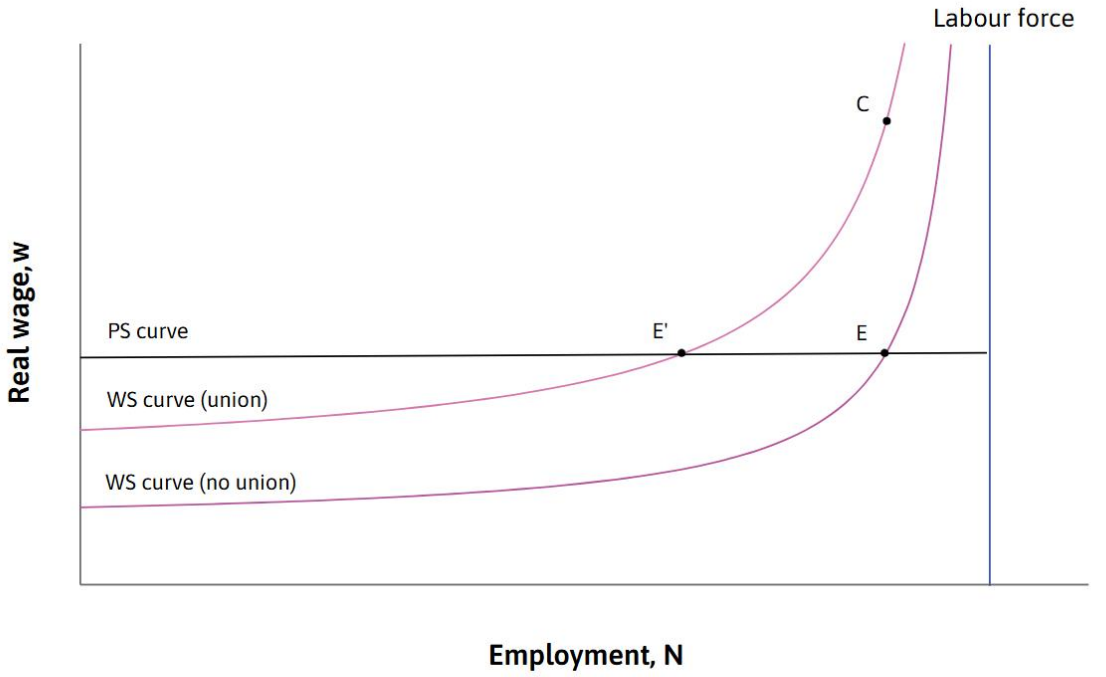

Figure 2.14 The bargained wage-setting curve when there is union wage setting.

Within the **WS–PS model**, similarly to the effect of unemployment benefits, **trade union bargaining** shifts the **WS curve upward**, since unions (under the threat of a strike if their demands are not met) are able to demand a higher wage for each level of employment (**W ↑**).

However, as in the previous case, if the **markup** and the **markdown** do not change, the increase in firms' costs leads them to reduce production and raise prices (**P ↑**), thereby reducing the real wage **w = W / P** back to its initial level, in the new equilibrium **E'** (with lower employment). Under these circumstances, **inequality increases** (due to higher unemployment).

Unions

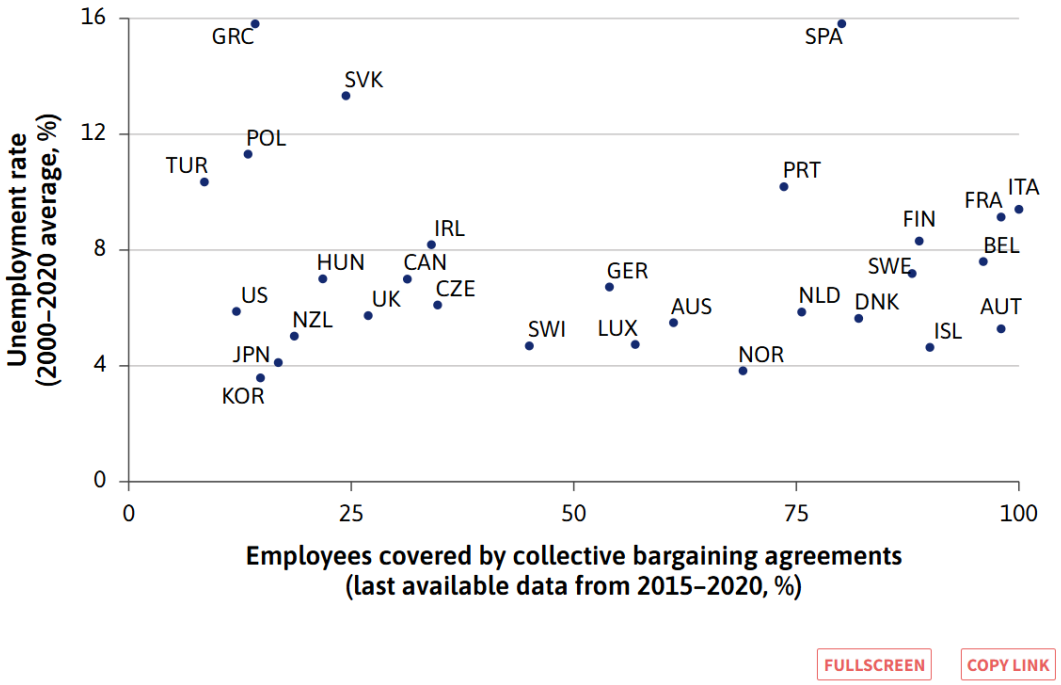

Figure 2.15 Collective wage bargaining coverage and unemployment across the OECD.

Note that, in the real world, **empirical evidence**—at least for the economies shown in the figure (OECD, 2000–2020)—indicates that, **contrary to the model's prediction**, greater or lesser coverage of collective bargaining is **not associated** with a higher or lower average unemployment rate in the long run.

Once again, this shows that **the conclusions of models depend on the assumptions made**—and that there may be important effects that the models do not take into account.

Unions

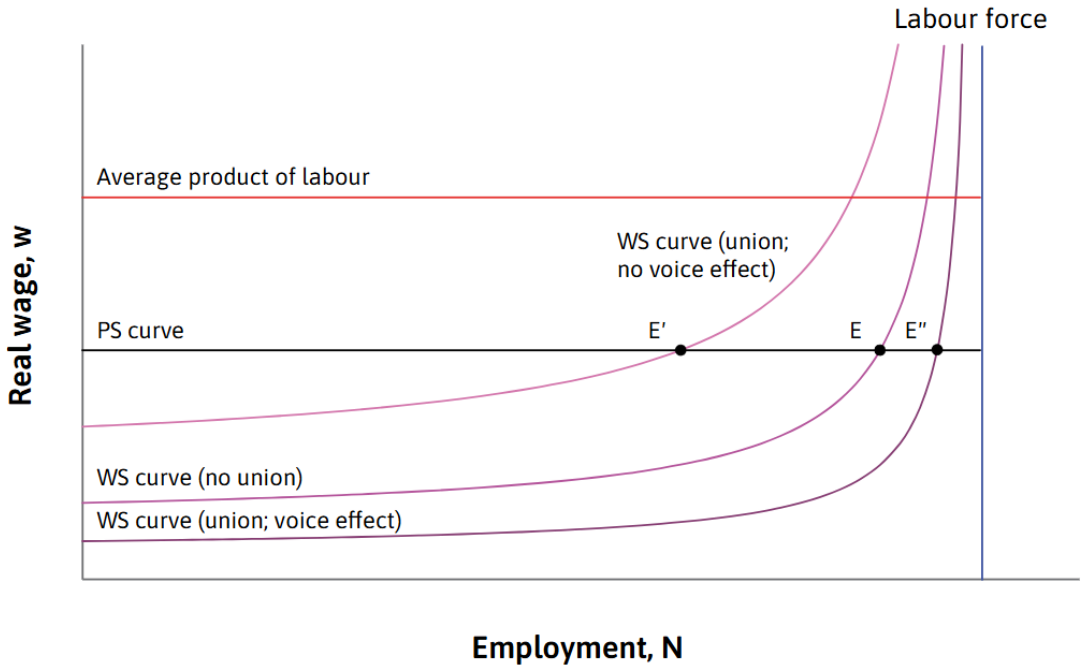

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Figure 2.16 The bargained wage-setting curve and equilibrium when there is a union voice effect.

This may be due to various effects that we are not considering.

For example, workers may view firms' willingness to negotiate with unions as a signal of good faith (the **"union voice effect"**), leading them to identify more closely with the firm and reducing the disutility of exerting effort at the level expected by the firm. This shifts the **WS curve downward and to the right**.

This effect may even be stronger than the original (upward) shift of the WS curve, leading the economy to a new equilibrium **E"**, with **higher employment** and **lower inequality**

Unions

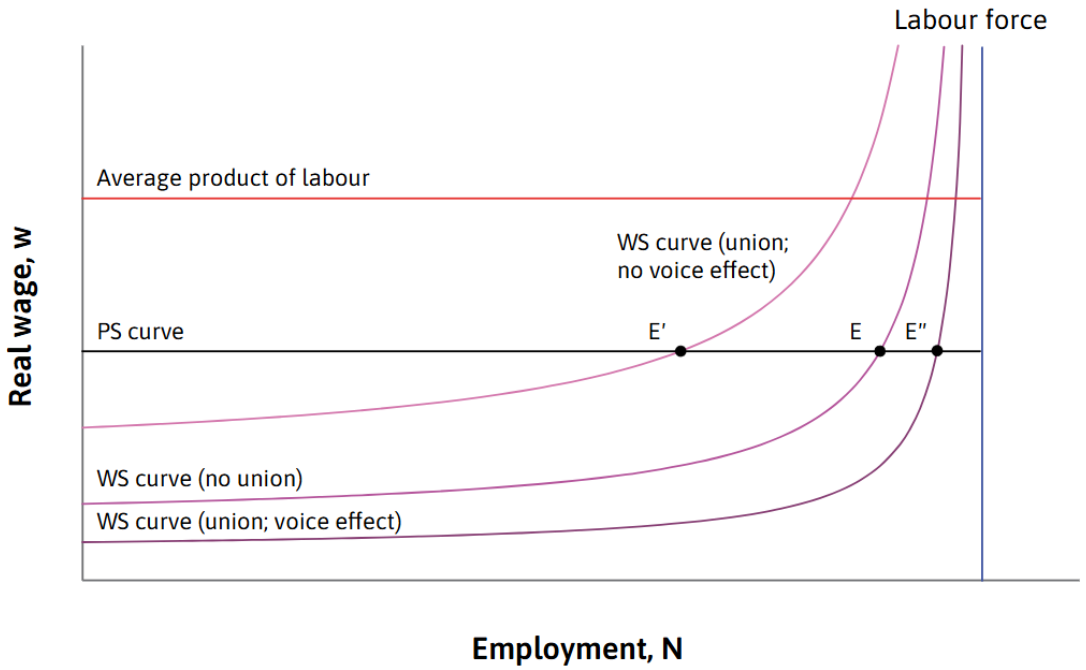

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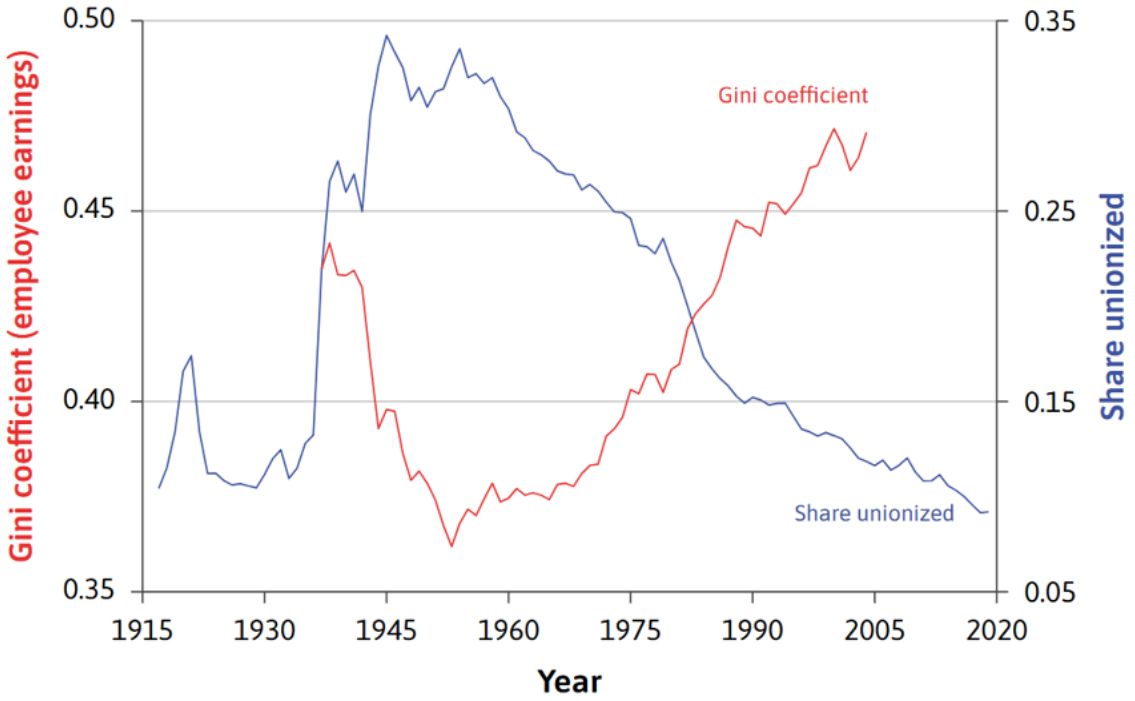
Figure 2.16 The bargained wage-setting curve and equilibrium when there is a union voice effect.

It may also happen that the union chooses **not to demand a wage increase**, despite having the bargaining power to do so, taking into account the possible effects on prices and total employment.

If this occurs, the **WS curve remains unchanged** and the equilibrium remains at **E**.

It may also be the case that increased worker bargaining power **reduces the markdown**, increasing the wage share and shifting the **PS curve upward**, alongside the upward shift of the **WS** curve, with potentially different effects on employment, wages, and inequality, depending on the relative magnitude of the **WS** and **PS** effects.

Unions



In the case of the **United States** (and other countries), there is a clear **temporal coincidence** between the decline in the unionization rate and the increase in income inequality from the 1970s onward.

although correlation does not imply causation: other factors may be at play.

Labour market fragmentation

Labour market fragmentation

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Up to this point, we have assumed the existence of a **single, homogeneous labor market**, with the same (wage and other) conditions for all workers. In reality, however, **the labor market is generally heterogeneous** and segmented.

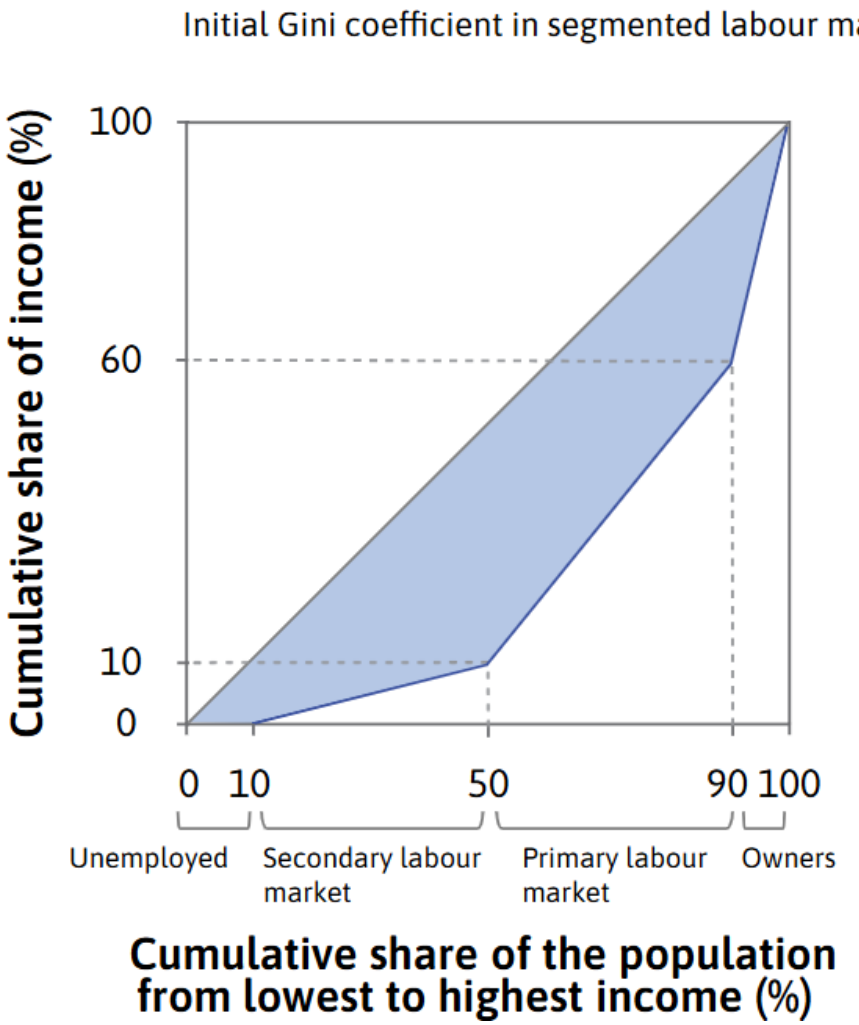
A labor market is said to be **segmented when it includes two or more distinct parts**.

Typically, **Primary labor market**, characterized by higher wages, stable contracts, and better conditions, and the **secondary labor market**, characterized by lower wages, short-term contracts, and poorer working conditions. For examples:

- **Doctors and nurses**
- **Sports league**

The allocation of workers to the primary or secondary labor market often depends on characteristics such as age or nationality/ethnic group.

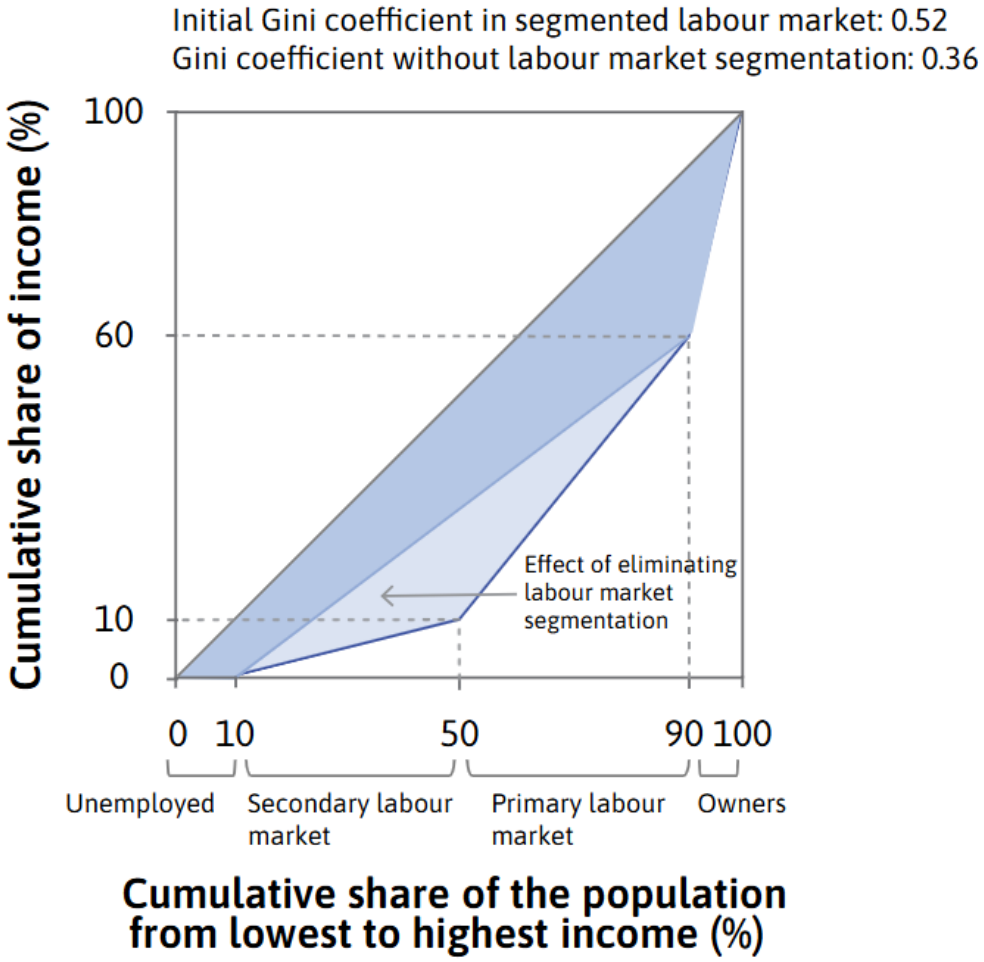
Labour market fragmentation



The figure shown represents the **Lorenz curve** corresponding to a situation in which the labor market is **segmented:**

- **secondary labor market** employing 40 workers (at a lower wage)
- **primary labor market** employing another 40 workers (at a higher wage).

Labour market fragmentation



If labor market segmentation is eliminated (all workers receive the same wage), while keeping the wage share of income **(1 – σ)** and everything else unchanged, **inequality will decrease**.

Additional readings:

"Unemployment benefits and wage policy in Sweden". *In* The CORE Team. (2023). *The Economy 2.0: Macroeconomics* (final do módulo 2.3)