

Innovation Policy as an Alternative to Institutional Changes

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Publicerat i **New Northern Knowledge. Structural Change in Europe 3**. Hagbarth Publications, Bollschweil 2004.

The 1970s marked the end of a long period of high and stable economic growth. The growth rate was halved in the OECD-countries and unemployment raised. Initially the reading of the history an international expert group concluded that "...the most important feature was an unusual bunching of unfortunate disturbances unlikely to be repeated on the same scale, the impact of which was compounded by some avoidable errors in economic policy" (McCracken et al 1977;14). Their conclusion was that the immediate causes of new economic problems could be understood in terms of conventional economic analysis. The expert group could see "...nothing on the supply side to prevent potential output in the OECD area from growing almost as fast in the next five to ten years as it did in the 1960s... Whether it is achieved or not will depend heavily on our ability to obtain a desirable level and structure of final demand and the accompanying distribution of income without arousing disruptive conflicts which exacerbate inflation" (ibid page 17). The expert group expressed a strong belief in the strength of Keynesian economic policy. The great policy challenge was considered to be the fine-tuning of the economy so it could pass safely in the narrow strait between economic stagnation and high inflation.

A new era

Today, by looking in the rear-view, we can conclude that the distinguished experts were wrong. The 1970s did not represent an accidental deviation from the established growth pattern, but a permanent change in the pattern. The 1970s represented the beginning of an era characterized by slow growth and radical structural changes.

The economic growth rate was reduced from 5,6 per cent per year in the 1960s to 3,7 per cent in the 1970s, while inflation rate increased from 3,7 per cent to 8,6 per cent. The growth rate was reduced further in the 1980s and 1990s, while inflation became radically lower in the 1990s. The figures give an impression of USA replacing EU as a dynamic region. While economic growth was higher in Europe than in the U.S. in the 1950s and 1960s, the U.S. took the lead in the 1980s, with a growth rate 35 per cent higher than in the EU.

The slow down in economic growth reflected structural problems in the economy. The rapid economic growth after the Second World War was supported by a high investment activity in the economy. Investments share of the GDP was almost twice as great as in the 1930s. Thus capital goods industry - the steel and metal industry, the machine tool industry, the automotive industries etc. - operated under extremely favourable conditions and its rapid expansion made an important contribution to growth. The capital goods industry was a key sector behind the high and stable economic growth in the 1950s and 1960s.

Large industrial regions like the Baden-Württemberg and Hessen in Germany, Flanders in Belgium, Lombardia in Italy and Rhone-Alps in France belonged to the group of fast expanding regions in Europe. These regions were parts of larger manu-

facturing belts, which began to emerge on the European continent in the late 19th century. One distinguishing characteristics of these manufacturing belts were that they during a long period of time played a dominating role in the economic development.

However, the 1970s ended that situation. With the expansion of the capital goods sector followed that an increasing share of the produced capital goods was used in investments in the capital goods industry itself. The production capacity of this industry grew at increasing rate and finally grew beyond demand. Overcapacity became a fact. The Oil crisis of 1973/74 was the first visible sign of the conditions. The demand for capital goods declined fast, production had to be reduced and later on production capacity closed down. This was the new situation faced by the mining industry, the steel and metal industry and large parts of the machine tool industry in the 1970s. Those industries upon which the expansion in earlier has been based on were hit by severe structural problems. Thus rapid growth in production capacity in combination with a significant fall in demand brought about a situation of massive, excess capacity, compelling firms to reduce employment and to close down factories.

A page in economic history had been turned over. Regions in manufacturing belts had lost their comparative advantage, a long history of industrial experiences and a large manufacturing sector. The industrial heritage that was for o long an advantage had become a handicap. In the post 1970s world long manufacturing traditions was transformed to a handicap. New industries, primarily information and communication industry, became an important driving force in economic growth. Expansion in these fields was to a large extent due to companies located in regions outside the old manufacturing belts. New regions overtook the role as dynamic centres. Attractive rural regions with a lack of industrial traditions and located close to a major city constituted a winning concept in the new economy. Regions like East Anglia in Great Britain, Schleswig-Holstein in Germany, Namur in Belgium, Utrecht in the Netherlands, Languedoc-Roussillon in France and Puglia in Italy. In these regions there are dynamic cities like Cambridge, Montpellier and Utrecht dominated by modern industries. In many cases these were regions that were still largely agricultural in the 1950s and many of them was regarded as backward.

The new economic era started a search for new economic perspectives. Focus was changed from short-term macroeconomic policy to long-term innovation policy. Some European researchers looked at Japan for ideas.

National system of innovations

The idea brought home from Japan can be summarized in the concept national systems of innovation. The term included the network of institutions in the public and private sector whose interactions initiate, import, modify and diffuse new technology. Some researchers considered the design of the innovation system as the single most important policy issue explaining the growth of the Japanese economy. Inspired by the success of industrial policy in Japan in the 1970 and 1980s European countries formed a policy to build innovation networks consisting of public and private organisations whose interactions should initiate, import modify, and diffuse new technologies. System of innovations was defined in a narrow sense including only organisations and institutions that influence the technological capabilities of a nation. Based on this they formulated policies including targeted programmes for stimulating innovation.

In the member states of EU this new policy initially took the form of initiatives for stimulating research, improving innovation financing and promoting technology absorption and innovation management by SMEs. Later on additional priorities like intensifying the cooperation between research, universities and universities, promoting “clustering” and other forms of cooperation among enterprises and other organisations involved in the innovation process and encouraging the start-up of technology-based companies were added to the national innovation policy.

A few years later enhancing innovation became a cornerstone of the strategy to meet the target agreed by the European Council in Lisbon in March 2000 of the Union becoming the most competitive and dynamic knowledge-based economy in the world by the end of the decade. Achieving an innovation strategy that makes European Union reach this objective represents an enormous opportunity that can be translated into raised living standards over the coming years. The Lisbon meeting specially draw attention to the interfaces between companies and financial markets, R&D and training institutions, advisory services and technological markets. Insufficient innovative activity was cited by the commission as a key factor behind Europe’s under-performance in productivity growth. Specific innovation promoting programmes of successive EU research framework programmes is one element in such a strategy. Again targeted programmes allocating economic resources are seen as the solution to the problem.

The integration of innovation promotion in EU research policy gave experience in managing the link between research and innovation. European-level networking of key players in the innovation process links national innovation systems. On the national level the Member States are expected to build national innovation strategies. In this way, innovation policy in Europe is designed as targeted programmes to support innovation. Economic resources are allocated to network of companies and public institutions to support innovative efforts.

The regional aspect

There is a trend that measures to improve the climate for enterprises to innovate are increasingly being devised and implemented at regional levels. One argument for bringing in regional authorities is that measures formed at this level make it possible to take account of regions’ specific strengths, weaknesses and ambitions. When designing and implementing regional innovation policies, regional authorities are expected to fully take into account the distinctiveness and the social and economic characteristics of the region. Each region must develop their own specific route to improved innovation capacity, depending on their own unique set of circumstances. The development of clusters of excellence is considered of paramount importance for innovation performance. Centres of learning are also important for their potential to act as nuclei for the formation of clusters, building on spin-offs from academic research and creating “hot spots” for innovation.

The Italian “industrial districts” is often referred to as examples of how regions specialising in specific sectors and dominated by small firms are able to grow rapidly and develop global leadership in their sector (Pyke, Becattini & Sengenberger (eds.) 1990). The Pareto region near Florence is a well-known illustration. The region is an international leader in the production of yarns for knitwear, ad knits and textiles for the garment, upholstery and other industries. This success is complemented by the construction of textile machinery, which is also highly export-oriented. Italian “industrial districts” demonstrate how global leadership can be achieved by close inter-

action and sector-specific patterns mixing cooperation with competition among SMEs, and by a type of creativity that absorbs R&D inputs without relying on them.

Regional innovation system, clusters and Triple Helix became much used terms describing what to achieve and how to work, three concepts formulated by researchers from different disciplines. Regional innovation system is a term, which partly is borrowed from the economists' theory of innovation system and to which a geographical dimension has been added. Cluster, which are geographic concentrations of interconnected companies, specialized suppliers and service providers, firms in related industries, is a term used by a business economist as a tool to explain the fact that some countries for very long time host world leading corporations in certain areas, like chemical companies in Germany, pharmaceutical firms in Switzerland, heavy trucks producers in Sweden etc. Triple Helix is concept used in understanding the dynamic interaction between universities, corporations and government, which is a prerequisite if universities successfully shall fulfil its third mission, contribute to regional development.

Innovation system was considered to be a measure to build dynamic clusters based on technologies with large growth potential. Innovation became a new sector policy along with research policy, industrial policy, energy policy, labour market policy etc. However, policy-makers also underlined the need for interaction between innovation policy and other policy areas to improve the environment for innovative enterprises.

It is a fact that the interest in innovation policy is strongest in Europe, whose innovation performance is low in comparison with the United States and Japan. In the U. S. the view of innovation policy is different from that of EU. Applying the U.S. perspective the dynamics and complexity of society make it difficult to identify measures influencing the innovation performance. According to this perspective innovation involve much more than R&D, and the set of institutions that influences the innovative capability of a nation and how these are advanced extends far beyond those that directly impinge on innovation.

The character and effectiveness of a nation's system of schooling, training and re-training not only determine the supply of skills from engineers to machinetenders, but also influence the attitudes of workers toward technical advances. So do the patterns of labour-management bargaining and negotiation, dispute resolution, and the degree of mutual commitment of firm and workers. Financial institutions, and the way firms are governed and controlled, profoundly influence the technical activities that are feasible and that managers choose to undertake. More generally, seen from this perspective, it seems somewhat artificial to try to describe and analyze a nation's innovation system as something separable from its economic system more broadly defined or to depict the policies concerned as quite apart from those concerned with the economy, education and national security(Nelson & Rosenberg 1993).

The European way vs. the American way

How to explain this difference in the view of innovation policy? Why is the EU choosing to develop innovation policy as a sector policy while the U. S. prefer to apply a broader perspective on innovation policy?

One reason is the potential conflict between the European welfare state and an innovative economy. The Welfare state model promise protection where innovation imply flexibility and aim at equity where dynamics results in differentiation. The

American perspective on innovation is to accept flexibility and differentiation. Deregulation through wage flexibility, low trade unionism and weak employee protection predominate the American economy. Even if the European countries with a long tradition of worker protection to varying degrees have been forced to introduce flexibility measures in the last decades this partial deregulation has not threaten the traditional protection standards within the prime-age, insider work force. There is a strong political support for protecting the existing institutional structure Therefore it is no surprise that the European countries are trying to foster innovation inside this structure. The eventual conflict between the ambition to become the most competitive and dynamic economy in the world and the structure of the welfare state is no addressed. The hope is to achieve the object by adding a new sector policy.

Innovation through conservation

It is still an open question how efficient the European strategy to meet the target agreed by the European Council in Lisbon will be. But the choice of strategy reflects existing political possibilities rather than identified economic necessities. To design a separate innovation policy has a great symbolic value and signal great determination in creating a dynamic Europe without a pronounced threat to redesign the European welfare state. If the strategy fulfils the promises of the policy-makers the Europeans will be the most dynamic economy in the world in the year 2010, without significant changes in the institutional framework. The policy gives promises of a new dynamic Europe inside the old institutional structure. I such a happy state is not attainable the European innovation policy at best has a symbolic value. In case the innovation policy should primarily be regarded as an alternative to a dynamic Europe illustrating that the interest of conserving the institutional structure was stronger than the ambitions to build a dynamic Europe.

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