## II TRADE, STANDARDS AND THE WTO

## A INTRODUCTION

Product standards specify or pin down the characteristics of a product. These characteristics can include design, size, weight, safety, energy and environmental performance, interoperability, material, and even the process of production. Examples of standards include the dimensions of freight containers and of screw threads; safety performance of seat belts, air bags and medical devices; pasteurization of milk; and protocols that allow computers from different vendors to communicate with one another.

Standards have been applied in international trade with growing intensity over the past few decades. Moreover, the effects of standards have become more discernible as unilateral and multilateral trade liberalization has brought down tariffs in many parts of the world.

Although no definitive count of standards exists, data obtained from a number of international sources suggest that the number of product standards world-wide is very large. The International Organization for Standardization (ISO) has published some 14,900 international standards. Perinorm, a consortium of European standards organizations, maintains a database of around 650,000 standards (national, regional and international) from about 21 countries. The bulk of these standards have been set by the private sector and many of them are international in scope. Non-governmental organizations (NGOs) have also been involved in standard-setting, working with industry and international organizations to develop standards in such areas as corporate social responsibility. Increased standardization activity reflects, among other factors, demand by consumers for safer and higher quality products, technological innovations, the expansion of global commerce and the increased concern paid by many governments and NGOs to social issues and the environment. Standards have played an important role in fulfilling these needs.

On the other hand, standards can be a means of hidden protection. Even if standards are not protectionist in intent, badly designed and applied standards can have highly discriminatory consequences for trade partners. In a world of reduced tariff protection and multilateral trade rules that limit the ability of governments arbitrarily to increase taxes and quantitative restrictions on trade, it is not surprising that they are sometimes tempted to use other means to restrict imports. This is a perennial issue in international trade relations.

Concern with how standards may affect international trade has long been reflected in multilateral trade rules. GATT 1947 contains provisions relevant to technical regulations and standards, including in Articles III (National Treatment), XI (Quantitative Restrictions) and XX (General Exceptions). In 1979, thirty-two GATT Contracting Parties signed the Agreement on Technical Barriers to Trade (TBT Agreement), which elaborated upon the original GATT rules. This Agreement formed part of the results of the Tokyo Round. In 1995, with the completion of the Uruguay Round and the establishment of the World Trade Organization, a revised TBT Agreement and a new Agreement on Sanitary and Phytosanitary Measures (SPS Agreement) came into force. Unlike the plurilateral nature of the Tokyo Round TBT Agreement, both these WTO Agreements (TBT and SPS) were made binding on all WTO Members as a consequence of the "single undertaking" which characterized the Uruguay Round.

The attention given to the trade impact of standards has sometimes obscured the important role that standards play in increasing economic efficiency and dealing with market failures. It is in performing these functions that they create societal benefits. An important point to emerge from economic theory is that there is no monotonic relationship between welfare and trade volumes. Changes in trade flows do not always bear a matching relationship to changes in welfare. The empirical evidence also suggests that standards can have both positive and negative effects on trade flows. This Report seeks to shed light on these various functions and consequences of standards. An important and recurring theme in the Report concerns the role of international cooperation in managing trade and the public policy challenges facing standards regimes, whether these emanate from the trade rules or from rules and processes involved in the setting and administration of standards.

The Report focuses on three key areas: (i) the economics of standards in relation to international trade; (ii) the institutional setting in which standard-setting and conformity assessment occurs; and (iii) the role of WTO agreements in reconciling the legitimate policy uses of standards with an open, non-discriminatory trading system. While much of the analysis deals with product standards, a large number of the issues discussed also apply in the field of services. The Report is organized into four major sections.

Section IIB begins with the economics of standards and trade. The need for standards and the role they play in economic activity is examined. Standards provide scope for the realization of economies of scale and network externalities. They increase economic efficiency by enhancing compatibility among products and providing information. They serve important public policy goals in solving problems associated with imperfect information and negative externalities. Standards will be compared with other economic instruments that are available to firms and governments. Then the likely impact of standards on international trade is explored. Taking into account the functions of standards and the needs that they meet, under what conditions are standards likely to create or impede trade. The role of harmonization, equivalence and mutual recognition in reducing the trade-hampering effects of standards is then examined. Finally, the available empirical literature on the relationship between standards and trade is reviewed. Questions addressed include the impact of standards on prices, costs, trade volumes and social welfare.

Section IIC then focuses on the institutional architecture of conformity assessment and standardization, and in particular the challenges these issues pose for developing countries. The Section describes how national standards are set in practice and who designs them. It turns out that standard-setting involves a diverse group of actors from government bodies, industry groups, consortia of firms, individual companies and NGOs. A description is also provided of the international architecture of conformity assessment and standardization, which is relevant to the national context and the overall standards regime encountered in trade. Finally the specific problems faced by developing countries in complying with the requirements set in the advanced countries are discussed.

Section IID relates the economic analysis of standards to the relevant WTO legal texts – GATT 1994, the TBT Agreement and the SPS Agreement – and related jurisprudence. The major provisions of these Agreements are identified and it is shown how, taking into account the public policy objectives underlying standards, the provisions reduce the threat of standards being used for hidden protection or discrimination. The Section contains detailed analyses of the extent to which the major economic principles underlying the role of standards are reflected in WTO agreements, and ultimately in WTO jurisprudence. Finally, the main conclusions are discussed in Section IIE.