

# [What is the non tariff measures economics essay](https://assignbuster.com/what-is-the-non-tariff-measures-economics-essay/)

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International Business and Management[Type the company name]Taruna. D seewoosahaContents

## Chapter 1

## Introduction

According to Absolute and comparative trade theories, international trade is expected to be beneficial to everyone. However, theories have later shown that free trade is not a win-win situation for everyone and hence some measures ultimately seek to provide protection. NTMs have become eye-catching in the policy agendas of governments who are looking to further incorporate their trade into the global economy. Since the level of tariff protection has been restricted globally through multilateral, regional, and individual tariff reductions, NTMs is nowadays one of the new frontiers of trade policy. Non-tariff measures can be taking over as protectionist devices or even as arms in trade conflicts.

## 1. 1 What are Non Tariff Measures?

The MAST (Multi support agency team) which was established by the UNCTAD defines NTMS as:" Non-tariff measures (NTMs) are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both". (UNCTAD, 2010)NTMS have today become more important in furthering trade liberalizations. Indeed with the huge number of WTO rounds, the popularity of tariffs has decreased. More and more countries are using NTMs as barriers to entry for different products and services. Surprising it is not shocking that the developed states with relatively lower tariffs are the more prolific users of NTMs especially to deny entry of emerging country exports.

## 1. 2 Imposition of trade measures and trade barriers

Trade measures and trade barriers have been in existence for quite a long time. The primary reasons for the imposition of these measures are as follows: to promote the local marketrestrictions due to government control on certain commoditiesto prevent dependence on import marketpreference of government policiesPromote domestic production (jobs are therefore kept/created in the country)Reducing pollution (if the goods are undesirable)Helping to protect infant industries and strategic industries (new domestic industries trying to start up). This will keep additional revenue and jobs in the country in the long run (possibly avoiding capital flight).

## 1. 3 Non tariff measures V/s non tariff barriers

In view of defining NTMs, economists have drawn a distinction between non tariff measures (NTMs) and non tariffs barriers (NTBs). They described NTBs as an evil form of NTMs, where trade restrictiveness, whether deliberately or not surpass the need for trade objectives (Cadot et al. 2012). Conceptually, the different types of NTMs can be classified as NTMs or NTBs. Many NTBs are administered by WTO arrangements which are introduced in the Uruguay Round as well as GATT articles. The importance of NTBs in the field of services has become as imperative as in the field of usual trade. Non-Tariff Barriers are perceived to denote any measures other than a tariff or a tax that inhibit universal trade. They have been appreciated as a sub-category of non-tariff measures, also used more habitually in GATT and UNCTAD parlance. These procedures consist of both direct price influencers like export subsidies, exchange rate controls, methods of import valuations, customs surcharge, lengthy customs procedure, establishment of import prices, unreasonable standards and inspection procedures and indirect price influencers for instance import licensing. Although NTB's have certain exclusions that are a breach of GATT at presents WTO rules yet at large their general usage has been on rise since the Tokyo Round of multilateral trade negotiations.

## 1. 4 Classification of Non tariff measures

## Source: (UNCTAD, 2012)

The above figure shows the updated classification of NTMS as at 2012 by UNCTAD. The classification covers three categories of measures : sanitary and phytosanitary (SPS) measures , non technical measures and new NTM categories, including export measures, (figure1), (UNCTAD , 2012). They are additionally differentiated in hard measures for example price and quantity control measures; threat measures such as anti-dumping and safeguards; and other measures like trade-related finance and investment measures. Appendix A provides more detail to each chapter. The three chapters are broadly explained below (UNCTAD, 2012):

## 1. 4. 1. Technical measures

This category includes technical measures covers sanitary and phytosanitary (SPS) measures, technical barriers to trade (TBT) and pre shipment inspection with other formalities. It uses instruments of commercial policy, e. g. quotas, price control, exports restrictions, or contingent trade protective measures, and also other behind-the border measures, such as competition, trade related investment measures, government procurement, or distribution restrictions (UNTACD , 2012).

## 1. 4. 2. Non Technical measures

Non technical measures comprises of chapter D to chapter 0. Non technical measures have different purposes and scope. However, it is easier to quantify and more effective on trade. The effects of price control measures are relatively simple to measure, especially anti-dumping and safeguards. Quantity control instruments have been extensively examined in the analysis of quotas, tariff rate quotas and their administration. Para-tariff measures can be analyzed as conventional tax instruments and their incidence is straightforward to perceive. Finance, anti-competitive, and trade related investment measures have indirect effects on trade, and their actual impact is more difficult to assess. (Nicita and Gourdon, 2011)

## 1. 4. 3. Exports Measures

The last chapter, Chapter P, is on export measures. It groups the measures a country applies to its exports. It includes export taxes, export quotas or export prohibitions, etc. (UNCTAD, 2012)

## Chapter 2

## Costs and benefits of Non tariffs measures

NTMS can not only be a protectionism measure but a weapon in trade wars. Recently china ban the importation of soya oil worth US$2 billion, stating that Argentine oil failed to meet China’s quality standards but it also accepted that it was a retaliation for Argentine anti-dumping measures in textile and other sectors (Financial Times, April 5, 2010).

## 2. 1 The benefits of NTMs

The fostering of financial crisis, climate change issues and the increased concern about food safety have encouraged the use of NTMs. NTMS are one of the policies or measures in addressing market failures.

## 2. 1. 1 Protecting consumers’ choice and local producers

One of the NTMs is labeling. For instance, consider a home country specializing in high-quality products and a foreign country specializing in low quality of the same products. Normally one of market failures is due to information asymmetry which is relevant to international trade. Suppose now that customers do not have the same preference when it comes to quality, with some which will have a great preference for high-quality products and vice versa. However what matter here is that customers are not aware how to make difference between these two types of quality since these goods are not differentiated by origin. According to Bond (1984), he said that if a country with high quality products trades with the country of low quality ones, the country with high quality products will eventually lose since the price of these high quality products will reflect the average quality of these goods. The NTM of labeling will aid in facilitating the task of customers by helping them to difference between the high and low quality of goods. As a result, the expected welfare of all consumers in the home country will not be affected. What actually happens without the use of labeling (NTM) is that producers in the exporting country suffers to a great extent as they encounter a higher cost of production when making high quality products and this cost is not covered due to information asymmetry which makes customers who wants high quality products but unable to choose them and gets the low quality products since it is not to the expectation of the customers they won’t make repeated purchases. Sometimes high-quality firms are benefited by an export subsidy, which means that they can still makes a profit even though they sell the goods at the average price, but when introducing the non tariff measure, consumers will get what they wanted which consequently will make repeated purchases as they now believe that the price they are paying reflects the quality of the goods. Therefore, at a later stage, the producers will then receive a price that can cover their cost of production and the government will be then in a better position to remove the export subsidies. As for the consumers of low quality goods preference, they will be satisfied as well since they will be able to identify their type of goods and pay a lower price for them.

## 2. 1. 2 Infant industry protection

Another imminent factor for not causing market failures is by protecting infant industry. By infant industry it means that the industry is new and which is in its early stages of development and require protection from competition usually from foreign predators through especially non tariff barriers until it is settled. So, competing with foreign goods will be quite difficult and which can lead to home industry breakdown. In order to protect them, NTM is used which according to Melitz (2005) proposed to use a quota " noting that it will allow the level of infant-industry protection to adjust automatically as the industry’s costs decline. Over time, the quota will become less distortive as the domestic industry’s competitiveness improves."[1]

## 2. 1. 3 Pollution and environment

Negative externalities like pollution for example can lead to market failure. One of the benefits of Non-Tariff measure is to bring down pollution and protect the environment. Due to increase awareness campaign of climate change, consumers are now more willing to pay for a premium for a product which is environment friendly. NTM such as an outright ban of imports from countries that are the source of the environmental externality are used. There are evident examples where the international community has banned trade of products for environmental reasons including endangered species. The logic behind such NTM is that it will normally boost up consumer confidence as they know they are buying goods which are not harmful. As a consequence, demand for such products will likely increase which will lead to greater consumer surplus. However, even though more and more consumers are keener to environment friendly products, there are still those who are indifferent to this type of products and are unwilling to pay higher for such products, therefore the ban will eventually affect them. A best solution would be effective labeling instead of a ban where it would be possible for the environment unfriendly customers to still purchase their preferred goods.

## 2. 1. 4 Monopoly Power

Imperfect competition is another cause for market failure. In this case, NTMs used to try to reduce the price charged by the monopolist. This simply means that the foreign monopolist will be only able to sell in the home country at a ceiling price established by the importing country. NTMs normally used involve import subsidies and minimum import volume requirements. Implementing NTMs to reduce monopoly power will benefit in the sense that there will be less cartels, less mergers and acquisition between firms to take advantage of monopoly power. This will encourage more trade as well and will not impede the growth of new industry.

## 2. 2 Cost of NTMs

According to the world trade report 2012, upon averaging across countries, it was found that NTMs often vary across countries and sectors and they are almost twice as trade restrictive as tariffs.

## 2. 2. 1 Trade restrictiveness effect of NTMs

Kee et al. (2009) and in a recent report, UNCTAD (2012), it has been demonstrated that upon averaging across countries, NTMs almost doubles the level of trade restrictiveness imposed by tariffs. It was found that the contribution of NTMs to the overall level of trade restrictiveness is much higher than the contribution of tariffs, with NTMs contributing more than twice as much as tariffs to overall market access trade restrictiveness. Upon having a look at two indices of trade restrictiveness that estimate how trade policies affect a country’s imports – the tariff trade restrictiveness index (TTRI) and the overall trade restrictiveness index (OTRI), where the latter includes the effect of both tariffs and non-tariff measures – Hoekman and Nicita (2011) found that, averaging across countries, a 10 per cent reduction in the TTRI increases trade volumes by a little more than 2 per cent, while the removal of NTMs increases trade by an additional 1. 8 per cent[2]. The above clearly illustrates that NTMs are an important restriction on trade, even more important than tariffs in several countries. Measuring restrictiveness faced by exporters in all destination markets, Hoekman and Nicita (2008) compare the market access versions of the TTRI and the OTRI to show that the AVE[3]of NTMs is generally much higher than existing tariffs. Following the findings by Hoekman and Nicita (2008) that tariffs are negatively associated with a country’s level of income per capita, the evidence further suggests that the contribution of NTMs to the overall level of protection is likely to increase with the level of GDP per capita, i. e. as countries become richer, the trade restrictiveness of NTMs relative to tariffs increases. The findings of UNCTAD (2012), which show that NTMs are relatively more restrictive in high- and middle-income countries support this interpretation.

## 2. 2. 2Different Sectors affected by NTMs

## The Agricultural sector

Trade literature clearly puts forward that NTMs in agriculture appear to be more restrictive and widespread than those in the manufacturing sector. In the agricultural sector, non-tariff measures on vegetable oils and fats increased their prices in Mexico by 30 per cent, in South East Asia by 49 per cent and in South Africa by 90 per cent, according to Andriamananjara et al. (2004). Kee et al. (2009) finds that for 55 per cent of tariff lines in their sample subject to core NTMs, the AVE of these core NTMs is higher than the tariff. Similarly, in 36 per cent of tariff lines subject to domestic agricultural support, the AVE of domestic agricultural support is higher than the tariff. Furthermore, aggregating core NTMs and domestic agricultural support across all tariff lines under consideration in an overall trade restrictiveness index.

## The apparel sector

The world trade report 2012 further puts forward that their study showed that in the presence of NTMs, the apparel sector, prices in the United States, the European Union and Canada experienced a 15 per cent, 66 per cent and 25 per cent higher value than normal. Due to NTMs, Paper products were 67 per cent, 119 per cent and 199 per cent more pricey respectively in South-East Asia, South Asia and Japan, while NTMs on leather shoes raised their prices in Japan by 39 per cent and in Mexico/Central America by 80 per cent.

## 2. 2. 3 Trade Flows

With the use product-level analysis, Henn and Mcdonald (2011) showed that while trade flows fell by 5 per cent as a result of border measures, such as tariffs, implemented during the recent financial crisis, they fell by 7 per cent as a result of behind-the-border measures (i. e. non-tariff measures). Even within the category of border measures, the authors find that tariffs and other traditional trade policy measures have had a relatively small impact on trade flows, whereas NTMs such as anti-dumping duties have had a substantial effect.

## 2. 2. 4Increase cost of trade

Surveys undertaken by firms on the impact of NTMs such as those steered by the International Trade Centre have constantly revealed that even with no protectionist intent, NTMs can increase the costs of trade, turn away the attention of managerial devotion and reprimand the minority exporters and those situated in low-revenue states where it is difficult to access legal and regulatory information.

## 2. 2. 5 Lack of transparency

However NTMs has not successfully been able to keep pace with their changing reality for several causes. Primarily for many years investigation on NTMs has experienced a deficiency of transparency.

## Chapter 3

## How Do We Measure Non-tariff Measures?

There are different types of Non-Tariff Measures. The most common one are SPS (sanitary and phytosanitary) and labour standards. We measure these through production monitoring (know as cahier des charges in French). Sanitary and phytosanitary measures are measures to protect humans, animals, and plants from diseases, pests, or contaminants. It applies to all sanitary (relating to animals) and phytosanitary (relating to plants) (SPS) measures that may have a direct or indirect impact on international trade. The SPS agreement includes a series of understandings (trade disciplines) on how SPS measures will be established and used by countries when they establish, revise, or apply their domestic laws and regulations. Countries agree to base their SPS standards on science, and as guidance for their actions, the agreement encourages countries to use standards set by international standard setting organizations. The SPS agreement seeks to ensure that SPS measures will not unjustifiably discriminate against trade of certain other members nor be used to disguise trade restrictions. NTMs are categorised depending on their scope and design and are distinguished in: technical measures andNontechnical measuresThese are further distinguished inhard measures (e. g. price and quantity control measures), threat measures (e. g. antidumping and safeguards), sanitary and phytosanitary standard (SPS), technical barriers to trade (TBT), and other categories such asexport measures, trade-related investment measures, distribution restrictions, restrictions on post-sales services, subsidies, measures related to intellectual property rights andRules of origin. Measures of NTMs should be constructed to reflect equivalence to tariffs in terms of their effects on the domestic prices of the traded goods. Only direct effects on domestic prices should be used to define tariff equivalence. However, there is no single method that can be relied upon to measure the sizes of NTMs that may be present in all sectors of the economy. Greatest reliance should be placed, where possible, on measures that derive their information from market outcomes in preference to measures that seek to construct estimates of the market outcomes from the quantitative data. Studies have identified three approaches to measure the NTMs: Frequency-type measures are based on counts of observed NTMs that apply to particular countries, sectors, or types of goods trade, Price-comparison measures are computed as tariff equivalents, andQuantity-impact measures are based on econometric estimates of goods trade flows. A systematic approach is done to analyze the impact of non-tariff measures (NTMs) on trade and welfare in presence of market imperfections. Focus is made on measures such as technical barriers and sanitary and phytosanitary regulations. We will assess the costs and benefits of NTMs for market stakeholders which comprises of domestic consumers, producers, and governments, as well as foreign suppliers. Additionally, there are different methodologies for identifying the importance of trade measures. The inventory approach and the modelling approaches provide an analytical framework for analysis of welfare, price, and production and trade effects. Four measures of price effects are: tariff equivalents, subsidy equivalent, Trade Restrictiveness Index andEffective protection.

## 3. 1 The inventory approach

Considerable efforts have been made in developing the inventory approach to NTMs, which allows estimates of the extent of trade covered by NTMs or their frequency of application in specific sectors or against individual countries or groups of countries. This has been based on the UNCTAD Database on Trade Control Measures. However, data are not collected on domestic support measures or export-related measures. The main source of the information on NTMs in the database is GATT notifications and government publications, such as customs tariffs, laws and regulations. The database has its usefulness as an inventory of import measures used by importing countries, including changes in their use and in countries affected. However, the inventory can be used in the computation of the Trade Restrictiveness Index. The percentage of trade subject to NTMs for an exporting country j at a desired level of product aggregation is given by the trade coverage ratio: where, if an NTM is applied to the tariff line item i, the dummy variable Di takes the value of one and zero if there is no NTM; Vi is the value of imports in item i; t is the year of measurement of the NTM; and T is the year of the import weights. A problem for interpretation of this measure arises from the endogeneity of the import value weights. At the extreme, if an NTM is so restrictive that it precludes all imports of item i from country j, the weight V will be zero and, in consequence, the trade coverage ratio will be downward biased. Similarly, the coverage ratios will not indicate the extent to which NTMs have reduced the value of the affected import items, and so they will reduce the weight of restricted items in the total value of a country’s imports. It would be better to use import weights from the world as a whole, as a proxy for free trade weights, but, as noted in the discussion on tariff-weighting, many important items in trade are subject to import restrictions in a wide range of countries. Another procedure, which avoids the problem of endogeneity of the weights, is the frequency or transaction index. This approach accounts only for the presence or absence of an NTM, without indicating the value of imports covered. Thus, it is not affected by the restraining effect of NTMs (as long as they do not completely preclude imports from an exporting country). The frequency index shows the percentage of import transactions covered by a selected group of NTMs for an exporting country. It is calculated as: Where Di once again reflects the presence of an NTM on the tariff line item, Mi indicates whether there are imports from the exporting country j of good i (also a dummy variable) and t is the year of measurement of the NTM. Unlike the coverage index, however, the frequency index does not reflect the relative value of the affected products and thus cannot give any indication of the importance of the NTMs to an exporter overall, or, relatively, among export items. Despite the weaknesses of the trade coverage and frequency ratios, it is possible that within some limits between zero and 100 per cent coverage they do give an indication of trade restrictiveness. This opens up several possibilities for using trade coverage or frequency ratios in econometric studies of trade flows. For example, they could be used as explanatory variables in models explaining bilateral trade flows at an aggregate level or disaggregated to a desired level of sectors. However, in such work it is important to recall that NTMs are often imposed in response to sudden changes in trade flows, which in turn respond to the inhibitory effect of the NTM, and the model has to take account of this endogeneity. An example of an approach using NTMs as explanatory variables in cross sectoral, cross-country analysis of OECD imports for a single year is Leamer (1990), in a research project partly financed by the World Bank and using the UNCTAD database. An approach which could prove promising is the use of trade or frequency coverage ratios in a gravity model.

## 3. 2 Modelling approaches

A more comprehensive approach to quantifying the effects of trade barriers may lead to empirical measurement, for example, recent studies on the effects of protection in motor vehicles, textiles and clothing, iron and steel, various agricultural products, and so forth. Such studies can be used to infer the price wedge. Models designed to capture the quantity effects of trade measures, and derive a price effect, may use cross-country or cross-commodity regression techniques to explain trade. Such models typically include some variation on the Hecksher-Ohlin comparative advantage framework. Tinbergen (1962) included trade resistance variables in a gravity model. Hence, it is more convenient to include NTMs in such models, even if only as dummy variables, rather than leaving NTMs as the reason for unexplained errors in the estimation. The endogenous nature of NTMs may restrict imports, but they are also sometimes imposed as a response to political pressures which arise, in part, because of import competition. Laird and Yeats (1990), Feenstra (1988a), Hufbauer and Schott (1992) and USITC (1989, 1990 and 1992a) contain surveys or collections of recent studies, including a variety of models to study the effects of non-tariff measures. Helpman and Krugman (1989) discuss the problems of quantification in imperfect competition models. The most important studies by Venables and Smith (1988) look at the effects of removal of obstacles to trade within Europe. Trade models such as these are also a valuable source of information on price wedges to be used as inputs into both partial and general equilibrium simulation models. These models attempt to explain the effects of the variations in trade measures using price wedge information. However, modelling also requires information about various price elasticities, as well as the making of certain assumptions about the behaviour of Governments.

## 3. 3 The tariff equivalent or price wedge

For simulation modelling, an important input is the price effect or " price wedge" associated with each NTM - often called the " tariff equivalent" of the NTM. This is the difference between the free world price of a product and the domestic price which is protected by an NTM. If world prices are genuinely free that is not influenced by widespread use of subsidies, they can be obtained from commodity markets. These can then be compared directly with the wholesale prices of identical products. It may be necessary to compute an average over a selected group of products and over a set of time. Sometimes wholesale prices in different countries are compared, adjusting for transport costs to compute the price wedge between the country with the lowest wholesale price and the importing country under study. The price wedge technique is used frequently by World Bank economists, and has also been used in published studies by Roningen and Yeats (1976), Baldwin (1975), and Bhagwati and Srinivasan (1975). The most extensive set of computations on the cost of living in major cities of the world was done in the tariffication of existing import restrictions on agricultural trade for the Uruguay Round. The work of computing the price wedge is much easier for Governments than for academic economists. Provided that no breach of confidentiality is involved, this information can usually also be obtained for third country markets even when there are no direct imports into the market applying the NTM. However, it would then be necessary to compute the cost of delivery to that market, information which can be obtained from shipping companies or invoices for similar goods. Eurostat made price comparisons for use by the Commission of the European Communities (1988) to assess the effects of removing barriers between member States of the European Union in 1992. Observation of the price wedge is relatively straightforward when imports and local goods are perfect substitutes. However, calculations are often complex for manufactured goods because of the great range and heterogeneity of products. Clearly, the idea is to match items as closely as possible, but it is possible using econometric techniques to normalise differences in the characteristics and qualities of differentiated products. In this respect, a considerable amount of work has been based on the use of hedonic price indices, a technique developed by Griliches (1970). A recent application is the analysis of protection of differentiated products by Feenstra (1988b) in respect of the United States market for United States-made and Japanese-made compact trucks. The price wedge can sometimes be obtained directly if an auctioning system is used for allocation of import quotas, as has been done at times in Australia (Takacs, 1988) or for the allocation of export quotas, as was done in Hong Kong for textiles and clothing exports (Hamilton, 1986). As noted earlier, it might also be possible to use an econometric model of an industry to compute the price wedge on the basis of observed changes in the volume of production and trade. Even if we can calculate the price wedge between domestic and " world" prices associated with an NTM in one market, this does not necessarily give us the basis for computing how any one trading partner will be affected by the removal of certain NTMs. This is because of the discriminatory effects of a number of the NTMs. Another factor to take into account is the variability of prices, particularly commodity prices, in international markets. With variable levies and reference prices the domestic price of the import remains fixed even when there are fluctuations in world prices. Thus, in markets using such devices the price wedge itself is constantly varying for a number of products. For a number of products, particularly commodities, government intervention is so widespread that the " world price" cannot be observed from transaction values. In these circumstances, there is little alternative to developing a model to attempt to isolate " free world prices" from prices influenced by production and export subsidies as well as import barriers such as variable levies and quotas. A further complication is that exporters have been observed to change the quality mix of their product when subject to import restraints expressed in volume terms.

## 3. 4 Subsidy equivalents

The concept of the producer subsidy equivalent (PSE) has come to be used extensively in recent years, following extensive work by the Organisation for Economic Cooperation and Development (OECD). It is a concise way of measuring the transfers, as a result of government policies, to producers. It can be measured: by tracing the direct and indirect government expenditures to producers; orby imputing the effects of policies by calculating the difference between actual domestic prices and what they would have been in the absence of trade interventions. Its advantage over nominal protection, such as is given by the price wedge discussed above, is that it captures both the transfers from government expenditures and the transfers from price distortions. PSEs can be expressed in different ways. The total PSE is simply the value of transfers to producers: Where: Q = quantity producedPd = the producer price in domestic currency unitsPw = world price in world currency unitsX = exchange conversion factorD = direct government payments, net of any levies on productionI = indirect transfers through policies such as input subsidies, marketing assistance or exchange rate distortions. The unit PSE is the total PSE per tonne or unit of production: Unit PSE = PSE ÷QThere are various ways of expressing the PSE. The percentage PSE is the total PSE expressed as a percentage of the total value of production, valued at domestic prices, and adjusted for direct payments and levies: Another way of expressing the PSE is the nominal assistance coefficient (NAC). The NAC for production is the ratio of the border price plus the unit PSE to the border price. In essence, it is the price wedge on the production side created by the agricultural policies in use. It should be noted that changes in world prices, exchange rates or domestic production can change the PSE even when government policies remain unchanged. Also, since indirect transfers appear only in the numerator, the PSE can be altered by shifting transfers from indirect programmes to price support programmes or direct payments (Webb, Lopez and Penn, 1990). A negative PSE implies that the producer is being taxed as a result of the combination of policies operating in the sector, while a positive PSE implies the producer is being supported by the intervention. It is important to note these numbers can vary considerably from year to year for the reasons given. Also, the estimates take account only of exchange rate adjustments in the case of the developing countries, where they often dominate the calculations and can cause the PSE to swing wildly over time. There may also be quality differences which reduce the comparability of the data.

## 3. 5 The trade restrictiveness index

The Trade Restrictiveness Index (TRI), developed by Anderson and Neary (1991), is defined as the " uniform tariff equivalent of the consumption and production distortions". It is a combination of the " consistent PSE" and " consistent CSE", which are defined as the uniform subsidy rates that are equivalent in trade restrictiveness (welfare loss) to the actual differentiated subsidy or tax structure. It is mainly used to measure change in the restrictiveness of trade policy over time for that economy or sector of the economy. that is, comparing two distorted situations rather than against the free trade benchmark. Thus, it has important potential for the assessment of progress in the liberalisation of an economy. In Anderson and Neary (1994b) it is used as a weighting technique for averaging licence prices for textile exports computed using the method established by Hamilton (1986). In general, the TRI is also more applicable to small variations, for example " short" time periods or in respect of " small" changes in quotas. Anderson and Neary (1994a) note that their alternative, hybrid index, covering goods that are both tariff constrained and quota-constrained, is difficult to interpret if one wishes to make comparisons across countries or time periods in which the mix of goods that are subject to tariffs and quotas differs. This can be avoided by using the tariff equivalents of quota-constrained goods, in which case the resulting index is " a uniform tariff and a tariff-equivalent surcharge factor". The choice between the two forms of the TRI depends essentially on the availability of data.

## 3. 6 Effective Protection

Tariff equivalents and subsidy equivalents do not give a comprehensive view of the trade and production effects of the protective structure of a country. Hence, it is necessary to look at the combined effect of tariffs (and any other restrictions or forms of assistance) as well as the effect of such protection on the materials and parts used in the production process. The combined effect of protection on inputs and outputs can be summed up in the concept of the effective rate of protection (ERP, normally referring to tariffs only) or the effective rate of assistance (ERA, intended to encompass all NTMs, including domestic supports). The concept of the ERP was developed by Balassa (1965) and Corden (1966) to measure the increase in value added in an industry under protection relative to what value added would be under free trade. In other words, effective rates measure assistance to value added in an industry. Mathematically, the effective rate can be expressed in different ways, of which one such expression is: Where: g = effective rate of protectiondf = nominal rate on finished good (output of a production process)dm = nominal rate on inputs into a production processx = free trade materials/output ratio. As can be seen from the formula, the exact level of effective protection or assistance depends on the rate of protection on the output of a process, the average rate of protection on the inputs of materials and parts, and the extent of value added in the industry at unassisted prices. Protection may be defined to cover all forms of government intervention, including tariffs, other protection against imports and domestic subsidies, although sometimes only tariff protection is included. We can infer that: If protection on the finished good is equal to the average protection on the inputs, the effective rate will be the same as that level of protection. However, if protection is higher on the finished good than on the inputs, the effective rate will be higher than the protection of the finished good, and value added will also be higher than when the rates were identical. On the other hand, if protection is lower on the finished good than on the inputs, the effective rate will be lower than that on the finished goods, and value added will also be lower. Effective rates can also be negative. If the effective rate for a sector is lower than average it means that sector is implicitly being taxed to support sectors with higher than average effective rates, and vice versa. This is because highly protected sectors (in terms of effective rates) are able to bid up wages, land and other inputs, thus affecting the costs of other sectors. This does not necessarily mean higher profits for the protected sector, since typically higher protection becomes factored into costs such as land and buildings or lost through economic inefficiency (X-inefficiency). Nor is it a prescription for increasing lower rates to the average, because a non-zero average still implies the implicit taxation of the non-traded sector. Despite their limitations, effective rates have become a standard tool of analysis since the late 1960s. However, like many statistical tools, the effective rate has a number of shortcomings: It is a partial equilibrium rather than a general equilibrium measure. It assumes that there is no change in technology in shifting between actual and world prices. It assumes that there is perfect substitutability between domestic and foreign goods, whereas most modern trade models assume imperfect substitutability- the Armington assumption. There are also measurement problems, such as those we have been discussing, regarding how to measure NTMs. In the end, effective rates do not solve the question of measurement of NTMs, but they take more factors into account in assessing their effects. The difference between the percentage PSE and the ERP/ERA relates to the forms of intervention and the denominator in the computations. First, since PSE estimation has been focused on agriculture, PSEs do not comprehensively include the taxation or subsidy effect of intervention in relation to intermediate inputs produced in other sectors of the economy, whereas effective rates of assistance can be computed to take all forms of intervention into account. Second, PSEs relate assistance to the gross value of output (i. e. under existing intervention), whereas effective rates are based on free trade levels of value added (or the free trade input. output ratio as shown in the formula). Thus, the effective rate is a more comprehensive summary measure, albeit subject to the limiting, underlying assumptions. The relationship between effective rates and the results of CGE models is not self evident. Effective rates measure the value added under protection, while a CGE model can be used to compute changes in value added under a simulation of free trade that is, in principle, they can do the same thing.

## Chapter summary

On conclusive note, it is obvious that there are both a number of complications and limitations with the measurement and collection of NTM data. Efficiency costs of NTMs are hence much less evident than the welfare losses associated with tariffs and quantity measures. However, the existing data collections on NTM need to be improved.

## Chapter 4

## Measures to reduce Non Tariffs Measures

How do you ensure that your country’s consumers are being supplied with food that is safe to eat—" safe" by the standards you consider appropriate? And at the same time, how can you ensure that strict health and safety regulations are not being used as an excuse for protecting domestic producers? (WTO 2012)NTMS are lawful measures available to achieve policy objectives, consumers’ safety and health and environment purposes. However, if they are poorly designed, they can reduce competitiveness and increase cost of living. In order to increase their competitiveness in trade, governments around the world are trying to remove NTMS. This can be done firstly by an assessment of the costs and benefits of the existing NTMS in the country and the capacity of the government. Hence a comprehensive analysis is required before the elimination of NTMS. Moreover, the elimination or reduction of NTMs will depend upon the policies adopted by respective governments (Cadot et al. 2012). The following are the measures that can be taken to reduce if not eliminate NTMs (Law Teacher, 2013).

## 4. 1 Imposing tariffs rather than NTMs

This has been the case in the Uruguay Round of the WTO, where tariffs were imposed on agricultural goods.

## 4. 2 Regional Trade Agreements (RTAs)

RTAs such as EFTA (Iceland, Norway, Switzerland, and Liechtenstein) should show more concerns about NTMs. It has been seen that only the EU stress more about the impacts of NTMs while other regional groupings pay little or no attention to the latter.

## 4. 3 Substantive Cooperation

There should be more substantive collaboration between states in various fields with more technical assistance to ensure that policies are moving towards free trade.

## 4. 4 Prevent new NTMs to crop in

Steps should be taken to prevent new NTMs such as import bans, quotas, licensing and permits to come into existence and this can be achieved by agreements between countries to open their markets to each others.

## 4. 5 Reduction of streamlining border management procedures

Streamlining border management process should be reduced and instead more emphasis should be taken on trade facilitation measures and government revenue.

## 4. 6 THE CEFTA (Central European Free Trade Agreement)

One of the aims of the CEFTA (Central European Free Trade Agreement) is to remove barriers to trade. Hence removing NTMs became one of their priorities. This was achieved by the Multilateral monitoring framework (MMF) developed by OECD (Organization for Economic Co-operation and Development). Also, the CEFTA structures focused on strengthening collaboration in the area of NTMs, improving transparency and information exchange within the parties.

## 4. 6. 1 Transparency Mechanism

Lack of regulatory transparency is a major and recurring non-tariff-related complaint of businesses seeking to trade internationally. A proper transparency mechanism is a good initiative to help business trade internationally. Transparency mechanisms applied at different stages of the design, finalization and implementation of domestic regulation have enabled countries to reduce administrative burdens and maintain confidence conductive to a smoother enforcement of related policies. The result is that potential reduction in business costs can attract foreign trading partners (Möisé, 2011). The transparency of the regulatory process will help to address and identify unintended obstacles to trade which can also serve as a check against subtle forms of protectionism.

## 4. 6. 2 Transparency-related provisions of existing RTAs

RTAs are gradually increasing and expanding more sophisticated transparency provisions in recent RTAs. These provisions can be classified in the following 3 categories: 1)general transparency provisions that call for the transparent administration of laws and regulations as regards all matters covered by the agreement 2) specific transparency provisions on goods-related requirements, mainly TBT-type requirements, but also SPS-type requirements in some agreements, and 3) specific transparency provisions as regards domestic regulation affecting services trade. (CEFTA, 2012)

## 4. 6. 3 Trade Facilitation and Electronic Business

After its recommendation on single windows for import and export clearance, UN/CEFACT issued three new recommendations (UN/CEFACT, 2010): Recommendation 35 - Establishing a legal framework for international trade Single Window; Recommendation 34 - Data Simplification and Standardization for International Trade; and Recommendation 37 - Signed Digital Evidence InteroperabilityOther recommendations were updated, including: No. 20 - Codes for units of measure used in international trade; No. 21- Codes for passengers, types of cargo, packages and packaging materials; No. 23- Freight Cost Code - FCC Harmonization of the Description of Freight Costs and Other Charges; and No. 28- Codes for types of means of transport.

## 4. 7 Regulatory cooperation and standardization policies

The UN/CEFACT created a group of experts on risk management in regulatory systems. The main activities of the group will involve conformity assessment bodies, market surveillance authorities, standards development organizations and business operators in order to study risk management through (UN/CEFACT, 2010) : 4. 7. 1 Market surveillance and conformity assessment: to ensure that dangerous, low quality and noncompliant goods are removed from the market. 4. 7. 2 Agricultural quality standards: Promotional, capacity building and training workshops were organized in various regions of the world with cooperation of governments in view to train growers, traders and inspectors and to set up the legal and technical infrastructure needed for the practical application of UNECE agricultural quality standards.

## Chapter 5

## Conclusion

Despite the fact that it is a hard to identify concealed measures and other NTMs, it is of utmost importance if emerging countries are to join in the process of refining the rules, guidelines and disciplines in the SPS and TBT Agreements as also in further dealing forums that negotiate with other forms non-tariff barriers (NTBs), such as those included in WTO's Doha Round of Negotiations. Pertaining to this point, there is an urgent need to develop a much comprehensive understanding of NTMs and their effects on the economy in rising countries. It was against this background that UNCTAD propelled the new edge to extent a common understanding of the comparative importance of the different types of NTMs and their impact on trading proceedings exclusively for evolving states.