

The Political Economy of Income Distribution

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Structure

1. What inequality?
 - Personal and functional income distribution
2. Different theories of income distribution
 - Neoclassical vs Keynes vs Kalecki vs Marx
3. Why did income inequality increase? Empirical evidence
4. Income distribution in times of COVID-19
5. What can we do about it?

What inequality?

Personal and functional income distribution

Personal: between individuals/ groups in the society

Functional: between classes (factors of production, income sources)

GDP = 100\$

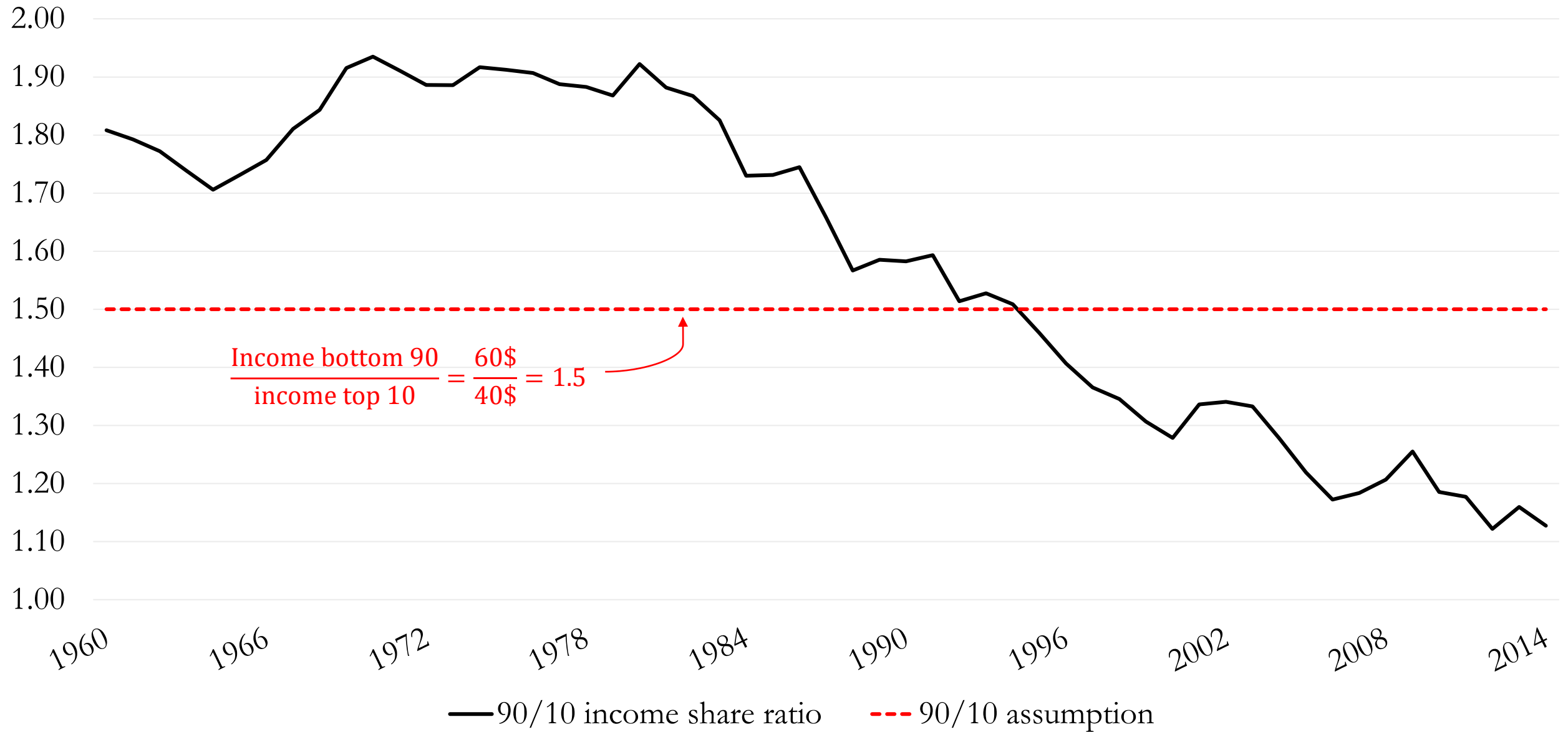
40\$

60\$

Top 10% of the population

Bottom 90% of the population

USA: 90/10 income decile ratio



$$\text{Wage Share} = \frac{\text{wage bill}}{\text{GDP}}$$

GDP = 100\$

40\$
= 20\$ profits
+ 20\$ wages

Top 10% of the population

60\$
= 10\$ profits
+ 50\$ wages

Bottom 90% of the population

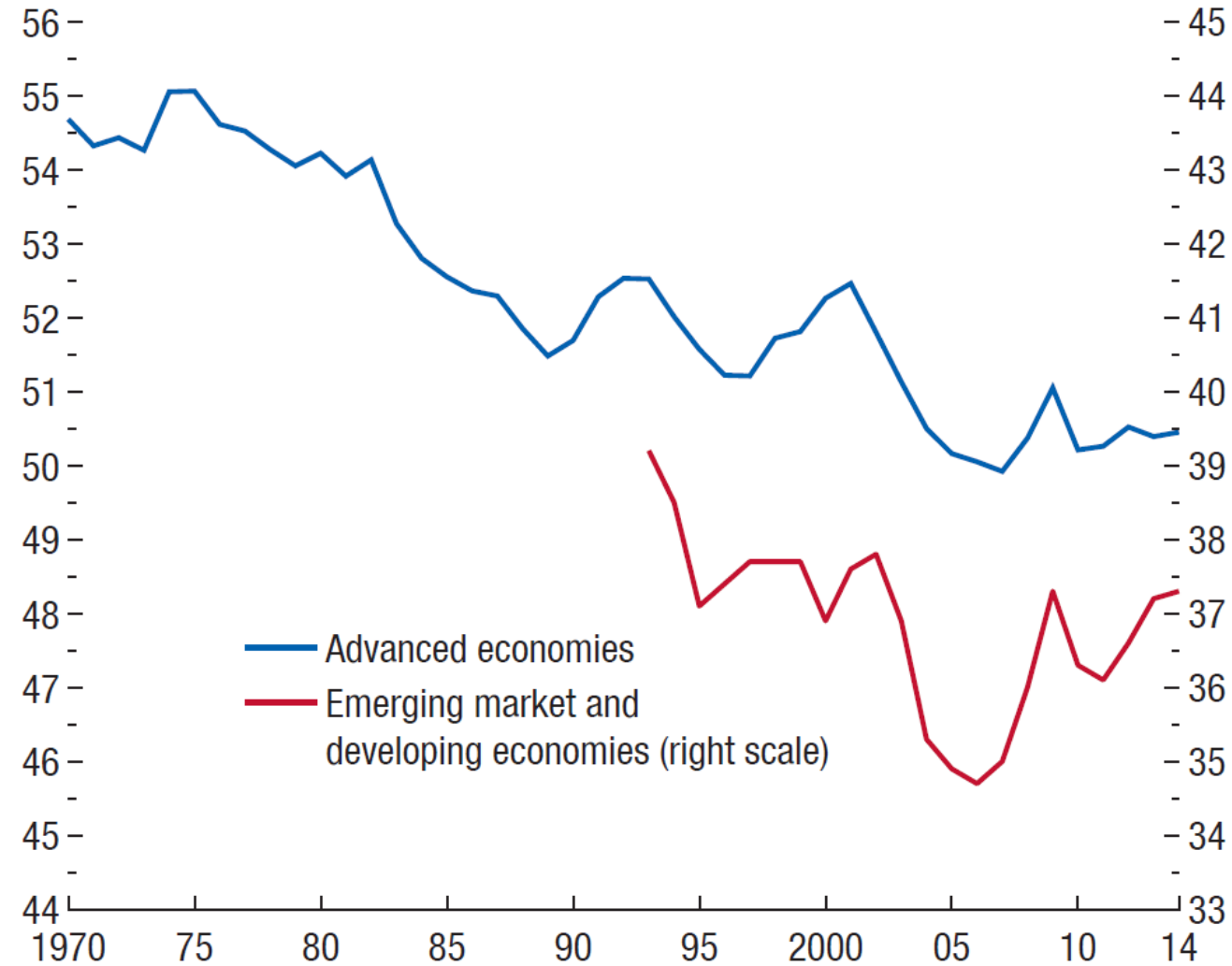
$$\text{Wage share} = (20\$ + 50\$)/100\$ = 70\%$$

$$\text{Profit share} = (20\$ + 10\$)/100\$ = 1 - \text{Wage share} = 30\%$$

Source: Piketty, Saez and Zucman (2016): Distributional National Accounts
Reported rounded averages for the U.S. (1913-2014 period). Exact numbers:

capital share of top 10: 47%
capital share of bottom 90: 11%
top 10% income share: 41%

The labor share of income has been on a downward trend in both advanced economies and emerging market and developing economies.



Interim conclusion

- Increase in functional income inequality
- Increase in personal income inequality
- Those phenomena are probably related

Theories of Income Distribution

- Theory → Empirical hypothesis → Policy implication
 - “The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist” (Keynes, 1936)
- Theories
 - Neoclassical → Technology
 - Keynesian → Effective demand
 - Kaleckian → Degree of monopoly
 - Marxian → Class struggle

General framework for discussion

$$\text{Wage Share} = S_L = \frac{\text{wage bill}}{\text{GDP}} = \frac{w_r L}{Y}$$

- Closed economy, no government
- Vertically integrated economy (no intermediate goods).
 - Note: prices & shares of intermediate goods determine distribution in all theories

A neoclassical model

- Profits: $\pi = pY - f_0 - wL$
- FOC for profit max: $\frac{d\pi}{dL} = p \frac{dY}{dL} - w = 0 \Leftrightarrow \frac{dY}{dL} = \frac{w}{p} = w_r$
- Wage Share = $S_L = w_r \frac{L}{Y} = \frac{dY}{dL} \frac{L}{Y} = \frac{dY}{Y} / \frac{dL}{L} =$ Labour elasticity of output
- Exact definition depends on production function
- Cobb-Douglas: $Y = AL^\alpha K^{1-\alpha} \rightarrow \frac{\partial Y}{\partial L} = A\alpha \left(\frac{K}{L}\right)^{1-\alpha} \rightarrow S_L = \alpha$
- CES: $Y = [b \cdot (AK)^\rho + (1 - b) \cdot (BL)^\rho]^{\frac{1}{\rho}}$

$$\rightarrow \text{Wage Share} = 1 - \frac{\partial Y}{\partial K} \cdot \frac{K}{Y} = 1 - \left(b \cdot A \cdot \left(\frac{K}{Y}\right)^\rho \right)$$

A neoclassical model – Main features

- Distribution determined by technology!
 - CD: $\alpha = \text{constant}$
 - CES: $S_L = f\left(A, \frac{K}{Y}\right)$
- No demand constraint!

A Keynesian/ Kaldorian model

- Keynes not really interested in income distribution
- Kaldor (1955): Keynesian model based on mechanism of effective demand
- $Y \equiv I + C \equiv W + \pi$
- Goods market equilibrium implies: $S = I$
- (investment determines saving)
- Only capitalists save: $S = s_p \pi$
- Plug into goods market equilibrium: $s_p \pi = I \leftrightarrow S_C = \frac{\pi}{Y} = \frac{I}{s_p Y}$
- Wage Share = $S_L = 1 - \frac{I}{s_p Y}$

A Kaldorian model – main features

- Distribution determined by capitalists' consumption and investment (animal spirits) → MPL not useful reference point
- Distribution is a result of what happens in the goods market → hierarchy of markets

A Kaleckian model

- Kalecki: effective demand & imperfect competition
- Distribution determined by cost structure and the pricing behaviour
→ assume simple mark-up pricing
- $p = (1 + \theta)UVC$, $p = \text{price}$; $\theta = \text{mark-up}$; $UVC = \frac{wL}{Y} = \text{unit variable costs}$
- $p = (1 + \theta) \frac{wL}{Y} \rightarrow \frac{1}{(1+\theta)} = \frac{w}{p} \frac{L}{Y} = S_L$

A Kaleckian model – main features

- Distribution determined by
- Mark-up (θ) determined by ‘degree of monopoly’ which is a function of
 - Competition
 - Bargaining power (labour unions, financialisation, institutions, ...)
 - ...

Marxian theory

- Marx: socially determined subsistence wage
- “The value of labour-power is determined, as in the case of every other commodity, by the labour time necessary for the production, and consequently also the reproduction, of this special article. (...) In contradistinction therefore to the case of other commodities, there enters into the determination of the value of labour-power a historical and moral element.” (Marx 1867: 120f.)
- Goodwin (1967): dynamic model with the wage share and employment as the two state variables

Theory	Main determinants of the wage share	Additional factors
Neoclassical/ New Keynesian	Technological progress; substitutability between capital and labour	Bargaining power; Competition
Keynesian/ Kaldorian	Animal spirits; capitalist consumption	
Kaleckian	Degree of monopoly (bargaining power; competition; ...)	Overhead labour Technology
Marxian	Bargaining power (class struggle) Employment	Technology

Why did the wage share decline?

- Different theories → different empirical hypotheses
- Empirical evidence

The empirical debate on functional income distribution

Three main narratives

1. Human labour is substituted by machines
 - “Inequality is natural consequence of technological progress”
2. Bargaining relations
 - Changes in labour market institution [strike laws – immunities(!), collective bargaining coverage, union density, gender, race]
 - Globalisation – in capital (offshoring) and labour (migration)
 - Financialisation
3. Changes in concentration
 - Certain firms capture a larger share of the market

The empirical debate on functional income distribution

Three main alternatives

1. Human labour is substituted by machines

- “Inequality is natural consequence of technological progress”

2. Bargaining relations

- Changes in market institution [strike laws – immunities(!), collective bargaining conventions, density, gender, race]
- Globalisation – in capital and labour (migration)
- Financialisation

3. Changes in market structure

- Certain firms capture share of the market

Pluralism

neoclassical

Marxian/ Kaleckian

Various approaches

Empirical evidence

- Ongoing empirical debate
- We find that the reasons for decline in the wages share are:
 - Mainly political → labour market institutions (union density) & financialisation
 - Gender wage gap: female workforce participation↑ → wage share↓
 - Globalisation & Global value chains → hurts workers everywhere
 - No effect of migration
 - Technological change: not able to explain decline in the wage share
 - There is nothing “natural” about increasing income inequality

Income distribution in times of COVID-19

1. Technological change

- Automation rather than re-hiring ([Baldwin 2020](#))

2. Bargaining relations

- Labour usually bears costs of crises (Diwan 2001; [Furceri et al. 2020](#))
- Higher unemployment rates & lower wages for low-income, low-skilled, precariously employed, women and young workers who can't work from home → weakens power for weakest workers ([Palomino et al. 2020](#), [Adams-Prassl et al. 2020](#), [Alon et al. 2020](#))
- Globalisation – reshoring? ([Seric and Winkler 2020](#))
- Financialisation → cut in dividends, but short-term without behavioural change

3. Changes in concentration

- Increase in concentration, death of ‘zombie firms’? ([Georgieva et al. 2021](#))
- BUT: Effects depend on government policy ([Furceri et al. 2021](#))

Summary

- Functional and personal income inequality increased
- Different theories of income distribution
 - Neoclassical: Technology
 - Keynesian: Effective demand
 - Kaleckian: Degree of monopoly
 - Marxian: Class struggle
- → implications for employment
- Different empirical hypotheses
 - Technology
 - Bargaining power
 - Concentration
- Ongoing empirical debate
- Different theories → different empirical hypotheses → different policies

Policy implications

- Technology is relevant, but mainly for medium-skilled labour: simply boosting skills is not a solution
- Reduce inequality: level playing field between capital and labour → bargaining power! Via
 - Improving the union legislation, increasing collective bargaining coverage
 - Close gender wage gaps
 - Sufficiently high minimum wages / living wage
 - Social government expenditure
- Globalisation has negative impact in advanced and emerging economies: scope for international cooperation, in case the coordination failure can be overcome
- Re-regulating finance (taxation) could boost the labour share and investment (Tori and Onaran 2017; Lazonick 2014)

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