The Agri-food Competitive Performance in the EU Countries: A Fifteen Years Retrospective

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Abstract

The purpose of this paper is to evaluate the competitive performance of different European countries at sector level in the intra-EU market from 1995 to 2011, comparing food industry and agricultural sector. In particular, we aim to assess the effect of the EU enlargement (first period) and the economic crisis (second period) on the competitiveness of EU countries. The data come from the Eurostat database of international trade. The competitive performance of EU countries is measured through several trade indices, such as Export and Import Market Share, Revealed Comparative Advantage, Net Export Index, and Vollrath indices, analysing their values over the last fifteen years. Our analysis showed that, in the EU countries, agriculture and food industry do not reveal strong differences in competitive performance during the last fifteen years. Among big countries, France and Spain showed a continuous worsening competitive performance. A similar trend is found for Belgium. On the contrary, the Netherlands revealed the best performance, both in agriculture and in food industry, together with Italy. Nevertheless, the Netherlands has lightly lost specialisation because of a rise of total exports that have affected the value of RCA. Italy is characterised by a smaller increase, especially in the food sector. The only country showing a significant difference in competitive trends between agriculture and food industry is Germany. It became leader in the food industry of EU, with a growing performance over the period analysed, while it is not competitive nor specialised in agriculture. Among small countries, it is worth to highlight the performance of Austria.

Keywords: competitive performance, agriculture, food industry, EU enlargement, global economic crisis.

JEL: Q17, F1, L66

1 Introduction

Competitiveness is a crucial issue in the European agri-food market. Indeed, in the last fifteen years, two big events, among others, affected the competitive performance of food sector of different EU countries. First, the EU enlargement towards Central and Eastern European countries (CEECs) has opened the possibilities of free trade to twelve more countries, and has led to an increase of the number of players, a growth of trade flows, and a rise of demand connected to the market expansion. These elements have produced an intensification of the competition among countries, but at the same time have created new opportunities.

Second, the global economic crisis started in 2008, that is still afflicting European economy, has affected the trends of the food sector, even if the negative effects that impacted the overall manufacture sector have not been so strong in the food industry.

Besides the EU enlargement and the crisis, the European food sector has been interested by several other issues which have affected its competitive level. The globalisation, the vertical competition between food processors and large retailers, the decrease of transportation and logistics costs, and the changes in consumer preferences towards health and safety concerns have embittered the competition and have required to differentiate the products in order to find a distinctive identity (Mayer and Ottaviano, 2008; Antimiani *et al.*, 2012; Senauer and Venturini, 2004; Wijnands *et al.*, 2007).

The purpose of this paper is to evaluate the competitive performance of different European countries at sector level in the intra-EU market from 1995 to 2011, comparing food industry and agricultural sector. In particular, we aim to assess the effect of the EU enlargement (first period) and the economic crisis (second period) on the competitiveness of EU countries. In this way it is possible to highlight which countries have profited by the EU enlargement and which ones have been mostly affected by the economic crisis, taking into consideration food and agricultural products.

Furthermore, we analysed more in depth the case of Italy, one of the biggest food producing and exporting country in the EU, trying to understand the determinants of the competitive performance and highlighting the strengths and the weaknesses of the Italian agriculture and food industry.

The data come from the Eurostat database of international trade. The competitive performance of EU countries is measured through several trade indices, such as Export and Import Market Share, Revealed Comparative Advantage, Net Export Index, and Vollrath indices, analysing their values over the last fifteen years.

The paper is structured as follows: in the next section we underline the evaluation approach of competitive performance; in section 3 methodological aspects are described, whereas in section 4 the results are presented. In section 5 the case of Italy is outlined, and in section 6 some concluding remarks are set down.

2 The evaluation of competitive performance

The assessment of competitiveness at sector level regards the industry skills to reach, conserve, and increase its market share over time against other competitors in the international market (Kim and Marion, 1997; Traill, 1998; Bojnec and Fertő, 2009).

The concept of competitiveness is connected to the achievement of competitive advantage, following the seminal work of Porter (1990). Nevertheless, it is not easy to measure competitive advantage. Therefore, the assessment of competitiveness is often done indirectly, taking into consideration the competitive position of a firm or a sector in the international market and its competitive performance during a specific period of time. For these two measurements, particular trade indices have been formulated, allowing to compare different countries (or firms) or time series data.

Our analysis is focused on the evaluation of competitive performance of EU countries relatively to agriculture and food industry. With this aim, we have chosen a set of trade indices among the most used in the literature: Export Market Share (EMS), Balassa Revealed Comparative

Advantage (RCA), Relative Export Advantage (RXA), Relative Import Advantage (RMA), Import Market Share (IMS), and Net Export Index (NEI) (Banterle and Carraresi, 2007; Lall, 2001).

In this way we are able to evaluate the aspects related both to export and import flows, over the years, useful to assess the competitive performance of a sector of different countries in the international market.

In particular, RCA measures the country specialisation in the exports of a specific sector. Values are positive and if they are more than 100 the country is specialised in the exports of the sector analysed (Balassa, 1965; Havrila and Gunawardana, 2003).

The RXA and RMA indices have been theorised by Vollrath (1991), and regard, respectively, export and import flows. They avoid the problem of double-counting affecting RCA (Fertő and Hubbard, 2003) and the values can be more or less than 1. If we consider RXA, competitive advantage is underlined by values greater than 1. On the opposite, if we look at RMA, values smaller than 1 indicate competitive advantage.

IMS is useful, like EMS, to see to what extent a country imports in a specific sector. In the same way, NEI links export and import flows and is able to measure the balance between them. If the values are negative, imports prevail, whereas positive values indicate predominance of exports.

3 Methodological issues

Data necessary for the analysis come from the Eurostat database of international trade. We utilised import and export flows, in the intra-EU market, from 1995 to 2011, for the product categories related to agriculture and food industry. Thus, we extracted data of the categories with 4-digits codes from 0101 to 2403 (except fisheries, agricultural non-foodstuffs, and animal feeding) (Banterle, 2005), and we aggregated them into two sectors, agriculture and food industry.

EU-15 countries have been divided between big and small relatively to the value of equal distribution of EMS (6.7%).

The analysis is divided into three steps. First, we analysed the competitive performance of agriculture and food industry in the EU-15 countries over the period 1995-2002 (before the EU enlargement), by calculating three years average values of EMS, RCA and IMS, and then computing the percentage rate of variation.

Second, we assessed the competitive performance of agriculture and food industry of EU-27 countries in two separated periods of time: the years after the EU enlargement and the ones during the economic crisis. To do this, we calculated the three years average values of EMS, RCA, and IMS for the period 2003-2011 for agriculture and food industry of each EU country. In particular, to characterize EU enlargement, we calculated the percentage rate of variation of the average 2006-2008 over average 2003-2005, and for the economic crisis we computed the same index for the average 2009-2011 over average 2006-2008. In this way we identified the trends of the indices after the EU enlargement and during the economic crisis.

Third, we depicted the competitive position of different EU countries for agriculture and food industry in the last years (2009-2011), extending the analysis to the all trade indices taken into consideration.

4 Results

4.1 The competitive performance of EU-15 countries before the enlargement

Regarding the agriculture in the period 1995-2002, among big countries, those with the highest EMS are France, Spain, and the Netherlands, which are also specialised in the sector (tab. 1). France decreased a lot along all the period, whereas Spain and the Netherlands showed an increase of EMS and RCA. A similar trend is observed for Germany, while a declining one is found in Belgium. Italy had a quite stable performance, as EMS decreased only a little bit (-0.14%), and RCA improved even if it is still under the threshold of specialisation.

Among small countries, we can underline the good performance of Portugal and Austria. Sweden and Finland grew in the second half of the period. On the opposite, United Kingdom lost competitiveness.

Concerning the food industry, among big countries, France, the Netherlands, Germany and Belgium have similar EMS, comprised between 14.7% and 11.2% (tab. 2). Nevertheless, all of them have worsened their position, as their EMS and RCA decreased along the period. On the contrary, Spain is the only increasing country, confirming its good performance also in the food sector. Italy, instead, lost a bit in EMS, but gained in specialisation, so total trade exports decreased more than food ones.

Among small countries, the performance of Austria is notable, whereas United Kingdom showed a bad performance together with Greece.

Thus, we can highlight the significant loss of competitiveness of France, both in agriculture and in food industry, and a complementary gain of Spain in the group of big countries. Among small countries, the most interesting performances are those of Austria and Sweden which increased their EMS both in agriculture and in food industry, whereas the worst performances are those of United Kingdom and Greece, having lost competitiveness.

Table 1.
Competitive performance of the agriculture of the EU countries in the period 1995–2002

	EMS			RCA			IMS		
	2001-2002	Var. % 98-00 / 95-97	Var. % 01-02 / 98-00	2001-2002	Var. % 98-00 / 95-97	Var. % 01-02 / 98-00	2001-2002	Var. % 98-00 / 95-97	Var. % 01-02 / 98-00
Big countries									
France	23.85	-4.83	-8.65	175.55	-4.12	-4.94	10.78	-0.32	3.53
Spain	22.57	6.90	9.58	399.35	1.68	6.37	6.28	-0.10	1.67
Netherlands	17.51	-1.90	8.12	139.30	-5.70	5.57	10.03	-7.16	1.83
Belgium-Lux	9.73	1.90	-6.71	90.78	0.39	-12.77	8.38	-8.05	2.26
Italy	8.58	-1.60	-0.14	94.97	4.59	5.84	10.71	1.78	-14.33
Germany	8.29	7.52	4.63	37.55	10.26	3.10	26.64	-3.25	-2.28
Small countries									
United Kingdom	2.74	-13.09	-24.37	25.14	-14.22	-22.16	12.89	10.67	8.04
Denmark	1.60	-17.34	2.60	65.55	-10.83	-1.36	2.31	6.68	21.88
Austria	1.56	28.27	22.67	50.04	24.82	13.95	2.56	-0.55	9.28
Greece	1.30	-5.06	-15.65	441.11	9.68	16.03	1.13	14.98	-31.39
Ireland	1.14	43.45	-16.41	30.59	14.33	-26.02	1.69	12.77	6.60
Portugal	0.61	15.06	57.82	44.92	18.42	63.14	2.92	12.30	0.55
Sweden	0.42	-13.64	24.34	14.64	-11.06	48.13	2.50	8.84	17.42
Finland	0.09	-37.37	50.89	5.65	-39.49	62.98	1.19	6.81	1.11

Source: own calculations based on International Trade Eurostat database

Table 2.
Competitive performance of the food industry of EU countries in the period 1995-2002

	EMS			RCA			IMS		
	2001-2002	Var. % 1998-00 / 1995-97	Var. % 2001-02 / 1998-00	2001-2002	Var. % 1998-00 / 1995-97	Var. % 2001-02 / 1998-00	2001-2002	Var. % 1998-00 / 1995-97	Var. % 2001-02 / 1998-00
Big countries									
France	14.73	-12.85	-11.24	108.40	-12.18	-7.63	13.43	-7.20	-6.75
Netherlands	13.91	-12.09	-6.49	110.65	-15.15	-8.88	6.72	-14.26	-4.75
Germany	13.84	-2.02	-2.80	62.74	0.59	-4.24	16.59	-13.44	-8.93
Belgium-Lux	11.22	-4.12	-0.05	104.61	-5.52	-6.60	9.37	-2.49	1.48
Italy	7.42	2.11	-1.85	82.16	8.45	4.18	10.36	-9.46	-5.15
Spain	6.76	6.94	9.94	119.60	1.66	6.82	5.75	1.49	3.32
Small countries									
United Kingdom	6.46	-8.74	-12.24	59.15	-9.87	-9.67	13.37	0.55	-2.33
Denmark	5.76	-14.13	1.50	236.26	-7.39	-2.35	2.48	-5.89	2.41
Ireland	3.75	-21.04	-7.11	100.78	-37.36	-18.22	2.32	11.06	10.99
Austria	2.05	40.88	15.12	65.87	36.75	7.14	2.57	4.02	1.45
Sweden	0.97	0.87	6.22	33.45	4.40	26.33	2.37	5.28	6.00
Portugal	0.95	-1.32	-9.05	69.80	1.04	-5.74	2.28	10.86	0.86
Greece	0.68	-20.45	-34.60	231.18	-8.06	-10.04	2.04	-8.94	-13.22
Finland	0.29	-8.29	-3.29	18.18	-10.46	4.36	0.99	5.81	-1.52

Source: own calculations based on International Trade Eurostat database

4.2 The effects of EU enlargement and economic crisis on competitive performance of EU-27 countries

To highlight the effects of EU enlargement on competitiveness, we evaluated the performance of EU countries in agriculture and food industry over the period 2003-2008, calculating the rate of variation of EMS and selecting the first three countries with the best and the worst performances within three groups (big countries, small countries, CEECs).

Among big countries the best performance is that of the Netherlands both in agriculture and in food industry, where EMS increased, respectively, 5% and 4% (tab. 3). Nevertheless, a decrease in RCA is revealed, meaning a loss in agri-food specialisation; this can be explained by a big increase of total trade exports, greater than the one of agri-food. Italy and Belgium had a good performance in agriculture (10.3% and 8.7% respectively), whereas Germany increased in food industry.

Table 3.
Competitive performance of EU countries after the EU enlargement

	EU ENLARGEMENT (2006-08 / 2003-05)						
	Best performance						
	Agriculture	*Var. % EMS (RCA)*		*Food*	*Var. % EMS (RCA)*		*Agriculture + Food*
Big countries EU 15	Italy	10.34	(+)	Germany	4.18	(+)	Netherlands
	Belgium	8.66	(+)	Netherlands	4.05	(-)	
	Netherlands	4.99	(-)				
Small countries EU 15	Finland	80.29	(+)	Austria	11.98	(+)	Greece
	Portugal	27.26	(+)	Greece	9.89	(+)	
	Greece	17.29	(+)	Sweden	3.21	(+)	
CEECs	Slovenia	342.22	(+)	Latvia	73.08	(+)	Slovenia
	Latvia	112.65	(+)	Slovak	65.49	(+)	Latvia
	Estonia	95.04	(+)	Slovenia	61.24	(+)	
	Worst performance						
Big countries EU 15	France	-17.23	(-)	Spain	-11.08	(-)	France
	Spain	-13.31	(-)	Belgium	-6.59	(-)	Spain
	Germany	-0.91	(-)	France	-6.25	(+)	
Small countries EU 15	Luxembourg	-25.29	(-)	Denmark	-15.55	(-)	Ireland
	Ireland	-17.94	(-)	United Kingdom	-11.44	(-)	United Kingdom
	United Kingdom	-5.88	(+)	Ireland	-6.18	(+)	
CEECs	Cyprus	-0.01	(-)	Cyprus	-18.9	(-)	Cyprus

Source: own calculations based on International Trade Eurostat database

Concerning small countries, Greece benefited from EU enlargement and grew both in agriculture (17.3%) and in food industry (9.9%). Also specialisation increased. Notable is also the performance of Finland and Portugal in agriculture and Austria in food industry.

All these countries found in the EU enlargement an opportunity to expand their agri-food exports and gain competitive advantage.

On the other side, a bad performance is revealed for France and Spain, among big countries, both in agriculture and in food industry. In particular, France lost 17.2% in agriculture and 6.3% in food industry, whereas Spain decreased 13.3% in agriculture and 11.1% in food industry. Also RCA decreased, except for French food industry: in this case, total trade exports decreased more than the food ones.

Among small countries, Ireland and United Kingdom showed a loss in competitiveness both in agriculture and in food industry. Concerning RCA, Ireland decreased in agriculture, while United Kingdom in food industry.

The worst performing countries have been unable to profit by market integration and their EMS have been eroded by other countries. In particular, some trends reflect the ones of the previous period: France has been facing a continuous decline in competitiveness since 1995, as well as United Kingdom. On the opposite, Spain, whose EMS and RCA increased before the enlargement, was unable to maintain its position on the market and its market shares have decreased a lot in both sectors.

Regarding CEECs, the best performing ones are Slovenia and Latvia, which increased both in agriculture and in food industry. Then, Estonia grew in agriculture and Slovak in food industry. The worst performance was that of Cyprus, the only CEEC that decreased in both sectors analysed.

In general, CEECs demonstrated to have profited by the admission to the European Union, as almost all of them showed a big rate of variation of EMS and an improvement of specialisation. Despite being small economies, they have been able to increase their trade flows, taking advantage of the expansion of the free trade area.

The second period we have analysed is characterised by the global economic crisis that started to affect the overall economy since 2008. Starting with big countries, in the period 2008-2011, the Netherlands maintained its good competitive performance in both sectors analysed; indeed it grew 4% in agriculture and 6.3% in food industry (tab. 4). Again, it reduced the specialisation, as the exports of other sectors increased more than agri-food. Italy also increased in both sectors in terms of EMS and RCA, even if the rates of variation are small.

Moving to small countries, Luxembourg and Portugal are those having grown in both sectors. The former enhanced a lot its competitiveness, especially in agriculture (25.1%), but it came from a declining trend after the EU enlargement, the latter conserved its good performance in agriculture and performed good also in food industry. Also Finland and Austria maintained the same trends revealed in the previous period, namely a growth in agriculture for the first one (17.9%) and in food industry for the second one (2.2%).

Concerning the countries performing bad, among big countries, the worst performance is that of France and Belgium both in agriculture and in food industry. France lost 14.9% in agriculture and 6.5% in food industry, continuing its declining trend, whereas the rates of Belgium are -6.2% and -3.9%. Also Spain continued to decrease, but with a limited percentage.

Table 4.
Competitive performance of EU countries after the economic crisis

	ECONOMIC CRISIS (2009-11 / 2006-08)				
	Best performance				
	Agriculture	*Var. % EMS (RCA)*	*Food*	*Var. % EMS (RCA)*	*Agriculture + Food*
Big countries EU 15	Netherlands	4.03 (-)	Netherlands	6.34 (-)	Netherlands
	Italy	0.08 (+)	Germany	3.73 (+)	Italy
			Italy	1.91 (+)	
Small countries EU 15	Luxembourg	25.16 (+)	Austria	2.24 (+)	Luxembourg
	Finland	17.95 (+)	Luxembourg	0.58 (+)	Portugal
	Portugal	17.55 (+)	Portugal	0.35 (+)	
CEECs	Bulgaria	198.47 (+)	Romania	127.43 (+)	Romania
	Romania	121.19 (+)	Bulgaria	66.02 (+)	Bulgaria
	Slovenia	88.36 (+)	Cyprus	24.82 (+)	
	Worst performance				
Big countries EU 15	France	-14.87 (-)	France	-6.51 (-)	Belgium
	Germany	-7.23 (-)	Belgium	-3.85 (-)	France
	Belgium	-6.23 (-)	Spain	-0.4 (-)	
Small countries EU 15	Ireland	-56.35 (-)	Denmark	-17.52 (-)	Ireland
	Denmark	-16.36 (-)	Ireland	-15.15 (-)	Denmark
	United Kingdom	-2.19 (+)	Sweden	-7.97 (-)	
CEECs	Malta	-73.56 (-)	Malta	-12.52 (-)	Malta
	Cyprus	-26.69 (-)	Slovenia	-1.76 (-)	

Source: own calculations based on International Trade Eurostat database

Among small countries, Ireland and Denmark showed a big loss in competitiveness both in agriculture (-56.3% for Ireland and -16.3% for Denmark) and food industry (-15.1% for Ireland and -17.5% for Denmark), confirming their negative trend.

These worst performing countries have suffered the economic crisis, but actually for most of them the declining performance was already on act since the enlargement.

Regarding CEECs, the best performances are those of Romania and Bulgaria, which increased in agriculture and in food industry. Then, Slovenia grew in agriculture (but not in food industry), while Cyprus in food industry (but not in agriculture). The worst performance is that of Malta that decreased in both sectors and mostly suffered the crisis.

Thus, for agri-food products CEECs resisted to the crisis and most of them were able to rise their competitiveness, enhancing both EMS and RCA. Especially in agriculture the growth is very high demonstrating the rural vocation of these countries.

4.3 The competitive position of the EU countries during the economic crisis

Aiming at observing the situation of agriculture and food industry in the competitive arena during the economic crisis, we calculated the average values of the indices in the period 2009-

2011. We considered not only the indices included in the previous analysis, but we also added the Vollrath indices, namely RXA and RMA, and NEI.

Starting from agriculture, the Netherlands, Spain, and France, among big countries, maintained the highest EMS, and positive values of other indices (tab. 5), even though Spain and France revealed a bad competitive performance over the period 2003-2011, as we saw before, having been overtaken by the Netherlands.

Table 5.
Competitive position of the agriculture of EU countries in the period 2009-2011

	EMS	RCA	RXA	RMA	IMS	NEI
Big countries EU 15						
Netherlands	18.97	146.43	1.59	1.50	10.52	0.28
Spain	18.42	354.47	4.36	1.03	6.04	0.50
France	14.63	153.33	1.65	0.74	9.87	0.19
Belgium	8.83	98.61	0.98	0.90	7.65	0.07
Italy	7.92	104.37	1.05	0.90	7.29	0.04
Germany	7.47	33.16	0.27	1.28	24.73	-0.54
Small countries EU 15						
United Kingdom	2.46	37.96	0.36	1.00	8.70	-0.56
Austria	1.77	55.24	0.54	0.81	3.09	-0.28
Greece	1.54	373.97	4.02	1.06	1.09	0.17
Denmark	1.23	62.76	0.62	1.22	2.26	-0.30
Portugal	0.87	79.76	0.79	1.32	2.26	-0.44
Sweden	0.63	23.89	0.23	0.76	2.27	-0.57
Ireland	0.38	18.66	0.18	1.07	1.37	-0.56
Finland	0.22	19.57	0.19	0.83	1.13	-0.68
Luxembourg	0.22	43.23	0.43	0.64	0.40	-0.30
CEECs						
Hungary	3.52	162.51	1.67	0.45	0.84	0.61
Polonia	2.76	75.22	0.74	0.85	3.23	-0.08
Romania	1.92	179.84	1.85	0.89	1.25	0.20
Bulgaria	1.82	460.39	5.06	0.72	0.35	0.67
Czech Rep.	1.46	44.49	0.43	0.65	1.91	-0.14
Slovak	1.11	67.76	0.67	0.75	1.08	0.01
Lithuania	0.66	172.95	1.76	2.64	1.05	-0.22
Slovenia	0.46	74.07	0.74	0.81	0.51	-0.08
Latvia	0.43	223.61	2.30	1.73	0.48	-0.06
Estonia	0.16	66.13	0.66	0.78	0.24	-0.22
Cyprus	0.14	469.85	5.10	1.53	0.26	-0.33
Malta	0.00	6.19	0.06	1.03	0.12	-0.95

Source: own calculations based on International Trade Eurostat database

Among the other big countries there are Belgium, Italy, and Germany: Italy enhanced its competitive position, whereas Germany worsened in the period analysed. Moreover, Germany has negative NEI and very high IMS (24.7%), namely it is a big importer in agriculture and RCA is

less than 100, so it is not specialised. Italy, on the contrary, is specialised with positive NEI, and the values of other indices confirm this result as well.

Among small countries, the only specialised one and with positive NEI is Greece, which also revealed a growth after the EU enlargement. CEECs have small EMS in agriculture, but half of them are specialised and especially Bulgaria, Hungary, and Romania have also positive NEI.

Regarding the food industry, the highest EMS, in the group of big countries, is that of Germany (18.3%), that improved along the period analysed its competitiveness, reaching the first position. Nevertheless, RCA is less than 100 and NEI is close to zero (tab. 6). Then, we find the Netherlands, that also had a good competitive performance concerning EMS and RCA. Indeed, it reached a market share of 16.2%, and showed a specialisation in the sector (RCA is 125.2, and RXA 1.3).

Table 6.
Competitive position of the food industry of EU countries in the period 2009-2011

	EMS	RCA	RXA	RMA	IMS	NEI
Big countries EU 15						
Germany	18.29	81.13	0.76	0.49	17.19	0.04
Netherlands	16.22	125.22	1.33	0.73	8.45	0.32
France	12.82	134.25	1.43	0.94	12.16	0.03
Belgium	9.76	109.09	1.11	0.93	7.24	0.16
Italy	7.81	102.93	1.03	1.20	8.71	-0.05
Spain	6.61	127.25	1.32	0.94	5.50	0.10
Small countries EU 15						
United Kingdom	5.33	82.47	0.80	1.79	12.44	-0.39
Denmark	3.79	193.29	2.12	1.75	2.52	0.21
Ireland	3.10	150.91	1.59	2.35	2.14	0.19
Austria	3.04	94.81	0.94	0.78	2.92	0.03
Sweden	1.12	42.76	0.40	0.95	2.85	-0.43
Portugal	0.96	87.82	0.87	1.43	2.09	-0.36
Greece	0.86	209.22	2.29	2.84	2.07	-0.41
Finland	0.34	30.51	0.29	0.84	1.16	-0.54
Luxembourg	0.32	63.11	0.61	1.01	0.69	-0.36
CEECs						
Polonia	3.90	106.00	1.07	0.77	2.99	0.14
Hungary	1.48	68.43	0.66	1.19	1.33	0.06
Czech Rep.	1.38	41.87	0.39	0.79	1.99	-0.17
Slovak	0.83	50.82	0.49	0.95	1.27	-0.20
Lithuania	0.51	134.15	1.38	1.86	0.60	-0.07
Bulgaria	0.45	114.93	1.16	0.71	0.64	-0.17
Romania	0.40	37.31	0.35	0.68	1.19	-0.50
Estonia	0.23	95.88	0.96	1.18	0.41	-0.27
Latvia	0.23	118.04	1.20	2.26	0.50	-0.36
Slovenia	0.16	26.66	0.25	0.91	0.50	-0.50
Cyprus	0.03	121.26	1.23	1.72	0.27	-0.77
Malta	0.01	13.63	0.13	1.40	0.17	-0.93

Source: own calculations based on International Trade Eurostat database

On the opposite, France has still quite high EMS, but it has revealed a very poor performance. Such trend is confirmed also by negative NEI. Among the other three big countries, only Italy enhanced its position reaching an EMS of 7.8%, whereas Belgium and Spain had a negative performance.

Concerning small countries, we can underline the position of Austria which had a positive performance, and that of United Kingdom which showed a negative competitive result.

The CEECs have EMS lower than in agriculture (except for Poland). RCA over 100 is revealed for five of them and NEI is positive only for Poland and Hungary.

5 The case of Italy

Italy has showed a good competitive performance over the period analysed. Indeed, even if it maintained the fifth position among the EU countries relatively to EMS in both sectors analysed, the exports increased during the last fifteen years. In particular, in the period pre-enlargement, a small decrease is revealed in both sectors analysed, whereas after the EU enlargement the agriculture increased a lot and, during the years of economic crisis, also the food industry joined in the growth. Therefore, Italy demonstrated to have profited by the EU enlargement, especially in the agricultural sector, avoiding the risk of market share erosion and expanding its exports. Moreover, the economic crisis did not affect too much the trade flows, especially in the case of the food industry, and this is showed by the rise of export indices and the decrease of imports even after the 2008.

Concerning the import flows, in agriculture they have been overtaken by exports in the last five years, leading to positive NEI, whereas in the food industry, despite an improvement of NEI, IMS and RMA still remain quite high. This is probably due to the fact that Italy imports raw materials and exports processed products.

The strengths of the Italian food industry can be connected with the wide variety of high quality products strictly linked to specific geographical areas, included lots of traditional certified foods, as PDO-PGI, which are exported abroad. Furthermore, Italy has high safety standards, as a warranty for consumers, and possesses a good ability to combine the tradition with process and product innovation, in order to create products related to "*made in Italy*" but also with convenience features.

On the other side, Italian food industry has also some weaknesses, which hamper the chance to further expand its presence on the international market. Italian food sector is characterised by a high number of SMEs, which often have insufficient capacity to innovate (Wijnands *et al.*, 2007). The logistic and service costs (energy, transports, infrastructures) are very high and this reduces the possibility to be more competitive than other countries, as Germany or the Netherlands. Finally, the absence of Italian retail chains in other countries is also a bottleneck for the competitiveness of Italian food sector.

6 Concluding remarks

Our analysis showed that, in general, agriculture and food industry do not reveal strong differences in competitive performance during the last fifteen years, except for some EU

countries. Therefore, it seems that the two sectors tend to have similar trends in terms of competitiveness.

We can underline that, among big countries, France and Spain showed a falling competitive result from 1995 to 2011. For France, this is true for both sectors analysed, whereas for Spain it is revealed mostly for food industry, as Spanish agriculture lose competitiveness, but maintained a relevant position in the market. A big worsening in both sectors is showed also in Belgium.

It is emblematic that half of big countries have progressively reduced their EMS and specialisation as well. Actually, this worsening is also common for other small countries, as Ireland, United Kingdom, and Denmark. These latter countries, together with the ones mentioned above, define a geographic area characterised by a loss of competitiveness localised in the Western Europe. Thus, all these countries did not gain high benefits from the EU enlargement and suffered the economic crisis.

On the contrary, moving to the Central and Eastern Europe, we find the countries with the best competitive performance.

The Netherlands has been the best performing country, among the big ones, in both sectors in exam, together with Italy. In particular, the Netherlands has reinforced very much its competitive position in both sectors, even though it has lightly lost specialisation, because of a rise of exports in other sectors that has affected the value of RCA.

Italy is characterised by a smaller improvement of competitiveness, especially in the food sector, but in general performed well, sign of anti-cyclical features of food sector.

The only country showing a significant difference in competitive trends between agriculture and food industry is Germany. It resulted leader in the food industry for intra-EU exports, with a growing performance over the period analysed, while it is not competitive nor specialised in agriculture.

Concerning the small countries in this area, we can underline the case of Austria that increased its competitiveness, especially in the food industry. On the contrary, the crisis affected the competitiveness of Swedish and Finnish food industry.

Going to Eastern Europe direction, CEECs have profited by the entrance in the EU free trade area, even if they cover marginal roles in the European agri-food market. They show, indeed, strongly increasing competitiveness indices, with some small exceptions (Cyprus and Malta).

Focusing on the specific case of Italy, we can underline that the good competitive position in the EU market could be further enhanced, exploiting the opportunities connected to the traditional and specialty products, which represent strengths of the sector, and introducing innovations in distribution channels.

Further research will be oriented to understand the factors which could affect competitive performance of agriculture and food industry in the different countries.

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