Industrial policy in times of crisis.
The case of Greece.

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INDUSTRIAL POLICY IN TIMES OF CRISIS: THE CASE OF GREECE

1. Introduction

For many years it was acknowledged that the European South (plus Ireland) managed to be very successful in catching-up. However, the analysis of the knowledge basis of these countries showed that their progress as measured with the Innovation Performance Index was much slower and revealed considerable vulnerabilities to the development of a robust knowledge-based economy. The catching-up countries indeed achieved significant GDP p.c. convergence, but to a large extent this process was based on increasing debts or on policies which led to bubbles and invisible debt accumulating processes. Qualitative changes and policies targeting structural issues were slow and weak. Mainstream policies identified structural changes with the liberalization of the labor and product markets. This disparity between catching-up in terms of GDP and lagging behind in terms of production- and knowledge-related capabilities is however extremely relevant not only for explaining the vulnerability of the European South and the broader imbalances in the European economy but also for designing efficient productive enhancing policies.

We can distinguish different policy cycles regarding the productive basis in Greece during the last five decades. The period till the mid 1970s was characterized by high protectionism coupled to changes regarding the shift from agricultural to industrial exports. In the early post-dictatorship period (1974-1985), public policy in Greece attempted to support transformative processes in industry and followed on the one hand an active policy in support of emerging industries (biotechnology, information technologies) and on the other hand a defensive approach concerning the most vulnerable, declining and even inefficient sectors and firms. The policy failure was striking and had a negative consequence: the political de-legitimisation of the state regarding industrial policy interventions. After the mid 1980’s, instead of trying to improve the deficiencies of the policy followed, public policy followed a dual track approach: on the one hand it abandoned largely any significant effort to enhance or to transform efficiently the production basis and moved gradually towards a liberal and demand-driven (Keynesian) attitude vis-a-vis the private activities and on the other hand it followed a strong interventionist and defensive approach regarding the broad area of public related activities. The latter did not take the form of public ownership. Very often it took the form of an extensive formal or informal regulation and intervention on numerous relations between firms, activities and the public domain (central state, local authorities, other public entities). The consequence was that such a policy had no impact on productive changes or on shifting the traditional production patterns to more competitive productive activities.

The weakening of the productive basis was also the result of the exposure to international competition caused by the accession into the E.C. (1981). A larger number of manufacturing firms, especially firms belonging to the upper sizes of different sectors, constituting the core of the Greek industrial system have been eliminated. It was estimated that between 1978 and 1984 medium and bigger company levels diminished while small companies (with up to 9 employees) increased significantly. This effect was contrary to the expectation that accession and the abolition of protection would be harmful to the SME and would mainly favour the bigger firms, which would be able to meet successfully the new competitive pressures.

A similar effect was caused by the Common Agricultural Policy and was related to the agricultural sector. In fact, the inflow of large agricultural subsidies benefited highly to the farmers, but had only weak effects on the modernization of the agricultural sector. It seems that similar developments influenced the development of the agricultural sector also in other member states.

Equally, a significant factor was related to the structure of the many incentives and subsidies which have been introduced by many governments to support new investment, innovation and technological complexity, restructuring, and regional development. Each time the existing economic interests convinced governments to abandon such discretionary policies. Practically all these measures even if in the very beginning targeted new types of activities, very quickly have been extended to all industries and even traditional service activities (e.g. hotels) depriving them of any incisiveness. The result was the accentuation of the fragmented and competitively fragile nature of industries and the delay of their transformation. Public policies concerning R&D could never exceed the limit of 0.6% of GDP, while industrial R&D has always oscillated around 0.1% of GDP, with a marginal impact on the real economy.

In times of crisis and due to the crucial need of new growth engines, the transformative adjustment of broader parts of the productive basis should become a top policy priority. A policy approach seeking to preserve existing firm knowledge and production capabilities, preventing that past capacity building processes are wiped out and creating conditions for sustainable growth, is the key of what under the present conditions can be labelled industrial policies. It establishes the link between growth, the productive system, competitiveness and adjustment policies. The rationale of such a policy is structural and hence different from the rationale of Keynesian approaches which plead for additional fiscal deficits and demand-driven policies to overcome the crisis. It is based on the hypothesis that without structural changes in the production

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basis of Greece, deep imbalances will be a permanent feature of the country and will always prolong the structural barriers to growth.

2. **The rationale of industrial policy to enhance the productive basis.**

Industrial Policy is defined very differently by various authors. In our analysis, following scholars that argue for a systemic approach of industrial policy and relate it to restructuring (Aiginger, 2012, Rodrik, 2004 and 2007, Bianchi & Labori, 2011, Lall, 2004) we consider that in the context of globalization and economic crisis policy initiatives should aim at improving global competitiveness at all levels (micro, meso, macro) aligned at the same time to the goals of social welfare. In that sense industrial policy has to:

a) focus on the transformation of the productive system and the improvement of technological capabilities, shifting production towards more knowledge intensive activities

b) promote new linkages and interconnections among actors,

c) coordinate different set of policies,

d) secure resources to boost investment especially in knowledge-intensive activities and redress activities in regions that were severely affected by the crisis,

e) decide on who will have access to the productivity gains, if created, and how these gains will nurture the restructuring and reconstruction of productive systems that have been severely affected by the crisis.

A critical condition for success is the overcoming of scepticism on the ability of government to design, decide and implement industrial policy. Consensus on specific public actions will avoid to some extent coordination problems and accelerate restructuring.

The rationale of an active or targeted policy aiming at the enhancement of the productive basis in Greece is based on four main considerations:

- The globalized environment and the weaknesses of Greece to deal with the new competitive pressures,
- The development of out-of the crisis policies and the need for a stronger and more complex productive basis as an engine for sustainable growth,
- The need to overcome the trap of low wage cost competitiveness, and
- The rationale from a European point of view

2.1. **The globalization issue**
The way the Greek industrial system copes with transformations in the global economy depends on its specific structural characteristics and the decisions of the different actors involved in the production process over time. This interplay shapes opportunities and blockages as well as the margins for taking advantage of opportunities or overcoming constraints.

The emergence of new markets and competitors, namely the BRICS countries, the increasingly important role of global value chains and the complex interplay between technological change and globalization, constitute at present major challenges for the Greek industrial system. At the same time they determine appropriate fields for industrial policy to become legitimized.

Greece presents a weakness to follow the transformations taking place in the global economy. The rigid transformation of the productive basis towards more complex and high added value activities, incorporating knowledge and innovation, and the conservation of a productive structure dominated by low cost advantages have led to backwardness in terms of the country's competitive position.

Emergence of new markets and competitors

Globalization creates demand opportunities for all countries especially in periods of growth in incomes of trading countries (Athreye, Cantwell, 2007). But even in times of crisis, the international markets can be a major driver of recovery. This may be particularly important for weaker economies because of the limited size of their domestic market, which cannot provide either technological opportunities or a large scale of operations. In addition, export demand provides access to higher income consumers with more sophisticated needs.

Does Greece take advantage of this opportunity? To answer this question we need to look more closely to the characteristics of the productive system in relation with the Greek trade of manufactured goods and their destination.

The main volume of the Greek production is concentrated in low and medium to low tech activities with important contribution to total exports (more than 60% in 2008) although decreasing over the years. Greece presents high revealed comparative advantage (RCA) in MLT and LT products where emerging countries have high RCA as well, with a decreasing competitiveness index over the period from 1994 until today.

The relatively important contribution of high tech group of products to total exports (if compared with Spain and Portugal) is combined with low RCA and a slight improvement of competitiveness. In addition, as far as medium to high tech products

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5 The revealed comparative advantage indicator compares the share of a given sector’s exports in the country’s total manufacturing exports with the share of the same sector’s exports in the total manufacturing exports of a group of reference countries. Values higher (lower) than 1 mean that a given industry performs better (worse) than the reference group and are interpreted as a sign of comparative advantage (disadvantage).
are concerned there is a considerable gap in the contribution to total exports where Greece exhibits one of the lowest values of RCA.

Table 1: RCA by technology category in 2009

<table>
<thead>
<tr>
<th></th>
<th>HT</th>
<th>MHT</th>
<th>MLT</th>
<th>LT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>0.66</td>
<td>0.50</td>
<td>1.45</td>
<td>1.90</td>
</tr>
<tr>
<td>EU-27</td>
<td>0.84</td>
<td>1.14</td>
<td>0.89</td>
<td>1.03</td>
</tr>
<tr>
<td>Ireland</td>
<td>2.05</td>
<td>1.11</td>
<td>0.14</td>
<td>0.66</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.33</td>
<td>0.84</td>
<td>1.09</td>
<td>2.06</td>
</tr>
<tr>
<td>Spain</td>
<td>0.49</td>
<td>1.18</td>
<td>0.93</td>
<td>1.31</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.39</td>
<td>0.71</td>
<td>0.95</td>
<td>2.45</td>
</tr>
<tr>
<td>China</td>
<td>1.49</td>
<td>0.67</td>
<td>0.88</td>
<td>1.30</td>
</tr>
<tr>
<td>India</td>
<td>0.41</td>
<td>0.51</td>
<td>2.06</td>
<td>1.33</td>
</tr>
<tr>
<td>Russia</td>
<td>0.08</td>
<td>0.46</td>
<td>2.97</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Source: European Commission, 2011, “EU industrial structure”.

As domestic demand has shranked during the current economic crisis, globalization can be considered as an opportunity to the Greek economy to recover relying on foreign demand. In this respect, the Greek productive system shows a weak potential to take advantage of the global market. Greece falls behind in terms of a number of indicators that measure and qualify entrepreneurship, innovation, creation and diffusion of knowledge. The country’s ranking in terms of the ease of doing business (78th in 185 countries according to the doing business indicator of the World Bank), the low innovative and research performance (especially of the business sector), the little weight of HT, MHT and KIBS in the overall economy and the weak ties as expressed by flows of funding between actors of the National Innovation System6, denote the problematic situation in capturing increasing global market shares, especially in high value added segments. In that sense, the ‘demand competitiveness’ (Fagerberg et al., 2004) may be low and the country displays difficulties to reap the benefits from globalization.

Global value chains (GVCs)

One distinct feature of globalization is the fragmentation of the production value chain and the possibility of segmentation into niche markets. Geographical fragmentation of production processes results in the emergence of global value chains as firms’ production processes are located in different parts of the world. This trend is of particular importance for the Greek productive system for the following reasons:

i) As there is a high and increasing import dependency of exports, the challenge is to formulate strategies and policies on how to take position in the upper and lower part of the value chains (R&D, design, management, sales services etc.). Firms possessing technological and organizational capabilities and superior

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6According to Erawatch country reports and Innovation Scoreboard, different years.
skills and investing in intangible assets and innovation will capture larger shares of value-added.

ii) The emergence of GVCs may offer new opportunities to SMEs that very often lack the necessary production scale, the expertise and capacity to engage in international trade. They expand their business opportunities across borders, although reaching international markets is not easy for SMEs. Of course the exposure to international markets creates important challenges in terms of management, finance and the ability to upgrade and protect in-house technology (OECD, 2007).

The above issues point to important considerations in terms of policy. Creating and strengthening linkages of local SMEs with firms that are already engaged in GVCs, innovation policies, initiatives for coordinating public and private strategies concerning FDI, are potentially appropriate fields for industrial policy intervention. Industrial policy should address the issue of upgrading industrial activities not only in the sense of reaching higher production efficiency in terms of cost reductions through e.g. squeezing wages, but especially climbing up the value chain and/or deepening the capabilities within the same functions or in additional functions along the value chain (Morison et al., 2008), fostering innovation, learning and technological capabilities.

Consequently, if globalization erodes to some extent the factors and processes that build competitive advantages at the national level, industrial policy can foster the development of national-specific assets and the development of endogenous capabilities that will enable exploitation of market niches at the global level and the use of basic knowledge to generate competitive solutions. In addition, this is also important for attracting FDI as multinational corporations are investing in areas or regions with local specific advantages (Athreye, Cantwell, 2007).

**Economic crisis, innovation and economic performance**

The dynamics of the interplay between innovation, economic performance and the crisis are different in different national economies. Each country is focusing on specific industries where it possesses sector specific advantages. In that sense industrial policy is necessary in order to shape the specialization pattern taking into consideration the local assets and capabilities, the scientific and technological advancements in different domains and the emergence of new markets.

The rapid international diffusion of innovation and the increasing competition on more open markets are changing the environment and imperatives in which firms and public organizations operate and innovate. The ability of firms and public organizations to benefit from technological opportunities offered at a global scale is crucial not only for their competitiveness but also for the National System of Innovation (NSI) as a whole. Conversely, the pace of technological change combined with globalization can erode production and employment in both advanced and less advanced countries.
All actors of the NSI (firms, government, public institutions), in interaction with the productive system, shape the process of technological development and capabilities accumulation. This process results into process and product innovations with contrasting effects. On the one hand process innovation may result to increasing efficiency and job losses and on the other hand product innovation may result to creation of new markets and demand leading to job creation.

The current economic crisis overturns the dynamic relation of technology, production and economic performance through income and demand drop. In addition, financial distress creates very negative conditions for investing in technological development. This effect combined with globalization, changes the shares of the world value added, contributes to job losses, squeezes firms’ turnover and financial resources to the supply side that could generate further technological development and growth. This means that the supply side should not be considered alone and the impact of the economic crisis on technological development, growth and employment is the result of the interaction with the demand side.

In this framework, the dynamic interplay between technological development and macro-economic imperatives in Greece is determined by a number of structural characteristics. There is a long-standing gap between different dimensions of the Greek Innovation System and other European Innovation Systems concerning the creation and exploitation of knowledge and technology.

This gap is reflected to the weak research and innovative performance, the feeble interactions among actors of the NSI and the inadequate potential of new entrepreneurial ventures in contributing to growth. All R&D and innovation indicators show the reluctance especially of the business sector to improve its competitive position through R&D activities but also its incapacity to build endogenous capabilities.
based on imported foreign technology, as innovative performance is one of the weakest in EU. According to different evaluations of national funding programs, it is acknowledged that there is a mismatch of the programs’ objectives and the capabilities required from the participants to succeed these objectives (e.g. technological, managerial, linkage, marketing etc. competencies needed to develop an innovation or absorb transferred technology). In addition, there is a low demand of highly qualified personnel from the private sector, although there is an overabundance of highly educated young people (Lambrianidis, 2011). The demand for research-based knowledge from the private sector has remained low and the same happened with the resources engaged for upgrading the technological content of production.

The further reduction of the manufacturing share in GDP combined with the financial constraints that severely affect the economy as a whole and the business sector more particularly, are likely to further reduce research and innovative activity and lead also to the dangerous pitfall of brain drain.

The problem today, particularly in Greece, is how to boost the ‘virtuous circle’ of technological capability building, capital accumulation and improvement in production capabilities, leading to economic growth. On the one hand anti-crisis policies are calling for fiscal consolidation but on the other hand technology policy and the agenda for an integrated industrial policy are calling for investment in human resources, research and innovation and capability building. Even if this investment is supposed to come from the private sector it remains difficult to see how the private sector will find the financial resources sharp decline of demand, lack of liquidity, reluctance of Banks to lending) in a constrictive macroeconomic environment. With that given, one possibility for industrial policy is to stimulate other funding mechanisms such as venture and seed capital and to redistribute financial resources (e.g. from tax evasion) towards activities that will raise competitiveness. At the same time EU resources from Structural Funds should be directed targeting the modernization of the productive basis and the improvement of technological, organizational, managerial capabilities, extroversion and liquidity (in the short – run).

2.2 The crisis and the rationale of industrial policy

Actually, the key policy question for Greece and the European South is how to overcome the crisis, what kind of changes would be necessary for the transition towards a sustainable post-crisis landscape and whether industrial policy could have a role in this process. To answer these questions, it is necessary to define the underlying cause-effect relationships of the crisis. Typical analysis on the crisis focuses on macro-issues, public deficits and debt, bubbles or financial factors. Many interpretations consider the national as well as the Euro crisis as a macroeconomic issue and as an outcome of macro-economic mismanagement (insufficient macroeconomic and fiscal coordination, neglect of the risk of sovereign default, absence of a lender of last resort, inappropriate monetary policy, insufficient banking regulation, absence of discipline etc).
However, this is a partial approach. It disregards significant additional parameters of the crisis. Besides its macro-economic parameters, the crisis has been also provoked by endogenous structural factors. It is the interplay between macro-imbalances and structural (or micro) factors which determined the specificity of the crisis in Greece.

Indeed, the crisis in Greece (and in other crisis countries) was primarily a result of domestic macroeconomic mismanagement and of institutional mismanagement by the Euro-zone. However, it was also an outcome of the long-term accumulation of structural weaknesses, policy options, broader social and political attitudes and behaviours. The crisis was a mix of fiscal, structural, competitiveness and political crisis, national and European, even if at a different extent for each player. The direction of causality between debt and the crisis is not univocal. The two main drivers of the crisis - the fiscal and competitiveness imbalances - were in many ways closely related to the development of the productive basis of the economy, indicating a circular causal relationship between the crisis and the productive system. As said, the crisis weakened the productive system but equally, the long-term weakening of the productive basis made the economy more vulnerable to the destabilizing effects of the crisis. In effect, the weakening of the productive basis and competitiveness had an adverse impact on the external balance and growth and pushed governments to counterbalance this potential adverse outcome by increasing public spending and deficit and using debt as leverage for growth. This was an easy way to expand social expenditures, to boost growth and investment policies, to enlarge the public sector, but also to tolerate tax evasion and follow inefficient governance practices, as a way to gain political support from the interested social and economic agents. As a result, basic economic relations became unsustainable, broader economic and political relations have been destabilized over time and the economy collapsed.

The production structures of the country were marked by the following changes after the oil crises of 1973:

- A continuous shrinking of the agricultural and industrial sector, the share of which in the GDP declined from 49.7% (1970) to 16.8% (2011), and a growing correspondent expansion of service activities (including the public sector) in the GDP (from 50.3% in 1970 to 83.2% in 2011).

- An increasing weakening of the production of tradable goods and services, due on the one hand to the shrinking of agriculture and industry and on the other hand to the fact that apart from tourism services, a large part of the tertiary activities are weekly related to technology and innovation factors and is not producing directly or indirectly services used in the tradable sector.

- A continuous deterioration of the competitiveness during the longer period (1980-2009).

- A loose incomes policy followed after 2000 which led to a cumulative differential between Greece and the Euro zone in terms of inflation, export
prices and unit labour costs, undermining the competitive basis of the economy.

In fact, Greece is characterized by a rigid production pattern in manufacturing, reflected in the low similarity indices of its export structure in comparison to Spain, Portugal and Ireland. The shift of the manufacturing basis from simpler to more intensive technological types of productions and exports in comparison to the other southern European economies and the weak export orientation (share of exported goods and services to GDP) of the Greek economy were relatively slow. Innovation and technology policy as well as policy regarding the qualitative aspects of production were widely neglected. As a result, modernization, differentiation and complexity of the productive basis remained weak, and Greece's international specialisation centred on low or low to medium technology goods. The effect was reinforced from the massive inflow of unqualified low wage migrants. This favoured the rigidity of production structures and was an incentive for firms to continue on production areas and processes, the competitive position of which was determined by low qualification and wages, but which exactly for this reason experienced a continuous weakening of their position vis-a-vis world competitors.

Table 2: Export structure of Greece, Portugal and Spain (2011)

<table>
<thead>
<tr>
<th>Product group</th>
<th>Greece</th>
<th>Portugal</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural products</td>
<td>9,7%</td>
<td>7,2%</td>
<td>8,5%</td>
</tr>
<tr>
<td>raw materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law tech products</td>
<td>18,9%</td>
<td>26,1%</td>
<td>18,4%</td>
</tr>
<tr>
<td>Low to medium tech</td>
<td>51,8%</td>
<td>31,1%</td>
<td>26,4%</td>
</tr>
<tr>
<td>products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium to high tech</td>
<td>11,2%</td>
<td>28,6%</td>
<td>38,7%</td>
</tr>
<tr>
<td>products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High tech products</td>
<td>5,5%</td>
<td>5,1%</td>
<td>5,4%</td>
</tr>
</tbody>
</table>

Source: Eurostat.

Table 2 shows that about 80% of Greek exports belong to low or to low/medium tech products while the share of medium to high tech exports is around 11%, far belong the correspondent figures of the two other South European countries. Structure determines performance and the competitiveness of Greece lags substantially behind that of the other countries represented in table 3.

Table 3: Competitiveness Indices (Balassa) by product groups (2008)

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7 T. Giannitsis, S. Zografakis, I Kastelli, D. Mavri (2009), Competitiveness and Technology in Greece, p. 50.

8 The remittances of ship owners to Greece have been omitted, because a large part of them does not represent strictly receipts from export of services which reflect the productive and competitive advantages of the country. Equally, trade in oil products and the registration of ships, have not been taken in consideration, because they cause a larger distortion on the trade and competitive relations.

9 The index has the following form: \((X - M) : (X + M)\) (\(X = \) exports, \(M = \) imports).
<table>
<thead>
<tr>
<th>Product groups</th>
<th>Greece</th>
<th>Spain</th>
<th>Portugal</th>
<th>Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural products-raw</td>
<td>-0.512</td>
<td>-0.357</td>
<td>-0.468</td>
<td>0.413</td>
</tr>
<tr>
<td>materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law tech products</td>
<td>-0.364</td>
<td>0.042</td>
<td>-0.039</td>
<td>0.135</td>
</tr>
<tr>
<td>Low to medium tech products</td>
<td>-0.387</td>
<td>-0.333</td>
<td>-0.246</td>
<td>-0.363</td>
</tr>
<tr>
<td>Medium to high tech products</td>
<td>-0.720</td>
<td>-0.118</td>
<td>-0.234</td>
<td>0.046</td>
</tr>
<tr>
<td>High tech products</td>
<td>-0.675</td>
<td>-0.378</td>
<td>-0.494</td>
<td>0.342</td>
</tr>
<tr>
<td>Total</td>
<td>-0.515</td>
<td>-0.200</td>
<td>-0.229</td>
<td>0.118</td>
</tr>
</tbody>
</table>

Source: Giannitsis et al. 2009. Data from Eurostat.

From a policy view, the specification of the determinants and the broader effects of the crisis are crucial for delineating areas of potential policy intervention. It makes a big difference if the crisis is determined by macroeconomic factors or if it is the outcome of a combined failure of macroeconomic and structural factors. In the first case macroeconomic policies should be at the centre of anti-crisis policies. In the second case the rationale of policy choices has to be defined in terms of a compatible mix of stabilization and pro-active or targeted policies regarding industrial structures.

Overall, the weakness of the market and the weak capabilities or interest of the firm’s sector to create a sustainable, competitive, growth and resistant productive system, the deepness of the crisis caused by the weak productive basis, the negative impact of the crisis on the real economy and the crucial role of growth for successful out-of-the crisis strategies are interrelated and show the necessity of a more active policy to enhance the productive system. The inefficiency of policies regarding production transformation, adaptation to the new competitive pressures, development of technological and innovative capabilities, more transparent institutional structures and the attraction of foreign direct investment in technological more sophisticated, tradable, products and services, was probably one of the most decisive differences between Greek policy and policy in many other European countries.

The policy failures as measured by the magnitude of the crisis, the bubbles, the extent of unemployed, the decline of GDP, the wider destabilization of the euro, the broader increase of inequality in Europe and/or the decline of competitive capabilities in broader regions of the Continent imply crucial and systemic failures. Hence, to deal with the present situation and to enter a path of stable and self-sustained balance between macro-stability and recovery, policy should consider a broad range of key issues extending from economics to politics, regarding social values, expectations, potential or actual social reactions and social attitudes and the economic behavior of the business sector as well.
Consequently, the rationale of an industrial policy for Greece is double edged. On the one hand such a policy has to tackle the causal structural -production related- factors of the crisis but on the other hand it has also to address the adverse structural consequences of the crisis or even of erroneous policy decisions during the crisis. Once generated, the crisis has strong implications for the productive capacity of the economy, the firm sector and employment. In particular since 2009, the crisis causes severe destructive effects on the productive basis and the micro-structures in Greece leading to a shrinking of its real economy and affecting its future growth and perspectives. The productive system and firms are faced with a deterioration of all macro variables: demand is slumping, salaries and profits are squeezed, firms face severe liquidity tightening and increasing borrowing costs, the liquidity shortage of suppliers and customers adds to the general liquidity problem and creates higher risks for the productive system, while knowledge-based investment and investment in general are significantly constrained because of the uncertainties, the risks and the cost of capital.

The recession or even the depression presents a strong risk for many productive activities, in particular for middle- and high-knowledge intensive firms, the birth and expansion of new types of products and the viability of existing firms as well. As a result, in contrast to the Schumpeterian concept of ‘creative destruction’ the crisis causes wider ‘destruction’ effects, making the exit out of the crisis longer, harder and more complex.

Contrary to such a more differentiated policy mix, European and national policies are concentrated predominantly on macro-issues and the Memoranda implemented in Greece focus mainly on fiscal and macro-adjustment. Recovery is expected to result from consolidation and deregulation policies regarding wages and the labor market. Probably, the acknowledgment of structural issues would contest the dogmatic nature of the adjustment recipes, favor alternative policy approaches, and destabilize the prevailing policy concepts. However, the Greek economy is faced with problems of production orientation, modernization, structural competitiveness and export orientation and the asymmetry between micro-, structural and macro policies and the gap between policy conception and the economic and social reality indicate the necessity to develop efficient policies aimed at dealing also with the structural issues of the economy.

As it is, Greece needs a sustainable growth of at least 3% in the long-term in the aim only for servicing its debt. Otherwise, fiscal consolidation will crumble and vice versa. Growth rates will not be achieved on the basis of the existing productive structure of the country and the policies and practices of the past. This option is not open any more. The growth rates of the past were the result of a growth-cum-debt process, which was unsustainable and has been broken. A new strategy is needed for regaining stability and competitiveness. This strategy needs to reinforce innovation, middle and high skill oriented activities, export orientation and to aim at making the Greek economy more competitive. The crisis showed, that although technological
capabilities and factors are not linearly related to the quantitative aspects of growth, they nevertheless have a serious large impact on its qualitative aspects (structural imbalances and deficits, weak sustainability against shocks, ambiguous trade-offs between growth and other variables, such as debt, inflation, competitiveness).

Such deeper structural changes imply the necessity of reforms regarding the patterns of allocation of resources, institutions, administrative procedures, transparency, respect of the law and attitudes on the role of the State and the State-Market relationship. Inertia and unwillingness to understand the changing realities always have been a factor of falling behind in the history of development. Consequently, reform policies have to take also into account the necessity to enhance “capacities for change” within the policy system and the society, aiming at supporting the necessary transformations.

During the recent years reforms have been implemented in crucial areas such as labour relations, opening of protected service activities, pension system, health, public sector. All these reforms and changes have been resisted from the Greek society, as most of them implied income and welfare reductions for broader parts of the population. Nevertheless, it is appropriate to distinguish reforms which basically are supporting consolidation policies and reforms aiming at the enhancement of growth. Both can generate growth effects, however each approach is associated with different public policies and is faced with different social perceptions, consequences and reactions.

It is argued, that the description of the problems does not imply that industrial policy would be an efficient instrument to deal with the issue. However, the description of so significant failures show that something in the past went wrong and it is utterly important to change course, to avoid similar mistakes and to develop more efficient policy ideas. No doubt, there are two questions to be answered: first, ‘why and what kind of public policies?’ and second, whether the public sector is able or willing to implement efficiently the necessary policies. Both these questions cannot be answered in abstracto. The answers depend on the specific realities and environments in each country.

2.2. The need to overcome the trap of low wage cost competitiveness

The internal devaluation policy which has been imposed on Greece through the Memoranda is based on the consideration that the loss of competitiveness can be counterbalanced by wage cuts. Wages and salaries about over thousand Euro have been cut by over 30%. It is estimated that by the end of 2013 the labor cost of Greece will fall at the level of 2001/2. However, although wages and salaries in Greece exceeded indeed significantly the corresponding evolution in the other Euro zone countries, the efficiency of such a policy beyond a certain level is questionable. The structure of the Greek production and exports, as showed, is by itself a hindrance for export growth. To the extent that the productive system and the competitive
advantages of the country remain stuck on low wage cost products and services, Greece will face difficulties to break away from the low wage trap.

Even more, the country will face difficulties to achieve higher competitiveness levels, since its structural production features hinder endogenously such an outcome. Although cost competitiveness should be restored for short-term reasons, in the longer term the question is how to overcome the weak ‘structural competitiveness’ of the country. Today, despite the excessive wage cuts and the pressure of the recession on firms to reorient their sales to foreign markets, exports of goods during 2012 and the first half of 2013 did not exceed the level of about 3%-4%.

2.3. The European rationale for the enhancement of the productive capabilities

The rationale of an industrial policy has to be considered not only in terms of national goals but also of the sustainability of the European system as well. The recent crisis showed how important for Europe is to reduce its internal macroeconomic, productive and technological divergences. Under the actual institutional conditions, the persistence of large intra-E.U. productive gaps exerts an adverse impact on the macro-performance of the E.U. (in terms of macro-imbalances, productivity levels and competitiveness) and impacts the stability of the euro and the integration process, not only from an economic but from a social and political point of view as well. It has been showed that countries were more hit by the crisis the lower manufacturing base had been, the more this sector had eroded over the past years and the larger the current account deficit had been at the start of the crisis10. Once the crisis hit, growth capabilities, debt and current account deficit became the proxies for financial markets for the ability of a country to service its debt. The rising euro skepticism and of extreme right political parties are the most apparent expression of the non economic risks generated by the policy failures. Rebalancing and growth are today crucial issues, not only from an economic view, but also from the view of preserving democracy, social values and European cohesion within tolerable limits.

In fact, the present crisis raises the question why the technologically weaker countries are faced with deeper imbalances and drawbacks, to what extent their knowledge and technological base and capabilities are a crucial factor for their broader economic performance and how this affects the overall performance of the E.U. The present experience shows that the qualitative aspects of an economy (structural imbalances and deficits, weak sustainability against shocks, ambiguous trade-offs between growth and other variables, such as debt, inflation, competitiveness) and the degree of convergence or divergence within Europe has a broader impact on the stability and the sustainability of the common currency. The issue becomes particularly relevant for

the actual period, since the European Union after nearly thirty years of broader convergence process experiences a deep setback, bringing the crisis countries in terms of p.c. GDP by about ten to twenty years back.

Deep divergences or divergence dynamics among the Euro zone countries related to crucial determinants of the stability of the currency area, such as competitiveness, productive and technological capabilities, the efficiency and effectiveness of public policies, capabilities of adaptation to the evolving challenges, fiscal balance, productivity performance and growth, constitute factors which obviously reflect national differences. However, they also show that basic structural relations cannot be so different between member countries, without impacting the functioning of the broader system to which these countries are part of.

As a result of the destabilization caused by the crisis, the Euro zone has actually lost one fundamental dimension of its rationale. The common currency was introduced in the aim to lower the cost and increase the competitiveness of European production. Indeed, during the 2000s capital cost was significantly reduced but it proved that Euro policies could not sustain this change. However, the crisis brought the individual countries back at a stage before the EMU. Many countries in the South are faced with high interest rates, much higher than the core Euro zone countries. Moreover, in many of these countries very often banks are just unable or unwilling to lend at all. Hence, for the crisis countries the Euro area failed to provide one of its most critical benefits. How could this asymmetry hold? High capital costs cannot be expected to affect positively production enhancing policies and hence convergence processes within Europe. The crisis initiated an era of deeper intra-European divergence, the evolution of which cannot be forecasted. How could the weaker countries compete within the framework of the common currency with so much higher capital cost? What would be the implications for competitiveness and stability of the system in the long term?

3. **Inside the Box of Industrial Policy**

Industrial policy has to address the following issues: a) the necessity to enhance the drivers of economic growth, b) to improve competitiveness and the external imbalances, c) to create new employment opportunities and d) to reverse the trend towards poverty and inequality, which was caused by the recession and the consolidation policies. The complexity of the crisis and the national structural weaknesses are such that policy has to tackle efficiently all issues and that success depends on the parallel progress on all these issues. One lesson of the Memoranda of the last years was that fiscal consolidation under conditions of high negative growth rates will cause excessive economic, social and political cost, and that, inversely, under conditions of very high indebtedness; growth without sustainable fiscal
management is utopic. Equally, high and increasing unemployment destabilises significantly the social and political conditions, and hence, the possibility of efficient macro and structural policies while growth, employment and reduction of poverty and inequality cannot be achieved under conditions of weak productive and competitive capabilities.

In this context, industrial or targeted policy should take into account the time dimension. The path out of the crisis will be long and complex. Therefore it is important to distinguish policies and measures the impact of which would be realized in the short term and those, the effects of which would be rather of a medium to long term nature. Briefly, it is urgent and crucial to follow a multifaceted strategy. The effects of an industrial policy are by definition of a long term nature. However, in the short to medium term it is necessary to enhance the credibility of policymaking and to prevent a political and/or social gap, which would undermine the creditability of medium to long term oriented policies. Notwithstanding this risk, the lack of efforts to change the structural weaknesses of the economy would impede both consolidation and the growth process and would maintain the risk of low economic performance and his destabilizing social and political conditions.

In the following we distinguish eight issues, which under the present conditions should constitute a high priority of an industrial policy:

1. To enhance productivity of the existing firms and production processes within both the entrepreneurial and the public sector.

Higher productivity of the firms would reinforce their competitive position in both the external and the domestic market, would remove the pressure to use wage and salary cuts as an instrument to enhance productivity, improve profits, liquidity and investment opportunities, increase employment in the mid-term and if successful, improve also the public receipts and the deficits of the pension funds. Infrastructure, information, collective facilitations, bureaucratic procedures, systematic support through agencies and incentives, especially on issues of quality control, transport systems, innovation and technical change, patents and tax administration are some examples of possible instruments which could improve the productive structures of the country.

In view of the liquidity and financing shortage, efforts to improve the internal productivity would require much lower financial means than expansion investment. Equally, the broader uncertainties which still characterise the country would possibly have a weaker impeding effect on efforts to enhance firm productivity than on typical investment expansion.

Productivity targeted policies in the broader public sector (government, local authorities, public enterprise, public service organisations, such as hospitals, pension funds, education entities) would also have a beneficial impact on the productivity and the competitiveness of the business sector, since many of its
inputs such as energy, transport, infrastructure and administrative services, are offered and priced by public entities. It would also diminish the public deficits and indirectly the macro-imbalances.

It could also be argued, that an improvement of the productivity of the public sector could have even more significant effects, if it could be associated to real changes with regard to some broader conditions of policy making, such as:

- A rationalisation of political decision making processes,
- A different mix between the systematic preference of governments for the short-term at the expense of longer term societal considerations,
- A substantial reduction of corruptive and/or useless bureaucratic procedures. For a society seeking to improve its competitive advantages, stable and credible institutions constitute by themselves a crucial competitive advantage and a significant driver for growth.

2. To enhance the export orientation of firms.

Growth in Greece is improbable to result from a quick recovery of the internal demand. In contrast, the external market provides opportunities for expansion which are not affected by the domestic recession and restrictive fiscal and incomes policies. Hence, a reorientation of domestic firms towards the international markets could be seen as an answer to the domestic demand constraints and generate positive effects on GDP. Obviously, the shift of activities is not determined only by choices of firms, but also by structural factors. In this respect, higher production standards should be adopted, networking should be expanded, profit margins adjusted, quality factors enhanced. It seems that a number of firms already succeeded such a reorientation with some positive results on exports. However, the extent of this change is still weak and in the short-term will remain limited. The export ratio (exports of goods and tourist receipts/GDP) of Greece is around 11% and a positive impact on GDP by one percentage point would require an increase of exports by more than 20% per year, taking into account that higher exports would also drive up higher imports, the share of which in the production of exported goods exceeds 50%. An export oriented policy would imply a more complicated and efficient approach than in the past, but could lead to some first significant results within one to two years.

The issue is that export orientation and competitiveness will not be strengthened by policies focusing uniquely on deep wage cuts, as imposed by the Troika and the Memoranda. Export competitiveness is the combined result of cost (and wage) factors, of qualitative aspects, of public services and of the nature of produced goods and services. Consequently, the present approach will have a limited impact on growth. It can counterbalance the loss of cost competitiveness
of the years before the crisis, but it cannot shift the export intensity at a significantly higher level.

3. The need to go beyond productivity and to enhance production patterns

Cost- and efficiency-related policies enhance productivity, but this is not enough. Productivity is important but could be irrelevant if exported products and services are facing a declining interest and are unable to secure a satisfactory and macro-economically relevant market share.

The real problem behind the macro-imbalance is the enhancement and the transformation of the production basis and the upgrading of the simple, low-cost production types. In effect, productivity growth and diversification of production are interrelated elements of a growing economy and a winning strategy should aim at ensuring an economic climate where innovation and structural change can take place.

The success of such a targeted policy depends on many policy elements, such as more innovative and technology intensive production processes, a range of qualitative improvements concerning existing products and services, a deep reform of the education system and a reorientation study preferences, a policy favouring the shift of small and medium sized firms into bigger sizes and a clear support of bigger firms, of developing services for innovative new firms, restricting underground activities, decisive implementation of the social security and tax rules, combating public corruption in the aim to reduce substantially what can be labelled as a ‘corruption tax rate’11, the enhancement of the Rule of Law and foremost a general attitude enabling reforms enhancing growth, employment and incomes. The broad range of all these factors indicates that a targeted policy towards creating competitive and sustainable productive structures cannot be but the outcome of a longer chain of interlinked public actions, the success of each is determining the success of the others. What matters is the capacity to transform patterns of specialization, the capability to shift to new specialization areas and the capability to change.

However, the shaping of a targeted policy enhancing production transformation, new specialisation areas and broader changes is faced with many obstacles. The question is which areas should gain policy priority. In technologically advanced economies, path-dependencies could facilitate such shifts and provide a relatively credible basis for policy decisions. However, path dependency is only partially helpful to guide options of technologically weak countries, in particular when the goal is to transcend existing productive structures. The weak path dependencies in these countries and the configuration of their technology and innovation subsystems indicate that the potential spectrum of new successful specializations is not easily predictable. The policy implication is that risks cut

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both ways and characterize both types of policies: policies targeting ambitious projects for which capabilities and supportive conditions are insufficient as well as policies which don’t facilitate specialization along specific new technologies, precisely in the belief that the external conditions make such a strategy risky.

4. **The need for performing and competitive micro-structures.**

Production, exports and competition are the outcome of firm and not of country performance. Hence, the structural features of the firm sector are significant determinants of the development of an economy. The range of relevant factors is broad and extends along the whole value chain of a firm and/or activity. Besides the specialization patterns around low to medium tech activities, which is a macro-economic feature, the micro-structural weaknesses of the Greek productive system concern the particular small number of medium and larger size companies and the comparatively low absolute size of these companies, the low value added in the industrial activities, the low degree of their networking, the weak integration of most of these firms in the global value chain, the absence of any kind of R&D and innovation activities, their weak management structures and the low survival capability of a very large number of small to medium size firms.

It is known that the accumulation of knowledge is crucial for the innovation process and the evolution of firms and that public policy has to support those firms, institutions and processes which favor cumulativeness over time. In this respect firm size and critical mass can have a decisive impact on the policy outcome. With regard to size, what is crucial in industrial dynamics is less the distinction between small, medium and big, than the capacity to compete internationally and to grow. Firm size matters to the extent that it can trigger competitiveness, employment and growth. The crucial factor is the capacity of firms to change, to stay and improve their market position, to grow and contribute to the competitiveness of their economy. From a policy perspective, what is needed is the entrepreneurial capability for a quantum leap to overpass the minimum thresholds below which the survival of a firm is at risk. Success depends greatly from the right set of institutional and economic environment that is conducive to growth and influences the firms’ innovative behavior.

To change and reinforce such structural features is a basic long-term and complex task of industrial policies. It depends on the capabilities of the governance system to implement coherent longer term policies, to reduce the impact of bureaucracy and corruption, to introduce an appropriate institutional framework, to set priorities around promising new activities without ending to failed state interventions and, in general, to create a climate stimulating creative initiatives and new knowledge-related entrepreneurship.
5. The upgrading of low and medium tech activities

For a long time policies at the European level specialized in fostering the development of high technology (HT) sectors, as due to high uncertainty and development cost, private actors were expected to be reluctant in investing to these areas. Low technology (LT) sectors have been largely ignored in the policy discussions or considered as “archaic hangovers from an earlier era of capitalism” (Scott, 2006).

Recently, it has been argued that LT industrial sectors can be very innovative and knowledge intensive (Smith, 2002, Bender, 2006). Unlike high technology sectors, the nature of such technological change is characterized by established developmental paths and fixed technological trajectories that are dominated by incremental innovations (Hirsch-Kreinsen and Schwinge, 2011). Due to high persistence and stability of these industries, entrepreneurial activities and a successful deviation from established practices and technological paths open strong opportunities for building competitive advantage and gaining profitability (ibid). At the same time competitive pressure and strong path dependency stimulate innovative behavior to overcome these constraints. Innovation and growth in traditional sectors is to a large extent shaped by technological advancements of suppliers many of them coming from high or medium-high tech industries. In addition, the pace of technological change is fast and capital intensive, with short time for amortization of the innovation cost by profitable sales, especially for high tech industries (Strange, 1998). Modernization of traditional activities to become more knowledge-intensive, opens new market opportunities for technologically more advanced activities.

Furthermore, for countries like Greece the company-specific knowledge and the capabilities in low and/or medium-tech firms are of particular importance. Low and Medium to Low technology sectors represent over 80% of manufacturing production, value added, exports and employment. At the same time their competitiveness is weak and tends to deteriorate over the years. At a more global level, some of these activities became knowledge-intensive; others include new kinds of knowledge and produce products for traditional needs but with new qualities. Today many of these sectors are producing with radically different techniques (textiles, naval construction, building materials) than some decades before. In many of these cases path dependency did not prevent to embody over time strong elements of new knowledge. In addition, research showed that despite the lower performance of low-tech vis-à-vis the high-tech sectors, there were larger differences in productivity between innovative and non-innovative firms in low-tech sectors than in high-tech sectors implying that
firms adopting new knowledge in low-tech sectors have a significant potential to enhance their market position\textsuperscript{12}.

The above process points to catching-up strategies that cannot succeed if specific conditions are not satisfied. These conditions refer to absorptive capacity (capability to assimilate and exploit knowledge) and to productive, organizational and linkage competencies of the technology adopters or users. Because LT sectors are characterized as low-skilled there is a need to support improvement of absorptive capacity and technology management capability in order for them to deal with more complex techno-economic systems.

Empirical evidence has shown that the performance of low-tech industries differs according to their level of development and knowledge characteristics such as educational attainment, R&D, licensing etc. (Coedhuys et al., 2013, Kastelli, Caloghirou, 2013).

Policy design could follow two directions:

a. The modernization of traditional sectors through diffusion of new technologies and knowledge-intensive applications in order to respond to demand in new ways (more efficiently and/or with higher quality solutions). In that sense, suppliers can play a crucial role through the use of new technological advancements.

b. The research in providing solutions to transform traditional sectors into knowledge intensive users.

Effective policy initiatives can then be designed targeting to upgrade managerial and technological capabilities, the development of knowledge-intensive activities within low-tech industries in order for them to better address global markets. Clustering and networking can bring about specialization and division of labor between firms that benefit from scale economies, can reduce the unit cost of knowledge intensive business services and facilitate knowledge flows. In addition the creation of better conditions for the presence of Greek firms to the global market calls for negotiations at the European level and with the support of other European partners that face similar specialization patterns, in order to support extroversion under conditions of strong currency and ongoing crisis (e.g. a relaxation of competition policy in order to support SMEs to find and respond to new market opportunities).

6. The need to consider active Public Policy as a value chain

Public Policies to enhance the production basis of the economy risk remain ineffective if they are unrelated to broader targets or to a broader coherent policy concept. We know many examples, related mainly to technologically weak

systems, in which incentives, research programs, R&D, innovation or networking projects, often based on best practices, were introduced randomly and without any coherence, having finally a very weak, if at all, impact on economic performance.

The issue is that public policy involvement per se does not guarantee a successful outcome. As it has been extensively documented, it is important that public policy enhances the factors surrounding entrepreneurship and innovation. Efficient public policy requires a successful combination of a range of crucial parts of the whole value chain, such as management of knowledge, priority setting, strategic thinking, long term policy design and management approaches and not simply innovation-related aspects. Otherwise the result might be insignificant, fragmentary and temporary and the impact on crucial economic variables (productivity, competitiveness, growth) quite weak. It might allow us to feel satisfied because a number of indicators show some impact on innovative activity but, in fact, our observations remain a statistical phenomenon with very little macroeconomic importance.

7. The priority of investment and foreign direct investment

Investment and foreign direct investment are key drivers of GDP and productivity growth. In particular during a crisis period, the wage and pension cuts lead to recession and reduce the internal demand. Due to these factors, the idle productive capacity in all sectors, which for some of them reached 40%-50%, allows an increase of production within existing possibilities. Consequently, investment cannot be expected to increase significantly before recovery establishes a climate of positive expectations and improves the financing of entrepreneurial investment. In addition, very few investment projects could have a visible impact on growth if they target simply the stagnant domestic market. In contrast, export oriented in technologically more sophisticated production areas foreign direct investments (FDI) are not constrained by these factors and could be a factor to reinforce the tradable sector, to enrich the productive spectrum, to enhance the technological basis of the economy and to act as a driver of growth both in the industrial and/or service activities.

However, the entry of foreign firms in the country is a goal, the achievement of which depends on a broader range of policy and objective parameters, such as confidence, stability, positive expectations, institutional environment, structural relations, linkages with other productive processes, cost factors and the availability of broader inputs. Consequently, the attraction of FDI is not a linear process depending on public policies. Policy can indeed play a crucial role, but the complementarities between policy and structural and institutional factors are also strong and require additional interventions on many areas.

8. Financing industrial development

Financial resources are an essential element of industrial development as they determine the possibility to invest and create opportunities for growth in particular
through technological and organisational change, education and training and support to the real economy.

In the context of the current economic crisis in Greece there is a prolonged evaporation of market and funding liquidity with recessionary effects and serious implications for the operation and survival of firms and social welfare. In fact restructuring of the productive system is required in the absence of financial resources. From 2010 to nowadays it is estimated that 35 billion euros have been deprived from the market due to the repayment of bank loans.

To provide financial resources to foster investment opportunities, one major condition would be European initiatives of e.g. the European Investment Bank to provide guarantees as the domestic banking system is at a vulnerable position for taking risks.

Most of the Greek firms having serious problems in paying for imported inputs due to the absence of domestic and foreign credit lines, it would be of great importance to create a Fund for pre-payments in cases where orders from clients are already recorded.

Another dimension of the financial system that could play a role to entrepreneurial development is venture and seed capital. Venture and seed funds should be less risk-averse as it is important to invest in spin-offs or start-ups from Universities and Research Centres. Support should be oriented not only towards high-tech ventures but also knowledge intensive entrepreneurship in more traditional sectors.

4. Concluding Remarks

In the previous parts of this chapter we argued for the importance of the productive capabilities of a country as a factor determining the deepness and the impact of the crisis. We argued that the weak policy approach on this issue co-determined the macroeconomic imbalances experienced in Greece during the last years. We argued also on the necessity to develop a different mix of macro- and structural policies, in the aim to enhance growth and the underlying productive and competitive capabilities of the country.

However, the enhancement of the productive basis of the economy cannot be disassociated from some basic conditions, which play a fundamental influence on the efficiency of public policies, such as:

- To change the mix between the long and the short term in the policy making
- To transcend the dichotomous approach between Market and State failure
To change the European framework, policies and attitudes with regard to issues of productive enhancement in the crisis countries.

4.1 The need to rebalance the long and the short term in policy making

(to be completed)

4.2 Beyond the dichotomy of Market vs. State failure

The question of Industrial Policy is in fact a question of the relationships between the State and the Market and may be a dilemma between market and state failure. We know that the failure of the one does not guarantee the success of the other and that often we are constrained between two different types of deficiency. However, the issue exceeds the dichotomy of Market vs. State failure. In the case of countries like Greece it becomes a measure of the systemic capabilities (or failures) to transcend the hindrances of lagging behind and to change the course of the economy in the long term. The course of the Greek economy (and of other ones) has indeed changed during the longer period in question. However, it changed in a manner which could not avoid a big fall during the crisis.

A structural reason of failure in the past was related to the myopia of all relevant players: the markets, the governments and the agents. National and European policy assumed that the rational behaviour of the markets and self-correction mechanisms were sufficient to ensure the desirable growth and evolution of Europe and its member states. It proved to be so false, that we fell into the deepest crisis one could imagine. On the other hand, sharp criticism was widely expressed on the short-terminism of the (financial) markets. It also proved, that policy has followed even more myopic and short-terminist decisions, with disastrous results for the societal interests which had to be protected.

Industrial policy as we discussed it and any form of policy targeting are by definition a medium- or long-term approach. In the case of Greece such a policy stays in deep contrast to the underlying political and private interests and practices of the last decades. Consequently, the theoretical rationale of an industrial policy is by itself not a guarantee for success. The implementation of such a policy is faced with all deficiencies and failures of the governance system and its capability to overcome established patterns of behavior, to understand the radical changes caused by the crisis and to implement serious policy changes aiming at dealing with the present impasses. It is known, the assumption that state restructuring could occur as a response to the imperatives of the economic pressures and that the policy issues can be limited on the economic area is at best questionable.13 The state actors operate according to a more political logic, in which even during the crisis period the collective interests are not necessarily primary14. The political imperatives of the governance

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13 Purcell, p. 299
14 Ibid. , p.300.
system concern the need to reproduce the interests of the political system and the benefits of the main clientele (unions, big capitalist agents, public servants, specific professional groups), despite the fact that under the actual conditions the question is how to overcome the crisis and how to identify and implement crucial changes.

In fact, growth, macroeconomic stabilization and the sustainability of the Greek government debt depend on an extensive reform of the highly inefficient (and corrupt) public sector. Corruption does not refer to personal corruption of the political personnel, but on political corruption, meaning choices which by intention or indifference focus disproportionally on political than on collective interests. This is a systemic factor which is wider diffused in the logic of the socio-economic system. Its change could succeed only if a broader consensus would be established on the need for a paradigm change and not because some partial policy approaches, such as industrial policies, need to be implemented.

As a consequence, the issue transcends the question of the efficiency and appropriateness of industrial policy and regards the broader issue of governance, which is crucial for any policy aspect. Efficient and sustainable economic and productive patterns are a direct function of efficient policies. Hence, the question is how a governance model and the prevailing values, attitudes, ideological prejudices and balances of interest which led to the collapse of the economy can be transformed into new types of policy thinking and acting.

The fact remains that pro-active policies are subject to similar risks of failure as horizontal ones. Apart from the well known problem of public failures such policies are subject to the inherent high uncertainty and unpredictability of foreseeing ‘what a country will be good at producing’ or ‘where the advantages can lie’. Rarely could successful specializations be anticipated. Even countries with very similar levels of technological capabilities and factor endowments followed very different specialization patterns as a consequence of different historical evolutions, entrepreneurial initiatives and policy responses. As noticed “markets can malfunction both when governments interfere too much and when they interfere too little”.

In the past decades, stronger and weaker forms of industrial policy or of other state interventions have been exploited by the political system and its clientele to extract benefits disassociated from the collective interest and the real goals of these interventions. In many of these cases the issue was not that policy making was so misused, but that nearly all these interventions failed because of that.

Very often, industrial policy was centered on the defense of crumbling firms and industries and delayed instead to facilitate restructuring processes. Very often, incentives, investment subsidies, public procurement policies, tax measures simply

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favored the black economy and tax evasion, enhancing incomes but not productive capabilities. Advocates of neoliberal policies would perhaps maintain that this shows the inappropriateness of public interventions and the high risks of State failure. This would be half of the reality. The other half is that in absence on any action, risks, high societal costs and failures are equally present and the impact of the crisis made this more obvious than ever. Liberal policies failed to enhance the productive basis and this was the empirical lesson of the evidence of many decades.

Consequently, the question is not only to choose between the market and the state but also ‘which state’. It is not enough to have a consensus on the broader transformations which are needed, if we disregard the transformation of the state structures, which have to implement such changes. Industrial, technology, institutional, productive and other changes might succeed or fail depending on the specificities of the particular policies and governance systems. The question is how to be selective, what risks have to be taken, and how public policies could efficient support to activities but equally, to anticipate for timely and efficient discipline in order to avoid ‘picking the losers’.

4.3 The European dimension of national industrial policy

In our approach we discussed the question of industrial policy as a national question. However, the success of such a policy does not depend solely from national choices in the case of an E.U. member country. It is co-determined by policies and institutional constraints related to the European level. After more than thirty years the European policies failed to establish in the European South solid, resilient and efficient economic structures, which are of key importance in the contemporary world competition. Even more, the fact that the common currency was based on shaky institutional and practical conditions, accentuated the disastrous effects of the crisis on these countries. It would be wrong to maintain that the integration process failed to lead the southern European countries into a positive trajectory. Between the mid 1980s and 2009 significant transformations and improvements can be recorded. However, the crisis is an opportunity to assess what went wrong, what was insufficient and in particular why European policies have also to be structurally adjusted to the problems of the South and what particular aspects should change.

In fact, the design of active policies regarding the productive structures of crisis countries depends also on institutional arrangements, especially on competition. Hence, active policies on production have to be designed in accordance to these rules. However, the question on the priorities remains: overcoming the crisis and the structural inefficiencies or stick rigidly on institutional regulations. Small and medium sized firms (e.g. less than 50 employees or low sales) need to be supported by policies on many aspects. When a country is faced with such extraordinary conditions, such as a reduction of its GDP by more than 25%, more than 28% unemployment and a severe decline of investment, and severe internal destabilisation processes, policy need also to use extraordinary instruments and abandon the attitude “business as
usual”. Otherwise, the gap between the targets of the adjustment policy and the reality will grow with the consequence of a wider social and political destabilisation of the adjustment process. A rigid European stance against potential active policies in the weakest members of the E.U., even under the actual crisis conditions, would contradict the very basic goals of the European construction itself.

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