

## GROWTH, INEQUALITY, AND POVERTY IN CHINA THE ROLE OF PUBLIC INVESTMENTS

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China achieved world renown in reducing its rural poverty during the past two decades, despite the global slowdown in poverty reduction. Contributing to this success are a series of policy and institutional reforms, promotion of equal access to social services and production assets, and public investments in rural areas. Yet, as China's economy continues to grow, it is becoming harder to reduce poverty and inequality further. How the government can better design its policies, particularly public investment policy, to promote growth while, at the same time, reducing poverty and regional inequality, is hotly debated in both academic and policy circles.

*Growth, Inequality, and Poverty in China: The Role of Public Investments* disentangles the roles of specific public investments in promoting growth and reducing poverty and regional inequality in rural China. It also provides insights into gainful future priorities for government investment.

Using provincial-level data for 1970–97, the report develops a simultaneous equations model to estimate the effects of different types of government expenditure. The model not only ranks the marginal effects of public investments on growth, inequality, and poverty, but it also tracks various channels of investment and their effectiveness. The latter is important because it enables policymakers to focus on strengthening the weak links in the poverty-reduction chain.

### THE RETURNS TO RURAL INVESTMENT

The results show that government's production-enhancing investments, such as

agricultural research and development (R&D), irrigation, rural education, and infrastructure (including roads, electricity, and telecommunications) contributed not only to agricultural production growth, but also to reduction of rural poverty and regional inequality. But variations in the magnitude of the effects are large among different types of spending, as well as across regions.

Based on actual investments in 1997 and the parameters estimated from the model, the authors calculated the marginal returns of various investments to growth in agricultural and nonfarm production and to reduction of rural poverty and regional inequality. These returns were calculated for the nation as a whole and for three different economic zones. Since the estimated returns are recent, they can serve as direct input into the current policy debate.

Government expenditure on education had the largest impact in reducing rural poverty and regional inequality and had significant impact on production growth. Increased rural nonfarm employment was accountable for much of this poverty- and inequality-reduction effect. Government spending on agricultural R&D substantially improved agricultural production. In fact, this type of expenditure had the largest impact on agricultural production growth, which is still much needed to meet the increasing food demands of a richer and larger population. Benefits of agricultural production growth also trickled down to the rural poor. The poverty-reduction effect per unit of additional agricultural R&D investment ranked second only to the investment in rural education. Government spending on rural infrastructure (roads, electricity, and

telecommunications) had substantial impact on reducing poverty and inequality as well, owing mainly to improved opportunities for nonfarm employment and increased rural wages. Investments in irrigation had only modest impact on agricultural production growth and even less impact on rural poverty and inequality, even after trickle-down benefits were allowed for. A striking finding is the minimal impact of the specifically targeted government anti-poverty loans. In fact, the poverty-reduction impact of these loans was the least of all the types of government spending considered in the study.

Disaggregating the analysis into different regions reveals that, for all types of government spending, returns to investments in poverty reduction were highest in the western region, while returns in agricultural production growth were the highest in the central region for most types of spending. Furthermore, for all types of government spending, investments in the western region led to the greatest reductions in regional inequality, while investments in either coastal or central regions worsened the existing large regional inequalities.

## PRIORITIES IN RURAL INVESTMENT

These findings hold important implications for future government investment priorities. In order to reduce rural poverty and promote rural economic growth, the government should not only increase agriculture-specific investment, such as agricultural R&D, but also gear broader investments, such as in education

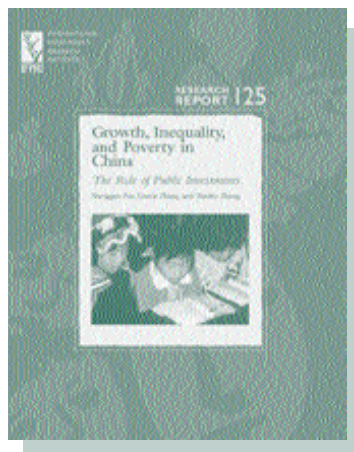
and infrastructure, to rural areas. In irrigation, the government has played a prominent role in promoting agricultural growth in the past. But today, marginal returns of irrigation investment to both agricultural growth and poverty reduction are small. No doubt, investment in flood and lodging control is important and should remain a top priority in government investment portfolios. But making current irrigation investment more efficient by reforming institutions and policies should receive an even higher priority. The low returns of anti-poverty loans imply that the government should better target this spending or improve the efficiency of its use.

In terms of regional priorities, if the government aims to maximize poverty- and inequality-reduction effects, then investment should be targeted to the western region (a less developed area). However, to maximize returns to investment in agricultural production, investment should be targeted to the central region.

Suggested future research includes a general-equilibrium approach to analyze the overall impact of public investment on the whole economy, as well as on urban poverty and inequality. Further, China's entry into the World Trade Organization (WTO) calls for more research on how public investment can be used to alleviate possible adverse impacts. The political, economic, and institutional aspects of public investment in rural areas also need to be better understood to improve efficiency and effectiveness in the use of public resources, an issue largely neglected in the past.

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