INEQUALITY IV: Addressing inequality

EE461 sem2/2020

Disposable income and final income

In-kind transfer is public expenditure in the form of free or subsidized services for households rather than in the form of cash transfers.

Redistribution and Predistribution

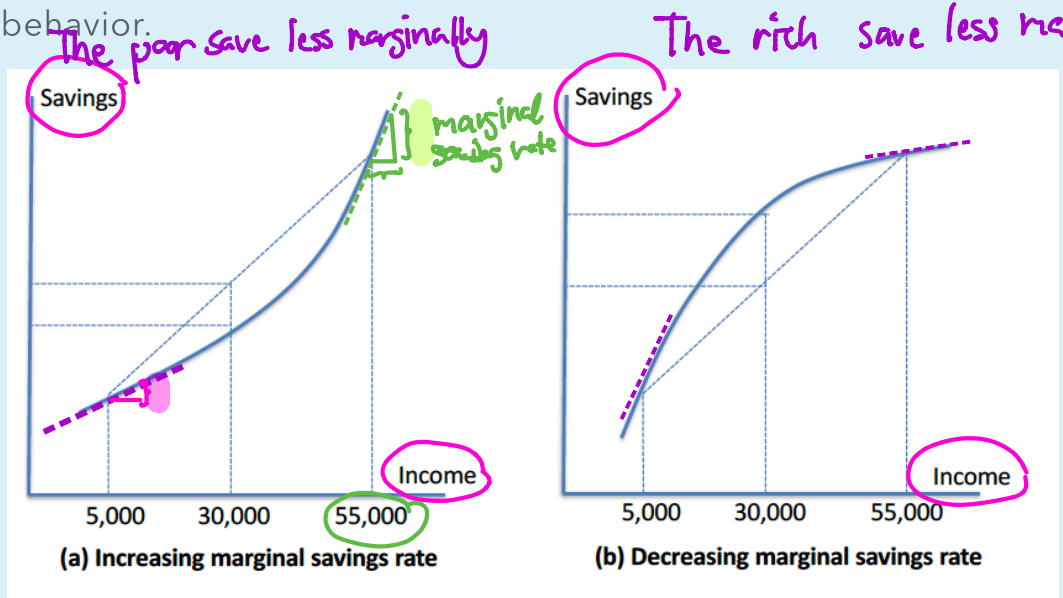
- Governments can influence the degree of inequality in the economy in two ways: Redistribution and Predistribution
- **Predistribution:** Government actions that affect the distribution of earnings before taxes and transfers or the distribution of privately held wealth. Predistribution policies affect the endowments people have and their value of those endowments, leading to a change in the inequality in market income.
- Examples include education, minimum wage, and anti-discrimination policies.

Redistribution and Predistribution

- **Redistribution** policies are policies on taxes, monetary, in-kind transfers of the government, and on expenditure that provides public services to households that result in a distribution of final income that differs from the distribution of market income.

Inequality, saving, income, and growth

- The rate of saving affects the long-run level of per capita income and the rate of growth of the economy.
- We should focus not the total savings generated by various individuals, but their marginal savings behavior.



Inequality, saving, income, and growth

- Suppose that as income increases, the marginal savings rate increases:

take $1 from the poor & give to the rich

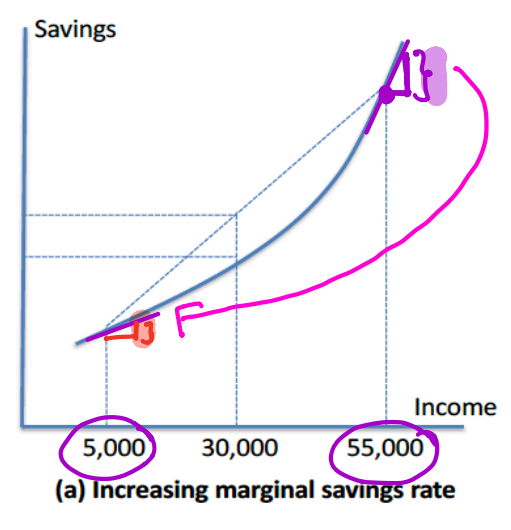
* *If we were to transfer a dollar of income from a poor person to a rich person, more or less? of that dollar would be saved.*

  Savings of one of the average persons is lower than the average generated by the poor and the rich.

  Hence, a reduction in inequality depresses the saving rate in the economy.

Effect of redistribution on savings and growth

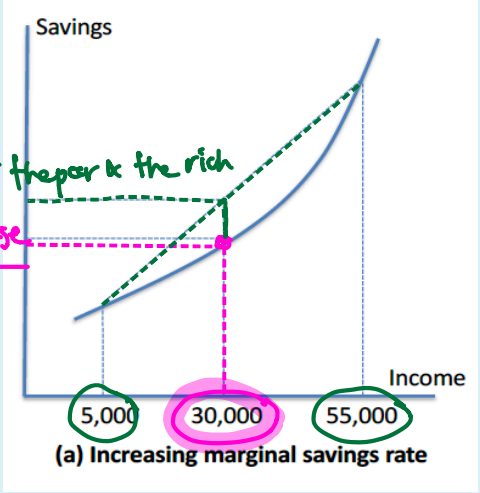
- Suppose that as income increases, the marginal savings rate increases.



- If we were to transfer a dollar of income from a rich person to a poor person, less of that dollar would now be saved as a result of the transfer.

Effect of redistribution on savings and growth

- Suppose that as income increases, the marginal savings rate increases.



the average of saving of the poor & the rich

Saving of the average

Avg of saving > Saving of avg.

- The average of saving of the rich and saving of the poor is more than the saving of the middle income.
- A reduction of income inequality will decrease the volume of savings in the economy.

Inequality, saving, income, and growth

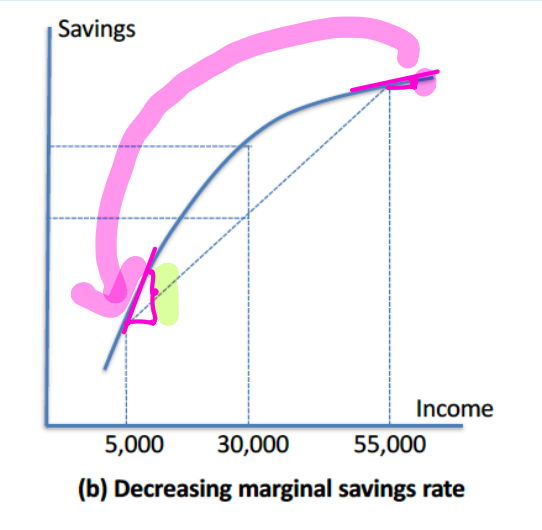
- If on the other hand, the marginal savings rate decreases:

  Transfer a dollar from a rich person to a poor person, more would be saved.

  Hence, a reduction in inequality will increase the volume of savings in the economy.

Effect of redistribution on savings and growth

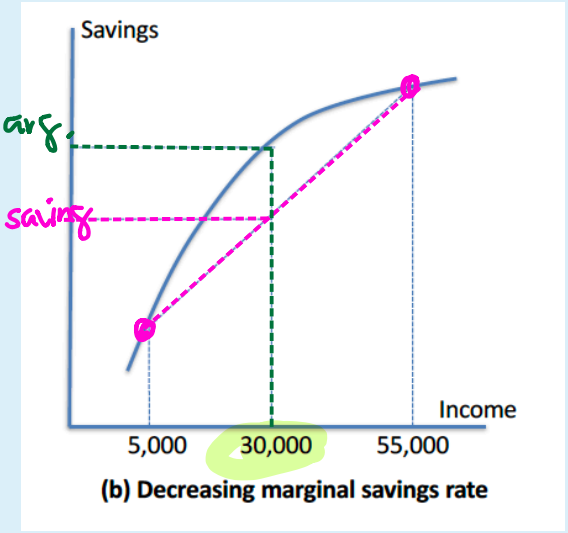
- Suppose that as income increases, the marginal savings rate decreases.



- If we were to transfer a dollar of income from a rich person to a poor person, more of that dollar would now be saved as a result of the transfer.

Effect of redistribution on savings and growth

- Suppose that as income increases, the marginal savings rate decreases.



- The average of saving of the rich and saving of the poor is _____lower_____than the saving of the middle income.
- A reduction of income inequality will _____increase_____ the volume of savings in the economy.

Inequality, saving, income, and growth

- In the real world, how does savings change with income?
- **Subsistence needs:** need for food, clothing, and shelter

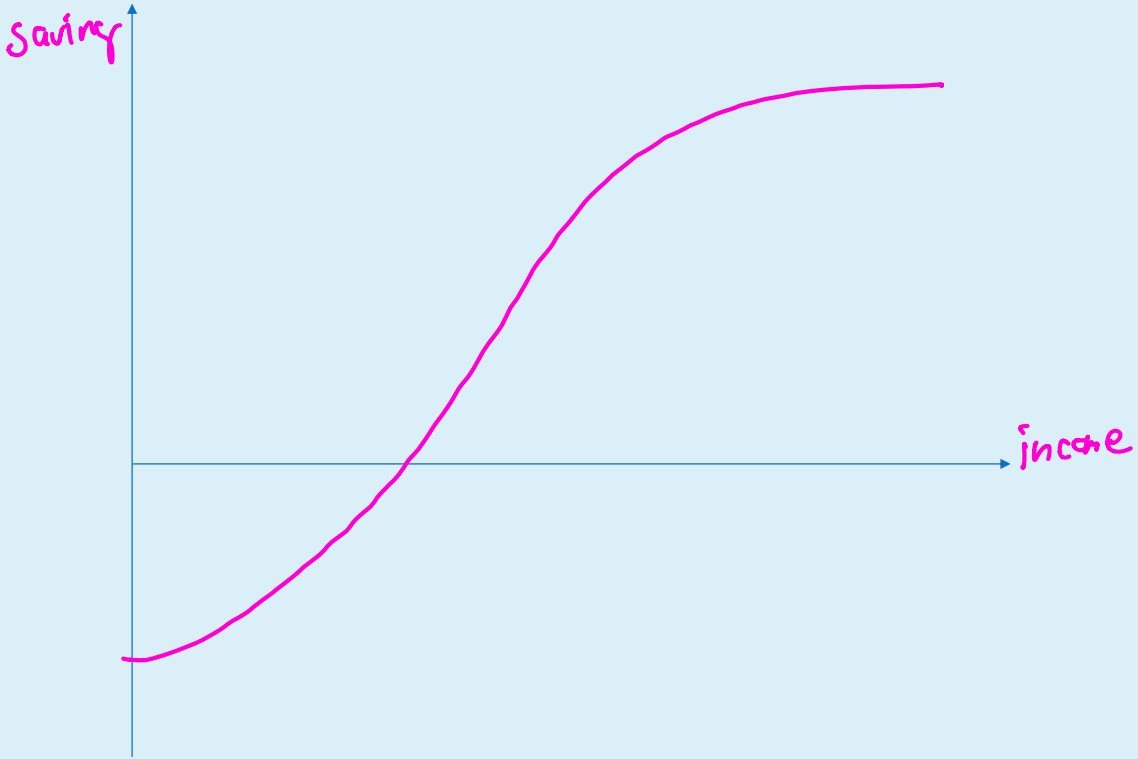
  Although everyone wants to save for the future, many people can't because the needs of the present prevent them from doing so.
- **Conspicuous consumption:** the rich tend to consume at high levels

  the purchase of goods & services for the specific purpose of displaying one's wealth

  Their average rate of savings may be low and so is their propensity to save out of a marginal increase in income.
- **Aspirations and savings:** people whose behaviors are molded by their aspirations to a better economic life, they tend to save large fractions of their income, both on average and at the margin.

Effect of redistribution on savings and growth

- **What is the the behavior of individual savings as income changes?**
- As individual income increases, total savings are initially zero or even negative.
- At some break-even point, savings turn positive and rise thereafter. Marginal dollar of income earned is plowed to a larger and larger extent into savings. This is the income zone where economic aspirations not only matter (they surely matter for everyone), but can be pursued.
- Finally, as we enter regions of high income, even though total savings continues to rise, the marginal savings rate starts to decline, because the aspiration effect wears thin on the already rich.


saving
income

Effect of redist

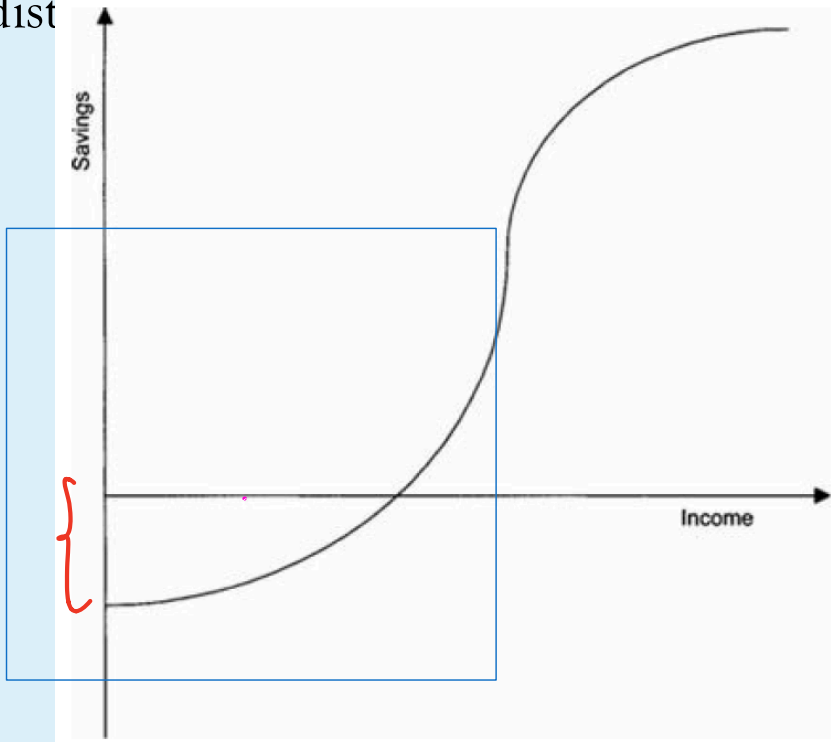
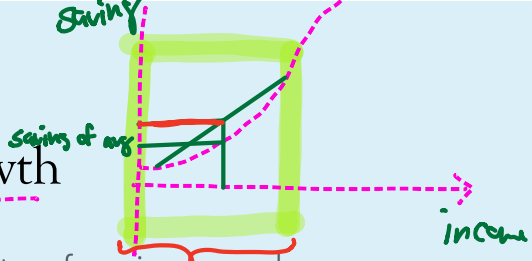


Figure 7.3. Savings and income: a more detailed view.

Effect of redistribution on savings and growth



- The effect of a reduction in income inequality on the rate of savings, and therefore on the rate of growth, is likely to be complex.

- In an extremely poor country, redistributive policies may bring down the rate of savings and therefore the rate of growth in the medium or even long run.

- Without redistribution, there is a fraction of the population (however small) who possess the desire and the means to accumulate wealth.

Effect of redist

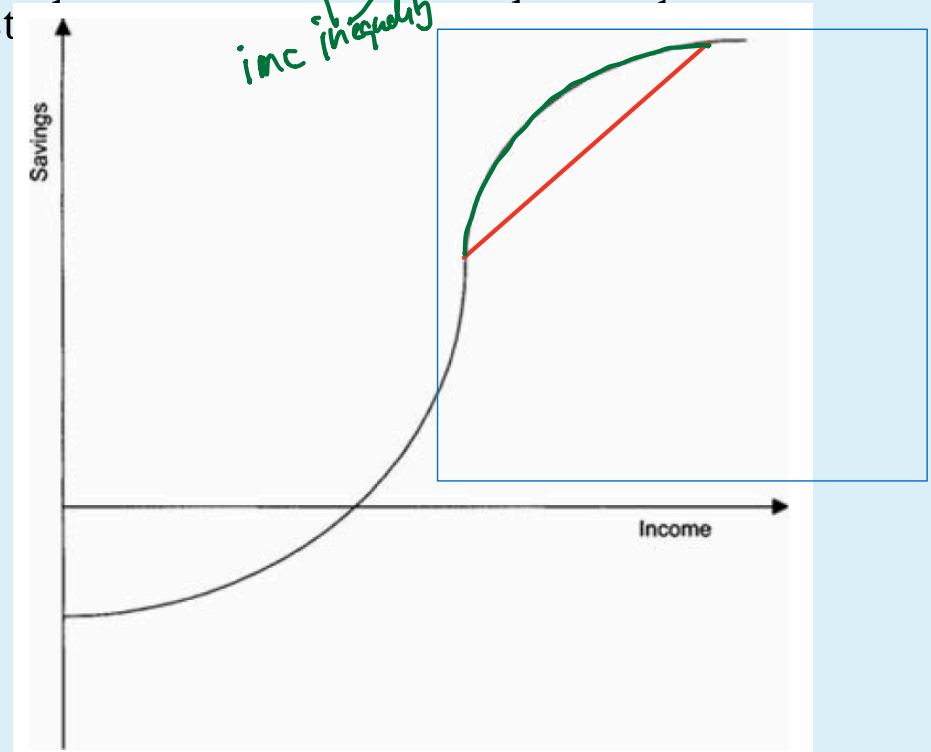


Figure 7.3. Savings and income: a more detailed view.

Effect of inequality on savings and growth

- For medium-income countries, redistributive policies might work because they create a large and ambitious middle class with aspirations (middle-later part of Fig 7.3 or at a decreasing marginal saving rate).
- Savings behavior is not only determined by income but by income and aspirations, and the latter depend on existing inequalities of income and wealth.
- The difference between a desired standard of living and the actual standard of living has an effect on saving behavior.

earlier, we have underlying assumption that redistritive policies are going to

lead to reduction in inequality.

Progressive and regressive redistribution

- When the direct effect of a tax or transfer policy, compared to what would happen in the absence of the policy, is a _____reduction_____ (a rise) in inequality, it is called_____progressive_____ **(regressive).**

- A progressive (regressive) expenditure or transfer increases the incomes of _____poorer_____ (richer) households by more than _____richer_____ (poorer) households, in percentage terms.

- Policies that are neither progressive nor regressive are called _____distributionally neutral_____. **Such policy** does not alter the distribution of income.

Progressive transfer

- Consider Bruno, the landlord, and Angela, the farmer.
- Suppose that Bruno's income is three times as large as Angela's, with Bruno receiving 3,000 pesos per year and Angela receiving 1,000.
- Suppose also that Angela has two children and Bruno three, all of whom go to publicly funded schools, and that the government spends 200 pesos per year per child.

Bruno 3,000, 3 children, receives $3 \times 200 = 600 = \frac{600}{3000} \times 100 = 20\%$

Angela 1,000, 2 children, receives $2 \times 200 = 400 = \frac{400}{1000} \times 100 = 40\%$

(2.) $\frac{\text{inc of Angela}}{\text{total inc}}$ after transfer will be increasing (1.) Relative inc of Bruno to Angela ↓

in kind transfer

Progressive transfer

- This means that Angela receives in-kind transfers worth 400 pesos per year and Bruno 600.

- For Angela this implies an increase in her final income of 40%. For Bruno, it is an increase of only 20%.

- So the transfer is progressive, and the Gini coefficient for final income will decline.

Progressive transfer

- The Gini coefficient depends on *relative incomes*, or the ratios of incomes between households.

$\frac{3{,}000}{1{,}000}$

- Bruno's market income is three times Angela's market income. A policy that reduces that ratio. will reduce the Gini coefficient.

Progressive transfer

Bruno 3,000, 3 children, receives $3 \times 200 = 600 = \frac{600}{3000} \times 100 = 20\%$

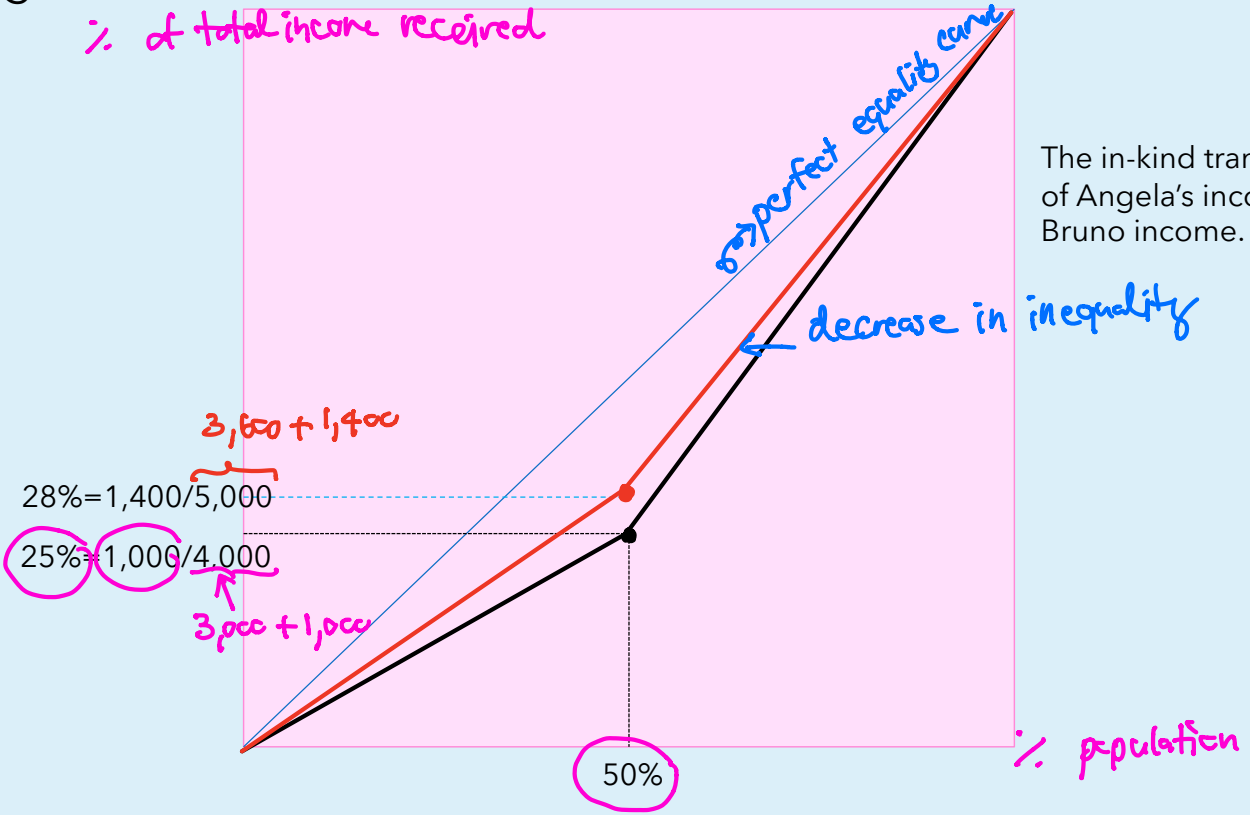
Angela 1,000, 2 children, receives $2 \times 200 = 400 = \frac{400}{1000} \times 100 = 40\%$

- Bruno's final income was 3,600 pesos while Angela's was 1,400, which gives a ratio of 2.57 compared to 3 for market income.

$$\frac{3,600}{1,400} = 2.57$$

- Even though Bruno received more in absolute terms, relative inequality between them declined, so the Gini coefficient declined.

Progressive transfer



The in-kind transfers were 40% of Angela's income, but 20% of Bruno income.

Regressive transfer

- Primary schooling is usually very progressive.

- A case of education expenditure that can be regressive is publicly funded university education. This is because children from richer families are much more likely to go to university.

- If the rich's children are attending university, while the poor's are not, then the rich's family is receving in-kind transfer in the form of subsidy to public university. In the meantime, the poor's family doesn't receive this.

Progressive vs. Regressive, Transfer vs. Tax

Transfer

- A progressive (regressive) expenditure or transfer increases the incomes of poorer (richer) households by more than richer (poorer) households, in percentage terms.

Tax

- A tax is _progressive_ (regressive) if richer (poorer) households pay a _larger_ share of their incomes than poorer (richer) households.

Regressive tax

Bruno 3,000 , pay 300 , pay $\frac{300}{3,000} \times 100$ = 10% of income

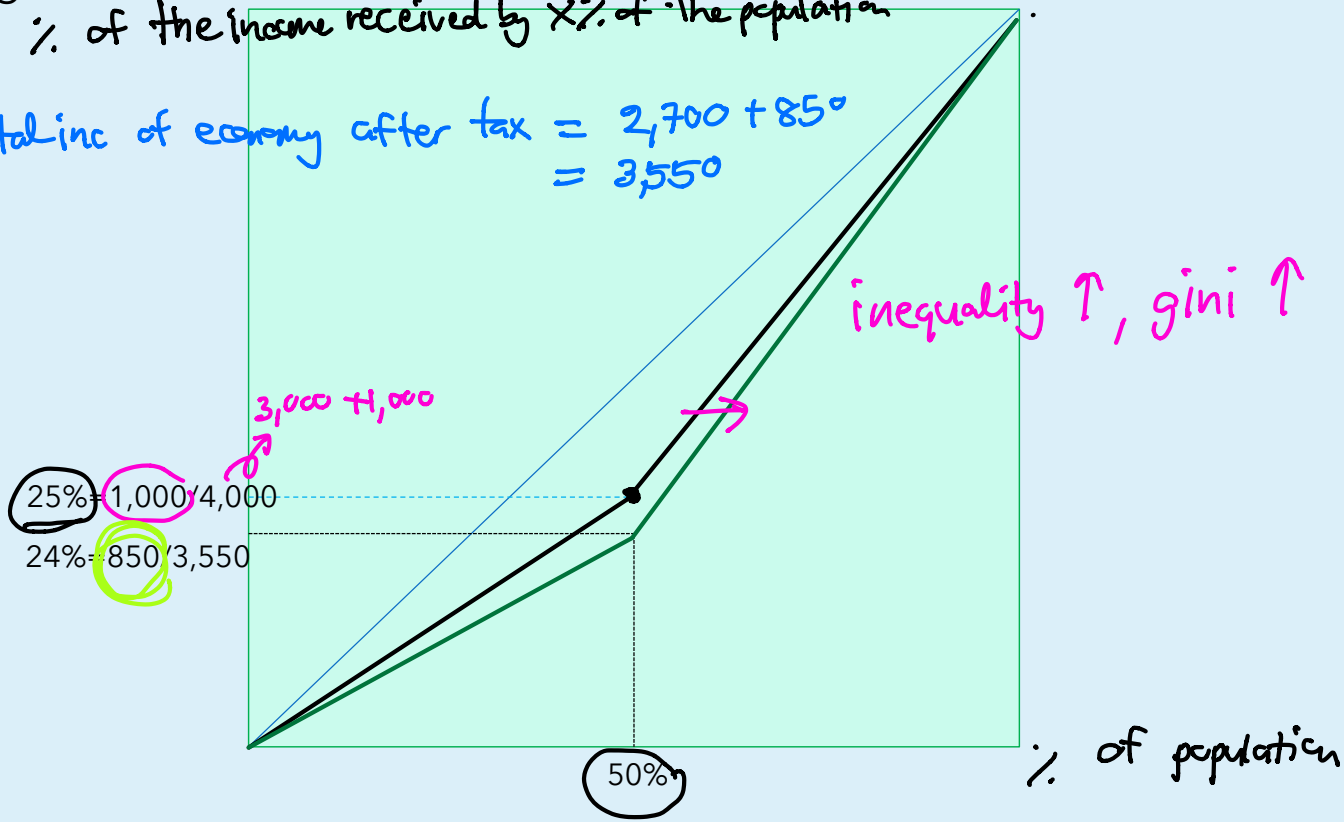
Angela 1,000 , pay 150 , pay $\frac{150}{1,000} \times 100$ = 15% of income

- If Bruno paid 300 pesos in tax and Angela paid 150 pesos, then the tax would be regressive, even though Bruno is paying more in absolute terms.
- Bruno's tax is 10% of his income while Angela's is 15% of hers.

The ratio of final income of the rich to the poor rises.

- Their after-tax incomes of 2,700 (Bruno) and 850 (Angela) have a ratio of 3.18, which is higher (more unequal) than the ratio of their market incomes.

Regressive tax



Redistribution policy: Welfare state

- The policies that turn market income into final income are often referred to as the **welfare state**. It is a set of government policies designed to provide improvements in the welfare of citizens by assisting with income smoothing throughout their lifetimes.

cradle-to-grave

- These policies can be broken down into the taxation side and the expenditure side. The taxation side is any policy that collects revenue for the government, while the expenditure side is any policy that either gives money to households, or spends money on their behalf.

Redistribution policy: Welfare state

- Welfare state are such as unemployment benefits, public pensions, social housing, child benefits, public education, public health subsidies.

- In countries where redistribution reduces inequality by a lot, most of this work is done by expenditures, rather than taxation.

- Poorer households benefit proportionally much more from expenditures.

Redistribution policy: Welfare state

→ as a fundamental component of the contemporary welfare state.

- **Social assistance** refers to the assistance rendered by the society to the poor and needy persons voluntarily without placing any obligation on them to make any contribution to be entitled to relief such as workmen's compensation, maternity benefit and old age pension etc.

→ the last safety net

- Social assistance schemes can be codified along three features or dimensions: what transfer modality they provide, whether and how they are conditional, and whether and how they are targeted.

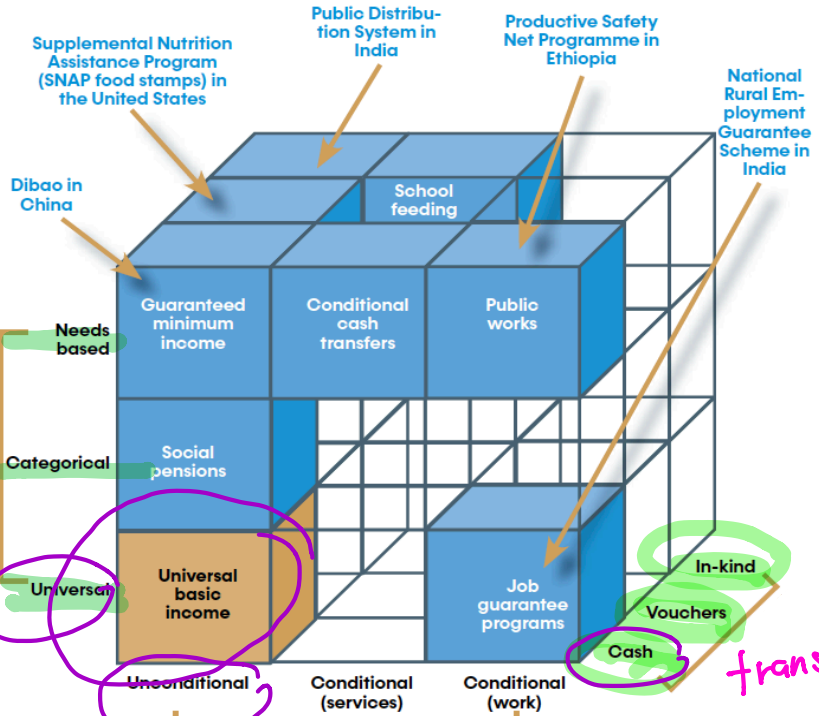
1 2 3

Unconditional Basic Income Grants(UBI or BIG)

- Milton Friedman proposed that each adult citizen should receive a certain lump sum every month, regardless of income or labor market status. The original idea was to interfere as little as possible with the virtuous mechanism of the market and to replace other forms of "social protection" with a single modest allocation (Friedman, 1962).

minimalist role of the state

FIGURE 1.1 **UBI within a Social Assistance Cube**



targeting

UBI
→ delivered in cash
→ unconditionally
→ to everyone.

transfer modality

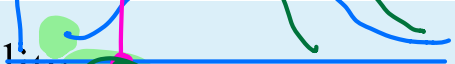
conditionality

Source: "Exploring universal basic income" by the World Bank Group

Social insurance and redistribution

- Insurance market imperfection leads to social insurance such as unemployment insurance, public health insurance, public pension systems (which is a kind of survival insurance).
- Some social insurance expenditures are not neutral with respect to redistribution of labor income.
- In France, Health insurance is financed by a payroll tax proportional to income, whereas most reimbursements for care, hospital fees, and the like are the same for all.

Predistribution: Minimum wage and inequality



The impact of the minimum wage on wage inequality

- The decline in the real value of the minimum wage explains 30 to 40 percent of the rise in lower tail wage inequality in the 1980s. (Autor et al, 2016, "The contribution of the minimum wage to US wage inequality over three decades")

- Minimum wage might have spillover effect by raising the wages of workers earning above the minimum.

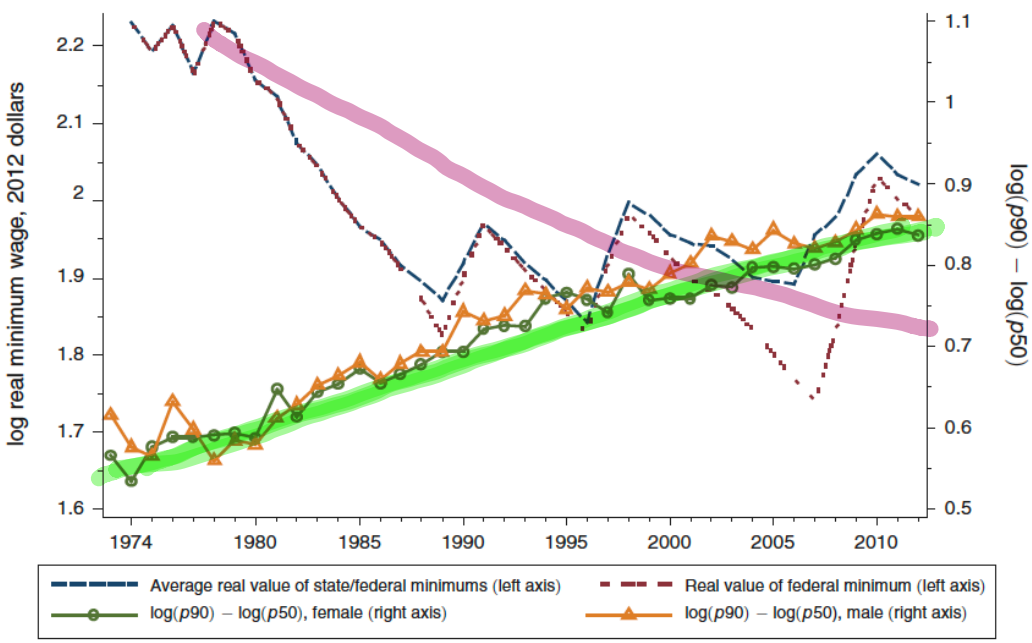


FIGURE 1. TRENDS IN STATE AND FEDERAL MINIMUM WAGES AND LOWER- AND UPPER-TAIL INEQUALITY

Notes: Data are annual averages. Minimum wages are in 2012 dollars.

Source: Autor et al (2016)