

What works to mitigate relative and absolute inequality: A systematic review

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EQUAL project workshop
UNU-WIDER, September 21, 2021

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- 2 Methodology
- 3 Synthesis of evidence

Introduction

RESEARCH AIM

Systematic review of the literature that examines the mechanisms through which government interventions may affect income inequality.

CONTRIBUTION

- 1 We focus on empirical studies that assess the impacts of a wide array of public policies
 - Education policies
 - Social policies
 - Labour interventions
 - Fiscal policies
- 2 We include studies related to all types of countries?that is, low-, middle- and high-income countries
- 3 We place special emphasis on the type of inequality measure used to assess the effect of policy interventions. Absolute vs Relative inequality.

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Relative vs absolute inequality (Niño-Zarazúa et al., 2017)



Income: 1,000,000



Income: 5,000

Relative vs absolute inequality (Niño-Zarazúa et al., 2017)



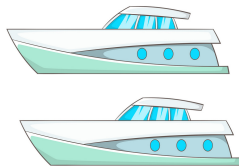
Income: 1,000,000



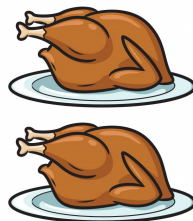
Income: 5,000



Relative vs absolute inequality (Niño-Zarazúa et al., 2017)



Income: 1,000,000 **x 2** = 2,000,000



Income: 5,000 **x 2** = 10,000

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Methodology

- We conduct a systematic literature review following the PRISMA guidelines.
- We collected data by carrying out an electronic search in the ISI Web of Knowledge database.
- We restricted our search to studies published from 1990 onwards.
- We used a combination of the search terms related to
 - ① policies
 - ② income
 - ③ inequality

Methodology

Table: Concepts used in the literature search strategy

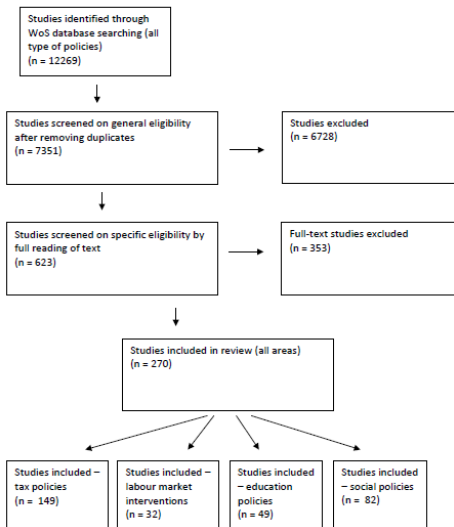
A: Policies	B: Income	C: Inequality
(1) Tax policy (tax* OR fiscal)		
(2) Labour market (labor OR labour OR wage*)		
(3) Education policies (educ* OR skill OR human capital)		
(4) Social policy (social* OR 'basic income' OR 'welfare state' OR transfer OR benefit OR insurance OR protection)		
Polic*	Income*	*equal*
Intervention*	Expenditure	*distribut*
Program*	Capital	
Reform*	Earnings	
Legislation*	Consumption	
Govern*		

Source: authors' compilation.

Inclusion criteria

- Type of study: Studies should aim to evaluate the impact of tax, labour, education, and/or social policies on vertical income inequality.
- Study approach: Only quantitative empirical studies were included.
- Publication status: Only international peer-reviewed journal articles and books from established academic publishers were included.
- Language: Only studies published in English were included.
- Year of publication: Only studies published between 1990 and 2019 were included.

Methodology



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Redistribution: taxes and social benefits

Table: Types of fiscal policies and inequality measures

	Fiscal system (general)	PIT	VAT	Other policies
<i>Inequality measure</i>				
Gini index	87 (58%)	34 (23%)	6 (4%)	5 (3%)
Distribution sensitive	13 (9%)	8 (5%)	1 (1%)	2 (1%)
Coeff. variation	5 (3%)	2 (1%)	0 (0%)	0 (0%)
Quantile ratios	10 (7%)	5 (3%)	2 (1%)	0 (0%)
Absolute measures	3 (2%)	0 (0%)	0 (0%)	0 (0%)
Other inequality measures	9 (6%)	6 (4%)	0 (0%)	3 (2%)
<i>Development level</i>				
Developed countries	70 (47%)	27 (18%)	5 (3%)	4 (3%)
Developing countries	27 (18%)	10 (7%)	4 (3%)	5 (3%)
Economies in transition	10 (7%)	5 (3%)	2 (1%)	0 (0%)
Total	98 (66%)	42 (28%)	7 (5%)	9 (6%)

Redistribution: taxes and social benefits

- Prior research on indirect taxation mainly focuses on the Value Added Tax (VAT)
- VAT is not affected by the cascading effect and its evasion is harder to achieve.
- Taxing consumption has a less distorting impact on the labour market than direct income taxation.
- Generally regressive .
- Tax systems in developing countries rely more heavily on indirect taxes – tend to be regressive
 - Low income levels makes the tax base is relatively small – low revenue
 - Efficiency of tax collection in developing countries is often poor.
 - Tax evasion is high because these countries generally have large informal sectors.

Redistribution: taxes and social benefits

- Prior research on indirect taxation mainly focuses on the Personal Income Tax (PIT)
- VAT is not affected by the cascading effect and its evasion is harder to achieve.
- Progressive tax rates help to promote a more equal distribution of income and smooth household consumption over time.
- But distorts incentives for labour supply and savings decisions of private households and firms.
- Most countries have simplified their PIT regimes (reducing the number of brackets and the top marginal tax rates) – less progressive PIT systems.
- Some countries have considered the introduction of a flat rate.
 - Flat tax rates illustrate the classical trade-off between equity and efficiency.
 - Although it leads to an increase in inequality, it would also stimulate the labour supply and reduce unemployment.
 - If this tax scheme is combined with a basic allowance, the PIT regime becomes progressive – but at the cost of negative economic growth.

Redistribution: taxes and social benefits

- Some components of the PIT have favoured a more egalitarian distribution of net income
- Mainly employment and pension tax credits.
- Deductions seem to play a very marginal role.
- The magnitude of the effect seems to be affected by the type of inequality measure used.
- Child allowances have a deep equalizing effect in developed countries even though they are not income-tested, because families with more children belong to the bottom part of the income distribution.
- Some fiscal benefits that turn out to be regressive.
 - The employer-sponsored insurance (ESI) exclusion in the USA (five-sixths of the benefits allocated above the median).
 - Mortgage loan deduction – homeowners are more concentrated at the top of the income distribution.

Redistribution: taxes and social benefits

Table: Types of social policies and inequality measures

	Social spending	Family policy	Public pensions	Conditional cash transfers	Other policies
<i>Inequality measure</i>					
Gini index	44 (54%)	7 (9%)	13 (16%)	6 (7%)	4 (5%)
Distribution sensitive	6 (7%)	1 (1%)	0 (0%)	0 (0%)	1 (1%)
Coeff. variation	1 (1%)	1 (1%)	1 (1%)	0 (0%)	0 (0%)
Quantile ratios	3 (4%)	0 (0%)	3 (4%)	0 (0%)	1 (1%)
Absolute measures	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other inequality measures	2 (2%)	2 (2%)	0 (0%)	1 (1%)	0 (0%)
<i>Development level</i>					
Developed countries	27 (33%)	6 (7%)	7 (9%)	1 (1%)	2 (2%)
Developing countries	21 (26%)	1 (1%)	3 (4%)	5 (6%)	2 (2%)
Economies in transition	5 (6%)	0 (0%)	2 (2%)	0 (0%)	0 (0%)
Total	49 (60%)	8 (10%)	17 (21%)	6 (7%)	4 (5%)

Source: authors' compilation.

Redistribution: taxes and social benefits

- There is a negative relationship between government spending and income inequality.
- There seems to be a weakening impact of net government expenditures in reducing inequality over time – Lower progressivity of tax system.
- Government spending on health and education in developing countries does not make a substantial contribution to reducing economic inequality because middle-income groups receive a large proportion of the benefits.
- When transfers are tied to demographic characteristics, their redistribution effect is limited to the extent that those characteristics are related to income variables.
- With the aim of maximizing the impact of public transfers on low-income households, many governments moved towards better-targeted transfer programmes.

Redistribution: taxes and social benefits

- Non-contributory social assistance has gained prominence as a fundamental instrument to mitigate the ascending trend of market income inequality in many developing countries.
- Social assistance is found to have a stronger impact on reducing inequality partly because social insurance programmes tie eligibility to participation in the formal labour market.
- Conditional cash transfers are a more powerful instrument to reduce income inequality.
- Besides the aim of taking people out of poverty, these programmes generally seek to improve the health condition and the educational level of the children in beneficiary households

Redistribution: taxes and social benefits

- Expensive childcare may serve as a barrier to employment for low-income households – Child subsidies.
- The abolition of queues in the market for care in childcare centres seems to have little redistribution effect because it translates into very moderate effects on the working hours of the parents.
- The withdrawal of the home care allowance has a direct effect of reducing disposable income of the beneficiary households.
- Reductions in childcare fees would be more beneficial for high-income families because of the positive relationship between income and the use of centre-based childcare.
- Generous parental leave and public childcare services boost women's labour participation, which tends to reduce earnings inequality among coupled households.

Redistribution: taxes and social benefits

- The most popular characterization of the notion of pension systems emerged from the World Bank's report *Averting the Old Age Crisis*, which defines three main pillars or tiers to support the system.
 - ① Non-contributory basic pension (minimum pension, spousal and survivor benefits). lowers Inequality in the old age
 - ② Mandatory contribution. Perpetuate income disparities
 - ③ Voluntary savings. Reinforces income disparities
- Governments in advanced and emerging economies have enacted or are currently considering integral structural reforms of their pension programmes.
- The aim of this reform is to restrain the increase in pension deficits caused by low fertility and rising longevity.

Redistribution: taxes and social benefits

- Shift from a pay-as-you-go tax-financed system, in which savings on current workers are distributed to retirees, to a mixed formula that combines elements from the last two tiers.
- Within the defined-benefit scheme:
 - ① The extension of the reference period used to compute the amount of this benefit seems to have an equalizing effect on lifetime disposable income distribution.
 - ② An increase in the normal retirement age. The labour market of the elderly is generally rationed, the impact of this measure on the labour supply might not increase one-to-one – Inequality increases.

Labour market interventions

Table: Types of labour policies and inequality measures

	Minimum wage	Unions	Active policies	Passive policies	Other policies
<i>Inequality measure</i>					
Gini index	6 (20%)	3 (10%)	2 (7%)	2 (7%)	3 (10%)
Distribution sensitive	3 (10%)	0 (0%)	0 (0%)	1 (3%)	0 (0%)
Coeff. Variation	2 (7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Quantile ratios	0 (0%)	5 (17%)	1 (3%)	1 (3%)	0 (0%)
Absolute measures	1 (3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Other measures	3 (10%)	3 (10%)	5 (17%)	0 (0%)	1 (3%)
<i>Development level</i>					
Developed countries	4 (13%)	11 (37%)	7 (23%)	4 (13%)	2 (7%)
Developing countries	2 (7%)	1 (3%)	0 (0%)	0 (0%)	1 (3%)
Economies in transition	0 (0%)	1 (3%)	0 (0%)	0 (0%)	1 (3%)
Total	7 (23%)	11 (37%)	6 (20%)	3 (10%)	4 (13%)

Source: authors' compilation.

Labour market interventions

- Variations in the minimum wage significantly increase the level of household income inequality in urban areas.
- The establishment of a minimum wage would increase the earnings of low-skilled workers, with the corresponding response of the labour supply to higher employment costs that would raise unemployment in this sector.
- This policy had no impact on income dispersion in rural areas.
- The distortionary costs of this kind of regulation are limited due to noncompliance, thereby minimizing their impact on both unemployment and income distribution.
- The potential effects of minimum wage regulations seem to be very limited in developed countries while they might lead to a reduction in income inequality in developing countries.
- Different elasticities of labour demand and supply and the size of the informal sector that affects the level of noncompliance.

Labour market interventions

- Unions are considered key market actors that might affect income inequalities.
 - Unions' strength may help to reduce within-firm earnings differences.
 - Unions may push for the implementation of public policies favouring the less affluent
- Mixed evidence.
- Cross-country studies suggest that union density might be an equalizing tool in other OECD countries.
- Studies using panel data techniques show no significant relationship.
- Potential explanation: Union coverage plays a larger role than union density.

Labour market interventions

- Passive labour market policies, unemployment benefits are far more prevalent in the OECD countries than active policies.
- This type of policy might distort incentives to work, including the effort and time devoted to job search, because unemployment benefits make them more reluctant to accept low-paid employment.
- This policy increase income inequality because of higher wage competition and the fact that unemployment benefits do not provide a full replacement for lost wages.
- The restriction of unemployment benefits, either by reducing their generosity or by making eligibility more difficult, would push individuals into low-pay employment.
- The limitation of social benefits should simultaneously involve the implementation of active labour market policies to mitigate the potential negative impacts on income distribution.

Labour market interventions

- The success of active labour programmes in the reduction of inequalities crucially depends on their design.
- Transfers conditional on being employed may generate a more equitable distribution than unconditional ones because workers are willing to accept lower wages, which leads to job creation and lowers the unemployment rate and boosts participation.
- The impact of this type of labour programme, however, seems to vanish once the subsidy is no longer available.
- Hiring subsidies, instead, weaken inequality levels by bringing long-term unemployed back to work, which has much stronger effects on economic disparities.
- The emphasis on rapid employment may reduce the earnings of the most able participants because the programme pushes them to accept less attractive jobs than those that they ultimately would have taken after a longer job search.
- The income effects of training programmes seem to be spread along the distribution with a positive impact on the earnings of all individuals.

Education Policies

Table: Types of education policies and inequality measures

	Education distribution	Public spending	Voucher	Compulsory education	Other policies
<i>Inequality measure</i>					
Gini index	14 (29%)	13(27%)	4 (8%)	0 (0%)	1 (2%)
Distribution sensitive	3 (6%)	1(2%)	1 (2%)	0 (0%)	0 (0%)
Coeff. Variation	1 (2%)	0(0%)	2 (4%)	0 (0%)	0 (0%)
Quantile ratios	3 (6%)	1(2%)	1 (2%)	0 (0%)	1 (2%)
Absolute measures	1 (2%)	3(6%)	2 (4%)	0 (0%)	0 (0%)
Other measures	5 (10%)	1(2%)	0 (0%)	3 (6%)	1 (2%)
<i>Development level</i>					
Developed countries	10 (20%)	10(20%)	0 (0%)	1 (2%)	0 (0%)
Developing countries	15 (31%)	5(10%)	1 (2%)	1 (2%)	0 (0%)
Economies in transition	4 (8%)	1(2%)	0 (0%)	0 (0%)	0 (0%)
Total	24 (49%)	17(35%)	5 (10%)	3 (6%)	3 (6%)

Source: authors' compilation.

Education Policies

- While the positive correlation between education and earnings at the individual level is a well-established fact in the economic literature, the empirical evidence of its impact on economic disparities is still mixed.
- Non-linear relationship. Investments in human capital tend to equalize the income distribution first, but there is a turning point above which investment in education raises income inequality.
 - The structure effect. Education expansion allows a wider range of individuals to attend higher levels of education, associated with better wages in the future – increases inequality.
 - The prize effect. If the demand for highly educated employees does not outstrip supply, the increased proportion of high-skilled workers would lower the returns of higher education, hence reducing the wage gap with the less-educated individuals.

Education Policies

- College education might have long-lasting effects on income distribution that are different from the immediate impact of this policy.
- Compulsory education contributes to the compression of the earnings distribution.
- Mainly affects individuals at the left tail of the distribution.
- The quality effect. Mandatory specialization generates lower earnings but also helps to control the level of wage dispersion. A flexible system that allows for more diversification in the skills of college graduates produces a trade-off between higher earnings and a marginally more unequal income distribution.