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Neo-industrialisation and Peripherality Evidence from Regions of Northern Greece

N. Komninos*† and E. Sefertzi‡

*Department of Urban and Regional Planning, Aristotle University,
54006 Thessaloniki, Greece,

‡Department of Sciences, Technical University of Crete, University Campus,
73100 Chania, Greece

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Abstract: The paper discusses issues of neo-industrialisation and corporate restructuring in peripheral regions, taking into account the formation of a new industrial space in northern Greece. The main argument is that the inheritance of peripherality promotes neo-Taylorist corporate strategies in less favoured regions, involving flexible and fragmented labour markets, innovation linked to fixed capital and machinery, and concentration on labour cost rather than product quality. This form of neo-industrialisation creates an environment poor in technology resources and innovation support institutions and does not bridge the 'technology gap' between core and peripheral regions, leaving them as disadvantaged as before. The introduction outlines some major trajectories of neo-industrialisation and innovative development in core and peripheral regions and defines the questions that the paper deals with. Section one discusses the emerging new industrial space in northern Greece and section two the neo-industrialisation processes in the peripheral regions of East Macedonia and Thrace. Section three provides some explanation of the neo-taylorist trajectory adopted in these regions and on the causes of rejection of more sound sunrise and flexible specialisation strategies. © 1998 Elsevier Science Ltd. All rights reserved

Key words: new industrial spaces, peripheral regions, Taylorism, northern Greece.

Introduction

It is well documented that the crisis of the post-war accumulation regime and the rise of flexible production have dramatically changed the hierarchy of cities and regions in Europe (Gottdiener and Komninos, 1989; Dunford and Kafkalas, 1992; European Commission, 1994a). The traditional centres of heavy

industry have gone into decline[1] while new dynamic areas have arisen, taking advantage of information technology and flexible production organisation. Neo-industrialisation and innovative growth has not been limited to core regions. A number of cities and regions in less developed areas have successfully undergone current industrial change and innovative development (Benko and Dunford, 1991; Cooke, 1988; Dunford, 1991; Hall and Markusen, 1988; Komninos, 1992; Scott, 1988). It seems that a new macro-economic

†E-mail: komninos@vergina.eng.auth.gr

cycle has opened, redefining 'core' and 'peripheral' regions, in which critical factors are innovation, technology transfer, industrial clustering, and the internationalisation of local productive systems.

In Europe during the 1980s, a number of areas have attracted attention as centres of neo-industrialisation and innovative development. Well-known cases of this re- and neo-industrialisation are the cities of Cambridge, Milton Keynes, Crawley and Bracknell, in England; Toulouse, Grenoble, Montpellier, Sophia-Antipolis, and a number of new towns near Paris (Evry, Mclun Senart, Saint-Quentin en Yvelines) in France; the industrial districts in Lombardy, Emilia-Romana, Tuscany, Veneto, Marche, in Italy; and the regions of Baden-Württemberg and southern Bavaria, in Germany. Many of these areas were insignificant provincial cities, with no industrial tradition, but have actually become centres for new industrial branches and high-technology industry. Small and medium enterprises flourished in highly competitive international markets, and new products were produced which were characterised by design quality and short life cycles.

There are important differences between these new centres of innovative growth; differences in form and formation processes, in the trajectories that were followed, in the role of the state, markets, and the co-operative networks that have sustained their development. In our opinion, there are three major routes towards neo-industrialisation and innovative development, each of which combines distinctive geographical features and strategic approach.

— A *neo-Taylorist development path*, which was outlined in a number of restructured cities and metropolitan areas of Taylorist or Fordist tradition (Turin, Milan, Barcelona, etc.) where development was led by larger companies, multinationals, or large national companies. As these firms adopted flexible forms of internal organisation, they introduced flexible labour markets and polarised the work-force with mass production technologies and Taylorist work organisation. The labour market and the social structure in these areas are fragmented, and competitive strategies dominate interfirm relations. The traditional industrial environment, decentralisation, and market forces drive this type of development (see Aydalot and Keeble, 1988; Brehemy *et al.*, 1985; Kratke, 1992a).

— A *sunrise development path*, which was outlined in

the new centres of R & D and high-tech industry (Cambridge and Milton Keynes in England; Sophia-Antipolis, Montpellier, Grenoble and Toulouse in south France; Malaga and Seville in south Spain). In these areas, new industrial branches, R & D institutions, universities, and smaller businesses became the core of a flourishing local productive system. The roles of the state and local authorities, and other public institutions of education and R & D were crucial for the creation of the initial nucleus and the conditions for high-tech growth (see Crang and Martin, 1989; Gilly, 1992; Komninos, 1993).

— A *corporatist development path*, is seen in cities and communities of flexible specialisation, such as the Marshallian Industrial Districts in central Italy, in Spain, Greece, and elsewhere (see Amin, 1989a, 1989b; Pyke *et al.*, 1990; Sfortzi, 1989). Bagnasco (1977) and Becattini (1979) refer to the industrial district as a socio-economic territorial entity based on a corporatist social contract. The district is more than an industrial cluster. It is characterised by the active coexistence of an open community of people and a segmented population of firms. Production activities and daily life overlap. The firms specialise in one or more phases of the process of production. Interfirm alliances and institutional regulation provide for the co-ordination and integration of the segmented production. Although by definition the presence of big firms in the district is not ruled out, the community prevents large firms from polarising the overall process of production causing SMEs to go bankrupt or be taken over.

Many of the areas of new growth were peripheral to the established post-war centres of development. They include regions with no industrial tradition, agricultural regions, as well as new agglomerations of industry chiefly on the margins of Fordist industrialisation. For Scott these peripheral developments are bound up in the specificity of flexible production, and their *raison d'être* lies either in the structure of labour in the established Fordist industrial centres or in the competitive pressures within the areas of new industrialisation, which has led to the spatial disaggregation of the internal functions of the firm and their dispersal over different territories (Scott, 1987, 1988). However, these factors neither account on their own for peripheral neo-industrialisation nor for the particular development path adopted in each region.

This relationship between neo-industrialisation and peripherality is the central concern of the paper. Our

objective is to discuss the processes by which new firms and new industrial relations are created, taking into account the formation of a new industrial space in northern Greece. The argument we propose is that, in peripheral regions, the conditions of backwardness encourage neo-Taylorist corporate strategies and industrial development based on automation, separation of technology intensive and routine activities through the international networking of firms, labour market flexibility, and deskilling. This is a process which leaves the regional environment poor in technology resources and innovation support institutions, and which instead of bridging the 'technology gap' between core and peripheral regions, preserves regional disparities. Neo-Taylorism seems to be a low-end solution to contemporary productive restructuring which regional authorities in peripheral regions should resist if they wish to reposition themselves in the new core-periphery divide.

The new geography of development in Greece

The 1980s confirmed that the economic downturn identified after 1973 was a continuing trend. Developments were unfavourable in most basic sectors: GDP, fixed asset investment, the sectoral structure of industry, employment, productivity, inflation, deficit, and public economy (Ioakimoglou and Milios, 1988).

Since 1974, the average annual rate of change of the GDP has fallen steadily (see Table 1). At the same time, the slowing of industrial development has altered the respective contributions of the three sectors: in the 1980s, manufacturing contributed less to the GDP than it had in the 1970s (17.9% against 19.5%).

The same decline characterised fixed asset investment. The average annual rate of investments fell steadily from 9.3% in the 1960s to 0.1% in the 1980s. What is equally serious is that, during 1974–1985, the rates of change of fixed asset investment in manufacturing were negative (–1.1% to –5.1%).

Table 1. Greece: average annual rate of growth, 1961–1990 (%)

	1961–1970	1971–1980	1981–1990
GDP	7.6	4.7	1.4
Fixed asset investment	9.3	2.8	0.1
Industrial production	10.1	6.9	2.2

Source: Epilogi, 1992, 1994; The Greek Economy in Figures, 1992.

The average annual rate of growth in industrial production has fallen steadily and today's indicators of manufacturing production are still at the 1981 level. In the 1980s Greek industry slipped back into more traditional activities concentrating on traditional consumer branches (food and drinks, tobacco, textiles, clothing and footwear) (Giannitsis, 1985; Vaitos and Giannitsis, 1987). The annual rate of change in productivity gradually fell from 1980 onwards, as a logical consequence of reduced investment in modernisation and lack of technological renewal. After 1986, industrial productivity far from increasing fell steadily. At the same time industrial labour costs rose faster than productivity.

Three different policies were implemented in the management of wages (Rylmon, 1988 and Rylmon, 1992). Immediately after the fall of the military dictatorship, between 1974 and 1980 wages rose faster than the GDP, with the result that their share of the GDP increased from 34.1% to 42.4%. In the early 1980s a new wages policy was introduced in an attempt to redistribute domestic incomes by boosting the lower incomes and controlling the overall volume of wages. Wages kept pace with the GDP. After 1985 however, there began a period of 'stabilisation programmes', which kept wage increases below the rate of the GDP increase. In the 1980s, the average manufacturing wage and the cost of labour in major industry increased only very slightly (0.4% and 0.6% p.a. respectively), less than the average rate of increase of the GDP in manufacturing (2.2%). This redistribution of incomes raised expectations of growth, but up to 1995, there was no sign of recovery.

The combination of these circumstances of investments, supply, and demand marked the end of the favourable post-war situation of accumulation and growth (Vergopoulos, 1991). Post-war accumulation and growth, based on low labour costs, protectionism, and development linked to the economies of industrialised countries, was no more viable. Despite the intensive income redistribution policies since 1985 and increased business profits, there has been no new period of intense investment and development of any significance. Industrial firms are showing profits, but total industrial production remains static. There are no new sectors to ensure satisfactory returns on investment, and there is considerable resistance to the development of new industrial sectors.

The geography of this stagnation has not been uni-

form, however. Between 1981–1990 it became clear that a vigorous geographical re-organisation of development, associated with a variable mosaic of development and recession, has taken place. GDP and employment data show Greece to be completely fragmented, with dynamic regions in the north, on the Aegean and the Ionian islands, and stagnant regions in central and southern Greece (Table 2).

— In the traditional industrial centre that has developed around the Greater Urban Region of Athens, the prevailing trends are towards decentralisation, resulting from the long-standing lack of investment in basic civic infrastructure and diseconomies of scale that have exacerbated the problems of day-to-day operation of economic activities. Likewise, many regions of central and southern Greece are marked by urgent trends towards de-industrialisation. Firms are becoming less competitive, state protection has been withdrawn, privileged access to public procurement is being eroded daily, buying out and mergers are bringing segments of the domestic market under the control of large multinationals.

— The Aegean islands, the Ionian islands, and Crete are showing dynamic activity in the primary sector and in tourism and are commercially exploiting the unique comparative advantages offered by the natural environment and their enduring cultural activity.

— In northern Greece, particularly in Central Macedonia, Eastern Macedonia, and Thrace, an internationally competitive and dynamic industrial complex has been recently created. It includes firms mainly in the branches of food and beverage production, textile and clothing, furniture, as well as

intermediary industries of paper pulp, chemicals, and plastics. This new productive complex has shown itself capable of internationalisation and adaptation before the official inception of the Single European Market. Most of the 2800 Greek firms which have invested in the Balkans are part of this complex.

This regional fragmentation of development is a process that began in the 1970s. As Hadjimichalis and Vaiou (1987) remark, the years 1970–1973 were a turning-point in the development of certain *intermediate regions and cities* in Greece, which achieved higher rates of GDP, productivity and consumption growth than the national average. The nature of the decentralisation was unlike that in other European and south European countries, where large firms decentralised their activities and set up branch plants in peripheral areas; in Greece decentralisation was based on the creation of new firms and on the endogenous dynamism of traditional branches of industry, together with intensive farming, and tourism.

At the level of Greek prefectures, the new mosaic of growth and decline is very uneven following the opposing trends of de-industrialisation and neo-industrialisation (Kafkalas and Foutakis, 1997; Komminos, 1994). In four years (1984–1988), many prefectures (mainly in the south) lost 10–30% of their jobs in industry,[2] while some others (in the north) gained 10–25% new jobs.[3]

Neo-industrialisation has led to a considerable rise in employment in many prefectures in northern Greece, where a new industrial space has gradually been created. All the prefectures in Central Macedonia,

Table 2. Regional change in GDP and industrial employment (%)

Regions	GDP per head Annual rate of change 1981–1991	Industrial employment Rate of change 1984–1988
East Macedonia and Thrace	3.4	12.9
Central Macedonia	1.4	10.3
Western Macedonia	3.0	–2.7
Epirus	1.5	–4.0
Thessaly	0.9	–3.5
Stereia Ellas	0.1	–1.9
Attica	1.0	–0.4
Peloponnese	0.3	–4.4
Ionian islands	2.1	–0.1
Aegean islands	3.2	–0.1
Crete	3.0	–4.2
Greece as a whole	1.2	1.08

Source: Epilogi (1994).

Eastern Macedonia, and Thrace have enjoyed a significant increase in GDP and industrial employment. A shift and share analysis, on the level of prefectural productive systems (Kafkalas, 1992), indicates that the prefectures of northern Greece were already showing signs of vigour in 1969–1978, and this increased in the 1980s. Kafkalas (1992, page 91) argues that an assessment of the co-efficients of both proportional and differential shift indicate that the dynamism of these prefectures is due to the change in the locational behaviour of certain branches of industry, deciding to resettle away from the Capital in particular, to less central areas.

Neo-industrialisation in the peripheral areas of East Macedonia and Thrace

The peripheral regions of East Macedonia and Thrace (EMT) appear to be one of the most dynamic areas of the new industrial space of Northern Greece. The region is composed of five prefectures (Drama, Kavala, Xanthi, Rodopi, and Evros), with a total population of 574 880 (5.6% of the population of Greece), and 5.94% of the GDP. Nonetheless, its GDP per head is one of the lowest in Europe and in the middle of the 13 regions of Greece. The breakdown of the GDP is as follows: agriculture 27%, mining 17%, manufacturing and construction 26%, and services 29% (see Figure 1).

Since 1970, statistical data has shown a constant rise in regional employment, in both the number of firms and the GDP in manufacturing, construction, trade, transport, banking and services, leading to the increase in the region's share of the national GDP from 4.1% in 1970 to 5.9% in 1990. Manufacturing and the leading industries in the area have been the driving forces behind the acceleration of regional development during the 1980s (Table 3). Dominant industries in the region are those of food and beverages, textiles, clothing and footwear, furniture, and metal products (Andrikopoulou, 1990).

However, the industrialisation of the region is very recent, most of its firms having been founded since 1970. Furthermore, their development pattern has been significantly different to industries in the more central regions of Greece, emphasising international co-operation, local alliances and networks, and export orientation.

Two determining factors in the neo-industrialisation

and above-average rate of growth in these regions have been *corporate strategies* and *public support*, which we shall now briefly examine.

Corporate strategies. In a joint research programme with the Institute for Geography of the University of Munster, we analysed industrial development patterns and corporate strategies in those industries responsible for regional growth of GDP and employment.[4] A total of 82 firms were interviewed, representing 33% of regional firms with more than 10 employees, in food and drinks, textiles, clothing and footwear. These industries are the most important in the region, in terms of employment and establishments, and constitute the core of the regional productive system. Corporate strategies vary considerably from industry to industry, but a constant feature is that they rely on machinery, deskilling and low labour costs.

The food and beverage industry in Greece accounts for much of the country's manufacturing activity. While on a national level, during the 1980s, there were trends towards de-industrialisation, a reduction in the number of larger establishments, and job losses, in East Macedonia and Thrace (EMT) this industry was more dynamic, with an increase in the number of establishments and total employment. In EMT, issues of production and employment are marginally situated within the overall strategies of the branch. The production process is linear in 43.6% of the interviewed firms, a percentage which is considerably higher than the average for all industries (32.9%). But, the level of production technology is lower than the average: computer use, numerical control machines and quality control feature only in few companies, and the needs for flexible work organisation and production automation are less pronounced. In any case, the production process and production technology are not as important for food and beverage firms as product strategies (differentiation, improvement, brand names, sales promotion, marketing, distribution, advertising) in constituting its competitive edge. More firms are concerned with investing in R&D, marketing, and distribution, and fewer invest in administration and production. This situation corresponds exactly to the wider international trends in this industry, and the concern is for product appeal, brand names, product innovation and differentiation.[5] Compared to other branches in the region, food and beverage companies are less export-oriented; fewer companies export (38.5% compared to an average of

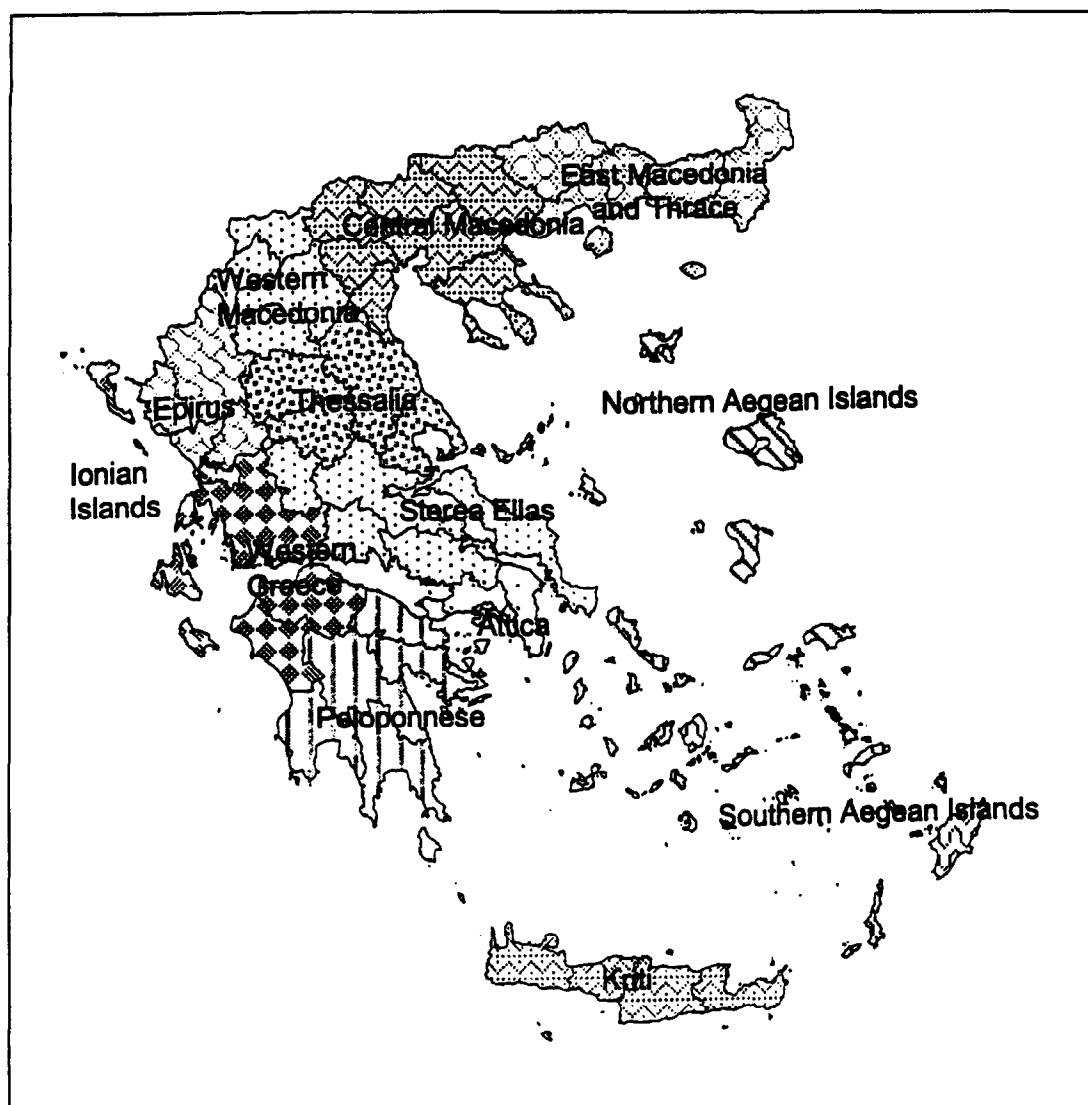


Figure 1. Administrative regions of Greece.

59.8%), and fewer companies export to the EU. Prospects for new markets are optimistic, but new markets are expected on a national rather than an international level. Interfirm relations strategy is determined by two factors. On the one hand the

range of suppliers is local and national rather than international: 71.8% of suppliers are located in Greece and 5.1% in EU countries. There are important inputs from the primary sector in 59.0% of firms, compared to an average of 31.7% for all interviewed companies.

Table 3. Manufacturing activity in East Macedonia and Thrace, 1984–1988

Prefectures of East Macedonia and Thrace	Number of firms			Employment		
	1984	1988	1984–1988	1984	1988	1984–1988
Drama	1141	1254	+9.9%	6993	8673	+24.0%
Kavala	1682	1774	+5.5%	9823	11279	+14.8%
Evros	1743	1748	+0.2%	6191	6375	+3.0%
Xanthi	888	853	+3.9%	6346	6949	+9.5%
Rodopi	1008	984	–2.3%	3906	4187	+7.2%
East Macedonia and Thrace	6262	6613	+5.6%	33259	37563	+12.9%
Greece as a whole	144745	144716	–0.02%	698646	706203	+1.08%

Source: Epilogi (1995).

On the other hand, only 2.6% of companies subcontract out while 15.4% subcontract in, which indicates that subcontracting relations and network structures have not yet been fully integrated.

Field-work shows that food industries are following the wider strategic options of the branch: the strategic focus being on products, sales and marketing. Production issues are of secondary importance. Suppliers' networks are national rather than international, firms are more autonomous, networks and subcontracting have been developed very little.

The textile industry accounts for 3.2% of manufacturing plants and 9.6% of the Greek industrial workforce, and has been in constant decline since 1978[6]. Firms in EMT are larger than the national average, but there is a lack of new technologies and flexibility. Contrary to national trends, the textile industry in EMT has doubled its output in the period 1980–1990. The growth in production and added value has been impressive. Corporate strategy in EMT textile companies is concentrated on production: 77.8% of the companies invest in production, while only 22.2% invest in administration, R&D and marketing. Production is characterised by long runs. However, there is no significant use of advanced automation and numerical control machines. Quality control is more developed than in other branches and is undertaken by 88.9% of firms. There is a very pronounced need for productivity know-how, and major long term strategy is concerned with automation and quality. The international orientation of this industry is apparent in its product strategies. Most firms export (66.7%), and there is intense competition from EU and other European countries. Compared to other industries in the region, there are higher prospects for new markets in the EU, but lower in Greece, and none for markets in developing countries. Product quality is an important competitive advantage. However, product innovation, brand names, marketing, and product promotion do not appear to be key competitive issues in future strategies. The supplier network is more internationalised than in other industries. There are fewer Greek suppliers and more from other EU countries. This trend towards internationalisation is also evident in the numbers of mergers, in joint product development, and investments both within and outside Greece. In subcontracting relations (give or take) there is no wide divergence from the average figures concerning all interviewed firms.

Textile firms in EMT are seeking for international markets where they can compete in terms of production costs. For this reason, production issues like high productivity, low labour costs, and numerical flexibility are the main factors shaping the strategies of this industry.

In clothing and footwear, East Macedonia and Thrace is an important producer, having about 8% of the country's firms and 17% of employment. This industry is labour intensive, but the average size of the firms is small. However, the size of regional firms is larger than the national average for clothing and footwear firms. Most of the interviewed firms employed more than 50 employees. They are also relatively new firms, 90.6% having been established since 1971. None is a subsidiary and 10% are parent companies. The profitability figures do not differ significantly from the national average. Corporate strategy in clothing and footwear industries is clearly focused on production: 68.8% of the firms invest in production, 3.1% in R&D, and 6.3% in marketing and distribution. In 59.4% of firms production is organised in long runs, automated machines are used in 34.4% of firms, and quality control is widespread. There is a great need for production equipment and productivity know-how. In the future, most of the firms (68.8%) intend to automate production. Clothing and footwear products face intense international competition: 81.3% of the interviewed firms export, and 71.9% export to EU countries (the respective average figures for all interviewed firms are 59.8% and 45.1%). Many firms export their total production to German markets. Competition on EU markets comes from non-EU countries and the main competitive advantage of competitors is lower labour costs[7]. However, product strategies like differentiation, innovation, brand names, etc., which enable EU industries to remain competitive, do not attract much interest from the managers. In interfirm relations, there is clear scope for networks: 34.4% firms subcontract out and 56.3% subcontract in, compared to respective averages of 17.1% and 43.1% for all interviewed firms. On the other hand, short term strategy involves all variables concerning networks: extension of local agreements, extension of international agreements, new local agreements, new international agreements, merging, subcontracting in, subcontracting out, joint product development, investment in other countries.

The strategic options of the footwear and clothing industries of EMT concentrate on production auto-

Table 4. Public Investments Programme, 1976–1985 (constant prices, 1970)

Prefectures	Total payment (billion GRD)	Payment per head (million GRD)
Drama	974	10 278
Kavala	1 299	9 609
Evros	3 947	26 585
Xanthi	886	9 981
Rodopi	1 064	9 862
East Macedonia and Thrace	8 171	13 263
Greece	129 835	19 797

Source: Bitsikas (1986).

mation, flexibility and network structures. Markets are internationalised and firms compete more in terms of production cost than in terms of product quality, brand names and unique products. There are no signs that this situation will change in the immediate future. In this sense there is a considerable gap between the strategies of this industry at the EU and local level; local firms are more backward, less innovative, and more dependent on deskilling and low wages.

Public and institutional support. Industrialisation in EMT was supported by public investments and incentives to firms establishing in the region. Since 1986, it was also supported by the Mediterranean Integrated Programmes, the Community Support Frameworks and the Community Initiatives.

Contrary to what is believed, public spending in East Macedonia and Thrace through the Public Investments Programme has been lower than the national average (Table 4). An exception is the prefecture of Evros, possibly explained by the heavy military presence in this frontier area. Most of the available funds have been spent on the agricultural infrastructure, including land reclamation, roads, irrigation, and support for co-operatives, while manufacturing infrastructures, like the industrial estates programme, have not been so successful in having their demands met.

Along with direct public investment has been the development of the support grants and incentives for regional industry (law 1262/82). During the period 1982–1990 about one thousand private investment schemes were supported in all industries in the five prefectures of EMT. According to unpublished data provided by the Ministry of National Economy, 284 food and drink firms, 83 textile firms, and 219 footwear and clothing firms were included in this framework and about 11 500 new jobs were created.

The conditions of the grants in EMT (investors share in the volume of investment, investors share per grant) were slightly more favourable than the national average. However, investments in EMT were more labour intensive.

Both the public investment programme and the public grants to regional industry were oriented to traditional activities in agriculture and manufacturing, at the expense of high technology activities. Two Community Initiatives promoting innovation, LEADER and STRIDE which have been implemented, have not altered the situation, since their budgets were small and they were pilot schemes rather than large scale restructuring programmes. This absence of high-tech initiatives may be attributed to wider deficiency in R&D and technology activity. Greece spends only 0.4% of its GDP on R&D, and most R&D activities are located in the Greater Athens Area. The scope for decentralisation of R&D is very limited, and it is handicapped by the location of the major R&D institutions in the Capital and by skill shortages in peripheral regions.

The region benefits from the active involvement of producers associations, mainly the local chambers of commerce, the associations of industrialists, and the associations of exporters. The activities of the chambers of commerce, which have a leading role in the regional business community, include: (1) information dissemination, (2) the compilation of data bases of regional firms, exporters, European markets, commercial rules in foreign countries, perspectives for new markets, demand for products and international co-operation, and statistical analysis of business trends, (3) regulation of local commercial and industrial activities, (4) lobbying to promote the area, to attract investments, and to develop infrastructure essential for the business activity, and (5) conference and social activities in support of the local business community.

In the framework of Structural Funds, business associations have acquired more formal roles setting up Euro Info Centres and Business Innovation Centres. Their action has recently been extended to the preparation of global development plans to encourage public—private partnerships and cooperation (AING, 1993 and AING, 1996). These plans attempt to organise regional infrastructure and public investments with respect to the needs of the productive sector and the challenges for innovation and internationalisation of regional firms, SMEs in particular. However, these actions are rather new, and have not yet significant effect on corporate strategies.

Neo-industrialisation and Taylorism in peripheral regions

Industrialisation in EMT is new, both in terms of the age of the firms and in production practice. Clothing and footwear industries are a case in point, more than 90% of major firms having been founded since 1971, while export orientation, internationalisation of SMEs, and network based production are in marked contrast to traditional industrial practice.

Corporate strategies have been central forces for neo-industrialisation, innovation, and internationalisation of productive activities in EMT. Although located in a peripheral region, business strategies are in line with the broader European trends which typify each industry. However, corporate strategies adopted in EMT have a number of features, clearly belonging to the tradition of Taylorism, such as: (1) restructuring of production with respect to excessive mechanical equipment, automation and process machinery, (2) standardising products and export-oriented product design and specifications, (3) functional and spatial separation of specialised and routine production activities through sub-contracting and international interfirm networks, and (4) labour market flexibility based on deskilling, low wages, weak unionism, and on-off mechanisms adjusting the labour mass to market fluctuation.

Industrial trajectories based on the Taylorist tradition of fragmentation and mechanisation, have been also followed in many peripheral regions of Europe. Without suggesting any analogy to northern Greece, the analysis of the industrial perspectives of East Berlin after the fall of the wall (actually an Objective 2 region), and the analysis of corporate restructuring in the Mezzogiorno of Italy (an Objective 1 region)

should be noted.

Kratke (1992b: pages 233–234) looked for the kind of industrial development that could be expected in Berlin after unification and outlined two major development models: (I) involving employee participation and a revaluation of the qualifications and know-how of skilled manual workers, and (II) involving flexible employment contracts, polarisation of the work-force and precarious conditions of employment. He pointed-out that the urban region of Berlin is developing in the direction of a prototype of model II, as a manufacturing location of polarised social and employment structures, using conventional technologies and Taylorist methods, to supply East German and Eastern European markets.

Giunta and Martinelli (1993) analysed the recent restructuring of large Fordist firms in Mezzogiorno and evaluated to what extent it represents a departure from previous practices and models of industrialisation. However, in contrast to the established view that post-Fordist branch plants search for greater recourse to local suppliers with positive consequences for the birth and/or growth of local firms, branch plants in the Mezzogiorno have not changed their procurement and interfirm strategies in favour of the region. At the same time, the rationalisation of production followed the Taylorist principles, deepening the intra-corporate division of labour and the functional and territorial fragmentation of production activities.

The causes of the neo-Taylorist development path adopted by firms in East Macedonia and Thrace will be found in a number of restrictive factors, related to the persistence of inter-industry international trade, the backwardness of smaller firms, and the traditional character of the regional industrial policy.

Almost totally absent in EMT are any new industries and more advanced production practices related to workers' involvement and participation schemes, functional flexibility, just in time and total quality management techniques. This is partly due to the absence of adjustment towards intra-industrial trade and catch-up on the level of industrial mix. A widely shared view is that less developed regions of the EU compete according to the Heckscher-Ohlin model of comparative advantages, offering unskilled labour which favours the development of low-tech industrial branches (textiles, food, clothing and footwear, ceramics). As Busch (1992, p. 195) argues, interna-

tional trade is moving from inter- to intra-industrial trade. There are two reasons for this. On the one hand, when less favoured regions introduce technology from advanced countries, develop industries which are competitive in international markets, because of favourable labour costs and exchange rates. On the other hand, labour intensive industries in advanced regions confront effectively competition by low labour cost countries on the basis of adjustment strategies, such as production rationalisation, product differentiation and innovation. These parallel situations lead to a less accentuated Heckscher-Ohlin division and transform trade from inter- to intra-industrial. However, statistical data and field work research in EMT does not support the claim that such a process is at work. The industrial structure of the region is dominated by traditional industries, with very few firms in the branches of electronics, telecommunications, fine chemicals or other new industries, and with no evidence of start-ups in new industrial branches.

It is worth mentioning at this point that the changes of the world trade introduced by the new GATT agreement will have negative effects on the regions of the European Union where competitiveness depend on low wages. The liberalisation and the removing of trade barriers brought into being by the new World Trade Organisation (which succeeded and enlarged the Uruguay Round of GATT) means that the Southern Member States of the EU are losing their competitive advantage over third countries characterised by lower labour costs. On the one hand, the new regulations in textile and clothing (e.g. the abolition of the Multi Fibre Agreement, preferential agreements on trade in textile with Central and East European Countries, as well as with Egypt, Malta, Morocco and Tunisia, for which quantitative restrictions will no longer be applied against imports) lead many of the weakest parts of the Union, with strong dependency on these sectors, to lose important market share. On the other hand, the loss of competitiveness of the southern EU regions in terms of work conditions is leading to a contraction of their productive base and the relocation of subcontracting to lower labour cost countries (e.g. east Europe, Turkey, north Africa, south-east Asia).

A second restrictive factor comes from the profile of smaller firms in East Macedonia and Thrace, and their inability to promote flexible specialisation, networking and clustering practices. Flexible specialisation is a strategy of interfirm co-operation and alliances which

creates a dense network of small firms, and allows all the firms involved to specialise in particular phases of one production and to stay alert to variation in market and consumer demands. This has been a particular feature of smaller firms in Italy, in Lombardy, Emilia-Romana, Tuscany, Veneto, Marche, and Abruzzo. In these areas, clusters of small firms have created co-operative productive systems, allowing costs and risks to be spread out and production to be rapidly adjusted to market requirements. The success of these areas and firms has given birth to the idea that smaller firms can generally develop such a strategy, creating networks and to stay innovative and competitive. Actually, these views are widely shared by the Greek Ministry of Development (formerly, the Ministry of Industry), which promotes industrial clusters and networks in many localities of northern Greece.

However, research reveals that in East Macedonia and Thrace smaller firms are traditionally low-profile rather than being small flexible firms participating in creative networks and multi-layer alliances. They do not have the profile and the strategic orientation for flexible specialisation, nor the necessary attitude for innovation, export orientation, and multiple alliances. A comparison between companies with more than 50 employees and a group of smaller companies (fewer than 20 employees) is impressive. At all levels, from the profile of the companies to their employment strategies, small firms appear less forward-looking, less involved in the actual problems of restructuring, less internationalised, and with a lesser awareness of the economic environment. Small firms are the least export-oriented and internationalised group. There is no internationalisation of sourcing: 100% of producer-supplier relations are within the country. They are also in the lowest category in terms of innovation and technology: none of them invests in R&D, there is no R&D department in any company, the use of computers and automatic machines is the lowest. Small firms invest less than any other category of firms and are the most labour intensive group. Presumably this is sweated labour.

Traditional industrial policy is chiefly responsible for this situation. New industrial branches and co-operative industrial practices have not been supported by the way public policy has been applied nor by regional incentives. Neither direct public investment in infrastructure nor support in the form of financial incentives has provided an infrastructure supportive of

innovation (technology transfer centres, on-going professional training, technological co-operation networks, regional technology supply, etc.). Innovation has relied exclusively on the firms' own initiatives and on market dynamics. The shortcomings of the political handling of new investments have meant that public funding and incentives have been used to upgrade equipment and traditional infrastructure, while the innovation environment and the labour skills remain at low levels. A quite different approach has been recently adopted in the neighbouring region of Central Macedonia through the Regional Technology Plan. Here, the strategic priorities adopted to support regional industry focus on innovation funding, support for business technological cooperation, support of human resources technology skills, technology transfer, and endogenous technology supply (Komninos, 1997, page 125).

Among the dominant types of neo-industrialisation and innovative growth outlined in the introduction, forms of neo-Taylorism seem to offer the most likely development trajectory for EMT, northern Greece, and many other peripheral regions. Sunrise solutions and corporatist growth are considerably hampered by established skills, business culture, and the conservative nature of industrial policy. The drawbacks of neo-Taylorist industrial development are well known: they lie in the social polarisation that accompanies the strict separation of labour skills, and in the reproduction of peripherality owing the dependence of the local production system on the innovations and technologies brought in from core regions (Sefertzi, 1996). On the negative side we should also note that the excessive use of machinery, automation, and unskilled labour make the links between industries and the region very fragile.[8] A constant threat to northern Greece from the opening of Balkan markets is the massive relocation of labour intensive industries to neighbouring countries where labour costs are extremely low.

Whether neo-Taylorism will be the most likely industrial development path in less favoured regions of the EU needs to be further examined. The fact is that the precarious industrial base with a predominantly unskilled labour, traditional industrial branches, and export-oriented production, which characterise these regions encourage such industrial development. However, it is a path which opposes the real convergence of European regions and reproduces the old divisions between centre and peripheries. Its political implications become very important, as more

and more regional authorities realise the impossibility of bridging the regional development gap on the basis of strategies promoting deskilling and low valorisation of human resources. In this sense, it is important for those Objective 1 regions actually developing regional innovation strategies (RTPs, RIS, RITTS)[9] to resist neo-Taylorism and to promote an institutional framework capable of sustaining sunrise and co-operative industrial strategies.

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Notes

1. Areas eligible under Objective 2 of EC regional policy cover 16.8% of the population of the Community and include regions in industrial decay, where (1) the average rate of unemployment recorded over the three last years is above the Community average, (2) the percentage share of industrial employment in total employment is equal or exceeds the Community average, and (3) an observable fall in industrial employment is also recorded.
2. Evvia, Fokida, Magnissia, Kastoria, Florina, the Dodecanese, Lesvos, Samos, Chios, and Chania.
3. Trikala, Drama, Thessaloniki, Kavala, Kilkis, Kozani, Pella, Pieria, Chalkidiki, Xanthi and Rethymno.
4. A complete description is given in Hartmann *et al.*, 1994 Thessaloniki.
5. In the EU, corporate strategies in food industries follow two different paths. Firstly, those industries which process raw commodities, like sugar, maize, and soya, diversify towards a wide range of commodities and integrate vertically the agricultural and trade activities located in different countries all over the world. Diversification and vertical integration allow cost-cutting, price controls and production rationalisation. Cross-border mergers and acquisitions rationalise markets and give larger firms an important advantage over smaller companies. In contrast, those industries which operate in consumer markets (confectionery, snacks, pasta, biscuits, frozen foods, mineral water) tend to expand into different markets, to introduce brand names, to achieve economies of scale in advertising and distribution, and to reinforce their position *vis-à-vis* the large retailers and supermarkets (see European Commission, 1992). In this case, product appeal, brand names, and continuous product innovation and differentiation are crucial factors which enhance competitiveness. Product differentiation is more important than economies of scale. Automation is used more as a tool to achieve product quality, new packaging materials, and a better product image.
6. Textiles are an old and declining industrial branch with major problems of overcapacity and unprofitability. In the EU, the industrial structure is fragmented and highly competitive. Competition is intensified by the major international exporters, like China, Hong Kong and South Korea, and it is expected to be increased further by East European countries. Within the EU, the textile industry is more concentrated in the Mediterranean countries, Portugal, Greece, Italy and Spain. During the '80s, production increased by 50%, but employment

declined by 6%. Growth was due to better export-import relations and the opening of Asian markets, but this trend is not expected to continue in the 1990s (European Commission, 1992). In response to stagnant demand and fierce competition, corporate strategies focus on production and market share. In particular: (1) production rationalisation, capacity reduction, automation and labour-saving organisation have made it possible to keep prices at competitive levels, (2) greater concentration and cross-border agreements, mergers and acquisitions have improved competitiveness in global markets, (3) high product design, production complexity (technical textiles and high fashion fabrics) and shift of production for standard textile products to low-cost countries have maintained competitiveness in core regions (European Commission, 1994b).

7. In the EU, this industry is concentrated in four big producer countries: Germany, Italy, France, and the U.K. Corporate strategies focus on production flexibility and product innovation. Production flexibility, the use of outward processing, and subcontracting to cheap labour countries have made it possible to maintain a high degree of international competitiveness, in terms of production costs and prices. On the other hand, product specialisation in high quality products, brand names, high priced goods, and permanent product differentiation, allowed exports to increase throughout the '80s. The industry has been less influenced by important innovations in processing technologies, but a rapid response to market changes has become a critical factor in the organisation and behaviour of the firms. Cross-border integration remains limited because of the differences in dressing habits. However there have been a number of national and cross-border mergers and acquisitions, as well as direct investments in national markets and agreements with local companies (European Commission, 1992). Within Member States there is a clear distinction for the production of high quality products and high-fashion garments in centres such as Paris and Milan, and for the production of mass produced, low cost garments in Southern regions such as Greece and Portugal (European Commission, 1994b).
8. In two areas, for instance, that are presented as dynamic intermediate cities (Agrinio and Kastoria) the picture of development and prosperity was soon reversed, for between 1984 and 1988 industrial employment fell, a considerable number of firms went bankrupt, and many large companies closed (Hadjimichalis and Vaiou, 1987). Similarly, the prefecture of Kozani, which saw a strong upsurge in manufacturing in 1984–1988, started experiencing problems in 1991, with the spectre of closure looming over its factories.
9. Regional Technology Plans (RTPs), Regional Innovation Strategies (RIS), and Regional Innovation and Technology Transfer Infrastructures (RITTS) constitute a new set of EC policies jointly developed by DG XVI and DG XIII, aiming to sustain innovation and cohesion through the linking of R&D and regional policy.

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