



The Pharmaceutical Market in Greece

Facts & Figures

Athens 2008



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THE VALUE OF SOUND AND RELIABLE STATISTICAL DATA



“The Pharmaceutical Market in Greece: Facts & Figures” is a comprehensive study by The Hellenic Association of Pharmaceutical Companies (SFEE) of the Greek pharmaceutical market in 2007. We are proud that SFEE, through this study, presents an accurate and complete overview of the country’s pharmaceutical market, an overview that is enriched annually with additional and updated information, and acts as a reference point in the dialogue on public health.

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Apart from the broad range of valuable data and findings presented, it is important to note that SFEE gives special weight to the objectivity, validity, and reliability of the available data on the Greek pharmaceutical market. It is unquestionable that the main precondition of a successful strategy and a rational decision in the field of health—as in every other field—is the use of the most sound and commonly acceptable data. However, in public dialogue, there is often a prevailing confusion between different data, for example between public pharmaceutical expenditure and total

pharmaceutical sales. Although public pharmaceutical expenditure is almost one third of total pharmaceutical sales, the latter is often mistakenly identified with the former. And this high divergence in the definition of so important and crucial data for decision making should be given serious attention which would lead to the clarification of the objective facts. There is no doubt that the development and progress of every modern society is based on the precise, scientific, and regular representation of objective and commonly acceptable data for all fields of endeavor. With “Facts & Figures,” SFEE hopes to contribute effectively toward securing and promoting the ability of citizens to enjoy “direct access” to data that determine the true picture of the pharmaceutical market.

Dionysios Sp. Filiotis
President, SFEE



PREFACE

The Substantiation Committee of the Hellenic Association of Pharmaceutical Companies (SFEE) aims to collect and record the most updated and sound data of the Greek pharmaceutical market, in order to provide them for the benefit of the patient and the healthcare system. For achieving this purpose, the Substantiation Committee works in cooperation with the country's academic and research agents, in an effort to support and promote independent research in the field of healthcare. Scientific research helps outline the real overview of the pharmaceutical sector and facilitates the decision making process by providing all stakeholders with the most reliable statistical data.

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In this framework, SFEE publishes for the third time, the report entitled “The Pharmaceutical Market in Greece: Facts & Figures”, which has been edited by the Working Group for Innovative Medicines of the Substantiation Committee. The report is published in both Greek and English and contains all the updated information of the pharmaceutical market.

In particular, it includes an introductory description of the basic economic and demographic data of the country, as well as the economic environment, the health profile and the nutritional habits of the Greek population. A short description of the healthcare system followed by an in depth analysis of the pharmaceutical market and economy is performed, including data of pharmaceutical expenditure, production, employment, sales, external trade, as well as a financial statement analysis and a description of the regulatory framework.

All the aforementioned units compose a complete overview of the Greek pharmaceutical market, providing compact information, that can serve both as a useful tool for those interfering with the pharmaceutical data for the first time, as well as a necessary handbook for the policy makers, through which they can have direct and immediate access to all the basic statistics of the pharmaceutical market in Greece.

I would like to thank all those who have worked for the publication of this report, starting with Ms Hara Kousoulakou, the Health Economics Observatory of IOBE, and the Working Group for Innovative Medicines of the Substantiation Committee, namely Ms Angeliki Angeli (coordinator), Ms Helena Armelidou, Ms Christina Golna, Mr Antonis Karokis, Mr Nikos Kotsopoulos and Mr Michalis Michaleris.

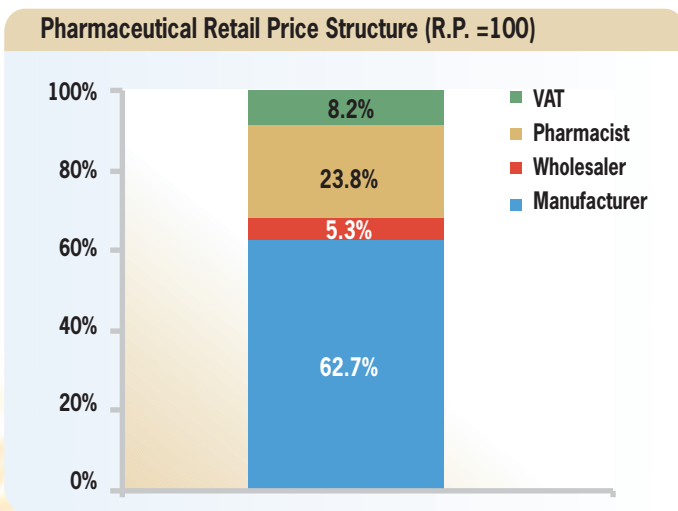
Marcos Gerassopoulos

Vice President, (SFEE)

President of the Substantiation Committee

THE TRUTH ABOUT (PUBLIC) PHARMACEUTICAL EXPENDITURE

During recent months, a prevailing confusion has existed between the terms “pharmaceutical expenditure” and “total pharmaceutical sales”. More specifically, “pharmaceutical sales,” the data recorded by the National Organisation for Medicines (EOF), have been incorrectly designated as “pharmaceutical expenditure.” First, it should be clarified that the data provided by EOF describe total pharmaceutical sales, at retail prices, which include the wholesaler’s profit, the pharmacist’s profit and VAT. Specifically, the structure of a medicine’s Retail Price is the following:



EOF records, on a monthly basis, the **sales of medicinal products** from companies to Hospitals and Wholesalers/Pharmacies. Contrarily, public expenditure on medicinal products –according to OECD International Classification of Health Accounts, with which our country is harmonised– describes the expenditure on medicinal products dispensed to outpatients, which is covered by Social Insurance Funds. **Therefore, pharmaceutical expenditure is only a fraction of total pharmaceutical sales.**

To be more precise, it should be noted that **pharmaceutical sales** comprise:

- A) public expenditure on medicinal products, which is incurred by social insurance funds (part of it, however, returns to public funds, through 9% VAT)
- B) pharmaceutical sales to hospitals (at Hospital Price: Wholesale Price minus 13%)
- C) sales of medicinal products which are re-exported (parallel exports)
- D) sales of medicinal products to either Greek citizens or tourists, which are paid out-of-pocket
- E) sales of medicinal products dispensed to Greek citizens or foreigners insured at private insurance companies, which are covered by the latter
- F) patients' co-payment, which is not reimbursed by social security

As far as point B is concerned, it should be noted that **pharmaceutical sales to hospitals are included in hospital expenditure; therefore, if included in pharmaceutical expenditure as well, they would be double-counted.**

As far as points C, D and E are concerned, it should be stressed that these sales do not constitute public pharmaceutical expenditure –on the contrary, they provide public funds with revenue, through VAT, income and salary taxation, payments to insurance funds, and others.

As a result, pharmaceutical expenditure, which is incurred by social insurance, is much lower than total pharmaceutical sales.

Therefore, the amount which is actually reimbursed by social insurance (ie the state) is estimated to be around 1/3 of total “pharmaceutical sales”. This is the “real pharmaceutical expenditure” and is estimated on the basis of both the aforementioned and the following:

It is clear that pharmaceutical sales describe the **pharmaceutical sector’s supply-side, rather than the demand-side.** Therefore, the proper way to present these sales is by estimating them at ex-factory prices, which is the usual case, rather than at retail prices. Presenting pharmaceutical sales at retail prices (sales which include

medicines that will never reach the domestic retail market due to parallel exports), creates an overwhelmingly inflated picture of pharmaceutical expenditure. Moreover, the increase in sales at retail prices includes the effect of the rise in VAT in April 2005, which, of course, should not be attributed to a change in the pharmaceutical market per se.

Consequently, **sales of medicinal products in terms of value**, reached **€ 3.8 billion** in 2005. **The rate of increase for the same year was 10%.**

Pharmaceutical Sales in Value (at ex factory prices)

Year	Hospitals (Hospital Price)		Wholesalers-Pharmacies (Net Price*)		Total	
	thousand €	% of change	thousand €	% of change	thousand €	% of change
2000	423,274	-	1,358,873	-	1,782,147	-
2001	522,504	23%	1,652,265	22%	2,174,769	22%
2002	626,286	20%	1,983,592	20%	2,609,878	20%
2003	767,984	23%	2,252,925	14%	3,020,909	16%
2004	837,497	9%	2,638,165	17%	3,475,662	15%
2005	921,387	10%	2,907,646	10%	3,829,033	10%

Source: EOF-IFET and IOBE calculations
Data include parallel exports

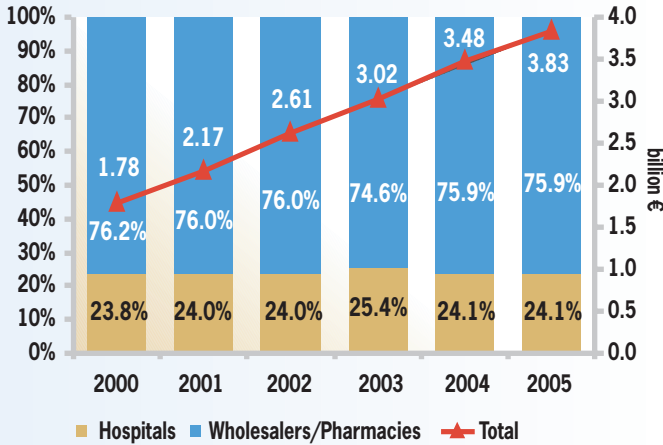
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Moreover, by presenting sales data in this way, we are being more precise in estimating the share of hospital sales on total sales, which when estimated by using the retail price, is much lower due to the fact that sales to wholesalers/pharmacies include wholesaler and pharmacist profit.

Therefore, in order to calculate pharmaceutical expenditure, we must subtract 24% (hospital sales) out

* Net Price is the wholesaler purchasing price, ie the Wholesale Price decreased by the compulsory discounts and the wholesaler's profit: Wholesale Price minus 8%.

Breakdown of Pharmaceutical Sales to Hospitals and Wholesalers/ Pharmacies



Source: EOF-IFET and IOBE calculations. Data include parallel exports

of total sales, and from the remaining €2.9 billion, we should subtract parallel exports (for which no official data exist). Accordingly, pharmaceutical expenditure which is incurred by insurance funds is estimated to be about 1/3 of total pharmaceutical sales.

In summary, it is evident that in Greece, pharmaceutical sales data are entirely different from pharmaceutical expenditure data.

As pharmaceutical expenditure is only a fraction of total pharmaceutical sales, and as long as all other parameters are taken into consideration, it is accurate and valid that the burden of pharmaceuticals to Social Insurance Funds is actually much smaller than the one arising when we incorrectly designate “sales” as “expenditure.”

1. INTRODUCTION

The Hellenic Association of Pharmaceutical Companies (SFEE) represents the position of the International research-based pharmaceutical industry in Greece. Its members hold over 90% of the Greek pharmaceutical market.

SFEE's vision is to make a significant contribution in maximizing benefits to the Greek citizen from the revolutionary progress in the research and development of new medicines. SFEE intends to be a decisive partner in the promotion of public health by actively contributing to the struggle against disease, a process that starts with the discovery of new medicines in research laboratories throughout the globe and is completed, after an extended period of research and development, when the patient has access to them.

More analytically, SFEE's vision consists of the following goals:

1. Promoting the immediate access of patients to all medicinal products.
2. Ensuring the highest, identifiable quality of all medicinal products in Greece through the marketing of branded original medicinal products and branded essentially similar products, and ensuring that prescribing under their trade name is carried out solely by a physician.

3. Cooperation with the state in finding solutions for the sound financial management of Social Security Funds and Hospitals. Participation in the built-out of the IT infrastructure by providing know-how and submission of proposals aimed at avoiding the waste of financial resources.
4. Provision of objective, unbiased and scientifically sound information, and to train health professionals within the guidelines of the SFEE Code of Practice.
5. Active participation in the effort to ensure unhindered operation of the supply chain in the Greek state, controlling the re-exportation of medicines and developing local production, which contributes in the strengthening of national economy and of research.

It is widely realized that medicines save lives and that the contribution of pharmaceutical companies in the improvement of patients' quality of life is valuable. New therapies extend the healthy, productive life of citizens and, therefore, pharmaceutical expenditure is an investment in human welfare and society. A new, advanced therapy may be more expensive, but through the administration of a specific medicine, the patient may avoid surgery and the duration of hospitalization may be reduced or eliminated. Therefore, the total cost of a new, more expensive pharmaceutical therapy is counterbalanced by the benefits it provides to a patient's quality of life and from the saving of resources from other health care forms (hospitalization).

Finally, the pharmaceutical sector's dynamic prospects can be seen in both the companies' business development strategies and the increase in turnover and employment overtime. The qualitative and quantitative characteristics of the sector constitute evidence of its upward trend and its ability to contribute positively to the country's GDP and employment.



2. BASIC STATISTICS

Table 1

Basic Statistics for Greece, 2005

THE LAND			
Area (sq km)		131,957	
Agriculture area (sq km)		39,290	
POPULATION			
Population (thousands of inhabitants)	11,104	Employment (2005, average thousands of employees)	4,625
Male population (%)	49.4%	% of employment ¹	61%*
Female population (%)	50.6%	% of female population	47.4%*
Age dependency ratio ²	48.2%	% by sector:	
Annual rate of increase over 1995-2005		Agriculture	12.4%
		Industry and Construction	22.4%
		Services	65.2%
		Long-term unemployed (%)	4.9%
ECONOMIC DATA			
Gross Domestic Product		Gross fixed capital formation	
Million euros, (current prices)	245,865*	Per cent of GDP	25.67%*
Export of goods and services	4.6%	Inflation	3.5%
EXTERNAL TRADE (%GDP)			
Export of goods and services		18.62%*	
Imports of goods and services		25.78%*	
THE CURRENCY: Euro			

*: Data 2006

Sources: National Statistical Service of Greece, Eurostat, IOBE³, OECD HEALTH DATA 2006

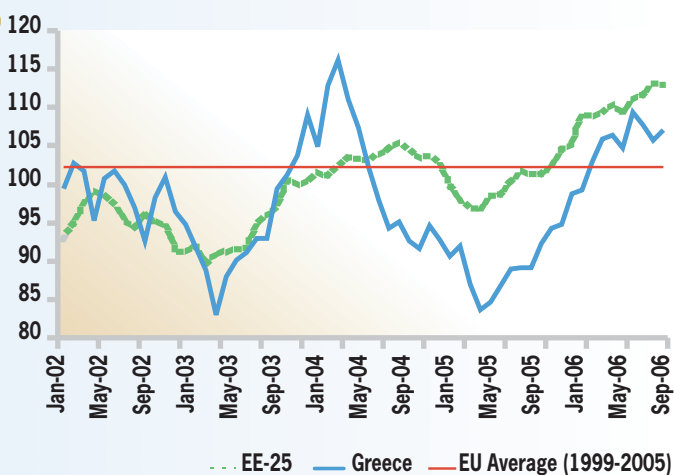
1. % of employed persons within the age group 15-64 over the respective total population
2. The age dependency ratio is the number of persons within the age groups 0-14 and 65+ over the rest of the population
3. Foundation for Economic and Industrial Research

3. THE GREEK ECONOMIC ENVIRONMENT

In 2006, the Economic Sentiment Indicator⁴ for Greece has shown a constant and steady improvement. In the middle of the year, it reached higher than the long-term average levels, while it moved towards the high values recorded in 2004. Up to September 2006 – when it reached its highest value – the rise of the indicator was faster than the corresponding increase in EU-25, resulting in its gradual convergence with the European indicator. The improvement in economic sentiment in Greece is due to stronger business activity and more positive assessments and projections of companies in all sectors.

Diagram 1

Economic Sentiment Indicator in the EU-25 and Greece 2002-2006 (seasonally adjusted data)



Source: DG ECFIN

4. The Economic Sentiment Indicator is constructed by the EU for all member states, with a common methodology, which enables comparisons among countries. It summarises, on one hand, business confidence in industry, construction and retail trade and on the other hand consumer confidence.

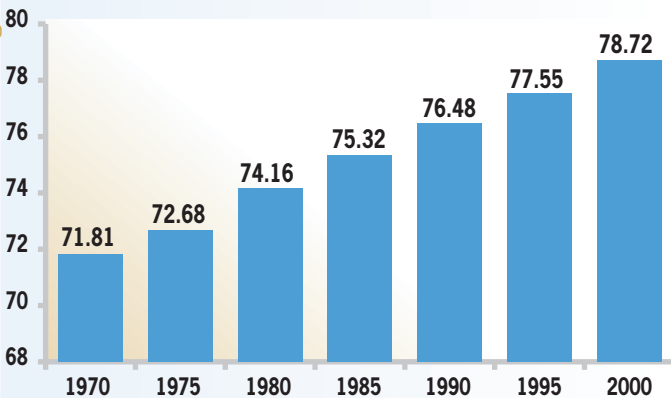
The continuous improvement in economic sentiment recorded in IOBE's business and consumer surveys throughout 2006 is reflected also in the evolution of macroeconomic data, especially GDP growth, which far exceeded initial forecasts. It is worth noting that the rise in GDP recorded in 2006 marks thirteen years of uninterrupted growth of the Greek economy. Even more importantly, over the last ten years the rate of growth in Greece has been faster than the corresponding rates in the Eurozone, resulting in income per capita rising from 64% of the Eurozone average in 1998 to 80% in 2006 (IOBE, «The Greek Economy», 1/2007).

4. HEALTH PROFILE AND NUTRITIONAL HABITS OF THE GREEK POPULATION

Innovative pharmaceutical products contribute significantly to the prolongation of life expectancy at birth and the improvement of quality of life. Health-related technology improvements, led by the introduction of new medicines, are estimated to have reduced early mortality by more than 50% since the 1960s. Moreover the average life expectancy at the beginning of the 20th century was only 55 years, while a child born today is expected to live up to 80 years (EFPIA) (Diagram 2).

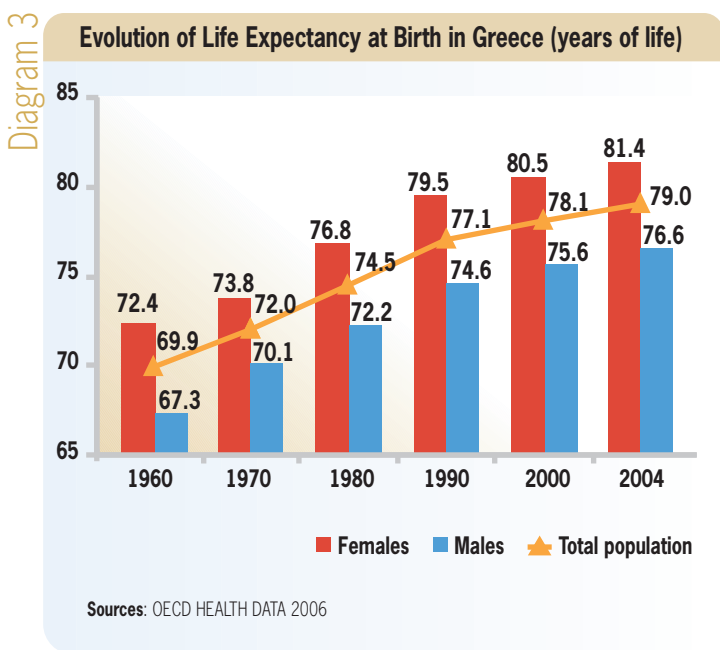
Diagram 2

Evolution of Life expectancy in EU, 1970-2000



Source: EFPIA, WHO

Over the last 40 years, the average life expectancy at birth in the Greek population exhibited an increase of 9.3 years for men and 9 years for women (Diagram 3).



According to data by the National Statistical Service of Greece (ESYE), in 2005, the total number of births and deaths amounted to 107,500 (increased by 1.79% compared to 2004) and 105,000 (against 104,900 in 2004) respectively. The number of births has been decreased by 31.6% compared to 1960, while the number of deaths per 1,000 habitants exhibited an increase of 30.1% at the same period.

The main causes of death, in 2005, were cardiovascular diseases and malignant tumors, accounting for 30% and 24.6% of all deaths, respectively. Cerebrovascular diseases were responsible for 16.4% of all deaths and respiratory system diseases accounted for 7.8% of total deaths. The above mentioned four categories are responsible for 78.8% of total deaths, while a relatively high death-rate (8.2%) is responsible for “incidents vaguely determined”.

In 2005, Greece held the fourth place among OECD countries regarding daily per capita calorie consumption (3,775 calories), following USA (3,906), Austria (3,900) and Portugal (3,862) (OECD Health Data 2006).

Per capita annual alcohol consumption decreased from 10.5 litres in 1995 to 8.63 litres in 2005. On the other hand, tobacco consumption augmented, as the percentage of population who are daily smokers increased from 35% in 2000 to 38.6% in 2004, a fact which ranks Greece in the first place of daily smokers within the 30 OECD countries (OECD Health Data 2006).

5. THE GREEK HEALTH CARE SYSTEM

The Greek health care system is a mixed system of public-private funding and provision of health care services. It constitutes of three subsystems, which operate almost independently, especially as far as primary health care is concerned:

- The National Health System (ESY), which comprises of public hospitals, Health Centres and the National Centre of Emergency Care (EKAB).
- The Social Security Institution (IKA) and other Social Insurance Funds, which provide their beneficiaries with different insurance coverage.
- The private sector, with numerous diagnostic centers, private clinics, laboratories, infirmaries etc.

Thus, health care in Greece is funded by the governmental budget (general taxation), the social insurance (insured premiums) and private expenditure.

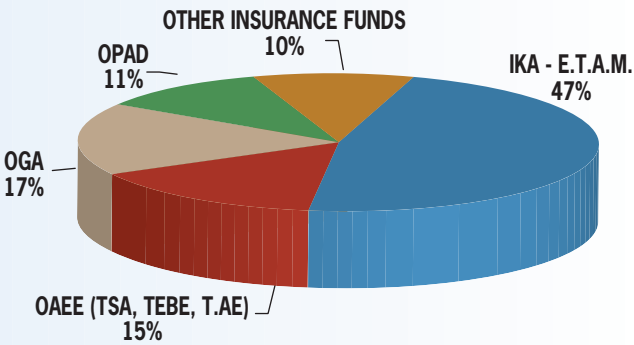
A number of Ministries and competent authorities are involved in the health care policy making: the development and operation of the NHS is under the responsibility of the Ministry of Health and Social Solidarity, most Insurance Funds are

under the supervision of the Ministry of Employment and Social Protection, the Ministry of Defence supervises the army health care services, the Ministry of Rural Development and Food deals with the delivery of health care to the rural population, the Ministry of Mercantile Marine covers the sailors and their families and the Ministry of Economy and Finance supervises the Fund for Civil Servants (OPAD). As a result of this fragmentation, it is very difficult to formulate a coherent health policy pattern. Health Insurance in Greece is compulsory. Assignment to a Fund depends on the occupation of the insured and not on his/her income level. Insurance Funds are mainly funded through insured and their employers' premiums as well as by the governmental budget, through social levies and subsidization of deficits.

The Social Security Institution, (IKA), which was founded in 1934, is the country's largest Insurance Fund. It has 331 Insurance Units and 364 Health Care Units and offers health care to 5,537,000 directly or indirectly insured, while it covers the pensions of 918,000 persons (Social Budget 2006).

Diagram 4

Breakdown of Insured per Insurance Fund under the auspices of the Ministry of Employment and Social Protection plus OPAD, 2006



Sources: Ministry of Employment and Social Protection, Social Budgets, OPAD

Note: The total number of the insured exceeds total population due to the fact that part of it is registered to more than one Insurance Funds.

Health Care Employment

Over the period 2000-2005, the number of practicing physicians in Greece was increased by 17.9% (mean annual growth rate -MAGR- of 3.3%), while the number of female practicing physicians exhibited an increase of 27.4% (MAGR of 5.3%). The overall increase over the same period in the number of practicing dentists, pharmacists and nurses was 7.6%, 6.3% and 25.2%, respectively (Table 2).

Table 2

Number of Employees per Health Care Sector

	2002	2003	2004	2005
Practicing Physicians	50,347	52,325	53,943	55,712*
Female Practicing Physicians	17,700	18,616	19,385	20,418*
Practicing Specialists	35,880	36,029	36,554	37,896*
Practicing Dentists	13,107	13,079	13,316	13,588*
Practicing Pharmacists	9,315*	9,488*	9,665*	9,845*
Practicing Nurses**	41,853	42,524*	43,205*	43,898*

Source: OECD Health Data 2006 (data refer to both the private and the public sector)

*I.O.B.E estimates

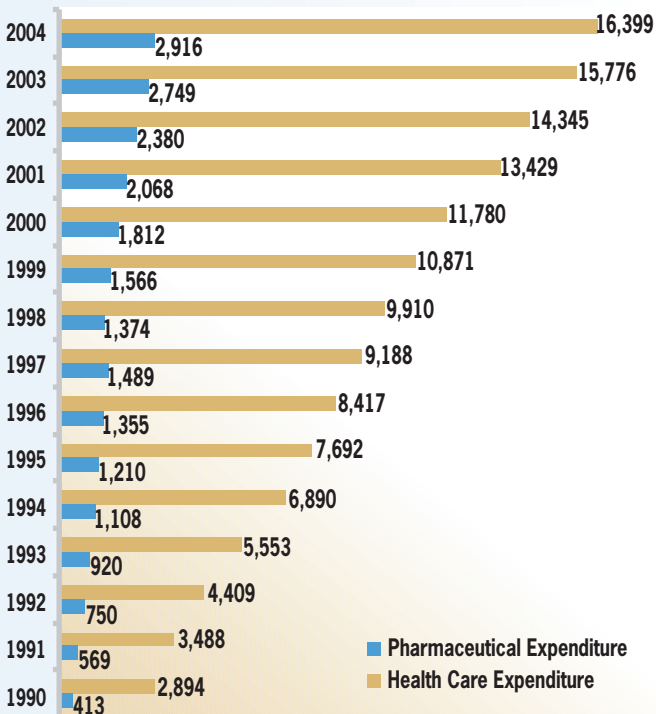
**Registered and assistant nurses

6. TOTAL HEALTH AND PHARMACEUTICAL EXPENDITURE (Public & Private)

According to OECD data, Greece spends on health care about 10% of its GDP, a percentage which places the country close to the EU average. Pharmaceutical expenditure (public and private) for the period 1990-2004 represents - on average - 15.9% of total Health Expenditure (Diagram 5).

Diagram 5

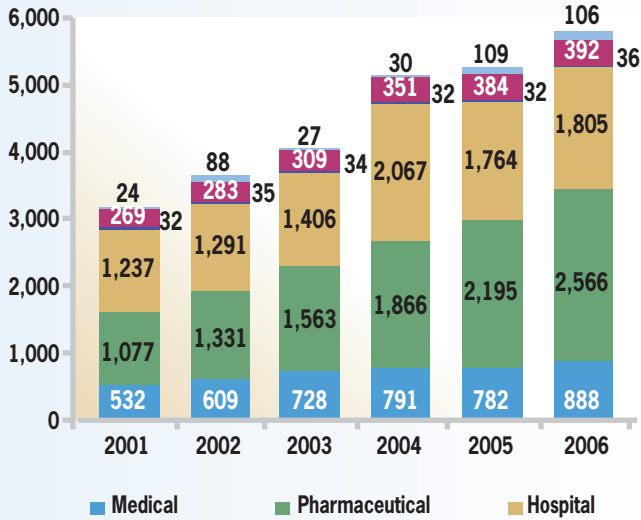
Pharmaceutical and Health Care Expenditure in Greece (Public and Private) (in million €)



Source: OECD Health Data 2006

Diagram 6

Breakdown of Insurance Funds' Health Care Expenditure (million €)

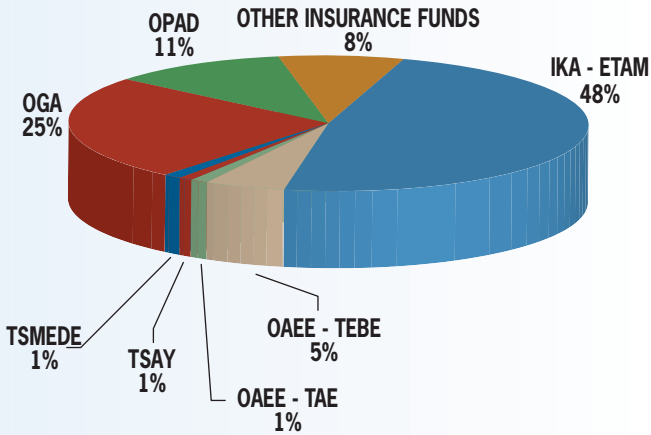


Source: Ministry of Employment and Social Protection

Social Insurance Funds' Health Expenditure breakdown among different forms of care is presented in Diagram 6. Pharmaceutical Expenditure appears to represent a relatively high proportion of health care expenditure (on average 36%), however this is due to the fact that the latter does not include Funds' debts towards hospitals –which would significantly increase hospital expenditure share and reduce pharmaceutical expenditure respectively.

Diagram 7

Breakdown of Pharmaceutical Expenditure per Insurance Fund under the responsibility of the Ministry of Employment and Social Protection, including OPAD, 2006



Source: Ministry of Employment and Social Protection and OPAD

IKA-ETAM, the largest insurance organisation in the country, holds the highest share of pharmaceutical expenditure, followed by OGA (the Agricultural Insurance Organisation) and OPAD (Diagram 7).

7. THE GREEK PHARMACEUTICAL INDUSTRY AND ECONOMY

Manufacturing of medicinal products in Greece is one of the most important sub sectors of the chemical industry. It represents almost 1/3 of the chemical industry, both in terms of the number of employees and production units operating in Greece and in terms of value added, sales and investment. More than 11,350 employees work on the production and marketing of medicines, rendering the pharmaceutical industry one of the most vital and dynamic sectors of the National Economy.

The Supply Chain of Pharmaceuticals

The supply side of the pharmaceutical sector is determined by pharmaceutical companies on one hand and a number of players involved in the distribution chain of pharmaceuticals on the other. More specifically, medicinal products except those sold directly to hospitals ensue the following process:

pharmaceutical company > wholesaler > pharmacy

whereas, it is also possible for companies to sell pharmaceuticals directly to pharmacies. In areas where there is no pharmacy within an accessible distance, the doctors are also dispensing doctors, while in special

cases (eg patients with mobility problems) the company can deliver the medicinal product directly to the patient given the permission of the Security Fund.

In the pharmaceutical sector, wholesalers are separated into two categories: private wholesale companies and pharmacists' cooperatives. In 2005, private wholesalers amounted to 112, representing 55% of the wholesale market. The rest 45% of the market is covered by 27 Pharmacists' Cooperatives, while the number of pharmacies in 2005 was 9,396.

Sales

According to data by the National Organisation for Medicines, total pharmaceutical sales from companies to hospitals and wholesalers/pharmacists amounted to €3.8 billion (ex factory prices). Over the period 2000-2005, sales increased at a MAGR of 16.5%, exhibited however a decelerating rate of increase, from 22% in 2001 to 10.2% in 2005.

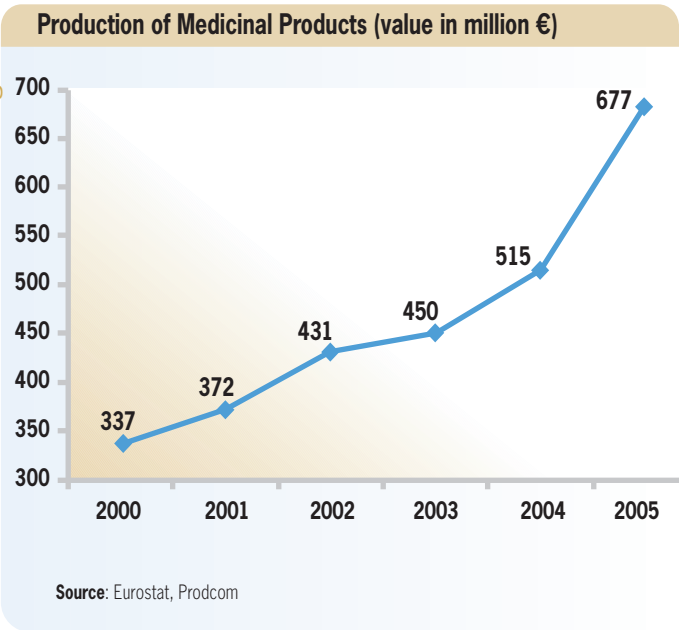
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Production

Europe produces more than 35.8% of the world pharmaceutical output and holds the second place in the global ranking, after the US (39.3%). Japan follows in the third place, with a production which accounts for 10.8% of total pharmaceutical market (Source: EFPIA).

In Greece, pharmaceutical production in 2005 reached €677 million (Diagram 8), exhibiting an increase of about 31.4% compared to 2004. The Mean Annual Growth Rate for the period 2000-2005 is 15%.

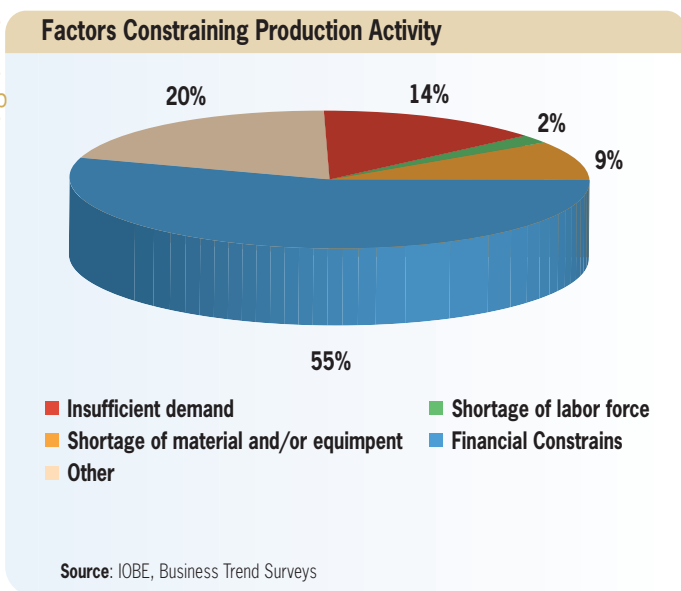
Diagram 8



According to the last available data of the Annual Industrial Survey of ESYE, in 2003 the Gross Production Value (GPV) in the pharmaceutical industry amounted to €617.7 million. The pharmaceutical industry sector contributed to the GPV of the chemical and total manufacture industry by 28.3% and 2.1%, respectively. Moreover, investments in the pharmaceutical industry sector contributed to the investments of the chemical and manufacture industry by 43.4% and 3.4%, respectively.

IOBE's Business Trend Surveys show that the production activity in 75% of the pharmaceutical companies is not at all obstructed, while the remaining 25% of the companies mainly faces financial constraints (Diagram 9).

Diagram 9



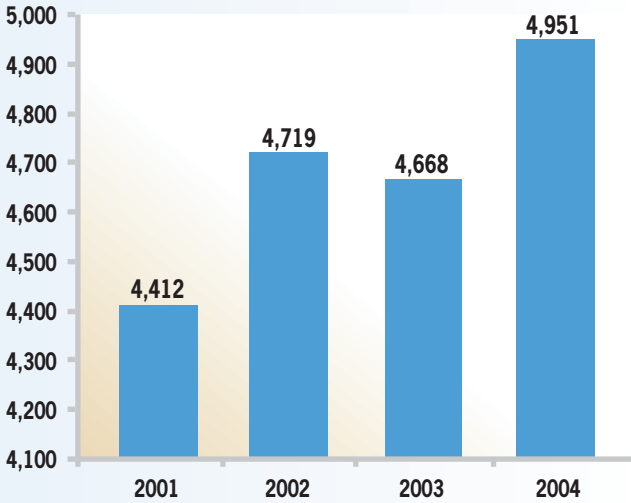
Employment

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The pharmaceutical industry in Europe is a high technology sector, which employs about 640,000 persons (including 102,000 in R&D) (Source: EFPIA, 2006). In Greece, total employment in the pharmaceutical industry reached 4,951 employees in 2004 (Diagram 10) –however, if employees, occupied in pharmaceutical companies with commercial activity only, are included, then the total employment in the sector exceeds 11,350 persons (SFEE's estimate).

Diagram 10

Employment in the Pharmaceutical Industry



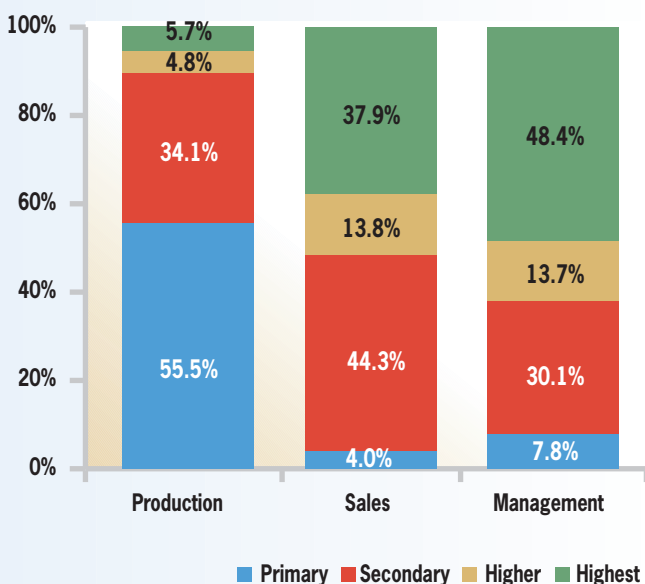
Source: Annual Industrial Survey, National Statistical Service of Greece

Moreover, according to research findings (IOBE, 2005 & 2006), the mean annual employment in the pharmaceutical sector exhibits an increasing trend during the years 1999-2004, with a MAGR of 6.1%.

Of the employees occupied in pharmaceutical companies, 15% and 36% have received Higher and Highest Level of Education, respectively, a fact which justifies the employers' high level of satisfaction by their employees' level of education. Most of the staff specialises in Chemistry and Pharmacy (22% and 14% of the University graduates, respectively), while Economics, Biology and Business Administration are also frequent scientific specialties among University Graduates. The latter are mainly occupied in the Management and Sales Departments, while most of the Primary Level Education employees are occupied in the production units (Diagram 11).

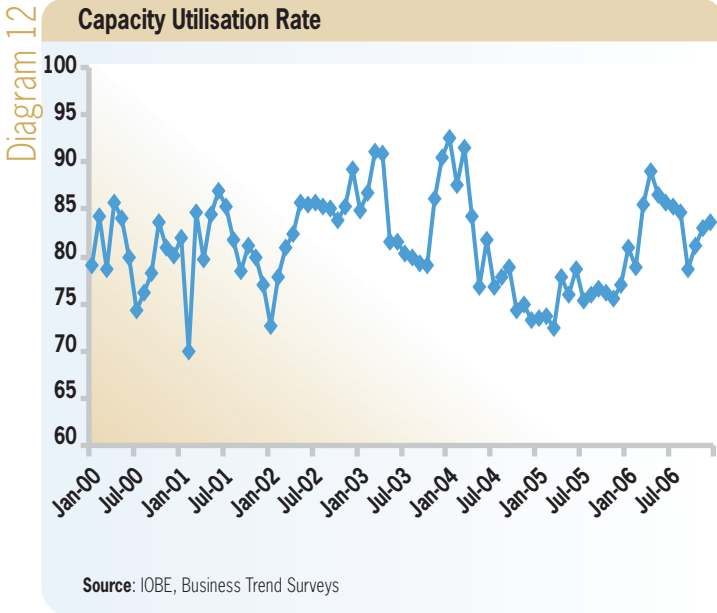
Diagram 11

Employment per Department and Level of Education



Source: IOBE's field work and estimates

Finally, the capacity utilization rate⁵ in the pharmaceutical industry was lower than 80% in 2005, while it raised over 85% during the first months of 2006 (Diagram 12).



5. Capacity utilisation rate of 100% means that companies cannot further increase production by increasing employment alone.

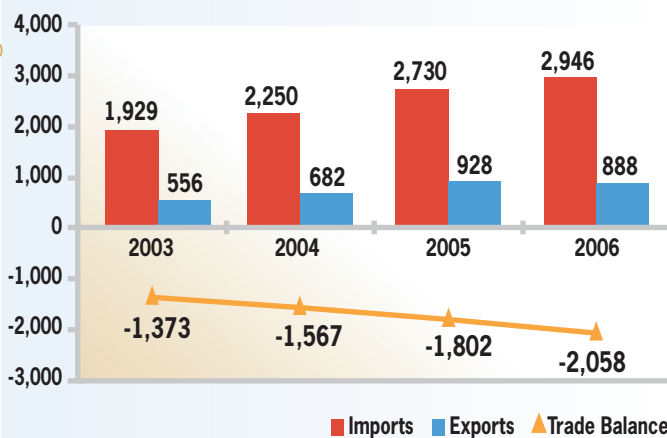
External Trade

According to Eurostat data, Greece presents a negative trade balance overtime - marginally improved in 2005 - both in terms of value and quantity. The pharmaceutical sector is playing an increasing role in the country's external trade. In 2006, pharmaceutical imports and exports amounted to €2.9 billion and €888 million, respectively, representing 6.1% of the total trade balance. In comparison with 2005, pharmaceutical imports exhibited an increase of 7.9%, while pharmaceutical exports decreased by 4.3%.

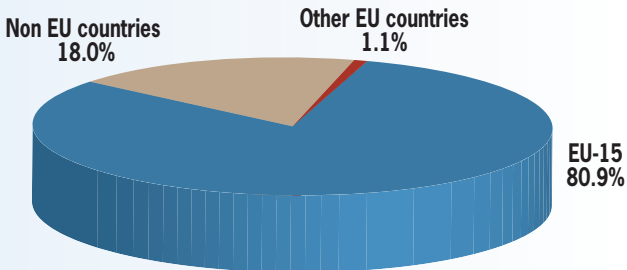
The pharmaceutical sector's trade balance worsens, as it is negative and presents an increasing trend (from €1.8 billion in 2005 to €2.05 billion in 2006) (Diagram 13).

Diagram 13

Evolution of External Trade (million €)



Source: Eurostat

Imports' Breakdown by Origin, 2005

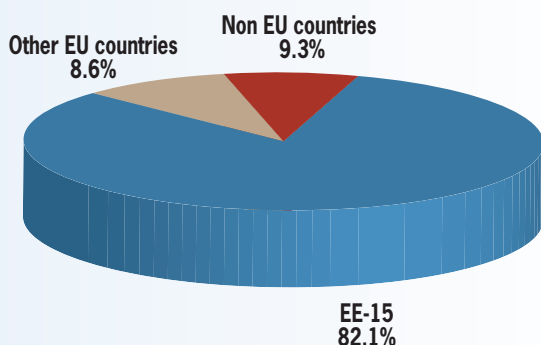
Source: Eurostat

As a result, the Balassa Index, which reflects the relative weight of trade balance (deficit or surplus) on the total trade flows, is negative during the whole under examination period and it increases from 0.49 in 2005 to 0.54 in 2006. The largest share of pharmaceutical imports (greater than 80%) is originated from EU-15 countries (Diagram 14), while the 10 new member states hold a very low share (1.1%). The rest 18% of the imports comes from countries outside the EU.

The largest share of greek pharmaceutical exports (82.1%) is directed to the EU-15 countries (Diagram 15), while the respective figure for the 10 new EU-countries is 8.6%.

Diagram 15

Exports' Breakdown by Origin 2005



Source: Eurostat

Financial Statement Analysis

The Financial Statement Analysis includes a sample of 112 companies, which represents more than 90% of the pharmaceutical market (in terms of pharmaceutical sales). In 2005, Gross and Net Profits exhibited an increase of 12.5% and 9%, respectively, while the Annual Turnover amounted to 4.7 billion, showing an increase of 15.8% (Table 3).

Table 3

Financial Data for a Selected Sample of Pharmaceutical Companies (value in thousand €)

	2004	2005
Equity	574,239	604,473
Total Assets	3,649,348	3,364,281
Capital & Reserves	866,940	949,728
Current Liabilities	2,506,228	2,180,705
Long term Liabilities	276,191	233,849
Total Liabilities	2,782,419	2,414,554
Fixed Assets	774,007	826,449
Depreciation	353,601	405,330
Fixed Assets Net Value	420,406	421,118
Current Assets	3,228,942	2,943,163
Inventories	739,320	833,714
Accounts Receivable	2,372,952	1,898,940
Cash and cash equivalents	116,669	210,510
Turnover	4,084,681	4,729,233
Cost of Goods Sold	2,745,694	3,221,880
Gross Profit	1,338,987	1,507,353
Net Profit	315,451	343,822

Source: Financial Statement Analysis conducted by IOBE

The Gross Profit Margin for pharmaceutical companies amounted to 31.9% against 32.8% in 2004, while the Net Profit Margin was 7.3% against 7.8% in 2004. The Concentration Ratio (CR4), which is based on the joint share of the four leading companies in terms of annual turnover, was 26.6 in 2005 against 26.9% in 2004. Finally, Return on Equity amounted to 36.2%.

The pharmaceutical companies' New Capital Inflow, in 2005, was €608.5 million, 80% of which was attributed to a decrease in receivables, due to the fact that a hospital debt settlement took place in 2004. This also explains the zero increase in the companies' short and long term liabilities.

Table 4

Sources and Uses of New Capital (value in thousand €)

	2005	%	
A. SOURCES OF NEW CAPITAL	1. Increase in Capital and Reserves	82,799	13.6%
	2. Increase in Liabilities	0	0.0%
	- Current	0	0.0%
	- Long term	0	0.0%
	3. Annual Depreciation	51,730	8.5%
	4. Decrease in Current Assets	474,013	77.9%
	- Decrease in Inventories	0	0.0%
	- Decrease in Accounts Receivable	474,013	77.9%
	- Decrease in cash and cash equivalents	0	0.0%
	Total New Capital Inflow	608,541	100.0%
B. USES OF NEW CAPITAL	1. Increase in Fixed Assets	52,441	8.6%
	2. Decrease in Capital and Reserves	0	0.0%
	3. Decrease in Liabilities	367,865	60.5%
	- Current	325,523	53.5%
	- Long term	42,342	7.0%
	4. Increase in Current Assets	188,234	30.9%
	- Increase in Inventories	94,394	15.5%
	- Increase in Accounts Receivable	0	0.0%
	- Increase in Cash and cash equivalents	93,841	15.4%
Total Use of New Capital	608,541	100.0%	

Source: Financial Statement Analysis conducted by IOBE

8. THE REGULATORY FRAMEWORK OF THE PHARMACEUTICAL MARKET

The Greek State, in its effort to protect public health and contain pharmaceutical expenditure, intervenes in the pharmaceutical market, both on the demand and the supply side, monitoring -among other things- safety, efficacy, efficiency and quality of medicinal products, as well as regulating the price setting mechanisms and the supply and marketing of pharmaceuticals. Regarding the regulatory framework concerning the protection of pharmaceutical companies, Greece has implemented the EU legislation.

The pharmaceutical policy in Greece is exercised by the Ministry of Health and Social Solidarity, which is responsible for planning and putting into effect the legal framework in the pharmaceutical market.

The National Organization for Medicines (EOF), which is a public entity of the Ministry of Health, is responsible for the marketing authorization of medicinal products. For this reason, it conducts pre-approval controls (clinical studies monitoring, authorization and marketing procedures) and post-authorisation controls (marketing surveillance, pharmacovigilance, manufacturing plants control etc). For marketing authorization, one of the four procedures

can be followed: national, central, decentralized and mutual recognition. Finally, EOF is responsible for the authenticity bands, the coverage of market shortages (through its subsidiary IFET) and laboratory controls.

The Ministry of Development sets up the regulatory framework regarding the medicinal pricing system. The Pricing Committee of Medicines and the respective Ministry's Pricing Department of Industrial Products are competent for the pricing and issuing of Price Bulletins for medicinal products.

The Pricing System

Article 13 of Law 272/2005, changed the Greek pricing system, which was in effect since December 1997. Under the new pricing system, the price of a medicine which is manufactured, packaged or imported in Greece is based on the average of the three lowest-prices among the EU countries, two of which are selected from the 15 original member states (before 1/5/04) plus Switzerland, while the third is selected out of the 10 new member states which joined EU on 1/5/04.

Original Branded Products, which have been developed in Greece and for which no similar product is marketed in any other country, will be priced according to cost data. The estimation of cost will include production and packaging expenditure, as well as expenditure on Management, Allocation and Distribution. Moreover, the cost of research and development of the active substance, the Greek “know how”, as well as whether new investments are undertaken, will be taken into consideration. The net profit rate is 8.5% and will be calculated on top of the total cost excluding depreciation, interests and third-parties’ profit for outsourcing production.

Prices of Medicinal Products

The Wholesale Price (or Pharmacy Purchase Price -PPP) includes wholesaler's profit (8% on the ex factory price⁶) and the mandatory discounts.

In case of sales to rural pharmacies (i.e. pharmacies operating in areas with less than 5,000 inhabitants), a discount of 4% is provided by manufacturers, importers and wholesalers. In order to be able to provide that discount, manufacturers and importers provide an extra discount of 0.4% on Wholesale Price to all medicinal products purchased by the wholesalers.

The Retail Price includes the pharmacist's profit margin (35% on top of the PPP) and the VAT (9% ⁷). The Retail Price is uniform throughout the country, excluding some district areas where a low VAT rate (6%) applies.

The Hospital Price is the price at which public hospitals or health institutions - supervised by the Ministry of Health and Social Solidarity and by the Ministry of Employment and Social Security - purchase pharmaceutical products. The Hospital Price is calculated as the Pharmacy Purchase Price reduced by 13%.

⁶The net price is the wholesale price reduced by the mandatory discounts.

⁷ VAT was increased from 8% to 9% in April 2005.

Manufacturers and importers may offer any level of discount on the hospital price to public hospitals and to the public sector in general. Additionally, manufacturers & importers can (optionally) provide an extra 5% discount on Wholesale Price to wholesalers & pharmacies on the condition that it is noted on the invoice. The same limit of discount is provided to pharmacies by the wholesalers and the pharmacists' cooperatives.

Diagram 16

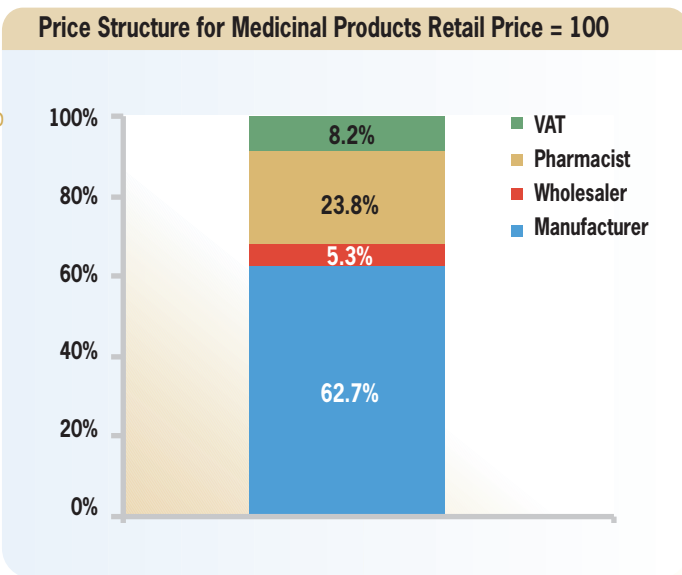
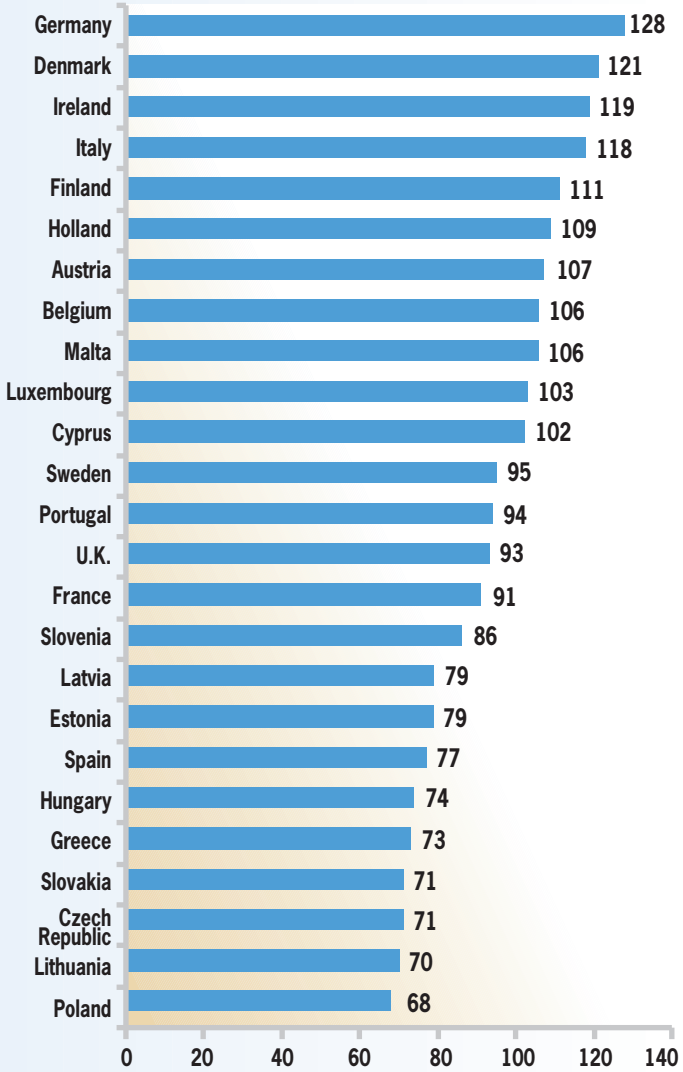


Diagram 17

**Price Index for Pharmaceutical Products
(100=EU-25 average)**

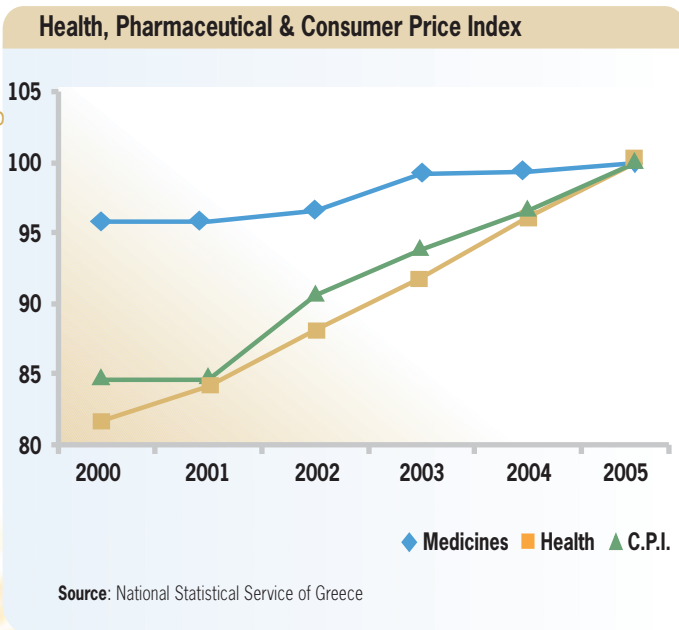


Source: Eurostat

The pricing system, which was in effect before the reform, rendered Greece the 5th lowest country in the EU-25, on the basis of pharmaceutical price levels. In particular, in 2005, pharmaceutical prices in Greece were lower than the EU-25 average by 27% (Diagram 17).

In addition, the pharmaceutical Price Index (PPI) exhibits a lower rate of increase than both the Health Price Index and the Consumer Price Index (CPI). More specifically, in 2005 drug inflation amounted to 0.7%, while the Health Price Index and the Consumer Price Index exhibited an increase of 4% and 3.5% respectively (Diagram 18).

Diagram 18



The implementation of the new pricing system is expected to improve patient access to new medicines, provided that Price Bulletins will be issued every three months. It is also anticipated that the new system (both in terms of the 2+1 mechanism and in terms of the equal pricing for imported and domestically produced medicines) will, on one hand, increase pharmaceutical prices, but, on the other hand, moderate parallel exporting and domestic market shortages. Equal pricing for imported and locally-produced drugs may boost domestic medicinal production, especially that of essentially similar products.

The Reimbursement System

Since the abolition of the positive reimbursement list by Law 3457 in May 2006, all prescription-only-medicines will be reimbursed by Social Security. The only products not reimbursed are the Over-the-Counter (OTC) and 'lifestyle' drugs (although they are subject to the 2+1 pricing system).

The key advantage of the new system against the positive list lies to the fact that it does not confine doctor's and patient's choice. Specifically, with the previous system if a pharmaceutical company decided not to decrease the price of a medicine, the access of the patient to that medicine was hindered. From now on, patients' choices are not limited as all medicinal products that require prescription will be reimbursed by the Social Security Institutions. In this way, the new reimbursement system is expected to improve patient access to drugs and especially to new drugs.

THE HIGH QUALITY OF MEDICINES AND THE RESPONSIBILITY OF THE PHARMACEUTICAL SECTOR IN GREECE ARE SUBSTANTIATED

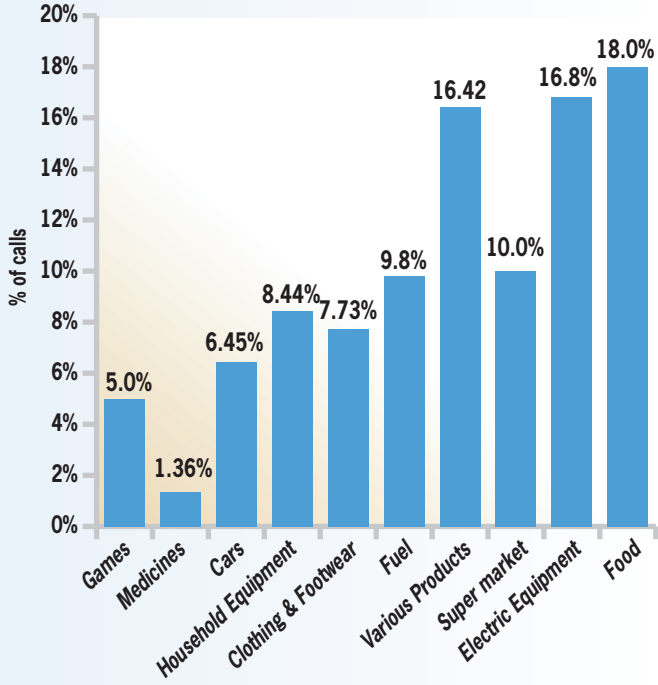
According to data presented by Deputy Minister of Development Mr. G. Vlachos on January 15, complaints regarding medicines made to the Department of Consumer Affairs in 2007 accounted for only 1.36% of the 51.107 written and oral (through telephone) complaints made to the department. This percentage places the pharmaceutical sector with the lowest number of consumer complaints.

The result demonstrates the high quality of marketed medicinal products and the high sense of responsibility characterizing all professionals involved in or related to the pharmaceutical sector: pharmaceutical companies, production units, the market control mechanisms of the National Organisation for Medicines (EOF) and, in particular, the pharmacists and the medical and hospital personnel of our country. In addition, this result demonstrates the efficiency of our country's system, in which only branded medicinal products are marketed, being prescribed with the exclusive responsibility of a physician. This ensures that only high quality medicines are marketed and that public health is protected.

A result of this policy is this exceptionally low percentage of complaints lodged against the pharmaceutical sector. Surely, this achievement does not constitute a cause for relaxation, since our goal is even greater success in this area. Our goal is for citizen complaints against medicines to fall to zero.

With continuous vigilance, with the support of tested and successful policies, and with a constructive cooperation by all healthcare professionals, we will succeed in strengthening even more the pharmaceutical sector as one of the country's top sectors in the highly vital and sensitive area of responsibility and respect toward citizens.

Consumer Complaints & Questions



Visit our website
www.sfee.gr



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