

studying the process of reproduction in a region and the process of distribution of total available resources of individual sectors — which indicated the need to use an intra-regional inter-sectoral model with aggregate flows. It is not possible to observe in the table the process of formation of total available resources because there is an assumption on the capabilities of production of all products consumed in the region in the intra-regional inter-sectoral model with aggregate flows. The characteristics of the general technical coefficient (Table 4) which figured in this model are as follows: 1) it reflects the specific conditions of production and the level of technology used in the region, 2) it shows significant stability (compared to the technical coefficient which figures in the inter-sectoral model with aggregate flows). The inverse coefficient (Table 5), as an expression of the totality of direct and indirect connections existing among the sectors, represents a macro indicator (compared to the technical coefficient which is a sectoral indicator). Using the elements of the matrix multiplier, a quantification has been enabled of the influence of changes in the elements of the final search of the observed region. In the intra-regional model with aggregate flows, however, there is an over-estimation of the multiplier effects on the production system of the region, which represents a constraint of the model used. Another inadequacy of the intra-regional model used is the inability to analyze inter-sectoral trade between regions. This shortcoming does not occur only in inter-regional inter-sectoral models.

The reciprocal relations of the Socialist Republic of Serbia Proper in 1976 are shown for three levels of aggregation of global economic activity, in accordance with the uniform classification of sectors introduced in 1976. The levels of grouping production activities are: production by sectors (12 production sectors); production by groups of sectoral branches (20 production sectors); and production by sectoral branches (48 production sectors). The input-output tables of the Socialist Republic of Serbia Proper for 1976, for all levels of sectoral groupings, are arranged by producer prices. The main analytical value of these tables lies in their methodological connection to the input-output tables which are being elaborated for the Yugoslav economy.

THE CONSUMER FIRM:
THE POPULAR SHIPPING COMPANIES IN GREECE
A CASE-STUDY OF CONSUMER PARTICIPATION IN THE
CREATION OF FIRMS

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1. CONSUMER FIRMS: SOME THEORETICAL FOUNDATIONS**

1.1. Consumer Firms and Consumer Participation.

In traditional microeconomic theory there is a strict dichotomy between the two main groups in the market system, that is, the consumers and the firms. According to well-known orthodoxy, the consumers or households constitute a separate decision-making unit and are assumed to act so as to maximize their well-being (satisfaction or utility). The firms or producers, on the other hand, manage and use the factors of production in order to produce goods and services to be consumed mainly by the households. The firms are supposed to strive to maximize their profits; it is, however, true that firms also have other goals, such as holding a certain share of the market, maximizing total sales, promoting stability, securing survival and autonomy, etc.

The above assumption of the strict dichotomy between consumers and entrepreneurs and their separate objectives is being tested by a new development in the market system. For example, the consumers

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themselves are taking the initiative (directly or indirectly) to finance, plan, organize, staff, direct and control firms. Such is the case of "consumer participation" in the formation of the eleven popular shipping companies plying the Aegean Sea routes which have been founded in the past fifteen years. These firms are running 20 medium-sized or big ships out of a total of 28 ships in the same category now operating in the area. More precisely, they control more than 70 per cent of the coastal shipping capacity in a sector which has been dominated traditionally by a long line or "big name", private shipowners.

These *consumer firms* have a particular theoretical and practical interest, not only because they constitute heresy to the traditional micro-economic theory but because they are a *parallel case of labour participation*¹. As we shall see, the consumer firms in the case of the popular shipping companies in Greece do not only make declarations in favour of instituting labour participation but they have succeeded in doing so. Moreover, as revealed by their institutional set-up, *these companies have a democratic basis since they are formed and controlled by a large number of consumers, none of whom may own more than 2 per cent of the total share capital*, according to the statutes of the companies.

As we shall see, the main motive for the creation of these firms by the inhabitants of the various islands, who are the principal users of ships², was their aspiration to have their own ship transport service as a means to more regular, safer, economic and better quality travel. Thus the consumers who created the shipping companies were not motivated to invest in them in order to maximize their real income or profit but so as to be able to enjoy a better transportation service and for the pride of founding "their own" shipping firms, *which would be geographically tied to their islands*.

¹ The model of consumer firms, that is, productive units created by the consumers themselves, is a modern variation of the archetype of the traditional autarkic rural household which establishes its own firm to produce the food and other goods which will secure its subsistence. The effort to create self-supporting units or communities is also known from the ideas and practices of the "primitive" socialists of the 18th and 19th centuries (Owen, Saint-Simon and Fourier). In Fourier's *phalanstère*, producers and consumers were one and the same.

The Popular Shipping Companies of Greece differ from the Konsum-type firms in the retail business, which are formed by consumers in order to reduce the retail prices of consumer goods. The differences are the following: (1) The consumer-shareholders who participate in the formation of the Popular Shipping Companies accumulate large amounts of money in order to invest them in capital stock (purchase of ships) and (2) a considerable portion of the labour force of the shipping companies are consumer-shareholders themselves.

² During the summer, the majority (approximately 60%) of users are domestic and foreign tourists.

1.2. *The Basic Features of the Popular Shipping Companies as Consumer Firms.*

Let us describe the basic features of the popular shipping companies as consumer firms in a descriptive, abstract model.

The consumers of shipping services of a given geographical area (i. e., an island), motivated by local leadership, decide to create a shipping firm (which we shall call Utilia) in order to produce shipping transport, which is very vital for the inhabitants of the island because it links them to the rest of the world. They are persuaded to take this decision because they have realized that the capitalist, privately-owned shipping firm, which used to offer transport service to their island, motivated mainly by profit maximization, was jeopardizing their lives by using very old ships with low safety standards since the "visible hand" of government could not regulate or enforce safety and quality standards.

The consumers elect a Board of Directors, who also are all consumers of shipping services. This Board takes all the management decisions concerning the business of Utilia. It plans, organizes, staffs, directs, coordinates and controls the running of the company. The Board of Directors appoints a Managing Director to the executive position. A great number of the personnel of Utilia are consumers of shipping services and come from the region where Utilia is situated. Thus, both the owners of Utilia and the consumers of its products are geographically tied to the same region.

1.3. *Consumer Firms and Consumer Satisfaction.*

Consumer satisfaction seems to be the final aim of every economic activity. From the theoretical point of view, the most interesting aspect of Utilia and the consumers of its products are geographically tied to it. In the traditional form of business organization where we have two separate economic agents, consumers and producers, each one playing a different economic role, the value satisfaction of consumers is one-dimensional and derives from the consumption of goods and services which satisfy needs. Therefore, we have:

$$\text{value satisfaction of consumers} = \text{value from need satisfaction} \quad (1)$$

that is, the satisfaction of consumers comes only from needs which are satisfied.

In the case of a consumer firm, the satisfaction of consumers is certainly two-dimensional and derives (1) from the consumption of goods and services and (2) the act of creating a consumer firm and other positive spillovers. Therefore, we have:

$$\begin{aligned} \text{value satisfaction of consumers} &= \text{value from need satisfaction} \\ &+ \text{satisfaction from "creative business"} \\ &+ \text{other positive spillovers.} \end{aligned} \quad (2)$$

As we shall see, the "consumer-owned and controlled" shipping companies in Greece did not increase satisfaction only as a result of the improvement of the safety and quality of their basic need for transportation but also as a result of increased higher money income (due to the dividends paid to the consumers as shareholders³) and as a result of higher "psychic income" due to the satisfaction of the aspiration levels of consumers who felt proud of having "their own" shipping company. As we shall see, when we evaluate the performance of the popular shipping companies in section 3, these companies created conditions which tended to Pareto improvement.

2. CONSUMER FIRMS IN PRACTICE: THE CASE OF THE GREEK POPULAR SHIPPING COMPANIES

2.1. Historical Background

The popular shipping companies were born out of necessity and as a result of a tragic event. In the early hours of December 8, 1966 the ferry-boat *Heraklion*, en route from the island of Crete to Piraeus, the principal port of Greece in the mainland, sunk. This was a disaster which took the lives of 250 people, mainly Cretans, and destroyed a sizeable amount of private property. The tragedy of *Heraklion* stunned Greece because it was the greatest sea catastrophe in the history of the country. The *Heraklion* was a very old vessel belonging to a private firm, the Typaldos group, which ought to have taken it out of operation since its seaworthiness did not meet international standards. Ignoring those standards, the company continued to operate the vessel. (It should be noted that because of the huge insurance claims, the Typaldos Group, one of the strongest in the coastal line transport at that time, went out of business after the catastrophe). Embittered by this lack of social responsibility, the people of Crete decided to take ferry-boat transportation into their own hands. Mr. Constantine Archontakis, a Cretan who was inspector in the Cooperatives Department of the state-owned Agricultural Bank and familiar with cooperative ideology, had the revolutionary idea to urge the Cretans to undertake the initiative *to build their own shipping company*; he popularized the belief that "if the ownership and operational responsibility of the vessel serving the interests of the users were in the hands of those who used it, a higher degree of safety and reliability would be obtained". Thus, based on cooperative and labour-participation models, he conceived the idea of forming a company which would be created by the inhabitants of the island and run by them.

In the immediate aftermath of the disaster, the idea gripped the Cretans' mind and was fervently adopted. Three days after the tragedy, on December 11, 1966, Mr. Archontakis made public his idea to the Local

³ The dividend paid by the popular shipping companies to the consumer-shareholders in most companies is higher than the income (interest) they will receive if they put their savings to the best alternative use (The Postal Bank Savings).

Association of Economists in the town of Chanea, and within a week a meeting of 70 representatives from almost all organizations on the island (municipalities, agricultural cooperatives, chambers of commerce, etc.) had elected a Steering Committee of 15 members headed by some noted local personalities to manage the foundation of the first modern⁴ popular shipping company in Greece. The Local Association of Economists also helped in the organization of groups of citizens and students, and according to plan they travelled around the island to explain the idea to the public. The aim was to raise enough money to buy a modern vessel. We must emphasize that the leading figure of the local Bishop inspired confidence in the campaign to raise money.

Despite tremendous organizational difficulties, the project proceeded at high speed.

The initial target was to raise 50,000,000 drs. (in shares of 10,000 drs. each) up to the end of March 1967. By that date, this target had been surpassed and the money raised totalled 89,200,000 drs; this in record time and with a minimum of expense (since the organization effort was undertaken by the Local Association of Economists and the citizens who formed the groups). With this initial capital, loan raising was easy, and within one year a 20,000 ton ship had been bought. After some adjustments to raise its safety standards, it was put into operation to service the ferry-boat transportation of the island.

The example of Crete was followed by other Aegean islands which faced similar transportation problems. In fact, the advantages of owning and operating their own ships became immediately clear to many islanders and today the number of popular shipping companies has reached eleven (Table 1).

2.2. The Goals of the Popular Shipping Companies

There is extensive theoretical discussion and empirical research on the goals of the firm. Among these goals are profit maximization (traditionally the major objective), holding a certain share of the market, increasing the level of sales, improving the quality of the product, promoting stability, introducing advanced technology and new products, cutting costs, securing own survival and autonomy, etc.⁵

The popular shipping companies, having a larger popular basis by definition, have adopted a *broader spectrum of objectives* ranging from purely economic goals to social aims beyond the scope of most modern business firms. From a perusal of the statutes and policy orientation contained in the annual reports of the Board of Directors of these companies, the objectives which are adopted by nearly all of them are the following⁶.

⁴ The idea of formation of shipping companies belonging to the public was not a novelty. In ancient Greece all ships belonged to the public. Also in the 19th century, some popular shipping companies were formed by the inhabitants of the islands of Hydra, Spetse and Psara, which used their ships for the War of Independence against Ottoman rule.

⁵ A compact review of the discussion on the objectives of the firm summarizing the view of H. Simon, R. Cyert and J. March, H. Leibenstein, R. Maris, W. Baumol, J. K. Galbraith and others can be found in E. Mansfield, *Microeconomics*, 3rd ed., W. W. Norton Co., N. York 1979, pp. 167-69.

Table 1
Consumers' Firms:
The Popular Shipping Companies of Greece, 1980

No. of the Shipping Companies	Names of the Shipping Companies	Founding Year	Number of Ships Owned	Number of Shareholders	Own Capital (in million drachmas)
1. ANEK ¹		1966	4	4,900 ²	514
2. Minoan Lines		1972	4	5,000	766
3. Maritime Co. of Lesbos		1972	3	6,000	352
4. Maritime Co. of Naxos		1972	2	3,000	105
5. Shipping and Tourist Co. Samos-Ikaria		1976	2	3,000	100
6. Maritime Co. Lakonia-Crete		1976	1	(5,000)	80
7. Chios Maritime Co.		1978	1	(3,000)	75
8. Maritime Co. Zakynthos		1979	1	1,300	30
9. Dodekanissov Maritime Co.		1979	1	3,000	165
10. Maritime Co. Skyros ⁴		1980	1	—	—
11. Maritime Co. Simi		1980	1 ⁵	800	12

Source: Annual Reports of the Shipping Companies and other information from the newspaper "To Vima", March 6, 1980.

¹ ANEK and Minoan Lines have a joint-venture, the big vessel ZAKROS

² Of which 133 are organizations which represent approx. 20,000 families

³ They are negotiating the acquisition of a ferry-boat.

⁴ In the process of being established.

⁵ A small-sized ship connecting the island of Simi with Rhodos.

- (1) To offer safer, quicker, more reliable and economic transportation services to the population of remote and isolated islands of Greece.
- (2) To help in the regional development of those remote areas by undertaking tourism and other related activities.
- (3) To attract the local savings potential of numerous small savers for the channels leading to the gravity growth poles of mainland Greece.
- (4) To discourage the dominance of foreign-owned multinational capital over the local economy and thus avoid the exploitation of local resources by foreign firms.
- (5) To create employment opportunities for the local population in order to reduce the high emigration rates to mainland Greece and overseas.
- (6) To encourage labour participation in the affairs of the companies and to improve labour relations for those working on the vessels of these companies.
- (7) To stir interest and raise the people's participation in the local development effort.
- (8) To mobilize the small and isolated resources of the public into more concentrated and bigger corporations in order to increase their development capacities and efficiency.
- (9) To redistribute income and other opportunities in favour of lower income groups, by means of an appropriate dividend policy for the shareholders of the company.
- (10) To enable the quick transportation of local products (fruits and vegetables) to the Central markets of Piræus and Athens with lower transportation costs and thus increase their competitiveness.
- (11) To raise the morale (and enthusiasm) of the people of the remote, "problematical areas", such as the islands, as far as their development prospects are concerned.

From a comparison of the above objectives of the popular shipping companies with the typical goals of traditional business firms, one may observe the following:

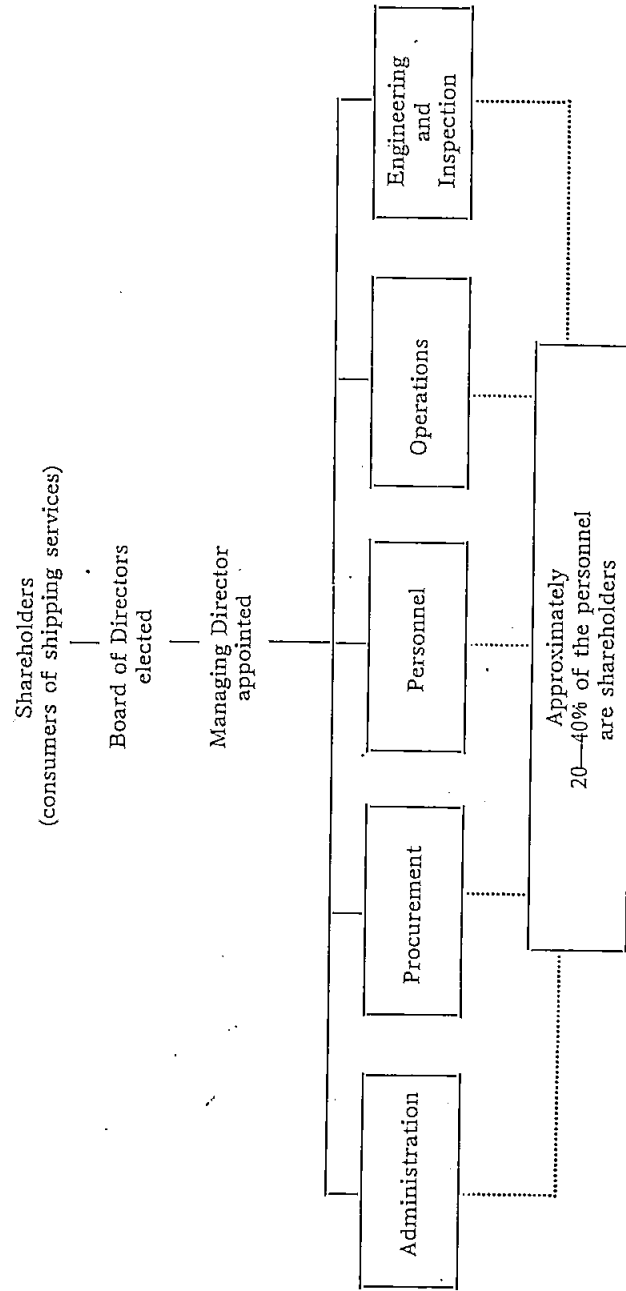
- (a) The objectives of the popular shipping companies go far beyond those adopted by the typical privately-owned business firms in the sense that they are broader and more socially oriented.
- (b) The objectives aim at a wider people's participation in company affairs and thus indicate the true democratic character of these companies.

The wider basis of the popular shipping companies allows them to achieve goals far beyond the narrow objective of the profit motive. However, since the popular shipping companies are business undertakings, they do not exclude the motive of normal profit from their objectives.

2.3. Market Conditions and Management Structure

Coastal transport in Greece is organized under conditions of regulated monopoly. The shipping companies operate as the sole suppliers

THE FORMAL ORGANIZATION OF A POPULAR SHIPPING COMPANY
(CONSUMER FIRM)



Solid lines represent formal channels of communication, boxes executive positions, and dotted lines labour participation.

of coastal transport, and prices are fixed by the state. The entrance of new ships into service is subject to the approval of the State after an appraisal of the existing market potential.

Every popular shipping company is created by a statute published in the Government Gazette. The organizational set-up of a typical popular shipping company is presented in Figure 1. The shareholders of the company, who constitute the General Assembly, elect the Board of Directors, the principal decision-making unit in the company. The Board of Directors, in turn, appoints a Managing Director, who is the chief executive of the shipping company. In every company there are at least five operating departments which carry out executive work (Administration, Procurement, Personnel, Operations, Engineering and Inspection). It is important to note that approximately 20—40 per cent of the personnel and workforce are shareholders.

Decisions concerning the management of the companies are taken by majority vote of the Members of the Board of Directors. The Board of Directors normally convenes twice a month and decides upon the proposals of the Managing Director or on the report of any member of the Board or, in some cases, of any shareholder. The fact that any shareholder has the right to report to the Board of Directors shows the democratic basis of the popular shipping companies and validates its truly popular character.

The principal objectives of each popular company are explicitly stated in the statutes. According to these objectives, the Board of Directors defines its policy and provides guidelines to all decision-makers in the executive branch for day-to-day operations. The company policies reflect and interpret its objectives as set forth in its statutes. Major decisions taken by the Board of Directors (such as the purchase of a new ship or increases in the share capital) must be approved by the General Assembly of the shareholders.

2.4. Labour Relations in the Popular Shipping Companies

Labour is the most valuable resource of any firm and this is clearly recognized in the popular shipping companies. Labour relations cover a wide range of aspects, such as recruitment, job description, job evaluation, job rating, work conditions, etc.

Overall labour relations in the popular shipping companies are excellent because most of the employees are related to the shareholders of the companies. This is the most important reason why the atmosphere of the work environment on these ships is comparatively better than that prevailing on ships belonging to private shipowners. Most employees have the impression that they work on their "own" ship.

Recruiting is done according to the requirements of each ship. These requirements are exactly stipulated by practice and by the central shipping authorities, which also provide detailed job descriptions. Since a sizeable percentage of the population of the Greek islands turns traditionally to seamanship, there is an adequate, skilled manpower for the needs of the ships. It is important to note that there is a preference

for hiring seamen originating from the islands where the ships operate and those who are directly or indirectly (through parents or relations) shareholders of the company. References from shareholders are seriously taken into consideration during the selection procedure.

The remuneration of personnel of all ranks and specializations is stipulated by government act. It is interesting to note that the popular shipping companies offer some extra income which the privately-owned shipping companies do not grant to their personnel: since most of the personnel are also shareholders of the company they receive a dividend from their share every fiscal year. This revenue may add up to one month's salary for an average shareholder.

Work satisfaction is higher in the popular shipping companies because most of the employees of these companies have strong ties with the companies as they own some of their capital (the ship). Work satisfaction is also increased because of better working conditions on the ships of the popular companies as a result of better treatment of the crews by their officers. It is also true that the popular shipping companies offer better food to their crews, which is very important.

2.5. *The Popular Shipping Companies as Consumer Firms: A Hybrid of Cooperative and Labour-Participation Models*

The consumer firms, as conceived in this case, are a hybrid form based on a mix of the cooperative and the labour-participation models.

The objectives, assumptions and characteristics on which they are based are the following:

1. The principal objective is to acquire new vessels, enjoying the highest safety and reliability standards in order to satisfy the transportation needs of the inhabitants of the island, who are the most important and regular consumers of the services of the vessels.
2. The ships are to be bought mainly by the accumulation of funds from small savers and to a lesser extent from loans (voluntary savings + bank credit).
3. The shareholders will be exclusively:
 - a) inhabitants of the particular island(s),
 - b) those originating from the island, whether they live within Greece or abroad, and
 - c) agencies, legal entities and institutions which are located on the islands served by the ship.

All these are consumers or users of the company's vessels.

4. To avoid the concentration of control in the hands of a few, it is stipulated that each shareholder may not own more than 2 per cent of the total share capital (or some alternatively small percentage in the case of legal entities).

5. In the recruitment of personnel, preference should be given to persons coming from the islands which are served by the popular companies' vessels, and in particular those who have bought its shares. Thus, a considerable amount of the workforce of the companies is tied directly or indirectly to the ownership of the vessel.

6. The management of the popular shipping companies (the Board of Directors) is to be appointed or dismissed by the General Assembly of the shareholders. Each shareholder reserves the right to bring to the attention of the management any problem concerning the firm.

7. The control of financial results is done by a committee of the General Assembly of shareholders.

8. Particular attention is to be given to labour relations in the shipping company.

9. The Managers, personnel and workforce are entitled to additional remuneration according to the financial position of the company.

From the above we may deduce that the popular shipping company is a hybrid of cooperative and labour-participation models. The democratic character of this company is based on its *multi-member composition*.⁸

3. EVALUATION OF PERFORMANCE

3.1. *What Performance Criteria?*

What kind of *criteria* should we adopt in order to evaluate the performance of the popular shipping companies? Are the usual financial criteria, such as return on investment, sales, liquidity ratios, solvency and the like adequate? Or should we adopt broader economic, social and even "political" criteria to evaluate their performance? What *weights* should we put on the various criteria proposed, if they cover a wider spectrum? What specific *measures of performance* shall we adopt in this case?

No doubt in evaluating the performance of popular shipping companies those who believe in a democratic and socialistic society will tend to adopt broader economic and social criteria consistent with their beliefs. Moreover, those who rate the values of the self-managed society highly will adopt performance criteria which are more consistent with this system. We shall tend to adopt their approach in this paper. However, since the popular shipping companies of Greece operate in a business environment determined by capitalistic attitudes, it is ne-

⁸ It is important to note that in Greece the so-called "personal" or "family companies" prevail. The popular shipping company is a "multi-member company".

cessary not to ignore strict profitability and financial criteria in judging their performance. Therefore, we shall adopt "mixed criteria" in evaluating the performance of the shipping companies.

In evaluating the performance of the popular shipping companies, as consumer firms, we must keep in mind the relations (1) and (2) in Section 1 which define consumer satisfaction. The mixed criteria which we adopt here indicate the degree of fulfillment of consumer satisfaction by the creation of the popular shipping companies. As we shall see, these companies institute a change in economic organization that makes everyone better off without making anyone worse off (Pareto improvement). The gainers (the island shareholders) can, through transfers, fully compensate the losers (private ship-owners).

3.2. Economic and Social Performance

a. Growth performance

One of the best criteria for the success of a form of an organization is the extent to which it is copied or imitated. Given the tremendous difficulties of mobilizing the savings of 3,000—6,000 small savers in remote and underdeveloped areas such as the Greek islands in the Aegean, and considering the organizational problems of establishing shipping companies, the fact that the number of these companies has increased from one in 1966 to eleven in 1980 is indicative of their success.⁹ Moreover, the fact that 20 out of a total of 28 big ships operating in the area belong to the popular companies (especially if we consider that the shipping sector was, according to long tradition, dominated by the private, family-owned companies) shows the astonishing success of this new form of democratic business organization.

The good growth performance of the popular shipping companies is mainly due to the tremendous increase in the demand for coast transportation services as a result of the expansion of domestic and foreign tourism. In the period 1970—1980, foreign tourism increased at 18 per cent per annum. Passenger traffic grew at a rapid pace in the popular shipping companies. For example, ANEK's passenger traffic during the period 1970—1980 grew at 21 per cent per annum, while the Maritime Co. of Lesbos experienced a passenger growth rate of 28 per cent per annum during the period 1977—1979.

b. Contribution to Economic Stability and Efficiency.

The provision of regular, safe and economic transportation to the remote islands of the Aegean by the popular shipping companies has brought stability to them. Since most of the islands are dependent on the mainland for the provision of basic materials and manufacturing

⁹ There is reliable information that other islands, especially in the Aegean, are considering the creation of their popular shipping companies.

goods, the popular shipping companies offer a great service to them in supplying these commodities. Moreover, most of these islands have a considerable amount of surplus agricultural products such as wine, olive-oil, fruits and vegetables, handicrafts and some building materials, and they need economic transport to bring them to the larger markets of mainland Greece like Athens and Thessaloniki.

Before the creation of the popular shipping companies, the island economies' vital links to the mainland were uncertain. The private ships would limit or even cancel their schedules according to their economic interests. Some islands had their boat schedules severely curtailed, especially during wintertime, and cargo and passengers were left waiting for days. The popular ships ended this crippling uncertainty and contributed to the economic integration of these remote areas into the national economy.

c. Degree and Quality of Labour Participation and Labour Relations.

To evaluate the social performance of any firm today in both the capitalist and socialist world, it is necessary to examine the quality of its labour relations from a great variety of aspects, such as working conditions, remuneration schemes, training programmes, degree of labour participation in the affairs of the firm, workers' cooperation in achieving the firm's objectives, job security, etc.

The popular shipping companies are the only firms in Greece's service sector which have a high degree of labour participation in the ownership of the company. In most of the ten companies presented in Table 1, approximately 40 per cent of the workforce own shares in these companies (they themselves or their relatives). This bondage creates strong loyalties to the shipping companies. For this reason, absenteeism and strikes are unknown in the popular shipping companies. Moreover, the ownership bondage and the feeling of workers that they work for a company which serves their own home island increases their interest in its affairs at all levels and has a favourable effect on their overall productivity. It is important to note that the job security which the workers of these companies enjoy (in contrast to the insecurity of the workers of privately-owned ships who are at the mercy of the private entrepreneurs) gives them a positive attitude towards the company. However, the most striking characteristic of labour relations in the popular shipping companies of Greece is the *degree and quality of labour participation* in them. The workers who are employed on the vessels and the officers of these companies exercise their participation function in the affairs of the companies in the following two ways:

- (a) by dealing with the day-to-day operations of the companies during their work time, and
- (b) by declaring their opinions (and criticism) orally or in writing during the General Assemblies of the companies, thus exercising their role as shareholders.

This model of labour participation seems to be one of the strongest and therefore the most efficient for many reasons. In fact, control of

the popular shipping companies as exercised by the workers and personnel of these companies when they take part in the General Assemblies is more pragmatic and substantial since their experience with the day-to-day operations of the companies exposes them to the real problems confronting the management. An interesting feature of the popular shipping companies of Greece is that their management also owns shares of their capital stock and, therefore, the interests of management and of the workforce coincide. For this reason, the debates during the General Assemblies, which in reality take the form of joint discussions among the owners (management and workforce are on an equal basis), are extremely constructive.

It must be noted that abuses on the part of workers who also own shares of the companies are very rare for three reasons: (a) because on the ships, according to tradition, there is a strict statement of duties detailing what is to be done, (b) the negative performance or behaviour of one worker will immediately be noticed and criticized by the *other workers* who have vested interests in the business of the ship, and it would be difficult for a worker to be on bad terms with his co-workers, and (c) such an abuse would be contrary to the interests of the worker himself.

d. Regional Development and other Spillovers

The provision of transportation services is a necessary input in any effort to promote regional development. Transportation facilitates the regional mobility of resources and this makes development possible.

The Aegean Islands and Crete are the poorest regions of Greece. Assuming that the national level of per capita gross domestic product in 1965 was 100, the index for Crete was 75 and for the Aegean Islands approximately 80.¹⁰ (The index for the Athens region was 153).

The Aegean Islands and Crete are particularly dependent on certain key resources such as fixed capital, certain raw materials, and specialized personnel from mainland Greece; shipping plays an indispensable role in bringing these resources to the islands.

The regional development of the islands figures as a prominent objective in the statutes of the popular shipping companies. For this reason some of them have created *ad hoc* development companies at the regional level. For example, Cretan popular shipping companies have created the Apokoronou Development Company (share capital 75,000,000 drs.) to exploit local physical resources like the natural landscape, mineral water springs, etc.; by developing tourism facilities, a waterbottling plant, etc.

The private shipping companies tended to invest their surplus incomes from the operation of their ships in mainland Greece or abroad; the alternative offered by the popular shipping companies for the islands seems more promising for the long-term development prospects because it expands positive spillovers.

¹⁰ Commission of the European Communities, *Economic and Sectoral Aspects: Commission's Analysis Supplementing its Views on Enlargement*, COM (78) 200 final, Bruxelles, 1978, p. 153.

e. Income Distribution

Perhaps one of the most important contributions of the popular shipping companies is their model for actual social justice. According to an extrapolated estimate,¹¹ some 30,000 households constitute the basis of shareholders of the ten shipping companies. Most of the profits which are not ploughed back to finance the expansion of the companies are distributed to the households. The majority of these households belong to the low or medium-sized income groups. Dividends paid to the stockholders vary between 15 to 18 per cent depending on the company.

However, an important contribution of the popular shipping companies to the income distribution at the national level is their transportation activity as a stimulus to further economic activity. The popular shipping companies are themselves the agents of development opportunities to the islands. With this role they generate income to the population of these islands.

The distributive role of the companies is further strengthened by their statutory obligation to recruit personnel from the islands. These people are some of the poorest in Greece and traditionally they emigrate overseas. The transfer of income to them *via* wages and salaries helps redistribution.

f. Environmental Protection

A healthy environment of fundamental importance for our physical well-being is seriously threatened by pollution in the closed seas and bays of Greece, where a lot of vessels operate, there is widespread pollution due to the irresponsible behaviour of the shipowners. Many of the privately-owned vessels operating in coastal Greece discharge waste materials into the sea; sea water becomes more toxic and the behaviour patterns and reproductive capacity of the fish are adversely affected. Polluted seas are also a serious danger to Greece's developing tourism sector.

The popular shipping companies have proven to be more sensitive to environmental protection needs. In fact, to date no popular shipping company has been reported by the Maritime Ministry as a sea polluter. In contrast, many privately-owned vessels were reported (and heavily fined) for sea pollution.

g. The Promotion of Cultural Activities

Most of the well-established popular shipping companies try to promote the cultural activities on their islands. For example, they offer gratis travel to theatre groups, concert companies, folklore dancers, etc., or they partly contribute to the financing of local festivals. The ma-

¹¹ See: C. Archontakis, *ANEK and her Sisters*, Newspaper "Machitis", Heraklio, 20th December, 1976. These estimates were extrapolated to cover all popular shipping companies.

agement of the companies explains that these manifestations are also part of their marketing strategy to attract more passengers. Thus, the cost of the promotion of cultural activities is covered to a large extent by the increase in revenues from the fares of the passengers.

3.3. Financial Performance.

a. The earning cycle of a shipping company

Whatever the economic and social criteria of evaluation, a business firm, especially one working in a capitalist environment, must be viable financially. This means that the firm must earn enough money revenue to meet its expenditures and all its financial obligations. Moreover, if we accept the standard business performance criteria, the difference between revenue and expenditure must be appreciably positive so as to leave a surplus or profit.

The typical earning process of a popular shipping company is as follows:

A. The shareholders of the company, who are also prospective consumers of its services, dispose of their savings and thus make available funds to the company (voluntary savings).

B. The company invests these funds (and others which it borrows from banks)¹² in vessels, offices, materials, labour and other resources.

C. The shipping company combines the resources in B. and produces transportation services (and others like restaurant facilities) which acquire an increased economic and financial value.

D. Transportation and other services are converted into cash by way of sales of these services to the consumers and the process begins again.

Thus, the *earning cycle* of a shipping company resembles the one for any other firm: cash investment in capital (vessels, etc.), creation of a product (transportation services), conversion into cash (by means of services to the consumers). We must note that due to the strong demand for sea transportation services as a result of the rising per capita incomes of islanders and the expansion of tourism, most of the popular shipping companies are prospering.

b. Analysis of Financial Statements

In evaluating the financial position of the popular shipping companies, we shall be concerned only with two basic questions:

¹² In fact, nearly all popular shipping companies which have raised huge amounts of money from the numerous shareholders of their islands, because of this astonishing initial accumulation of cash, were easily financed by the banks. Moreover, they were facilitated in this respect by the generous regional development incentives offered by the State. For the availability of credit in similar cases, see E. G. Furubotn, "Bank Credit and the Labor-Managed Firm: Reply", *Amer. Econ. Rev.*, Sept 1980, vol. 70, pp. 800-804.

(1) Are these companies earning satisfactory profits?

(2) Are they solvent?

Space limitations do not permit us to show the Balance Sheets and Income Statements of all the popular shipping companies operating in Greece. With the exception of one,¹³ all operating popular shipping companies were both profitable and solvent.

In Table 2 we present the profitability ratios, that is, the measures which indicate the overall financial performance of three selected companies (ANEK, Minoan Lines and Maritime Lesvos) for the years 1979 and 1978.

Table 2

Profitability Ratios of Selected Popular Shipping Companies

Popular Shipping Companies	Net Profits/ Total Assets Ratio %		Return on Equity Capital Employed %		Net profits/ Turnover Ratio %	
	1978	1979	1978	1979	1978	1979
ANEK	17.5	17.0	35.5	32.3	27.9	23.0
MINOAN LINES	10.4	8.7	13.6	14.1	23.6	19.2
MARITIME LESVOS	11.5	17.3	18.1	26.1	16.8	17.6

Source: Estimates from Balance Sheets and Income Statements.

Given the profitability standards of other business companies operating in Greece, the ratios in Table 2 meet the desired standards. It is obvious that ANEK's performance is better than the other two companies. This is mainly due to its early beginning.

In order to evaluate a company's ability to pay its current liabilities, we must calculate the liquidity ratios.

The current ratio, that is, the ratio of all current assets to short-term liabilities for the three selected companies does not indicate a particularly strong financial position. The same conclusion can be drawn if we calculate the "acid test", which shows the immediate liquid ability of the companies.

It seems that due to heavy financial obligations (as a result of the high operating expenses of the vessels) the popular shipping companies have difficulties in their overall liquidity. This is a basic feature of all Greek shipping companies (private and popular) due to the accounting practices they apply (high depreciation rates, etc.).

¹³ The Maritime Co. of Naxos has run into serious difficulties because of inadequate management.

However, from the point of view of *wealth accumulation* as judged by the growth of fixed assets in their Balance Sheets, it seems that the popular shipping companies fare well. This is very important because with their expanding wealth capacity they will be in a better position to serve their customers. Since prices are regulated by the State, the main source of consumer satisfaction in this case is the quantity and quality of the sea transport. This depends to a great extent on the capital stock in the form of shipping capacity and other facilities attached to this form of transport.

4. CONCLUSIONS

The Greek popular shipping firms were created on the initiative of consumers who were primarily interested in improving the quality of their sea transportation service. Most of these firms were successful not only in producing a better service (reliably and safer transport) but in creating a new business organization form which *integrated* the different roles of shareholders, consumers, workers and management, thereby achieving higher operational efficiency. Multiple "external economies" or social benefits were generated by these firms: improved regional integration and development, fairer income distribution, greater concern for environmental protection, civic cultural improvement — a spillover from increased participation in the local, common problems — etc. Additional evidence of their success is the fact that the initial experiment is now imitated by other aslants.

The popular shipping firms, this hybrid resulting from consumerism and the labour-participation movement, are being constantly tested by strict consumer demands for quality services and labour expectations for good working conditions and input into decision-making. So far, they have passed these tests and have enjoyed a respectable expansion, a good omen for their future.

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NAŘODNÁ BĀODARSKÁ UDRŪZENJĀ U GRĀKOJ

Stavros THEOPHANIDES

Rezi me

Narodna brodarska udruženja u Grčkoj osnovana su zbog nesposobnosti privatnih brodarskih udruženja da obezbjele siguran, redovan i kvalitetan obalski prevoz.

Obalski prevoz u Grčkoj organizovan je u uslovima regulisane monopolizacije. U ovom sistemu sva brodarska udruženja (privatna i narodna) posluju kao isključivi prevoznici za određeno ostrvo; po cenama koje je fiksirala država.

Narodna brodarska udruženja jesu udruženja u vlasništvu i pod nadzorom korisnika prevoznih usluga koja odgovaraju hibridu modela kooperacije i modela radničke participacije.

Akcionari jesu isključivo: 1) stanovnici pojedinih ostrva na kojima udruženja djeluju, 2) svi oni koji su rođeni na ostrvima bez obzira da li žive u Grčkoj ili u inostranstvu, i 3) pravna lica (uprave gradova, zemljoradničke zadruge itd.) koju su locirana na ostrvima. Na taj su način svi akcionari direktno ili indirektno povezani sa lokacijom udruženja i oni su korisnici transportnih usluga narodnih brodarskih udruženja.

Akcionari konstituišu generalnu skupštinu i biraju upravni odbor, koji predstavlja glavnu jedinicu odlučivanja u udruženju. Upravni odbor, sa svoje strane, imenuje generalnog direktora, koji je glavna egzekutiva udruženja. Oko dvadeset do četrdeset posto personala i radne snage čine akcionari. Upravni odbor se po pravilu sastaje dva puta mesečno i odlučuje o predlozima generalnog direktora, ili o izveštaju nekog člana odbora, ili, u nekim slučajevima, o izveštaju nekog akcionara. Cijeljenica da svaki akcionar ima pravo da referiše upravnom odboru ukazuje na istinsku demokratsku osnovu narodnih brodarskih udruženja.

Ova udruženja imaju širok spektar ciljeva, od čisto ekonomskih (kao što su: rast, stabilnost, efikasnost...) do socijalnih (raspodela dohotka, regionalni razvoj, zaštita čovekove sredine, kulturno uzdizanje itd.).

U razdoblju od 1966. do 1980. godine osnovano je jedanaest narodnih brodarskih udruženja koja kontrolišu dvadeset brodova srednje ili velike nosivosti od ukupno dvadeset i osam brodova iste kategorije koji sada plove Egejskim morem; to jest, ova udruženja kontrolišu više od sedamdeset posto obalskog brodovlja u sektoru kojim su tradicionalno vladala "velika imena" — privatni brodovlasnici.

Evalvacija ekonomske i socijalne performanse narodnih brodarskih udruženja — uzimajući u obzir takve mešovite kriterijume kao što su: 1) rast, 2) stabilnost, 3) efikasnost, 4) stepen radničke participacije i odnosi na radu, 5) regionalni razvoj i njegovi propratni efekti, 6) raspodela dohotka, 7) zaštita čovekove sredine, 8) kulturno uzdizanje, i 9) finansijska sposobnost — pokazuje pozitivne rezultate.

Većina narodnih brodarskih udruženja bila je uspešna ne samo u obezbeđivanju kvalitetnih i sigurnih transportnih usluga nego i u stvaranju novog poslovnog (organizacionog) oblika koji je integrisao različite uloge akcionara, korisnika usluga, radnika i direktora i koji je na taj način postigao viši nivo efikasnosti i opšteg zadovoljenja potreba korisnika usluga.

RAZVOJ SISTEMA UPRAVLJANJA PRIVREDOM I NOVA REFORMA U NR KINI

CHEN Changyuan*

Kina je velika zemlja sa 970 miliona stanovnika i površinom od 9,6 miliona km². Ima 30 administrativnih provincija (od njih 3 grada centralne važnosti: Peking, Šangaj i Tinding i 5 autonomnih pokrajina: Unutrašnja Mongolija, Guansi, Tibet, Ningsija i Sindan). Stara Kina je bila polufeudalna i polukolonijalna zemlja sa veoma niskim nivoom proizvodnih snaga i zaostalom privredom. Pre revolucije, proizvodnja savremene industrije iznosila je samo 10% od ukupne vrednosti proizvodnje nacionalne privrede.

Posle osnivanja NR Kine u 1949. godini, započeta je krupna socijalistička ekonomska i kulturna izgradnja. U ekonomskoj oblasti razlikuju se sledeći periodi: od 1949. do 1952. g. — period obnove privrede, od 1953. do 1957. godine — period prvog petogodišnjeg plana u kome je počeo socijalistički privredni preobražaj i izgradnja, od 1958. do 1962. g. period drugog petogodišnjeg plana (1958—1960 je bio takozvani trogodišnji »veliki skok«), od 1963. do 1965. — period trogodišnjeg prilagodavanja privrede, od 1966. do 1970. period trećeg petogodišnjeg plana, od 1971. do 1975. period četvrtog petogodišnjeg plana, od 1976. do 1980. period petog petogodišnjeg plana. Za ovo vreme, od 1966. do 1976. je bio takozvani period »kulturne revolucije«.

Za vreme 30 godina od osnivanja, nova Kina postigla je veliki uspeh u nacionalnoj privredi. Ona je od jedne zaostale zemlje pretvorena u socijalističku zemlju sa relativno snažnom materijalnom bazom. Prosečna godišnja stopa rasta ukupne vrednosti industrije i poljoprivrede za period od 30 godina, iznosila je 8,9% (prosečna godišnja stopa rasta vrednosti proizvodnje industrije 12,3%, poljoprivrede 5,2%). U 1979. godini ukupna vrednost proizvodnje industrije i poljoprivrede iznosila je 617,5 milijardi juana, tj. 13 puta više u odnosu na 1949. godinu (46,6 milijardi juana). Ukupna vrednost proizvodnje industrije povećana je od 14 mlrd. juana u 1949. godini na 459,1 mlrd. juana u 1979. godini, po-

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