THE TARIFF EQUIVALENT OF TARIFF-RATE QUOTAS - A CASE STUDY APPLIED TO THE IMPORT OF AN AGRICULTURAL PRODUCT IN ROMANIA

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Abstract. The paper presents one methodology of calculating the tariff equivalent of the tariff-rate quota as a particular case of a non-tariff barrier for an agricultural product imported in Romania based on recommendations in international literature. The tariff equivalent of tariff-rate quota of imports from the EU is approximately 35%, lower than the tariff outside the quota. Nonetheless this is considerable higher when compared with the Common External Tariff (CET). Elimination of the nominal protection level as consequence of the adoption the CET is expected to stimulate imports pressure especially from price competitive import partners both from EU (such as Slovakia, Belgium, Austria, Czech Republic and Italy) and non EU countries (Serbia, Bosnia and Herzegovina, Macedonia and Croatia). A basic model forecasts that, with the lowered protection, annual imports will rise with at least 13.5 thousand tonnes, thus an increase of 23% compared with the average annual imports during 1990-2005.

Key words: non-tariff barriers, tariff-rate quotas, tariff equivalent

JEL: F13, Q17

1. INTRODUCTION

Unlike the much more transparent tariffs, non-tariff barriers (subsequently called NTB's) are a relatively new and insufficiently explored sector of international economic relations. Although they have been traditionally used for over 7 centuries[1], their importance for international trade flows has reached its peak towards the end of the 20th century.

For instance, in 2004, the number of lines in a customs list which was representative for the world average directly affected by the implementation of at least one non-tariff measure was 5620. That is a growth of over 200% compared to 1994, when the number of lines was only 1880, finding that gave support to the some economists' claim that the reverse of the decrease in tariff protection agreed at the end of the Uruguay Round was the recrudescence of non-tariff protectionism (Fugazza, 2006:2).

The importance of non-tariff measures for the future of trade flows is especially enhanced since the lack of an agreement in this field led to the suspension of negotiations during the Doha Round. Non-tariff barriers have thus become a global apple of discord, causing disputes that involve both developing countries and especially developed countries

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[1] Some forms of non-tariff proto-protectionism are, for example, the interdictions regarding the export of non-processed wool in 1303 (France) and 1463 (England) (Favier, 2001:122).

(or blocks of countries). In this context, the preoccupations regarding the quantification of the effects produced by these non-tariff measures, especially at the level of the protected economy (but also at the level of the trade partners) become a priority for the continuation of the multilateral negotiations in a rational, positive manner.

The preoccupations for the quantification of the non-tariff barriers have generated several methods for this purpose, among which the tariff equivalent method, frequently used both by the World Bank economists (Bora, 2002:8) and by researchers, due to its capacity of being applied to a vast range of NTB's (Deardorff, 1997), such as quotas, variable levies, voluntary export restrictions and technical barriers[2].

During the recent years, the implementation of annual tariff-rate quotas for the Romanian imports from EU countries has played an indirect role of safety valve for the introduction of competitive pressures (limited by the maximum level of the quotas) which might have helped the internal producers to adjust to the competitive pressures of the Single Market. With its accession into the European Union in 2007, Romania takes on the EU Common External Tariff, while the tariff-rate quotas are allotted in a centralised manner by the European Commission. In this context, the disappearance of the current degree of protection provided by the tariffs outside the quotas to the internal producers creates the necessity to identify and calibrate alternative instruments for alleviating the impact of the exposure to the competition pressures – especially those of the Single Market –, which must be based on the quantification of the previous nominal protection provided to the internal producers by the tariff rate quotas. The computation of the tariff equivalent for tariff rate quotas applied to an agricultural product imported in Romania is also collinear with international global concerns and recommendations[3] to amplify actions necessary to calculate tariff equivalents for an extensive range of products, industries and economies which in turn shall facilitate further development of econometric model to study the international trade idiosyncrasies in response to NTB reduction.

Below, we shall give an example of the way of calculating the tariff equivalent of a specific form of non-tariff measure, i.e. the tariff-rate quota, selectively applied to the imports of potatoes in Romania after 1989, based on historical data provided by the FAOSTAT – Food and Agriculture Organization of the United Nations. We have chosen this type of non-tariff barrier[4] as an example based on both the increase in the frequency of the use of tariff-rate quotas during the last decade and the greater transparency of tariff-rate quotas, compared to other non-tariff measures.

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[2] For example, Mitsuyo Ando in "Estimating Tariff Equivalents of Core and Non-Core Non-Tariff Measures in the APEC Member Economies" used this method to quantify – for 13 APEC countries and 21 products – the tariff equivalent of no less than 12 kinds of NTB's, classified into 5 categories (from price measures, such as variable levies, compensatory measures, antidumping measures etc up to quantitative measures, such as tariff-rate quotas and RVE, technical, monopolistic or monitoring measures). The calculation was also facilitated by the fact that, after having obtained the price differential for the same product and having eliminated the percentage of tariff protection, Ando allotted the non-tariff protection for each product according to a distortion index of prices, specific to each NTB and calculated based on a regression developed around the frequency indicators that are specific to the 12 NTB's.

[3] "Therefore, we conclude from this survey that the most useful direction for future investigation of NTBs across industries and countries should be to aim for a comprehensive set of tariff-equivalent measures of protection (nominal, not effective) derived from the most detailed industry-specific information that can be obtained and from various different measurement techniques appropriate to the type of NTB and its method of administration" (Deardorff,1997:44)

[4] From an academic point of view, the tariff-rate quotas are included in the area of non-tariff measures, although, within official taxonomies (UNCTAD, 2005:16-19), they may be classified as tariff measures. In Deardorff (Deardorff, 1997:68) and Ferrantino (Ferrantino, 2006:30), the mention is implicit, as long as the NTB evaluation measures include the quantification of tariff-rate quotas, while in Bora, they are explicitly included (Bora, 2002:37).

2. Calculating the tariff equivalent of the NTB

Some of the less used, but implicitly accepted definitions of the NTB's states that they are, like tariff barriers, measures that, by creating obstacles in accessing markets, prevent the functioning of the single-price law. According to this law, a market without obstacles, by means of a series of successive arbitrages, will end up being characterised by the existence of a single price for the same goods (or similar, 100% substitute goods) after the adjustments needed for taking into consideration the transportation and distribution costs (at least in the case of a competitive economy and the global economy in general – if we eliminate tariff and non-tariff restrictions – is, by its atomic character, the closest to the image of a perfectly competitive economy)[5].

As a result, the quantification of the impact of the NTB at the level of the protected economy can be obtained by measuring this price variation whose effect is the separation of the internal price on the protected market from the single reference price which would have prevailed if the NTB hadn't been enforced and by dividing this price gap to the price of the product in order to express it as a tariff. In other words, finding the tariff equivalent of a NTB implies finding that level of the tariff which would have the same effect on imports as a caeteris paribus enforcement of the NTB.

From a methodological point of view, the main challenges of measuring the NTB starting from the price gap consist in the choices (Deardorff, 1997:13) we have to make regarding the prices and the calculation method to be used.

Thus, observing both the above-mentioned price categories is difficult in practice (especially the price that would have prevailed on the market in the absence of the NTB, which in order to found one would have to make a series of unreliable assumptions concerning the elasticity of the demand under the circumstances of free exchange), so that, most of the time, the literature in the field recommends using the difference between the internal price and the CIF import price of the product in the presence of the NTB as a substitute (Deardorff,1997:14).

From a formal point of view, the tariff equivalent of the NTB should, in theory, be deduced based on the relative differential between the reference price (in the absence of any NTB) of the imported product and the price of the product on the internal market from which tariff protection is deducted according to a generic formula described by the following equation[6]:

$$ET_j = \frac{P_{ij} - P_{Rj} \cdot X}{P_{Rj}} \cdot 100 - t_j$$

where

ET – is the tariff equivalent of the NTB, implicitly expressed as a percentage for product j

P_{ij} – is the internal market price for the imported product

P_{Rj} – is the reference price of the imported product that would have prevailed on the market in the absence of the NTB

X – is the currency exchange rate

t_j – is the usual level of tariff protection for the imported product

When approaching this calculation method, one must take into account the fact that the free trade situation with no NTB is an abstract notion with no correspondent in the reality of current international relations. Therefore, for the P_{Rj} reference price of the product under the circumstances of the zero presence of the NTB, practice has imposed the use of a substitute that is as close as possible to the content of this price, i.e. the world reference price of this product (since the world market is the closest to the perfect competition circumstances). At the same time, this price needs to be corrected in order to take into consideration the costs of transportation to the importing country (to obtain the relevant level for the arbitrages so as to

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[5] See Bora's definition for the NTB (Bora, 2005:18).
[6] Other variants and particularisations of this formula may be found in Ferrantino (Ferrantino, 2006:65-68).

obtain the single price), which consequently justifies choosing an average level of the CIF calculated import price (thus including the transportation and insurance costs, but without including the customs duties) as a correspondent of the reference price.

On the other hand, the P_{ij}, i.e. the internal market price for the imported product, is a notion whose transparency is just as difficult to obtain with most of the usual statistics as that of the P_{Rj}, so that it is necessary to take alternatives into account. Thus, most of the time, the official statistics regarding the level of internal prices do not differentiate between imported and national products, providing a single price level for that particular product. The internal market price is thus a composite coefficient between the price of the substitute internal products (if any) and that of the imported products. Consequently, the alternatives for calculating the P_{ij} depend on the existence of a similar internal product and on its capacity of being substituted with the imported product. Thus, if that internal product exists and is perfectly changeable with the imported one, Deardorff recommends accepting the factory production price of the internal product as a reference level for the P_{ij} (Deardorff, 1997:65).

3. THE TARIFF-RATE QUOTAS APPLIED TO THE POTATO IMPORTS IN ROMANIA AFTER 1989

The tariff-rate quota system is a practice that became more widespread as a result of the decisions assumed by the GATT member countries within the URAA - The Uruguay Round Agreement on Agriculture (1996) to open the internal markets for the import of agricultural products. Before the end of the round, most of these products were subjected to a system of restrictive import quotas, which were later replaced by the tariff-rate quota system, the estimate being that the Uruguay Round led to the creation of over 1,300 new tariff-rate quotas (Skully, 2001:1).

From a methodological point of view, a tariff-rate quota may be assimilated to a two-level tariff, where the lower level is applied to the imports within a certain quota, whereas the higher one applies to all imports going over the quota (Ferrantino, 2006:30). A tariff-rate quota (subsequently called CT) is thus defined by 3 variables (Liapis, 2002:4):

- the tariff within the quota (subsequently called T_c, which is the low value of the tariff, applied to the imports that do not go over the volume of the quota),
- the quota (subsequently called C, which is the quantity of imports accepted with the low level of the tariff T_c) and
- the tariff outside the quota (subsequently called T_i, which is the value of the tariff applied to the imports going over the C; it is much more prohibitive than the T_c and the T_i / T_c ratio is often above 10).

The information concerning the level of all of these 3 dimensions characterising a tariff-rate quota are public, as is the way of managing the quota (which needs a notification from the WTO) and, moreover, they are comparable with regard to countries and products.

Before the moment of the accession into the European Union and the adoption of the EU Common External Tariff, Romania's import regime could be considered a liberal one (in the conservative sense of the word) due to the lack of import quotas and of the importers' obligation to obtain an import licence, as Article 1 in the Government Decision 1526/2003 mentions that "the export and import of goods from and to the customs territory of Romania is free, not being conditioned by the issuing of licences". The exceptions from the provisions of Article 1 were the goods subjected to measures such as the prohibitions justified by reasons of public safety, the protection of people's health and lives, the protection of intellectual property etc, the import safeguarding measures, the export or import monitoring measures etc.

Except for the non-automatic licences for certain sensitive products (radioactive materials, substances used for producing drugs, toxic waste etc) and for the safeguarding measures introduced for the sugar imports, predominantly from the Republic of Moldova[7],

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[7] For example, for the year 2006, Article 1 of the Government Decision 1761/22.12.2005 stipulates: "A safeguarding measure is enforced within the Free Trade Agreement between Romania and the Republic of

some of the few NTBs in the field of quantitative restrictions practiced by Romania after 1989 were the tariff-rate quotas generally applied to the agricultural products coming from EU, CEFTA or South-Eastern European countries (Turkey, Albania, Macedonia, Serbia and Montenegro) and Israel.

An important part among these NTBs was played by the tariff-rate quotas enforced for the import of potatoes from the European Union. During the years when these quotas were implemented, the average maximum quantity admitted for import was that of 20,000 tons of potatoes coming from the European Union, for which the preferential customs duty was of 18.8% (while the customs duty outside the quota was somewhere between 40% and 50%, according to the period of the year when the import occurred), with an average maximum allotment quota of 0.3% / import licence managed according to the "first come, first served" principle corroborated – during the recent years – with the preferential allotment of quotas to traditional importers (importers that, during the past years, applied for import quotas and actually used them entirely).

The product that the case study directly focuses on is potatoes fresh or chilled other than seeds HS 0701909090[8]. Choosing this product as a subject for the study was based on a series of arguments especially related to its homogenous character and to the existence of the national substitute, to its dynamics, supported by the Romanian agricultural imports in the context of a decline of the internal producers' competitiveness, and to the fact that the tariff-rate quotas applied to the import of potatoes in Romania were always entirely used; all these arguments are briefly presented below.

In order to ensure price compatibility, applying the conventional "price gap" method for finding the tariff equivalent of the tariff-rate quota requires a very good substitution between the imported product and the internal one, in other words lack of quality differential that might determine considerable variations of price and demand. Choosing potatoes as the product for applying the above-mentioned method is justified by their homogenous character (unlike that of other quota agricultural products, such as apples or chicken), as well as by the existence of a traditional production sector which, during the past 50 years, has permanently covered approximately 98% of the internal consumption (except between 1989 and 1993) and whose position is currently jeopardised by a substantial increase in imports.

At the same time, potatoes are the agricultural products whose imports had in 2006 one of the fastest rises (an almost 200% increase) compared to 2005 (after pork and tobacco)[9]. Moreover, the ratio of potatoes import value in the total amount of imports doubled in 2006 compared to 2005 (from 0.05% to 0.1%).

The Romanian exports, not very substantial, averaged around 6,500 tonnes per year during the last 10 years, with a peak of 16,000 tonnes in 2000. However, the historical trend is descending, as, beginning with 2004, Romanian exports witnessed a considerable loss of price competitiveness.

Moldova, signed in Bucharest, 15th February 1994, ratified by Law 94/1994, consisting of the temporary suspension of the customs duty exception for the import of refined sugar coming from the Republic of Moldova to Romania and the application of the erga omnes import customs duty stipulated in the Import Customs Tariff of Romania for 2006, for the products listed in the appendix which forms an integrant part of this decision." The same act established a tariff-rate quota of 14,000 tons exempt from customs duties for 2006.

[8] with the mention that statistics from FAOSTAT tables do not allow to identify the HS code, i.e. are based on a generic term of potatoes

[9] A 7.2 million € increase compared to the same period of 2005, according to the data for April 2006, from 4.194 million to 11.357 million € (data obtained from the Ministry of Economy and Trade, the Romanian Centre for Promotion of Trade, "Sinteza privind evoluţii in comerţul exterior in perioada 01.01-30.04.2006", http://www.dce.gov.ro/)
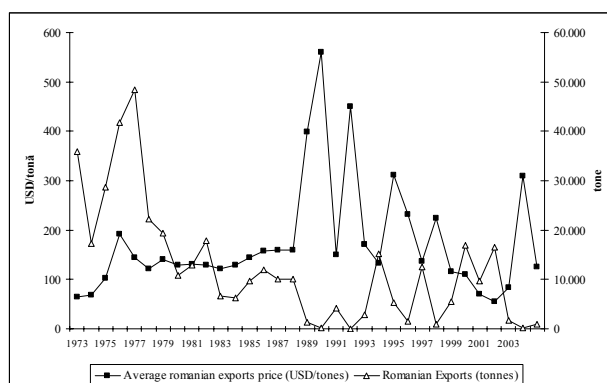
Figure-1: **The average export price in Romania and the Romanian potato exports respectively (1973-2005)**
Source: own calculations, based on data obtained from the FAO Statistics Division 2006, http://faostat.fao.org

Calculating the tariff equivalent of the tariff-rate quota implies that the implementation of that measure produces pressure at the level of the demand for import. The most frequently used indicator for this pressure is the degree of use of the quota. The figures available for 2003[10] and 2005[11] indicate a 100% use of the tariff-rate quotas for the imports of potatoes from the EU, which supports the existence of a prohibitive effect that is quantifiable in the form of a tariff equivalent.

4. POTATO IMPORTS IN ROMANIA

After the fall of 1991, the internal market potato consumption was stabilised at a level of 4 million tonnes per year, while the average production was of 14 tons/ha. The ratio of the imports in the total internal consumption, although low on average (1% for the past 50 years and 1.37% after 1989, with peaks of almost 10% in 1990 and 1992), has had, since 2001, an ascending trend and reaches a level of over 2.34% in 2005.

From the point of view of the geographical distribution of imports in 2005 (year with tariff-rate quota for EU countries), the first 5 countries that potatoes were imported from, quantitatively speaking, are Serbia and Montenegro (47% of the imports), Germany (10%), Netherlands (9%), Austria (8%) and Hungary (5%). Compared to 2005, in 2004, the importer list was led by Egypt (23% of the imports), followed by Serbia and Montenegro (17%), Netherlands (15%), Greece (12%) and Germany (11%).

On average, between 1991 and 2005, the internal producer price was of 269USD/ton, while the average import price was of 168 USD/ton, which indicates a supplementary margin of the internal producer price of 60% compared to the price of imports (the margin is close to the customs duty outside the quota).
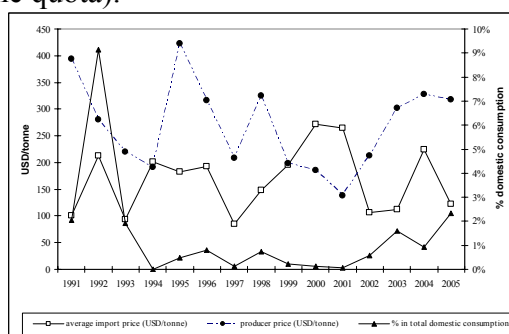

Figure-2: **The evolution of the producer price, of the import price and of the ratio of potato imports in consumption (1991-2005)**
Source: own calculations, based on data obtained from the FAO Statistics Division 2007, http://faostat.fao.org

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[10] Imports from EU countries amounting to 26,886 tons, compared to a tariff-rate quota of 20,000 tons (source: our own calculations, based on the data provided by the FAO Statistics Division 2006, http://faostat.fao.org)
[11] Source: the Ministry of Economy and Trade, Trade Policies Directorate General, Licences and Tariff-Rate Quotas Department, "Gradul de utilizare a contingentelor tarifare preferențiale de import, la data de 07 septembrie 2006", http://www.dce.gov.ro/

From the point of view of prices, the most competitive countries are the non EU countries (see figure below), while amongst EU countries are Slovakia, Belgium Austria, Czech Republic and Italy.
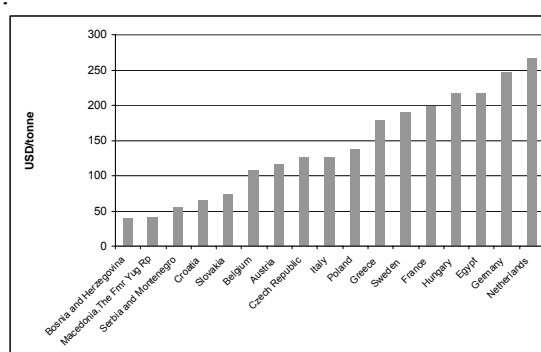

Figure-3: **Average import prices from import partners (2005)**
Source: own calculations, based on data obtained from the FAO Statistics Division 2007, http://faostat.fao.org

From the data available for 2006, 2005 and 2004[12], the customs duty actually applied outside the quota for potato imports varied between 40% and 50% (plus a customs commission of 0.5%); this level was taken into account within the study as a reference element for calculating the tariff equivalent.

As we can see from the graph below, the margin between the import price and the Romanian potato producers' price (expressed as a percentage of the average import price) varies between a minimal level of -292% in 1991 and a maximum of 48% in 2001, which means that, except for 5 of the 13 years between 1991 and 2005 (1992, 1994, 1999, 2000 and 2001), not even the average tariff outside the quota – assumed to be 45% - could compensate for the lack of price competitiveness of Romanian producers, but, in spite of that, the level of potato imports was maintained constant under 50,000 tons.
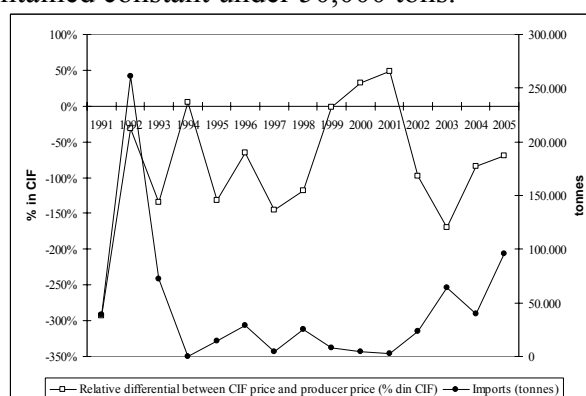

Figure-4: **The price margin of CIF imports over the internal producer price (% of the CIF price) and the evolution of the potato imports**
Source: own calculations, based on data obtained from the FAO Statistics Division 2007, http://faostat.fao.org

This phenomenon may be explained either by the imperfect information of the Romanian importers, which prevented them from using this market opportunity, or – more likely – by the existence of a considerable conjugated tariff equivalent of non-tariff measures which affect the potato imports and which are mainly tariff-rate quotas and technical barriers, the imports being conditioned by obtaining at least 3 certificates: a phyto-sanitary certificate – except for the EU countries – a certificate of compliance with the trade standards for fresh fruit and vegetables and/or a food safety certificate[13].

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[12] Source: the Romanian Integrated Customs Tariff, http://80.96.3.68:10080/taric/web/main_RO
[13] Restrictions valid in October 2006 for potato imports, source: the Romanian Integrated Customs Tariff, http://80.96.3.68:10080/taric/web/browsetariffi2_RO?expandelem=0701909090&Year=2006&Month=10&Day =18&Country=----------&issection=n&checkfinal=y&impexp=1#POS , [Accessed 18.10.2006]

5. CALCULATING THE TARIFF EQUIVALENT OF THE TARIFF-RATE QUOTA

To calculate the tariff equivalent of the tariff-rate quota, the year 2005 was chosen as a reference year, as it was the most recent one for which we had identified statistical data comparable with the price of Romanian producers and with the average import potato price in Romania.

While a 20,000 ton tariff-rate quota existed for the import of potatoes from the European Union, with a preferential tax of 18.8% (compared to the average tax of 45% applicable erga omnes outside the quota), from a quantitative point of view, the imports from EU member state had a comparative increase in 2005, compared to the previous year, by 18,051 tonnes consequently to the preferential access of the tariff-rate quota (this import increase could also be explained by the decrease in the internal production from 4,2 million tons in 2004 to 2,9 million tonnes in 2005)

Table 1

The variation of the main import indicators 2002-2005

Indicators	EU COUNTRIES	NON-EU COUNTRIES	TOTAL imports	Romanian producers' price (USD/ton)
2005*				
Imported quantity (tons)	37846	57628	95474	
Value (thousand USD)	7753	3886	11639	317.47
Average price (USD/ton)	205	67	122	
2004				
Imported quantity (tons)	19795	20100	39895	
Value (thousand USD)	6816	2156	8972	327.64
Average price (USD/ton)	344	107	225	
2003*				
Imported quantity (tons)	26886	37619	64505	
Value (thousand USD)	4816	2,402	7218	302.08
Average price (USD/ton)	179	64	112	
2002				
Imported quantity (tons)	6808	16414	23222	
Value (thousand USD)	1542	953	2486	212.13
Average price (USD/ton)	226	58	107	

* tariff-rate quota years for EU imports

Source: own calculations, based on data obtained from the FAO Statistics Division 2007, http://faostat.fao.org

As shown previously, if the tariff-rate quota is entirely used, the tariff equivalent of the quota cannot be larger than the tariff outside the quota and, in this case, following Deardorff's recommendations (Deardorff, 1997:68), we shall take into account only the minimum between the tariff equivalent calculated based on the "price gap" method and the erga omnes tariff outside the quota:

$$ET_{EU}{}^{clasic} = \frac{P_{producer} - P_{CIF/EU}}{P_{CIF/EU}} \cdot 100 - T_{cEU} = \frac{317 - 205}{205} \cdot 100 - 18,8 = 35.83\%$$

$$ET_{EU}{}^{tariff.quota} = \min(ET_{EU}{}^{clasic}; T_{iEU}) = \min(35.83\%; 45.5\%) = 35.83\%$$

where

$ET_{EU}{}^{tariff.quota}$ – is the tariff equivalent of the tariff-rate quota for imports from EU (2005)

$ET_{EU}{}^{clasic}$ – is the tariff equivalent of an import quota using the classical calculation method based on the price differential

T_{iEU} – is the erga omnes tariff outside the quota

$P_{producer}$ – is the average internal production price of potatoes

$P_{CIF/EU}$ – is the CIF import price of potatoes from the EU

T_{cEU} – is the tariff in quota for the potato imports from the EU

Therefore, the tariff equivalent of the tariff-rate quota for products coming from the EU is smaller than the 45.5% standard average tariff outside the quota. Also the 35% tariff equivalent of tariff-rate quota for 2005 shows a reduction from the 45% that is obtained following the same reasoning as above for the year 2003, which indicates a better capability of domestic producers in face of foreign competition compared with 2003.

Also, by applying the classical formula for calculating the tariff equivalent of non-tariff measures for the imports coming from non-EU countries in 2005, the resulting level is much higher than the one corresponding to the protection from EU products:

$$ET_{nonEU}{}^{clasic} = \frac{P_{producer} - P_{CIF/nonEU}}{P_{CIF/nonEU}} \cdot 100 - T_{cnonEU} = \frac{317-67}{67} \cdot 100 - 45.5 = 328\%$$

Considering that the technical barriers for imports from non-EU countries also specify the need for a supplementary phyto-sanitary certificate – which the EU group does not need to have – the tariff equivalent differential between the protection from non-EU countries and the protection from the EU group may be caused by this certificate, which is thus responsible for a tariff equivalent of 328%.

Consequently, the synthetic table of the tariff equivalents to the non-tariff measures for potato imports in 2005 may be as follows:

Table 2

The tariff equivalent of the non-tariff barriers for the potato import in Romania in 2005

TARIFF EQUIVALENT	Import origin markets	
	EU countries	NON-EU countries
Tariff-rate quota	35.83%	n.a.
Technical barriers	n.a.	328%

Source: own calculations, based on data obtained from the FAO Statistics Division 2006, http://faostat.fao.org

The resulted 35.83% level of tariff equivalent for EU imports is smaller comparable with the average price wedges of non tariff barriers traditionally liberal countries in countries such as New Zeeland-61,8% and USA-55.1% (Ando,2005: 264-276).

Nonetheless, The Common External Tariff duty rate erga omnes for potatoes is 11.50 %[14] while 0% for traditional non EU exporters in Romania such as Croatia and Former Yugoslav Republic of Macedonia and 8% for countries benefiting of Generalized System of Preferences (less least developed countries and some South and Central American countries who benefit 0%) while in 2007 Turkey and Jordan had a preferential tariff quota for 2500 tones and 2350 tones respectively.

The results of a regression analysis of Romanian import demand for potatoes for 1990-2005 interval having as independent variable the average import price (showing a rather low correlation between the two variables[15], perhaps because insufficient substitution with national Romanian products) show that a price decrease of 1 US $/tonne of potatoes increases imports with up to 322 tonnes annually.

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[14] Source: TARIC Integrated Community Tariff, http://ec.europa.eu/taxation_customs/dds/cgi-bin/tarduty?Taric =0701909090&SimDate=20071008&Action=1&ProdLine=80&Country=----------&Type=0&Action=1&YesNo =1&Indent=-1&Flag=1&Test=tarduty&Periodic=0&Download=0&Lang=EN&Description=yes, [Accessed 08.10.2007]

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,235ª	,055	-,012	87244,6739	1,748

a. Predictors: (Constant), PRET

15 b. Dependent Variable: IMPORTUR

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	112759,5	61812,931		1,824	,090
	PRET	-322,056	355,344	-,235	-,906	,380

a. Dependent Variable: IMPORTUR

Also, based on the above mention results regarding tariff equivalent of tariff rate quotas for imports from EU countries, and as a consequence to the adoption of the Common External Tariff, the average nominal protection for Romanian producers is expected to drop in average with 35%[16] after January 2007. Based on 2005 level of average import price this represents an exposure of local producers to import prices decreased with 43 US $/imported tonne of potatoes which therefore might generates caeteris paribus an increase of imports of almost 14,000 tonnes annually (approximately 15% increase compared with the 2005 level of imports and 23% compared with the average annual imports between 1990-2005).

6. CONCLUSION

The paper has presented one methodology of calculating the tariff equivalent of the tariff-rate quota for an agricultural product imported in Romania based on recommendations in international literature. The conclusion of this study is that the protection provided to the Romanian potato producers in 2005 by the tariff-rate quota of imports from the EU is approximately 35%, smaller than the 2003 level of the same indicator and also than the 45% tariff outside the quota. Nonetheless this is considerable higher when compared with the Common External Tariff duty rate erga omnes for potatoes of 11.50 % not to mention the 0% duty for traditional non EU exporters of potatoes in Romania such as Croatia and Former Yugoslav Republic of Macedonia. Therefore the post 2007 level of protection for national producers of potatoes is expected to be considerably lowered compared with the previous price wedge ensured by the Romanian tariff quotas applied to potatoes imports from EU and erga omnes duty rate applied to imports from non-EU countries. Based on a basic import regression coefficient, the elimination of the average 35% nominal protection level as consequence of the adoption the Common External Tariff is expected to stimulate imports pressure especially from price competitive import partners both from EU (Slovakia, Belgium, Austria, Czech Republic and Italy) and non EU countries (Serbia, Bosnia and Herzegovina, Macedonia and Croatia) and rise annual imports with at least 13,5 thousand tonnes, thus an increase of 23% compared with the average annual imports between 1990-2005.

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[16] Tariff equivalent in case of EU imports and average tariff reduction of 45%-11,05% =33,95% in case of the rest of the countries, for simplicity we rounded to a common level of 35%

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