Chapter 4
An Anatomy of China's Non-tariff Measures

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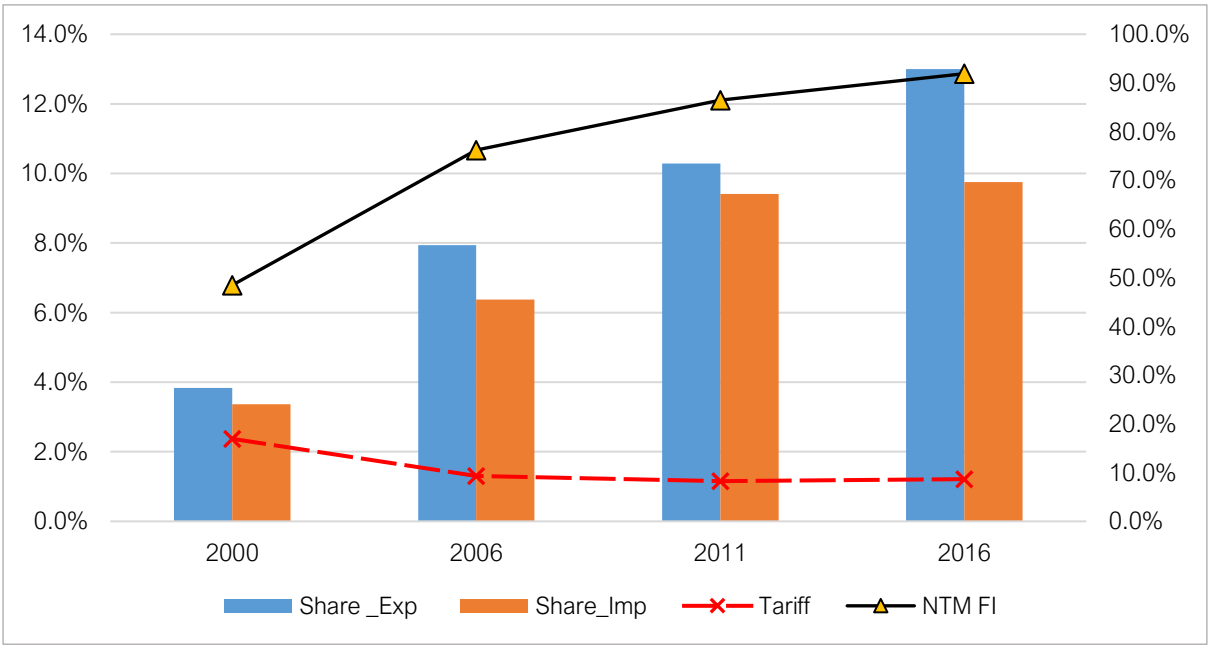
1. Introduction

Since the 1990s, when China adopted the reform and opening-up policy, the world has witnessed a dramatic expansion of its foreign trade and the consequent substantial transformation of its trade policy, especially after its World Trade Organization (WTO) entry. In 2000–2016, China's share in world exports (imports) increased from about 4% (3.4%) to 13% (9.8%), with an annual growth rate of 10% (9.4%) (Figure 4.1). More important, extraordinary growth was accompanied by an increase in value added of exports. The share of non-processing exports undertaken by domestic Chinese firms rose from less than 33% in 2006 to nearly 50% in 2014, whilst processing exports undertaken by foreign-owned firms declined sharply from nearly 45% to 31% (Yu, 2020). Since processing trade uses foreign intermediate inputs intensively and thus has lower value added, the declining share of processing trade indicates a rise of the domestic value added in total exports. The composition of China's trade, however, has also changed dramatically. In the late 1990s, it was dominated by labour-intensive consumer products such as textiles, footwear, and shoes. But, in 2016, machinery exports such as electronics accounted for almost half of total trade. Taken together, the last 2 decades have witnessed a substantial upgrading of the trade structure, reflecting ongoing catching up of domestic Chinese firms with the world's technological frontier after 20 years of high-speed export expansion.

Figure 4.1. China's Share in World Trade, Tariff and Non-tariff Measures



Share_Exp = export share to the world, Share_Imp = import share to the world, NTM FI = NTM frequency index.
Share_Exp and Share_Imp refer to left hand side axis (in %); Tariff and NTM FI refer to right hand side axis (in %).
Source: Authors.

China's trade policy has transformed dramatically. In preparation for WTO entry, China's average tariff declined sharply from about 40% in the early 1990s to 16% in 2000, continued to decrease to 8%–9% in 2006, then remained relatively stable until 2016. Tariff liberalisation, especially substantial reductions in input tariffs, has been studied extensively, with strong evidence that it has generated positive impacts on China's total productivity growth (Yu, 2015) and quality upgrading (Fan et al., 2018). Since China's tariff barrier is historically low, however, the role of non-tariff measures (NTMs) in trade policy has become more important over time. The share of products subject to NTMs increased substantially in 2000–2006 and kept rising until 2016, when more than 92% of product lines were subject to some form of NTM (Figure 4.1).

Research on China's non-tariff barriers to trade, however, is limited. China has been moving away from a restrictive export qualification and import barrier system towards a more market-oriented and transparent policy framework (Tan et al., 2016). In line with its WTO commitments, China has been removing most quotas, licensing, and price control measures since 2001. However, NTMs have been increasing over time rather than decreasing (Figure 4.1), which was the focus of Bao and Qiu (2010), who examined the effects of China's technical barriers to trade (TBTs) on imports in 1998–2016 using the gravity equation. The most interesting finding was that the impacts of TBTs could be positive, negative, or zero, depending on the period, the TBT measures applied, and the type of product. TBTs have trade promotion effects for manufacturing goods but trade destruction effects for agriculture products.

Bao (2014) re-examined the issue by focusing on the effects of TBTs on the likelihood of imports across China's trade partners. The most important finding was that TBTs reduce the import

probability of potential trade partners but increase the trade value for existing trade partners. Bao and Qiu (2012) further extended their studies to 105 countries in 1995–2008 to see if their findings for China could be generalised. They found that importers' TBTs reduce the extensive margins but increase the intensive margins of trade partners, which is consistent with previous findings for China. Niu (2018) calculated the ad valorem equivalents (AVEs) of China's NTMs in 1997–2015 and showed that AVEs generally increased and that NTMs have become the dominant trade policy measure. NTMs substituted for tariffs in 1997–2000, with their effect strongest for products with above-average tariff cuts. The studies focus on the effects of NTMs at the product or country level. Yu (2010), however, investigates the effects of China's trade liberalisation measured by tariff and NTM reduction on manufacturing firms' total factor productivity, using firm-level balance-sheet data and customs data of China from 1998 to 2002. Trade liberalisation has significantly increased firms' productivity, and the positive impacts are stronger for exporters than for non-exporters.

The NTM literature, especially on China, reveals two important features of NTMs. First, they do not necessarily generate negative impacts on the economy by reducing trade. As economies become wealthier and more modern, especially fast-growing ones like China, the regulatory expansion of safety and technical measures may simply reflect the switch of consumers' preferences towards safer and higher-quality products as a result of higher income per capita. Consequently, the value of total imports may also increase due to higher import unit value (as a proxy for quality), although imports may decrease due to more selective product preference. Second, NTMs are complicated and difficult to measure. Collecting and identifying information on NTMs are far from straightforward (Melo and Nicita, 2018). Availability of NTM data is often subject to limitations, especially domestic regulations not designed to directly affect trade but that could generate important trade externalities. Such policies are thus subject to debate and interpretation on whether they should be defined as NTMs.

This chapter provides a detailed overall picture of China's current NTM status based on the most recent NTM data from publicly available information. Despite the growing importance of NTMs in regulating trade, the exact impact of NTMs on trade flows needs to be assessed by economic analysis. As a major trading nation, China could face a sizeable impact from such measures. Easy and systematic access to NTM information is essential for traders and policymakers. Thus, a comprehensive and internationally comparable database of NTMs is important. Under the initiative of the United Nations Conference on Trade and Development (UNCTAD) and the Economic Research Institute for ASEAN and East Asia, the authors have identified and collected all enforced NTMs in China, drawing on information from official legal sources and using the UNCTAD International Classification of NTMs and methodological guidelines. The NTM collection process involved reviewing all government agencies to obtain comprehensive, complete, and comparable data, using a standardised methodological approach to ensure transparency with respect to the use of NTMs. This chapter thus provides a comprehensive overview of the diverse types of NTMs in China based on national laws and regulations. It highlights China's legal architecture, the main institutions that issue legal documents on NTMs, the different types of NTMs applied to various sectors, and the evolution of the composition of NTMs. Our analysis contributes the following to the understanding of the most up-to-date status of NTMs. First, for the first time, we have generated comprehensive data on current NTMs at the regulation–product–trade partner level, which can be employed to conduct rigorous quantitative analysis.

Second, we find that the NTM-issuing agencies are highly concentrated, with the top two domestic government agencies accounting for 78% of all NTMs. By contrast, only 4% of NTMs are issued by the General Administration of Customs, which is the main ministry-level administrative agency responsible for managing the import and export of goods and services. Third, the influence of NTMs varies significantly across types and sectors. TBT measures, especially product quality and performance requirements, are the dominant NTM and widely applied to a broad range of products and trade partners. However, the second-most important are sanitary and phytosanitary (SPS) measures, which focus mostly on a narrower range of sectors such as agriculture and footwear products and fewer trade partners. Finally, whilst the role of NTMs in trade policy has been rising, especially after China's WTO entry, a compositional shift of NTMs has occurred away from quantity and price restrictions targeting a narrower range of product lines, towards technical and standard measures applied to almost all sectors. At the same time, SPS measures have surged recently.

Section 2 describes the data collection process and NTM-issuing institutions. Section 3 provides a full analysis of the distribution of NTMs across types, product categories, and trade partners, using inventory-based measures. Section 4 discusses the evolution of NTMs since China's WTO entry. Section 5 presents conclusions and recommends policy.

2. Data Collection

During the last decade, NTM data quality has significantly improved and become more available as international institutions and domestic agencies are more wary of the trade cost implications of NTMs, driving them to increase transparency, collect more detailed information, and provide more accurate data.[1]

Table 4.1. Data Comprehensiveness in China

No	Comprehensiveness	Number
1	Total NTM-related regulations	2,517
2	Total NTMs reported to the World Trade Organization	*
3	Total number of coded NTMs	7,365
4	Total affected products (national tariff lines)	13,130 (100%)
5	Total issuing institutions	27

Note: * By June 2020, there were 1,353 notifications to the World Trade Organization for sanitary and phytosanitary measures and 1,605 notifications for technical barriers to trade, which are accounted for by the number of notifications rather than on a regulation basis.
Source: Authors.

China has no single centralised source that makes laws and regulations related to NTMs available to the public. Most trade-related regulations are published only by their issuing and implementing ministries, departments, or agencies. UNCTAD's Guidelines to Collect Data on Official Non-Tariff Measures state that only legal documents that are official and mandatory, currently applied, detailed and specific, and potentially affecting trade are collected (UNCTAD, 2014).[2] Thus, all

[1] The initial data collection effort was assisted by Xiaomin Cui, Shuai Guo, and Mengying Yu. We thank Zhaohui Niu for her excellent work on the data analysis.
[2] The appendix describes in detail the legal system related to NTM-issuing institutions.

implementation regulations addressing higher-level laws on trade-related issues have been gathered. Indeed, most regulations concerning the implementation of NTMs are administrative or department rules enacted and implemented by ministries and government bodies under the auspices of the State Council. Occasionally, in the absence of specific implementation guidelines in the form of administrative regulations or laws, NTMs are collected directly from the higher-level sources. There are 27 regulatory agencies responsible for issuing and enforcing NTM-related regulations. With the creation of the State Administration for Market Regulation (SAMR) in 2018, about 90% of NTMs are issued by the top two agencies, which are responsible for issuing regulations to ensure food safety, human and animal health, product quality and safety, and environmental protection.

SAC and SAMR administer regulations related to SPS and TBT measures. NTMs collected from SAC account for 48.69% of all NTMs, and those collected from SAMR for 31.26%. SAC is the national standards body and is authorised by the State Council to issue mandatory standards. The agency plays a key role in drafting and amending national standardisation laws and regulations. Two main legal documents govern standardisation: Standardization Law of the People's Republic of China (2017) and Regulation for the Implementation of the Standardization Law of the People's Republic of China. SAC is responsible for issuing mandatory standards for agriculture, food products, and industrial products. Most of the identified NTMs from SAC are related to quality and performance, testing, inspection, or certification requirements of machinery, electronics, medical devices, and agricultural products.

SAC is the national representative of the International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), and other international and regional standards organisations. China follows good international practices such as ISO and IEC standards in preparing its own national standards. Of the 1,448 mandatory standards identified as related to NTMs, 555 (about 38%) are directly adopted from ISO, IEC, and standards set out by other international organisations. China is increasingly streamlining its national standards with international best practices and seeking international cooperation in the standardisation process. Under its new Standardization Law, China intends to provide more opportunities to foster trade and economic and social development by reducing restrictions.

The top SPS measure–issuing agency, SAMR, consolidates all market regulation functions shared by the General Administration of Quality Supervision, the Inspection and Quarantine (AQSIQ), the China Food and Drug Administration, and the State Administration of Industry and Commerce. SAMR is responsible for drafting laws and regulations on quality supervision, inspection, and quarantine. SAMR is also in charge of implementing and announcing rules relating to national quality, metrology, commodity inspection, entry–exit health quarantine, entry–exit animal and plant quarantine, import–export food safety, certification and accreditation, standardisation, and administrative law enforcement. There are 445 applied NTM-related regulations registered with SAMR, including 2,297 identified NTMs, of which only about 31% apply unilaterally to all countries. The remaining 69% apply bilaterally or to a group of countries. About 63% that are applied bilaterally or to a group of countries were implemented after 2010, showing that China is increasingly moving from unilateral relationships with other countries (i.e., applying the same measure to all countries) towards bilateral relationships.

Table 4.2. Non-tariff Measures, by Issuing Institution, in China

No.	Issuing Institution	NTMs (number)	NTMs (% of total number)
1	Standardization Administration of the People's Republic of China	3,585	48.69
2	State Administration for Market Regulation	2,297	31.26
3	Ministry of Commerce	343	4.67
4	Ministry of Agriculture and Rural Affairs	341	4.66
5	General Administration of Customs	274	3.74
6	Ministry of Ecology and Environment	127	1.73
7	Ministry of Industry and Information Technology	71	0.96
8	State Forestry and Grassland Administration	62	0.85
9	Legislative Affairs Office	59	0.81
10	National Health Commission	49	0.67
11	China Tobacco	22	0.30
12	Ministry of Culture and Tourism	20	0.27
13	The Standing Committee of the National People's Congress	16	0.21
14	Ministry of Natural Resources	13	0.18
15	Ministry of Finance	12	0.16
16	National Radio and Television Administration	11	0.15
17	National Development and Reform Commission	9	0.12
18	Ministry of Science and Technology	8	0.11
19	State Taxation Administration	8	0.11
20	People's Bank of China	7	0.10
21	Ministry of Foreign Affairs	6	0.08
22	State Administration for Science, Technology and Industry for National Defence	4	0.05
23	State Administration of Work Safety	3	0.04
24	National Administration for the Protection of State Secrets	2	0.03
25	State Cryptography Administration	2	0.03
26	State Bureau of Cultural Relics	1	0.01
27	Ministry of Transport	1	0.01
Total		**7,365**	**100**

Source: Authors, based on the new NTM database.

A significant number of NTM-related regulations are issued jointly by more than one institution (typically two to five). Of the 2,517 collected regulations, 2,159 (about 85.7%) are jointly issued by two or more ministries, departments, or institutions.[3]

[3] Article 72 of the Legislation Law of China stipulates that when certain matters involve the power and function of more than two departments under the State Council, the departments shall refer to the State Council when making administrative rules or regulations, or to the relevant ministries or departments in the case of joint efforts. When differences between administrative rules exist with respect to the same matter and the applicable provision cannot be decided, the State Council shall make a ruling (Legislation Law of the People's Republic of China, 2015).

3. An Analysis of Non-tariff Measures, by Sector, Type, and Country

This section provides a full descriptive analysis of the distribution of NTMs across products, types, and country groups, employing two commonly used inventory-based measures to characterise the importance and influence of NTMs. The raw data record NTMs at the country–product level and we thus take advantage of the data's granularity and contribute to the literature by distinguishing between multilateral and bilateral NTMs.

3.1 Which Types of NTMs Matter Most?

Table 4.3 lists the main types and categories of NTMs according to international classifications (UNCTAD, 2013), where categories A and B are 'technical measures', and category P is 'export measures', with the rest classified as 'non-technical measures'. First, TBT measures stand out as the most significant NTM type that influences trade, accounting for nearly 60% of all NTMs. Of TBT measures, 81.7% originated from mandatory product standards and the remaining 19.3% from regulations concerning other TBT areas such as environmental protection, national security, and protection of human and animal health. The most applied measure is the product quality and performance requirement (B7), which accounts for 18.15% of all NTMs.[4] Second, SPS measures affect 22.5% of all traded products, covering 36% of imports but only about 8% of country–product pairs (columns 3 and 4). This is not surprising since China might be issuing a large number of SPS-related regulations, which, however, focus only on a narrow range of countries and products that account for a small share of China's total trade.[5] Third, quantity control measures account for less than 1% of the total number of NTMs but cover more than half of all traded products (column 3). Before China's WTO entry, quantity control measures were the dominant non-tariff barriers to China's imports. After WTO accession, however, China abolished most import quotas and licensing restrictions. The procedure for obtaining quotas was normalised and standardised and could be implemented through open bidding. Hence, the importance of quantity control measures has decreased dramatically in the last 2 decades and now play only a minor role in China's overall NTM system.

[4] The official enquiry point for WTO's Technical Barriers to Trade Agreement is SAC, which collects all TBT notifications from other member countries from the WTO website and forwards comments to the WTO secretariat. As of the end of 2016, China had submitted 1,174 regular notifications and 44 revisions to WTO (WTO, 2018).

[5] By June 2020, there were 1,353 notifications to WTO for SPS measures and 1,605 notifications for TBTs, which are accounted by the notification, not on single or unique regulation basis. The WTO National Notification Authority for the Sanitary and Phyto-Sanitary Agreement is based in the Ministry of Commerce, and an official enquiry point was established in AQSIQ to coordinate notifications, enquiries, and comments domestically.

Table 4.3. Non-tariff Measures, by Type, in China

Code	NTMs by Type (chapter)	NTMs (number)	NTMs (% of total)
A	Sanitary and phytosanitary measures	1,659	22.53
B	Technical barriers to trade	4,380	59.47
C	Pre-shipment inspection and other formalities	116	1.58
D	Contingent trade protective measures	0	0
E	Non-automatic licensing, quotas, prohibitions, and quantity control measures other than sanitary and phytosanitary measures or technical barriers to trade reasons	66	0.89
F	Price control measures including additional taxes and charges	55	0.74
G	Finance measures	6	0.08
H	Measures affecting competition	27	0.37
I	Trade-related investment measures	4	0.05
J	Distribution restrictions	0	0
K	Restriction on post-sales services	0	0
L	Subsidies (excluding export subsidies under P7)	0	0
M	Government procurement restrictions	0	0
N	Intellectual property	0	0
O	Rules of origin	0	0
P	Export-related measures	1,052	14.29
	Total coded NTMs	7,365	100

Source: Authors, based on the new NTM database.

3.2 Non-tariff Measure Intensity: Multilateral versus Bilateral Measures

The intensity of affected imports subject to NTMs deserves special attention. Table 4.4 summarises the percentage of products at the Harmonized System (HS) 10-digit product line level subject to (i) 0–15 NTMs, (ii) 16–25 NTMs, and (iii) 26 or more NTMs within a certain product group. NTMs are calculated at the most disaggregated level possible (i.e., codes A851, B84, E315, etc.) rather than at the aggregated chapter level (e.g. chapters A, B, and C). The more NTMs applied, the greater the intensity of the product line affected. Columns 1–3 list the results for multilateral NTMs that were applied to all trade partners (multilateral NTMs), whilst columns 4–6 show the shares of NTMs that affect only specific countries (bilateral NTMs). First, in terms of multilateral NTMs, all product lines under the animal, vegetable, foodstuff, and machinery product groups are subject to more than 26 different types of NTMs. This shows that the products are highly regulated and subject to a range of SPS and TBT measures related to food safety and product quality and performance, which are applied without discrimination to all countries. Textiles, stone/glass, and metals have fewer applied NTMs. About 69.1% of textiles, 71.0% of stone/glass, and 72.7% of metals are affected by 0–15 NTMs, and most applied measures are TBTs.

A comparison of the product groups subject to bilateral and multilateral NTMs shows that the four product groups (animal products, vegetable products, foodstuffs, and machinery) subject to 26 or more multilateral NTMs are affected by fewer bilateral NTMs. Bilateral NTMs affect 77.5% of animal products, 58% of vegetable products, 22.1% of foodstuffs, and 0% of machinery. All product lines under mineral products and transportation products are subject to only 0–15 bilateral NTMs, and plastics/rubber, stone/glass, metals, and machinery to a maximum of 25. Animal products, vegetable products, and hides and skins are still the top product groups, subject to 26 or more distinct NTMs.

Table 4.4. Non-tariff Measure Intensity, Product Lines Subject to Multiple and Bilateral Non-tariff Measures in China

HS Codes	Product Groups	Multilateral			Bilateral		
		0–15 NTMs	16–25 NTMs	26 or more NTMs	0–15 NTMs	16–25 NTMs	26 or more NTMs
		(1)	(2)	(3)	(4)	(5)	(6)
01-05	Animal products	0.0%	0.0%	100.0%	1.9%	20.6%	77.5%
06-15	Vegetable products	0.0%	0.0%	100.0%	0.5%	41.5%	58.0%
16-24	Foodstuffs	0.0%	0.0%	100.0%	60.0%	17.9%	22.1%
25-27	Mineral products	51.2%	20.1%	28.7%	100.0%	0.0%	0.0%
28-38	Chemicals	30.9%	18.7%	50.3%	94.1%	4.7%	1.2%
39-40	Plastics/ rubber	51.7%	25.1%	23.2%	99.7%	0.3%	0.0%
41-43	Hides and skins	5.1%	1.1%	93.8%	4.5%	7.3%	88.1%
44-49	Wood products	22.6%	7.8%	69.6%	37.5%	33.2%	29.3%
50-63	Textiles	69.1%	14.4%	16.5%	84.2%	11.0%	4.8%
64-67	Footwear	37.4%	8.1%	54.5%	40.4%	15.2%	44.4%
68-71	Stone/glass	71.0.%	15.2%	13.7%	98.8%	1.2%	0.0%
72-83	Metals	72.7%	18.4%	8.9%	99.4%	0.6%	0.0%
84-85	Machinery	0.0%	0.0%	100.0%	98.7%	1.3%	0.0%
86-89	Transportation	19.3%	32.8%	47.9%	100.0%	0.0%	0.0%
90-99	Miscellaneous	24.3%	7.8%	67.8%	85.9%	12.6%	1.5%

HS = Harmonized System.
Source: Authors.

4. Evolution of China's Non-tariff Measures

How have China's NTMs evolved, especially after the country's WTO entry and substantial tariff reductions? Table 4.5a shows NTMs by year of announcement, by effectivity in 2016, and by affected product line and trade in 2016.[6] Column 2 shows the number of NTMs announced or newly added in a year, and column 3 their shares in the total number of NTMs. The bulk of NTMs were added after the global financial crisis of 2008, with about 58% of NTMs announced in 2009–2016, and only 36% were started before the crisis, in 2000–2008. Column 4 lists the number of HS six-digit product lines affected, column 5 their share of total product lines, and column 6 total import value in 2016.[7] Many measures introduced in 2000–2008 had a sizeable impact on product lines and import values in 2016. In 2005, 2006, and 2008, new NTMs affected 40%–44% of product lines each year; measures introduced in 2005 and 2008 affected about 64% of total import value in 2016. After the financial crisis, 2011, 2013, and 2014 saw spikes in shares of affected product lines and import values of 85%–99%, indicating that the measures were widely applied to almost all products and trade partners. We conclude that (i) although a relatively small number of NTMs were introduced before the financial crisis, they affected a large share of the product lines and import values as recently as 2016; and (ii) recent NTMs cover a wider range of products and trade partners than the ones introduced before the financial crisis.

Table 4.5a. Non-tariff Measures, by Year Started and Affected Product Lines and Imports since 2000 in China

Year	New NTMs Added (number)	Share in Total NTMs	Products Affected (number)	Share of Product Lines Affected	Share of Imports Affected
(1)	(2)	(3)	(4)	(5)	(6)
2000	96	1.3%	1,100	21.1%	3.0%
2001	158	2.2%	1,376	26.5%	13.1%
2002	162	2.2%	1,724	33.1%	26.5%
2003	201	2.8%	824	15.8%	8.9%
2004	454	6.3%	1,127	21.7%	16.9%
2005	467	6.4%	2,098	40.3%	63.9%
2006	465	6.4%	2,148	41.3%	20.9%
2007	311	4.3%	1,381	26.5%	17.1%
2008	267	3.7%	2,304	44.3%	64.3%
2009	719	9.9%	1,188	22.8%	30.6%
2010	506	7.0%	1,124	21.6%	10.4%
2011	495	6.8%	5,174	99.5%	20.7%
2012	403	5.6%	368	7.1%	5.3%
2013	379	5.2%	4,406	84.7%	2.6%
2014	468	6.5%	4,635	89.1%	21.9%

[6] Our data include only those NTMs effective in 2016. If an NTM policy was announced in 2001, for example, but aborted in 2010, it was not included in our data and analysis.
[7] The sum of the shares in columns 5 and 6 far exceeds 100% as most product lines could be affected by multiple NTMs announced in different years.

Year	New NTMs Added (number)	Share in Total NTMs	Products Affected (number)	Share of Product Lines Affected	Share of Imports Affected
(1)	(2)	(3)	(4)	(5)	(6)
2015	685	9.4%	1,411	27.1%	44.6%
2016	549	7.6%	2,607	50.1%	71.2%

Notes: This table breaks down the NTMs effective in 2016 by the year they were announced. Column 2 shows the number of NTMs announced in the year in column 1. Column 4 shows the number of HS six-digit product categories affected by the NTMs as a share of imports in 2016. Column 5 = column 4/total number of affected import product lines in 2016 (5,202). Column 6 presents the share of imports affected by NTMs in the corresponding year in total value of imports in 2016.
Source: Authors.

Table 4.5b further breaks down the evolution of NTMs into different types and their affected product lines and imports in 2000–2006 (period I), 2007–2011 (period II), and 2012–2016 (period III). Several important patterns are worth noting. First, the influence of quantity control and price control declined significantly over time. The share of imports affected by quantity control decreased substantially from 62.3% in period I to 13.4% in period III, and the corresponding shares of product lines dropped from 31.7% to 8.7%. Similarly, price control measures announced in period I affected 20.4% of product lines and 13.1% of imports, but the shares declined to 1.4% and 2.3% in period III. Second, the importance of TBTs rose dramatically over time. TBT measures announced in 2000–2006 affected 22.1% of total imports in 2016, but the share increased dramatically to 74.4% in 2007–2011 and to 81.3% in 2012–2016. The product scope influenced by TBTs rose sharply from 34.3% in period I to 97.3% in period II and declined to 60.3% in period III. The pattern indicates a clear compositional shift of NTMs away from quantity and price restrictions targeting a narrow range of product lines, towards technical and standard measures widely applied to most products over the last 2 decades. Finally, the use of SPS measures surged in period III. In 2000–2011, the import share of announced SPS measures was about 7%–8% but increased dramatically to 32.1% in 2012–2016. The corresponding shares of product lines grew from about 21%–24% in periods I and II to 33.1% in period III.

Table 4.5b. Non-tariff Measures, by Year Started, Type, and Affected Product Lines and Imports since 2000 in China

Period		NTM Added		Products Affected		Trade Affected	
		NTM (number)	Share	Product Lines (number)	Share	Value (US$ billion)	Share
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I	Total	2,203	30.4%	3,865	73.6%	1,274	80.9%
2000–2006	SPS (A)	480	6.6%	1,257	23.9%	134	8.5%
	TBT (B)	926	12.8%	1,804	34.3%	348	22.1%
	Pre-shipment (C)	40	0.6%	597	11.4%	253	16.1%
	Quota licensing (E)	107	1.5%	1,663	31.7%	981	62.3%
	Price control (F)	12	0.2%	1,074	20.4%	207	13.1%
	Monopolistic (H)	6	0.1%	57	1.1%	146	9.3%
	Export measures (P)	420	5.8%	2,785	53.0%	508	32.3%
	Other	12	0.2%	336	6.4%	71	4.5%
II	Total	2,298	31.7%	5,200	99.0%	1,302	82.7%
2007–2011	SPS (A)	310	4.3%	1,125	21.4%	123	7.8%
	TBT (B)	1,604	22.1%	5,112	97.3%	1,171	74.4%
	Pre-shipment (C)	20	0.3%	168	3.2%	41	2.6%
	Quota licensing (E)	75	1.0%	860	16.4%	313	19.9%
	Price control (F)	21	0.3%	121	2.3%	141	8.9%
	Monopolistic (H)	6	0.1%	44	0.8%	12	0.8%
	Export measures (P)	253	3.5%	2,126	40.5%	668	42.4%
	Other	9	0.1%	2	0.0%	3	0.2%

Period		NTM Added		Products Affected		Trade Affected	
		NTM (number)	Share	Product Lines (number)	Share	Value (US$ billion)	Share
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
III	Total	2,484	34.2%	5,190	98.8%	1,331	84.5%
2012–2016	SPS (A)	765	10.5%	1,740	33.1%	506	32.1%
	TBT (B)	1,292	17.8%	3,166	60.3%	1,280	81.3%
	Pre-shipment (C)	48	0.7%	303	5.8%	501	31.8%
	Quota licensing (E)	89	1.2%	458	8.7%	211	13.4%
	Price control (F)	17	0.2%	71	1.4%	37	2.3%
	Monopolistic (H)	7	0.1%	5	0.1%	64	4.1%
	Export measures (P)	259	3.6%	5,021	95.6%	599	38.0%
	Other	7	0.1%	5	0.1%	137	8.7%

SPS = sanitary and phytosanitary, TBT = technical barrier to trade.
Note: The table breaks down the NTMs effective in 2016 by the period they were announced. Columns 3 and 4 show the number of NTMs started in periods as shown in column 1, by NTM type and share in the total number of NTMs effective in 2016. Column 5 shows the number of HS six-digit product categories affected by the NTMs in column 3, and column 6 = column 5/total number of affected imported product lines in year 2016 (5,202). Columns 7 and 8 present the value of imports affected and their shares.
Source: Authors.

5. Conclusions

Understanding the status of China's non-tariff barriers to trade is crucial for anticipating post–COVID-19 world trade. This study employs up-to-date data to fully analyse China's NTMs and their evolution since the country's WTO entry. Several findings emerge. First, the top two government agencies account for nearly 80% of the total number of NTMs issued, while the share of GAC is below 5%. This implies that most of the identified NTMs may not have been designed to regulate imported products by foreign firms but are a consequence of consumers' preference for safer and higher-quality products as a result of higher income per capita. Second, it is important to distinguish between multilateral (product level) versus bilateral (product–country level) measures when considering the types of NTMs and their effects across sectors. Machinery and electrical equipment and motor vehicles are 100% affected by NTMs in terms of traded products or value at the bilateral level. Since the two sectors account for more than a third of China's total imports, reducing NTMs on the products could potentially lead to significant gains in China's total imports. Third, TBTs are the most influential NTM and widely applied to a broad range of products and trade partners, while SPS measures are applied to a narrower range of sectors (such as agriculture products and footwear) and fewer trade partners. Finally, since China's WTO entry, a clear compositional shift has occurred away from quantity and price controls applied to narrow range of product lines, towards technical measures, accompanied by a recent surge of SPS measures.

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Appendix: An Overview of China's Non-tariff Measure Legal System

China's legal system is primarily based on a civil law model. Its distinctive legislative structure does not involve checks and balances whereby the legislative, administrative, and court branches operate independently to restrain one another. China's President and the Premier of the State Council are drawn from the National People's Congress (NPC). The President, following the decision of the NPC, issues law and ratifies treaties and international agreements concluded with foreign states. The Premier does not have the power to approve or reject laws issued by the NPC.

Legislation has four levels. The first, the Constitution, is the highest and can be amended only by the NPC. The current version of the Constitution was adopted in 1982 and revised in 1988, 1993, 1999, 2004, and 2018.

The second level consists of laws. The NPC is responsible for enacting and amending fundamental laws such as those concerning criminal offences, civil affairs, and state organs. The NPC Standing Committee enacts and amends all other laws not enacted by the NPC.

The third level consists of administrative regulations formulated by the State Council. These must be in accordance with the Constitution and other laws. The State Council is the highest organ of state administration and is officially responsible for implementing policies formulated and passed by the NPC.

The fourth level consists of administrative or department rules. The ministries and commissions of the State Council, the People's Bank of China, the State Audit Administration, and other organs endowed with administrative functions directly under the State Council may formulate administrative rules. They are part of the central legislative process and enforce the laws or administrative regulations of the State Council. The State Council has the right to withdraw or amend the rules if they are deemed unsuitable.

China's unified and multilevel legislative system is hierarchical. The Constitution has the highest legal of validity and no central or local laws or regulations may violate it. Administrative regulations and rules must not contradict laws passed by the NPC, and local regulations or rules must not go against national laws or administrative regulations. The NPC has the power to withdraw or abolish administrative regulations, rules, and local regulations if they contravene the national law.

In practice, a single law is implemented through one or more administrative regulations and administrative rules.