Chapter 7

Offset Benefits in Greek Defence Procurement Policy: Developments and Some Empirical Evidence

Nicholas Antonakis[1]
University of Athens and Ministry of Industry, Energy and Technology, Athens, Greece

7.1 Introduction

Until recently, NATO members have been characterised by a relative independence in the provision of armament systems. The basic arguments which are used to support this nationalistic procurement policy relate to the effectiveness of the domestic defence industry (a) to increase the operational independence of the armed forces (thus increasing the level of national security and the independence of foreign policy), (b) to produce new high technologies, which are difficult for the industries of opposing countries to copy, (c) to create job opportunities and to increase gross national income, and (d) to improve the balance of payments. However, in recent years the governments of the mainly European members of NATO have begun to recognise that an independent defence procurement policy involves significant costs. These are attributable to the duplication of R&D work as well as to the non-exploitation of economies of scale, learning economies, and the gains from the free international trade of armament systems.[2]

The cost of non-specialisation in production and the absence of free international trade in armament systems, combined with the continuously increasing cost of these systems[3] and the desire of NATO governments to decrease defence expenditures, has raised the interest of Western allies in the application of a NATO weapons standardisation policy. This policy, however, is inconsistent with the operation of political markets in member-countries, and particularly with the aims of producer interest groups (weapons firms), the Ministries of Defence and the Services. These problems have led the governments to adopt alternative policies for the procurement of armament systems which deviate from the "best case" model of standardisation (which would result in lower costs relative to the independent procurement policy). Co-production, work-sharing and licensed production refer to the domestic production of foreign-designed arms systems, either totally or partially. With these procurement policies significant R&D costs are

saved, balance of payments problems can be avoided, work is provided for skilled labour, domestic defence capacity is maintained, and there are possible benefits from access to new production technology. Since these production methods compensate, to a certain degree, for the cost of provision of defence equipment to an economy, they are often included together with a package of other compensations (investment projects, transfer of technology, exports, tourism development etc.) in so-called Offset Benefits Agreements, which usually accompany every large contract for the procurement of armament systems from a foreign country.

The purpose of this paper is to examine Greek offset benefits policy. This policy is a relatively new development in Greece which has a less developed defence industry (LDDI) than some of the other NATO members. Section 2 outlines a brief history of the offset benefits policy in Greece. Section 3 describes the Offset Benefits Agreements which have accompanied the procurement of armament systems in Greece. Section 4 criticises the application of the offset benefits policy. The conclusion is reached in Section 5 that offsets might prove beneficial for the development of the Greek defence industry, provided that the appropriate policy measures create a defence industrial base capable of assimilating future offset benefits programmes. Throughout this paper, the term "Offset Benefits" (hereafter O/B) is used in the sense which is given in the Greek legislation. In other words, this term is meant to indicate an economic transaction which is a consequence of a public procurement and is intended to provide the purchaser with some additional benefits. These transactions may refer either to the object of supply, *per se* (direct compensation), or to another object (indirect compensation). Throughout the following, both forms of compensation are examined.

7.2 Offset Benefits Policy in Greek Defence Procurement

The Turkish invasion of Cyprus in 1974 and the continuing disputes over the boundaries of Greek territorial waters and airspace limits, created the need for a domestic defence capability to minimise Greece's foreign dependence and vulnerability in wartime. Thus, from 1975, efforts were made to create a defence industrial base in Greece, aimed at securing a minimum of national participation in defence procurement. At present, the Greek defence industry consists of six large sized publicly-owned corporations, which are the major defence contractors in the country, and thirty-eight small to medium-sized privately-owned corporations, aimed at securing a minimum share of sub-contracting in total defence business. The following Table presents the six public sector corporations and the four largest private sector firms of the Greek defence industry, with some indication of their major products and size.

MAJOR DEFENCE CONTRACTORS IN GREECE

Company	Industrial Activity	Total Assets	Net Fixed Assets (million drachmas)	Sales	Personnel
	'A' Public Sector				
1. Hellenic Arms Industry SA	Manufacture of rifles, shotguns, mortars, ammunition, nitrocellulose (for the production of paints and varnishes). Engineering and manufacture of external stores and ground support equipment of fighting aircraft. Construction of 'Artemls-30' anti-aircraft system.	55472	12832	1771	1859
2. Greek Powder & Cartridge Co Inc	Manufacture of ammunition, explosives, 'Ygnis' boilers, sliding door systems, conveyor belts, hangars, roofs and other metal structures.	35151	9979	4324	1850
3. Hellenic Shipyards Co SA	Shipbuilding, ship repairs and conversions. Ship and marine engines repair. Construction and installation of steel constructions on ships. Metal constructions. Construction of train wagons.	30363	21941	10871	2345
4. Eleusis Shipwards SA	Shipbuilding, ship repairs and conversions. Metal constructions.	30363	21941	10871	2345
5. Hellenic Aerospace Industry Ltd	Construction of aircraft parts, electronic products and weapon systems, assembly, repair, maintenance, modification and training service for the full range of aviational equipment.	199919	176386	13887	3500

MAJOR DEFENCE CONTRACTORS IN GREECE — continued

Company	Industrial Activity	Total Assets	Net Fixed Assets (million drachmas)	Sales	Personnel
	'A' Public Sector				
6. Hellenic Vehicle Industry 'Elvo' SA	Manufacture of trucks, military trucks, diesel engines, truck engines, buses, special purpose and armoured vehicles and various accessories.	15454	1918	9796	850

MAJOR DEFENCE CONTRACTORS IN GREECE

Company	Industrial Activity	Total Assets	Net Fixed Assets (million drachmas)	Sales	Personnel
	'B' Private Sector				
1. Elviemek SA	Manufacture of explosives, ferrous sulphate and other chemical raw materials for explosives, ammunition.	2028	1147	1670	145
2. Vidomet SA	Nuts, bolts and miscellaneous metal stampings.	1233	497	298	82
3. Spider N Petsios & Sons Metal Ind SA	Metal components for the martian industry. Garbage barrels for garbage trucks. Store equipment (shelves etc).	1460	573	742	250
4. Kioleides NIK SA	Manufacture of vehicle bodies and chassis of all kinds, and train wagons.	1393	497	823	150

Notes: All data refer to 1990. Information on enterprises was compiled from:
a. Questionnaires prepared especially for this purpose
b. private interviews, and
c. the Government Gazette

Source:
a. ICAP Hellas SA[4]
b. Antonakis[5]

Defence firms in Greece are mainly concentrated in the hardware and transportation equipment sectors of the economy. In 1990, those two sectors accounted for 98.23% of total assets, 98.77% of net fixed assets and 94.54% of personnel of the defence market in Greece. As is shown in the Table, the basic production capabilities of the Greek defence industry include the construction of mobile weapons, mortars, anti-aircraft weapons, ammunition and explosives, parts and equipment of armament systems, armoured vehicles, as well as shipbuilding, ship repairs and conversions, and assembly, repair and maintenance of aircraft materials. Almost all corporations in the Greek defence industry produce not only defence materials for the armed forces of Greece or other countries but also channel a significant (though unknown from official data) share of their production to other sectors of the economy.[6]

The production capabilities of the Greek defence industry imply a particular structure for the provision of defence materials: the import of heavy materials, and the domestic construction and maintenance of certain structural parts of these materials in Greece, combined with the provision of light materials from domestic sources. It is obvious, therefore, that the O/B practice may contribute to the development of the country's defence industry and the improvement of its international competitiveness. The desire of Greek governments to increase the ability of the country's defence industry to exploit O/B, and in particular those associated with co-production in the procurement of defence materials, is evident in the following quotations which illustrate the official policy of the Greek Ministry of National Defence: "The co-production of defence materials is one of the most beneficial forms of O/B, which are agreed in large defence procurement contracts, as a large part of the procurement expenditures remains in our country. Consequently, the pursuit of co-production, either totally or in part, is carefully examined in each large procurement of the armed forces. Also, within the framework of bilateral agreements, one of the main articles is the co-production of defence materials. As a base, all goods which could be produced in the defence industry without demanding large expenditures for expansion, changes or adjustments of infrastructure are considered as efficient co-production projects. With this concept, production or manufacture of ammunition, explosives, guns, military vehicles, aviational equipment, electronic materials, naval construction works etc. are considered as efficient co-production projects".[7] With this statement, however, the Greek government does not claim that all co-produced goods cost no more than an off-the-shelf purchase without offsets. On the contrary, it is believed that this option results in higher costs generated from shorter production runs and the loss of scale and learning economies, duplicate tooling and the costs of transferring technology. To these, license fees should be added, which could be some 10% of sales.

Until 1985, there did not exist a formal O/B policy towards defence procurement. Some contracts were associated with certain agreements for the provision of defence materials in exchange for Greek agricultural products, within the context of a "clearing" arrangement. However, the need for a domestic defence capability to minimise foreign dependence and vulnerability in wartime, made it clear that the O/B practice, especially in the form of co-production, should constitute an essential part of any large procurement of defence materials. Thus, the practice of O/B in Greece started basically in 1985 with the decision of the government for partial renewal of the country's air-force fleet, with the procurement of 40 Mirage-2000 (fighter/striker) from France and 40 F-16C (fighter) from the USA. For this purchase, the government formulated various directives, which would also apply to the subsequent purchase of other defence and civil goods. These directives specified the necessary organisational and administrative structures for the materialisation of the Offset Benefits Agreements and the conditions for acceptance of offset transactions and guarantees.[8]

According to the terms of these directives, the O/B which a foreign firm is obliged to transfer to the Greek government, within the framework of defence procurement valued at more than 250 million drachmas, are divided into three categories: Category I, which includes the construction in Greece of sections of the work undertaken by the foreign firms, either for use in the main work, or for export and use in similar armament systems. The foreign firm is obliged to pay in foreign exchange the value of the sections constructed in Greece. Category II, which includes other products of the Greek defence industry which the foreign firm undertakes to purchase, and Category III, which includes other Greek industrial or agricultural products for export as well as the enticement of foreign tourists to Greece, following the initiative of the foreign firm. In the various categories it is possible for the O/B, instead of being limited only to purchases of Greek products, to take the form of imported technology into Greece, licensed production, educational programmes and investments. In the compensation calculations for the various types of O/B, for the promotion of the lowest bidder, the expenditures on goods included in Categories I and II are weighted with a base factor equal to 2 or 3, while those included in Category III are weighted with a base factor equal to 18. This means that an amount spent by a foreign firm in goods of any category, is divided by the corresponding base factor to count towards the firm's offset obligation. Also noteworthy is the fact that the governing directives foresee: the deposit from the supplier of a good performance guarantee covering 10% of the value of O/B; an expressed obligation for the replacement of transactions which have not materialised, for whatever reason, with other equally valued transactions in the same category; as well as other obligations which prompt the supplier for the materialisation of his offset obligation.

As regards the organisational structure for the materialisation of O/B, with the above mentioned governing directives, O/B Offices were legislated at the Ministries of National Defence, National Economy, Commerce and Industry, Energy and Technology. For defence procurement, the Office at the Ministry of National Defence is considered the most significant, since, according to the provisions of the PD 284/89, it is responsible for the evaluation of O/B offers. This Office deals with the materialisation of O/B Agreements in Categories I and II associated with the procurement of armament systems whose foreign exchange cost exceeds 100 million drachmas. A similar role is performed by the O/B Office at the Ministry of National Economy regarding O/B Agreements in Category III.

Having described the legislative framework and the organisational structure regarding O/B Agreements in Greek defence procurement, we analyse in the next section the basic O/B Agreements which accompanied the procurement contracts for (a) 40 Mirage-2000 aircraft from France, (b) 40 F-16C aircraft from the USA, (c) 4 Meko-200 frigates from Germany, and (d) the upgrading of the "Kanaris" directional firing system from the USA. The information given below has been taken from basic references[9] and from interviews of senior officers at the Ministries of National Defence and National Economy, as well as the major defence contractors in Greece, who are responsible for the materialisation of O/B Agreements.

7.3 Offset Benefit Agreements in Basic Defence Procurement in Greece

7.3.1 The O/B Agreement for the Mirage-2000 Aircraft

The O/B Agreement which accompanied the purchase contract for 40 Mirage-2000 aircraft from France, was signed in July 1985, between the Greek government and the companies Dassault, Snecma, Thomson and Matra. According to the Agreement, the companies are obliged to fulfil, within 15 years, O/B equal to 60% of the purchase price of the aircraft, i.e. approx. 7.1 billion French francs. To these, an additional O/B worth equal to 20% of the purchase price of the aircraft must be added, which constitutes an obligation on the part of the French government. Within the framework of this Agreement, the transactions which are considered acceptable are co-production and investment projects, transfer of technology, the promotion of exports as well as the development of tourism. For the good performance of the Agreement, a system of credit has been foreseen, determining the values of programmes and defining a system of penal clauses in the case of partial or total inability to complete the programmes. To the same end, the two-parties agreed:

a. The signing of an Agreement between ITCO (Greek company with activities in the promotion of Greek exports) and FHP (subsidiary of Dassault, responsible for defence programmes),
b. The propulsion of educational programmes in tourism which would be materialised by the French company Sfere, and
c. The founding, modernisation and expansion of an export oriented company, Agroinvest.

7.3.2 The O/B Agreement for the F-16C Aircraft

The O/B Agreement which accompanied the purchase contract for 40 F-16C aircraft from the USA, was signed in January 1988 and is different from the Mirage-2000 contract. Following negotiations which took place throughout 1987, the two sides came to an agreement for the foundation of the Greek Investment Development Company S.A., with participants being the Greek Public and the American companies General Dynamics, General Electric and Westinghouse. This company, with capital stock which will gradually reach $50 million by 1996, and with a life of 15 years, will undertake activities which will guarantee immediate benefits to the Greek economy. Specifically, the company:

a. Will undertake investment projects, mainly for the production of high technology goods,
b. Will ease and insure the transfer of technology to Greek companies under favourable terms, and
c. Will ease and promote Greek exports — mainly industrial — towards new foreign markets.

The company's activities will also include the founding of new corporations, the participation in existing corporations and the provision of services in technological and commercial areas. The Greek Public participates with 5% of the company's capital stock and with two members of the eight-member board of directors, who are appointed by the Minister of National Economy. Nevertheless, the corporation charter requires unanimity on the decision making process regarding approval of the entrepreneurial plans. Finally, this Agreement foresaw the co-production of structural parts for the F-16C (485 air-pipes and 253 tail-sections) from the Hellenic Aerospace Industry, valued at up to $84 million, the co-production of F-110 engine parts from the same company, valued at up to $15 million, as well as the construction of engine ground-equipment from the Hellenic Arms Industry, valued at up to $5 million. Thus, the total value of the offset obligation associated with the purchase contract for the F-16C aircraft is approximately $151.5 million. It is noticeable that for the completion of the above co-production programmes with the Hellenic

Aerospace Industry, the construction of a new building is required, covering a total of 23,000 sq.m., along with the procurement of advanced mechanical equipment and the hiring of 675 people.

7.3.3 The O/B Agreement for the Meko-200 frigates

In February 1989, the Greek government and the German company Blohm & Voss (Thyssen Rheinstahl Technik Group) signed the O/B Agreement which accompanied the purchase contract for 4 Meko-200 frigates, on behalf of the Greek Navy. According to the purchase contract, the first of the four frigates would be constructed for DM933 million at the shipyards of Blohm & Voss in Hamburg, while the following three would be constructed at the Hellenic Shipyards in Skaramanga, based on German designs and technology.

The initial Blohm & Voss offer foresaw O/B at a rate of 72% of the contract value shared out as 39% for Categories I and II and 61% for Category III. Subsequent negotiations, however, between the Greek Ministry of National Defence and the German company, led to a significant improvement in the terms of the offer, with an increase of the percentage of O/B for Categories I and II (from 39% to 45%) and a reduction of the percentage for Category III (from 61% to 55%). In addition, the ability to transfer transactions from Category III to Categories I and II was accepted, if problems in the materialisation of transactions in Category III existed. For the good performance of the O/B, a letter of guarantee was issued, valued at 10% of the level of transactions of Category III and 4% of the level of transactions of Categories I and II.

In the above O/B, some compensations must be added, worth equal to DM52.5 million, which will be given to the Greek Public in the form of grants. These include (i) royalties for the construction of the three frigates at the Hellenic Shipyards, (ii) the Naval Programming Center, where the software processing will take place, (iii) the seaboard acceptance tests in Greece, and (iv) the air-radars from Hollandse Signal Apparaten, which will be installed on the frigates.

According to the estimates of senior officers at the Greek Ministry of National Economy, the Meko-200 co-production programme will provide the Hellenic Shipyards with the opportunity to expand and to be placed among the few construction units in the West which will survive through the development of technology for specialised structures. Within the framework of this programme, 200 technicians have gone to Germany and are being trained in specific marine technology while, similarly, a group of technicians has examined the needs for renewal of the shipyard equipment, in agreement with Blohm & Voss. The investments which will be required for the materialisation of the programme are expected to reach the level of 3 billion drachmas. The cost of

labour is estimated to be 30–40 billion drachmas, while approximately $200 million will be raised from the difference in wages in the two countries. The 500 additional workers who will be hired will come from the problematic corporations which will be privatised or closed, while a part of their wages will be funded by the EU.

In addition to the above, an attempt has been made to include in the O/B of this programme, the construction (at the Hellenic Shipyards) of 4 German merchant ships, at 35 thousand tons dwt each. Finally, with the opportunity of the co-production programme for the frigates, a special bilateral Agreement was signed between the Greek and the (then) West German government, according to which the latter undertook to deliver to Greece 75 Leopard-1 tanks and 28 F-104 aircraft.

7.3.4 The O/B Agreement for the Upgrading of the "Kanaris" Directional Firing System

In January 1988 the Greek government and the American company Unisys, signed a contract for the upgrading of the directional firing system "Kanaris", so that this may be used as a directional firing system for Harpoon guided missiles, which are launched from submerged submarines. The total contract value of this programme is $15 million while the O/B which will result are estimated to reach the level of $25.5 million, i.e. to exceed the contract value of the programme by 70%, and will be provided mainly in the form of transfered technology and know-how, falling under Category I weighted with a base factor equal to 3.

7.4 Critique of the Policy of Offset Benefits in Greece

From the description in the previous section of the basic terms of O/B Agreements which accompanied four large defence procurement contracts in Greece, it appears that the O/B practice may significantly contribute to the development of the Greek defence industry and increase its international competitiveness. The O/B Agreements of the last decade foresaw the promotion of significant co-production programmes and industrial exports as well as the creation of job opportunities in Greece (the direct employment effect of the O/B Agreements described above is expected to be equal to 1,175 additional workers, i.e. approximately 7% of total defence industrial employment in Greece). However, the materialisation of O/B programmes, which is still in progress, presents significant problems and delays, which should mainly be attributed to the following factors:

a. As referred to in the second section, the development of the defence industry in Greece was based on a small number of large-sized publicly-owned corporations, which were supported by a mixture of small to medium-sized private sub-contractors. However, the public corporations which are bureaucratically inflexible, compete with the private sector companies, claiming programmes which, by their nature and size, should be referred to the smaller corporations. As a result, the latter have not developed new technologies and are still characterised by short production runs and high production costs. It follows, therefore, that the private corporations have not exhibited the capability for the timely and correct absorbtion of the O/B programmes.
b. In Greece an absolute lack of coordination between pertinent public entities and the interested corporations exists, for the undertaking of O/B programmes. The significant delays observed in the materialisation of these programmes must be attributed as much to the necessity for scrutinisation of the Greek defence industry by foreign firms, as to the need for the assimilation of O/B goals by the Greek corporations.
c. According to the Federation of Greek Industrial Corporations, the O/B Agreements described above did not include penal clauses where the obligation was not fulfilled, and contractors were able to meet their obligations via increased tourism and exports rather than through technology transfers.
d. The French companies which signed the O/B Agreements for the Mirage-2000 aircraft, enforced lower prices and ordered relatively small numbers of the sections constructed in Greece, mainly due to the low sales of this aircraft internationally. In addition, Greek corporations have found it difficult to estimate the value of the transferred technology.
e. The possibility for the successful absorbtion of the programmes, within the framework of the O/B Agreements, is significantly limited by the operational problems in the small to medium-sized corporations in Greece, and particularly by the high funding costs which impede development (in Greece, this cost exceeds 30%),[10] and the lack of necessary infrastructure, specialised personnel, quality control systems and correct programming.

The above problems, which have presented themselves in the materialisation of the O/B Agreements, suggest various industrial policy measures to help the Greek defence industrial base better exploit the O/B which will follow from future defence procurement contracts. These measures should aim at:

a. The symmetrical growth of public and private corporations of the Greek defence industry. The public corporations should only undertake those

programmes whose complexity, technology and investment requirements create prohibitive conditions for the participation of small to medium-sized corporations.

b. The submission by the Greek side of specific needs for the transfer of technology and of special programmes for the development of defence corporations.
c. The promotion of investments for the production of high-technology defence materials and the adoption of quality-control systems in defence corporations, and
d. The obligation of foreign firms to submit specific proposals which will be included in the O/B Agreements and safeguarded with the threat of substantial penal clauses should these proposals not be fulfilled.

7.5 Conclusion

The production capabilities of the Greek defence industry and the particular structure they imply for the design of defence procurement, indicate that the O/B practice may significantly contribute to the development of the country's defence industry. From the description, in the preceding sections, of the policy developments and the terms of the O/B Agreements which accompanied the large defence procurement contracts of the last decade, it becomes evident that the O/B practice might contribute to the promotion of co-production programmes and exports as well as the creation of job opportunities in the Greek defence industry. However, the materialisation of O/B programmes, which are still in progress, presents significant problems and delays, which should be mainly attributed to the disproportionate growth of public and private corporations of the Greek defence industry, the lack of coordination between the public administration and the corporations undertaking O/B programmes, and the unclearly formulated terms of the O/B Agreements.

The lack of information on O/B Agreements, which is due to both the insufficient organisation of the statistical services and the secrecy usually surrounding the terms of defence procurement contracts, render particularly difficult the evaluation of the impacts of O/B on the Greek economy. The promotion of significant co-production programmes and the creation of job opportunities in Greece foreseen by the O/B Agreements of the last decade may have been undermined by the materialisation problems mentioned above, but this should not be regarded as indicative of the failure of O/B to achieve their goals.

Overall, we are led to the conclusion that the O/B practice might constitute a stimulating mechanism for the development of the Greek defence industry,

provided that the appropriate policy measures create a defence industrial base capable of assimilating the benefits from future O/B programmes.

Endnotes

1. I am grateful to Stephen Martin for helpful comments and suggestions on an earlier draft of this paper. I remain solely responsible for remaining errors and opinions expressed.
2. Under the ideal situation where scale economies and gains from trade are fully exploited, standardisation in weapons procurement could result in unit cost savings of 20–30% (Hartley, K., "**NATO Arms Co-operation: A Study in Economics and Politics**", Allen and Unwin, 1983).
3. Gansler, J.S., "**The Defence Industry**", Cambridge, Mass: MIT Press, 1980.
4. ICAP HELLAS S.A., "**Financial Directory of Greek Companies**", Athens, 1992.
5. Antonakis, N., "**The Political Economy of Defence in Post-war Greece**", Unpublished Doctoral Dissertation, University of Athens, 1994, (in Greek).
6. Antonakis, N., "**The Defence Industry in Greece**", *EPILOGI*, October, 1992, pp. 31–41, (in Greek), and *ibid.*
7. Remarks from an interview with the Director of the Defence Industry Service of the Ministry of National Defence at the international exhibition of defence materials, DEFENDORY, which took place in Pireaus, in October 1988.
8. Although these governing directives cover the entire spectrum of public procurement, it appears that in practice they have only been applied in the procurement of defence materials. Generally, O/B Agreements for civil procurement have not been reported in the Greek literature, except perhaps those which accompanied the contract for the Airbus aircraft of Olympic Airways in 1980. Then the Hellenic Aerospace Industry undertook the construction of the framework for the aircraft doors, which was a programme of advanced technology for that period.
9. The recent history of O/B in Greece, as well as the secrecy which usually surrounds the terms of defence procurement contracts, render particularly difficult the collection of data on O/B Agreements. For this reason, there do

not exist studies in the Greek literature on the subject of O/B. In addition, there are few papers of mainly journalistic approach, which have appeared in the country's daily and periodical press, and in which an initial attempt has been made for the evaluation of the basic O/B Agreements which accompanied some large defence procurement contracts. See, for example, Vardakos, J., "**Offset Benefits and National Economy", in "DEFENCE '88**", *Hellenews-EXPRESS*, October, 1988, p. 10, (in Greek), and Vassiliadis, G., "National Strategy for Defence", in "**Defence and Economy**", *EPILOGI*, October, 1990, pp. 22–32, (in Greek).

10. The 1993 general average bank lending rates were approximately 29% for working capital and 27% for long-term loans (Bank of Greece, "**Monthly Statistical Bulletin**", Jan.–Feb, 1993). The cost of capital in Greece is estimated as the sum of either of those rates with the commission rate (0.5–2%, depending on the level of loan and the terms of lending), VAT (1–2%) and remaining expenses (0.5–1.5%).