
INTRODUCTION

"[I]t is impossible to attain high rates of growth of per capita or per worker product without commensurate substantial shifts in the shares of various sectors" – Kutznets (1979: 130).

The shift in the share of output of various sectors, which according to Simon Kutznets lies behind economic growth, is what is known as structural transformation. Productivity enhancements in agriculture allow for the progressive release of labour and capital towards more productive industries such as manufacturing and modern services. This in turn spurs productivity and income growth. The shift of factors of production from low- to high-productivity industries is particularly beneficial for developing countries, where productivity differentials across industries run deeper.

Throughout the history of economic thought, structural transformation, especially towards manufacturing, has been regarded as the main engine of economic growth and development. This view is substantiated by massive empirical evidence. Ever since the Industrial Revolution, rapid economic growth has been associated with manufacturing growth. The industrialization of the European countries, the United States and Japan was followed by two waves of catch-up, both based on manufacturing growth: the first benefited the peripheral European economies, and the second the East Asian economies. In all these economies, the process of structural transformation has been accompanied by considerable advancements in social and human development, with decreasing fertility rates, increasing life expectancy, and reductions in poverty and inequality. Today, the People's Republic of China, Malay-

sia, Thailand, and Viet Nam seem to be located at different points along a similar path.

In virtually all of today's industrial economies, structural transformation has been supported by some form of industrial policy. Market forces left alone cannot always drive the process of structural transformation and sustain economic growth; rather, they risk favouring specialization in low-productivity and low-value-added economic activities, thus calling for government intervention. The East Asian economies represent the textbook examples of the crucial role that industrial policy can play in structural transformation. Their developmental states proved to be a critical agent for structural transformation, building institutions and implementing policies capable of channeling resources towards strategic areas and imposing discipline on the private sector.

However, recent accounts also document the importance of industrial policy in other regions of the world. In the United States, for example, industrial policies generated many business opportunities by funding or carrying out the research that led to the emergence of the Internet. Similarly, many European economies used industrial policies extensively, creating completely new industries and firms, such as Airbus or Nokia. Cases of successful industrial policies can also be found in the developing world, albeit often on smaller scales (e.g. Embraer in Brazil, or the pharmaceutical and aerospace industries in India).

Today there is growing pressure to reduce unemployment and stimulate economic growth in the industrialized world and to create more and better employment in developing countries. These

needs have revived interest in industrial policy, putting structural transformation at the core of the policy agendas of many developing and developed economies and making it the focus of one of the United Nations' Sustainable Development Goals (Goal 9: Transforming economies, tackling vulnerability and building resilience call for an integrated approach to industry, innovation and infrastructure).

This teaching material explores the linkages between structural transformation and economic growth and the role of industrial policy in spurring them. It is directed towards students, lecturers, and researchers of economics or social studies, as well as a generalist audience of stakeholders interested in the topic. The overall objective is to offer readers both a baseline theoretical framework and the empirical tools needed to analyse structural transformation and industrial policy.

The material is divided into two modules. Module 1 ("The structural transformation process: trends, theory, and empirical findings") defines a

conceptual framework for the analysis of structural transformation based on both its historical and recent patterns. It then examines the evolution of development thinking and summarizes the empirical literature on structural transformation. It concludes by analysing the role of structural transformation in social and human development, particularly the relationship between structural transformation and human development as reflected in the Millennium Development Goals (MDGs). Module 2 ("Industrial policy: a theoretical and practical framework to analyse and apply industrial policy") discusses how governments can support the process of structural transformation. After introducing the definitions and concepts related to industrial policy and its design and implementation, the module discusses the role of industrial policy in structural transformation, reviewing the arguments in favour and against industrial policy. It provides country and sectoral examples of successful implementation of industrial policies, and discusses the challenges to structural transformation and industrial policy faced by developing countries today.