

ANALYSIS OF THE PROTECTION OF AGRICULTURE AND FISHERY SECTORS

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Abstract: In 2007, Vietnam became a member of the World Trade Organization (WTO), entered the “global” playing field, multilateral and bilateral free trade agreements with major partners were officially signed. In order to increase the competitiveness of domestic goods, the Government needs to have reasonable supporting policies to protect domestic production. This study considers the change in the reciprocal influence of agriculture, forestry and fishery sectors on other economic sectors, and assesses protection policies for agriculture, forestry and fishery over two years and estimate the level of protection for this sector under the tariff reduction roadmap by 2020.

Keywords: Agriculture, fisheries, growth, economy.

1. Introduction

Over the recent years, along with GDP growth, the economic structure has changed significantly in a positive way. The proportion of agriculture, forestry and fishery industries decreased rapidly, from 18.4% in 2010 to 15.3% in 2017; The

proportion of the industry and construction increased slightly; The proportion of the service sector increased significantly (Table 1). This proves a progressive trend, which is suitable with the trend of restructuring, contributing to improving the quality and efficiency of the economy.

Table 1. Structures of three economic sectors and product tax in GDP¹, %

Year	Total	Agriculture, forestry and fishery	Industry and construction	Services	Product taxes subtract product benefits
2010	100.00	18.38	32.13	36.94	12.55
2011	100.00	19.57	32.24	36.73	11.46
2012	100.00	19.22	33.56	37.27	9.95
2013	100.00	17.96	33.19	38.74	10.11
2014	100.00	17.70	33.21	39.04	10.05
2015	100.00	17.00	33.25	39.73	10.02
2016	100.00	16.32	32.72	40.92	10.04
Preliminary 2017	100.00	15.30	33.30	41.40	10.00

Source: General Statistics Office

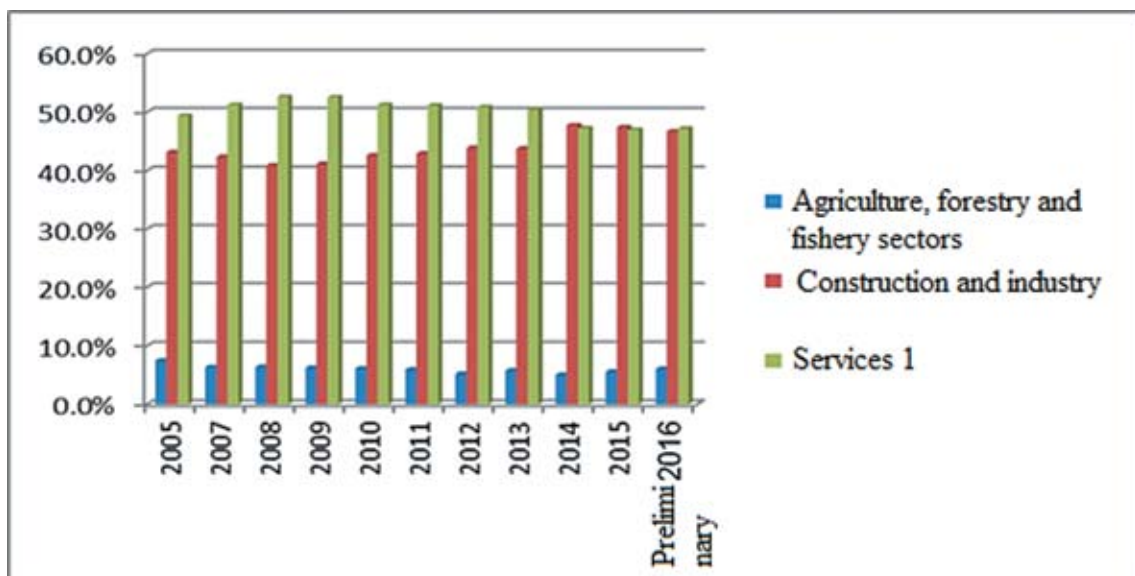
¹ Since 2010, the General Department of Statistics has changed the way of publishing data to bring product tax out of value added, so that it can only be compared compatibly from 2010 onwards.

In order to have the economic restructure towards industrialization and modernization, for the recent years the State has focused more resources on industry, construction and services. The agriculture, forestry and fishery sectors have been invested, in spite of a very limited ratio: in 2005, it accounted for about 8% of the total social investment capital. By 2017, this ratio was only

about 6%, while investment in industry, construction and services accounted for 47% of the total social investment.

In principle, it is necessary to identify key sectors to prioritize investment, in order to use resources appropriately and to create incentives for the prioritized sectors to show their roles in promoting growth of the whole economy.

Figure 1. Proportion of investment capital of three economic sectors in the total social investment , %



Source: General Statistics Office

Studies on the structure of Vietnam's economy, on the direct, indirect and spreading effects of the whole economy or a group of industries on an interdisciplinary balance sheet were conducted by Kwang MK, Bui Trinh, Kaneko F., Secretaria T. (2007); Bui Trinh, Kiyoshi Kobayashi, Vu Trung Dien (2011); Nguyen Phuong Thao (2015). Because of the importance and influence of the key sectors to the economy, it is necessary to have effective protection policies for the key sectors. The concept of Effective Rate of Protection (ERP) is used as a measure of the proportion

of added value of domestic production when it is protected by tariffs against added value of domestic production when unprotected. The theoretical framework, proposed in 1966 by Corden, was based on an interdisciplinary balance sheet and continued to be researched by other economists such as: Melzer (1980), Stevens (1995), Bui Trinh and Kobayashi (2011), Nguyen Bich Lam, Bui Trinh and Nguyen Viet Phong (2013). The studies on protection in the prior period to 2012 indicated that Vietnam did not really protect any sector.

Over the recent years, Vietnam has been deeply integrated with multilateral and bilateral free trade agreements. The problem needing to be solved by the policymakers is how Vietnam's policies can adapt to the integration process while important sectors are still protected by effective protection rates. This study examines the effectiveness of Vietnam's protection policies in 2012 and 2016 and provides a scenario in the direction of Vietnam's integration, with the focus on protection policies for agriculture, forestry, and fishery sectors.

2. Research results

a) Key sectors of Vietnam

Figure 1 shows that investment in industry, construction and service sectors accounts for a large proportion of the total social investment. Is it truth that in these sectors actually motivate the development of other sectors? Through the coefficients, such as the spreading coefficient, high sensitivity and low import coefficients, the sectors with positive impacts on the economy are identifiable.

The calculated results from the I/O tables - 2016 are similar to the I/O results in 2012 (Table 1). Table I/O 2012 shows the structure of the period of 2008-2013 and the table of I/O 2016 shows the structure of the period of 2013-2018. It can be seen that the structure of the economy hardly changed much over the period of past 10 years. Small groups in the agriculture, forestry and fishery areas with a spreading/ sensitivity coefficient > 1 all have low import stimulation coefficients and high pervasive coefficient of added value. Many groups in the industry sector have high spreading coefficients (7/14 small groups in the

industry sector have spreading coefficient > 1), but these industries are low in spreading coefficient to value added and high import stimulation. It shows that this is a large group of machining groups, the more it grows, the more it imports. The service sector does not have large spreading and stimulating coefficient to the economy, but many small groups have good spreading coefficient to added value.

Only 2 out of 11 small groups in the agriculture, forestry and fishery sectors (Table 2) have greater spreading level to the economy than the average one: livestock and aquaculture products. But only the aquaculture sectors has a smaller spreading coefficient to imports than the average level and higher spreading level to the added value than the average one. Livestock products have a good spreading level, but the spreading level to imports is higher than the average level.

Some inputs of agriculture, forestry and fishery sectors such as food for cattle, poultry and aquaculture; fertilizers and nitrogen compounds; pesticides and other chemical products used in agriculture have a relatively low spreading level to added value (Table 1). This may be due to the tax policy for these economic sectors. The input sectors of agriculture, forestry and fishery sectors are not taxed VAT, that is, these sectors are not deducted input VAT, thereby leading to the fact that intermediary costs cannot be decreased while the value added are being more and more decreased. Is this possibly the reason why some sectors have high spreading level to the economy, but the producers have to face difficulties?

Table 2. Sensitivity, spreading coefficient and spreading coefficient to added value, spreading coefficient to import in 2012 and 2016

TT	Name of product industry	2012				2016			
		Sensitivity	Spreading coefficient	SCAV ²	SCI ³	Sensitivity	Spreading coefficient	SCAV	SCI
1	Annual tree products	2.252	0.943	1.105	0.747	2.072	0.944	1.097	0.822
2	Perennial products	1.002	0.890	1.106	0.744	0.923	0.909	1.098	0.819
3	Livestock products	1.374	1.522	0.912	1.212	1.241	1.459	0.924	1.140
4	Agricultural services	0.834	0.948	1.110	0.736	0.682	0.954	1.093	0.828
5	Other agricultural products not classified in any other category	0,587	0.657	1.123	0.704	0.527	0.633	1.074	0.863
6	Afforestation and tending forest products	0.605	0.802	1.163	0.609	1.301	0.885	1.335	0.381
7	Timber extraction	0.588	0.658	0.609	1.939	0.632	0.713	0.727	1.504
8	Other exploited forest products; collected products from forests	0,629	0,737	1,247	0,405	0,557	0,796	1,295	0,456
9	Forestry services	0,669	0,708	1,157	0,622	0,514	0,751	1,212	0,610
10	Exploiting aquatic products	0,739	0,934	0,719	1,677	0,668	0,941	0,734	1,491
11	Aquaculture products	1,063	1,323	0,985	1,036	1,036	1,312	1,010	0,981

Source: Calculated from I/O tables 2012 and 2016

The calculation also shows that the agriculture, forestry and fishery sectors have larger stimulating level to the remaining sectors than the level that other sectors stimulate to these sectors (Table 4); On average, the increase production by one unit in agriculture, forestry and fishery sectors will stimulate other sectors to rise by 0.43 units; while other sectors increase by one unit only stimulate this group to go up by 0.16 units. The group of crops, livestock, and fishery sectors has the highest stimulating level to the economy. In the opposite direction, processed and preserved meat and products processed from meat (sector 13), seafood and products from processed and preserved seafood (sector 14), processed vegetables and fruits (sector 15), products from milling and

producing flour (industry 17), animal feed, poultry and aquatic products (sector 18), products made from wood and bamboo (including beds, wardrobes, tables, chairs), from straw, stubble, and plaiting materials (sector 19) have the largest spreading level to agriculture, forestry and fishery sectors.

In order to respond to the increase by a unit in production of 25 sectors in the economy, it is necessary to have the greatest response from annual crop production, followed by the livestock sector and the third by aquaculture (Table 5). On the other hand, to increase an output unit of 11 sectors of agriculture, forestry and fishery, the demands for output of 25 sectors show that the group of animal feed, poultry and aquaculture; chemical fertilizers, nitrogen compounds are the two largest input groups

² Spreading coefficient to Added Value (SCAV).

³ Spreading coefficient to import (SCI)

for agriculture, forestry and fisheries. The livestock and aquaculture product groups have a very high spreading level (Table 6). When the final demands increase, the output demands as production input for other sectors of these two industries are

the highest among the 11 agricultural, forestry and fishery groups surveyed in the model. Moreover, these two groups of sectors stimulated the strongest production compared to other sectors in Vietnam's economy.

Table 3. Spreading of the last demand of agriculture, forestry and fishery

	Final consumption	FC by household	FC by Government	Accumulation asset	Fixed AA	circulating AA	Exports of goods	Exports of services	Total exports
The spreading density from the demand of AFF to VA itself	0.091	0.100	0.000	0.046	0.016	0.178	0.053	0.000	0.048
The spreading density from the demand of AFF to VA in other industries	0.047	0.052	0.000	0.027	0.010	0.106	0.021	0.000	0.019
The spreading density from the demand of AFF to GVA nationwide	0.138	0.152	0.000	0.073	0.026	0.284	0.074	0.000	0.068

Source: Calculated from I/O tables, 2016

Table 3 shows that circulating assets (including short-term investments and household consumption demands) have highest spreading level to value-added of demand factors, while exports have the lowest spreading level to added value. This implies that demand management policies need to be directed towards the demand factors that have the highest spreading level to added value. Agricultural, forestry and aquatic products sold domestically get more profitable than export products but all of the policies are for export products, not for domestic ones. Is it possibly paradoxical?

b) The Assessment of protection of Vietnam's manufacturing sectors

Joining the WTO, Vietnamese goods have to face the competition with imported goods. In order to increase the competitiveness, besides factors such as quality, price and branding, Vietnam has

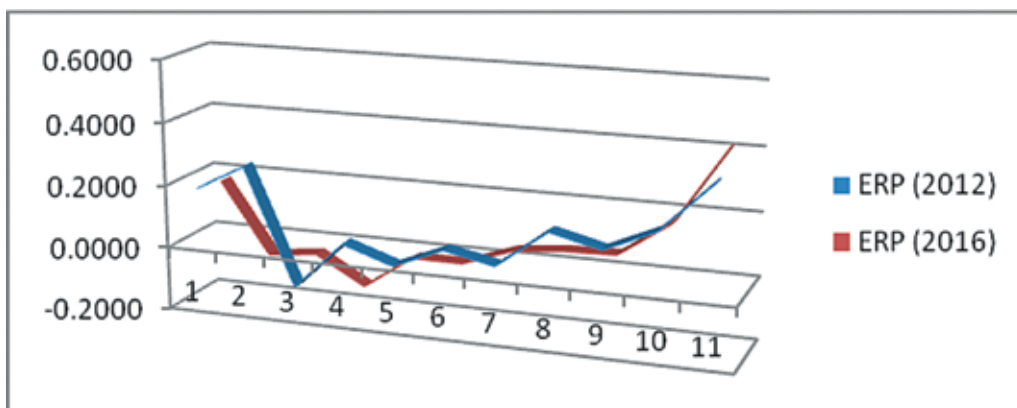
to pass the nominal protection policy to protect domestic production. Protection of domestic production is not only related to tariffs, but also to VAT, as the final increase in the price of goods is due to import duties and VAT. The effective protection rate is determined based on the added value when domestic goods manufactured using both domestic and imported products as input ones. However, the calculation formula (32) indicates that taxes are not the only factor that enhances domestic protection; Factors to reduce input costs for production such as technology, efficient use of resources, ... are also important.

The calculation (Table 2) shows that the strongest protected sectors (with $ERP > 1$) are outputs of agriculture, forestry and fishery sectors (products of processed and preserved meat and made of meat products; aquatic products and

products from processed and preserved seafood; processed vegetables and fruits). These sectors stimulates and spreads at low level to imports and value added. As a result, this sector have not used up the available material resources in the country, which are still mainly outsourced. The groups with $ERP < 0$ are in agriculture, forestry and fishery production sectors and the input industries serving agricultural,

forestry and fishery activities (animal feed, poultry and aquatic products; fertilizer and nitrogen compounds). Despite being given priority for VAT exemption, in which animal husbandry is the most prioritized sector (exempt from VAT and the import tax rate for the input is 0%), the results of calculation on the non-competitive IO table of the year 2012 and 2016, the effective protection rate was still < 0 .

Figure 2. Effective protection rates for 11 agricultural, forestry and fishery sectors in 2012 and 2016

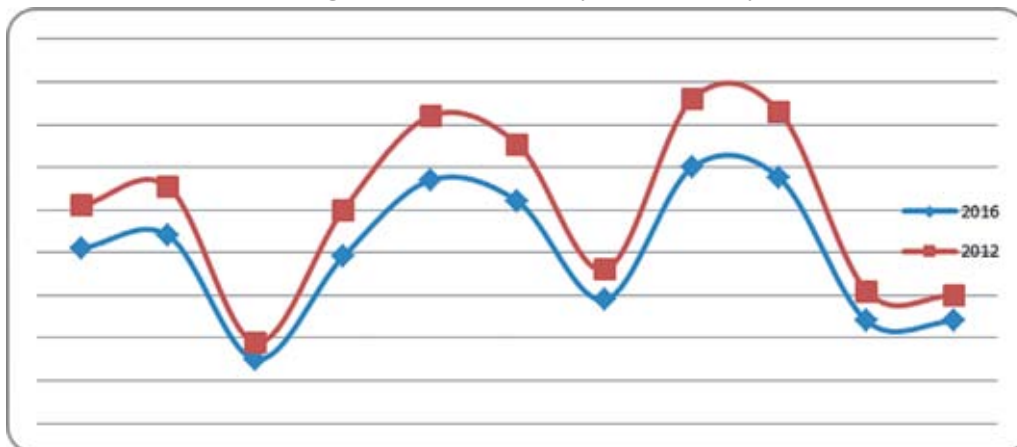


Source: Calculated from I/O tables in 2012 and 2016

In addition, the calculation results also show that effective protection for agricultural, forestry and fishery sectors has decreased not only due to protection

policies, but also due to the added value of these sectors in the which tend to decrease production value (Figure 3)

Figure 3. Proportion of added value compares to production value of some sectors of agriculture, forestry and fishery sectors



Source: Calculated from I/O tables in 2012 and 2016

3. Conclusions and recommendations

a) Conclusions

- Over the recent years, agricultural, forestry and fishery products, with almost no protection in production, have had a good spreading coefficient to added value. The protection is prioritized to industrial processing and manufacturing sectors, although these groups only machine products, and create a very low added value.

- The implementation of the tariff reduction roadmap in multilateral and bilateral trade agreements by 2020 will make effective protection rates for all agriculture, forestry, fishery and input sectors of these sectors are negative (Table 3). This could be disadvantages for farmers and end-consumers, and lead to increasingly misleading economic structures.

- The current economic structure of Vietnam is not reasonable when the tax policy has not increased the efficiency of agricultural, forestry and fishery products that need to be protected. In order to increase the added value of the economy, it is necessary to have a more reasonable economic structure and suitable tax policy.

- The calculation from the inter-sectorial balance sheet of Vietnam shows the fact that when the fertilizer industry is taxed at the rate of 5% VAT and taxation inputs are VAT deducted, this may lead to decrease from 3% to 4% in the production price of fertilizer group while the inputs of crop sector only decrease from 0.015 to 0.02%. Therefore, if the Government changes the fertilizer tax policy from zero to 5% VAT, the protection of the crop sector will not be changed much.

b) Recommendations

- For the inputs of agriculture, forestry and fishery sectors (animal feed, aquaculture; fertilizer; pesticides, ...), it is necessary to have reasonable protection policies to reduce costs; build technical standards barriers to restrict poor quality products that affect the environment;

- For the outputs of agriculture, forestry and fishery sectors (processing industry) which are at the top of the list of protected products, there should be encouraging policies on using domestic materials and restriction on the import of raw materials which are available in Vietnam;

- It is necessary to organize agriculture, forestry and fishery sectors in the direction of re-master-planning production areas; set standards for technical, quality, technology investment supports; create favorable conditions for strong linkages among producers, scientists, distributors and local governments; the output products meet all of the technical standards of the processing industry;

- The population of Vietnam accounts for 1.27% of the world's population, but Vietnam has prioritized exports for a long time and has neglected the domestic market. Cheap and low quality products, especially cheap and low quality food products imported from other countries to Vietnam, which are not protected by any barriers, are seriously affecting the health and quality of lives of Vietnamese people. Therefore, it is necessary to have promotion activities for agricultural, forestry and aquatic products to dominate the domestic market./.

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PHÂN TÍCH BẢO HỘ CỦA NGÀNH NÔNG NGHIỆP VÀ THỦY SẢN

Bùi Trinh *

Tóm tắt: Năm 2007, Việt Nam trở thành thành viên của Tổ chức Thương mại thế giới (WTO), bước vào sân chơi “toàn cầu”, các hiệp định tự do đa phương và song phương với các đối tác lớn chính thức được ký kết. Để tăng tính cạnh tranh của hàng hóa trong nước, Chính phủ cần phải có các chính sách hỗ trợ trong phạm vi cho phép để bảo vệ sản xuất trong nước. Nghiên cứu này xem xét sự thay đổi về mức độ ảnh hưởng qua lại của nhóm ngành nông, lâm, thủy sản đối với các nhóm ngành khác trong nền kinh tế, đồng thời đánh giá chính sách bảo hộ đối với ngành nông, lâm nghiệp và thủy sản qua hai năm và ước tính mức độ bảo hộ đối với nhóm ngành này theo lộ trình cắt giảm thuế quan đến năm 2020.

Từ khóa: Nông nghiệp, thủy sản, tăng trưởng, kinh tế.

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