

## Growth and Investment

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Growth is essential for lasting poverty reduction, and achieving sustained rapid growth is therefore a key ingredient of the Bank's strategy to speed up development. The research program aims to improve our ability to design policies and reform strategies conducive to sustained growth and understand the factors behind the diversity in aggregate economic performance across countries, as well as their heterogeneous response to policy and institutional changes.

### Themes

The growth and investment research program focused on growth, macroeconomic and financial issues, and governance. New research on the microeconomic foundations of growth expands on earlier work on the contribution of various policy ingredients (infrastructure services, property rights, finance availability) to firm performance, but also stresses the effect of microeconomic distortions and constraints on aggregate growth, and highlights the complementarity among reforms. To be successful, specific reforms often demand accompanying measures in other economic areas; for example, reaping the benefits of trade liberalization requires an efficiency-enhancing reallocation of resources that cannot be achieved without sufficient flexibility in factor markets [209].

New research on the macro-financial impact of debt relief concludes that, on the whole, effects on aggregate growth are hard to detect in the data, and are therefore unlikely to be large. A related line of research looks for sources of poverty traps, which hold back growth in poor countries—one of the key arguments offered for scaling up aid from the growth perspective [217].

The continuing governance research on civil conflict and post-conflict recovery focuses on institutional and economic factors—ranging

from the specifics of conflict termination to the efforts to improve public service delivery—that determine whether the final outcome is conflict re-emergence or sustainable peace. A workshop held in Oxford resulted in a two-volume book collecting previous research on civil conflict [182]. Research on security and development, focusing on the causes and developmental consequences of terrorism and drug trafficking, is also under way.

Key components of the growth research program are developed in close collaboration with the Bank's operational departments, and in some cases with their direct support, in order to address strategic issues specifically identified by the regions, or also to lay the analytical groundwork for follow-up operational activities at the region or country level. This has been the case, for example, of much of the recent macro and microeconomic research on growth determinants, and work on the growth impact of fiscal policies.

### Research Highlights

#### *Inequality and Discrimination*

The adverse effects of discrimination and high inequality may persist even when their proximate causes have been removed. Innovative experimental research in Indian villages examine the mechanisms by which inequality and societal discrimination affect individual achievement and hence may also hamper village democratization and governance [162].

The evidence shows that a history of social and legal disabilities may have persistent effects on a group's earnings through its impact on individuals' expectations. In this way, the effects of past discrimination may endure once legal barriers are removed. In the main experiment, young subjects drawn from the extreme ends of the caste hierarchy were asked to solve mazes under a piece rate incentive. In an anonymous context there was no difference in

performance between the low-caste and high-caste subjects; but when caste identity was publicly revealed in a mixed-caste group, a significant caste gap emerged: the average number of mazes solved by the low caste declined by 20 percent. The study shows that making the social identity of an individual public can change that individual's behavior even when that information is irrelevant to payoffs. Dismantling discrimination against a historically oppressed social group is no guarantee that the group will forge ahead.

### ***Regulation, Institutions, and Growth***

Three papers explore the links between microeconomic regulation and macroeconomic performance [223, 224, 228]. This work builds synthetic indicators of regulation covering a broad array of dimensions relevant to firms' economic activity, and shows that developing countries possess the harshest regulatory environments, with the exception of taxes. These regulation patterns are systematically related to aggregate economic performance: product and labor market regulation tend to

reduce growth and raise aggregate volatility, even after accounting for the potential endogeneity of regulation.

Informality is one major channel through which regulation is believed to affect aggregate performance, and the research documents the negative association between informality and long-term growth and explores the effect of regulation on the relative size of the informal sector. An increase in either product-market or labor regulation leads to an expansion of informality, even after controlling for the level of per capita income. But the institutional framework makes a big difference. Better institutions help mitigate, and even eliminate, the adverse impact of regulation on informality, macroeconomic volatility and growth, presumably by improving the quality of regulation. These findings stress the interdependence between deregulation and governance improvement in any reform strategy. Improving governance acquires a special priority in a highly regulated environment. Equally, in a framework of weak governance, reducing regulation should also be at the top of the agenda.

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