

Policies for Industrial Competitiveness Improvement in Europe and Their Implications

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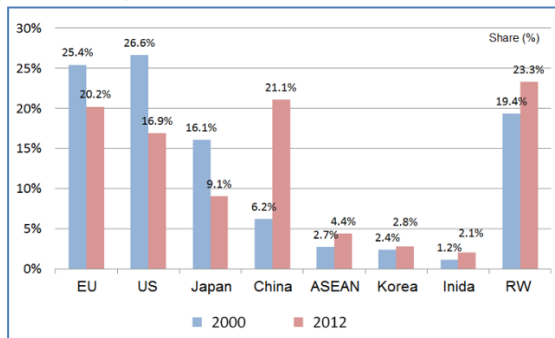
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Manufacturing in the EU: Overview and Key Issues

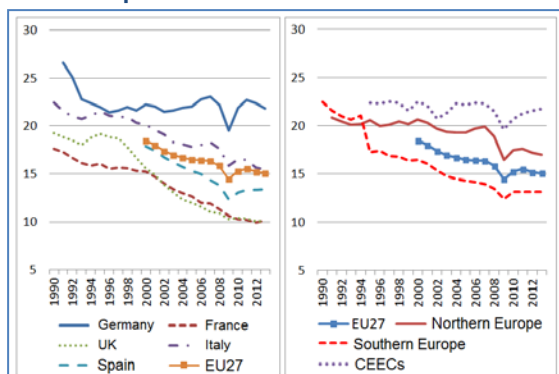
The global economic crisis has brought back into focus the need for a stable manufacturing base in advanced economies. Hence many debates shed new light on industrial policy with an aim to restore industrial competitiveness. In this context, this study reviews industrial strategies and policies adopted by the European Union (EU) and its Member States, and draws policy implications for Korea's industrial policy.

Cross-border links through global value chains (GVC) have been densely developed among European industries. Yet the EU member states have experienced a decline in terms of production and employment at the same time. The EU's share in global manufacturing production has dropped considerably, and this trend elicits concerns in association with dampened growth momentum and innovation in European economies.

Figure 1. Share in global manufacturing production

Source: World Bank.

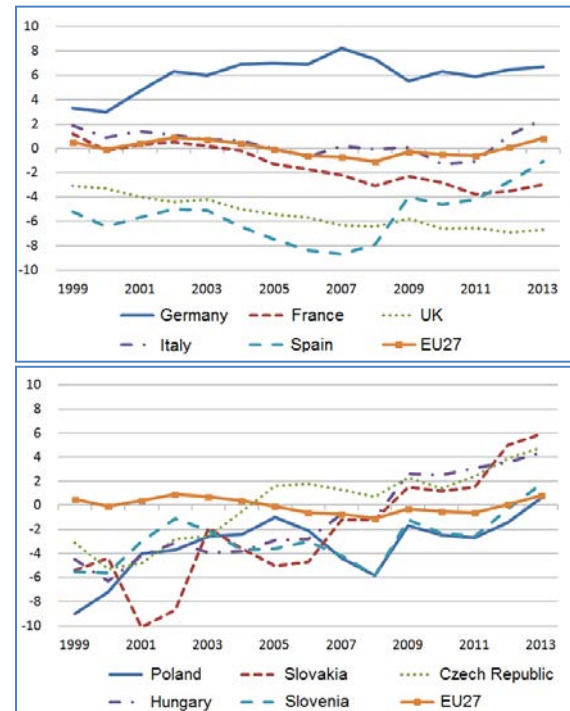
This 'deindustrialization' of European economies differs substantially from country to country. Among Western European countries, Germany has been maintaining significant manufacturing share in gross value production. As for the Central and Eastern European countries (CEECs), the level of deindustrialization has been low, due to the integration of their economies into the European production network after their accession to the EU.

Figure 2. Manufacturing share in gross value production

Source: OECD, STAN.

These various levels of deindustrialization have been reflected in the macroeconomic indicators, such as in trade balance. While Northern European countries have maintained or increased their trade account surplus, Southern European countries have experienced deficit in cumulative trade account. The contrasting performances between Northern and Southern Europe reflect the gaps in industrial competitiveness. In particular,

Southern European countries have faced challenges in upgrading their industries to become more technology-intensive.

Figure 3. Trade balance in goods of selected European countries (% of GDP)

Source: Eurostat.

The EU Industrial Policies on Enhancing Competitiveness

In order to enhance industrial competitiveness, the European Commission has been rolling out various policies encompassing cost and non-cost factors. *Europe 2020* was designed as EU's strategy to create synergy between different sectoral policies and industrial policies as well as policies for SMEs and R&D. Seven flagship initiatives were suggested under *Europe 2020*: ① Innovation Union, ② Digital agenda for Europe, ③ Youth on the Move, ④ Resource efficient Europe, ⑤ Industrial policy for the era of globalization, ⑥ An agenda for new skills and jobs, and ⑦ European platform against poverty. Among them, 'Innovation Union,' 'Digital agenda for Europe,' 'An Industrial policy,' and 'An agenda for new skills and jobs' are

directly related to the enhancement of industrial competitiveness. In particular, the European Commission emphasizes a number of technologies for the future: environment-friendly technologies, enabling technologies, bio-technologies and smart-grid.

Also, the EU is currently running *Horizon 2020*, the largest EU research and innovation programme ever with nearly 80 billion euros in funding available for 2014-2020. According to the European Commission, *Horizon 2020* can be seen as an important means to create jobs, to stimulate economic growth and to improve quality of life. Despite the key role of SMEs in boosting the EU economy, it seems that both the global financial crisis and the European sovereign crisis have rather been imposing a heavy burden on them. Therefore, the European Commission found it necessary to take further and more significant measures to release the full po-

tential of SMEs. As a result, the Small Business Act (SBA) and Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME) were enacted.

Case Study: by Selected Countries

Germany has a strong background in manufacturing and has been an important exporter in the global market. The German federal government has been establishing and implementing policies to maintain its notable industrial competitiveness by expanding R&D expenditure and strengthening R&D cooperation in the long term. These systematically planned policies are highlighted from the *High-Tech Strategy* to the evolved *New High-Tech Strategy* and *Industry 4.0*. The significance of German policies, expecting to maintain industrial competitiveness, lays in the close cooperation between the government, the private sector, as well as the academic community from the policy planning stage. Such policy making enabled not only to reinforce the connection between science and industry, but also to allow Germany to continue leading the way in global competition.

In Sweden, the amount of R&D investment has been sizable, and this has played an essential role in improving industrial competitiveness. Most Swedish R&D investment has been made by business enterprises and universities. However, since the mid-2000s, the

Table 1. Europe 2020's 7 flagship initiatives

Smart Growth	Sustainable Growth	Inclusive Growth
<u>INNOVATION</u> Innovation Union	<u>CLIMATE, ENERGY, MOBILITY</u> Resource efficient Europe	<u>EMPLOYMENT AND SKILLS</u> An agenda for new skills and jobs
<u>EDUCATION</u> Youth on the Move	<u>COMPETITIVENESS</u> An industrial policy for the globalization era	<u>FIGHTING POVERTY</u> European platform against Poverty
<u>DIGITAL SOCIETY</u> A Digital agenda for Europe		

Source: European Commission.

Table 2. Industrial Competitiveness Enhancing Policies of the Selected Countries

Countries	Major Contents
Germany	Continuous expansion of R&D expenditure, promotion of <i>High-Tech strategy 2020</i> and <i>Industry 4.0</i> , policy planning and establishment through public-private-academic joint cooperation
Sweden	Focusing on the competitiveness of the R&D and the innovative field driven by the private sector, government reinforcing the effectiveness of R&D investment and industry-academic cooperation
Italy	Policy planning and execution such as 1) internationalisation of local enterprises, 2) inducing foreign investment, and 3) improvement in financial accessibility, in order to overcome the limitations of an SME-centric economic structure
Poland	Establishment of a manufacturing base by attracting foreign direct investment (FDI) and enhancing industrial competitiveness, improvement in investment environment through intensive reform & open policy, upgrading of infrastructure conditions by utilising EU funds

Source: Authors.

government has begun to account for a higher share in R&D expenditure volumes and the ratio of R&D performance. Meanwhile, via *The Swedish Innovation Strategy* (Sweden 2020), the Swedish government provided a mid-term blueprint on directions and strategies to enhance national competitiveness including in the industrial sector. The success of Swedish industrial policy was possible due to effective and practical cooperation between private and public sectors throughout the process; from designing and establishment of concrete industrial policies to their implementation.

Italy has traditionally been known for the excellence of its goods and luxury brands, based on the SME-centred industries. The country retains numerous family-owned businesses that have existed for hundreds of years with a good reputation. However, witnessing Italy's competitiveness to wane over the last few years, the Italian government has come up with and implemented structural reforms, as well as a variety of supporting policies. Among them, the Italian government launched two programmes, *Made in Italy* and *Destination Italy*. The former involves the globalization of the SMEs, and the latter concerns institutional improvement to facilitate FDI. In addition, the Italian government also created a guarantee fund in order to reduce the financial burden of the SMEs and to support the start-ups.

The promotion of FDI inflows was one of the most critical issues in the industrial policies of Central and Eastern European (CEE) transition countries. FDI inflows related to privatization in the early stages of transition had a direct impact on employment and economic growth in the high marginal productivity of capital. And at the same time, technology transfer effects contributed to the boost in economic growth. Although there were some differences in entry conditions, the CEE countries, including Poland, actively took advantage of FDI inflow to back policy regime change and economic reform. In the course of the EU accession procedures, FDI inflow policy has served as the basis for

enhancing industrial competitiveness in the CEE countries.

Case Study: by Selected Industries in the EU level

The automobile sector is a key industry with far-reaching forward and backward linkage. Nevertheless, the European automobile industry has been facing a slump ever since the global financial crisis. Some German manufacturers have been successful in maintaining their export volume owing to stable and robust demand from China. French and Italian manufacturers, however, have lost important market share and were not able to reach pre-crisis levels in their production and sales. The European Commission established a consultative organization, CARS21, in order to develop concrete strategies, action plans and future regulations related to the automobile industries. The European Commission has placed an emphasis on developing more environment-friendly vehicles and is working to maintain a leading position in this sector. Notably, the European Commission tends to use trade policy to impose or export regulations, standards and norms in order to create more advantageous conditions for European manufacturers. Moreover, realising the European automobile industry is burdened with over-production capacity, efforts are being made to undertake smooth restructuring that is employment-friendly to a further degree.

The EU's industrial policy in the ICT sector is focused on solving social challenges. Considering that the European ICT industry is less competitive than that of the US or the Asian countries, this approach is meaningful as it is dealing beyond the development of an individual European country. This strategy is expected to lead to greater contribution for sustainable growth in the long run.

The EU is an important market as well as an important exporter of pharmaceutical products, and member states located in the western part of Europe are especially dominant in this sector. Although the EU has a long history in the pharmaceutical sector, it is only after the 2000s that issues on enhancing competitiveness in the pharmaceutical sector were discussed at the EU level. Currently, the EU is utilizing public-private partnership (PPP) schemes to maintain market dominance in the pharmaceutical sector. However, the European Commission is not acting alone. It is important to note that these PPP projects are being carried out through voluntary participation, including financial support for R&D, from the private sector.

Earlier EU energy policy was focused on response to climate change and the stabilisation of energy procurement. Recently, however, the EU began to consider problems from a consumer protection point of view. In other words, attention has shifted to the fact that energy consumption and costs have a significant impact on industrial competitiveness. The issue of energy prices and costs is unquestionably crucial for maintaining and developing a solid and competitive industrial base in the EU. Enhancing energy efficiency is obviously considered as the most effective way to respond to climbing energy prices. Given that the EU manufacturing sector still enjoys a considerable competitiveness despite high energy costs thanks to low energy intensity, improving energy intensity is expected to be the main axis of any future EU policy on industrial competitiveness.

Policy Implications

Korea, which has been in the category of a 'catching up' country, has made a successful transformation into a country to be 'caught up with'. Nevertheless, Korea's growth potential is weakening and losing ground on its superior position in technology vis-a-vis emerging

economies. Therefore, drawing from the case studies of Europe, we suggest the following policy implications for Korea. First, it is necessary to have scientific and technological achievement reflected in industrial capacity in order to secure marketability of technology. Both Germany and Sweden show a balance of payment surplus in the technology industry. This is due to the fact that scientific achievements can easily find outlets to the market via patents and trademarks. Germany's *High-Tech Strategy 2020* and *New High-Tech Strategy* have focused on creating a nexus between science and related industries, helping to utilize scientific research results.

Second, it is important to improve the competitiveness of Korea's service industries and create a structure where competitive service industries support the manufacturing sector. The labour productivity of Korea's services industry remains far behind Western Europe and is particularly weak in finance, IT services, architecture/engineering and business services. Given that more services inputs are being utilised in manufacturing production, it is important to improve the competitiveness of related services industry.

Third, it is necessary to develop further measures to support or to stimulate SMEs' activities. It is notable that the EU has been developing various support measures for SMEs from financial support for R&D to support in networking between SMEs and research institutions. A good example would be the Italian government's launching of *Made in Italy* and *Destination Italy* to enhance the brand image of Italian SME-produced domestic goods.

Fourth, the development of GVCs, focusing on high technological skills, is critical. For more than a decade, the share of domestically-produced goods in major exporting items of Korea has decreased precipitously. In order to take advantage of GVCs, it is important to maintain a stable industrial base and a competitive technology-intensive industry at home.