

Gender and skill-differentiated impacts of global trade shocks in developing Asia: A top-down look

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This paper examines the impact of some major recent global trade shocks on labor market outcomes in Asian developing countries. We use a global general equilibrium model, with labor data that distinguish workers both by skill and by gender, to quantify impacts on employment, wages, and skill premia.

A large empirical literature establishes that in nearly all labor markets, men and women, and low- and high-skill labor, are employed with differing intensities by industry. Trade shocks that reallocate production across sectors can generate uneven impacts across gender-skill groups, even before accounting for differences in labor market adjustment behavior. The current focus of the literature tends to be industry-specific, including trade liberalization and local labor-market responses to trade shocks (Juhn et al., 2013; Pieters, 2018; Góes et al., 2023). By contrast, a global general equilibrium framework is well suited to capturing economy-wide linkages, including interactions between gender and skill that may shape aggregate outcomes.

Workers in each gender-skill category are also found to respond in different ways to labor demand and wage shocks. Empirical studies suggest gender differences in job mobility, industry switching, and wage sensitivity, as well as differences in the relative importance of adjustment along intensive and extensive margins. For example, employed women may be less likely to change jobs, but they are more likely to move in or out of the labor market in response to demand shocks. These patterns are especially relevant in developing countries, where labor force participation may vary widely by gender. On education, the empirical literature finds that gender differences are often influential in individual responses to financial constraints and to incentives to continue schooling beyond compulsory grades. Evidence on heterogeneity in returns to schooling and gender-specific education responses suggests that these channels may be quantitatively important (Card, 1999; Henderson et al., 2011; Seehuus and Strømme, 2024).

At the macroeconomic scale, labor market behavior and educational decisions are linked through changes in real wages and skill premia, which are in turn subject to influence from trade shocks. We use the Global Trade Analysis Project (GTAP) model (Corong et al., 2017) and version 12 Data Base (Aguiar et al., 2025) to analyze these linkages. To understand the detailed labor market impacts, and to facilitate improved modeling of the link between education, gender and skill intensity, we augment the GTAP Data Base with more detailed labor data classified by education and gender based on the World Bank's Gendered Labor Disaggregated Database (World Bank, 2023). Using the global general equilibrium model to

establish country-specific border price effects of trade and trade policy shocks, our analysis decomposes labor market effects in each country by gender and skill. We examine both between-industry effects arising from sectoral expansion and contraction and within-industry effects due to changes in relative factor demand and substitution.

We explore the sensitivity of counterfactual results to assumed parameter values governing labor market adjustment, such as labor force participation and mobility across industries and substitution patterns across gender and skill groups. These parameters are uncertain and heterogeneous across developing countries, yet they play an important role in determining the impact of trade shocks on wages, employment levels and participation, and whether impacts differ by skill level and gender.

On educational incentives, we explore the potential for trade shocks to have differential effects on opportunity cost and average returns to schooling, through changes in blue-collar wages and skill premia. Returns to education may differ by gender, and responses to financial constraints and schooling incentives can be gender-specific, with some evidence of higher average returns for women (Seehuus and Strømme, 2024). Trade-induced movements in real wages and skill premia may be interpreted as signals that can alter incentives to remain in education beyond compulsory levels, with possible implications for longer-run gender gaps in income and skills.

By combining a top-down general equilibrium perspective with more disaggregated labor-market structure, this paper provides insights into gender- and skill-differentiated impacts of global trade shocks.

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