Impact Assessment of National and Regional Policies using the Philippine Regional General Equilibrium Model (PRGEM)

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For the Philippines, a regional perspective is essential to the formulation of a national development policy. Poverty varies widely by region, and the regions differ greatly in economic structure. Industries tend to cluster in areas hosting or adjacent to large urban centers; other regions tend to be more highly dependent on agriculture.

This study is based on policy simulations using a regional model of the Philippine economy. The regions are: National Capital (the wealthy region), North, Central, and Southern Philippines. We analyze various scenarios related to important regional development issues, namely: cuts in agricultural import tariffs (Reform), improved productivity of agriculture (Competitiveness), and regional investments in market-related infrastructure such as roads and ports (Catch-up and Concentration).

Welfare benefits are shown in the figure below. The main findings are: first, tariff cuts in agriculture lead to an output contraction in some import-competing sectors, such as Cereals, but improve welfare across all regions by reducing consumer prices (Reform). Second, benefits from these cuts are strongly enhanced by improvements in agricultural productivity (Reform with Competitiveness). Third, investments in marketing infrastructure offer more opportunities for sizable welfare impact, compared to tariff cuts (Catch-up and Concentration). Fourth, investing only in the National Capital delivers more total benefits, however these are limited only to the wealthy region (Concentration). Fourth, spreading out investments distributes the benefits across regions, but total benefits are lower (Catch-up). Hence, there is a trade-off between the size and spread of welfare gains across regions. Lastly, combining agricultural tariff cuts with marketing infrastructure investments mitigates some of the contractionary effects of the former (Reform and catch-up). However, the combined welfare benefits are identical to sum of the benefits from market reform alone or infrastructure investment alone.

Policies should aim at both market reform and investment in regional infrastructure. If society values equity over efficiency it would spread out the investments across regions. Finally, implementing reforms need not be conditional on investments in productivity and infrastructure.

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