Macroeconomics and Intergroup Inequality

Stephanie Seguino
University of Vermont
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Outline

I. Inequality: *Between whom? Of what?*
II. Theory on intergroup inequality
III. Inequality -> Growth/economic expansion
   - ✧ Short vs. long run
   - ✧ Role of economic structure
IV. Macro-level policy -> intergroup inequality
   - ✧ Public investment
   - ✧ Monetary policy
   - ✧ Structural change/globalization

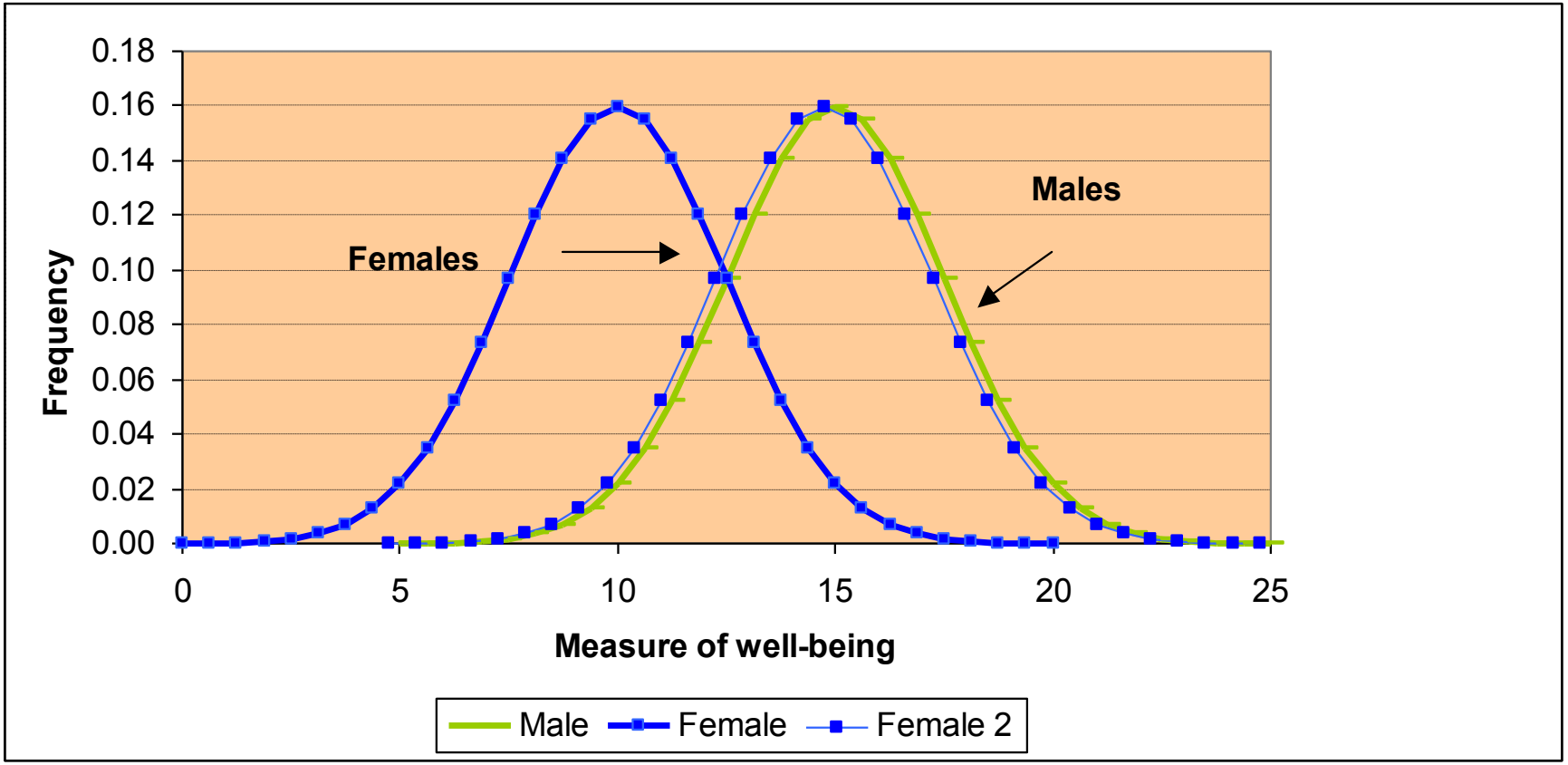
Inequality between whom?

- **Household/individual inequality**
  - Size distribution (of income, wealth, etc.)
- **Functional distribution** (of income)

- **Intergroup inequality**
  - Race – US, Brazil, S. Africa, UK
  - Gender - Everywhere
  - Religion – Sri Lanka, India
  - Nationality – Qatar, Gulf States

Intergroup inequality: The relationship between group distributions

Example: Female and male distributions of well-being



Inequality of what?

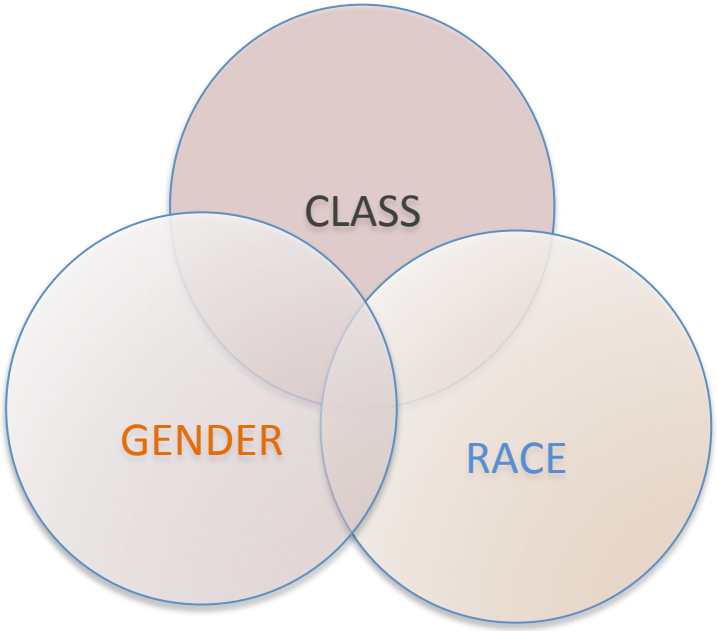
- *Capabilities*
  - Educational attainment
  - Health
  - Unpaid care work (time constraint: limits labor force participation)
- *Outcomes (conversion of capabilities into livelihoods)*
    - *Wages, income, wealth*
    - *Employment*
    - *Access to credit*
    - *Land ownership*

The type of inequality you investigate depends on…

- *Salient groups in a society*
  - Race seems to matter more in *racially heterogeneous* societies: US, Brazil, S. Africa
  - Gender matters more in *racially homogenous* societies: S. Korea, Caribbean
- *Structure of economy*
  - *Low-income agricultural (LIAE)*
  - *Semi-industrialized (SIE)*
  - *Industrialized*
  - *Knowledge intensive*

Take account of intersectionality

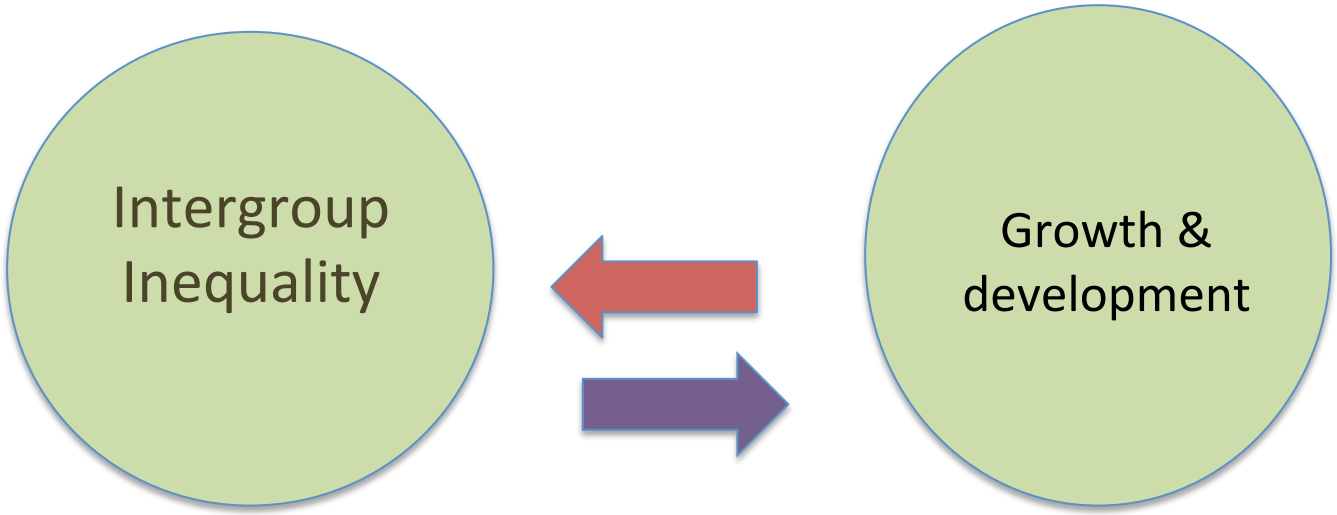
Kimberlé Crenshaw: *Intersectionality* references the interconnected nature of social categorization, creating overlapping and intensified systems of discrimination or disadvantage.



Theory of intergroup inequality

- **Neoclassical**: Human capital (individual)
- **Kaleckian**: Class differences in bargaining power, savings behavior
- **Feminist**: Gender division of labor
- **Stratification** (by race or gender): Exploitation and Hoarding

Two-way relationship between inequality and macroeconomy



Modeling intergroup inequality: What is needed?

- ***Structuralist approach*** that differentiates by type of economy
- Inclusion of both ***demand- and supply-side constraints***
- Modeling approach that allows for various pathways by which intergroup inequality is produced
- Example - Gender:
  - *Gender inequality in unpaid work*
  - *Gender inequality in paid work (job segregation and wage discrimination)*
  - *Gender inequality in capabilities (health and education).*
- Example – Race:
  - *Residential segregation*
  - *Job segregation & wage discrimination*
  - *Inequality in capabilities*

Short- and long-run impacts of inequality

- Changes in some variables have an immediate (short run) effect on the macroeconomy
  - Typically these are ***price variables***, e.g.. wages
  - Act on the demand side
- Other variables have effects only in the longer run
  - Measures of ***capabilities***
  - Can affect demand and supply side

Gender Inequality and Balance of Payments Constrained Growth

- Semi-industrialized economies (SIEs)
- Low income agricultural economies (LIAEs)
  - The short run
  - The long run

Source: Seguino (2010), *Review of Political Economy*

Stylized facts for SIE short-run analysis with balance of payments constraint

- ***Gender job segregation*** with women concentrated in export mfg. industries, and men in non-tradables.
- ***Exports*** are price elastic, due to availability of substitutes, in contrast to goods in oligopolistic non-tradables sector.
- Export firms are ***mobile***.
- ***Capitalists save*** at a higher rate than workers, and (some modest) evidence women save at higher rates than men.
- No priors on distributional nature of import propensities by class or gender.
- For simplicity, assume balanced budget.

Stylized facts of LIAEs

- Men concentrated in X industries (commodities and cash crops);
- Women work as subsistence farmers;
- Women's MPC higher than men's;
- Anecdotal evidence men's import propensity > women's.
- Evidence that increase in productive resources to women farmers raises agricultural productivity and output, potentially reducing food imports.

IS curve

$$S(u, w_F) + eP_z * Z = I\left(u, w_f\right) + P_X X$$

The import function:

$$Z = B\left[\frac{P_Z}{eP_Z^*}\right]^{\eta}\left[\frac{w_M}{w_F}\right]^{\omega} Y^{\sigma}$$

The first term in brackets on RHS of Z captures the + cost effect of higher female wages on import demand, while the second term represents the effect of a gender redistribution on consumption and thus Z.

The export function:

$$X = A\left[\frac{eP_X *}{P_X}\right]^{\psi} W^{\varepsilon}$$ where: $P_X = \tau\left[w_F b\right]$

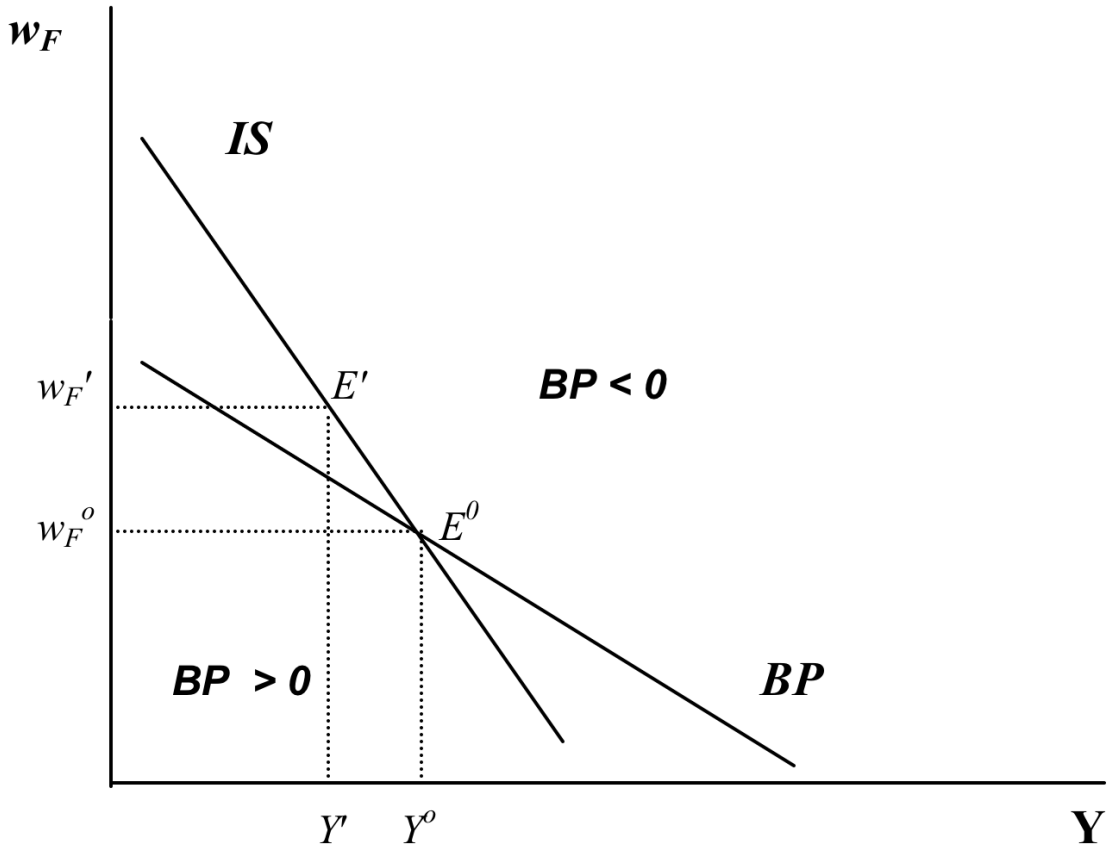


Figure 1: Gender wage effects on output and the balance of payments in the short-run: The case of SIEs.

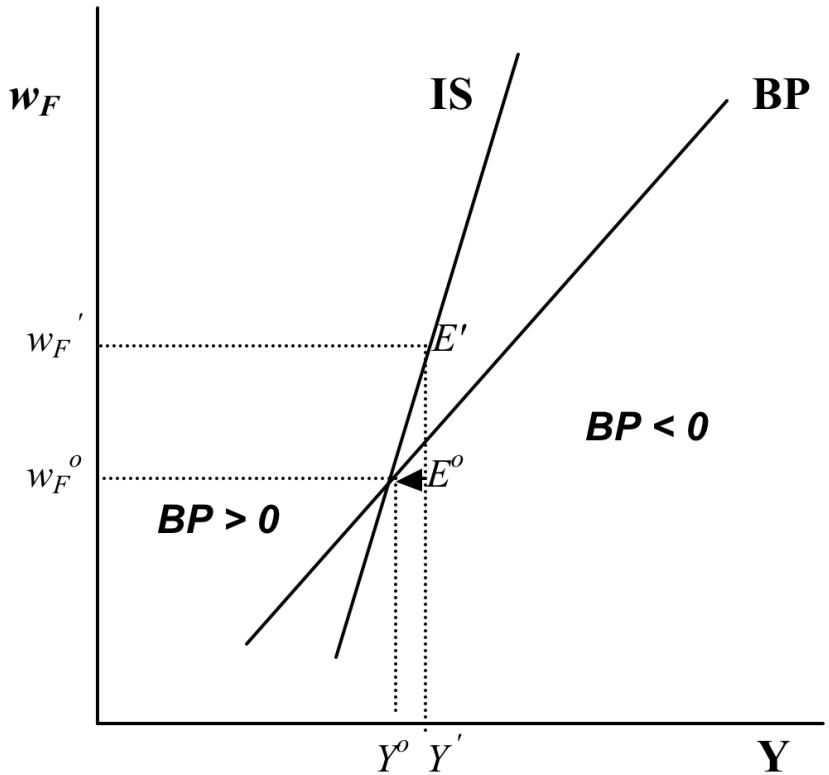


Figure 2: Gender wage and resource effects on output and the balance of payments in the short-run: The case of LIAEs

Long-run BPCG model for SIEs and LIAEs

$$[1] \quad x = -\psi p_x$$

$$[2] \quad z = \eta p_Z - \omega w_F + \sigma g$$

$$[3] \quad p_Z + x = z$$

$$[4] \quad p_X = p_Z = w_F - \beta$$

$$[5] \quad y^P = \lambda + \beta$$

$$[6] \quad \beta = \phi_o + \phi_1 g + \theta' H$$

$$[7] \quad g(w_F) = y^P$$

Hold constant $\boldsymbol{W_M}$, **e**, foreign prices, and foreign income in order to focus on gender

Some nuances

- Capabilities (or human capacities) can vary in long-run and thus productivity growth is:

$$\beta = \phi_o + \phi_1 g + \theta' H$$

where H is human capacities.

- Substituting, where ***k*** is educational equality

$$y^P = \lambda(\kappa, w_F) + \phi_o + \phi_1 g(w_F) + \phi_2 H(\kappa, w_F)$$

What is missing?

- Role of government
  - G spending can play a key role in mediating effect of gender inequality on macroeconomy – ed, health, infrastructure
  - It can also reduce gender inequality
  - Raises issues of sustainability of debt-financed public investment
    - Gender equality public investments can create fiscal space
- Deeper analysis of gender and care:
  - See Braunstein, van Staveren, & Tavani (2011)
  - Care work is a gendered input into production process via impact on the current & future labor force
  - Focus on human capacities, instead of "human capital"
  - "Caring spirits" govern investment in human capacities

Braunstein et al (2011, 2018)

- Kaleckian type model with two types of investment: in capital in and people:

$$i = \left[i^K(r^e(\pi, z)) + i^a(o^e(\pi, z))\right]$$

where o^e reflects "expected opportunities"

- inversely related to the profit share
- positively related to capacity utilization (employment).

NB:

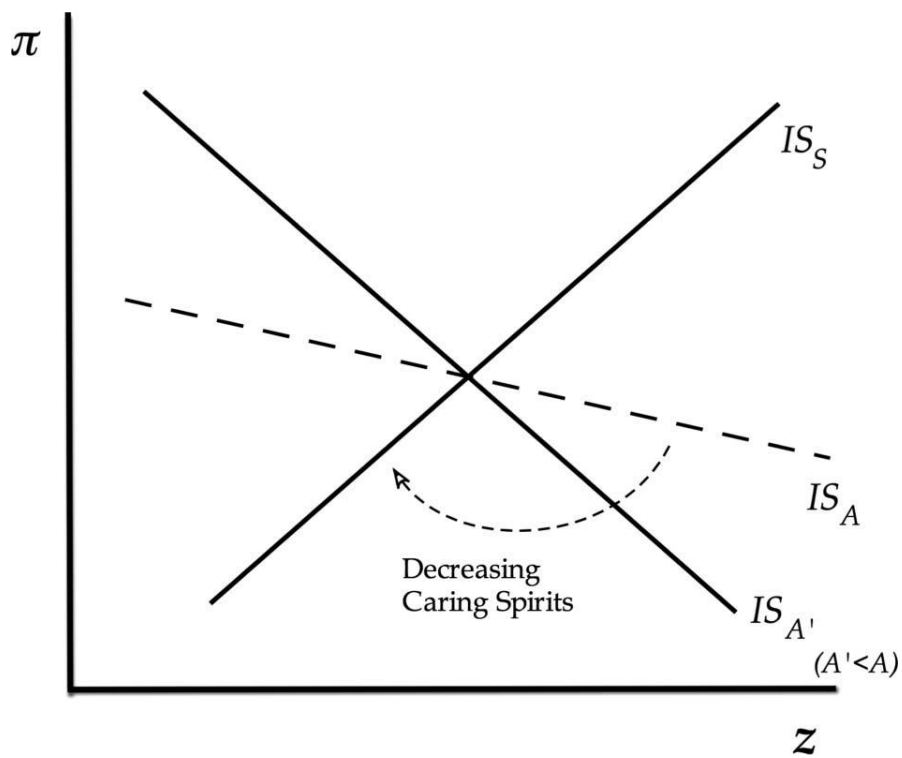
- Care is an **activity**, not a feeling.
- i^a can take form of **time** or **commodities**.
- Caring spirits governs i^a, the tendency to provide care for one's self and others in ways that contribute to aggregate demand.

IS schedule

$$\left[i^K(r^e(\pi, z)) + i^a(o^e(\pi, z))\right] = s(\pi, z)$$

IS slope

$$\frac{d\pi}{dz} = \frac{\overset{+}{s_z} - (\overset{+}{i_z^K} + \overset{+}{i_z^a})}{\overset{+}{i_\pi^K} + \overset{-}{i_\pi^a} - \overset{+}{s_\pi}}$$

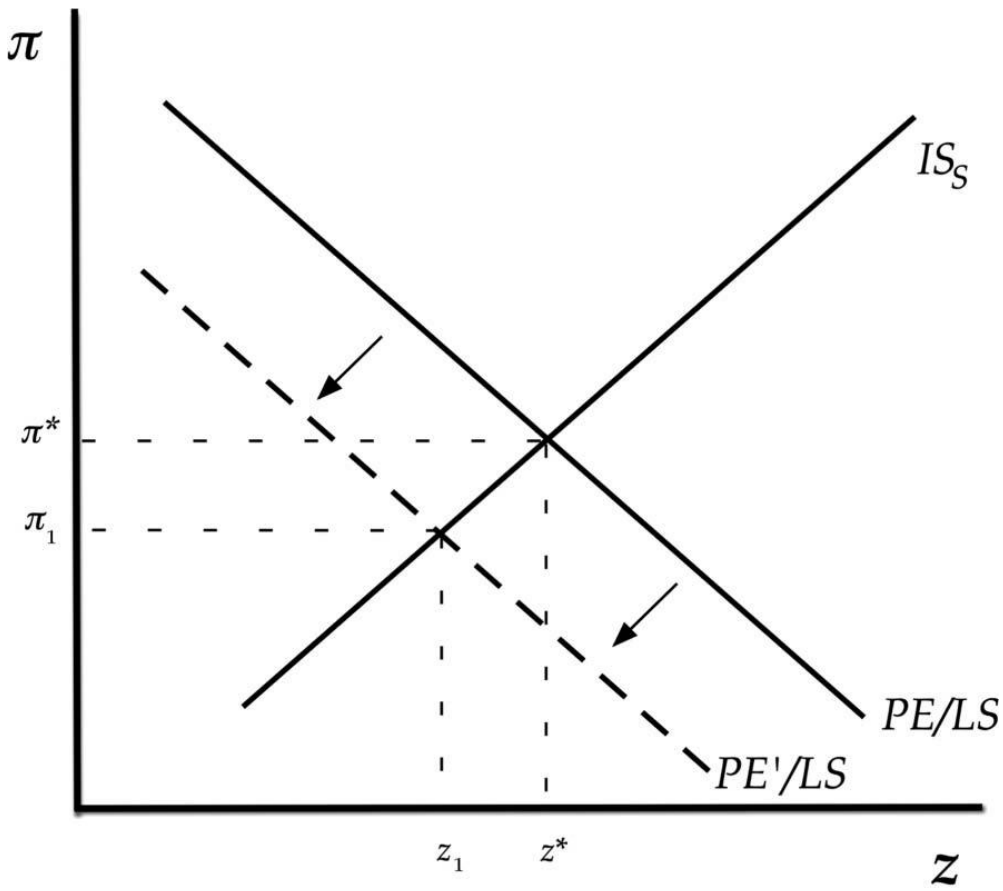


The arrow indicates the direction in which the IS curve moves as caring spirits decline. IS_A indicates the altruistic case. As caring spirits decline, the IS_A curve gets steeper, moving to IS_A' until it shifts from a negative to a positive slope and an IS_S or selfish regime.

On the supply side, the PE curve

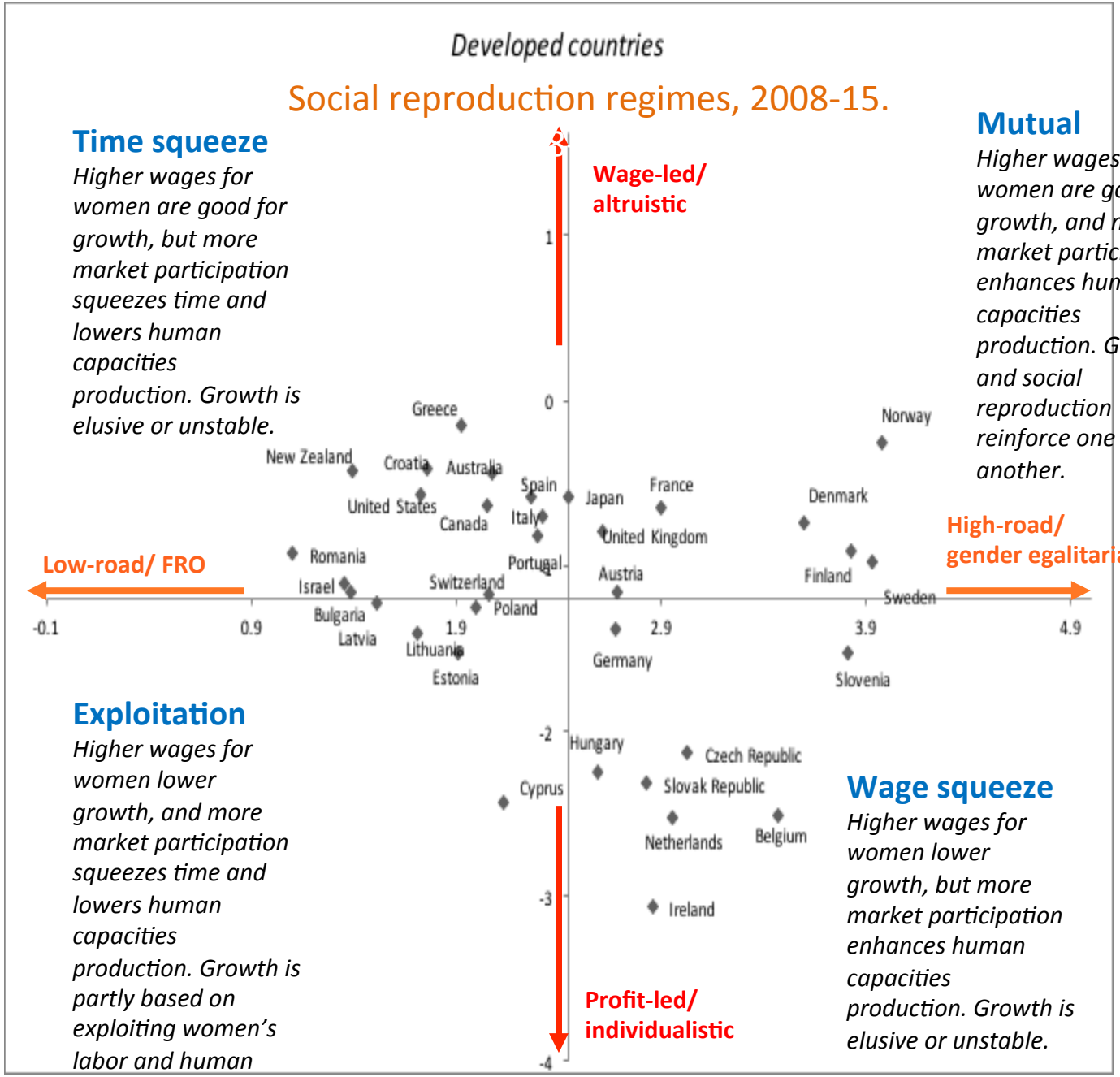
- PE curve reflects interaction among 3 spheres:
  - labor market
  - product market
  - production of human capacities in the household sector.
- **Profit share** depends on labor productivity, itself influenced by investments in human capacities, with ***wages*** and ***u*** influencing the opportunity cost of unpaid care work.

The case of “selfish” caring spirits (women do the unpaid work) and higher female wages



Selfish economy

The effects of an increase in the female sector wage in a selfish economy. The arrows indicate how the PE curves shift (from PE to PE[1]) after an increase in the female sector wage.



FRO: Feminization of responsibility and obligation

Onaran and Fotopoulou (2018)

- Kaleckian/feminist demand-led growth model
- Analyzes role of fiscal policy
  - Disaggregates G into social spending and physical infrastructure spending
  - Short and long run
  - Defines conditions under which economy is wage vs. profit led, female wage (gender equality) led vs. gender inequality led.

Racial inequality and growth

- Little formal modeling done on this to date
- Some things to include:
  - Residential segregation with effects on employment and wealth
  - Educational inequality
  - Effect of wage differentials on demand

Empirical work

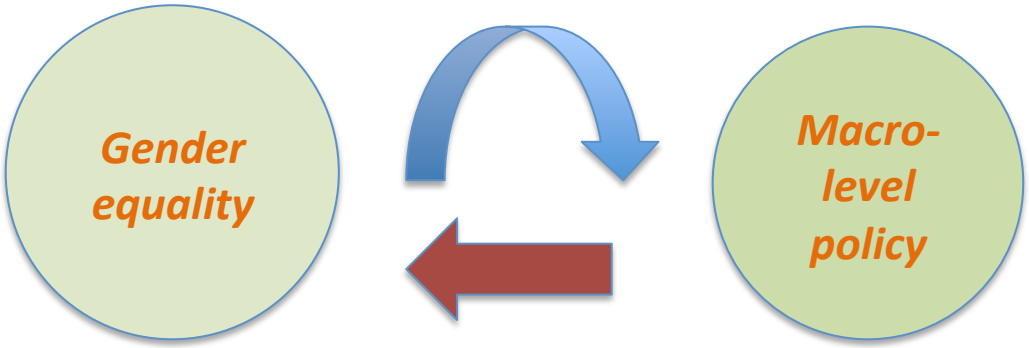
- Solow-type growth model plus:
  - Initial conditions: level of per capita income, K stock, HK
  - Racial inequality variables that affect a) quality of HK stock, and b) productivity (due to selection bias)
  - Measure of inequality (aggregate demand) and economic structure

Effect of initial conditions on long-run growth, 1980 to 2010

	Per capita GSP	Per capita personal income	Median household income
Lagged dep. variable	-34.40***	-16.01	-32.63**
K stock	5.35	3.71	-9.25
Urban	0.31**	0.07	0.21**
Mfg	0.55*	0.45	0.17
Inequality 80/20	-8.99**	-1.29	-1.97
White college	1.17*	0.61	1.76***
B/W college	0.23**	0.26***	0.16***
Black population share	0.59**	0.42*	0.15
R-squared	0.65	0.39	0.532

Macro-level policy effects on intergroup inequality

- Why is this important?
  - Feedback loop to inequality effects on growth/ development



Pathways from macro-level policy to intergroup (in)equality

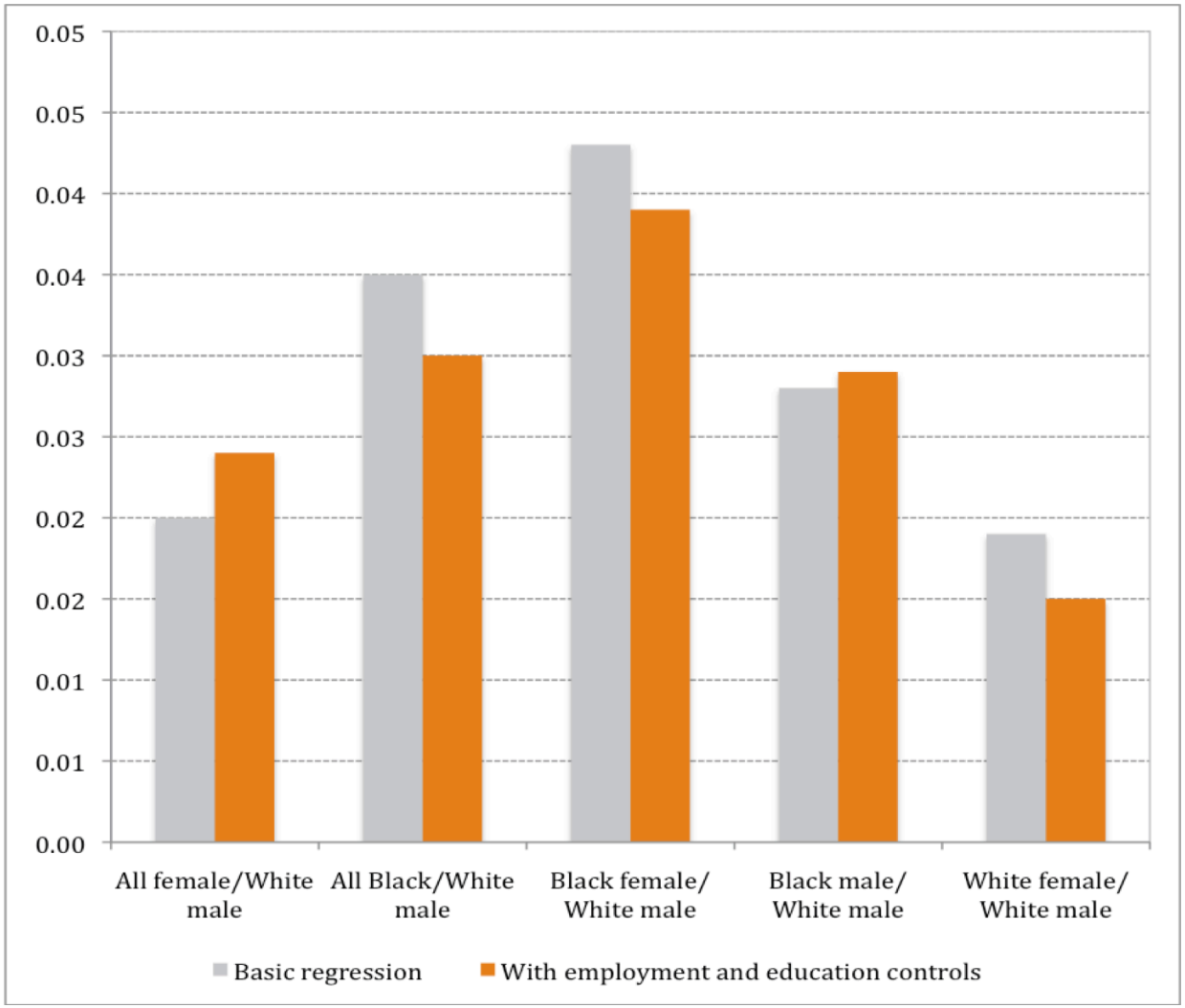
- ***Public investment*** stimulates employment as businesses hire more workers to meet increased aggregate demand.
  - Targeted public investment can leverage or 'crowd in' private investment by lowering production costs, further stimulating aggregate demand and employment growth.
  - Because public investment can raise economy-wide productivity, it has a) creates fiscal space, b) can be anti-inflationary (on supply side).

- Empirical studies: Impact of public investment in social vs physical infrastructure
  - Ilkkaracan, *et al.* (2015)
  - Antonopoulos *et al.* (2011)
  - De Henau & Himmelweit (2016)

Contractionary monetary policy

- Stratification theory suggests that subordinate groups get "the bad news of capitalism"
  - Seguino and Heintz (2011) analyze relative impact of increase in FFR on intergroup inequality in unemployment

Disaggregated effects of increase in FFR on unemployment rate ratios



Other examples

- Impact of globalization (including *Structural Adjustment*) on intergroup inequality in:
  - Employment
  - Wages
  - Other measures of well-being (e.g., health)
- Effects can be complicated
  - Neg. effects of globalization on dominant working class group (white males) can exert racist, sexist, anti-immigrant backlash (5 Stars/La Lega in Italy).
  - Darity, et al. (2006): "The economics of identity: The origin and persistence of racial identity norms"

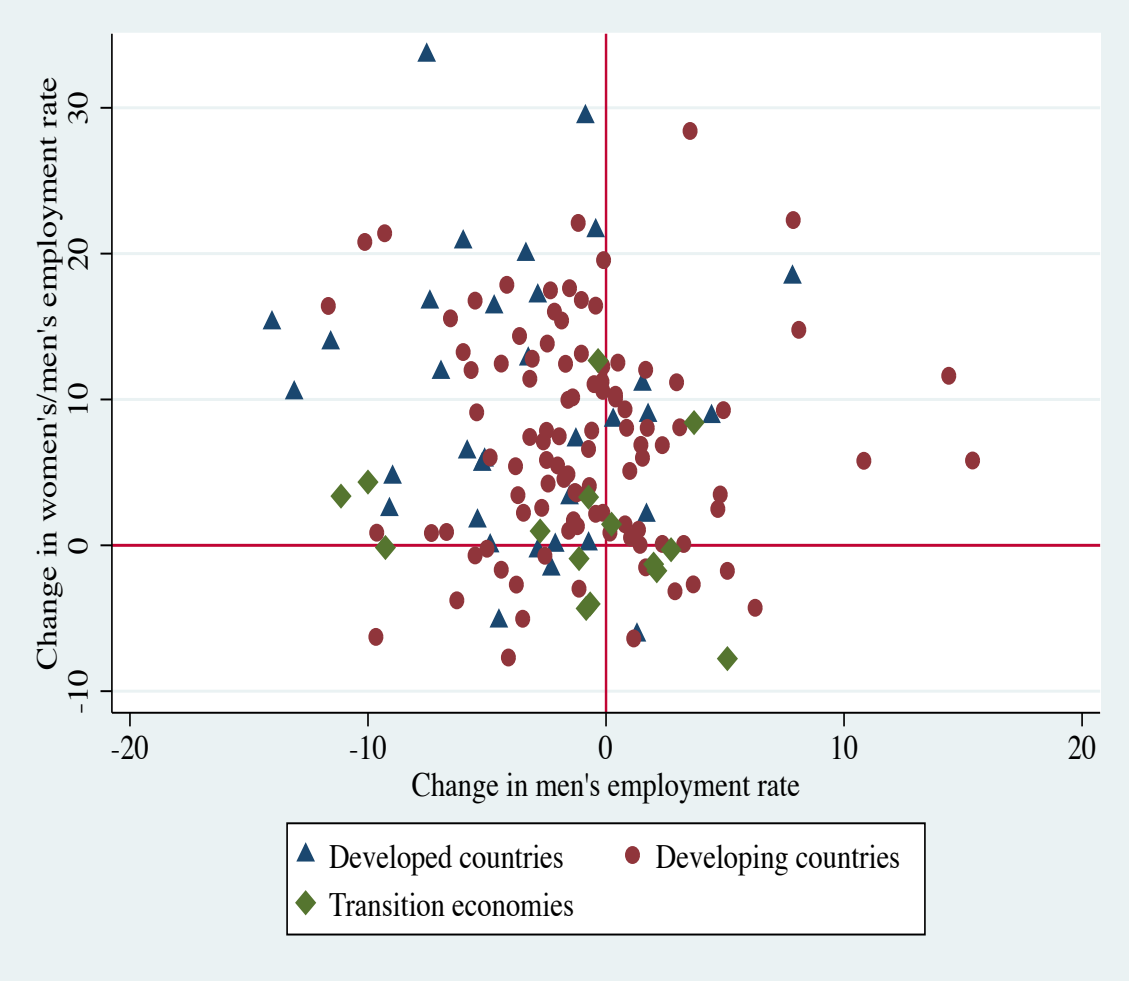
Still more examples

Racial wealth and income effects of financial crisis

- Dymski *et al.* (2013). "Race, Gender, Power, & the US Subprime Mortgage & Foreclosure Crisis: A Meso Analysis"
  - Shows how banking strategies were shaped by gender and racial inequality, resulting in "super inclusion" of these groups in predatory lending that extracted rent from these borrowers.
  - Wealth effects influence I in education and productivity growth.
- Arestis *et al.* (2013). "Financialization, the Great Recession, & the Stratification of the US Labor Market."
  - Find a wage premium for individuals working in managerial and financial occupations, and that finance wage premium is not equally distributed among all gender and ethnic groups.

Gender conflictive employment gains?

F/M employment ratio rising since 1991 as male employment rates fall



The iterative relationship between macro-modeling & empirics

- Theorizing on parameter sizes and signs must come from empirical studies.
- There is still a lot we don't know
  - MPCs of women and men, whites and POC?
  - MPI may also differ by gender and race?
  - We have theorized very little on how racial inequality affects productivity
    - Is it exclusion from labor markets?
    - Is it due to wealth inequality?
    - What is the role of residential segregation?
  - How to integrate ecological issues into these models?