

# FROZEN POTATO SECTOR in Greece

Constant Changes in Food Habits Imply Significant Growth Potential



A Study prepared by  
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## 1. The Economic and Monetary Environment in Greece

### Strong GDP Growth Led by Investments and Low Interest Rates

#### A. Overview

On the strength of a stable political environment, Greek economy continues to demonstrate a dynamic GDP growth, assisted by low inflation levels, strong investment activity – which is also boosted by EU funding – and resilient consumer confidence. Although the global economic downturn has affected the economy’s growth potential and has weakened demand in certain sectors, there are still significant opportunities for business activity in the country, especially in the defensive segments of the economy such as the food sector.

#### Greece - Historic Key Economic Figures

	1999	2000	2001	2002
GDP Growth	3.6%	4.3%	4.1%	3.7% *
CPI (average)	2.7%	3.2%	3.4%	3.6%
Fiscal Balance (% of GDP)	1.8	-1.8	-1.2	N/A
Public Debt (% of GDP)	104.6	102.8	104.7	106 - 107
Unemployment Rate	11.9%	11.4%	10.9%	10.5%

Source: MoF, BoG, NSSG. \*: Forecast

Among the most important economic developments, the following ones are highlighted:

- 1) Greek GDP growth is expected to continue, exceeding EU average growth rates in the period 2003 – 2004. Higher GDP growth is due to strong investment growth and resilient consumer spending rates;
- 2) Inflation is currently “running” at less than 4% y-o-y – steadily exceeding the EU average rate. Higher inflation pressures than the average rate in Euroland are due to accelerating labor costs, as well as structural problems in key domestic goods and services markets;
- 3) After fulfilling the nominal EU convergence criteria, Greek economic authorities are now hard at work promoting the real convergence.

#### **B. Prospects in the Greek Economy**

Despite sluggish performance of the major international economies, prospects appear favorable in the Greek economy in view of the following determining factors:

- 1) Continuing domestic investment activity, as a result of rising inflows of EU structural funds and the completion of large infrastructure projects ahead of the 2004 Olympic Games, is increasing demand for products and services;
- 2) Private consumption is expected to draw a resilient pattern in view of tax incentives, and slowly rising interest rates;
- 3) Regarding fiscal developments, nominal budget revenue growth is going to be a difficult task for Greek economic authorities, especially in the case that budget expenditures show persistent expansion;
- 4) Credit growth is anticipated to decelerate following a period of rapid expansion due to historic low interest rates, intensified competition among domestic commercial banks, and lower levels of private sector indebtedness.

The following table depicts the major prospective economic figures:

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**GREEK ECONOMY, Growth Outlook**


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(%)	2000	2001	2002 E	2003 F	2002 F				2003 F			
					Q1	Q2	Q3	Q4 E	Q1 F	Q2 F	Q3 F	Q4 F
GDP (y-o-y)	4.3	4.1	3.7	3.4	4.3	4.0	3.5	3.2	3.2	2.1	3.7	4.7
GDP (q-o-q)	....	....	....	....	1.9	0.3	1.2	-0.2	1.8	-0.7	2.8	0.7
Domestic Demand (y-o-y)	4.0	3.5	4.0	3.6	4.6	4.2	3.7	3.4	3.7	2.5	3.7	4.5
Final Consumption (y-o-y)	2.6	2.7	2.3	2.2	3.6	1.6	2.2	1.9	1.7	1.9	2.5	2.8
Investment (y-o-y)	9.5	6.9	9.7	8.2	11.7	9.8	8.6	8.5	6.9	7.5	8.0	10.2
- construction	2.9	8.6	11.7	9.7	....	....	....	....	....	....	....	....
- equipment	17.2	5.2	5.9	6.0	....	....	....	....	....	....	....	....
Inventories (contribution to GDP)	0.0	0.0	0.0	0.0	-0.9	0.8	0.0	0.1	0.8	-0.8	0.0	0.0
Net Exports (contribution to GDP)	-0.1	0.3	-0.5	-0.5	-0.6	-0.5	-0.5	-0.4	-0.8	-0.6	-0.3	-0.1
Exports (y-o-y)	19.8	-1.3	2.3	3.1	3.4	2.6	1.7	1.5	1.5	2.8	3.7	4.3
Imports (y-o-y)	14.5	-1.8	3.4	3.8	4.5	3.7	2.8	2.5	3.9	3.9	3.8	3.7

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Source: MoF, NSSG, NBG Forecasts.

## 2. The Frozen Food (Vegetable and Potato) Sector in Greece

### Strong Dependence on Imports in View of Low Production Levels

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[ The following analysis is based on the latest available sector report, covering the period 1990 – 2000. The report has been prepared by ICAP, the leading consulting firm in sector research in Greece. The frozen potato market is classified as a part of the “Frozen Food (Vegetables and Potato) Sector”. ]

#### A. Overview of the Frozen Vegetables Sector

The Greek frozen vegetables and potatoes sector is characterized by the **existence of a small number of production units, while a large number of companies is engaged in the import and trading of frozen vegetables and potatoes as well as of other non-frozen products.**

Greece does not produce all kinds of frozen vegetables. The majority of **domestic production** consists of frozen green beans, while peas, okra and spinach are produced in smaller quantities. During the period 1994 - 1999, the quantity of domestic production ranged between 10,000 – 11,000 tons. The sector leading production unit holds a market share of approximately 45%.

The quantity of the **apparent domestic consumption** of frozen vegetables increased during the period 1990 - 1999, reaching approximately 30,000 tons. Frozen green beans, peas and okra represented 50% of total domestic consumption of the frozen vegetables.

**Imports** account for most of the Greek frozen vegetables market. Their stake in the total apparent domestic consumption stood at approximately 70% during

the period 1998 - 1999. The **exports** were limited and basically concerned peas, peppers and mixed vegetables.

During the fiscal year 1999, frozen vegetables were almost equally distributed (50%) in food service units (hotels, restaurants etc.) and retail stores, with super markets being the basic distribution channel.

For the years 2000 and 2001, **domestic consumption** of frozen vegetables accounted for approximately 30,000 – 31,000 tons, while for fiscal 2002, consumption is estimated at slightly higher levels, with the market size expanding at an average rate of +2% - 3% per annum (in terms of quantity).

### **B. Overview of the Frozen Potato Sector**

The **Greek frozen potato market** increased significantly during the period 1990 - 1999 with the size of **apparent domestic consumption** reaching 63,100 tons in 1999 from 28,115 tons in year 1990.

**Imported products** represented the bulk of demand, capturing a 74% stake of total consumption at the end of 1999. The **market leader** with a share of 45% - 46% of the total apparent domestic consumption was MC CAIN Hellas.

During the period 1990 - 1999 the quantity of the **domestic frozen potato production** fluctuated significantly. Nonetheless, there was a significant increase during the last two years of the examined period, with production reaching 17,800 tons in 1999. In the same year, food service units absorbed the largest part of domestic consumption of frozen potatoes, with household consumption representing only a 6% - 7% stake.

Under current market conditions and trends, **the size of the domestic consumption is expected to reach approximately 71,300 tons in 2003 and evolve about 10% higher in 2004** (positively affected by constant changes in

food habits and the Athens 2004 Olympic Games). A steady growth in consumption with an average rate of 5% - 6% is estimated in the following years.

### **C. Basic Frozen Food Sector Characteristics**

The frozen potato sector is characterized by the existence of few production units owned for the most part by Greek interests. Domestic production is very low compared to total consumption, with imported products covering the bulk majority of demand.

The majority of units produce both frozen vegetables and potatoes, while others are engaged in the production of only one frozen food product category. Likewise, most of the importing companies offer a wide range of frozen products without specializing either in vegetables or in potato.

In general, the basic sector characteristics during the examined period are the following:

- 1) The relative stability in the **domestic production of frozen vegetables** over the past few years. On the other hand, **frozen potato production** appears to be growing after a period of decline;
- 2) Increase in **imports** in both product categories towards the end, as opposed the beginning of the examined period (1990 - 1999);
- 3) Frozen potato products are mostly directed towards **food service units**, while frozen vegetables are an important part of **household consumption**.
- 4) **Urban and tourist** (mostly the Greek islands) **parts of the country** consume the bulk of frozen vegetables and potato products due to the concentration of population as well as the presence of a large number of food service units.
- 5) **Demand for frozen vegetables and potato is seasonal**. More specifically, during the summer, there is an increase in demand for frozen potatoes due to tourists, while the demand for frozen vegetables declines due to the availability of fresh products during that period.

### 3. The Frozen Potato Market in Greece

#### Changes in Food Habits Imply Significant Growth Potential

[ The following analysis is based on the latest available sector report, covering the period 1990 – 2000. The report has been prepared by ICAP, the leading consulting firm in sector research in Greece. The frozen potato market is classified as a part of the “Frozen Food (Vegetables and Potato) Sector”. ]

#### A. Frozen Potato Production in Greece

The size and evolution of the domestic frozen potato production during the period 1990 - 1999 are shown in the following table:

#### Domestic Production of Frozen Potatoes

Year	Production Level (tons)	Growth Rate
1990	11,000	N/A
1991	11,500	4.55%
1992	12,000	4.35%
1993	12,000	0.00%
1994	13,000	8.33%
1995	12,500	-3.85%
1996	11,000	-12.00%
1997	9,500	-13.64%
1998	13,500	42.11%
1999	17,800	31.85%

Source: ICAP, Market Surveys.

It appears that **the quantity of the domestic frozen potato production has grown volatile** during the examined period. More specifically, in the first 5 years, production increased to 13,000 tons in 1994 from 11,000 tons in 1990. Later, there was a gradual decrease towards 9,500 tons in 1997, hitting the lowest point in production during the period under review. In fiscal years 1998 and 1999, the domestic frozen potato production increased to 13,500 tons (up by 42.11% year on year) and to 17,800 tons (up by 31.85% year on year), respectively.

At this point, it is interesting to note that the Greek production units are **supplied with raw materials (fresh potatoes)** by the Greek market as well as by foreign markets - mainly Holland and Belgium.

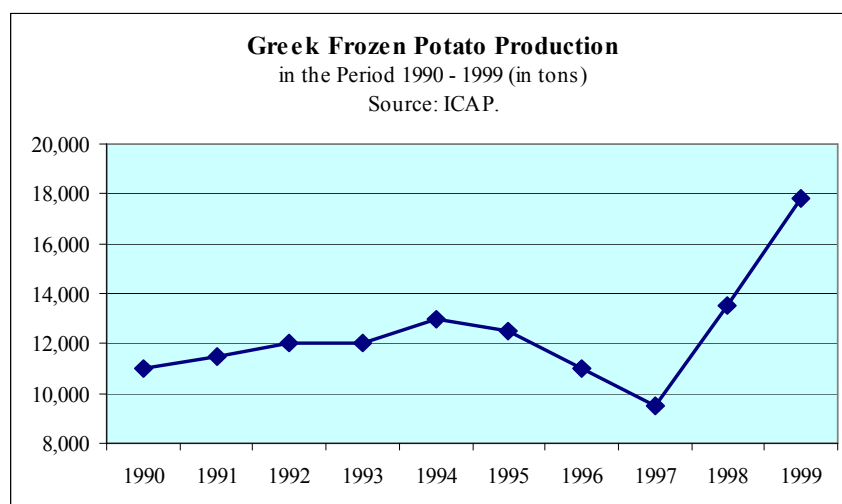
Moreover, the variations in the primary potato production (fresh potato), both in the domestic and the European market, affect the domestic production of frozen potato products.

For example, **lack of supply of raw materials due to poor harvest occurred during the periods 1994 - 1995 and 1998 – 1999**, particularly in Holland. The limited supply resulted in an increase of the average potato price and the decline in potato imports (fresh potatoes as well as frozen potatoes) in the country. During the above time periods, the Greek production units managed to achieve a remarkable production rate by using domestic raw materials and thus, kept the prices at relatively lower levels than the ones that would have prevailed in an environment of weak domestic production.

Moreover, the significant increase in domestic production during the years 1998 - 1999 was due to the following reasons:

- 1) The entrance of new units resulted into a higher production level. According to market estimates, the market leader in total domestic production retained approximately a 35% market share;
- 2) Certain companies proceeded with significant investments in order to modernize operations, increase capacity, and become more competitive.

Currently, domestic companies distribute the bulk of their production to the Greek market, whereas their exports remain at very low levels by comparison with the country's imports. Nonetheless, the Greek exports did show an increase during the years 1998 - 1999. More specifically, the export quantities varied between 370 - 770 tons during the period 1994 - 1997, while they came up to 1,500 – 1,900 tons during the period 1998-1999.



## B. Major Importers

A significant number of companies import and trade frozen vegetables and potatoes, representing however only a part of their overall frozen food product range. The product range also includes frozen meat, poultry, fishery, etc. The producing companies of the sector also make imports of frozen vegetables. These imports mainly concern products that are not produced in Greece.

During the past, there was an increase in the number of companies, which, amongst all, deal with the import of frozen vegetables as a supplementary activity. Many of these companies enter the sector occasionally, depending on demand.

The following table shows the evolution of the frozen potato imports during the period 1994 - 1999, as it came up after the ESYE data elaboration for those years.

Imports of Frozen Potatoes					
Year	Market (in tons)	Change	Market Value (in EUR)	Change	Avg Price (EUR / kg)
1994	49,059	N/A	21,821,071	N/A	0.44
1995	34,861	-28.94%	23,491,768	7.66%	0.67
1996	35,641	2.24%	19,630,362	-16.44%	0.55
1997	49,434	38.70%	22,885,244	16.58%	0.46
1998	50,101	1.35%	29,690,213	29.74%	0.59
1999	47,024	-6.14%	24,908,255	-16.11%	0.71

Source: ICAP, Market Surveys.

As it is shown in the table, in fiscal year 1995, the Greek imports showed a 29% decline compared to 1994, dropping to 34,861 tons compared to 49,059 tons of the previous fiscal year. In 1996, the import quantities did not show a notable change compared to 1995, increasing by a mere 2.2%. In the year 1997, there was a significant increase of 38.78% compared to 1996, with Greek imports reaching 49,434 tons. Imports during the fiscal years 1998 and 1999 remained relatively stable (slightly above 50,101 tons) to 1997 levels.

The variations in the average price of the frozen potato from year to year are due to the changes in the supply of fresh potato from the foreign markets. In periods when the supply of (fresh) potato is limited due to unfavorable climate conditions, there is an increase in the average price of frozen potato.

### Frozen Potato Imports per Country

Country	1997 (in tons)	1997 (in EUR)	1998 (in tons)	1998 (in EUR)
France	16,582	8,729,033	20,856	14,056,405
Holland	22,717	10,257,793	17,383	9,980,613
Belgium & Luxembourg	7,548	2,955,877	8,889	4,241,423
Germany	1,344	549,150	877	469,371
Other EU Countries	1,202	375,495	1,736	757,720
<b>EU Countries</b>	<b>49,393</b>	<b>22,867,348</b>	<b>49,741</b>	<b>29,505,532</b>
Turkey	41	17,905	312	162,406
Other Countries	0	0	48	22,274
<b>Other Countries in Total</b>	<b>41</b>	<b>17,905</b>	<b>360</b>	<b>184,681</b>
<b>GRAND TOTAL</b>	<b>49,434</b>	<b>22,885,253</b>	<b>50,101</b>	<b>29,690,213</b>

Source: ICAP, Market Surveys.

The previous table shows in detail, the frozen potato imports according to country of origin, for the fiscal years 1997 and 1998.

It becomes obvious that during the examined period, the Greek potato imports were almost completely made from E.U. countries.

The main volume of the imported quantities came from France and Holland. More specifically, in 1997, Holland covered a 46.0% (or 22,717 tons) of the total frozen potato imports while France covered a 33.5% share (or 16,582 tons). In 1998, the bulk of imports came from France (20,856 tons or 41.6% of the total), while 17,383 tones were imported from Holland (representing 34.7% of the total imports).

The above-mentioned countries covered 76.3% of the total imported quantities in 1998 vis-à-vis 79.5% in 1997. Frozen potatoes are also imported from other EU countries such as Belgium, Luxembourg, and Germany.

The frozen potato imports from non-EU countries are limited. Imports from Turkey are those that “stand out.”

**C. MC CAIN Hellas Ltd.**

The company was founded in March 1994, with its head office being located in Marousi, a suburb in Athens. It is a subsidiary company of the MC CAIN Group, which has a significant international position in the production of frozen potatoes as well as other products such as juices, meals, appetizers etc. The Group owns more than 55 industrial units in 9 countries.

MC CAIN Hellas Ltd. cooperates with approximately 80 companies – including commercial and importing companies as well as large chains in the fast food sector - all over Greece. 15 of those companies are located in the wider Attica area. The imports are made from MC CAIN Alimentaire in France, which is one of the greatest production units of frozen potatoes in the European market.

The products (frozen potatoes and potatoes specialties) are directly imported by the representatives - clients of the Greek subsidiary. Representing the foreign house, MC CAIN Hellas Ltd. mainly provides the institutional end-user with specialized services.

The company's major clients are fast food chains and restaurants, such as Goody's (also listed on the Athens Stock Exchange), Wendy's, NEON coffee restaurants, and Pitta Pan. Since mid-1996, MC CAIN Hellas Ltd. entered the domestic retail market capturing a significant share. It must be noted that its products are available in all the major super market chains, whereas the company recently started operating in the area of frozen pizza.

It is noted that all MC CAIN products are also available in retail stores (such as super markets).

### D. Exports Evolution

The following table shows the frozen potato export orientation, during the period 1994 - 1999.

Exports of Frozen Potatoes					
Year	Market (in tons)	Change	Market Value (in EUR)	Change	Avg Price (EUR / kg)
1994	691	N/A	529,362	N/A	0.77
1995	771	11.58%	516,434	-2.44%	0.67
1996	373	-51.62%	224,613	-56.51%	0.60
1997	512	37.27%	260,966	16.18%	0.51
1998	1,897	270.51%	1,156,971	343.34%	0.61
1999	1,225	-35.41%	557,943	-51.78%	0.61

Source: ICAP, Market Surveys.

As it is indicated from the relevant data, frozen potato exports remained at low levels during the period 1994 - 1997 and ranged between 373 and 771 tons.

Nonetheless, in year 1998, the export quantities demonstrated an important increase, reaching 1,897 tons. According to National Statistical Services of Greece (NSSG), the imports accounted for 1,225 tons in 1999, based on preliminary data for the year.

Although the export orientation remained especially weak if compared to imports, it is clear that the Greek potato market gradually expands both domestically and abroad, as changes in food habits imply a higher than expected growth potential.

### Export Orientation Analysis according to Country of Destination

The following table depicts the basic countries of destination for frozen potato exports during two indicative years, 1997 and 1998. There is a distinction between EU countries and non-EU countries.

Frozen Potato Exports per Country				
Country	1997 (in tons)	1997 (in EUR)	1998 (in tons)	1998 (in EUR)
Italy	0	0	273	125,784
Holland	18	6,054	63	38,867
Belgium & Luxembourg	21	9,526	23	13,059
Spain	0	0	16	6,371
Sweden	62	22,797	0	0
Germany	24	10,166	0	0
Austria	21	8,475	0	0
France	11	6,571	0	0
<b>EU Countries</b>	<b>157</b>	<b>63,589</b>	<b>375</b>	<b>184,082</b>
Bulgaria	110	27,105	1330	835,454
Supplies	171	123,962	115	86,530
Cyprus	4	3,058	27	13,673
Albania	28	15,771	22	7,246
FYROM	38	16,587	22	22,016
Other Countries	4	10,894	6	7,971
<b>Other Countries in Total</b>	<b>355</b>	<b>197,376</b>	<b>1,522</b>	<b>972,889</b>
<b>GRAND TOTAL</b>	<b>512</b>	<b>260,966</b>	<b>1,897</b>	<b>1,156,971</b>

Source: ICAP, Market Surveys.

The information above shows that there is a greater export orientation towards non-EU countries due to comparatively lower competition – than in EU countries – geographical proximity and significant growth potential in the specific markets.

Moreover, from the table information, it is shown that non-EU countries absorbed the bulk of the total exports during the examined period – 69.3% in 1997 and 80.2% in 1998.

Bulgaria was the major destination country. The exports towards that country were significant size during the two years examined (110 tons in 1997, and 1.330 tons in 1998).

#### **E. The Size of the Domestic Frozen Potato Market in Retrospect**

The table on page 26 shows the evolution of the frozen potato production, imports, exports, and apparent consumption during the period 1990 - 1999. The figures of the import trade that is shown on the table are based on the relative NSSG (National Statistical Services of Greece) information. The year 1996 is an exception, since the size of imports is a market estimate. According to NSSG, during 1996, the imports reached 35,641 tons. However, according to the estimates of the sector participants, the imports during the same year reached 39,000 tons.

Moreover, the data about the foreign trade concerning the year 1999 came up after the elaboration of the information gathered from several companies of the sector, as well as of market estimations. The information resulting from the process concerns though only the first 9 months of the year though.

The **apparent domestic frozen potato consumption** over-doubled during the period 1990 - 1999.

More specifically during the period 1990 - 1994, the market followed an upward course, reaching 61,370 tons in 1994 from 28,115 tons in 1990. During the period 1995 / 94, the apparent consumption showed a 24.1% decline settling at 46,590 tons in 1995.

The decline in the apparent domestic consumption during 1995 / 94 is mainly attributed to the contraction in imports. In turn, that event was mainly caused by the decline in the demand of raw materials (fresh potato) from abroad due to adverse weather conditions. On the other hand, in the year 1996 and especially in 1997 there was a satisfactory agricultural production with a lower average price, which positively contributed to the increase in imports.

From 1996 onwards, the apparent domestic frozen potato consumption shows an upward course, but a declining growth rate. More specifically, the size of the apparent consumption in 1999 is estimated at 63,100 tones showing a 2.3% growth rate compared to the year 1998. The corresponding growth rate during the previous period, 1998 / 97, was 5.6%.

Most demand was for imported products. The **import penetration** ranged in especially high levels throughout that period. On the other hand, it showed a gradual decline during the last 3 years (1997: 84.6%, 1998: 81.2% and 1999: 74.2%).

According to market sources, the decrease in imports during the year 1999, compared to the previous 2 years, was due to the rise in the average price of the imported quantities in the same year. That was caused because of the lower supply of raw material, due to adverse weather conditions, especially in Holland.

The foodservice sector (mass dining units) absorbs the largest percentage of the total **market consumption**, while household consumption ranges at low levels. According to market estimates, the consumption distribution for the year 1999 was the following:

#### The Structure of Consumption

Frozen Potato (in tons)	Bottom Range	Percentage of Total	Top Range	Percentage of Total
Restaurants - Hotels *	46,000	74.55%	47,500	73.64%
Fast Food Chains	12,000	19.45%	13,000	20.16%
Households	3700	6.00%	4000	6.20%
<b>GRAND TOTAL</b>	<b>61,700</b>	<b>100.00%</b>	<b>64,500</b>	<b>100.00%</b>

Source: ICAP, Market Surveys. \* : Including souvlaki corners.

The largest percentage of the frozen potato consumption during that period was occurred at mass dining units such as restaurants, hotels, taverns, souvlaki corners, and fast food chains.

More specifically, the **consumption in the fast food market**, was estimated at 12,000 – 13,000 tons, showing a significant increase compared to the previous period. According to the relative ICAP sector study, the fast food consumption had reached 10,000 tons in 1997.

According to an earlier ICAP sector study on Fast Food Chains (published in September 1999), the foodservice sector, in terms of organized chains, experienced significant growth over the past few years. That was due to the entrance of new (Greek and foreign) chains as well as due to the expansion and modernization of the stores.

It is noted that the share of the “burger” type restaurants in the Greek foodservice sector accounted for approximately 67% of the total market, according to year 1998 related information. Remarkably, in these restaurants the demand for frozen potatoes grows dynamically from year to year.

The **household consumption** of frozen potatoes was estimated at 3,700 – 4,000 tons in 1999, whereas in the following few years exhibited a conservative growth rate.

**Restaurants, souvlaki corners, and hotels** represented the greatest part of the total consumption, reaching 46,000 – 47,500 tons or 73% - 75% of the total in 1999. The particular consuming segment demonstrates a significant volatility from year to year since consumption also depends on broader economic and market conditions in relation to tourism, disposable income, etc.

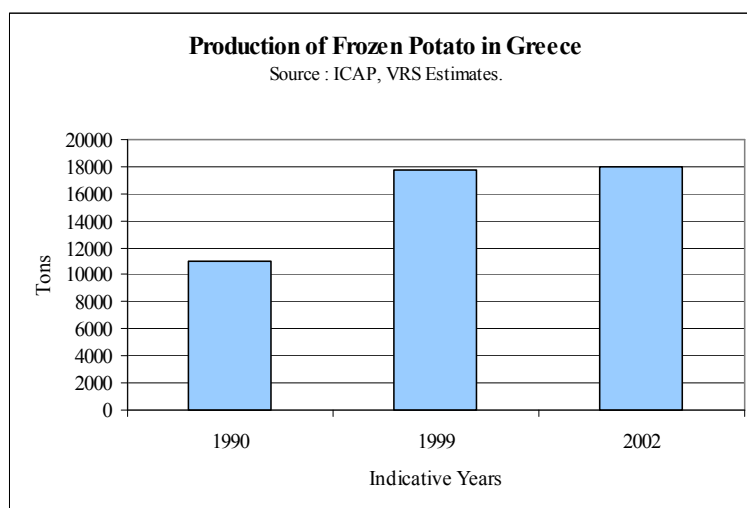
With to commercial and import companies, the major highlights are presented below:

- 1) These companies have captured the leading market shares in the frozen potato market of Greece.
- 2) In the year 1999, MC CAIN Hellas was by far the market leader, satisfying with its products a 45% -46% share of the total consumption.
- 3) Currently, MC CAIN Hellas share exceeds 60% of the total domestic consumption.

### Greek Frozen Potato Market Fundamentals

Year	Production Level (tons)	Imports (tons)	Exports (tons)	Consumption (tons)
1990	11,000	17,115	-	28,115
1991	11,500	23,910	345	35,070
1992	12,000	2,497	1,150	35,820
1993	12,000	36,725	2,545	46,180
1994	13,000	49,060	690	61,370
1995	12,500	34,860	770	46,590
1996	11,000	39,000	375	49,625
1997	9,500	49,435	510	58,425
1998	13,500	50,100	1,900	61,700
1999	17,800	46,800	1,500	63,100

Source: ICAP, NSSG, Market Surveys.



## F. Determinant Factors of Frozen Potato Demand

Amongst the factors affecting the **frozen potato demand in the foodservice sector**, are the following ones:

1) **The mass dining units and fast food chains growth rate.** The mass dining market has shown steady growth over the last few years. More specifically, the fast food market grew further due to the expansion of the already existing chains to new locations, as well as to the creation of new companies.

According to the ICAP sector study on Fast Food Chains (published in September 1999), the number of stores the most significant fast food chains reached 457 in 1999. On the other hand, according to a previous study for the same sector, in March 1997, the store number of the major fast food chains was 347. Moreover, as was mentioned earlier, most of the fast food market (approximately 67% according to data concerning the year 1998) was accounted for by “burger” type restaurants, which in turn absorbed the bulk of demand in frozen potatoes in the specific market.

2) **Disposable income:** Household income affects directly the frozen potato consumption since expenses for meals outside home depend not only on food habits but also on financial status.

3) **Tourism growth:** Tourism in the summer season is a major determinant of frozen potato consumption. Foreign tourists are keener on frozen food products and consequently become major consumers of frozen potato.

The major factors determining **frozen potato household demand** are the following:

1) **The quality and taste aspects in relation to the price:** The quality as well as the taste aspects in view of the available retail market price affect household demand to the largest extent. Households evaluate the usefulness of the frozen potato products by comparing their characteristics with the ones of the fresh products.

2) **Change of food habits towards “easy to prepare” meals:** With an increasing number of women in the work force and with longer working hours, households have changed the structure of their meals. This need is satisfied by meals that require less preparation time, such as frozen potatoes, which are an essential part of the day-to-day diet.

### **G. Frozen Potatoes Advertising Expenses**

Based on “Media Services” information – a leading consulting firm in the Greek advertising sector - the only frozen potato trade mark advertised during the period 1998 - 1999 was MC CAIN Hellas.

The advertising expenditures reached EUR 530,720 in fiscal year 1999, showing a significant increase, compared to the previous year – of EUR 89,605 in 1998.

Magazines represented a 93% share of the total advertising expenses in 1998, whereas television was the major means of advertisement in 1999, capturing nearly 96% of the total advertising expenditures.

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**Advertising Expenses - MC CAIN Brand Name**


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<b>Media</b>	<b>1998 (in EUR)</b>	<b>%</b>	<b>1999 (in EUR)</b>	<b>%</b>
Television	0	0.0%	508,487	95.81%
Magazines	83,369	93.0%	14,773	2.78%
Newspapers	6,236	7.0%	7,460	1.41%
Radio	0	0.0%	0	0.00%
<b>TOTAL</b>	<b>89,605</b>	<b>100.00%</b>	<b>530,720</b>	<b>100.00%</b>

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Source: MEDIA Services.

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In the period 2000 – 2002, for the same trademark, the major means of advertisement and promotion was television. The following table shows the breakdown for that time period:

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**Advertising Expenses - MC CAIN Brand Name**


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<b>Media</b>	<b>2000 (in EUR)</b>	<b>2001 (in EUR)</b>	<b>2002 (in EUR)</b>
Television	515,720	143,770	501,320
Magazines	1,800	0	11,540
Newspapers	3,530	0	2,920
<b>TOTAL</b>	<b>521,050</b>	<b>143,770</b>	<b>515,780</b>

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Source: MEDIA Services.

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## **H. Information Regarding the International Frozen Potato Markets**

The major frozen potato export countries are Holland, Canada, and the United States of America (USA). Following is information presented in relation to the production levels of fresh potatoes, as well as foreign trade information.

### **1. Holland**

Holland is the leading frozen potato exporter on a worldwide basis. During 1998 / 97, total frozen potatoes exports reached 1,088 thousand tons, while during 1999 / 98, increased by 5% compared to the previous period. In 1998, the country's primary production in fresh potato came up to 5,400 thousand tons, indicating an increase of 4% compared to year 1997.

There were various factors that contributed to the rise of exports over the last few years. Most important of them, were (i) the fast food restaurant expansion in the European Union, especially in the countries of South Europe, and (ii) the expansion of the country's producing industries to new geographic markets such as the Middle East and South America. However, 90% of the country's exports still aim at EU countries.

### **2. Canada**

The country's total production of fresh potato came up to 4,200 thousand tons in 1998, showing an increase of 2.6% compared to 1997. Frozen potato production showed a percentage increase of 13% during 1998 / 97, coming up to 860 thousand tons, while there was an estimated increase of 5% during the following period (1999 / 98). According to market participants, the frozen potato production would exceed the size of 1 million tons in the following years.

Frozen potato exports came up to 448 thousand tons in 1998 / 97, displaying an increase of approximately 30% compared to the previous period. According to market estimates, during the following period 1999 / 98, frozen potato exports were expected to reach 500 thousand tons - implying a percentage increase of 12%. The greatest part – 83% - of exports in terms of quantity was channeled to the US market with Japan and the South Americas being other destination countries.

### **3. United States of America (USA)**

The fresh potato production reached 21,600 thousand tons during the 1999 / 98 season, increasing 2% compared to the level of 1998 / 97. During the season 1999 / 98, 28% (or 6,048 thousand tons) of the fresh potato production had been used to deliver frozen potato products with the final frozen potato production settling at 3,400 thousand tons.

The frozen potato production increased 4% in average basis during the period 1990 – 1997, mainly driven by rising demand in the US foodservice sector, such as fast food chains, restaurants and hotels.

Frozen potato exports followed a similar course. During 1998 / 97, they came up to 425 thousand tons (valued at USD 304 million), whereas during 1998 / 97, exports accounted for 450 thousand tons, representing a 13% share of the domestic production. Major export destinations were Japan, absorbing 52% of total exports, Hong Kong, South Korea, Canada and Taiwan.

Factors that justified the strong US export orientation related to disposable income and the expansion of the fast food industry, especially in the Far East. Moreover, the export perspectives appear positive for this decade, given the constant growth in the worldwide fast food market.

## **I. Structural Issues and Trends in the Greek Frozen Potato Market**

The major structural issues and trends characterizing the Greek frozen potato as well as vegetables sector are summarized in the following:

- 1) **The domestic sector depends on the agricultural production.** The primary agricultural production might show deficiencies or even variations each year that concern both the size and the quality of products, mainly due to unpredictable weather conditions;
  
- 2) **The limited domestic supply and the uneven quality of the raw material (fresh potato) mainly affect the frozen potato production.** Greek potato varieties are not suitable for frozen production, yielding low rate of performance, and as a result the bulk of frozen potato production in the Greek market is based on imported fresh potato. A meaningful rate of performance that is considered acceptable internationally is over 50% (about 1 kg of frozen fries need 2 kg of fresh potato). In addition, high prices during periods of limited domestic production, combined with the low performance rate, force producers to import potatoes;
  
- 3) **Quality remains a key issue in competition.** What is observed is that some companies import and distribute in the Greek market products of poor quality at low prices. Low prices are the basic bargaining advantage of wholesalers, however the rapid expansion of fast food and restaurant chains (mostly ‘American Style’ fast food and traditional Greek Souvlaki restaurants) increases demand for consistently high quality products.

## J. Sector Outlook

Domestic consumption of frozen potato has expanded significantly during the last decade; however, there is still plenty of growth in the coming years.

According to VRS estimates based on current market trends, **the total domestic frozen potato consumption settled at 69,700 tons in 2002. In the next 5-year period, the projected growth in frozen potato consumption is expected at 5% - 6% annually** (compounded average growth rate), with an exceptionally strong demand in 2004 due to the Athens Olympics. The above projections are based on the following assumptions:

- 1) **The rapid expansion of the fast food and restaurant chains** (mostly “American style” fast food restaurants and traditional Greek souvlaki corners) boosts demand for high quality frozen potato products. This becomes more evident as fast food and restaurant chains represent the main institutional customers of frozen potatoes;
- 2) **Higher advertising spending and a more dynamic sales promotion**, mostly from MC CAIN Hellas are pushing growth, targeting mostly households. Moreover, **the dynamic entrance of a new big player in the market will significantly expand the market’s overall size and growth potential;**
- 3) **The marketing of frozen potato products in the retail sector lags considerably behind, compared to that in the food service sector**, implying growth that has not yet been exploited. In addition, Greek consumers appear to be misinformed about the quality of frozen food products;

4) The **change in food habits** - especially those of the young people - towards “easy-to-prepare” meals;

5) International experience shows that among processed vegetables, **potatoes (primarily frozen) account for an average of 48% of consumption**, suggesting an up-trend in Greek per capita consumption of frozen potatoes in the coming years;

6) **The projected annual growth of 5% in tourism** in the coming years;

7) **The improvement of maintenance conditions** ensures high levels of storage and transportation in the broader geographical areas of Greece (basically by the major companies that distribute brand products in the market). This also increases demand in less populated areas, with costly geographic access (mostly between the islands and the mainland);

8) The **modernization of product distribution**, through a well organized wholesaler (a central unit) and the use of more efficient logistics systems, aids a faster expansion of the target market;

9) **A potential new big entrant would increase competition facilitating the trend towards cheaper average prices** in the sector as a whole. This would also reduce the spread in prices between fresh and frozen potatoes increasing demand in quantities. On the other hand, price pressures would force smaller companies to exit the market, leaving more space for the bigger players. However, in the long run, and as the market expands, the bigger players would improve gross as well as operating margins.

## K. Study Results

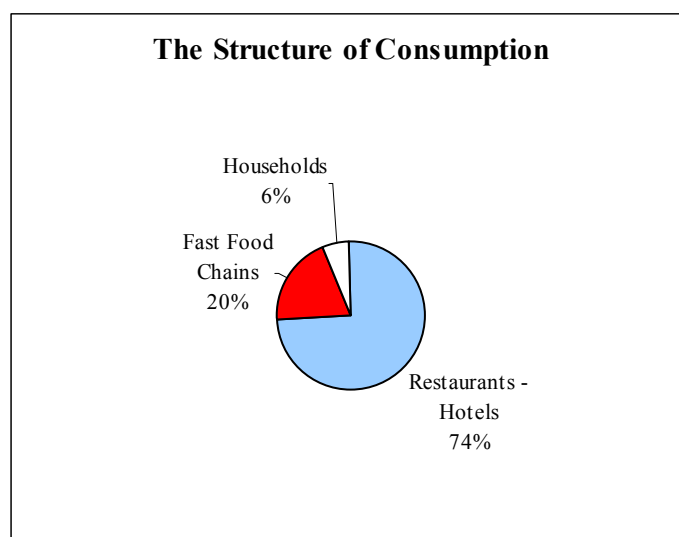
The frozen potato market is an essential part of a wider frozen food sector, which in general, demonstrates steady growth over the last few years.

The frozen potato market in Greece is characterized by the existence of a small number of producers, whereas there is a significant number of companies dealing with the import and trade of frozen potato products. The majority of those companies also activate in the import and distribution of a wider range of food products – both frozen and non-frozen.

In reference to the frozen potato market, the study's conclusions are summarized as follows:

- 1) The size of the **domestic frozen potato production** showed variations during the period 1990 - 1999. More specifically, during the initial years 1990 - 1994, it followed an upward course reaching 13,000 tons in 1994 from 11,000 tons in 1990. From 1994 to 1997, the production level showed a gradual decline, reaching the lowest point in the year 1997 (9,500 tons). During the period 1998 - 1999, domestic production rose significantly, reaching 13,500 tons in 1998 and 17,800 tons in 1999;
- 2) The domestic **frozen potato production growth** is mainly attributed to the entrance of new companies in the sector as well as changes in food habits;
- 3) **Food service units** - meaning restaurants, hotels, taverns, souvlaki corners and fast food chains - absorb the greatest part of domestic consumption on annual basis. Major consumers have been the restaurants and hotels with 46,000 – 47,500 tons per year and the fast food chains with 12,000 – 13,000 tons per year. Households remained low importance clients, implying though a higher growth potential in future, though;

- 4) The **commercial and import companies** are the leaders of the frozen potato market. MC CAIN Hellas is by far the leader capturing a majority market share;
- 5) The total **frozen potato exports** remained low, though demonstrating though an increase during 1998 – 1999;
- 6) The apparent domestic **frozen potato consumption** more than doubled during the period 1990 - 1999, driven mostly by the entrance of MC CAIN Hellas. Since 1996, the domestic consumption has risen, albeit at a decreasing growth rate, with the total size reaching 63,100 tons in 1999 from 61,700 tons in 1998;
- 7) **Imported products** cover the bulk of frozen potato consumption in Greece. Import penetration has ranged at high levels during the period under review, while it currently exceeds 80%;



#### **4. The Catering Sector in Greece**

##### **A Major Institutional “Customer” of the Frozen Potato Market**

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The Catering Sector is extensive user of frozen potato products in Greece, covering a major share of the total institutional consumption.

The most critical developments in the sector over the past few years, have been the following ones:

- 1) Big players, such as domestic or internationally affiliated companies, control a majority stake in the market;
- 2) Lower size firms are faced with constant as well as intense competition from medium to large size catering companies;
- 3) Leading catering companies have built strong brand names utilizing long-term experience and in depth market knowledge.
- 4) Efficient services, higher range and access to quality food products – from raw ingredients to the final product – are critical factors for long term expansion;
- 5) Changes in social interactions and food habits widen the growth potential for the catering market.
- 6) The Athens Olympics in 2004 constitute a significant opportunity, which, in terms of market size, is currently estimated at EUR 40 mn;

Greek-owned companies, currently leading players in the catering market, are indicatively and not exhaustively the following ones:

- 
1. Olympic Catering (owned by Everest)
  2. La Fourchette
  3. Royal Fare Catering
  4. Intercatering (51% owned by Sodexo)
  5. Louis Catering
  6. Class Catering Services
  7. Everest
  8. Daskaladonakis Group
- 

Major international catering companies, that have established operations in Greece, are indicatively and not exhaustively the following ones:

- 
1. Aramark, US
  2. Compass Eures, UK
  3. Sodexo, France
-

## 5. The Athens Olympics in 2004

### A Milestone Year for the Foodservice Sector in Greece

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The “Athens 2004 Olympics” imply significant business opportunities for the foodservice sector in Greece. It is estimated that catering and food companies will have to provide 6,045,250 guests, athletes, staff, attendants, and public – with a total of 11,550,000 meals for a period shorter than two weeks.

According to a recent estimate made by the “Athens 2004” – the official Greek body organizing the Olympics – catering companies target a market of more than EUR 40 mn.

The selection of food contractors will take place through, approximately 10–12, tenders and it is estimated that 40 foodservice / catering companies will ultimately be nominated. Among others, it has been projected that potato consumption will exceed 35 tons during the Olympics. Following is a list of targeted consumption per segment:

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Milk, 150,000 lt

Eggs, 300,000 pieces

Cheese Products, 25 tons

Bread related products, 36,000 dozens

Bread, 25,000 loafs

Seafood, 85 tons

Chicken meat, 35 tons

Meat, 120 tons

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Refreshments, 3,000,000

Tomato sauce, 750 lt

Mushrooms, 5.2 tons

Water, 2,000,000 lt

Pasta, 10 tons

Rice, 32 tons

Potato, 35 tons

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Potential major benefits or issues of concern for the foodservice and catering firms are as follows:

- 1) Domestic food and catering companies will gain in know-how, experience and capacity;
- 2) High demand for food during the short period of the Olympics implies that only specialized caterers with maximum capacity and flexibility will deliver the desired outcome.
- 3) Caterers will make strong efforts to maintain maximum quality of food meals, obtaining the most reliable and highly recognized food products.


## 6. APPENDIX

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GREECE: Frozen Food Consumption in Tons							
Category	2000			2001			Change
	Retail	Catering	Total	Retail	Catering	Total	
Vegetables	16,000	25,600	41,600	14,500	24,800	39,300	-5.5%
• Single	12,800	22,800	35,600	11,700	22,000	33,700	-5.3%
• Mixed	3,200	2,800	6,000	2,800	2,800	5,600	-6.7%
Potato Products	4,700	35,000	39,700	4,600	36,000	40,600	+2.3%
• Fried	4,300	35,000	39,300	4,200	36,000	40,200	+2.3%
• Mashed	100	—	100	400	—	400	N.C.
• Other	300	—	300				
Fish	7,300	22,500	29,800	7,600	23,500	31,100	+4.4%
• Raw	6,600	22,000	28,600	6,800	23,000	29,800	+4.2%
• Breaded	700	500	1,200	800	500	1,300	+8.3%
Molluscs/Shellfish	4,600	10,500	15,100	4,900	11,000	15,900	+5.3%
Bakery Products	6,700	9,600	16,300	6,200	10,000	16,200	-0.1%
• Dough	6,600	9,600	16,200	6,100	10,000	16,100	-0.1%
• Bread	100	—	100	100	—	100	NC
Prepared Foods	10,000	27,000	37,000	11,200	28,000	39,200	+5.9%
• Pizza	2,200	—	2,200	2,300	—	2,300	+9.5%
• Savory Bakery	7,800	27,000	34,800	8,700	28,000	36,700	+5.5%
• Other	—	—	—	200	—	—	N/A
Fruit/Fruit Products	—	1,200	1,200	0	1,500	1,500	+25.0%
<b>Total</b>	<b>49,300</b>	<b>131,400</b>	<b>180,700</b>	<b>49,000</b>	<b>134,800</b>	<b>183,800</b>	<b>1.7%</b>

## APPENDIX

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EUROPEAN Frozen Food Market: 2001							
							
FROZEN FOOD CONSUMPTION	Austria*	Belgium*	Denmark*	Finland	France	Germany	Greece
(in metric tons)							
Vegetables	48,400	34,600	34,500	26,300	485,000	431,654	39,300
Potato Products	34,000	81,000	31,500	20,200	424,000	362,611	40,600
Fish	16,500	11,700	29,000	9,800	185,000	221,848	31,100
Molluscs/Shellfish		3,900	9,500	400		22,314	15,900
Pastry Products	13,400	3,500	48,000	36,200	635,000	480,081	16,200
Prepared Foods	32,500	33,400	36,000	21,200		661,921	39,200
Fruits/Juices	4,600	200	1,600	3,200	7,000	66,642	1,500
Meat	28,800	7,300	18,500	9,700	98,000	201,561	5,500
Poultry	18,500	4,200	50,000	6,800	210,000*	342,000	5,500
Misc.	—	54,000	—	600	—	—	—
<b>Total (Excl. Poultry)</b>	<b>178,200</b>	<b>229,600</b>	<b>208,600</b>	<b>127,600</b>	<b>1,834,000</b>	<b>2,470,458</b>	<b>189,300</b>
<b>Total (Incl. Poultry)</b>	<b>196,700</b>	<b>233,800</b>	<b>258,600</b>	<b>134,400</b>	<b>2,044,000</b>	<b>2,812,458</b>	<b>194,800</b>
Per Capita (Excl. Poultry) in kg.	22.3	22.5	39.4	24.5	31.9	30.1	18.9
Per Capita (Incl. Poultry) in kg.	24.6	22.9	48.8	25.8	34.6	34.3	19.5
<b>Population (Millions)</b>	<b>8.0</b>	<b>10.2</b>	<b>5.3</b>	<b>5.2</b>	<b>59.0</b>	<b>82.0</b>	<b>10.0</b>

## APPENDIX

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**FROZEN POTATOES, (ESYE Code 07.10.10.00), Greek Imports, Period 1995 - 2001 (in EUR)**

Country	1995	1996	1997	1998	1999	2000	2001
Austria	N/A	9,989	76,304	241,660	1,224,713	521,076	380,296
Belgium & Luxembourg	505,417	557,177	816,675	393,976	279,788	168,446	2,002,289
Bulgaria	N/A	N/A	N/A	N/A	12,284	3,007	N/A
Denmark	N/A	7,188	N/A	4,715	3,958	N/A	N/A
France	1,155,842	2,118,135	2,312,586	2,378,583	3,241,531	3,032,383	2,808,360
Germany	218,554	122,146	145,844	60,507	310,468	88,471	75,035
Hungary	N/A	N/A	N/A	3,789	5,751	11,972	2,842
Ireland	N/A	N/A	N/A	N/A	N/A	N/A	8,815
Italy	5,886	160,738	65,776	105,453	69,876	21,400	21,391
Netherlands	974,873	1,309,671	1,658,185	1,109,023	821,514	468,915	270,013
Other Countries	N/A	N/A	N/A	N/A	7,768	N/A	N/A
Servia & Montenegro	N/A	N/A	N/A	N/A	N/A	1,919	N/A
Spain	N/A	N/A	38,698	19,172	20,626	22,278	33,717
Turkey	N/A	1,804	N/A	N/A	44,319	N/A	N/A
United Kingdom	3,193	22,862	25,293	2,976	1,056	82,803	73,069
<b>TOTAL VALUE</b>	<b>2,863,766</b>	<b>4,309,711</b>	<b>5,139,361</b>	<b>4,319,853</b>	<b>6,043,654</b>	<b>4,422,669</b>	<b>5,675,826</b>
<b>Annual Change</b>		<b>50.49%</b>	<b>19.25%</b>	<b>-15.95%</b>	<b>39.90%</b>	<b>-26.82%</b>	<b>28.33%</b>

Source: National Statistical Services, Greece.

## APPENDIX

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**FROZEN POTATOES, (ESYE Code 07.10.10.00), Greek Imports, Period 1995 - 2001 (in Kg)**

Country	1995	1996	1997	1998	1999	2000	2001
France	1,852,719	3,699,405	4,460,209	4,110,830	4,311,098	4,658,894	4,192,502
Netherlands	1,402,784	1,927,498	3,760,263	1,882,481	1,005,003	749,459	480,470
Belgium & Luxembourg	677,736	1,023,232	1,817,196	716,992	391,085	159,880	2,945,257
Germany	329,560	298,548	559,555	141,465	1,218,164	713,970	808,900
Italy	5,840	504,655	150,823	457,966	110,749	26,962	42,462
United Kingdom	2,700	7,807	17,930	2,575	1,680	129,500	121,537
Austria	N/A	15,570	659,150	530,065	2,159,706	1,487,081	1,390,169
Denmark	N/A	18,000	N/A	10,000	7,102	N/A	N/A
Turkey	N/A	4,000	N/A	N/A	63,000	N/A	N/A
Spain	N/A	N/A	24,725	11,530	29,250	40,711	53,538
Hungary	N/A	N/A	N/A	8,040	11,920	20,000	5,880
Bulgaria	N/A	N/A	N/A	N/A	40,000	20,000	N/A
Other Countries	N/A	N/A	N/A	N/A	11,363	N/A	N/A
Servia & Montenegro	N/A	N/A	N/A	N/A	N/A	12,630	N/A
Ireland	N/A	N/A	N/A	N/A	N/A	N/A	21,240
<b>TOTAL</b>	<b>4,271,339</b>	<b>7,498,715</b>	<b>11,449,851</b>	<b>7,871,944</b>	<b>9,360,120</b>	<b>8,019,087</b>	<b>10,061,955</b>
<b>Annual Change</b>		<b>75.56%</b>	<b>52.69%</b>	<b>-31.25%</b>	<b>18.90%</b>	<b>-14.33%</b>	<b>25.48%</b>

Source: National Statistical Services, Greece.

## APPENDIX

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**FROZEN POTATOES** (ESYE Code 07.10.10.00), **Greek Exports, Period 1995 - 2001 (in EUR)**

Country	1995	1996	1997	1998	1999	2000	2001
Albania	10,645	4,930	1,055	6,409	18,437	22,399	74,974
Austria	N/A	N/A	8,477	N/A	N/A	N/A	N/A
Bahrain	N/A	N/A	N/A	N/A	N/A	8,040	N/A
Belgium & Luxembourg	33,342	N/A	N/A	N/A	N/A	N/A	N/A
Bulgaria	N/A	N/A	1,146	9,967	9,407	14,442	N/A
Commercial Ship Provisions	82,657	58,529	123,962	86,531	69,943	118,440	32,749
Cyprus	43,091	399	1,854	463	66,023	N/A	13,375
France	N/A	5,625	6,569	N/A	38,681	N/A	7,254
FYROM	N/A	N/A	2,296	11,593	2,654	N/A	N/A
Germany	N/A	18,428	N/A	N/A	N/A	588	1,800
Italy	12,446	4,735	N/A	125,785	2,437	N/A	140,866
Liberia	N/A	520	N/A	562	N/A	N/A	N/A
Malta	1,245	317	405	N/A	N/A	25	N/A
Netherlands	7,409	N/A	N/A	17,838	N/A	N/A	N/A
Other Countries	1,228	N/A	N/A	N/A	7,011	43,179	N/A
Panamas	88	9,934	390	N/A	N/A	N/A	N/A
Polland	N/A	67	N/A	556	N/A	N/A	N/A
Romania	949	N/A	N/A	N/A	419	N/A	N/A
Russia	429	6,422	N/A	N/A	N/A	N/A	N/A
Spain	N/A	N/A	N/A	6,372	N/A	N/A	N/A
Sweden	N/A	N/A	22,797	N/A	N/A	N/A	N/A
The Bahamas	N/A	N/A	87	243	190	312	N/A
Turkey	N/A	N/A	N/A	N/A	N/A	N/A	28,632
Ukraine	117	N/A	N/A	N/A	N/A	N/A	N/A
United Kingdom	N/A	5,547	N/A	N/A	N/A	N/A	N/A
<b>TOTAL VALUE</b>	<b>193,645</b>	<b>115,455</b>	<b>169,038</b>	<b>266,319</b>	<b>215,202</b>	<b>207,425</b>	<b>299,650</b>
<b>Annual Change</b>		<b>-40.38%</b>	<b>46.41%</b>	<b>57.55%</b>	<b>-19.19%</b>	<b>-3.61%</b>	<b>44.46%</b>

Source: National Statistical Services, Greece.

## APPENDIX

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**FROZEN POTATOES, (ESYE Code 07.10.10.00), Greek Exports, Period 1995 - 2001 (in Kg)**

Country	1995	1996	1997	1998	1999	2000	2001
Albania	18,613	27,000	2,020	20,400	42,966	68,720	141,896
Austria	N/A	N/A	21,000	N/A	N/A	N/A	N/A
Bahrain	N/A	N/A	N/A	N/A	N/A	10,500	N/A
Belgium & Luxembourg	40,120	N/A	N/A	N/A	N/A	N/A	N/A
Bulgaria	N/A	N/A	6,973	8,479	25,423	23,040	N/A
Commercial Ship Provisions	128,770	70,955	171,335	115,248	63,577	144,095	30,380
Cyprus	52,375	380	2,501	358	89,150	N/A	21,720
France	N/A	10,315	N/A	N/A	50,175	N/A	5,871
FYROM	N/A	N/A	4,400	7,147	2,016	N/A	N/A
Germany	N/A	33,087	11,813	N/A	N/A	2,000	22,000
Italy	4,020	3,035	N/A	272,600	6,250	N/A	220,000
Liberia	N/A	1,500	N/A	360	N/A	N/A	N/A
Malta	2,740	300	349	N/A	N/A	50	N/A
Netherlands	20,300	N/A	N/A	37,340	N/A	N/A	N/A
Other Countries	1,501	N/A	N/A	N/A	6,250	39,350	N/A
Panamas	100	1,353	380	N/A	N/A	N/A	N/A
Polland	N/A	100	N/A	1,580	N/A	N/A	N/A
Romania	1,130	N/A	N/A	N/A	700	N/A	N/A
Russia	470	4,208	N/A	N/A	N/A	N/A	N/A
Spain	N/A	N/A	N/A	16,087	N/A	N/A	N/A
Sweden	N/A	N/A	62,060	N/A	N/A	N/A	N/A
The Bahamas	N/A	N/A	90	221	180	280	N/A
Turkey	N/A	N/A	N/A	N/A	N/A	N/A	20,000
Ukraine	221	N/A	N/A	N/A	N/A	N/A	N/A
United Kingdom	N/A	21,000	N/A	N/A	N/A	N/A	N/A
<b>TOTAL</b>	<b>270,360</b>	<b>173,233</b>	<b>282,921</b>	<b>479,820</b>	<b>286,687</b>	<b>288,035</b>	<b>461,867</b>
<b>Annual Change</b>		<b>-35.93%</b>	<b>63.32%</b>	<b>69.60%</b>	<b>-40.25%</b>	<b>0.47%</b>	<b>60.35%</b>

Source: National Statistical Services, Greece.

## APPENDIX

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## Frozen Potatoes, Greek Manufacturing Sector

	1995	1996	1997	1998	1999	2000
Production Level (in kg)	12.453.770	10.751.777	6.824.917	6.920.546	12.175.408	11.008.135
Sales Level (in kg)	10.365.890	10.818.473	6.633.393	8.547.773	11.169.001	9.272.536
<b>Sales (in EUR)</b>	<b>8.706.736</b>	<b>6.516.528</b>	<b>4.036.847</b>	<b>5.239.497</b>	<b>7.531.941</b>	<b>5.778.169</b>
Number of Companies	4	4	4	4	4	4
Average Price (in EUR)	0,84	0,60	0,61	0,61	0,67	0,62

Source: National Statistical Services, Greece.

## Total Raw Potato Production in Greece

	1994	1995	1996	1997	1998	1999	2000	2001
Production Level (in kg)	998.000.000	1.050.000.000	1.031.000.000	942.000.000	876.086.000	866.716.000	883.289.000	936.703.000
Annual Change		5,21%	-1,81%	-8,63%	-7,00%	-1,07%	1,91%	6,05%

Source: National Statistical Services, Greece.

## APPENDIX

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GREEK ECONOMY, Selected Indicators											TABLE 1
	1999	2000	Q2	Q3	Q4	year avg	Q2	Q3	Q4	Latest	2002
<b>Real Sector</b> (y-o-y period average, constant prices)											EST.
GDP	3.6	4.1	4.0	3.5	3.7	4.1	4.0	3.4	....	Q3 3.4	3.7
Domestic demand	2.9	4.2	3.8	3.3	3.4	4.0	4.2	3.7	....	Q3 3.7	4.0
Total consumption	2.5	2.9	3.1	2.7	2.7	2.9	1.6	2.2	....	Q3 2.2	2.3
Gross fixed capital formation	3.6	9.4	6.3	5.1	6.1	7.1	9.8	8.6	....	Q3 8.6	9.7
Exports of goods and services	8.1	19.0	2.3	1.3	1.5	2.4	2.6	1.7	....	Q3 1.7	2.3
Imports of goods and services	3.6	15.1	1.9	0.9	1.2	2.0	3.7	2.8	....	Q3 2.8	3.4
<b>Coincident and Leading Indicators</b> (period average)											
Retail sales volume (y-o-y)	2.0	5.4	4.6	3.5	2.1	4.7	3.3	5.6	....	Oct 6.3	....
Retail confidence (4-y average:5)	3.0	11.0	4.0	2.0	-4.0	2.0	7.0	2.0	4.0	Jan -2	....
Car registrations (y-o-y)	46.8	12.7	-1.6	-1.5	-9.0	-4.8	-6.0	1.1	....	Nov -5.1	....
Consumer confidence (4-y average:-22)	-27.0	-16.0	-27.0	-27.0	-28.0	-27.0	-29.0	-27.0	31.0	Jan -36	....
Industrial production (y-o-y)	2.8	7.7	0.1	1.9	-0.3	0.8	3.9	-0.1	....	Nov 2.7	....
Manufacturing production (y-o-y)	0.6	6.1	0.4	2.4	-1.0	1.4	2.6	-0.4	....	Nov 0.3	....
Capacity utilization	76.0	78.0	77.0	78.0	77.0	78.0	78.0	78.7	....	Dec 76.2	....
Industrial confidence (4-y average:4)	1.0	9.0	4.0	3.0	1.0	4.0	4.0	3.0	3.0	Jan -1	....
PMI Manufacturing (base=50)	....	55.5	51.5	50.6	50.2	51.2	54.2	52.3	....	Dec 52.1	....
Construction permits (y-o-y)	-8.3	5.7	12.2	-1.0	11.8	12.0	10.1	22.5	....	Sep 35.3	....
Construction confidence (4-y average:11)	11.0	16.0	7.0	4.0	15.0	7.0	3.0	9.0	13.0	Jan 17	....
PIP Disbursements (y-o-y)	18.8	12.7	0.9	16.7	33.0	0.5	6.0	31.3	-23.0	Sep -26.1	....
Stock of finished goods (4-y average:12)	14.0	8.0	16.0	15.0	14.0	13.0	15.0	15.0	8.0	Dec 8	....
<b>External Sector</b> (period average)											
Current account balance as % of GDP	-4.1	-6.9	-1.2	-0.9	-2	-6	-1.7	-0.7	....	Jan-Nov -5.6	-6.6
Current account balance (EUR mn)	-4,800	-8,372	-1,499	-980	-3,092	-8,069	-2,357	-984	....	Nov -1471	....
Services balance, net (EUR mn)	6,847	8,711	2,223	3,264	1,742	8,804	2,614	4,264	....	Nov 304.1	....
Transfers, net (EUR mn)	5,868	5,801	2,136	1,259	1,081	6,408	1,280	747	....	Nov 338	....
Merchandise exports-- non-oil (y-o-y cum.)*	31.51	25	14	20	3.5	15	-4	-7.7	....	Nov -7	....
Merchandise imports-- non-oil (y-o-y cum.)*	18.2	23.3	2.2	3.8	1.6	3.1	-6	-0.8	....	Nov -0.3	....
<b>Employment</b>											
Unemployment rate	11.9	11.4	10.2	10	10.9	10.5	9.6	9.5	....	Q3 9.5	....
Employment rate (y-o-y)	-0.5	-0.2	-0.7	-0.9	-1.7	-0.8	0.8	1.3	....	Q3 1.3	....
<b>Prices</b> (y-o-y period average)											2003
Headline inflation	2.7	3.2	3.7	3.8	2.7	3.4	3.5	3.4	3.6	Dec 3.4	3.2
Core inflation	2.9	2	3.8	4	3.6	3.8	3.8	3.6	3.5	Dec 3.5	3.6
Wholesale prices	1.8	7.8	5.3	3.1	1	3.5	1.7	1.6	....	Nov 2.1	....
Wholesale prices excl. energy	3.1	4.3	3.7	3.1	2.5	3.1	2.4	2	....	Nov 1.8	....

Sources: BoG, NSSG, MoF, ASE, NBG.

## APPENDIX

GREEK ECONOMY, Selected Indicators											TABLE 2
	1999	2000	Q2	Q3	Q4	year avg	Q2	Q3	Q4	Latest	2002
<b>Fiscal Policy</b>											2003 Budg.
Government deficit / GDP	1.8	-1.8	....	....	....	-1.2	....	....	....	** 0.4	-1.1
Government debt / GDP	104.6	102.1	....	....	....	107	....	....	....	** 103.2	105.3
Revenues-- Ordinary budget (cumulative)	11.5	10.1	8.8	8.6	6.8	7.1	5.8	7.3	6	Dec 6.6	5.1
Expenditures-- Ordinary budget (cumulative)	5.8	6.6	5.9	4.9	....	4.7	....	....	5.6	Dec 4.7	5.1
<b>Monetary Sector (y-o-y period average)</b>											
M3	7.7	11	9.4	8.4	7	9.1	7.4	7.1	....	Oct 7	....
Credit expansion to private sector	14.1	21.5	28.8	26.9	24.3	26.9	19	18.3	....	Nov 18.2	....
Mortgage loans	23.8	27.4	36.6	36	37.3	35.8	39.4	36.9	....	Nov 34.4	....
Consumer credit	41.7	28.8	51.8	47.7	43.5	47.1	31.9	29.7	....	Nov 27.6	....
<b>Interest Rates (period average)</b>											
10-year government bond yield	6.3	6.1	5.5	5.3	5	5.3	5.45	4.96	4.7	Jan 4.31	....
Spread between 10 year and bunds (bps)	170	83	51	50	40	50	32	32	26	Jan 27	....
<b>Exchange Rates (period average)</b>											
USD / euro	1.07	0.92	0.86	0.9	0.9	0.88	0.92	0.98	1	Jan 1.08	....
Real effective exchange rate (1995=100)	102.4	95.6	96.6	95.6	96	96	99.2	99	101	Dec 101.2	....
<b>Stock Market (y-o-y end of period)</b>											
ASE capitalization / GDP	159	98.2	75.5	61.5	80	78	62.6	53	47	Jan 52	....
ASE return	102.2	-38.8	-32.4	-46.7	16.4	-14.5	-17.1	-17.5	-48.4	Jan -46.9	....
FTSE/ASE - 20	68.8	-33	-29.3	-47.6	15	-14.2	-24.7	-25	-55.7	Jan -54.8	....
FTSE/ASE - 40	....	-60.5	-47.4	-54.8	23.5	-14	-16.6	-11.5	-52.6	Jan -48.2	....

\* : Data prior to year 2000 are distorted by the application of a new methodology. \*\* : Estimates presented in preliminary 2003 budget.  
Sources: BoG, NSSG, MoF, ASE, NBG.

## 7. SOURCES

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- Ministry of Finance;
- National Statistical Services of Greece;
- Bank of Greece;
- Greek Ministry of Agriculture;
- National Bank of Greece;
- EFG Eurobank Ergasias;
- Panhellenic Frozen Food Association;
- ICAP Sector Reports;
- StatBank Sector Database;
- Specialized food market surveys;
- Domestic Surveys on Super Market Chains;
- «Athens 2004» - The official body organizing Athens Olympics;
- USDA, Foreign Agricultural Service;
- GREECE ([http://www.quickfrozenfoods.com/pdf/oct\\_2002/global\\_eu.cfm](http://www.quickfrozenfoods.com/pdf/oct_2002/global_eu.cfm))

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