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MEASURING THE EFFECTIVE RATE OF PROTECTION IN VIETNAM'S ECONOMY WITH EMPHASIS ON THE MANUFACTURING INDUSTRY: AN INPUT-OUTPUT APPROACH

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Abstract

In recent years, Vietnam has modernized its economic policies. Positive results include an economic growth rate averaging more than 7% per annum, increased foreign investment and improved living standards for its citizens. Having moved from a traditional socialist model to a market-based system, trade is now a major economic priority of the Vietnamese Government. The study is a contribution to a new line of trade theory arguing that good trade policy depends on many factors. By using effective rate of protection (ERP) concept, the study provides analysis of the current tariff structure from 2005 to 2009 in order to estimate the structural change of ERP by goods sectors, and the impact of trade barriers (through tariff) on the Vietnam's economy. Vietnam's 2007 competitive and non-competitive input-output tables are the main database used. Economic indicators like ERP, OM (output multipliers) and BL (backward linkage) calculated from the I/O model are used to assess the effectiveness of industries. The relevant policies on trade Vietnam are then suggested.

Keywords: Trade, tariff, protection, effective rate of protection, competitive input-output table, non-competitive input-output table, output multiplier, backward linkage, and effectiveness.

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I. INTRODUCTION

On January 11, 2007, Vietnam became the 150th official member of the World Trade Organization (WTO). Although deemed a success for Vietnam, its membership, however, means that Vietnam has to perform its commitment on integration. That is, final average nominal tariff shall be decreased by 23% vis-a-vis the current nominal tariff of 2007².

Historically, tariffs have been a commonly used type of Government intervention in international trade. Tariffs cuts have also been a focal point in international trade negotiations and commitments. The *(import) tariff-based analysis* of nominal and effective rates of protection (NRPs and ERPs) by industry is a good *starting point* for understanding the distortion structure and level of protection created by Government in an open economy, although it does not still take into account the impact of non-tariff barriers (NTBs)¹ and is made only in a partial equilibrium framework. Consequently, the results of an analysis presented in this paper tend to underestimate the extent and the level of protection³.

In Vietnam, one of earlier studies about ERPs is the research done by the Centre for International Economics in 1998. This study used the 1995 I-O Table of Vietnam in measuring ERPs. In 2001, the Institute of Economics conducted the same study using data derived from the 1996 I-O table and 1998 tax rates. The most complete research about ERP is a research by ADB in coordination with the Ministry of Finance. Its main author, Athukorala (2006), estimated ERP and export bias index of Vietnam by using I-O table year 2000 and tax rate of year 2003.

Another research done simultaneously with Athukorala's research (2006) is also worth for reference which is a research by Trinh & Thanh (2005) on the ERP in the manufacturing industry with year 2003 as the reference period. One important finding is the calculation of author Trinh & Thanh (2005) also affirm the decreasing tendency of nominal rate of protection as long as effective rate of protection from year 1997, especially in two sectors Agriculture and Industrial.

Other important contribution of author Trinh & Thanh (2005) is they calculated the output multiplier and the backward linkage, two important indicators that show the degrees of interdependencies between sectors in the production process. The interesting issue is the result concluded from all these calculations is quite close to the comments by Athukorala (2006) that *“Vietnam has a tendency to protect any industrial sector but do not have the focused protection policy for the sectors which most influence the economy”*.

The most important type of trade restriction is the tariff. A tariff is a tax or duty levied on the traded goods as they cross a national boundary. An import tariff is a duty

² www.mof.gov.vn

³ Report of Institute of Economic-IDRC/CIDA project “Trade liberalization and Competitiveness of selected Manufacturing of Vietnam” Hanoi, November 2001

on the imported commodity. Very often, a nation imports a raw material free of tax or imposes a lower tariff rate (nominal tariff) on the importation of the input, than on importation of the final commodity produced with the imported input.

The nation usually does this in order to protect the domestic producers, to encourage domestic processing and employment. But very most often, nominal import tariff fail to measure the degree of protection actually received by domestic producers. This is because protection depends not only on the nominal rates imposed on the final product itself, but also on any taxes or subsidies placed on inputs. When an import-competing industry utilizes intermediate products imported from outside, the precise degree of protection is captured by the effective rate of protection accorded to value added in production, not the nominal rate imposed on the finished product.

While the nominal tariff rate is important to the consumers because it indicates how much the price of the final commodity increases as a result of the tariff, the effective rate of protection is actually provided by the domestic processing of the import-competing goods.

II. METHODOLOGY

1. Definition

The effective rate of protection (ERP) is an indicative measure of the impact of protection on producers. It gives the percentage increase in domestic value added over the free-trade level, an increase made possible by the country's tariff structure. Value added is the difference between the total value of goods produced and the value of imported inputs and represents the amount of money paid to the domestic factors of production: labor and capital.

In other words, ERP of product i is defined as the difference between its value added (per unit of output) at domestic price, (i.e., inclusive of tariffs on the finished product and the intermediate inputs) and its corresponding value added at world price (i.e., price prevailing under free trade).

2. Calculation

The ERP is usually calculated by the following formula:

$$e_j = \frac{V(do)_j - V(fo)_j}{V(fo)_j} \quad (1)$$

where: $V(do)_j$ is industry j 's value added at domestic price

$V(fo)_j$ is industry j 's value added at world price

e_j is the effective rate of protection of industry (good) j

$V(do)_j$ and $V(fo)_j$ can be obtained from formulae:

$$V(fo)_j = p_j(1 - \sum a_i) \quad (2)$$

$$V(do)_j = p_j[(1 + t_j) - \sum a_{ij}(1 + t_i)] \quad (3)$$

where: t_j is nominal rate of protection on good j

t_i is nominal rate of protection on good i , calculated as weighted average of import duty

a_{ij} is the ratio of the cost of imported input i to the price of commodity j net of tariffs

Substituting equations (2) and (3) into equation (1) and simplifying, we obtain equation (4):

$$e_j = \frac{t_j - \sum_{i=1}^n a_{ij}t_i}{1 - \sum_{i=1}^n a_{ij}}$$

From equation (4), there are 3 parameters to be identified and measured: a_{ij} , t_i and t_j

3. Determination of a_{ij}

Parameter a_{ij} can be calculated from the input-output table used in this study (see Annex 1, 2).

An Input – Output (I-O) relationship for an economy can be expressed in matrix form as:

$$X = A.X + Y \quad \text{or} \quad X = (I - A)^{-1}.Y \quad (5)$$

in which:

X : an $n \times 1$ vector of gross output, with X_j being the gross output in each production sector;

A : an $n \times n$ technical coefficient matrix, where $a_{ij} = X_{ij} / X_j$, ($\sum X_i = \sum X_j$)

Y : an $n \times 1$ vector of final demands, with Y_j is total final demand for sector i ;

I : an identity matrix; and

$(I - A)^{-1}$: the Leontief inverse matrix.

There are two types of input-output tables: (1) competitive-import type and (2) noncompetitive-import type. In a competitive-import type of I-O table, inputs consist of domestic products and imported products. In the noncompetitive-import scheme, inputs are explicitly distinguished between domestically-produced and imported products. Thus, equation (5) is of the following form:

$$X = (I - A^d)^{-1} \cdot Y^d \quad (6)$$

where: A^d is a vector of intermediate consumption coefficients of domestic products, while Y^d denotes final demand of domestic products vector

In order to compare the effective rate of protection and backward and forward linkages, we define the following:

Backward and Forward Linkages

Linkages reflect the dependence of industries on one another in an economy and measure the potential stimulus that will be induced in other industries arising from an increase in activity in a particular industry. In essence, there are two types of linkages, namely, backward linkages and forward linkages.

A backward linkage is a measure of the relative importance of an industry as a user of inputs from the entire production system. It measures the output increases which will occur in industries which supply inputs to the industry concerned. A backward linkage can be computed as the ratio of the sum of the elements of a column of the Leontief inverse to the average of the whole system. This ratio is described by Rasmussen (1957) as the index of the power of dispersion, μ_j , and is defined mathematically as

$$\mu_j = \frac{\sum_{i=1}^n \ell_{ij}}{\frac{1}{n} \sum_{i=1}^n \sum_{j=1}^n \ell_{ij}} \quad (7)$$

where the ℓ_{ij} is the element of the Leontief inverse. The higher the value of μ_j , the stronger is the influence of production sector j as a user of intermediate inputs.

A forward linkage indicates the relative importance of an industry as a supplier of inputs to the entire production system. It measures the output increases which will occur in industries which use the inputs supplied by the industry concerned. A forward linkage can be expressed as the ratio of the sum of the elements along a row of the Leontief inverse to the average of the entire system. This ratio is described by Rasmussen (1957) as the index of sensitivity, μ_i , and is defined mathematically as

$$\mu_i = \frac{\sum_{j=1}^n \ell_{ij}}{\frac{1}{n} \sum_{i=1}^n \sum_{j=1}^n \ell_{ij}} \quad (8)$$

The higher the value of μ_i , the greater is the influence of production sector i as a supplier of intermediate inputs to the entire production system.

Determination of t_j and t_i

Ideally, determination of t_j and t_i should be based on nominal tariff rates, which could readily be obtained from the Customs Harmonized System (HS) of product classification. However, due to problems with Vietnam's classification system, product code in the HS could not be totally matched with ISIC industry classification system, and more so with the IO table product code. So, calculation of t_j and t_i were based mainly on the import duty collected from import activities and total import value in accordance with the IO table code. For this purpose a concordance was developed to link I-O industries with HS tariff lines based on the industry descriptions.

For calculating ERP, the data from the Competitive IO table could not reflect the essence of an economy, especially Vietnam's economy. Thus, the calculation was based on the input-output table at basic price that mirrors comprehensively the real perspective of an economy. An I-O table at basic price records inputs net of product taxes, which include, among others, import tariffs on products.

4. Interpretation of ERP

A positive ERP shows that returns to capital and labor are higher than they would have been in the absence of state intervention. It suggests that tariff protection and other elements of the trade regime if included, working through final product and input prices, have tended to expand the given industry.

A negative ERP can be interpreted in two different ways:

- the firm can be harmed by intervention or it would be better off under free trade regime.
- it would be worse off under free trade or the firm is so highly supported by state intervention.

5. Structure of ERP

Structure of ERP can be described as follows:

100% and above	=	extremely strongly protected
50%-99%	=	highly protected

0%-49%	=	protected
=< 0%	=	negative ERP

6. Subsidy

In reality, nominal import duty is not the most important tool for intervention of economic policies relating to production protection but other tools such as subsidies to production from government, quota, preferential credit and other preferential treatments are also equally important. If the information resources and budget are available, ERP could accurately be calculated as follows:

$$e_j = \frac{t_j + s_j(1+t_j) - \sum_{i=1}^n a_{ij}t_i}{1 - \sum_{i=1}^n a_{ij}}$$

where:

s_j : the subsidy to a unit of product j from government

If there is the quota of a product imposed on the input, it is possible to adjust t_j to be appropriate. Actually, it is difficult to value the problem.

The last point to regard is that protection could come to changes in exchange rate. Hence, protected sectors and non-protected sectors should be considered appropriately, but it is another problem.

Nevertheless, because of the shortage of information resources and budget, only import duty is used as an interventional tool in this case study.

III EMPIRICAL STUDY

The estimation of ERP is based on nominal rate of protection, and the intermediate import coefficient derived from the non-competitive IO table prepared by the GSO.

Figures 1 to 4 show the results of effective rate of protection (ERP) and nominal rate of protection (NRP) for the economy in general and for three aggregated sectors. The ERP and NRP in 2005 and 2006 were calculated based on the input structures of the 2005 IO table, while the ERP and NRP in 2007, 2008, and 2009 were calculated using input structures derived from the 2007 IO table.

Figure 1 shows that the NRP of Vietnam's economy appeared to have significantly declined after its WTO integration. While the economy's NRP, before its integration in WTO, was about 10% in 2005 and 11% in 2006, it has since then, after

becoming WTO member, dropped to 3.25% in 2007 and 3.88% in 2009. Quite more alarming is that ERP has decreased more rapidly than NRP. Results show that, after WTO integration, the ERP of Vietnam's economy has quickly shrunk to 2.35% in 2007 and 4% in 2009 from a high of 21.4% in 2005 and 20.4% in 2006, as can be observed in Figure 1.

The above finding could be explained by the continuing surge in the share of imported inputs in production after Vietnam became a fully-open economy through its WTO integration, as can be observed in Appendix 1. The 2007 IO table, as the basis for calculating ERP, shows that imported inputs accounted for a record high 40% of total intermediate inputs, thus reducing the economy's ERP. In the manufacturing sector, which is the biggest user of imported inputs, its production structure has been declining and, therefore, value added has been shrinking. While in year 2000, its value added per output was about 33%, in 2009 it was estimated to be about 21% only (see Appendix 2). In short, ERP in manufacturing appeared to be the major victim of WTO integration.

In comparison with other countries in the region, the average ERP and NRP for manufacturing sector in Vietnam was, in some time, relatively higher than some countries. In the period 1995 –1997, the ERP in Indonesia was about 25%, in South Korea – 27%, in Malaysia – 13%, in the Philippines – 10%, in Thailand – 7%.

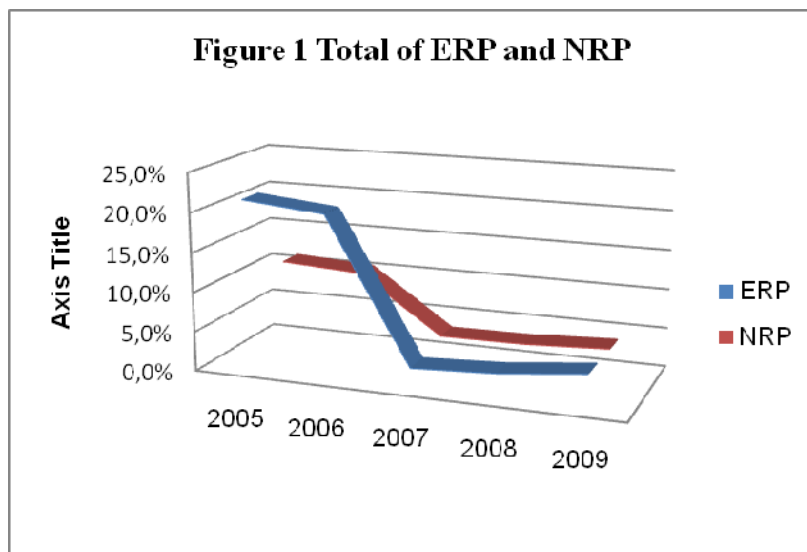


Figure 2 shows the ERP and NRP of the agriculture, fishery and forestry group sectors. With 70% of the population of Vietnam belonging to the rural areas, it can easily be deduced that only the agriculture sectors group could have the competitive capability. But, due to unreasonable NRPs on output and input of these sectors, the

competitiveness of this group with the rest of the world is lost. The ERP of agriculture sectors group is reduced because almost intermediate inputs are imported wherein tariffs are higher than the tariff on output

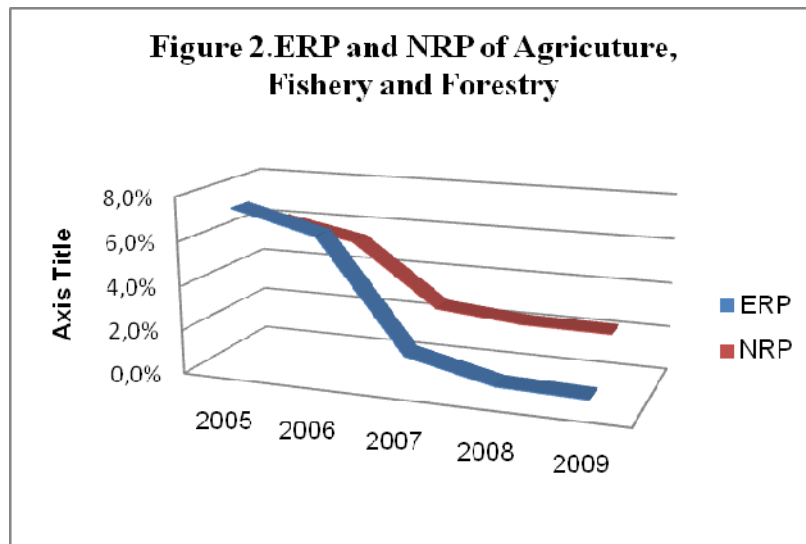
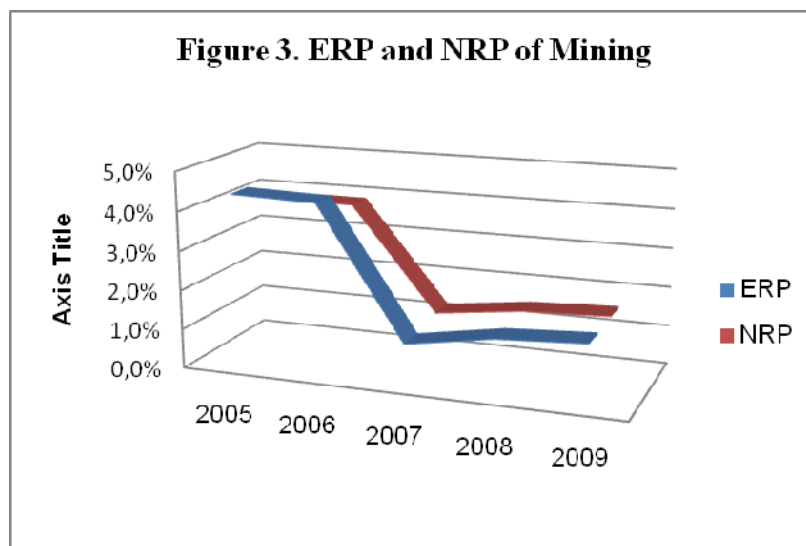


Figure 3 shows the ERP and NRP of the mining sectors group. From 2005-2009, the group's ERP decreased more quickly than its NRP. In 2009, its NRP went down to 1.55% from 3.9% in 2005, while its ERP drastically dropped to 1.52% from 4.4% in 2005.



The evolution of ERP for manufacturing sector shows a substantive decline in simple average from 40.4% in 2005 to 2.17% in 2008, and 2.09% in 2003. The same tendency is observed in the case of NRP. NRP has dropped during the same period from 19.5% to 3.50% and 3.48%. A comparison of ERP and NRP shows that this

decline has come predominantly from changes in input tariffs as tariffs on final goods have changed only very lightly over this period

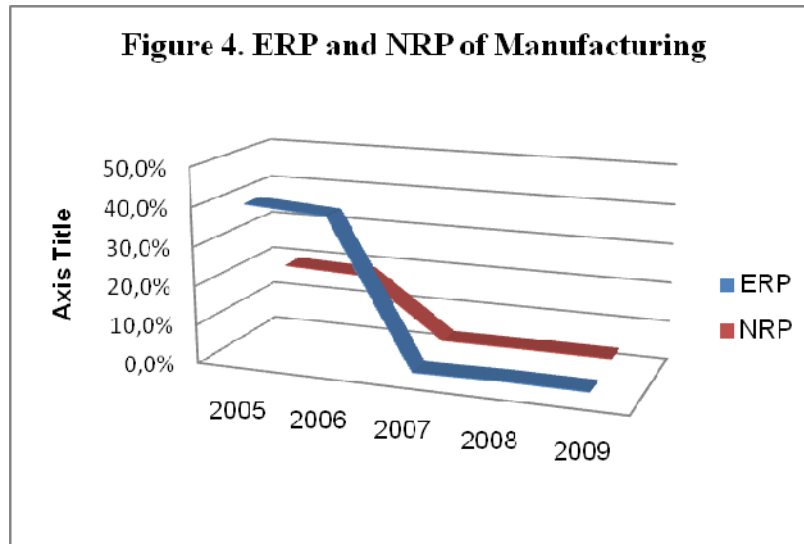


Table 1 shows the ERP value of 82 different sector of Vietnam's economy including agriculture, mining and manufacturing which were calculated from 2009 data. The data shows the differences between ERP and NRP of Vietnam economy in 2009.

The table shows that, on the average, the degree of protection observed in manufacturing is higher than the other two sector groups, both nominal and effective rate.

Table 1. Nominal and effective rate of protection on Vietnam's industries, 2009

Code Sector	Sector	ERP (%)	NRP (%)
	<i>I. Agriculture and Fishery and Forestry</i>	0,518	2,194
1	Paddy (all kinds)	12,989	8,595
2	Sugarcane	-2,129	0,000
3	other crops	6,067	3,673
4	Raw rubber	-3,195	1,030
5	coffee beans	8,085	8,664
6	tea, processed (all kinds)	34,381	25,140
7	other perennial plants	-6,999	1,684
8	buffaloes, cows	-1,203	0,000
9	Pigs	-13,104	0,000

10	Poultry	-5,126	0,000
11	Other livestock and poultry, n.e.c,	4,061	2,483
12	round timber	-0,746	0,078
13	other forestry products; forestry service, planting tree	-0,050	0,357
14	fishery	20,060	8,942
15	fish farming	28,401	8,296
	II. Mining and Quarrying	1,516	1,551
16	Coal mining	3,036	2,075
17	crude oil	11,712	10,637
18	natural gas	1,005	1,425
19	Stone, sand, gravel, clay	0,952	1,267
20	other none-metallic minerals	0,527	1,073
	III. Manufacturing	2,094	3,476
22	Processed, preserved meat and by-products	29,478	5,440
23	Processed preserved fishery and by-products	34,547	9,595
24	Processed preserved fishery Vegetables and fruit	67,271	19,976
25	vegetable and animals oils and fats	17,757	7,028
26	milk and by-milk	26,587	12,585
27	Rice	19,355	7,658
28	Flour (all kinds)	-55,728	4,175
29		4,437	3,521
30	cocola, chocolate and candy, cake products from flour	203,550	31,305
31	processed coffee	51,951	32,118
32	Other remaining food(macaroni, my yarn and same products; processed food: spices, sauce, vinegar, ferment beer)	58,337	13,083
33	animal feed	-59,182	1,927
34	Alcohol	192,587	57,000
35	Beer	0,315	3,646
36	Non-alcohol water and soft drinks	80,899	25,755
37	Cigarettes	268,561	51,000
38	Fiber (all kinds)	8,623	3,730
39	Textile products (all kinds)	31,863	7,177

40	costume (all kinds)	-1,044	3,814
41	leather, preliminary processed fur, suitcase, bags, saddle and other same kinds)	1,109	1,923
42	shoes, sandal (all kinds)	17,364	9,588
43	Processed wood and by-wood products	0,971	1,152
44	Paper and by-paper products	8,028	3,837
45	Products of printing activities	10,077	4,988
46	Coke coal and other by-product cokes	0,638	1,044
47	Gasoline, lubricants	-0,909	2,797
48	Other products extracting from oil gas	-16,548	1,612
49	Basic organic chemicals	-4,032	0,564
50	Fertilizer and nitrogen compound	-0,946	1,007
51	Plastic and primary synthetic rubber	-1,250	0,632
52	Other chemical products; man-made fibers	8,978	3,502
53	medicine, chemical prophylaxis and pharmacy	8,478	4,882
54	by-product rubber	2,669	2,364
55	by-product plastic	-0,453	0,273
56	Glass and by-product glass	10,112	6,348
57	cements	11,131	5,357
58	Other non-metallic mineral products	9,764	5,679
59	Iron, steel, iron	2,345	2,319
60	Other metal products	1,041	1,944
61	electronic device, computer and peripheral	15,377	1,220
62	machinery & equipment used for broadcasting ,television and information activities.	8,575	4,152
63	electrical household appliance	6,885	1,219
64	other electronic products and optical products	2,048	1,885
65	motor, electric generator, power transformers	4,847	3,646
66	cell and battery	-0,853	0,015
67	electric conductor	-0,580	0,020
68	electric light equipment	6,684	3,542
69	consumer electronic equipment(refrigerator, dishwasher, washing machine, dust allayer)	136,268	28,534
70	Other electric equipments	33,608	6,667

71	general-purpose machinery	6,027	3,730
72	special-purpose machinery	0,774	1,993
73	cars (all kinds)	7,593	4,476
74	Car engines with tractor (except automotive)	39,760	11,991
75	Ships and boats	7,901	3,324
76	motor vehicles, motor bikes	86,224	25,540
77	other transport means	-9,629	1,049
78	Bed, cabinet, tables, chairs	27,641	13,338
79	Jewelry, false jewelry and related details; musical instrument; fit tools , sports, toys, games	3,608	2,927
80	medical equipments, dental, Orthopedics and rehabilitation	0,417	0,701
81	Other processed industrial products, repair service and equipment and machinery maintenance	8,614	6,380
82	Electric transmission services	-0,635	0,336
	Total	4,089	3,876

Structure and scale of protection

The structure of protection for manufacturing sector can be arranged into four groups (Table 2).

The first group covers 4 sectors (6%), which enjoy extremely high degree of protection (above 100%). This group includes Cigarettes; cocoa, chocolate and candy, cake productions from flour; Alcohol (all kinds) and Consumer electronic equipment (refrigerator, dishwasher, washing machine, dust allayer). These sectors also have the index of the power of dispersion higher than the average of Vietnam's economy.

There are 5 sectors belonging to the second group (highly protected). Most of them also have backward linkages greater than unity; only processed coffee sector has the index of the power of dispersion smaller level of average of Vietnam economy. It implies that can reduce nominal tariff of this sector and increasing nominal tariff of intermediate goods for reasonable.

51 products (60% of manufacturing sector) being lowly protected include in third group. Some sectors have backward linkages to be very high such as: Other livestock and poultry, n.e.c has BL = 1,22; leather, preliminary processed fur, suitcase, bags, saddle and other same kinds has the BL = 1.30; Other metal products has the BL = 1.57 and special-purpose machinery has BL = 1.54. The effective rate of protection

is getting smaller than nominal rate of protection, thus the number of products in this has seemed to be slowly increasing since the period 2003-2005.

The table 2 also shows the negative ERP for many other industries sectors (21). Many sectors in this group has the backward linkage higher than level of average of Vietnam economy but they seem not protected such as: The backward linkage of Gasoline, lubricants, Fertilizer and nitrogen compound, costume (all kinds), Plastic and primary synthetic rubber, Basic organic chemicals, Poultry, other transport means, Pigs, Other products extracting from oil gas, Flour (all kinds), animal feed are ordering 1.51; 1.44; 1.42; 1.27; 1.41; 1.24; 1.35; 1.39; 1.58; 1.21; 1.40 while the effective rate of protection are ordering -0.91, -0.95, -1.04, -1.25, -4.03, -5.13, -9.63, -13.10, -16.55, -55.73 and -59.68.

Table 2. Effective rate of protection on Vietnam's industries, 2009

I/O Code	Manufacturing sector	ERP (%)	Level of protection	Backward Linkage of non-competitive import scheme
37	Cigarettes	268,561	Extremely highly protected	1,183
30	cocoa, chocolate and candy, cake products from flour	203,550	> 100%	1,316
34	Alcohol	192,587		1,079
69	consumer electronic equipment(refrigerator, dishwasher, washing machine, dust allayer)	136,268		1,470
76	motor vehicles, motor bikes	86,224	Highly protected	1,300
36	Non-alcohol water and soft drinks	80,899	>50%	1,083
24	Processed preserved fishery Vegetables and fruit	67,271		1,324
32	Other remaining food(macaroni, my yarn and same products; processed food: spices, sauce, vinegar, ferment beer)	58,337		1,299
31	processed coffee	51,951		0,816
74	Car engines with tractor (except automotive)	39,760	Protected	1,268
23	Processed preserved fishery and by-products	34,547	> 0%	1,504
6	tea, processed (all kinds)	34,381		0,750

70	Other electric equipments	33,608		1,270
39	Textile products (all kinds)	31,863		1,457
22	Processed, preserved meat and by-products	29,478		1,515
15	fish farming	28,401		1,354
78	Bed, cabinet, tables, chairs	27,641		0,904
26	milk and by-milk	26,587		1,104
14	fishery	20,060		1,217
27	Rice	19,355		1,177
25	vegetable and animals oils and fats	17,757		1,965
42	shoes, sandal (all kinds)	17,364		1,047
61	electronic device, computer and peripheral	15,377		1,335
1	Paddy (all kinds)	12,989		0,806
17	crude oil	11,712		0,696
57	cements	11,131		1,059
56	Glass and by-product glass	10,112		0,936
45	Products of printing activities	10,077		1,154
58	Other non-metallic mineral products	9,764		0,955
52	Other chemical products; man-made fibers	8,978		1,282
38	Fiber (all kinds)	8,623		1,477
81	Other processed industrial products, repair service and equipment and machinery maintenance	8,614		0,791
62	machinery & equipment used for broadcasting ,television and information activities.	8,575		0,919
53	medicine, chemical prophylaxis and pharmacy	8,478		1,054
5	coffee beans	8,085		0,979
44	Paper and by-paper products	8,028		1,233

75	Ships and boats	7,901		1,507
73	cars (all kinds)	7,593		1,345
63	electrical household appliance	6,885		1,421
68	electric light equipment	6,684		1,232
3	other crops	6,067		0,984
71	general-purpose machinery	6,027		1,061
65	motor, electric generator, power transformers	4,847		0,707
29	Sugar	4,437		1,113
11	Other livestock and poultry, n.e.c,	4,061		1,219
79	Jewelry, false jewelry and related details; musical instrument; fit tools , sports, toys, games	3,608		0,941
16	Coal mining	3,036		1,135
54	by-product rubber	2,669		0,728
59	Iron, steel, iron	2,345		1,771
64	other electronic products and optical products	2,048		0,776
41	leather, preliminary processed fur, suitcase, bags, saddle and other same kinds)	1,109		1,303
60	Other metal products	1,041		1,572
18	natural gas	1,005		0,862
43	Processed wood and by-wood products	0,971		0,993
19	Stone, sand, gravel, clay	0,952		0,859
72	special-purpose machinery	0,774		1,539
46	Coke coal and other by-product cokes	0,638		0,807
20	other none-metallic minerals	0,527		0,809
80	medical equipments, dental, Orthopedics and rehabilitation	0,417		0,730
35	Beer	0,315		1,111

13	other forestry products; forestry service, planting tree	-0,050	Negative ERP	0,702
55	by-product plastic	-0,453	< 0%	1,004
67	electric conductor	-0,580		0,754
82	Electric transmission services	-0,635		0,671
12	round timber	-0,746		0,854
66	cell and battery	-0,853		0,721
47	Gasoline, lubricants	-0,909		1,511
50	Fertilizer and nitrogen compound	-0,946		1,441
40	costume (all kinds)	-1,044		1,415
8	buffaloes, cows	-1,203		0,820
51	Plastic and primary synthetic rubber	-1,250		1,271
2	Sugarcane	-2,129		0,912
4	Raw rubber	-3,195		0,725
49	Basic organic chemicals	-4,032		1,410
10	Poultry	-5,126		1,241
7	other perennial plants	-6,999		0,947
77	other transport means	-9,629		1,353
9	Pigs	-13,104		1,393
48	Other products extracting from oil gas	-16,548		1,580
28	Flour (all kinds)	-55,728		1,213
33	animal feed	-59,182		1,399

IV. Conclusions and Policy recommendation

When becoming a member of WTO in 2007, Vietnam Government diligently reduced the nominal rate of protection and effective rate of protection quickly and also did the same for agriculture industry that is very indispensable. Therefore, in some

recent years, Vietnam's economy almost became an open economy, the impact of this issue causes effective rate of protection lower at the following production cycle. That is because most of the input materials were imported, including agriculture products; which was the strong point before but many other products became strong competitors as of now.

The process of reducing tariff can be said to be quite unsystematically and randomly done because it only examine tariff reduction, which is the focus to execute the integration commitment, but did not consider looking at the effective rate of protection for manufacturing. This system leads to high index of power of dispersion which actually results in low, or even negative, protection rates. The consequence is it affected badly to the positive impact of the result of integration.

So, we can see that industries which have competitive advantage before will likely lose the competition power gradually as the result of excess of imports over exports. The end result would be a more pronounced trade balance deficit that could be critical to the economy.

Proposal/Recommendation

+ Consider the effective rate of production with sectors which have high pervasive rate to the economy, in the range that can be actively adjusted, especially agriculture sectors and other labor-intensive sectors.

+ Change tariff rates in the direction that rates for imported products for manufacturing are reduced and keeping the tax rate for sectors having strong effect to other sectors and industries that have the competitive advantage to the national economy.

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Appendix 1.

EXPORT AND IMPORT

	Total	If Which		Balancing	Growth
		Export	Emport		
	Million USD				
2004	58453,8	26485,0	31968,8	-5483,8	
2005	69208,2	32447,1	36761,1	-4314,0	-78,67%
2006	84717,3	39826,2	44891,1	-5064,9	-117,41%
2007	111326,1	48561,4	62764,7	-14203,3	-280,43%
Sơ bộ					
2008	143398,9	62685,1	80713,8	-18028,7	-126,93%

Source: Vietnam General Statistics Office

Appendix 2.

The Value added change

