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### Identification of Competitive Advantage in the Agricultural Sector of Iran based on the Index of the **Stable Share of the Market**

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#### Abstract

The goal of this study is to identify the potential export capacity of Iran based on the competitive advantage in the agricultural sector. Moreover, the potential export capacity of selected agricultural products (wheat, lentil, potato, onion, soybean, cotton, peas, and corn) has been studied using the competitive advantage index. The findings of the study show that, considering the separation effect and the net effects of the stable market share index as the competitive advantage index, this index has been negative for the major agricultural products of Iran. Moreover, this index has had a downward trend in recent years, which shows the decrease in competitive advantage. However, although Iran has to some extent lost its competitive advantage, it still has competitive advantage in most of its agricultural products.

Keywords: Competitive Advantage, Agricultural Sector, Market Share Index, Economy of Iran

#### Introduction

Considering that among the economic sectors of each country the agricultural sector is of great importance, export development and identification of potential export capacity are the driving force of economic growth in trade. Moreover, governments have always paid close attention to the policy of expansion of trade in this sector and its development process, and they have been of the important factors in the planning of countries. On the other hand, in order to reach this goal countries have tried to evaluate their capabilities, facilities, and manufacturing structures. Expansion of trade ties and increasing agricultural export is inevitably necessary for the economy of Iran. One of the important factors in determining strategies is to have advantage over others; to have the ability to produce and export goods of the highest quality with the best price. In this respect, Iran must also have more coherent programs in order to increase its export/import ratio. Factors effective in the competitive advantage and its shaping factors in the domestic and

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international dimensions, creating a competitive environment, and national competitive advantage, ways to sustain this advantage, and understanding factors threatening it are important elements discussed in the competitive marketing strategy. Moreover, considering national and foreign agricultural products (grain products in this project) based on price, supply, and demand the advantages index can be calculated for Iran; and thus can identify the potential capacities and decrease the existing concerns. The goal of this study was to identify the potential export capacities of Iran based on the competitive advantage in the agricultural sector (for the selected agricultural products) and by considering the prevailing conditions of the country.

#### **Literature and Previous Research**

#### The Benefits of the Competitive Advantage

One of the most important resources of the competitive advantage of each country has been the efficiency of products and services. All cases, due to the sensitivity of the products flexibility, must be correctly used in order to increase the productivity(efficiency) of the products for the competitive advantage.

Of the other resources of this advantage in the exporting sector of countries, during the manufacturing process, are access to inexpensive and abundant labour force, and the technological developments and foreign investments; which are the competition between companies and countries on prices and attracting customers. Therefore, the status of a country depends on identifying its own structure and capacity. Moreover, by creating circumstances for competitive performance, consistent with governmental guidelines, they can specialize in global trade, which is one the new factors in the competitive advantage of the globalization opportunities of the government and firm. Porter has studied the terms of this factor in relevant inputs and economic agents. Today, economical and virtual competitiveness are increasing and trade limitations of markets have decreased, and advances have caused an increase in competitiveness of industries of the Philippines" by Devis and Eranica, and "Understanding the trade pattern the automotive industry and its parts in the NAESA countries in the first half of the 1990s" by Enass and OsouyekH.<sup>1,2</sup>

Daloum, in a study titled "Patterns of export specialization of the European Union countries", has studied the relative advantage by the Balassa RCA method, and then made them symmetrical and has used Galton's regression model.<sup>3</sup> Skamasterneko, in a study titled "The competitive advantage of products in Ukraine", has studied the competitive advantage using the revealed relative index. The results of this study have shown that among the products in 2004 drinks had the most(highest) competitive advantage. However, in years previous to 2004 Iron and steel had the most(highest) competitive advantage. In this study Galton's regression model was used in order to evaluate dynamism and competitive advantage, and trade patterns from 1992 to 2005. The result of this study showed that the trend of competitive advantage of Ukrainian products has been negative and low.

Another research on market orientation by Sink and Renchehrd has studied the relationship between market orientation and business performance in the machine tool industry of Britain. The results of this study have shown that customer orientation and competitor orientation have an important and positive effect on business performance. Furthermore, the customer

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satisfaction has an important effect on this performance.<sup>5</sup> Zhou et al. have studied the effect of customer value on market orientation of the company and as a result the competitive advantage and company performance.<sup>6</sup> This study has been performed in the global industry of hotel services. 557 hotels of the global hotel club members were randomly chosen and the questionnaires were sent to their CEOs. 148 questionnaires were completed. The results showed that customer value was divided into the two dimensions of services and emphasis on price. Moreover, competitive advantage has been divided into the two dimensions of innovation and market differentiation. The customer value has affected the orientation of the company, and emphasis on service as caused increase in customer orientation and competitor orientation.<sup>6</sup> Hironen has studied the relationship between organizational performance, customer-focused strategies, performance measurement, and information technology. He has stated that customer-focused strategy is consistent with Porter's product differentiation strategy.<sup>7</sup> Mir, with the classification of the advantage views based on the level of development of countries, believes that relative advantage has a ladder of progress which most countries climb. Underdeveloped countries act based on relative (natural) advantage, newly industrialized countries on acquired or dynamic advantage, and developed countries based on competitive advantage.<sup>8</sup> Sigle has theoretically studied competitive capacity, and has provided some indices for it and a framework for measuring competitive capacity and its constituent resources through economic and mathematical relations.<sup>9</sup> In 1995 Sigle and koukebern studied the various aspects of competitive capacity and provided indices for it.<sup>10</sup> Moreover, in 1997 they used their method to evaluate the industrial competitive capacity of Mali and Ivory coast, which is Mali's most important rival, and to compare them. A study titled "The impacts of Vietnam's accession to the World Trade Organization" the competitiveness of products were measured using the RCA index. Moreover, in another study "The impacts of China's accession to the World Trade Organization" were evaluated using the same index. China is moving toward producing high-tech products, while its neighbouring countries, such as South Korea, Taiwan, and Singapore, are moving toward the production of heavy industrial products and capital goods.

#### **Study Method**

#### **Constant Market Share (CMS) Analysis**

CMS explains the changes in export using three sources:

- 1- To focus on products, the usage of which are rising globally.
- 2- To focus on target-oriented markets, the use of which increases faster than the mean global consumption.
- 3- Competitiveness factor, meaning that the increase in market penetration (by improvement of product quality, offering competitive prices, and etcetera) causes an increase in market share.

In order to estimate the effects of the above sources it is necessary to start the argument by analysing changes in export of product i by country j. CMS is calculated from the difference of actual growth of exports of product i by country j with the export growth of that product (by...) if it is consistent with the growth rate of global imports. Therefore we will have:

(1)  $dE_{ij} = \Delta X_{ij} - rX_{ij}$ 

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In which  $X_{ij}$  is the export of product I by country j,  $\Delta X_{ij}$  is the actual change in export of product i by country j during two time periods, and r the growth rate of global imports.

In the following equation:

(2)  $DX_{ij} = S_k DX^{k}_{ij} = S_k d^{k}_{ij} X^{k}_{ij}$ 

D represents difference,  $S_k$  the reverse of the share of country k,  $X^{k}_{ij}$  is the export of product i by country j to the market of country k, and  $d^{k}_{ij}$  the growth of export of product i by country j to the market k. in this equation  $S_k$  ranges from one (in a goal-oriented market) to infinite (large number of markets).

By the equation 2 and adding and subtracting phrases to the two sides of the equation we gain equation 3:

(3)

In which  $r_i$  is the global import growth of product i and  $r_{ik}$  import growth of product i in market k. In equation 3 from the right the first phrase shows the commodity effect equation, the second phrase the country effect, and the third the competitiveness effect.

Commodity effect shows the amount of change in export resulting from the rapid growth of global imports of product i in comparison to other products. If the amount is positive it shows that part of the growth in export of product i by country j is due to the growth in demand for this product.

Country effect shows the amount of change in export resulting from growth in demand in the destination country. If this amount is positive it shows that part of the growth in export has been due to choosing the appropriate market (growth in demand is higher than global demand growth). If the amount is negative it can be concluded that product i has been exported by country j to markets which have a growth lower than the global mean.

Competitiveness effect shows the difference of actual growth rate of export of country j of product i to market k and import growth of country k of the same product. If the export of product i by country j to market k has a higher growth rate than the import of that product in market k, then the competitiveness capacity of country j in the export of product i to market k is increasing. In other words, the share of country j from market k is growing.

If this occurs in respect to the majority of markets to which country j is exporting product i, then the industry related to this product in country i has increased its competitiveness capacity.

#### **Estimation and Calculation of CMS Index**

This index differentiated as commodity, country, and competitiveness effects is as follows:

Table 1. The differentiated effects of competitive advantage index of CMS for onion during
2001-2011 (million Rials)

		Total ( pure)			Competitive effect			Civilian's effect			Commodity effect	
Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE	Germany Turkey		UAE	
1.04E+11	1.04E+11	1.03828E+11	0	0	0	1.03881E+11	1.03881E+11	1.03881E+11	- 52200463	- 52200463	-52200463	1380
1.11E+11	1.11E+11	1.10585E+11	0	0	0	77182840415	77182840415	77182840415	3.34E+10	3.34E+10	3.34E+10	1381
1.69E+11	1.69E+11	1.68614E+11	2.29E+10	2.29E+10	2.29E+10	1.28669E+11	1.28669E+11	1.28669E+11	1.706E+10	1.706E+10	1.706E+10	1382
6.18E+10	6.18E+10	61790641561	-1.4E+09	-1.4E+09	-1.4E+09	54067788936	54067788936	54067788936	9.149E+09	9.149E+09	9.149E+09	1383
-8.9E+09	-8.9E+09	-8850231429	-1.2E+07	-1.2E+07	-1.2E+07	-6608597491	-6608597491	-6608597491	-2.23E+09	-2.23E+09	-2.23E+09	1384
2.33E+10	2.33E+10	23256543970	-1.2E+07	-1.2E+07	-1.2E+07	15713846951	15713846951	15713846951	7.555E+09	7.555E+09	7.555E+09	1385
-1.2E+10	-1.2E+10	-1.2423E+10	-1.2E+07	-1.2E+07	-1.2E+07	-1.4628E+10	-1.4628E+10	-1.4628E+10	2.216E+09	2.216E+09	2.216E+09	1386
7.14E+11	7.14E+11	7.13741E+11	-1.2E+07	-1.2E+07	-1.2E+07	7.11253E+11	7.11253E+11	7.11253E+11	2.501E+09	2.501E+09	2.501E+09	1387
-9.6E+09	-9.6E+09	-9630257302	1.75E+09	1.75E+09	1.75E+09	-3.2235E+10	-3.2235E+10	-3.2235E+10	2.085E+10	2.085E+10	2.085E+10	1388
1.51E+11	1.51E+11	1.51474E+11	-3.4E+09	-3.4E+09	-3.4E+09	1.55863E+11	1.55863E+11	1.55863E+11	-9.83E+08	-9.83E+08	-9.83E+08	1389
#DIV/0!	2.89E+12	2.89475E+12	#DIV/0!	3.04E+12	3.04E+12	#DIV/0!	1117155615	1117155615	#DIV/0!	-1.44E+11	-1.44E+11	1390

Source: the findings of the study

In interpreting the above table for the onion crop it is necessary to say that the higher the positive number, the more appropriate the constant share of market for Iran. In this method the effect and index of competitive advantage is given in three parts, and as total and net. For other products it is as follows:

Table 2. The differentiated effects of competitive advantage index of CMS for potato durin	g
2001-2011 (million Rials)	

		Commodity
		effect
Germany	Turkey	UAE
-6.35E+08	-6.35E+08	-6.35E+08
2.449E+11	2.449E+11	2.449E+11
3.712E+09	3.712E+09	3.712E+09
-6.69E+10	-6.69E+10	-6.69E+10
2.291E+11	2.291E+11	2.291E+11
3.166E+10	3.166E+10	3.166E+10
1.593E+09	1.593E+09	1.593E+09
-4.19E+10	-4.19E+10	-4.19E+10
3.526E+10	3.526E+10	3.526E+10
-3.73E+10	-3.73E+10	-3.73E+10
-4.69E+09	-4.69E+09	-4.69E+09
-2.51E+09	-2.51E+09	-2.51E+09

Source: the findings of the study

		Civilian's		competitive			Total (	
		effect		effect			pure)	
Turkey	Germany	UAE	Germany	UAE	Turkey	Germany	UAE	Turkey
-	-							
5.35E+08	6.35E+08	3.3E+10	3.25E+10	0	0	0	3.189E+10	3.19E+10
		-	-		-	-	-	-
2.45E+11	2.45E+11	2.45E+11	2.45E+11	-4.50E+09	4.50E+09	4.50E+09	4.636E+09	4.60E+09
3.71E+09	3.71E+09	4.59E+12	4.59E+12	3.11E+10	3.11E+10	3.11E+10	4.63E+12	4.63E+12
-	-							
5.69E+10	6.69E+10	1.77E+11	1.77E+11	3.07E+11	3.07E+11	3.07E+11	4.17E+11	4.17E+11
		-	-		-	-		-
2.29E+11	2.29E+11	2.83E+11	2.83E+11	-1.20E+10	1.20E+10	1.20E+10	-6.60E+10	6.60E+10
3.17E+10	3.17E+10	4.6E+10	4.64E+10	5.49E+10	5.49E+10	5.49E+10	1.33E+11	1.33E+11
					-	-		-
1.59E+09	1.59E+09	3.1E+08	3.11E+08	-2.40E+10	2.40E+10	2.40E+10	-2.17E+10	2.20E+10
-	-							
4.19E+10	4.19E+10	2.8E+10	2.76E+10	1.03E+11	1.03E+11	1.03E+11	8.886E+10	8.89E+10
					-	-		
3.53E+10	3.53E+10	1.92E+11	1.92E+11	-2.40E+10	2.40E+10	2.40E+10	2.04E+11	2.04E+11
-	-	-	-					
3.73E+10	3.73E+10	9.22E+10	9.22E+10	5.18E+11	5.18E+11	5.18E+11	3.89E+11	3.89E+11
-	-				-	-		
4.69E+09	4.69E+09	2.11E+11	2.11E+11	-3.60E+10	3.60E+10	3.60E+10	1.70E+11	1.70E+11

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Source: the findings of the study

1.35E+11 1.35E+11

2.51E+09

2.51E+09

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the potato crop during 2001-2011 in Iran shows that this index has been negative in some years. It also shows that this index has had an unstable trend during recent years. This shows that Iran has been unable to maintain or increase its competitive advantage. Being negative shows the lack of competitive advantage in this crop.

0

0

0

-1.38E+11

1.40E+11

Germany

3.19E+10

4.60E+09

4.63E+12

4.17E+11

6.60E+10

1.33E+11

2.20E+10

8.89E+10

2.04E+11

3.89E+11

1.70E+11

1.40E+11

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	Civilian's effect			Total ( pure)	Commodity effect	
Germany	UAE	Turkey	Germany	UAE	UAE	Germany
33010484	-33264232.7	-33264232.7	-7990286	-8244035.2	3E+07	-8244035
193982.04	5711105.397	5711105.397	-1840940	4064147.4	2E+05	4064147
53316803	1480234577	1480234577	2.27E+10	2.422E+10	5E+07	2.42E+10
-14109419	104693950.3	104693950.3	-3.70E+07	53517046	-1E+07	53517046
5941823.9	-41416904.3	-41416904.3	-6208497	-41683577	6E+06	-4.20E+07
5404941.7	22772897.59	22772897.59	-7597166	20580673	5E+06	20580673
-720148.3	5853144.41	5853144.41	56292670	61425666	-7E+05	61425666
2136156	19081178.39	19081178.39	-7107649	14109686	2E+06	14109686
12963107	937015.1957	937015.1957	3021514	16921637	1E+07	16921637
-7006311	98805553.14	98805553.14	5538016	97337259	-7006311	
#DIV/0!	-4140668.41	-4140668.41	#DIV/0!	-4236184.3	-95515.85	

### Table3. The differentiated effects of competitive advantage index of CMS for soya during 2001-2011 (million Rials)

Source: the findings of the study

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the soya crop during 2001-2011 in Iran shows that this index has been positive in some years. It also shows that this index has had an unstable trend during recent years and at times a downward trend. This shows that Iran has been unable to maintain or increase its competitive advantage. Being negative shows the lack of competitive advantage in this crop.

Table 4. The differentiated effects of competitive advantage index of CMS for cotton during												
2001-2011 (million Rials)												
			C.	omnotitivo			Civilian's					

		Total (pure)			Competitive effect			Civilian's effect			Commodity effect
Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE
2.91E+10	2.91E+10	29131669406	2.91E+10	2.91E+10	2.91E+10	-5180491434	-5180491434	-5180491434	5.163E+09	5.163E+09	5.163E+09
3.81E+12	3.81E+12	3.81029E+12	2.1E+12	2.1E+12	2.1E+12	1.69673E+12	1.69673E+12	1.69673E+12	1.056E+10	1.056E+10	1.056E+10
-7E+09	-7E+09	-6977164512	-6.2E+09	-6.2E+09	-6.2E+09	-3.1402E+10	-3.1402E+10	-3.1402E+10	3.061E+10	3.061E+10	3.061E+10
5.84E+09	5.84E+09	5842777155	-6.1E+09	-6.1E+09	-6.1E+09	13517803141	13517803141	13517803141	-1.58E+09	-1.58E+09	-1.58E+09
1.91E+10	1.91E+10	19117368883	1.08E+10	1.08E+10	1.08E+10	6211709980	6211709980	6211709980	2.078E+09	2.078E+09	2.078E+09
-1.8E+09	-1.8E+09	-1806562564	-3.1E+09	-3.1E+09	-3.1E+09	-2925166391	-2925166391	-2925166391	4.177E+09	4.177E+09	4.177E+09
-8.9E+08	-8.9E+08	-888055779	-2.2E+09	-2.2E+09	-2.2E+09	1222982186	1222982186	1222982186	55479953	55479953	55479953
3.78E+09	3.78E+09	3784393308	3.69E+09	3.69E+09	3.69E+09	175559108.4	175559108.4	175559108.4	-82652813	-82652813	-82652813
-6.7E+08	-6.7E+08	-668874721	-1.2E+09	-1.2E+09	-1.2E+09	-37878763.3	-37878763.3	-37878763.3	573415880	573415880	573415880
8.12E+08	8.12E+08	812457333.2	1.68E+09	1.68E+09	1.68E+09	-860672182	-860672182	-860672182	-9018768	-9018768	-9018768
-2.6E+09	-2.6E+09	-2592686695	0	0	0	-2470129111	-2470129111	-2470129111	-1.23E+08	-1.23E+08	-1.23E+08

Source: the findings of the study

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the cotton crop during 2001-2011 in Iran shows that this index has been negative in some years. It also shows that this index has had an unstable trend during recent years. This shows that Iran has been unable to maintain or increase its competitive advantage. Being negative shows the lack of competitive advantage in this crop.

Table 5. The differentiated effects of competitive advantage index of CMS for peas during2001-2011 (million Rials)

					-						
		Total ( pure)			effect			effect			effect
Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE
4.67E+09	4.67E+09	4672799698	5.23E+09	5.23E+09	5.23E+09	17024591276	17024591276	17024591276	-1.76E+10	-1.76E+10	-1.76E+10
#DIV/0!	#DIV/0!	#DIV/0!	1.51E+11	1.51E+11	1.51E+11	#DIV/0!	#DIV/0!	#DIV/0!	8.444E+12	8.444E+12	8.444E+12
#DIV/0!	#DIV/0!	#DIV/0!	-1.5E+10	-1.5E+10	-1.5E+10	#DIV/0!	#DIV/0!	#DIV/0!	6.98E+09	6.98E+09	6.98E+09
#DIV/0!	#DIV/0!	#DIV/0!	-4.9E+09	-4.9E+09	-4.9E+09	#DIV/0!	#DIV/0!	#DIV/0!	1.879E+11	1.879E+11	1.879E+11
1.04E+11	1.04E+11	1.04419E+11	-3.7E+09	-3.7E+09	-3.7E+09	-8.3284E+10	-8.3284E+10	-8.3284E+10	1.914E+11	1.914E+11	1.914E+11
2.37E+11	2.37E+11	2.37233E+11	-4.9E+09	-4.9E+09	-4.9E+09	2.34783E+11	2.34783E+11	2.34783E+11	7.325E+09	7.325E+09	7.325E+09
3.12E+09	3.12E+09	3124882306	-4.4E+08	-4.4E+08	-4.4E+08	3502923180	3502923180	3502923180	62139722	62139722	62139722
7.12E+08	7.12E+08	712001516.8	2.23E+08	2.23E+08	2.23E+08	632942864.5	632942864.5	632942864.5	-1.44E+08	-1.44E+08	-1.44E+08
3.17E+09	3.17E+09	3174332594	3.76E+09	3.76E+09	3.76E+09	-3322080004	-3322080004	-3322080004	2.732E+09	2.732E+09	2.732E+09
-5.5E+08	-5.5E+08	-550095911	-3.8E+08	-3.8E+08	-3.8E+08	-134729102	-134729102	-134729102	- 34044849	- 34044849	-34044849
4.91E+09	4.91E+09	4911479758	0	0	0	4958180895	4958180895	4958180895	- 46701138	- 46701138	-46701138

Source: the findings of the study

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the pea crop during 2001-2011 in Iran shows that this index has been positive during many

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years. It also shows that this index has had an unstable trend during recent years. This shows that Iran has been unable to maintain or increase its competitive advantage.

### Table 6. The differentiated effects of competitive advantage index of CMS for corn during2001-2011 (million Rials)

		Total ( pure)			Competitive effect			Civilian's effect			Commodity effect
Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE
-1.5E+07	#DIV/0!	-15218477	-1.5E+07	#DIV/0!	-1.5E+07	-43576101.3	-43576101.3	-43576101.3	43106396	#DIV/0!	43106396
6.81E+09	#DIV/0!	6811348171	1.07E+09	#DIV/0!	1.07E+09	5630602149	5630602149	5630602149	108312279	#DIV/0!	108312279
#DIV/0!	#DIV/0!	395329454.4	#DIV/0!	#DIV/0!	-2.4E+07	#DIV/0!	423992004.9	423992004.9	#DIV/0!	#DIV/0!	-4837612
#DIV/0!	#DIV/0!	-40256931.3	#DIV/0!	#DIV/0!	-2.4E+07	#DIV/0!	-10621260.8	-10621260.8	#DIV/0!	#DIV/0!	-5998002
1.03E+09	#DIV/0!	1030249783	1.24E+09	#DIV/0!	1.24E+09	-337850638	-337850638	-337850638	131494437	#DIV/0!	131494437
-7.6E+07	-7.6E+07	-75748106.2	-4.3E+07	-4.3E+07	-4.3E+07	-44145266.2	-44145266.2	-44145266.2	11299731	11299731	11299731
8.29E+09	8.29E+09	8291035933	7.66E+09	7.66E+09	7.66E+09	207083762	207083762	207083762	427735483	427735483	427735483
1.32E+09	1.32E+09	1318167668	2.53E+08	2.53E+08	2.53E+08	1087651886	1087651886	1087651886	-22760969	-22760969	-22760969
1.15E+09	1.15E+09	1150043556	5.47E+08	5.47E+08	5.47E+08	238451824.6	238451824.6	238451824.6	364249784	364249784	364249784
49551073	49551073	49551073.27	-6.5E+07	-6.5E+07	-6.5E+07	111529843.9	111529843.9	111529843.9	3127318.3	3127318.3	3127318.3
#DIV/0!	#DIV/0!	53097189.96	#DIV/0!	#DIV/0!	0	#DIV/0!	54077703.07	54077703.07	#DIV/0!	#DIV/0!	-980513.1

Source: the findings of the study

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the corn crop during 2001-2011 in Iran shows that this index has been positive during many years. It also shows that this index has had a downward trend during recent years. This shows that Iran has lost its competitive advantage in this crop.

### Table 7. The differentiated effects of competitive advantage index of CMS for lentil during 2001-2011 (million Rials)

		Total ( pure)			Competitive effect			Civilian's effect			Commodity effect
Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE
30929399	30929399	30929399.45	35278913	35278913	35278913	-140409652	-140409652	-140409652	136060139	136060139	136060139
#DIV/0!	#DIV/0!	#DIV/0!	1.08E+11	1.08E+11	1.08E+11	#DIV/0!	#DIV/0!	#DIV/0!	3.552E+09	3.552E+09	3.552E+09
#DIV/0!	#DIV/0!	#DIV/0!	-8.1E+08	-8.1E+08	-8.1E+08	#DIV/0!	#DIV/0!	#DIV/0!	859387493	859387493	859387493
#DIV/0!	#DIV/0!	#DIV/0!	1.14E+10	1.14E+10	1.14E+10	#DIV/0!	#DIV/0!	#DIV/0!	-1.21E+09	-1.21E+09	-1.21E+09
#DIV/0!	#DIV/0!	#DIV/0!	9.88E+09	9.88E+09	9.88E+09	#DIV/0!	#DIV/0!	#DIV/0!	8.708E+09	8.708E+09	8.708E+09
1.53E+11	1.53E+11	1.52816E+11	5.67E+09	5.67E+09	5.67E+09	1.52869E+11	1.52869E+11	1.52869E+11	-5.72E+09	-5.72E+09	-5.72E+09
7.9E+10	7.9E+10	78953042062	9.41E+10	9.41E+10	9.41E+10	-4.2807E+10	-4.2807E+10	-4.2807E+10	2.769E+10	2.769E+10	2.769E+10
4.6E+11	4.6E+11	4.60355E+11	3.46E+11	3.46E+11	3.46E+11	61741586183	61741586183	61741586183	5.294E+10	5.294E+10	5.294E+10
6.06E+10	6.06E+10	60598797264	-3.3E+10	-3.3E+10	-3.3E+10	93957864654	93957864654	93957864654	-71971253	-71971253	-71971253
-1.1E+10	-1.1E+10	-1.1225E+10	-7.9E+09	-7.9E+09	-7.9E+09	-3828797230	-3828797230	-3828797230	504846394	504846394	504846394
4.21E+11	4.21E+11	4.20798E+11	0	0	0	4.27275E+11	4.27275E+11	4.27275E+11	-6.48E+09	-6.48E+09	-6.48E+09

Source: the findings of the study

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the lentil crop during 2001-2011 in Iran shows that this index has been positive during many

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years. It also shows that this index has had an unstable trend during recent years. This shows that Iran has been unable to maintain or increase its competitive advantage.

		-									
					Competitive			Civilian's			Commodity
		Total ( pure)			effect			effect			effect
Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE	Germany	Turkey	UAE
-5.3E+07		-52580055.7	-5.1E+07		-5.1E+07	-29273248.6	-29273248.6	-29273248.6	27654783		27654783
			-								
8334273			1549620			10983670.41			-1099778		
2.83E+09		2825531441	1.32E+08		1.32E+08	2706824320	2706824320	2706824320	-13597912		-13597912
1.28E+08		128475759	1.94E+08		1.94E+08	-89469074.5	-89469074.5	-89469074.5	24129507		24129507
5.57E+10		55693209655	3.31E+08		3.31E+08	54474046657	54474046657	54474046657	888145824		888145824
52970771		52970771.01	-2E+07		-2E+07	92592142.77	92592142.77	92592142.77	-19348307		-19348307
1.96E+15	1.96E+15	1.96087E+15	1.96E+15	1.96E+15	1.96E+15	-9.4312E+12	-9.4312E+12	-9.4312E+12	9.226E+12	9.226E+12	9.226E+12
-1.4E+09		-1354406240	-2.2E+09		-2.2E+09	1436476741	1436476741	1436476741	-6.29E+08		-6.29E+08
-3.7E+08		-370366564	4.69E+08		4.69E+08	1158466475	1158466475	1158466475	-2E+09		-2E+09
2.28E+14		2.28114E+14	2.29E+14		2.29E+14	-2.8366E+11	-2.8366E+11	-2.8366E+11	-4.75E+11		-4.75E+11
4.46E+10		44626342929	0		0	50183357647	50183357647	50183357647	-5.56E+09		-5.56E+09

 Table 8. The differentiated effects of competitive advantage index of CMS for wheat during

 2001-2011 (million Rials)

Source: the findings of the study

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the major agricultural products of Iran shows that this index has been negative in many products. It also shows that this index has had a downward trend in some products during recent years. This shows that the competitive advantage of some products in Iran has been lost or reduced.

#### **Conclusion and Recommendations**

The differentiated effects and net effects of the CMS index, as the competitive advantage index, for the major agricultural products of Iran shows that this index has been negative in many products. It also shows that this index has had a downward trend in some products during recent years. This shows that the competitive advantage of some products in Iran has been lost or reduced.

In order to increase the competitive capacity and competitive advantage of the selected agricultural products of Iran the following recommendations are given.

Reduction of production costs is one of the most important strategies of increasing the competitive capacity of the selected agricultural products of Iran. Steps must be taken to decrease the production risk, and to decrease the cost of production factors and total production costs.

Increasing the currency exchange rate, in other words, increasing the export/import ratio of these products is another important factor in increasing the competitive advantage of the selected agricultural products of Iran. Therefore, it is recommended that the government and relevant authorities, by considering other circumstances, plan to increase the currency exchange rate in respect to the inflation rate in order to increase competitive advantage

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Considering the positive efficacy of import tariffs on competitiveness capacity of the selected agricultural products of Iran, it is necessary for tariff protection to be temporary. Moreover, Iran must limit its tariff policies in order to join the WTO.

Considering the reverse effect of the price of agricultural products on export competitive advantage of the selected agricultural products, it is recommended that the government, through its effective and efficient support, try to decrease the final price and as a result the price of agricultural products within the country. The government could also help to decrease the final prices for farmers by importing of capital goods and enhancing production technology.

As was stated by Michel Porter in the competitive advantage view, a country can create an environment in which the creation of competitive advantage by domestic firms is encouraged by considering its own particular characteristics. As a result it will be able to produce and export products which will guarantee its constant growth. In this view the sustenance of a country in the global competitive scene is emphasised. Therefore, considering the introduction, globalization and, presence in the competitive scene, if a country does not gain advantage and efficacy of its own products in the production process, it will have to tolerate many costs and will ultimately be unable to compete in the international scene.

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