

RESEARCH NOTE

## The PRC's Evolving Standards System: Institutions and Strategy

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## EXECUTIVE SUMMARY

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This research note examines the Chinese standards system, including its management system and institutions, and the procedures for the development of national standards. In addition, China's technical standards development strategy is covered at length, including its overall goals and methods of implementation.

### MAIN FINDINGS

- The core task of China's technical standards development strategy is to improve the adaptability and competitiveness of China's technical standards, taking China from a position of net importer of foreign developed standards to an exporter of Chinese standards to the international market. The official timeline calls for this reversal to occur before 2020.
- China's current standards system consists of a vertical hierarchy of four levels—national standards, trade standards, local standards, and enterprise standards—as well as a horizontal array of complementary institutions.
- Private enterprise and the needs of the market will play a leading role in improving and causing China's standards to adapt to market conditions.
- In order to improve the competitiveness of Chinese standards in the international market, independent technological content in standards will be increased as China competes to produce more international standards.
- China's new approach to standardization includes such goals as creating an environment conducive to innovation, the large-scale adoption of international standards, the creation of a system that ensures that standards are responsive to the market, and the promotion of legal reform.

Along with China's increasing economic influence and current high level of integration with the world economy, both Chinese standards and approaches to setting these standards have become prominent issues in the minds of the business and policymaking communities alike. From a historical perspective, the approach to standardization in the People's Republic of China (PRC) has been through three main stages. The earliest efforts, from 1949 to 1960, emphasized the adoption of technical standards and conformity assessment from the Soviet Union in order to ensure product quality and safety. A second phase, featuring a turn toward the importation of international standards from select institutions, began around 1960 amidst increasing diplomatic tension with the Soviet Union and gained momentum only after the 1978 launching of reforms. By 1984 China had implemented its first commodity inspection regime, heralding the country's entry onto the world stage as a player in international trade; during this phase China promulgated its first standardization law (1989). China's acceptance into the WTO in 2001 ushered in a third wave of drastic overhauls to its national standards structure, this time largely in response to the hefty compliance requirements of the WTO agreement on Technical Barriers to Trade (TBT).

As the PRC has continued this impressive forward drive, China's economic environment has become increasingly diverse, and extra-governmental parties have begun to exert influence on key regulatory processes. At present there exists a dizzying plurality of agents, from government and academic realms to members of the business community, that all have a hand in the rapidly evolving Chinese standards development process. This article seeks to outline the current structure and processes in Chinese standards and overview China's strategy to move the country from a position of net importer of international standards to that of producer of standards for international consumption. Much of the information presented in this research note is drawn from the Study on Development Strategies of China's Technical Standards, a multi-agency report recently produced by, among others, the China National Institute of Standardization (CNIS) and the Standardization Administration of China (SAC).<sup>1</sup>

Behind the systematic overhaul of the Chinese standards process is the observation that economic globalization is a developing worldwide trend, and that as part of this process traditional tariff barriers between countries

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<sup>1</sup> The study on Development Strategies of China's Technical Standards is an important component of the Key Technical Standards Project under the Mega-projects of Science Research for the 10th Five-Year Plan. Researchers on the project included CNIS, SAC, and other government institutions, companies, and research institutes. The project passed its acceptance check on November 30, 2005.

are gradually breaking down. The demise of barriers to trade has ushered in a rising tide of international competition in which dominant technical standards play a key part in national competitiveness. To date the major benefactors of this competition have been developed countries, who have managed to increase their strength and dominance in the international economy through the creation and dissemination of standards, presenting a serious competitive hurdle to developing countries who wish to follow a similar trajectory.

In recognition of this, China has formulated new development strategies and concepts, and technical standards are expected to be an important means by which China's national development goals are attained. They are seen as a bridge to translate research achievements into productive forces, guide the development of the high-tech sector (especially IT),<sup>2</sup> and—coupled with balanced social and economic development rules—realize the goal of balanced overall development. China has arrived at a new stage of economic and social development, and this in turn necessitates the creation of a new technical standards strategy.

This essay is divided into six sections.

- ≈ pp 66–68 describes China's current standards hierarchy
- ≈ pp 68–75 discusses the current standards institutions
- ≈ pp 75–78 examines the current standards procedures
- ≈ pp 78–83 analyses the goals and strategies of standards bodies
- ≈ p 83 presents conclusions<sup>3</sup>
- ≈ an **Appendix** (pp 84–87) offers a complete listing of trade standards codes and classifications by industry

## THE STANDARDS HIERARCHY

### *Standards Types*

The Standardization Law of the People's Republic of China, which took effect April 1, 1989, divides Chinese standards into four levels: national

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<sup>2</sup> For a comparative analysis of six prominent Chinese technology standards cases, see Richard Suttneier, Xiangkui Yao, and Alex Zixiang Tan, "Standards of Power? Technology, Institutions, and Politics in the Development of China's National Standards Strategy," National Bureau of Asian Research, *NBR Special Report*, June 2006 ≈ <http://nbr.org/publications/issue.aspx?ID=163>.

<sup>3</sup> This essay seeks to provide a descriptive examination of the current state of standards setting in China and thus refrains from evaluating the efficacy of these institutions, focusing instead on the intended effects of institutions and strategies.

standards, trade standards, local standards, and enterprise standards. The first three levels are listed in order of descending precedence, such that newly promulgated national standards always supersede correlating trade standards and so on down the chain.

At the top of the standards hierarchy, *national standards* are those requiring consistency nationwide, as in telephone network protocols and police radio frequencies. The Standardization Administration of China (SAC) holds ultimate responsibility for the technical aspects of implementing these standards, including the planning and drafting stages as well as examination, approval, and publication.

*Trade standards* meet the needs of industries for which no national standard exist, but which still require standardization. In the formulation of trade standards, the aforementioned duties are taken on by administrative departments and trade associations operating under the State Council but reporting directly to SAC. A complete listing of trade standards codes and classifications by industry appears in the **Appendix**.

In the absence of both national and trade standards, and in situations where safety and sanitation requirements for industrial goods require local unification, *local standards* may come into play. With local standards, all activities relating to the creation, publication, and dissemination of standards are handled by the local bureau of quality and technical supervision, which then reports directly to both SAC and relevant departments under the State Council.

Finally, *enterprise standards* are formulated by a specific corporate entity as a basis for organizing production and are filed locally in that enterprise's province, autonomous region, or municipality. Since enterprise standards are often stricter than the corresponding higher level standard, companies are encouraged to formulate and implement them on their own.

In addition to the above four levels of classification, national standards and trade standards can be divided into two additional categories: compulsory and voluntary standards. *Compulsory standards* are those dealing with the safeguarding of human health and ensuring the safety of person and property. Additional compulsory standards can be prescribed by law or administrative regulation. Any standards not meeting the above conditions are considered *voluntary standards*. One exception is local standards concerning safety and sanitation or requirements for industrial products, which are always considered compulsory standards within their respective administrative areas.