China's Non-Tariff Measures and Its Impact on Imports

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Import related	Technical measures	A Sanitary and phytosanitary measures
		B Technical barriers to trade
		C Pre-shipment inspection and other formalities
	Non-technical measures	D Contingent trade-protective measures
		E Non-automatic licensing, quotas, prohibitions and quantity control measures other than for SPS or tbt reasons
		F Price-control measures, including additional taxes & charges
		G Finance measures
		H Measures affecting competition
		I Trade-related investment measures
		J Distribution restrictions
		K Restrictions on post-sales services
		L Subsidies (excluding export subsidies under P7)
		M Subsidies (excluding export subsidies under P7)
		N Intellectual property
		O Rules of origin
Export related		P Export-related measures

Source: UNCTAD, 2012, http://unctad.org/en/PublicationsLibrary/ditctab20122_en.pdf

Literature review: Quantification

- the frequency ratio (FR) & the coverage ratio(CR) used by Beghin &Bureau(2001),Bora et al.(2002)，Nicita(2009),　Bao & Larry Qiu(2010)

$$FI_j = \sum_i D_i M_i / \sum_i M_i \qquad （1）$$

$$CR_j = \sum_i D_i V_i / \sum_i V_i \qquad （2）$$

➢The coverage ratio captures the extent of trade covered by NTMs: the percentage of import values by China in product category *j* that is affected by China's NTMs in that year, where *i* is a product item contained in product category *j*.

➢The frequency index shows the percentage of import transactions affected by NTMs: the percentage of import products by China in product category *j affected by China's NTMs in that year.*

Literature Review: Measurement Methods
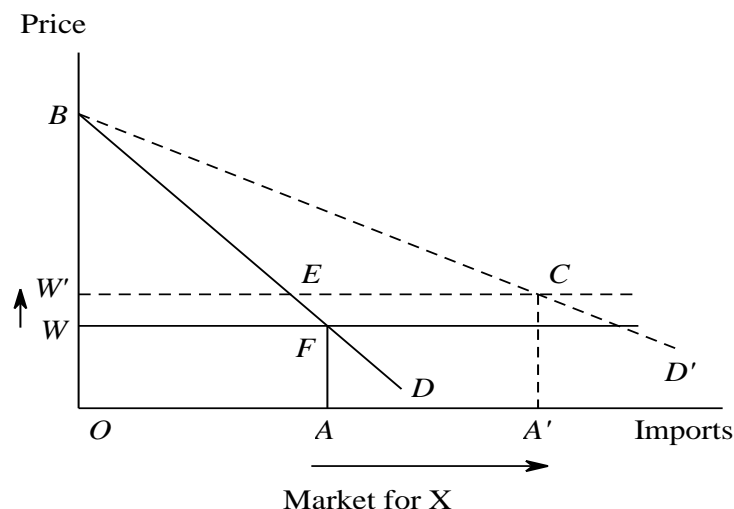
• Price gap approach：the first AVE method.
Bradford(2003); Ferrantino(2006); Cadot et al. (2014)

• Econometric method：the gravity model as the second AVE method. Helpman, Melitz & Rubinstein(2004); Kee, Nicita & Olarreaga(2004,2008); Kee, et al.(2009)

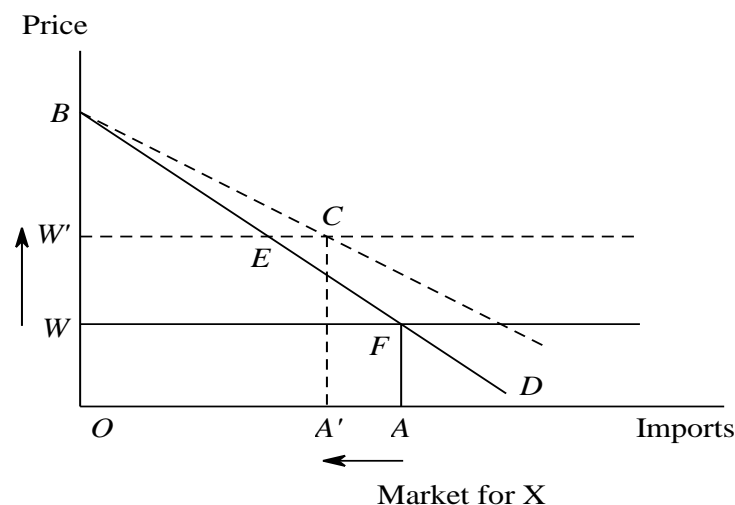$$Ln(importValue) = \alpha + \beta Ln(1 + tariff) + \delta NTMs + \phi X$$

Literature Review: Trade and Welfare Effect

• price effect: NTMs raise the selling prices of domestic products for about 8.7% on average globally, Kelleher & Reyes（forthcoming）

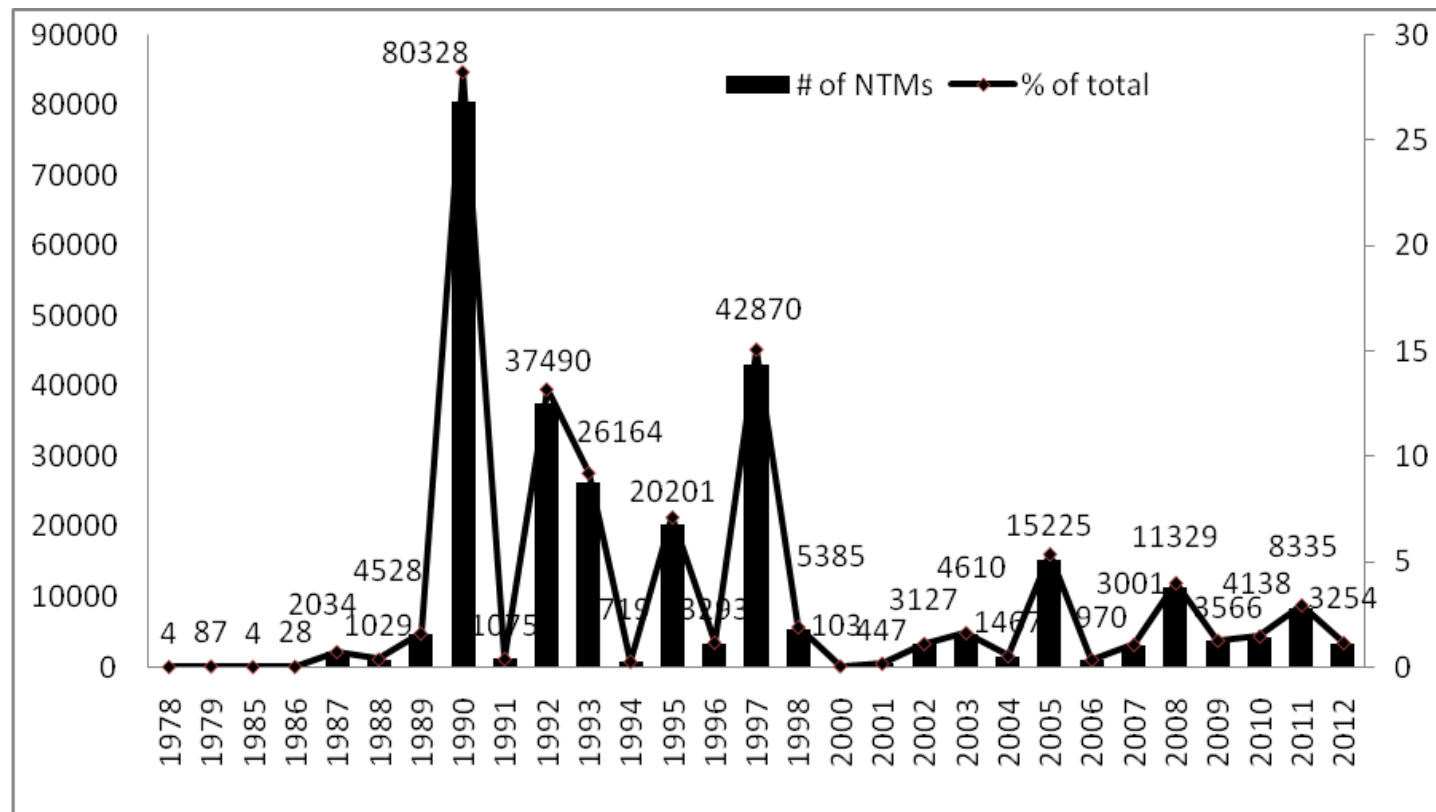• Quantitative effect

图a
TBT/SPS措施对贸易和福利的影响：**二者均增加**

图b
TBT/SPS措施对贸易和福利的影响：**二者均减少**

• Other effect: Bao & Chen(2013)，1995 to 2008，the influence of TBT measures in 103 countries on three trade dimensions (trade possibility, the volume of trade (including product categories and product quantities) and the duration of trade)

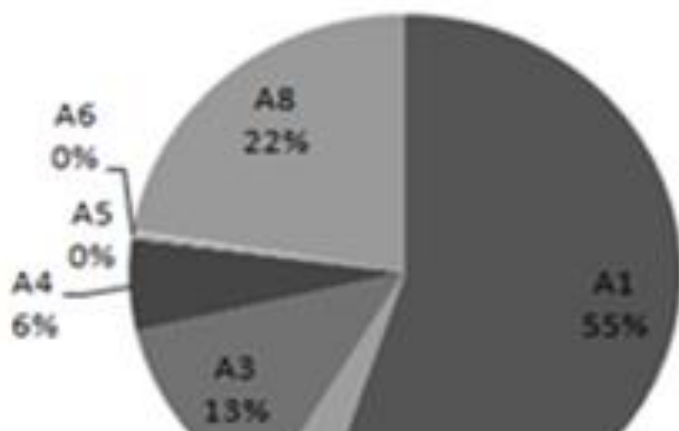- the years when China's NTMs in 2012 was first implemented

Data

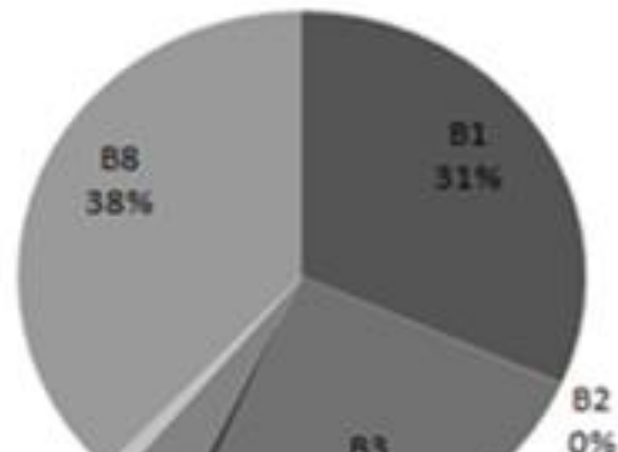- The constitution and distribution(%) for China's NTMs in 2012

A. Sanitary and phytosanitary measures	68.59
B. Technical barriers to trade	26.65
C. Pre-shipment inspection and other formalities	0.01
D. Contingent trade-protective measures	0.04
E. Non-automatic licensing, quotas, prohibitions and quantity control measures other than for SPS or tbt reasons	0.69
H. Measures affecting competition	0.15
P. Export-related measures	3.83
Others	0.05

•A detailed classification and constitution for China's SPS and TBT measures in 2012

SPS

TBT