Economic Analysis of Egyptian Potato Exports

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ABSTRACT

Agricultural exports are considered one of the most important pillars of the national economy due to their potential to increase hard currency income. This study aimed to shed light on and analyze Egypt's exports of horticultural crops, Egypt's imports and exports of potatoes, and the most important foreign trade metrics for Egyptian potatoes. The study also examined the most important foreign trade metrics for the main importing countries of Egyptian potatoes. The research relied on descriptive and quantitative analytical methods, utilizing some statistical techniques such as calculating the arithmetic mean, general time trend equations, and key foreign trade metrics. The research was based on published data from various sources. Among the most important findings were that the average quantity of Egypt's horticultural crops exports reached approximately 2.28 million tons during the period (2000-2022), the average quantity of Egypt's potato exports reached about 448.4 thousand tons during the same period, and the average export price per ton of potatoes in Egypt during this period was about 343.3 $ /ton. The main importing countries of Egyptian potatoes during the period (2016-2022) were (Russia, Greece, Italy, Lebanon, and the United Arab Emirates), which ranked in the top five in terms of quantity and value, with average exported quantities of (213.1, 70.033, 47.861, 46.613, 41.582) thousand tons respectively. Another key finding was that the production advantage of Egyptian potatoes reached about 1.14, indicating the continuous growth of Egyptian potato production. The apparent comparative advantage reached about 15.85, and the price comparative advantage, which measures the ratio between the export price of Egyptian potatoes and the average global price of other exporting countries, was less than one during the study period, indicating a price advantage for Egyptian potatoes. However, this condition was not met in the rest of the period, with an average of 1.16 during the study period. This may be attributed to the presence of high-value export varieties that raise the global export price of Egyptian potatoes.

INTRODUCTION

Agricultural exports are considered one of the most important pillars of the national economy due to their potential to increase hard currency income. The profits realized from export operations are among the main drivers of agricultural investment and increased domestic production of agricultural commodities. The quantity of horticultural imports during the period (2000-2022) reached about 2.28 million tons, valued at 1.27 billion dollars. Potatoes are among the top exported Egyptian vegetable crops, with an export quantity of about 185.51 thousand tons, valued at approximately 29.75 million dollars. during the period 2000-2022. Below, we will review the most important foreign trade metrics related to this commodity.

Research Problem:

The research problem lies in the instability of Egyptian potato exports despite achieving a relatively high annual growth rate. The growth rate in the value of Egyptian potato exports reached about 10% during the period 2000-2022, while the growth rate in the exported quantity reached about 5.6% during the same period. This indicates fluctuations in Egypt's potato exports, which may expose Egypt to the loss of greater growth opportunities for its potato exports, despite its competitive price advantage.

Research Objectives

The study aims to shed light on and analyze:
1. Egypt's exports of horticultural crops during the period (2000-2022) .
2. Egypt's imports of potatoes.
3. Egypt's exports of potatoes.
4. The most important foreign trade metrics for Egyptian potatoes.
5. The most important foreign trade metrics for the main importing countries of Egyptian potatoes.

Research Methodology and Data Sources:

The research relied on descriptive and quantitative analytical methods, utilizing some statistical techniques such as calculating the arithmetic mean, general time trend equations, and key foreign trade metrics. The research was based on published data from various sources, including the Food and Agriculture Organization (FAO), the Central Agency for Public Mobilization and Statistics, as well as some relevant research and studies closely related to the research topic.

RESULTS AND DISCUSSION

Development of the Quantity and Value of Egypt's Horticultural Crop Exports

By reviewing the data in Table (1), it is evident that the average quantity of Egypt's horticultural crop exports reached approximately 2.28 million tons during the period (2000-2022), ranging from a minimum of about 210 thousand tons in 2000 to a maximum of about 5.66 million tons in 2022.

By studying the general time trend of the development of horticultural crops exports in Egypt during the period (2000-2022), it is clear that the linear pattern was the best fit for the data of this period, as shown in the equation in Table (2). The results of the estimation show that the average quantity of horticultural crop exports in Egypt increased by about 240 thousand tons, at a rate of about 10.5%, during the same period. The value of the coefficient of determination indicates that about 92% of the changes in the quantity of horticultural crop exports in Egypt during the study period are due to changes in economic, social, and technological factors related to time.

Table 1: Development of the Quantity and Value of Egypt's Horticultural Crops Exports during the Period 2000-2022.

Year	Quantity(Million Tons)	Value(Billion Dollars)	Dollars/Ton
2000	0.21	0.05	228.91
2001	0.58	0.11	195.97
2002	0.33	0.07	208.27
2003	0.41	0.10	248.48
2004	0.66	0.21	322.02
2005	0.56	0.21	375.06
2006	0.72	0.21	285.53
2007	0.76	0.35	453.76
2008	1.11	0.71	644.10
2009	2.13	1.60	752.11
2010	1.57	1.15	734.14
2011	2.58	1.69	656.04
2012	1.64	1.55	945.99
2013	2.72	1.67	611.92
2014	2.92	1.56	535.38
2015	3.02	1.70	563.35
2016	3.37	1.84	545.78
2017	3.41	2.05	601.56
2018	3.12	2.36	753.89
2019	5.20	2.32	446.03
2020	4.70	2.37	503.77
2021	4.98	2.65	532.32
2022	5.66	2.78	491.27
Average	2.28	1.27	505.90
Minimum	0.21	0.05	195.97
Maximum	5.66	2.78	945.99

Source: Collected and calculated from the Food and Agriculture Organization (FAO) database.

Table 2: General Time Trend Equations for the Development of the Quantity and Value of Egypt's Horticultural Crop Exports during the Period (2000-2022).

Item Equation	R²	F
Export Quantity Y = 2.88 + 15.24X	0.92	232.4**
Export Price Y = 2.99 + 4.27X	0.30	8.9**
Export Value Y = 18.31 + 3.42X	0.94	335.3**

Where: Y refers to the estimated value of the quantity and value of horticultural crop exports in Egypt in year (i).
X refers to the time variable during the study period. (i) = 1, 2, 3, 4......23.
The values in parentheses refer to the calculated (t) values. (**): Significant at the 1% level.
Source: Collected and calculated from Table (1) data.

By reviewing the data in Table (1), it is evident that the average export price per ton of horticultural crops in Egypt during the period 2000-2022 was about $505.9, ranging from a minimum of about 195.97$/ton in 2001 to a maximum of about 945.99$/ton in 2012.

By studying the general time trend of the development of horticultural crop export prices in Egypt during the period 2000-2022, it is clear that the linear pattern was the best fit for the data of this period, as shown in the equation in Table (2). The results of the estimation show that the average export prices of horticultural crops in Egypt increased by about 16.02$/ton, at a rate of about 3.2% during the same period. The value of the coefficient of determination indicates that about 30% of the changes in the export prices of horticultural crops in Egypt during the study period are due to changes in economic, social, and technological factors related to time.

Relative Importance of Potato Imports at the Global Level

Table (3) shows the development of the relative importance of global potato imports during the period 2016-2022. It is evident that the average quantity of potatoes supplied to the global market was about 15.04 million tons, ranging from a minimum of about 13.39 million tons in 2016, representing about 89.05% of the average for that period, to a maximum of about 16.48 million tons in 2022, representing about 109.55% of the average for the same period.

The data in the same table also indicate that the average global supply price of potatoes during the period 2016-2022 was about $321.14/ton, ranging from a minimum of about 304.4$/ton in 2021, representing about 94.79% of the average price for that period, to a maximum of about 348.54$/ton in

2022, representing about 108.53% of the average price for the same period.

The data in Table (3) indicate the development of the value of global potato imports during the period 2016-2022, which reached a minimum of about 4.21 billion$ in 2016, representing about 87.11% of the average for that period, which was about 4.84 billion$. It then began to increase year after year until it reached a maximum of about 5.74 billion $ in 2022, representing about 118.7% of the average for the same period.

Development of the Quantity and Value of Egypt's Potato Exports

By reviewing the data in Table 4, it is evident that the average quantity of Egypt's potato exports reached about 448.4 thousand tons during the period 2000-2022, ranging from a minimum of about 156.6 thousand tons in 2000 to a maximum of about 847.2 thousand tons in 2022.

By studying the general time trend of the development of potato exports in Egypt during the period 2000-2022, it is clear that the linear pattern was the best fit for the data of this period, as shown in the equation in Table 5. The results of the estimation show that the average quantity of potato exports in Egypt increased by about 23.14 thousand tons, at a rate of about 5.2%, during the same period. The value of the coefficient of determination indicates that about 68% of the changes in the quantity of potato exports in Egypt during the study period are due to changes in economic, social, and technological factors related to time.

By reviewing the data in Table (4), it is evident that the average export price per ton of potatoes in Egypt during the period 2000-2022 was about 343.3$/ton, ranging from a minimum of about 148.4$/ton in 2003 to a maximum of about 676.1$/ton in 2009.

Table 3: Relative Importance of Global Potato Imports during the Period 2016-2022.

Year	Quantity (Million Tons)		Value(Billion Dollars)		Value imports	
	Average	Relative importance%	Average	Relative importance%	Average Dollar/Tons	%
2016	13.39	89.05	4.21	87.11		97.99
2017	14.42	95.89	4.52	93.49	314.68	97.65
2018	14.86	98.82	4.62	95.47	313.60	96.77
2019	15.45	102.72	5.30	109.47	310.76	106.74
2020	14.98	99.59	4.69	96.98	342.79	97.54
2021	15.70	104.39	4.78	98.78	313.23	94.79
2022	16.48	109.55	5.74	118.70	304.40	108.53
Average	15.04	100	4.84	100	348.54	100
Minimum	13.39	89.05	4.21	87.11	321.14	94.79
Maximum	16.48	109.55	5.74	118.70	304.40	108.53

Source: Collected and calculated from the Food and Agriculture Organization (FAO) database.
www.fao.org

Table 4: Development of the Quantity and Value of Egypt's Potato Exports during the Period (2000-2022).

Year	Quantity (Million Tons)	Value(Billion Dollars)	Dollars/Ton
2000	156.63	27.39	174.87
2001	185.51	29.75	160.37
2002	229.38	42.62	185.79
2003	296.29	43.97	148.41
2004	381.51	67.23	176.22
2005	392.18	77.45	197.48
2006	367.13	65.35	178
2007	389.7	108.09	277.37
2008	397.94	176.15	442.65
2009	215.08	145.41	676.06
2010	298.56	129.56	433.96
2011	637.43	250.65	393.22
2012	262.99	127.35	484.25
2013	427.91	205.9	481.18
2014	684.69	326.79	477.28
2015	601	232.9	387.52
2016	473	162.01	342.51
2017	671.29	272.73	406.28
2018	498.58	206.86	414.89
2019	684.74	266.15	388.69
2020	633.05	221.95	350.6
2021	581.33	200.15	344.29
2022	847.18	316	373
Average	448.40	160.97	343.26
Minimum	156.63	27.39	160.37
Maximum	847.2	27.39	160.37

Source: Collected and calculated from the Food and Agriculture Organization (FAO) database.

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Table 5: General Time Trend Equations for the Development of the Quantity and Value of Egypt's Potato Exports during the Period (2000-2022).

Item	Equation	R^2	F
Export Quantity	Y = 3.63 + 6.75X	0. 68	45.5**
Export Price	Y = 3.1 + 4.19X	0.31	9.6**
Export Value	Y = 7.78 + 0.91X	0.74	60.59**

Where: Y refers to the estimated value of the quantity and value of potato exports in Egypt in year (i).

X refers to the time variable during the study period. (i) = 1, 2, 3, 4......23.

The values in parentheses refer to the calculated (t) values. (**): Significant at the 1% level.

Source: Collected and calculated from Table (4) data.

By studying the general time trend of the development of potato export prices in Egypt during the period 2000-2022, it is clear that the linear pattern was the best fit for the data of this period, as shown in the equation in Table (5). The results of the estimation show that the average export prices of potatoes in Egypt increased by about 11.24dollar/ton, at a rate of about 3.3% during the same period. The value of the coefficient of determination indicates that about 31% of the changes in the export prices of potatoes in Egypt during the study period are due to changes in economic, social, and technological factors related to time.

Table (6) shows the ranking of the main importing countries of Egyptian potatoes during the period (2016-2022). The top five countries in terms of quantity and value were (Russia, Greece, Italy, Lebanon, and the United Arab Emirates), with average exported quantities of (213.1, 70.033, 47.861, 46.613, 41.582) thousand tons respectively, and average values of (29.073, 25.757, 17.846, 17.182, 15.103) million dollars respectively. Oman ranked eleventh with an average quantity of about 12.039 thousand tons, valued at 5.763 milliondollar during the study period.

Table 6: Relative Importance of Importing Countries of Egyptian Potatoes during the Period (2016-2022).

Sequence according to value	Country	Quantity (Thousand Tons)	Country	Value (Million Dollars)
1	Russia	213.1	Russia	29.073
2	Greece	70.033	Greece	25.757
3	Italy	47.861	Italy	17.846
4	Lebanon	46.613	Lebanon	17.182
5	UAE	41.582	UAE	15.103
6	Turkey	27.403	Germany	12.088
7	Germany	22.503	Kuwait	7.201
8	Kuwait	20.942	Iraq	7.028
9	Iraq	18.126	Syria	6.59
10	Syria	18.06	Slovenia	6.289
11	Oman	12.039	Oman	5.763

Source Collected and calculated from the Food and Agriculture Organization (FAO) database.
www.fao.org

Foreign Trade Metrics for Egyptian Potatoes in Global Markets

The results in Table (7) show the development of the most important foreign trade metrics for Egyptian potatoes exported globally during the period (2000-2022), as follows:

1. Production Advantage: This metric shows the ratio of Egyptian potato production to global production as a percentage. This metric reached its lowest value in 2000 at 0.55, while it reached its highest value in 2022 at 1.93, with an average of 1.14 during the study period. This indicates the continuous growth of Egyptian potato production.

2. Apparent Comparative Advantage: This metric compares the ratio of a country's exports of a commodity to its total agricultural exports with the ratio of global exports of the same commodity to total global agricultural exports. A value greater than one indicates that the country has a comparative advantage in exporting that commodity. For Egyptian potatoes, this metric reached an average of 15.85 during the study period, with the lowest value in 2009 at 10.37 and the highest value in 2014 at 24.82.

3. Price Comparative Advantage: This metric measures the ratio between the export price of Egyptian potatoes and the average global export price of other countries. A value less than one indicates a price advantage for Egyptian potatoes. This condition was met during the period (2001-2007), but not in the rest of the period, with an average of 1.16 during the study period. This may be attributed to the presence of high-value export varieties that raise the global export price of Egyptian potatoes.

4. Export Price of Egyptian Potatoes: The average export price of Egyptian potatoes during the study period was about $343.38/ton, with the lowest price in 2003 at 148.41 $/ton and the highest price in 2009 at 676.06 $/ton.

5. Market Share: This metric measures the ratio of Egypt's potato exports to global exports. It shows a continuous increase, with the lowest value in 2000 at 2.02% for quantity and 2.09% for value, and the highest value in 2014 at 5.6% and 7.69% for quantity and value respectively. The average for the period was 3.8% and 4.31% for quantity and value respectively.

6. Export Ratio: This metric measures the ratio of the quantity exported to the total production of the commodity in the exporting country. The lowest value was in 2012 at 5.53%, while the highest 6. value was in 2005 at 15.87%. The average for the period was 11.45%.

Foreign Trade Metrics for Egyptian Potatoes in the Greek Market

The results in Table (8) show the development of indicators for Egyptian potato exports to the Greek market during the period (2000-2022), as follows:

1. Market Share: This metric measures the ratio of a country's exports of a commodity to the total imports of the importing market for that commodity. It indicates the extent to which the importing country relies on exports from that country. The lowest value was in 2000 at 2.13% for quantity and 1.55% for value, while the highest value was in 2004 at 80.38% for quantity and in 2005 at 48.53% for value. The average for the period was 38.52% for quantity and 28.43% for value, indicating the importance of Egyptian potatoes to the Greek market.

Table 7: Development of the Most Important Foreign Trade Metrics for Egyptian Potatoes during the Period (2000-2022).

Year	Production Advantage	Apparent Comparative Advantage	Price Comparative Advantage	Export Price (Dollars/Ton)	Market Share (Quantity)	Market Share (Value)	Export Ratio
2000	0.55	17.41	1.05	174.87	2.02	2.12	8.85
2001	0.62	14.12	0.91	160.37	2.30	2.09	9.75
2002	0.64	15.22	0.93	185.79	2.83	2.63	11.55
2003	0.66	13.37	0.72	148.41	3.25	2.37	14.53
2004	0.78	14.17	0.71	176.22	4.21	3.04	14.98
2005	1.00	23.22	0.94	197.48	4.39	4.12	12.38
2006	0.75	15.94	0.63	178.00	3.77	2.41	15.87
2007	0.88	17.65	0.84	277.37	3.74	3.17	14.12
2008	1.09	25.32	1.35	442.65	3.87	5.15	11.16
2009	1.11	10.37	2.32	676.06	2.11	4.75	5.88
2010	1.11	13.19	1.38	433.96	2.63	3.58	8.19
2011	1.18	14.47	1.06	393.22	5.20	5.51	14.69
2012	1.31	12.49	1.59	484.25	2.37	3.72	5.53
2013	1.16	12.98	1.29	481.18	3.50	4.48	10.03
2014	1.25	24.82	1.41	477.28	5.60	7.69	14.85
2015	1.36	18.78	1.31	387.52	4.99	6.45	12.13
2016	1.16	11.84	1.10	342.51	3.79	4.17	11.50
2017	1.31	18.08	1.32	406.28	4.86	6.30	13.87
2018	1.36	13.78	1.31	417.78	3.66	4.74	9.98
2019	1.42	13.71	1.12	388.69	4.62	5.16	13.17
2020	1.84	14.43	1.16	350.60	4.33	5.00	9.33
2021	1.68	12.72	1.13	344.29	4.04	4.56	9.27
2022	1.93	16.54	1.13	373.00	5.33	5.95	11.75
Average	1.14	15.85	1.16	343.38	3.80	4.31	11.45

Source: Collected and calculated from Table (2) data.

2. Penetration Coefficient: This metric measures the ratio of the quantity of a commodity exported from a country to the quantity available for consumption in the importing market. The lowest value was in 2000 at 0.18%, while the highest value was in 2019 at 18.99%. The average for the period was 7.24%, confirming the importance of Egyptian potatoes to the Greek market.

3. Export Ratio: This metric measures the ratio of exports to a specific market to the total exports of the commodity from the exporting country. The lowest value was in 2000 at 1.24% for quantity and 1.22% for value, while the highest value was in 2004 at 29.59% for quantity and 31.45% for value. The average for the period was 13.67% for quantity and 14.29% for value, indicating the importance of the Greek market for Egyptian potato exports.

4. Price Advantage: This metric achieved a competitive price advantage during most of the study period, except for three years where it exceeded one. The lowest value was in 2004 at 0.15, while the highest value was in 2009 at

1.22. The average for the period was 0.69.

[Foreign Trade Metrics for Egyptian Potatoes in the Italian Market]*

The results in Table (9) show the development of indicators for Egyptian potato exports to the Italian market during the period (2000-2022), as follows:

1. Market Share: This metric measures the ratio of a country's exports of a commodity to the total imports of the importing market for that commodity. It indicates the extent to which the importing country relies on exports from that country. The lowest value was in 2000 at 3.32% for quantity and 3.07% for value, while the highest value was in 2006 at 18.82% for quantity and in 2008 at 20.9% for value. The average for the period was 9.44% for quantity and 10.08% for value, indicating the importance of Egyptian potatoes to the Italian market.

Table 8: Development of Indicators for Egyptian Potato Exports to the Greek Market during the Period (2000-2022).

Year	Market Share (Quantity)	Market Share (Value)	Penetration Coefficient	Export Ratio (Quantity)	Export Ratio (Value)	Price Advantage
2000	2.13	1.55	0.18	1.24	1.22	0.73
2001	19.71	11.81	1.22	6.57	6.36	0.55
2002	44.91	31.09	5.18	22.41	24.32	0.55
2003	37.98	20.85	5.03	18.44	19.51	0.43
2004	80.38	37.76	10.79	29.59	31.45	0.15
2005	71.96	48.53	8.30	21.23	25.60	0.37
2006	68.12	27.20	8.77	24.08	24.03	0.17
2007	42.12	22.47	5.56	15.27	15.85	0.40
2008	35.37	38.07	4.78	12.35	18.20	1.12
2009	27.97	32.23	4.15	20.94	20.82	1.22
2010	43.67	38.93	5.62	19.40	20.30	0.82
2011	32.93	25.30	5.45	9.01	10.80	0.69
2012	27.49	28.15	3.61	13.53	13.40	1.03
2013	32.06	24.94	4.63	11.07	10.87	0.70
2014	16.75	14.32	2.97	3.16	2.88	0.83
2015	39.50	32.71	8.31	9.83	8.03	0.74
2016	27.70	24.76	6.55	8.44	9.46	0.86
2017	44.32	36.34	12.39	11.80	10.00	0.72
2018	24.29	23.54	7.00	8.69	8.69	0.96
2019	56.55	41.26	18.99	17.66	17.09	0.54
2020	43.33	37.55	13.60	12.39	12.39	0.79
2021	24.45	20.27	7.96	7.00	7.00	0.79
2022	42.26	34.32	15.44	10.38	10.38	0.71
Average	38.52	28.43	7.24	13.67	14.29	0.69

Source: Collected and calculated from Table (6) data.

2. Penetration Coefficient:* This metric measures the ratio of the quantity of a commodity exported from a country to the quantity available for consumption in the importing market. The lowest value was in 2000 at 0.73%, while the highest value was in 2009 at 4.61%. The average for the period was 2.84%.

3. Export Ratio: This metric measures the ratio of exports to a specific market to the total exports of the commodity from the exporting country. The lowest value was in 2018 at 4.97% for quantity, while the highest value was in 2001 at 26.69% for quantity and in 2003 at 26.6% for value. The average for the period was 14.53% for quantity and 14.97% for value, indicating the importance of the Italian market for Egyptian potato exports.

4. Price Advantage: This metric achieved a competitive price advantage at the beginning of the period until 2007, but exceeded one in the rest of the period. The lowest value was in 2006 at 0.52, while the highest value was in 2012 at 1.71. The average for the period was 1.16.

Foreign Trade Metrics for Egyptian Potatoes in the Russian Market

The results in Table (10) show the development of indicators for Egyptian potato exports to the Russian market during the period (2002-2022), as follows:

1. Market Share: This metric measures the ratio of a country's exports of a commodity to the total imports of the importing market for that commodity. It indicates the extent to which the importing country relies on exports from that country. The lowest value was in 2000 at 0.84% for quantity and 0.89% for value, while the highest value was in 2022 at 71.16% for quantity and 58.37% for value. The average for the period was 27.96% for quantity and 24.46% for value, indicating the importance of Egyptian potatoes to the Russian market.

2. Penetration Coefficient: This metric measures the ratio of the quantity of a commodity exported from a country to the quantity available for consumption in the importing market.

Table 9: Development of Indicators for Egyptian Potato Exports to the Italian Market during the Period (2000-2022).

Year	Market Share (Quantity	Market Share (Value)	Penetration Coefficient	Export Ratio (Quantity)	Export Ratio (Value)	Price Advantage
2000	3.32	3.07	0.73	10.63	9.05	0.92
2001	9.95	8.13	2.29	26.69	25.32	0.80
2002	8.89	6.96	2.27	20.56	20.04	0.77
2003	12.05	8.47	3.53	23.78	26.60	0.68
2004	9.92	6.05	2.71	16.03	15.87	0.58
2005	13.60	12.10	3.58	19.45	20.07	0.87
2006	18.82	10.71	4.61	26.51	26.57	0.52
2007	14.00	10.37	3.64	20.01	21.57	0.71
2008	12.65	20.90	3.75	18.52	24.88	1.82
2009	5.06	10.76	1.37	14.08	14.03	2.26
2010	8.96	12.50	3.02	21.22	22.45	1.45
2011	10.90	13.83	3.29	10.37	13.77	1.31
2012	5.30	8.75	1.74	13.45	13.58	1.71
2013	11.40	13.19	4.34	18.47	18.24	1.18
2014	8.85	12.70	2.91	8.01	8.04	1.50
2015	10.27	12.98	3.54	11.34	9.36	1.30
2016	9.63	11.60	3.28	12.98	14.69	1.23
2017	11.09	12.31	3.71	10.23	8.67	1.13
2018	3.85	5.47	1.32	4.97	4.97	1.45
2019	10.06	10.25	3.45	9.40	9.15	1.02
2020	6.96	7.50	2.18	6.79	6.79	1.08
2021	4.73	5.37	1.53	5.05	5.05	1.14
2022	6.84	7.90	2.44	5.60	5.60	1.17
Average	9.44	10.08	2.84	14.53	14.97	1.16

Source: Collected and calculated from Table (6) data.

Table 10: Development of Indicators for Egyptian Potato Exports to the Russian Market during the Period (2000-2022).

Year	Market Share (Quantity)	Market Share (Value)	Penetration Coefficient	Export Ratio (Quantity)	Export Ratio (Value)	Price Advantage
2002	0.84	0.89	0.01	0.71	0.66	1.06
2003	4.11	3.99	0.07	7.05	7.82	0.97
2004	13.78	12.66	0.08	5.82	6.18	0.91
2005	7.47	5.80	0.10	7.18	6.55	0.76
2006	13.45	9.84	0.17	13.59	14.47	0.70
2007	24.34	12.78	0.22	15.72	12.68	0.46
2008	8.41	12.31	0.15	11.36	15.65	1.53
2009	7.76	13.19	0.09	13.50	13.42	1.81
2010	10.30	9.06	0.31	22.92	19.07	0.87
2011	22.03	15.55	0.95	50.67	45.23	0.65
2012	13.57	13.18	0.21	23.79	23.55	0.97
2013	28.54	25.50	0.42	29.89	28.92	0.86
2014	45.38	38.79	0.97	45.71	45.40	0.76
2015	51.53	35.29	0.83	47.09	38.83	0.51
2016	32.93	33.70	0.42	19.88	22.39	1.03
2017	54.48	47.71	1.38	45.50	38.56	0.76
2018	42.64	46.85	1.07	49.35	49.35	1.19
2019	44.03	39.83	0.60	19.34	19.85	0.84
2020	51.83	45.74	0.84	25.89	25.89	0.78
2021	38.53	32.61	1.13	36.20	36.20	0.77
2022	71.16	58.37	1.77	40.26	40.26	0.57
Average	27.96	24.46	0.56	25.31	24.33	0.89

Source: Collected and calculated from Table (6) data.

The lowest value was in 2000 at 0.01%, while the highest value was in 2022 at 1.77%. The average for the period was 0.56%. These numbers indicate that Russia is a potato-producing country, and despite the high market share, it did not reflect the same level of penetration. This means that although Egypt is a major exporter of potatoes to Russia, the reliance of Russian consumers on Egyptian potatoes is not very high.

3. Export Ratio: This metric measures the ratio of exports to a specific market to the total exports of the commodity from the exporting country. The lowest value was in 2000 at 0.71% for quantity and 0.66% for value, while the highest value was in 2018 at 49.35% for both quantity and value. The average for the period was 25.31% for quantity and 24.33% for value, indicating the importance of the Russian market for Egyptian potato exports.

4. Price Advantage: This metric achieved a competitive price advantage during most of the study period, except for five years where it exceeded one. The lowest value was in 2007 at 0.46, while the highest value was in 2009 at 1.81. The average for the period was 0.89.

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الملخص العربي

التحليل الاقتصادي للصادرات المصرية من البطاطس

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تعتبر الصادرات الزراعية المصرية من أهم ركائز الاقتصاد الوطنى لما تمثله من فرصة لزيادة الدخل من العملات الصعبة، واستهدفت الدراسة إلي إلقاء الضوء ودراسة كل من: صادرات مصر من الحاصلات البستانية، واردات وصادرات مصر من البطاطس، أهم مقاييس التجارة الخارجية للبطاطس المصرية. ودراسة أهم مقاييس التجارة الخارجية لأهم الدول المستوردة للبطاطس المصرية. اعتمد البحث على الأسلوب التحليلي الوصفي والكمي حيث تم الاستعانة ببعض الاساليب الاحصائية مثل حساب المتوسط الحسابى، ومعادلات الاتجاه الزمنى العام، أهم مقاييس التجارة الخارجية. واعتمد البحث على البيانات المنشورة من الجهات المختلفة.

وكان من أهم النتائج أن متوسط كمية صادرات مصر من الحاصلات البستانية بلغ حوالي ٢.٢٨ مليون طن خلال الفترة (٢٠٠٠–٢٠٢٢)، أن متوسط كمية صادرات مصر من البطاطس بلغ حوالي ٤٤٨.٤ ألف طن خلال فترة الدراسة، وأن متوسط سعر تصدير الطن من البطاطس في مصر خلال نفس الفترة بلغ حوالي ٣٤٣.٣ دولار/ طن،أهم الدول المستوردة للبطاطس المصرية خلال الفترة (٢٠١٦–٢٠٢٢) وقد جاء كل من (روسيا، اليونان، ايطاليا، لبنان، الإمارات العربية المتحدة) فى المراكز الخمسة الأول كمية وقيمة حيث بلغ متوسط الكمية المصدرة نحو(٢١٣.١، ٧٠.٠٣٣، ٤٧.٨٦١، ٤٦.٦١٣،٤١.٥٨٢) الف طن لكل منهم على الترتيب.

وكان من أهم النتائج أيضاً أن الميزة الإنتاجية للبطاطس المصرية بلغت نحو ١.١٤ وهو مايوضح التنامى المستمر للإنتاج المصرى من البطاطس، وأن الميزة النسبية الظاهرية بلغت نحو ١٥.٨٥، وأن الميزة النسبية السعرية وهو مقياس يعبر عن النسبة بين سعر التصدير للبطاطس المصرية ومتوسط السعر العالمى لباقى الدول المصدرة وكلما كانت قيمته اقل من الواحد الصحيح دل على وجود ميزة سعرية للبطاطس المصرية وقد تحقق هذا الشرط خلال فترة الدراسة بينما لما تتحقق فى باقى الفترة حيث نحو ١.١٦ وذلك خلال فترة الدراسة وقد يرجع هذا الى وجود اصناف تصديرية مرتفعة القيمة ترفع من سعر التصدير العالمى للبطاطس المصرية.

الكلمات المفتاحية: صادرات البطاطس– الميزة الإنتاجية– الميزة النسبية الظاهرية– النصيب السوقي – معامل الإختراق.