Unravelling Regional Inequality: The Heterogeneous Impact of China's Great Western Development Program

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Place-based policies are common interventions to enhance economic development and reduce regional disparity in developing countries. Motivated by equity concerns, place-based policies tend to assign uniform treatment to the entire region while lacking precise targeting of localities. As a result, these policies may introduce unintended consequences of widening the disparity as places respond differently according to their initial endowments.

In 2000, the central government of China initiated one of its largest place-based development schemes, the Western Development Program (WDP). The WDP targeted the backward western provinces with generous fiscal transfers and substantial infrastructure investments to reduce the significant disparity between the coastal and inland areas. However, according to our estimation, though WDP successfully led to a 1.3-1.7% faster annual output growth in the West, the positive growth effects are limited to localities with better initial endowments.

Background

In China, economic development is highly uneven across regions. The geographical drawbacks in the West, especially the landlocked location, create obstacles to agglomerate economic activities and thus impediment development. In response, the State Council officially started the WDP in January 2000 to promote growth in 12 provinces in western China. The Program had three main components:

- *Generous fiscal transfers and massive credit support.* The ratio of the central government's fiscal transfers to western provinces concerning local government revenue rose from 104% in 1995 to 180% in 2010, far exceeding the ratio in the eastern region (which increased from 53% to 55%);
- *Vast industrial policies to promote industrialisation.* The government targeted essential sectors, including mining, energy, machinery, etc. Firms in these sectors received a 10% tax break.
- *Significant infrastructure investment in the western region.* According to data from the National Development and Reform Commission (NDRC), by the end of 2019, railway service in the western region reached 56,000 km, including 9,630 km of high-speed railway.

Findings

We employed a spatial regression discontinuity design to evaluate the economic impacts of the Western Development Program (WDP). We used a long time series from 1992 to 2019 to assess pre-existing trends and the mid-to-long-term impacts of the policy. Our assessment focused on three dimensions of the policy effect: **growth**, **equity**, and **welfare**.

Growth

The analysis used nighttime light data as a proxy for economic activity to measure GDP at a granular level. We find that the light intensity on the western side of the border increased significantly by 16 to 20 % shortly after the policy commenced in 2000. This increase in light intensity corresponds to a 1.36–1.7% increase in annual GDP growth. Although WDP is ongoing, the policy intensity decreased substantially after ten years. As a result, the PProgram'sgrowth effects also dropped, revealing a lack of growth momentum.

Equity

The effects of the WDP varied heterogeneously across places. The growth effect was more profound in areas with higher initial levels of population density, industrialisation and infrastructure access. The divergence in growth, however, was not driven by differential policy intensity since neither fiscal transfers nor bank credit offerings differed across areas with different initial endowments. Further investigation found that the WDP failed to attract population and business in initially less-developed regions, as the market logic would direct capital and population flow toward places with better endowments, especially with the help of improved transportation infrastructure.

Welfare

Contrary to the discrepancies we observed in economic effect, the WWDP's impact on local welfare was consistent across places regardless of their initial endowments. We saw the most significant impact on improving healthcare service and housing conditions. On a positive note, direct spending on improving the quality of public services may be a more reliable way to improve household welfare in those least-developed areas.

Conclusions and Policy Implications

Building upon empirical analysis of the impact of CChina's Western Development

Program, we suggest that policymakers should not view the targeted region as a homogenous part when designing place-based policies. In a large geographically disadvantaged region, such as western China, we should not expect state-led industrialisation to work equally well in all subregions, as the locational fundamentals in some areas might be too poor to support agglomeration economies. The growth effects in other areas would further attract labour and capital from those initially disadvantaged areas, exacerbating regional inequality. A fine-tuned policy approach is needed—one that balances equity with efficiency. Different policy goals should be set for regions based on their initial endowments, considering factor mobility from disadvantaged areas. More specifically, in better-endowed areas or larger cities with favourable location advantages and infrastructure, the focus should be attracting businesses and fostering local agglomerations. This can be achieved through tax incentives, improved access to credit, and enhanced transportation and energy infrastructure. Conversely, in economically disadvantaged areas, greater emphasis should be placed on supporting the provision of essential public goods like education, healthcare, and basic infrastructure through fiscal transfers. These findings emphasise the need for regional policies prioritising technological capabilities and opportunities and address region-specific challenges through a participatory approach.

Reference

NDRC=National Development and Reform Commission 2020, Chinese Government, accessed 5 June 2024 (Source).

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