

Industrial Policy & Gender Inclusivity

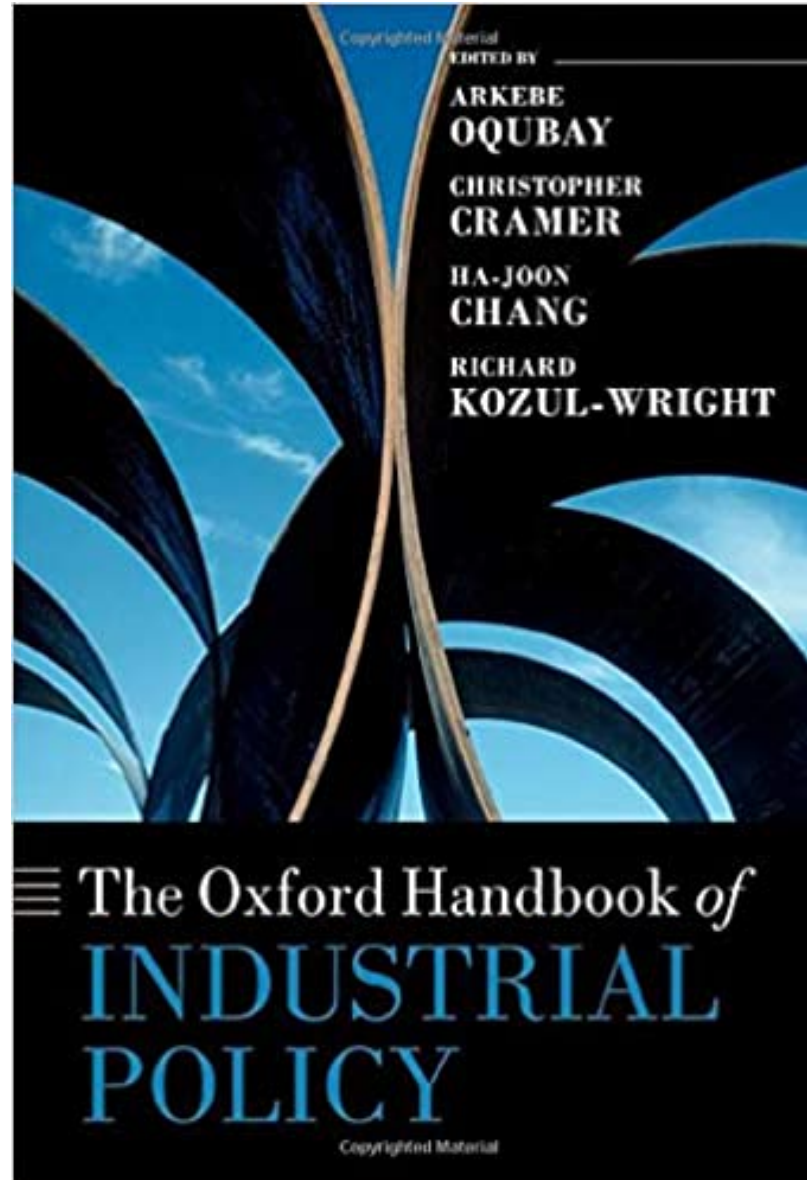
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*Oxford Handbook
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Economic Development & Structural Change

- In wake of failure of neoliberal strategies, a return to a past theme:
 - Economic catch-up and structural transformation are associated with industrial policies and the strategic role of the state.
- Industrial policy (IP)—that is, an articulated path to industrialization and the production of higher valued-added goods and services—is a means to achieve that goal.
- A key question is how to make industrialization gender-inclusive.

Markets on their own do not ensure that the benefits of industrialization are equitably shared.

- Thus, one of the objectives of IP should be to address inequality by class, race/ethnicity, and gender.
- There has been resistance to addressing this question, even in countries that embrace industrial policy and an interventionist role for the state in economic development.

IP affects the degree of gender inequality through several channels:

- Structural change influences employment & wages
 - It may be gender equalizing/disequalizing depending on the degree of gender job segregation, unrelated to human capital differences.
- IP influences innovation pathways that result in the diffusion of new varieties of industrial goods that may benefit some groups more than others.

Past experience:
Industrialization in
early industrializers
led to increases in
women's
employment.

But employment highly gender
segregated with women in X industries.

Gender wage equality inhibits short-run
growth:

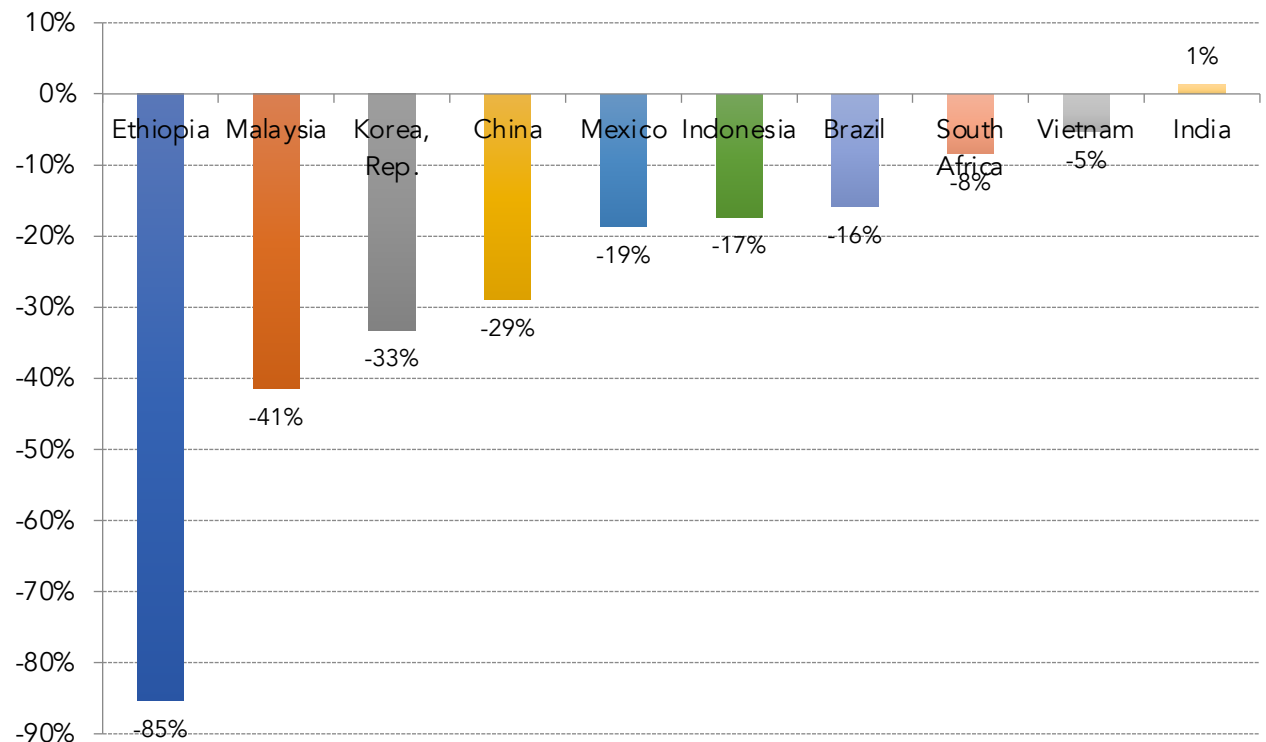
- Women's low wages in X industries substituted for (or complemented) currency devaluation.
- "Feminization" of foreign exchange earnings.
- Higher wages for women slow exports, lower forex available to purchase imported capital goods and technology.

Neoclassical economists fail to identify how structural change is gendered.

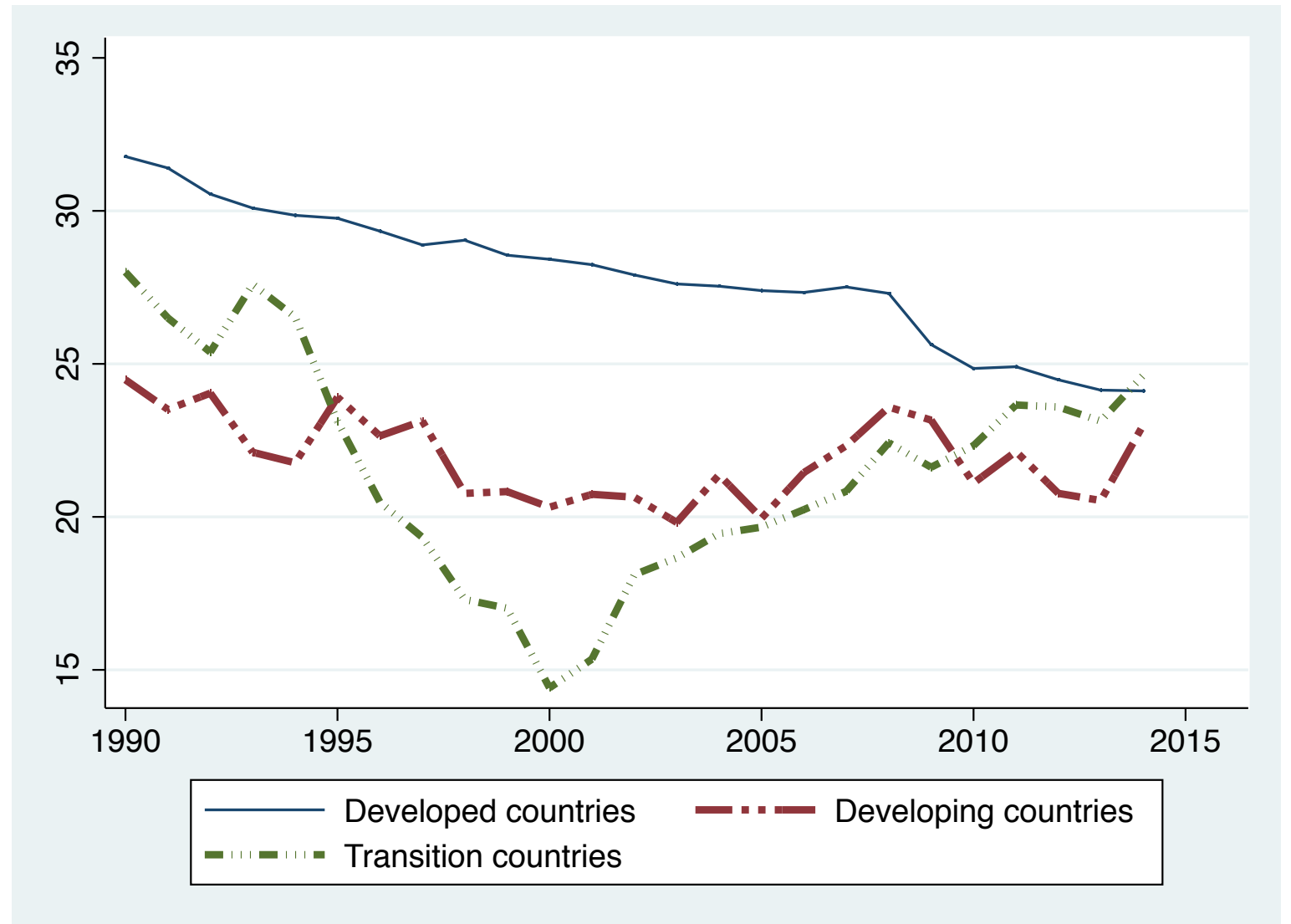
Defeminization of manufacturing employment

- As countries move to production of more knowledge- and capital-intensive goods, female share of manufacturing has fallen.
- Defeminization is happening in broader industrial sector, as well.

Change in women's relative concentration selected countries, 1991-2017



Trends in industrial employment as a share of total employment, 1991-2014



Two factors in women's declining share of industrial employment

- Industrialization raises productivity, reduces demand for labor
- Premature deindustrialization
 - Reduces demand for labor
 - Exacerbates gender competition over access to jobs.
- Stratification processes lead to women's exclusion.
 - Gender norms & stereotypes saddle women with unpaid labor that others benefit from (exploitation), and justify men's right to the highest quality and status jobs.
 - More recent stereotype: "Men are more suited to science and technology jobs than women."

Industrialization does not automatically offer a pathway to gender equality.

- Even as old occupations associated with one gender or the other disappear in the process of structural change, gender stereotypes recreate gender inequality in new occupations and work environments (Ridgeway 2011).
- As a result of these dynamics, women as workers may be the losers, absent attention to the dynamics that lead to their exclusion from newly created jobs.

Supply-side effects of women's inclusion

Gender equality has an impact on key components of successful IP:

➤ **Social reproduction & the quality of the labor force**

- To the extent women gain access to newly created industrial jobs, gender equality benefits—as do children.
- Failure to avoid a trade off between women's paid work and unpaid caring labor could dampen investments in children and thus long-run productivity growth.

➤ **Knowledge production**

- Gender exclusion in upgrading sectors weakens knowledge production (selection bias).

Investments in social reproduction promote growth

- In work with Elissa Braunstein, we identified for stylistic social reproduction/production regimes:
 - Mutual
 - Time Squeeze
 - Wage squeeze
 - Exploitative
- In mutual social reproduction regimes, greater gender equality in the labor market & distribution of care responsibilities stimulates economic growth.
- Regimes built on the exploitation of women's labor in these domains generate lower growth.

Social reproduction and IP

- IP *can* succeed by exploiting women's time, and/or excluding them from participating in the development process.
- But countries that constrain investments in social reproduction may pay a cost due to lower labor productivity growth.
- Ensuring a win–win scenario (structural change that induces movement to higher value-added production with women included in that process) requires addressing women's exclusion from high-wage, technically-sophisticated jobs.
- Appropriate public investment and policies needed to promote human capacities development by redistributing and reducing the care burden women differentially shoulder.

Gender and Knowledge Production

- Unequal representation of women in STEM fields indicative of processes of stratification
 - Gender unequal norms & stereotypes shape attitudes of the gatekeepers— professors and directors and management of research institutes.
 - Half of all engineering women students in the US experience bias and/or sexual harassment from faculty or staff.

Exclusion of women inhibits knowledge production

- Learning/upgrading is predicated on **the ability of organizations to incentivize and coordinate learning.**
- The **composition of an organization** impacts on its effectiveness in **problem-solving** so central to industrial upgrading.
 - Team diversity in open software development projects correlates positively with team output
 - Male & female engineers that collaborate with both genders are roughly twice as productive—they produce more citations in peer-reviewed articles than those who only collaborate with one gender.

Exclusion also influences who benefits from new technologies/products

- Exclusion of women can lead to their absence as users or consumers of technology. Products developed do not reflect women's needs and preferences.
- A wide variety of products marketed as gender-neutral are in fact biased towards men's bodies, e.g., virtual reality headsets too big for women's heads, smart watches too big for women's wrists.
- The problem is serious when it comes to testing and safety.
 - Cardiovascular disease research conducted using predominately male subjects, results in misdiagnosis/under-treatment of women's heart disease symptoms.
 - Crash-test dummies in autos are typically male, yet women at higher risk for serious injury.

Concluding thoughts

- Gender-blindness in IP is a significant lacuna that weakens the ability of such policies to achieve their goals.
- The distributional effects of industrial policy should be analyzed and interventions designed to ensure benefits are broadly shared.
- Tools governments use to nudge, cajole, and encourage the private sector to cooperate with industrial upgrading plans can also be used to address gender disparities.
- Reciprocal control mechanisms, such as making subsidies and other supports to private sector firms contingent on achieving performance targets, can be used to incentivize gender inclusion.
 - For example, governments could require research teams on government-funded research grants be gender-balanced as a means to promote gender inclusion in research that influences product and technology design.