

Greece and its structural correlation with East Germany

Economic development of de-industrialised countries under the conditions of a monetary union and a single European market

Introduction

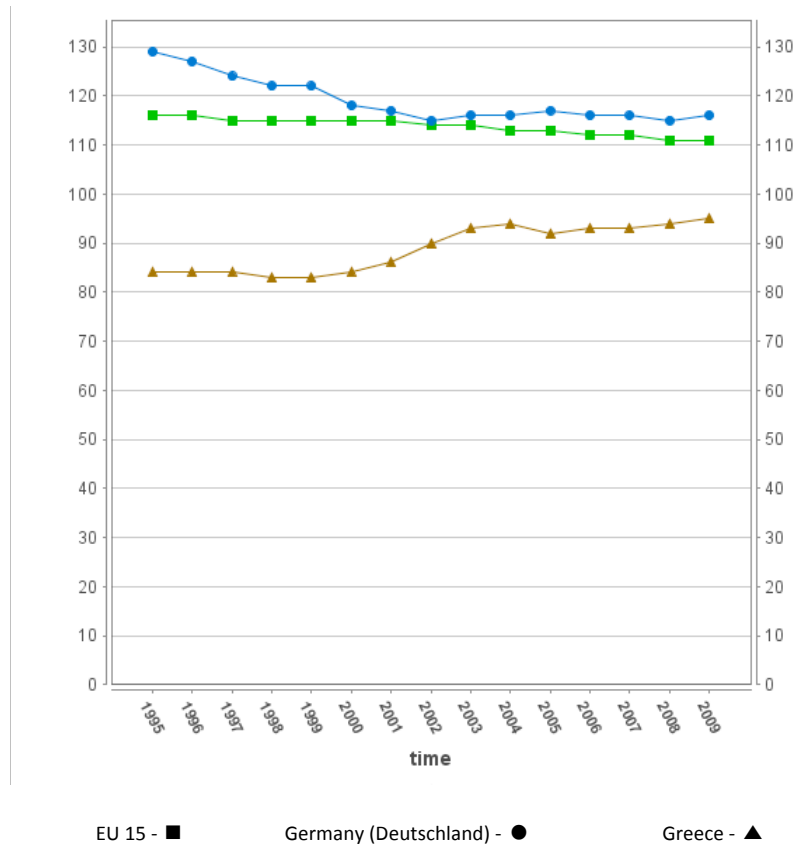
The current tensions in the Eurozone nourished the discussion on the European Monetary Union (EMU) as an optimum currency area, and which could be the future need for action. The theory defines that an optimum currency area exists where five criteria are fulfilled which could absorb the effects of asymmetric shocks. The five criteria are mobility of labour, diversified production structure, economic openness of participating economies, system of fiscal transfers and homogenous consumers' preferences. Asymmetric shocks, e.g. a positive productivity shock will have consequences for the balance of trade and employment in the other countries. If countries can control their exchange rates, this can compensate the balance of trades and developments on the labour markets. In an optimum currency area the balancing should be possible via the labour market or sectoral adjustment processes. It is doubtful if these criteria are fulfilled for the EMU, and there are hints that the sectoral and industrial structures will not converge.¹

Since the introduction of the EMU we can observe a strong divergence between the balance of current accounts of the different Member States. This development is distinctive in particular between Greece, Spain and Portugal and the active trade balance countries such as Germany and the Netherlands – thus between the core & periphery of the Eurozone.² Here the fundamental problem is the growing divergence of competitiveness. The macroeconomic indicators of the so-called PIGS countries show that they do not form a homogeneous group. Until the financial crisis broke out Spain, Greece and Ireland even grew stronger than the rest of the Eurozone.

¹ Pusch, T., Leistungsbilanzungleichgewichte in der EU – Eine Herausforderung für die europäische Fiskalpolitik?, in: IWH, Wirtschaft im Wandel, 5/2010, Vol. 16, p. 238

² Pusch, T., Leistungsbilanzungleichgewichte in der EU – Eine Herausforderung für die europäische Fiskalpolitik?, in: IWH, Wirtschaft im Wandel, 5/2010, Vol. 16, p. 239

GDP per capita in Purchasing Power Standard (PPS)



Source: Eurostat

But the so-called PIGS countries have one thing in common: the growing current account deficit³, which means the pressure of the financial markets vis-à-vis certain Member States shows a certain rationality⁴.

A possible measure to build up a diversified production structure and enhance industry's competitiveness can be industrial policy, in the sense of control over exchange rate, protection tariffs, support of certain sectors, investment incentives, public spending in education and research and development. The continuing expansion and deepening integration of the European Union is redefining the map of threats and opportunities for both companies and regions in Europe. For example there are tendencies towards creation of a Europeanized system of automobile, clothing and steel production, linking diverse locations within the continent. There is a general tendency for more sophisticated and higher value-added activities to locate in core regions, with routine production dispersed to peripheries, especially those of the East and the South. Regions try to compete via subsidy and price of labour⁵ because they lack the opportunity of currency depreciation.

³ Joebges, H.; Niechoj, T.: Rettungsmaßnahmen im Euroraum – Kurzfristig sinnvoll aber nicht ausreichend, in: IMK-Report, Nr. 52, August 2010, pp. 1ff.

⁴ Joebges, H.; Niechoj, T.: Rettungsmaßnahmen im Euroraum – Kurzfristig sinnvoll aber nicht ausreichend, in: IMK-Report, Nr. 52, August 2010, p. 13

⁵ Hudson, R., Changing Industrial Production Systems and Regional Development in the New Europe, in: Transactions of the Institute of British Geographers, New Series, Vol. 27, No. 3 (2002), P. 264ff.

The European industrial policy can be characterized by a strong fragmentation, supporting directly certain sectors and the development and dissemination of technologies. On the other hand industrial policy in the European Union is subordinated under the primacy of the unobstructed competition in the European single market. Member States cannot pursue a strategic industrial policy, due to the rules of the single market, diverging national interests and the fragmentation of decision making on the European level.⁶ There is no such thing as a European industrial policy: A possible sectoral orientation of industrial policy at EU-level (thus industrial policy in the narrow sense) is hampered through strongly diverging industrial structures in the different Member States – the national interests can be the drive or the barrier towards a European industrial policy. Empirical findings suggest that the EU-14 countries do not form a homogeneous convergence club. Additionally, the EU-14 countries are characterized by different technological conditions that are highly responsible for controlling their convergence behavior as well as their patterns of growth.⁷ In addition to the different technological conditions we find the fundamental predicament that there are various industrial policy levels: the national, the regional, the inter-governmental and the European level. For the most part the Member States decide autonomously on industrial policy measures and programmes. On the European level the horizontal industrial policy comprises of the Competitiveness and Innovation Framework Programme, the Seventh Framework Programme of the European Community for research, technological development and demonstration activities, and the European Structural Funds.⁸

In this article we will argue that

- The loss of measures of industrial policy such as depreciation of currency and protection tariffs is an important challenge for peripheral regions in the European Union.
- The support of the manufacturing sector and the build up of an investment goods sector is necessary in order to kick-off sustainable growth, due to spillover effects, agglomeration effects and economies of scale.
- The example of East Germany shows the potentialities and limits of industrial policy under the conditions of the EMU: on the one hand the approaches to support R&D-activities are successful, on the other hand the path dependency of development and the lack of export markets set boundaries to the economic development in this region.
- We will show that the preconditions for sustainable growth such as the important share of investment goods production in the manufacturing sector and export orientation of manufacturing sector are not existent in the context of Greece. It is therefore reasonable to expect that the economic and fiscal crisis will be permanent for Greece.

⁶Kaiser, R., Die industriepolitische Bedeutung der Lissabon-Strategie, Friedrich-Ebert-Stiftung, Schriftenreihe Moderne Industriepolitik 5/2009, S. 4

⁷Apergis, N., Panopoulou, E., Old Wine in a New Bottle: Growth Convergence Dynamics in the EU, in: Atlantic Economic Journal (2010), Vol. 38, S. 179

⁸ Kaiser, R., Die industriepolitische Bedeutung der Lissabon-Strategie, Friedrich-Ebert-Stiftung, Schriftenreihe Moderne Industriepolitik 5/2009, S. 19ff.

Control of foreign exchange rate – a means of becoming competitive

The depreciation of the foreign exchange rate can be a means of becoming competitive: the case of Japan and the four Asian tigers (South Korea, Taiwan, Singapore and Hong Kong) are evidence of the export-oriented industrializing strategy which utilizes depreciation of the foreign exchange rate to change the specialization of the economy in order to create local knowledge and innovation potentialities.⁹ For example, the Japanese government used a variety of instruments to bring about a rapid structural transformation of the economy between 1950-73, the period of its most rapid growth. The most important of these were control over foreign exchange, bank finance and directed credit, import controls and protection, restrictions on entry and exit of firms in the domestic market.¹⁰ Another example: The success of the German socialist-green government after 1998 in combating the unemployment is mainly rooted in the fall of the exchange rate of Euro in Dollar.¹¹

The lack of competitiveness of a backwardly developed country causes an excessive supply of its currency on the foreign exchange market. The currency depreciates until the country becomes competitive in an adequate lineup of goods and services which leads to balancing the balance of current accounts through an increase of exports and import substitution. Due to the decline of the terms of trade the country receives less imported goods in relation to the factor of production input in export sector. The economy subsidizes the export production which yields less than before depreciation in relation to factor of production input. The source of subsidizing could be only the remaining, non-export-oriented sectors. Additional workers in the export sector achieve less in international purchasing power than the workers employed in the export sector before the depreciation of currency. They spent their additional income for locally produced goods which were not bought before the depreciation of the currency. An economy can grow via export even if it earns little compared to other economies because every production changes the prerequisites to growth of production. Production improves the workforce, the infrastructure, the locally produced knowledge, and yields a vendible good. Even in the case of little export revenues an economy will achieve progress because export results in a higher level of economic activity, and a higher level of economic activity opens out into the more efficient use of factors of production: a growing level of productive employment with multiplier effects for the internal market and a growing specialization on technically higher developed products with 'learning' as a side effect.¹²

In the European Union the peripheral regions have to compete via subsidies and price of labour, due to the fact that they cannot control the foreign exchange rate which could have been a means of becoming competitive. Nevertheless, the general tendency is that sophisticated activities are located in core regions, with routine production dispersed to peripheries, especially those of the East and the South¹³ which avoids the accumulation of knowledge and a future sustainable development in the peripheral regions and leads to apparent structural underdevelopment.

⁹ Elsenhans, H., Angleichungszwang unter Globalisierungsdruck Teil 1, in: Berichte, Vol. 10, N. 96, Forschungsinstitut der Internationalen Wissenschaftlichen Vereinigung Wirtschaft und Weltpolitik, August 2000, p. 29f.

¹⁰ Singh, Ajit, Asian economic success and Latin American failure in the 1980s: new analyses and future policy implications, in: International Review of Applied Economics (1993), Vol. 7, Issue 3, p. 281

¹¹ Elsenhans, H., Finanzkrise als Chance?, in: Welttrends, Zeitschrift für internationale Politik, Nr. 71, März/April 2010, p. 98

¹² Elsenhans, H., Angleichungszwang unter Globalisierungsdruck Teil 1, in: Berichte, Vol. 10, N. 96, Forschungsinstitut der Internationalen Wissenschaftlichen Vereinigung Wirtschaft und Weltpolitik, August 2000, p. 29f.

¹³ Hudson, Ray, Changing industrial production systems and regional development in the New Europe, in: Transactions of the Institute of British Geographers, New Series, Vol. 27, No. 3 (2002), pp. 262-281

Role of manufacturing sector and local production of investment goods

The declining role of industry and particularly of manufacturing in terms of employment or production is a phenomenon observed in most industrialised countries in the postwar period.¹⁴ A positive explanation is suggested when reference is made to fully employed and highly developed economies. In this case de-industrialisation, measured as the falling share of manufacturing employment, combined with a rising share of manufacturing output in GDP, can be interpreted as the normal and desirable result of the rapidly increasing manufacturing productivity. On the other hand, a negative picture emerges as the contraction of manufacturing industry, measured by its falling share in both output and employment, brings along a displacement of workers from factory jobs to (lower paid) services or (structural) unemployment.¹⁵ The manufacturing sector, and especially the production of investment goods are knowledge-intensive and offer a great potential for learning effects, innovations of new products, new processes and new markets. A growing share of exports brings the advantages of economies of scale which are important in gaining productivity and competitiveness. As the endogenous growth theory maintains the rate of technological progress depends on economic forces and can be influenced by economic policy. Innovations are a result of fundamental science, of economic activities (learning-by-doing) and of R&D expenditure.¹⁶ Many economists support the hypothesis that GDP growth is closely related to growth in the manufacturing sector. Singh, for example, stated that „from the point of view of economic policy ... the central question is to discover the mix of policy instruments (micro as well as macro) which will lead to both a trend in manufacturing investment and its more productive use.“¹⁷ A study on East German types of growth 1996-2005 showed that regions with an above-average share of manufacturing sector belonged to the growth and intermediate regions.¹⁸

Furthermore, a local investment good sector diminishes the dependency on imports which means that a growth of economic output will not lead to a trade balance deficit.¹⁹ There is a fundamental difference between the cost of imported equipment and locally produced equipment. Locally produced equipment can be produced regardless of the price of local labour and other local factors of production without endangering the capacity to devalue the currency, even if imported equipment is cheaper at the chosen exchange rate.²⁰

¹⁴Reuter, N., Der Arbeitsmarkt im Spannungsfeld von Wachstum, Ökologie und Verteilung, in: Seidl, I., Zahrnt, A. (eds.), Postwachstumsgesellschaft, Konzepte für die Zukunft, Marburg 2010, p. 85

¹⁵Louri, H., Minoglou, I. P., A Quantitative Exploration on the Determinants of (De-) Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 397-398

¹⁶Howitt, Peter, Endogenous Growth, Productivity and Economic Policy: A Progress Report, in: International Productivity Monitor, Number 8, Spring 2004, pp. 3-4

¹⁷Singh, A., UK industry and the world economy: a case of de-industrialisation, Cambridge Journal of Economics, 1, pp. 113-136, cited from: Louri, H., Minoglou, I. P., A Quantitative Exploration on the Determinants of (De-) Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 399

¹⁸Kubis, A., Titze, M., Brachert, M., Leuchttürme und Laternen – Ostdeutsche Wachstumstypen 1996 bis 2005, in: IWH Wirtschaft im Wandel, 4/2008, 14. Jahrgang

¹⁹Elsenhans, H., Finanzkrise als Chance?, in: Welttrends, Zeitschrift für internationale Politik, Nr. 71, March/April 2010, p. 98

²⁰Elsenhans, Hartmut, Productivity, Wages, Profits, and Exchange Rates in an Era of Globalization, in: Brazilian Journal of Political Economy, vol. 22, N. 1 (85), January-March/2002, p. 71

Example of East Germany – Mezzogiorno as inevitable perspective?

After the German reunification in 1990 East Germany was promptly and sustainably de-industrialised. In 1992 the industrial production amounted to 34.6 % of the level in 1989. There is a high risk of stabilizing the East German region as structurally and permanently underdeveloped region, in the heart of the European Union.²¹ The currency changeover on 1 July 1990 affected in particular the productive property in the East German region – this changeover has to be considered as a massive currency appreciation which diminished the competitiveness of East German enterprises.²² Nevertheless, the East German experiences and the industrial policy measures applied by the German government draw an ambivalent picture: on the one hand East Germany can become the example of an de-industrialised region par excellence, on the other hand some incentives induced by industrial policy are successful in generating employment and innovations: support of industrial clusters, build-up of research and development networks and co-operations. Due to the fact that traditional instruments of industrial policy, such as control of exchange rates and protection tariffs, are not applicable anymore, the East German experience can demonstrate necessary starting points for economic policies in the EU's peripheral regions.

a) Causes of the backwardness in productivity in East Germany

The analysis of the economic and social development in East Germany shows that the catching-up process stopped in the second half of the 1990s. The GDP per capita amounted to two thirds of the GDP in West Germany in 2009; the investment in equipment and miscellaneous constructions per capita amounted to 55.2 % of West German level in 2007; the labour productivity is only 76.4 % in 2007 - in a nutshell: since 1996 the relative backwardness of East Germany in important economic indicators remains approx. 30 %.²³

²¹ Mai, Karl, Mezzogiorno als die zwangsläufige „Perspektive Ost“? - Zu Konsequenzen aus der wissenschaftlichen Politikberatung, M-0405, S. 4f.

²² Busch, U., Die deutsche Währungsunion am 1. Juli 1990: Bedeutung, Vollzug und Folgen, in: RLS-Standpunkte, Nr. 15, 2010

²³ Busch, Ulrich/Kühn, Wolfgang/Steinitz, Klaus, Entwicklungspotenziale und Schrumpfungprozesse in Ostdeutschland – Aktuelle Probleme der Wirtschaftsentwicklung im 20. Jahr der deutschen Einheit, M-5208, S. 2

Comparison East German Region and West German Region 1989 - 2007

Indicator	1989*	1991	1995	2007
GDP per capita	54,9	33,3	60,4	67,2
Equipment investment and fixed asset investment per capital	x	57,5	98,8	55,2
Capital stock per capita	x	34,8	48,0	70,7
Labour productivity (GDP per employed persons)	44,2	34,9	66,2	76,4
Gross salary per persons in dependent employment	x	51,0	74,4	77,3

*GDR without East Berlin

Source: Busch, Ulrich/Kühn, Wolfgang/Steinitz, Klaus, Entwicklungspotenziale und Schrumpfungprozesse in Ostdeutschland – Aktuelle Probleme der Wirtschaftsentwicklung im 20. Jahr der deutschen Einheit, M-5208, S. 2

Despite high capital subsidization and investment promotion it was not possible to build up an integrated capital-intensive production in East Germany. An additional factor is the structure of branches: the East German economy is characterized by a higher share of branches which have a relatively low productivity such as construction and domestic services, whereas the share of manufacturing sector is relatively low, especially the share of investment goods production in the creation of value. 80 % of all East German enterprises are small enterprises, less than 20 % have medium size, only 0.15 % are large business – a fact which leads to decreasing potential productivity growth because possible economies of scale do not have any effect. Enterprises in East Germany are only weakly integrated in clusters and interconnected in networks, which again avoids spillover-effects and agglomerations-advantages. The low share of exports, lack of technology intensive production and little presence of research and development activities contribute to the little productivity growth the East Germany.²⁴

The innovation potential of East German enterprises remains limited because it is concentrated in the SME-sector. They can produce only part-innovations which will be later integrated in more complex innovative products often by corporations located elsewhere. In addition to that East German innovative SMEs are situated in a de-industrialised area – the consequence is the lack of large and medium enterprises which could offer business services such as research and development.²⁵

²⁴ Busch, Ulrich/ Mai, Karl, Konvergenzbremse Produktivität, Ursachen und Folgen zurückbleibender Arbeitsproduktivität in Ostdeutschland, in: Berliner Debatte Initial 18 (2007) 4/5, pp. 124f.

²⁵ Kowalski, R., Die Industrie in Ostdeutschland, Eigenarten und Innovationsfähigkeit, M-1010, pp. 14ff.

b) Innovative SMEs, Heritage of R&D potentialities, Cluster in the photovoltaic branch

Successful: Promotion of innovative small and medium enterprises

There are around 2.700 enterprises which conduct research and development in East Germany. In 2008 around 76 % of R&D-personnel and 87 % of R&D-expenditure were concentrated in the manufacturing sector. 19.7 % of industrial turn-over was yielded by enterprises which conduct R&D activities continuously, although they comprise only 13.6 % of enterprises. Their annual growth rates of industrial turn-over and their export quota are disproportionately high compared to the total of industrial enterprises.²⁶

Around 80 % of enterprises (of which 94 % are SMEs) that conduct R&D continuously are supported by public funding in these activities (through national, regional and EU-funds; in 2008 82 % received national funding, 56 % regional funding, 19 % EU-funding). Through the promotion of connectivity and cooperation the enterprises' competitiveness can be improved and the necessary technology transfer stimulated.²⁷

Advantage: Heritage of R&D-potentialities

Due to the structure of size in East German enterprises most of the companies cannot afford an own research and development division. The region profits from the fact that after German reunification a considerable part of the former R&D-personnel which used to work in the large state-owned enterprises typical for the GDR, founded external R&D-service-enterprises, a pre-condition for the survival and competitive performance of innovative SMEs (especially in engineering, material science, measurement and control technology).²⁸ A very valuable heritage of the industry of the GDR is the strong intensity of cooperation between SMEs and external research institutions. A lot of sold or hived off R&D production capacities kept in touch with the personnel in universities and research institutions which is the germ for innovative production networks. The East German region is dependent on this kind of cooperation because it lacks historically grown cooperations between large enterprises and SMEs, as in the highly industrialized Western part of Germany.²⁹ Every study on innovative and R&D-intensive enterprises in East Germany proves that these enterprises grow disproportionately fast (turn-over, productivity), increase the number of employees, realize gain. Indeed, they prove to be the future growth potential for the region.³⁰

The manufacturing sector in general shows a positive impact on the rest of the economy: the regions with the highest growth rates in East Germany hold disproportionately high shares in the manufacturing sector, measured in number of employees and gross value added.³¹

Results of case studies show that high-tech enterprises demonstrate high growth potential and have an important impact on the local low- and medium-tech-sectors. All in all, the East German region

²⁶Konzack, T., Herrmann-Koitz, C., Horlamus, W., Wachstumsdynamik und strukturelle Veränderungen der FuE-Potenziale im Wirtschaftssektor Ostdeutschlands und der neuen Bundesländer, FuE-Daten 2005 bis 2008, Berlin, Juli 2009, p. 8 ff, p. 94ff.

²⁷Konzack, T., Herrmann-Koitz, C., Horlamus, W., Wachstumsdynamik und strukturelle Veränderungen der FuE-Potenziale im Wirtschaftssektor Ostdeutschlands und der neuen Bundesländer, FuE-Daten 2005 bis 2008, Berlin, Juli 2009, S. 83 ff.

²⁸ Kowalski, Reinhold, Die Industrie in Ostdeutschland, Eigenarten und Innovationsfähigkeit, M-1010, S. 11

²⁹ Kowalski, Reinhold, Die Industrie in Ostdeutschland, Eigenarten und Innovationsfähigkeit, M-1010, p. 14ff.

³⁰ Kowalski, Reinhold, Die Industrie in Ostdeutschland, Eigenarten und Innovationsfähigkeit, M-1010, S. 14

³¹Kubis, A., Titze, M., Brachert, M., Leuchttürme und rote Laternen – Ostdeutsche Wachstumstypen 1996 bis 2005, in: IWH, Wirtschaft im Wandel, 4/2008, 14. Jahrgang

comes with a small number of high technology enterprises, and even cities which focused on certain high technology segments show only seldom new developments, the patterns of development are rather characterized by path dependency. But the photovoltaic branch is an example showing that the development of new technology paths is possible.³²

Successful: Cluster in the photovoltaic branch in the region Berlin-Brandenburg

In the region Berlin and Brandenburg the photovoltaic industry comprises around 40 enterprises with 4.200 employees (mere photovoltaic enterprises and ancillary industries). Especially on the value-added step of module production we find a concentration of producing enterprises. Almost 40 % of the German production capacities of photovoltaic modules are allotted in the region Berlin-Brandenburg. The enterprises produce for the same clientele which results in a strong competition, which allows the observation of neighboring competitors, technology transfer and the comparison of technological performance. Further advantages of the cluster are the collective distribution and marketing and the build-up of research and development capacities in the area of thin-film technology.³³ The vertical cluster dimension, the agglomeration advantages between enterprises bound vertically is very distinctive in the region. In some ancillary areas enterprises located explicitly in order to benefit from the spatial proximity to the costumers.³⁴ Besides, we find a specialization of research institutions on the photovoltaic branch, new courses of studies were established in the local universities.³⁵

Summary:

1. The de-industrialisation of East Germany is a result of an unprecedented appreciation shock and the destruction of the industrial basis.
2. Since the mid 1990s the catch-up process stopped, and the relative backwardness of East Germany in important economic indicators remains approx. 30 % vis-à-vis West Germany.
3. Although East Germany does not have control over the foreign exchange rate or the imposition of protection tariffs, there are certain starting points for economic policy at the meso-level.
 - a. For the East German region it was shown that enterprises conducting R&D continuously have a disproportionately high industrial turn-over and export quota.
 - b. East Germany benefits from its heritage in R&D-personnel from socialist times. Many of these highly educated people founded their own R&D-enterprises and compensate the lack of big enterprises' R&D-resources. This could be a good example of institutional innovation in the R&D-area.
 - c. Usually we find a development characterized by path dependency, in the case of the photovoltaic cluster East Germany succeeded in establishing a new industry branch.

³²Schwartz, M., Hornych, C., Brachert, M., Hightech-Firmen in Ostdeutschland, in: IWH, Wirtschaft im Wandel, 4/2008, 14. Jahrgang

³³Ebert, S., Brachert, M., Lacasa, I. D., Cluster und regionale Wettbewerbsfähigkeit – Die Photovoltaik-Industrie in Berlin-Brandenburg, in: IWH, Wirtschaft im Wandel, 11/2009, 15. Jahrgang, S. 475

³⁴Ebert, S., Brachert, M., Lacasa, I. D., Cluster und regionale Wettbewerbsfähigkeit – Die Photovoltaik-Industrie in Berlin-Brandenburg, in: IWH, Wirtschaft im Wandel, 11/2009, 15. Jahrgang, S. 476

³⁵Ebert, S., Brachert, M., Lacasa, I. D., Cluster und regionale Wettbewerbsfähigkeit – Die Photovoltaik-Industrie in Berlin-Brandenburg, in: IWH, Wirtschaft im Wandel, 11/2009, 15. Jahrgang, S. 477

Greece – its economic development, deindustrialization and future development potentialities

In the following chapter on Greece we concentrate on the past development and future perspectives of the Greek industry with special focus on the capital goods sector. For any sustainable development path the capital goods sector is highly relevant. Following the postwar period the Greek government was able to build up, although insufficient, a small national manufacturing sector. We will show that these small improvements were destroyed over time following the opening of the Greek national market towards the European Communities from the middle of the 1980s onwards. We can observe an increasing trade deficit, a declining value added in the investment goods sector and a falling share of capital goods' production. For different reasons the Greek state elite opted for a development model which locked Greece in a situation from where it is nearly impossible to develop an own industrial base.

Five Periods of the economic development in Greece after the Second World War

Periods of economic development in Post-War Greece

1. Early post-war period and 1950s, strong devaluation in 1953.
2. In the 1960s the dictatorship period with impressive rates of economic growth, whereas manufacturing sector's share in GDP does not increase. In 1962 Greece was associated with the European Communities (freezing during dictatorship).
3. Democratic transition in the 1970s and economic crisis. The international economic crisis of 1973 led to sustaining high inflation. 1974 the Nea Demokratia took over government after the reinstallation of democracy.
4. The 1980s and the stagflation. From the end of the 1970s stagflation lasted more or less until the mid-1990s. The time of the 1980s can be seen as the attempt of the left PASOK to fulfill sociopolitical democratization. 1981 PASOK took over power under Andreas Papandreu and ruled with small interludes (1989-90 coalition government, 1990-1993 ND government) until 2000. In 1982 Greece became formal member of the European Community. From 1998 onwards Greece participated in the European Monetary System (EMS). On 1 January 2001 Greece gained membership in the European Economic and Monetary Union.

The Greek Comprador Bourgeoisie, organic clientele of the ruling class

Greece suffered from the beginning under its status as a small underdeveloped economy which reduced heavily its room to maneuver vis-à-vis the impacts of the international political economy. Due to this pressure the Greek elite has sought to become member of the growing European Communities. Pagoulatos argues that part of the international power structure is also the elite interaction and the ideological influence, which would offer blueprints for action³⁶. Greece was clearly in the status of a "patron-client-relationship" with the USA³⁷. We argue that Greece had to submit to the pressure of the Western European elite, so the economy of Greece has finally become a peripheral one with nearly no chances to develop.

³⁶ Pagoulatos, G.: Greece's New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p. 3

³⁷ Pagoulatos, G.: Greece's New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p.5; Greece suffered from the well known trade-off of American help: being financially favoured but suffer from "suppressed civil and political rights and a defective development of democratic institutions", something which Greece had to carry with it the entire post-war period (ibid. p. 20)

As the Greek private sector was undercapitalized the public administration had to invest strongly in the financial supply side “to make the development into a less spontaneous and more deliberate process”³⁸. In the case of Greece this surely was a problem as large parts of the elite in Greece were educated in the USA and became ideologically bound to the transnational capitalist class. The rationality of the state bureaucracy in Greece was further destroyed through its internal clientelistic structure, and thus its potential ability to pursue profitable long-term investments. The complete dependence of different socioeconomic groups, most prominently the farmers, on one central public credit facility, led to the political subordination of these groups to the ruling elite.

As mentioned above the Greek ruling elite, especially parts of its oligopolistic capitalistic class (active in the international shipping business) and intellectual elite (economics), represented a typical comprador bourgeoisie which works against middle and long term interests of its own nation favoring its own benefits. The leading faction of each ruling elite does not only need organic intellectuals but also a wider organic clientele for its own legitimation. Pagoulatos identifies the following social strata as belonging to this conservative project: farmers, traders, the new industrial class, the small handicraft and manufacturing sector and the civil sector³⁹.

Personalistic and kinship ties became the structuring element of decision taking and recruitment with the state administration and some strong industrialists as strongest actors, and a non-existent civil society which could have formulated its interests. Clientelism destroys or hinders the development of horizontal solidarity so that the workers movement could be kept at bay, and even today it consists in large parts only of public sector employees who benefit from comparatively favorable working conditions.

Not only the pressure of the Americans is responsible for the failure of the economic policies but also the Greek ruling elites with its attached organic clientele. The internal division of the country and the open suppression of left forces hindered any coherent socioeconomic development. For that reason the Keynesian policies were adopted only in a “crippled” version. Zolota’s doctrine (the director of the Greek national bank for many years) for the economic development of Greece was “interesting [for its] absence of any mention of full employment as an objective.”⁴⁰ The background of the overall anti-labour economic policy was the idea that the “existence of significant labour surpluses offered the additional political advantage of keeping labour demands under control”⁴¹. For a short time the Greek economy nearly reached full employment in 1972-73⁴². In case of high rates of employment the government used the state corporatism to suppress the labour movement. The elite thus managed to keep the real wage increases far behind GDP growth rates.

³⁸ Hirschmann, A.O.: *The Strategy of Economic Development*, New Haven, 1958, p. 8

³⁹ Pagoulatos, G.: *Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU*, Houndmills, 2003, p. 40, Secure and well paid jobs were offered “largely along clientelistic and/or patronage lines ... especially [to] those in the precarious sectors of the middle-class who were educated and unpropertied.” In: *Democracy and the State in the New Southern Europe*, Gunther, R.; Diamandouros, P. N.; Sotiropoulos, D., Oxford, 2007, p. 338.

⁴⁰ Pagoulatos, G.: *Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU*, Houndmills, 2003, p. 33

⁴¹ Pagoulatos, G.: *Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU*, Houndmills, 2003, p. 34

⁴² Pagoulatos, G.: *Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU*, Houndmills, 2003, p. 34

1950 - 1970

In April 1953 Greece devalued its currency from 1:15 to 1:30 vis-à-vis the US-\$ and was thus able to stabilize its own infant-industries and to enhance its international trade⁴³. During this time the main export goods were agricultural products. The small attempts of import substitution industrialisation in Greece were accepted by the USA as far as the American industry could provide necessary investment goods⁴⁴. During the whole post-war period Greece suffered from its status as client of the USA at the forefront of the cold war. Financially this was expressed by its fixed exchange rate with the dollar from 1953-1975. For gaining access to the needed Marshall funds Greece had to obey to the USA which demanded extremely restrictive macroeconomic management in the post-war period (austerity)⁴⁵. Due to the open pressure of the Western hegemon Greece had to become an open small economy, long before its own industrial basis became competitive on the international market. For that reason the successful way of state intervention through industrial policy as the four Asian tigers performed was closed.

Since 1974, with the end of the Greek dictatorship, the poor growth performance of the Greek economy can be explained in part through the worsening of the international economic environment in course of the oil-shock and the end of the pro Big-Business approach of the national government with low wages of workers and farmers.

The 1980s

In the following years inflation was combined with a worsening current account deficit; the new left PASOK government devalued the Drachma in 1983 and again in 1985 in order to strengthen confidence in the currency (a step unprecedented since 1953). To combat inflation throughout the 1980s and to maintain the value of the Drachma after 1985, the government restricted credit and money supply. After 1985 the Greek left government tried to keep the Drachma at an artificially high level in order to contain the cost of foreign borrowing and to reassure foreign investors worried by the size of the public debt and the current account deficit. This policy encouraged imports and discouraged exports and so imposed a burden on producers and worsened the trade deficit again.⁴⁶ From 1980-1982 to 1993 the average growth rate was 1.3 %, 1990-93 even only 0.5 % growth.⁴⁷

The accession to a (supposedly) stable and low inflation currency area “represented the promised land of monetary stability and sound economic policies”⁴⁸. According to Pagoulatos the balance-of-payment constraint has been the heaviest burden on the Greek economy after the Second World War⁴⁹. The lowering of the interest rates, which depreciated already before the access to the EMU, enabled a much easier refinancing of the state and private actors.

In the time following the financial liberalization (1987) until the entry into the EMU (2001) a “hard Drachma” policy was followed. In real terms the Drachma steadily appreciated so the Greek financial sector could reap sizable profits. The policy of real appreciation was the official aim of the policy of

⁴³ Pagoulatos, G.: Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p. 22, 25

⁴⁴ Pagoulatos, G.: Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p. 25

⁴⁵ Pagoulatos, G.: Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p. 24

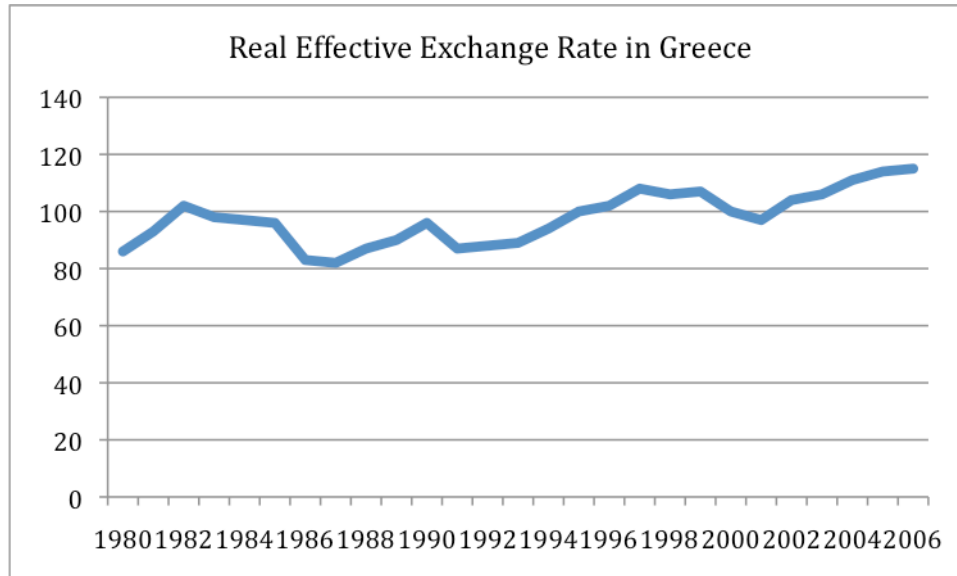
⁴⁶ Close, D.H.: Greece Since 1945, Longman, London 2002.

⁴⁷ Close, D.H.: Greece Since 1945, Longman, London 2002

⁴⁸ Pagoulatos, G.: Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p.129.

⁴⁹ Pagoulatos, G.: Greece’s New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p.168

the monetary authorities to achieve disinflation because a strong inflow of speculative money was visible in the years before 2001⁵⁰. Secondly the aim was to make the refinancing of the credit lines cheaper for the big industrial houses, which had taken up credit from foreign banks in foreign currency. The EMU entry made it necessary to devalue the Drachma in real terms to make the Greek industry competitive again.



Base Year 2000 = 100

Source: National Strategic Reference Framework, 2007-2013, Ministry of Economy and Finance, Athens, October 2006, p. 8

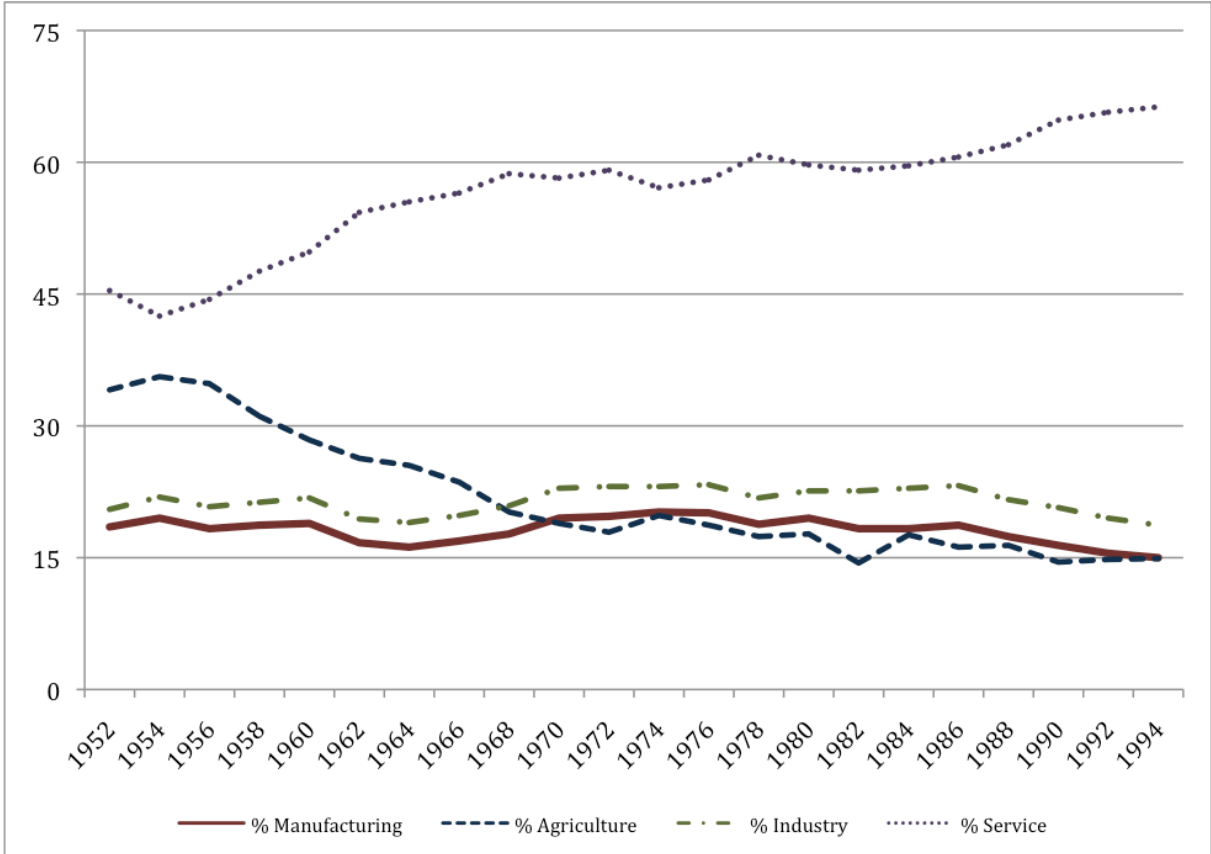
De-industrialisation in Greece

The declining role of industry and particularly of manufacturing in terms of employment or production is a phenomenon observed in most industrialized countries in the postwar period. A positive explanation is suggested when reference is made to fully employed and highly developed economies. In this case de-industrialisation, measured as the falling share of manufacturing employment (combined with a rising share of manufacturing output in GDP) can be interpreted as the normal and desirable result of the rapidly increasing manufacturing productivity. No policy suggestions would be required in this success case. On the other hand, a negative picture emerges as the contraction of manufacturing industry, measured by its falling share in both output and employment, brings along a displacement of workers from factory jobs to (lower paid) services or (structural) unemployment.⁵¹

⁵⁰ Pagoulatos, G.: Greece's New Political Economy: State, Finance, and Growth from Postwar to EMU, Houndmills, 2003, p.145

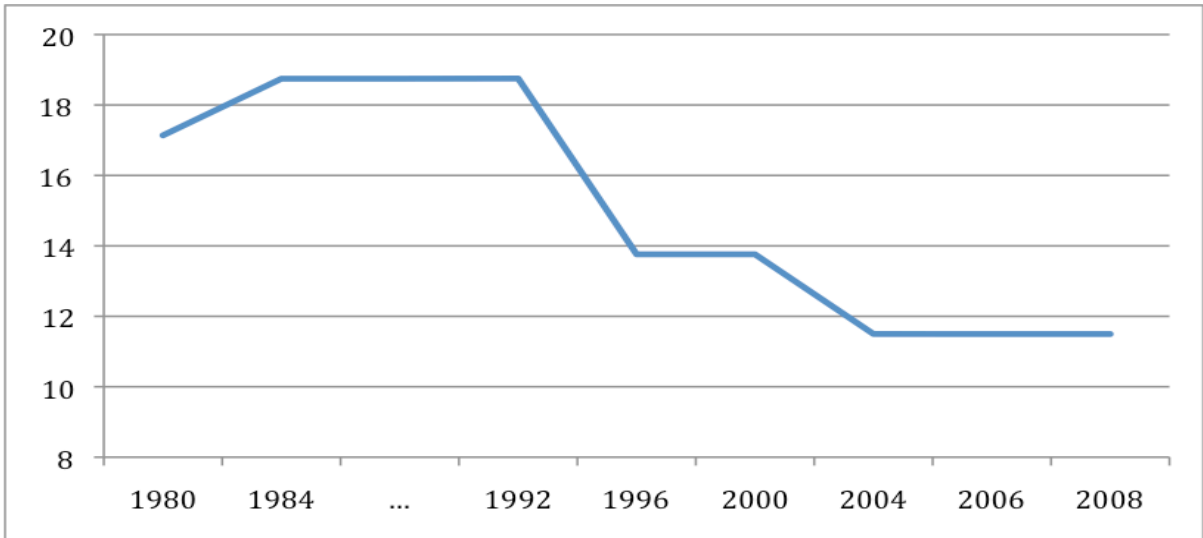
⁵¹ Louri, H., Minoglou, I. P., A Quantitative Exploration on the Determinants of De-Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 397ff.

GDP Structure from 1952 - 1994



Source: Louri, Minoglou, in: International Review of Applied Economics, Vol. 15, No. 4, 2001

Share of Manufacturing Sector in total Economically Active Population, 1980 - 2007



Source: Statistical Yearbook Greece

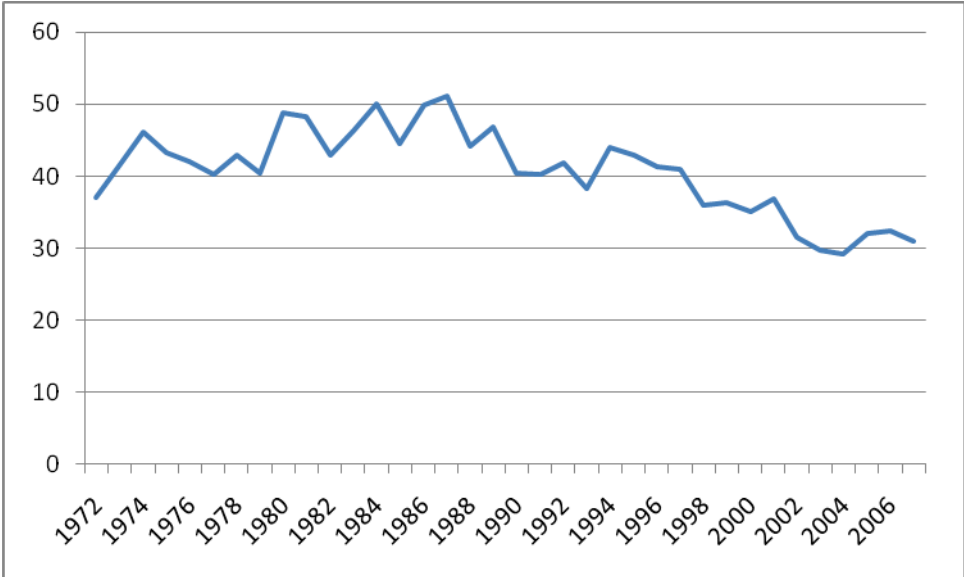
The two pictures above show a slight decline of manufacturing sector’s share in GDP (from 1950-1990), combined with a decreasing share of the economically active population in the manufacturing sector (de-industrialisation in Greece). The picture on the GDP structure reveals that the industrialization ‘boom’ was short and rather hesitant. The peak of the effort took place in the mid

1970s and, since then, the Greek economy seems to have entered a clear de-industrialisation period. Comparisons with other Western economies show that the peak of the industrialization phase in Greece came late, was not impressive and lasted only a short time.⁵²

The growth rate of Greek GDP in constant prices in the 1955-93 period can be divided into two sub-periods of high and low growth. In 1955-73 the average growth rate is a stunning 6.5 % p.a. In 1975-93 the growth rate is reduced to less than a third of that, a mere 2 % p.a., reaching -0.5 % in 1993.⁵³ The growth that appeared in the Greek economy after 1971 derives largely from a growing contribution of the service sector to the GDP, mainly through growth of the state administration and state owned banks.⁵⁴

The Greek economy had been relatively protected from trade until full accession to the EEC in 1981. Heavy tariffs and strong export promotion since 1965 were used to help reduce the trade deficit, which was 15% of GDP in 1961 and 12% in 1971. After the ease of trade barriers after accession, the trade deficit remained around 12% of GDP in the 1980s and was 14% in 1993.⁵⁵

Exports over Imports in Greece: 1972-2007



Source: Statistical Yearbook Greece

The picture shows a growing share of exports over imports until the mid 1980s, then a decline in the export/import ratio. The trade deficit in the 1980s was increased by imports from countries of the EEC as the last tariffs against these imports were removed with the accession of Greece to the EEC in 1981.

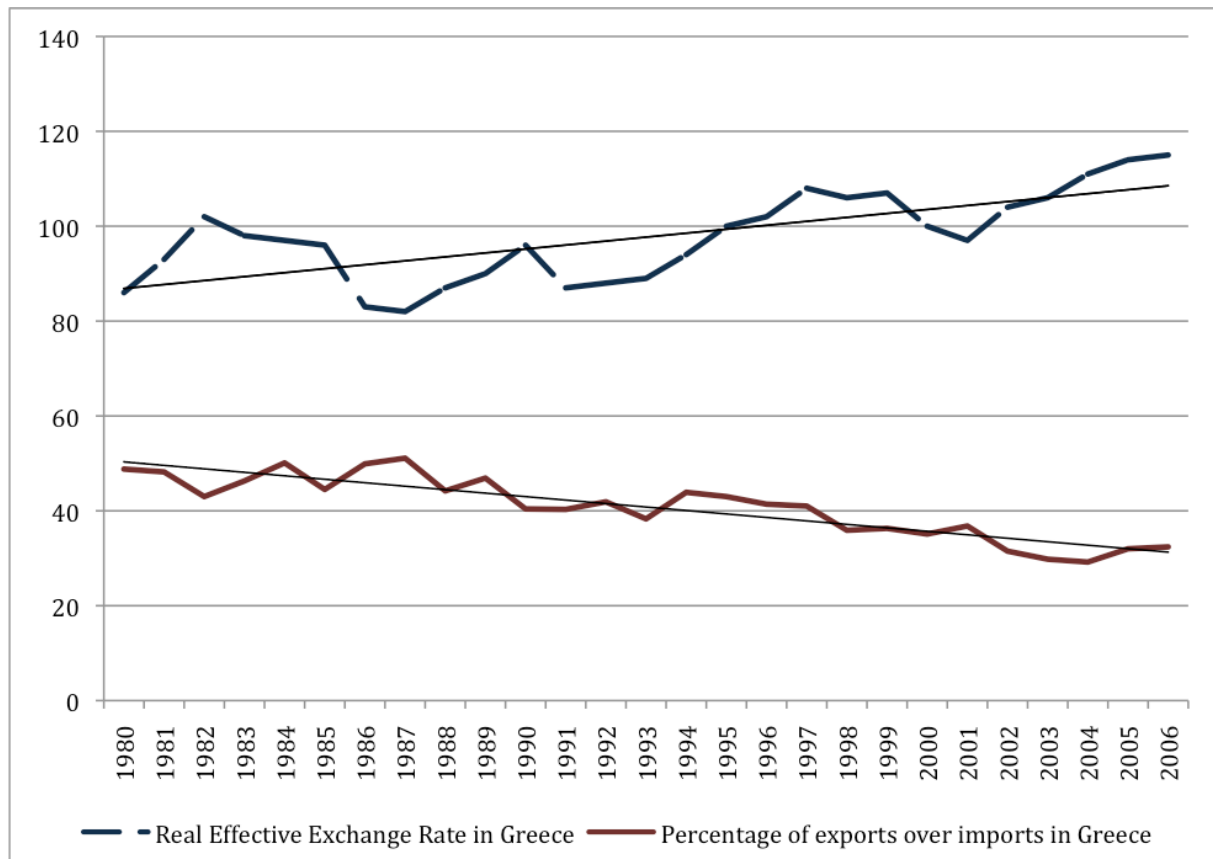
⁵² Louri, H., Minoglou, I. P., A Quantitative Exploration on the Determinants of De-Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 401ff.

⁵³ Louri, H., Minoglou, I. P., A Quantitative Exploration on the Determinants of De-Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 402ff.

⁵⁴ Close, D.H.: Greece Since 1945, Longman, London 2002.

⁵⁵ H., Minoglou, I. P., A Quantitative Exploration on the Determinants of De-Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 403

Greek Real Effective Exchange Rate Compared to the Percentage of Exports Over Imports, 1980-2006

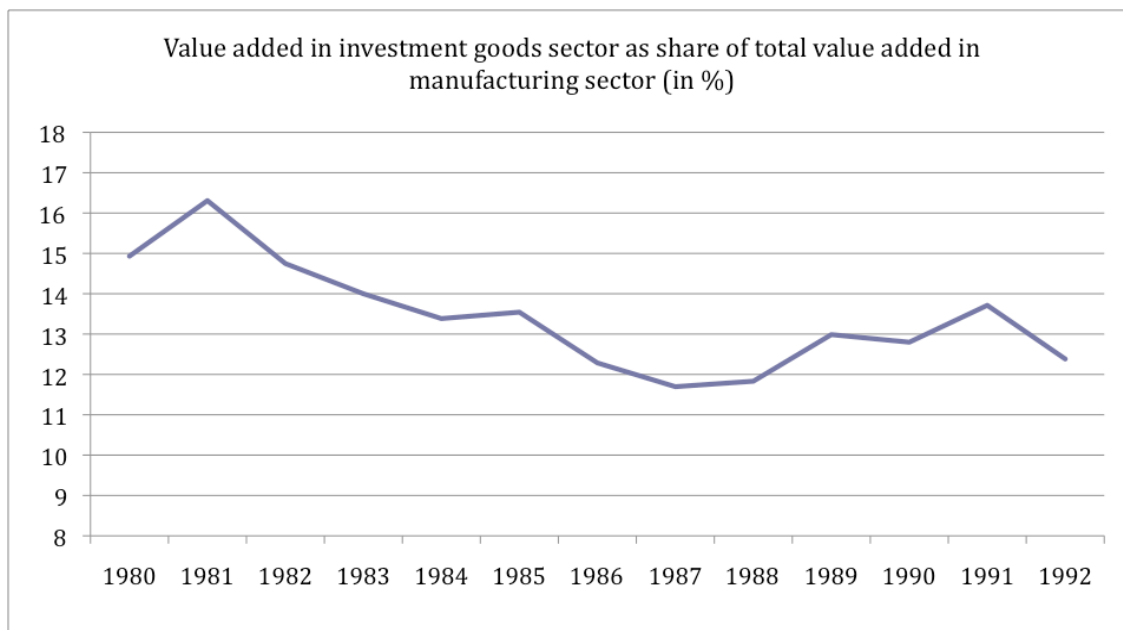


Source: European Commission, *The Economic Adjustment Programme for Greece*. European Economy, *Occasional Papers* 61, May 2010, own calculations

The constant appreciation of the Greek currency led to an equally constant decline of the export/import ratio.

The Structure of Manufacturing sector: the Greek industry recovered after the war with priority given to the manufacturing of consumer goods. In 1955, more than 60 % of the manufacturing output was produced in the food-beverage-tobacco, textiles and clothing sectors. The manufacturing structure was heavily biased in favor of low-technology consumer goods. In 1975, the share of consumer sectors in manufacturing production was reduced to 44.8 %, while the share of the chemical and engineering sectors was increased to 24.5 %. The structure of the manufacturing output became more balanced, showing an increasing share for knowledge intensive goods.⁵⁶ This trend in the changing structure of manufacturing did not continue long:

⁵⁶ H., Minoglou, I. P., A Quantitative Exploration on the Determinants of De-Industrialisation: the case of Greece, in: *International Review of Applied Economics*, Vol. 15, No. 4, 2001, p. 404



Investment goods sector defined as machinery (non-electrical), electrical supplies and transport equipment
 Source: Statistical Yearbook Greece

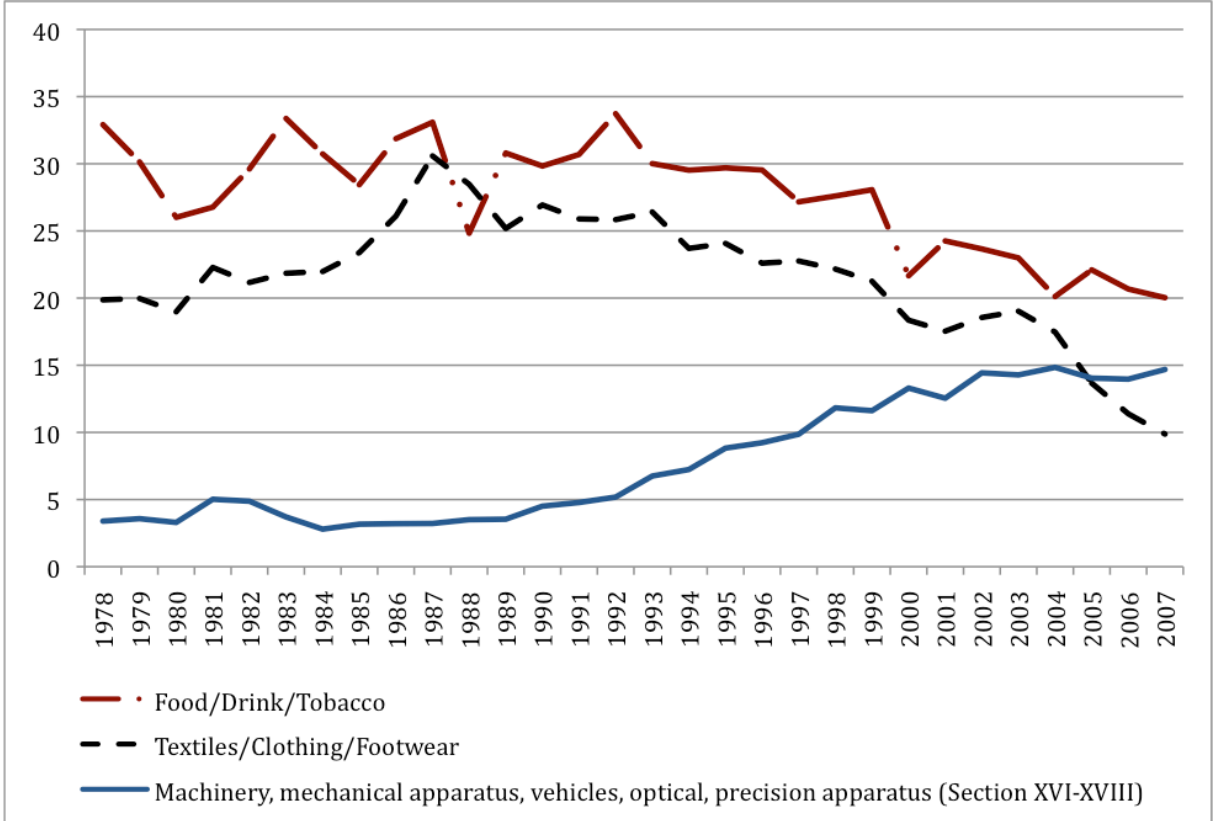


Investment goods sector defined as machinery and equipment n.e.c., electrical machinery and apparatus n.e.c., medical, precision, optical instruments, motor vehicles, trailers, other transport equipment
 Source: Statistical Yearbook Greece

The decreasing share of manufacturing sector in the Greek GDP is aggravated by the fact that the share of investment goods sector (knowledge-intensive goods) within the manufacturing sector has also decreased steadily since the early 1980s. From the pictures shown above it becomes clear that Greece did not succeed in changing the structure of the manufacturing sector from low-technology goods to high-technology goods. If we compare the structure of Greek manufacturing with the average structure of EU manufacturing in 1985 we find that for EU average consumer goods form

only 18.5 %, while technology intensive chemical and machinery group forms 50.5 % of European manufacturing output.⁵⁷

Structure of Exports for Greece, 1978 – 2006



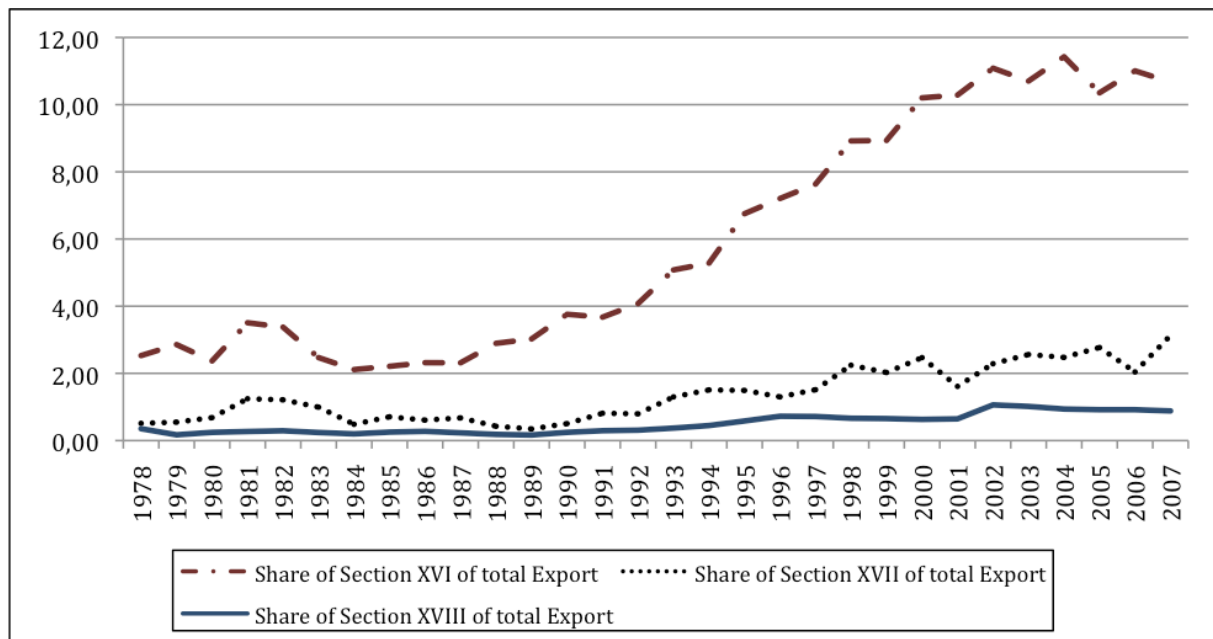
Source: Statistical Yearbook Greece, own calculations

With the entry of Greece to the EEC in 1981, there were enhanced levels of inward investment (Foreign Direct Investments) in the clothing sector. The decline in share of textile, clothing and footwear since the 1990s is due to the new possibilities for spatial fixes which opened up as new production locations with lower labour costs became available in Central Eastern European countries.⁵⁸ Consequently there is a rising share of machines in the total exports, but given the fact that the export/import ratio decreased it could be explained by the slower decline of machines' share in exports than in the textile sector.

⁵⁷ H., Minoglou, I. P., A Quantitative Exploration on the Determinants of De-Industrialisation: the case of Greece, in: International Review of Applied Economics, Vol. 15, No. 4, 2001, p. 405

⁵⁸ Hudson, R., Changing industrial production systems and regional development in the New Europe, in: Transactions of the Institute of British Geographers, New Series, Vol. 27, No. 3 (2002), p. 265

Share of the investment goods sector from total Export 1978-2006 (in %)



Section XVI - Machinery and mechanical appliances, electrical equipment, Parts thereof

Section XVII - Vehicles, aircraft and parts thereof, Vessels and certain associated transport equipment

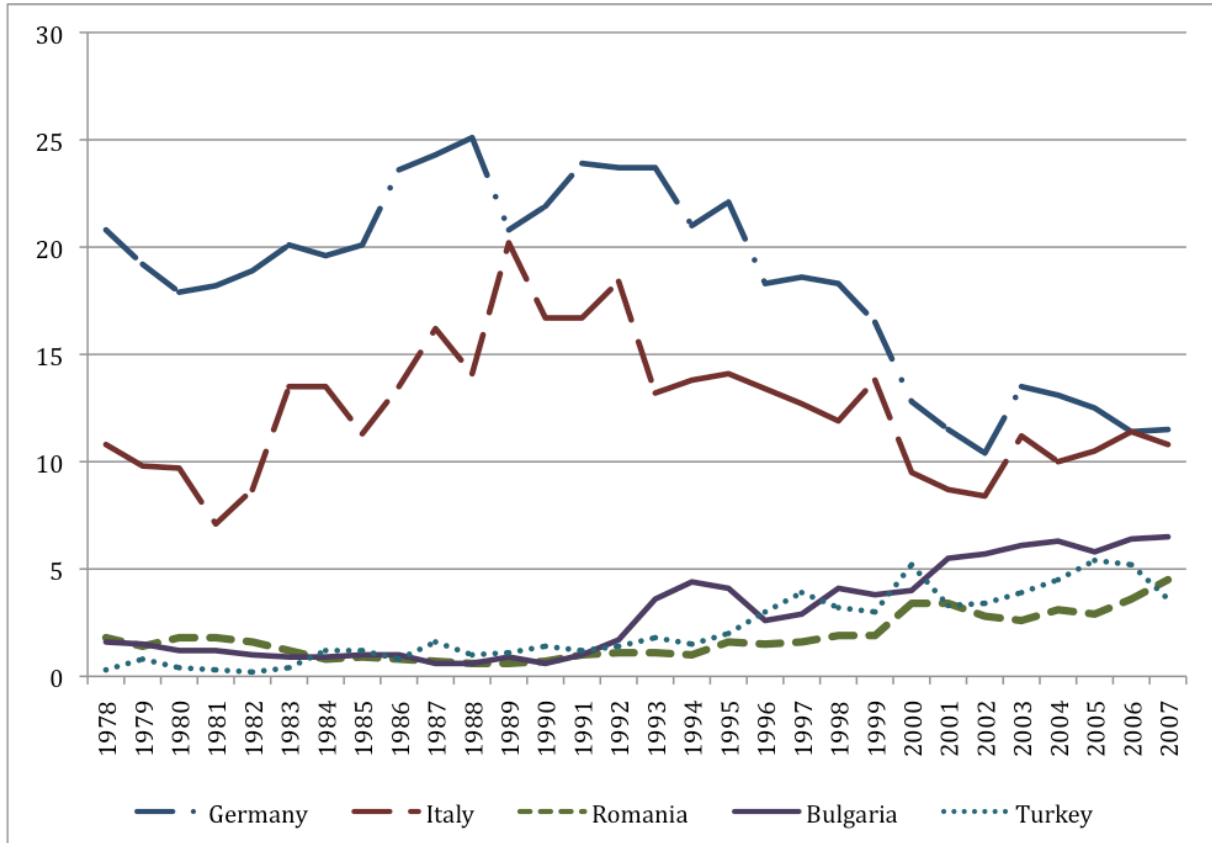
Section XVIII - Optical, photographic, cinematographic, measuring, checking, precision, medical and surgical instruments and apparatus.

Source: Statistical Yearbooks Greece, own calculations

In this graph we can see the development of the export performance of the three different sections of the Greek capital goods sector from 1978 to 2007. It is shown that Greece was able to build up small infant industries with a growing share in exports in the important XVI section which encompasses the heart of the capital goods sector – the machines. But two uncomfortable news have to be taken into account:

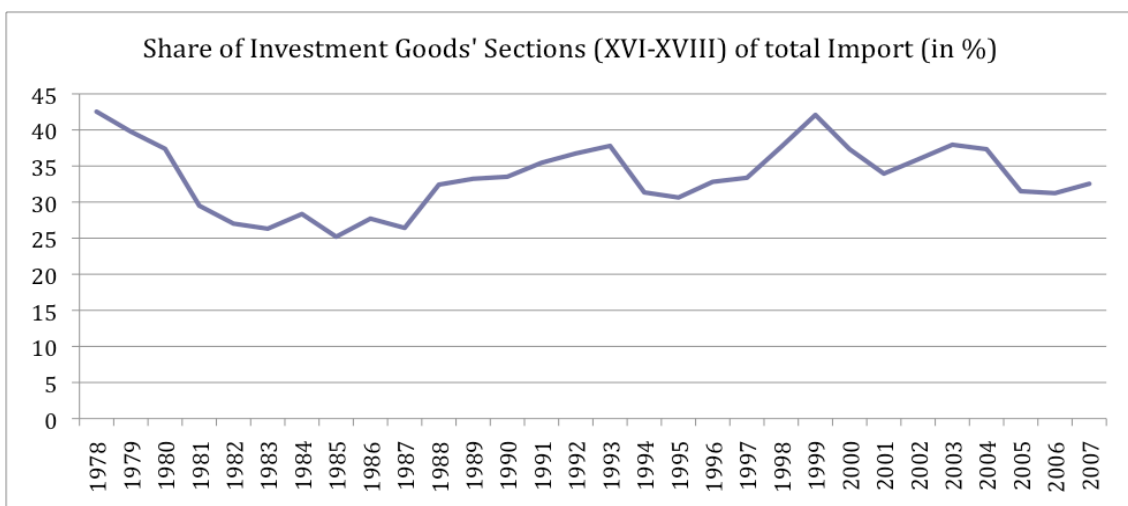
1. The export share of machine rose from 2 percent to only 11.3 % in the best year 2004.
2. From the mid 1980s onwards we can perceive, with a little bit of good will, an exponential growth rate in the export of machines. But since 1998 – when Greece entered the European Monetary System – this growth path was abandoned. Long before the actual financial crisis of the Greek state in the wake of the world crisis after 2008 the end of the growth model became visible. It seems to be valid to make the entry into EMS responsible for the loss of growth in this sector.

Export by Country of Destination, 1978-2007



Source: Statistical Yearbook Greece

As we can see from the two pictures on the structure of Greek export Greece could increase the share of machinery, mechanical appliances and electrical equipment in the total export since the early 1990s. But if we consider the countries of destination it becomes obvious that the Greek industry loses competitiveness. From the beginning of the early 1990s Greece products are increasingly sold in the European periphery (Bulgaria, Rumania and Turkey).



Section XVI - Machinery and mechanical appliances, electrical equipment, Parts thereof

Section XVII - Vehicles, aircraft and parts thereof, Vessels and certain associated transport equipment

Section XVIII - Optical, photographic, cinematographic, measuring, checking, precision, medical and surgical instruments and apparatus.

Source: Statistical Yearbook Greece, own calculations

The picture above shows that Greece remains dependent upon the import of industrial products, especially investment goods such as machinery, mechanical apparatus, vehicles, and optical and precision apparatus.

Dutch Disease in Greece

Pagoulatos argues that the overvalued currency until 1998 has caused a Dutch Disease phenomenon in the Greek industry. In economics, the Dutch disease is a concept explaining the apparent relationship between the increase in exploitation of natural resources and a decline in the manufacturing sector. The theories state that an increase in revenues from natural resources (or inflows of foreign aid) will de-industrialize a nation's economy by raising the exchange rate, which makes the manufacturing sector less competitive. Dutch Disease does not only mean overvalued currency, but means that one sector is internationally competitive even under the overvaluation regime, thus based its success on a rent. Usually this "disease" characterizes so-called oil-states. But to a certain degree even industrialized countries like Germany with its highly competitive sector of chemical and metalworking sectors have these problems regarding the export chances of infant industries like biotechnology. In our case of Greece rent is produced in the tourism sector and the shipping industry. These two sectors lead to a constant flow of foreign currency into the Greek economy.

A couple of problems emerge from the "Greek-Dutch disease"

1. The sectors tourism and shipping are neither knowledge-intensive nor technology-intensive. For this reason they do not allow for accumulation of knowledge and will not generate spillover-effects.⁵⁹
2. The demand for these products is characterized by low price elasticity, which means that the export cannot be stimulated through enhanced technologies and cost reduction (wage cuts). For this reason even the European Commission and Greek industrialists were against a general cut of labour wages in the private sector of the Greek economy in the course of the current crisis.⁶⁰

In the case of Greece the competitiveness of two export sectors lead to a constant appreciation of the real value of its own currency, even in the Euro zone⁶¹. Mario Holzner has compared different countries with a dominant tourism sector like Croatia, Spain and Greece. From 1971 onwards the tourism revenues in Greek GDP remained fairly stable at 3-4 %. The rise of above 5 % started only after 1998 (when Greece entered the European Monetary System). In 2009 18 % of GDP were produced directly or indirectly in the tourism sector, while this sector offered job for 7.5 % of the total work force⁶². Holzner found out that due to an increase in tourism income the agricultural and manufacturing sectors lose output⁶³. The devastating results of Holzner's analysis show that Greece

⁵⁹ On the rent character of this sector see: Buhalis, D., 1999, Tourism in the Greek Islands: The Issues of Peripherality, Competitiveness and Development, in: International Journal of Tourism Research, Vol.1, No. 5, 1999, p.341

⁶⁰ "Greece's export structure is concentrated in exports of services, demand for which is not price elastic..." in: European Commission, The Economic Adjustment Programme for Greece. European Economy, Occasional Papers 61, May 2010, p.21,

⁶¹ Holzner, M.: Fear of Croatian Disease', PhD Thesis at the Vienna University of Economics and Business Administration, 26th of October 2005, Mimeo at www.shadoweconomics.org, p.21

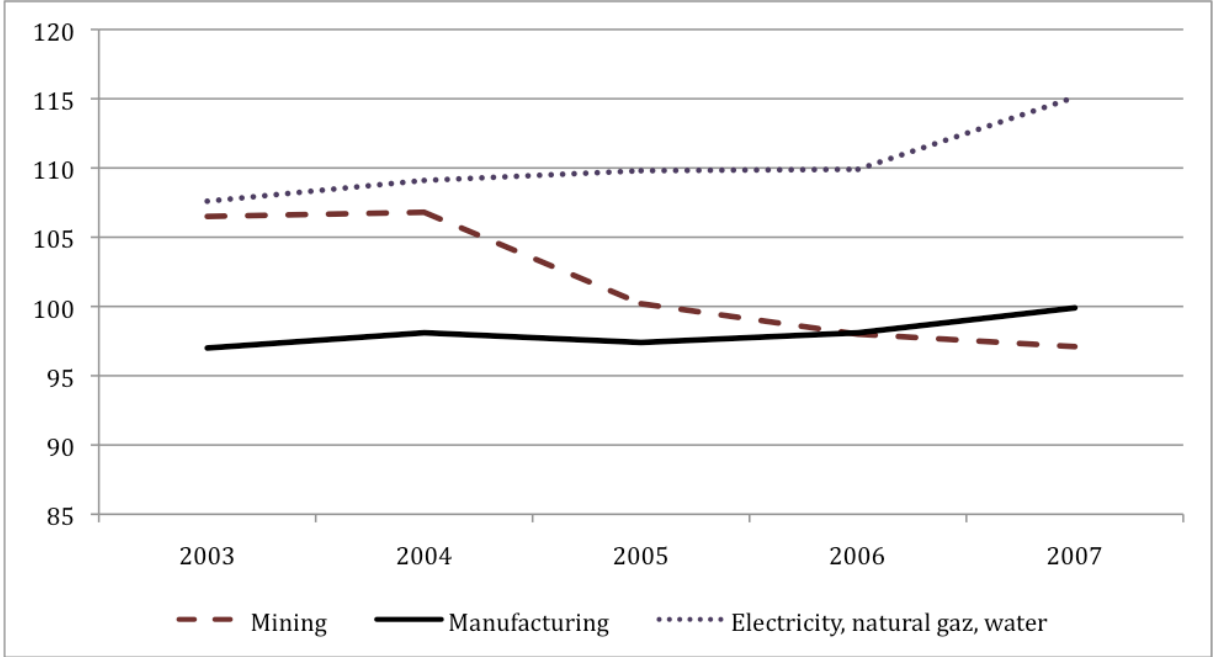
⁶² OECD Tourism Trends and Policies, 2010, p. 167

⁶³ Holzner, M.: Fear of Croatian Disease', PhD Thesis at the Vienna University of Economics and Business Administration, 26th of October 2005, Mimeo at www.shadoweconomics.org, p.21

seems to be the only country where the “Croatian Disease” (a Dutch Disease case with the tourism sector as export good) has negative effects on the manufacturing sector – and could thus rather be called “Greek Disease”⁶⁴.

Evolution of the overall index of industrial production 2003 -2007;_Base Year: 2000 = 100

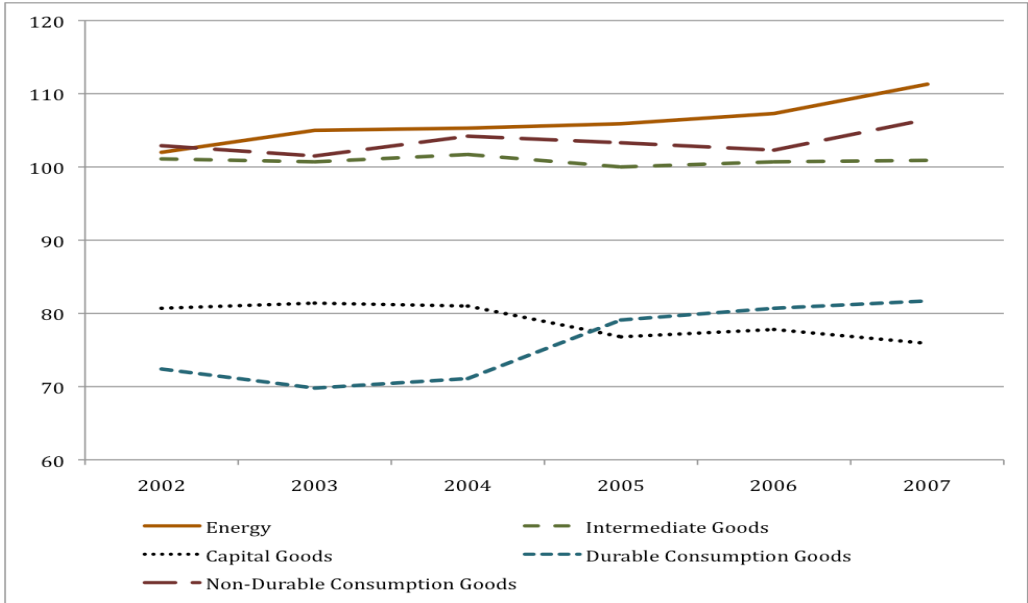
(Weighting coefficient: Mining: 5,9, Manufacturing: 77,5, Electricity, natural gas, water: 16,6)



Source: Statistical Yearbook of Greece, 2007, p. 321

These data show that it took the Greek manufacturing sector six years to reach the level of production it had already achieved in 2000.

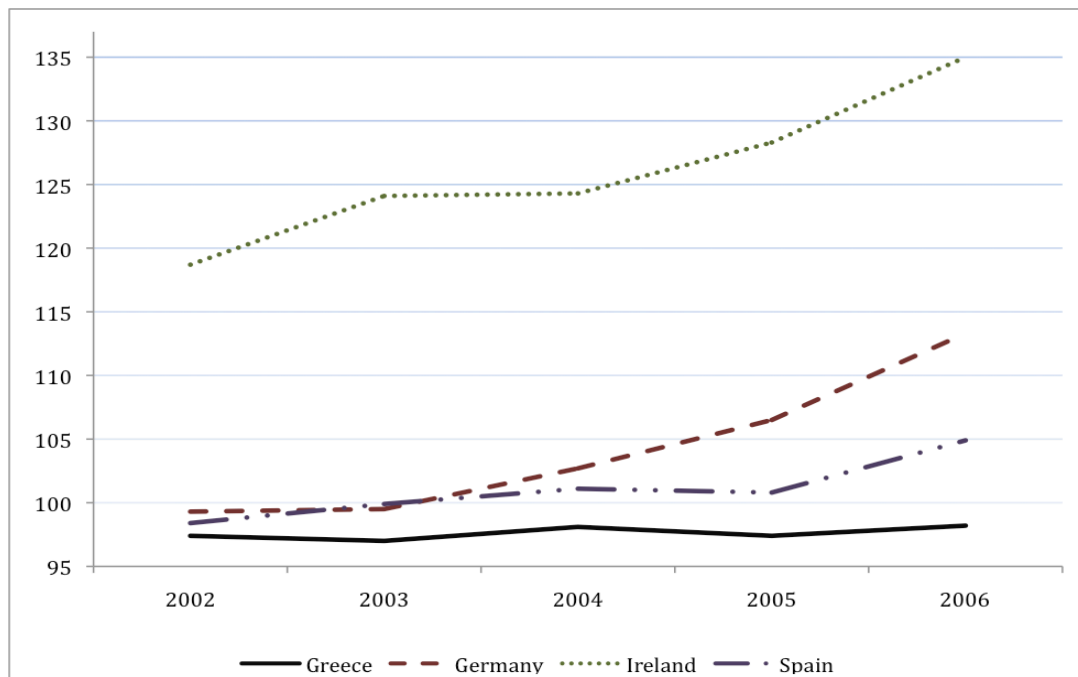
Indices of groups of economic activities 2002-2007 (production); Base Year: 2000=100



⁶⁴ Supporting this: Palma, G.: Four Sources of “De-industrialization” and a New Concept of the “Dutch Disease”, paper presented at the HSRC EGD Roundtable: The Changing Character of Industrial Development: What Implications for Growth, Employment and Income Distribution?, 21 May 2007, <http://www.hsra.ac.za/Document-2458.phtml> (viewed 25.08.2010)

After the introduction of the Euro the energy and non-durable consumption goods' sectors increased their share of production, whereas the capital goods' sector is the only one demonstrating a constantly decreasing share of production.

Indices of manufacturing production of selected countries, 2002-2006; 2000= 100,0



Source: Statistical Yearbook of Greece, 2007, p. 555

This picture reveals that other peripheral economies (Spain and Ireland) were able to increase their manufacturing production after the introduction of the Euro.

Summary:

1. After Greece's accession to the European Monetary System we see a decrease of growth rates export of investment goods. Finally the growth stopped with the introduction of the Euro in 2001.
2. With the accession to the EEC Greece could not impose protection tariffs any longer. Since then the share of investment goods of total imports grew again and thus led to an increased dependency on knowledge-intensive imports.
3. The Greek economy suffers from a special kind of service sector induced „Dutch Disease“.
 - a. Tourism and shipping are neither knowledge-intensive nor technology-intensive.
 - b. The demand for these products is characterised by low price elasticity.
4. The current growth in the industrial production sector derives only from a growth of energy production (electricity, natural gas and water).

Conclusion:

Greece and East Germany belong to the peripheral regions in the European Union; Greece has never been strongly industrialized whereas its situation worsened after the 1980s. East Germany was strongly de-industrialised after the reunification in 1990 (approx. 55% of industrial production vanished within one year). Both regions face similar problems: there is no opportunity of applying and industrial policy in the narrower sense (protection tariffs and depreciation of currency). In East Germany on the meso-level there are starting points for economic policies which have R&D-promotion and the build-up of research institutions as prerequisites. In Greece the fundamental precondition for sustainable growth is not fulfilled, the investment good production as well as the manufacturing sector in general are highly underdeveloped. Only the sectors electricity, natural gas, water, tourism, shipping and public administration show growth – sectors which are not knowledge-intensive, do not offer any learning-effects, no accumulation of knowledge and whose products and services have a low price elasticity.

From the perspective of the current discussion on the future functioning of the Eurozone the question remains how peripheries can catch-up, in particular if they have to pursue austerity policies instead of investing in the future growth potentialities of its economies.