



Structure and Change Research Program

Sustainable growth, characterized by continuous technological innovation and structural changes, is key for narrowing the gap between developed and developing countries. Despite decades of work, the field of development economics has yet to provide a comprehensive and effective agenda for generating and distributing wealth in poor countries. Given the current crisis, this is an opportune time to re-examine the state of development economics, to draw lessons from past experiences and previous knowledge, and to offer new thinking. The proposed new research initiative, the “Structure and Change Research Program,” will examine the changes in social and economic structures as well as the role of industrial upgrading during the development process. The program will begin this work through several initial areas of research, including work on patterns of industrialization, analysis of country case studies, study of optimal financial structure, and research on the process of industrialization in Sub-Saharan Africa.

Economic Development and Structural Change: A Renewed Approach

The proposed program will bring renewed and much-needed attention to countries’ economic and social structures, particularly as they relate to changes in industrial upgrading and improved productive capacity – those elements on which development depends. The analysis will highlight the importance of countries’ initial conditions and stage of development. Further, the research program will seek to provide a deeper understanding of the path of industrial and technological upgrading in rapidly developing parts of the global economy and shed new light on the structural causes of lagging growth performance in much of Africa and other poor regions.

The research goal can be placed in an historical context. Development thinking has gone through major pendulum swings through the decades, largely along the state versus markets arc. As a result, governments have generally been asked to do either too much or too little. In the 1950s and 1960s, the thinking of so-called structuralists held sway. Researchers and policymakers stressed the extent

of market failures and the need for government-led import-substituting industrialization. With the rise of inflation and the debt crisis in the 1970s and 1980s, the pendulum swung toward market forces and “getting prices right.” This meant liberalization of both domestic markets and trade restrictions in developing countries.

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In the wake of the East Asian financial crisis of 1997-98, a post-Washington Consensus view has become more widely accepted. In this view, the market must be the fundamental institution governing resource allocation, but the state needs to create the conditions for markets (and people) to thrive. The emerging post-Washington Consensus holds a more balanced view of the state and market, but underplays the importance of industrial and broader economic upgrading and the role of the state in promoting such upgrading in ways that are consistent with comparative advantage.



The Structure and Change Research Program will emphasize the critical importance of industrial upgrading, and its consistency with comparative advantage, to sustained growth and development. It will analyze both hard and soft infrastructure's role in development and the complementary roles of the private and public sectors in their provision. Recognizing the importance of markets and incentives, it will highlight the key roles of the market in resource allocation and the state in creating the conditions necessary for economic growth.

Objectives of the Research

This program aims to provide policy guidance on measures that promote growth while taking into account a country's stage of development, factor and institutional endowments, and comparative advantage. This will facilitate cross-regional learning, as well as contribute to a more balanced perspective on the relative roles of states and markets. The proposed research complements and expands other

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research supported by the World Bank and donors. For example, the Growth Commission report concluded that there is no prescription for growth that is applicable in all circumstances and in all countries. This proposed research aims to sharpen that conclusion by providing extensive analysis of what is possible under real life conditions. The studies of optimal financial structure are intended to help refocus attention on those aspects of the financial system that are most important for countries at various stages of development. In addition, the comparative case studies of policy success and failure will draw, as far as possible, on local consultants who will then be available to help inform their own country's policies. The research will involve policymakers and produce toolkits and good practice notes, as well as offer desk studies and comparative case studies.

Initial Areas for Research

The proposed research program will encompass four initial projects:

1. *Patterns of Industrialization*

This project has two parts:

First, it will empirically and systematically document stylized facts about the economic transformations that take place as countries develop, including how they are reflected in shifts among sectors of the economy.

Hollis Chenery, the World Bank's first Chief Economist, raised questions on this subject in a series of influential empirical analyses of patterns of industrial growth carried out in the 1960s and 1970s. This type of analysis has subsequently fallen out of fashion, but Chenery's questions remain important. The Patterns of Industrialization research project will use a methodology similar to Chenery's, updated to include the past 25 years of data. This methodology uses panel data on countries' productive structures, trade, and other

factors, to map out how these factors evolve as development proceeds.

Second, the research will develop a number of new structural models relating to institutional distortions, economic growth, stability, income distribution, and performance of transition countries. The models will incorporate a number of dimensions associated with alternative structural paths. The implications from these models will be tested with cross-country panel data.

The approach does not necessarily postulate that a focus on any particular subset of industry – for example, the garment industry – is necessarily the route to sustained growth.



With the same factor endowments, some countries may have different soft infrastructure than others, leading to alternative path and value chains. The important empirical questions involve which countries have managed to avoid becoming stuck in less productive sectors and activities, as well as what patterns of product chains and technical learning characterize the development paths of successful countries.

2. Country Case Studies: Successes, Failures, & Exit Strategies

Part two of the research will use a country case-study approach to dig deeply into the strategies and policies that were most responsible for development success or failure. The framework from the first project, Patterns of Industrialization, will provide a structure and discipline for country studies, while the case-study approach will provide rich detail not available from the multi-country statistical analysis.

One priority is to better understand how a country shifts away (or not) from an industrial structure that is distorted as a result of government's attempts to develop industries that, at a given time, were inconsistent with the country's comparative advantage. The research will look at active policies that some countries have used to enable firms to exploit endowments and even build future sources of new comparative advantage. The key policy issue is how to move toward a more efficient and developmentally appropriate industrial structure. Past research has too often taken distortionary policies as exogenous to the economy's structure – and thus easily within the control of reformist policymakers – rather than recognizing them as the endogenous result of the government's previous broader industrialization strategy.

3. Optimal Financial Structure

The third project will investigate how the optimal financial structure in a developing country depends on the country's level of industrialization and development. The nature of productive activity, size of capital requirement, nature of risk, and ability to bear different kinds of risk will vary depending on a country's development level.

Since the financial sector's purpose is, in large part, to finance productive activity and share risk, it seems logical that the optimal financial structure will also vary with development level. Industries at the technological frontier in developed countries – pharmaceuticals, for example – often involve high-risk investments with very large upfront costs, which imply a certain optimal financing structure that relies on well-developed equity markets and large internationally integrated banks or other institutions able to price and spread risk. However, for poor countries dominated by small enterprises and agricultural households, reliance on small, local banks may be more appropriate. Although these banks are less able to exploit economies of scope and scale than large banks, they are often more effective at supporting the small- and medium-sized firms in manufacturing, farming, and service sectors in poor countries.

This area warrants much more study, particularly on the question of what structure is most appropriate for different types of countries. This part of the project will be based largely on cross-country empirical studies of the association between finance, development level, and patterns of industrial growth. The research will investigate potential costs and benefits associated with different financial structures, paying attention to both access and stability dimensions. The project will consider political



economy issues, as well as the historical experience of developing countries in this area. It will also include cross-country empirical studies of the association between financial structures and economic outcomes, both at the country and firm level.

4. The Process of Industrialization in Sub-Saharan Africa

The development struggles of Sub-Saharan Africa are well known, but it is perhaps less well understood how little progress there has been in industrialization. This fourth project will focus on why so many African countries have not transitioned to industrialized economies, which have historically been essential to sustained development, and what can be done to facilitate the transition.

Past research has often focused on why there are so few successful manufacturing exporters in Africa, but this is actually a second-stage question. Countries need to be able to produce competitively for domestic markets before they can hope to compete internationally. This research project will focus on how to remove the barriers to the emergence of a manufacturing sector, and the importance of those relating to social capital as well as to infrastructure and the business climate.

This research project will use a country case-study approach looking at both successful and unsuccessful attempts to establish new manufacturing industries – cases in which, for whatever reason, some African economies do not produce even simple, labor-intensive goods that seem to have few startup costs and have sufficiently large domestic markets.



The research will examine why many African countries have not transitioned to industrialized economies.

The proposed study would include several African and Asian countries. In a pilot mission to Zambia, a research team interviewed a number of manufacturing firms and surveyed their product range to get a clearer idea of what simple manufactured items were not produced in Zambia, and why. Based on this mission, the approach to information-gathering will be refined for other countries.

In addition to the four initial projects, the program hopes

to encourage more research on industrial upgrading and structural changes, as well as on the appropriate roles of market and state in the process of economic development.

Knowledge Dissemination

Each of the research components is expected to result in published outputs, including working papers, articles, and synthesis volumes. Particular attention will be paid to making outputs available in local languages. The work is expected to feed into a series of high-level discussions involving policymakers, to re-evaluate and refine analysis of the roles of the state and market in development, as in the work of the Growth Commission. This will aim to contribute to a more balanced, empirically-based consensus and will be facilitated by close links with the World Bank Institute's planned "development debates."

However, more is envisaged to ensure that informed debate also includes client countries and



other stakeholders. This will require developing policy-focused outputs, including good practice notes and facilitating the exchange of experience, especially (but not only) between Africa and Asia. Engagement and the opportunity to compare approaches will build capacity in strategic approaches to development, especially those related to finance and industry. In addition, the comparative case studies of policy success and failure will draw, as far as possible, on local consultants. They will then be available to help inform their own country's policies, including through in-country dissemination and discussion workshops that will be included as a key component of the cases.

Since donors, including the World Bank, support many programs of the type covered in the research, the conclusions should be of use to them also. The research will be undertaken in close collaboration with World Bank Operations (the Africa component is embedded in a wider study of competitiveness) and will be further discussed and disseminated in the process of shaping new programs. Through this collaborative process, it is planned that translation of the research into operational design will bring in another important dissemination mechanism to clients and partners.

How the Research Will Help Developing Countries

The research program is expected to help developing countries promote a competitive manufacturing sector that would diversify and transform the current resource-based industrial structure. The goal is essential for sustainable growth and crucial for inclusive

growth that offers poor people income-enhancing opportunities to move out of poverty. The experience of low-income countries, particularly in South Asia, is proof that development through industrialization is achievable. While the goal of this approach may seem common to ongoing development work, it is distinguished by the atypical and realistic path in which we propose to reach this goal.

In the short term, the research is expected to (i) shed light on which factors in developing countries constrain entrepreneurship in light manufacturing and how they can be addressed; (ii) produce sufficient and critical knowledge to influence policy makers and their

development partners (aid agencies, NGOs, donors) on specific policy measures to take, especially to nurture the private sector to spur growth in manufacturing; (iii) encourage governments to experiment with policy interventions or projects to help the light manufacturing industries grow. The results will be reflected in the World Bank's lending program, analytic work, policy dialogue and advice.

In the long term, this research should help governments, with support from their development partners, adopt development approach policies that are tailor-made to nurture a vibrant and competitive private sector in manufacturing. Finally, this research should contribute to systemic change in the development community's approach to industrialization in regions such as Sub-Saharan Africa, and creating a more effective and comprehensive approach to ending poverty.

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