Intended and Unintended Impacts of Minimum Wage Change and Foreign Direct Investment: A Computable General Equilibrium Model Analysis with Cross-border Factor Mobility in the Philippines

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March 2023

Summary

Many developing countries, such as the Philippines, are richly endowed with labor. The comparative advantage in labor-intensive industries would suggest that the Philippines suffers from low wages, poverty and inequality. The Philippine government uses the minimum wage as a policy intervention tool to mitigate this problem, instead of direct cash transfers or wage subsidies, which would incur fiscal costs. The minimum wage, computed based on the poverty threshold, prevailing average wages, and socioeconomic indicators, was raised by 3.4 percent during 2011–2018, but only around one percent per annum in real terms, which leads me to the question of whether the minimum wage increase in the Philippines would improve the welfare of Filipino workers.

In particular, I aim to determine the impacts of a minimum wage increase on the Philippine economy in terms of output, domestic employment, international migration, household welfare, and inequality, using a static Computable General Equilibrium (CGE) model based on the standard CGE model of Hosoe et al. (2010).

The standard economic theory maintains that increasing the minimum wage would lead to lower domestic employment in a closed economy when the minimum wage is below the market-clearing or average wage. In the case of the Philippines, a minimum wage increase indeed results in lower domestic employment (Lanzona, 2014), not only for Filipinos earning the minimum wage but also for those earning 50 percent more than the minimum wage (Canales, 2014). According to the International Labour Organization (ILO) (n.d.), a more comprehensive range of workers may be affected because employers may wish to maintain a difference in job status (i.e., providing higher wages for workers with more skills or experience). Thus, I highlight the importance of the minimum wage in my study as it may affect not only marginal workers but also non-minimum wage earners in developing countries.

While the current literature has assumed the minimum wage increase for marginal workers in a closed economy, e.g., Card (1992), I examine the minimum wage increase for a more comprehensive range of workers in an open economy. In contrast to the lower domestic employment, implying lower income, as Card (1992) observes, I find that workers, especially unskilled ones, would migrate abroad, and migrant remittances would increase domestic labor income that would improve the welfare of all households. The intended impact of the minimum wage increase is the improvement in household welfare, while unintended outcomes are outward migration which would erode the tax base, and currency appreciation caused by migrant remittances, which would decrease domestic production.

To neutralize the negative employment effects of the minimum wage increase as depicted in the static CGE model, I develop a recursive dynamic CGE model featuring foreign direct investment (FDI) as well as domestic and foreign capital accumulation. FDI is expected to bring spillover effects to labor-intensive sectors, such as the service sector and their unskilled workers. The Philippine service sector employs more workers than the agriculture or industrial sectors, and 80 percent of those are unskilled workers (World Bank, 2013). The service sector's projected employment from both domestic and foreign investments is the largest among sectors (Philippine Statistics Authority (PSA), n.d.). The labor-intensive textile industry, for example, is associated with rising unskilled wages (Organization for Economic Co-operation and Development (OECD), 1999). Thus, FDI inflows are expected to increase domestic employment, especially for unskilled workers, resulting in higher household income and welfare.

My dynamic simulation results show that FDI would re-attract workers, especially unskilled ones, who have migrated abroad due to the minimum wage increase. While migrant remittances would contribute to household income in the short run, FDI would address the reduced employment problem and create jobs in the long run since foreign capital accumulation would take time. FDI would also increase the welfare of all households because of its positive domestic employment effects in FDI-host sectors, especially in the manufacturing and service sectors. While many studies, such as Alderson & Nielsen (2002) and Aldaba & Quejada (2022), suggest that FDI favors the manufacturing sector, I find that FDI inflows would also benefit the agriculture sector and its unskilled workers in the Philippines indirectly.

Regarding the inequality incidence, contrary to the body of literature that argues the minimum wage increase would uplift the lives of the poor, my study finds that inequality would remain the same because the largest welfare gains would accrue to the rich households (i.e., households in the National Capital Region (NCR)) and also to the poor households (i.e., the households in Mindanao), which jointly make the inequality outcome neutral. The FDI increase would also neither improve nor worsen inequality as the increase would retain the households' initial order of welfare levels (i.e., NCR followed by Luzon, Visayas, and Mindanao). The largest welfare gains from FDI would still accrue to households in NCR, followed by Luzon, Visayas, and Mindanao. As the gaps in their welfare gains would not be sizable, the inequality incidence would not deteriorate, given the assumed FDI increase.

Macroeconomic models in the Philippines are usually developed to determine how policy changes impact poor Filipinos. However, implications for the poor in a general equilibrium framework are largely absent. Even though important economic elements such as international labor migration and FDI can positively affect poor households though remittances and job creation, there are still no existing CGE models and studies that underscore the role of international factor mobility in the country. With a general equilibrium analysis of minimum wage and FDI increases while allowing labor and capital mobility in my study, I find that the negative implications of the minimum wage increase, such as reduced domestic employment and wages, could be mitigated by promoting FDI. Therefore, I conclude that FDI can neutralize the negative domestic employment effects of minimum wage in the Philippines.

Policy interventions, such as minimum wage or FDI increases, can affect the domestic macroeconomy, but with a structural macroeconomic framework like the CGE model, it would be in a manner that policymakers can predict. Policymakers in the Philippines and other developing countries sharing similar characteristics can formulate better national policies, deal with unexpected outcomes, and implement targeted policies for household groups or sectors that are the most vulnerable to shocks. With this study, I have derived not only the direct policy implications of minimum wage and FDI increases but also uncovered unintended impacts and more general implications in policy design and evaluation in the context of the Philippine economy that may also apply to other developing economies.

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