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THE EXPECTED EFFECTS OF EU ACCESSION ON THE MACHINERY INDUSTRIES OF THE VISEGRÁD COUNTRIES

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1. Introduction

The paper[1] summarizes the conclusions and main findings of four country studies, providing a general picture of the machinery industry in the V4 as a whole as well as highlighting the specific attributes of each country.

2. Growth effects

Each country under investigation has inherited a large industrial sector from the period of communism. Following the initial recession of transition, the manufacture of machinery recovered everywhere by and large, at different pace of course. The restructuring and the moderate upsurge was mainly induced by foreign investments into the sector. Thus the most dynamic sectors in the machinery industry are manufacture of vehicles and transport equipment and manufacture of electrical and optical instruments.

Common characteristics of the V4's machinery in regards to growth potential after the EU accession are the similar key factors, of which development is crucial to accelerate or even maintain the current growth trend. These are obviously necessary conditions of the increase of international competitiveness. According to the papers it may be accomplished among others by further improvement of labour productivity, raising or at least constant investment ratio witnessed in previous years, increasing R&D expenditures and comprehensive adjustment of the corporate sector in order to exploit the easier access to the single market.

In *Slovakia* there is a remarkable continuous increase of the share of transport equipment, which could be mentioned as an advantage with regard to its importance among other branches, and this sector should further benefit from PSA entry having released recently. The highest labour productivity can be observed in transport equipment in comparison with other V4 countries, as a result of intensive growth of car final production from VW Slovakia during the 1990s. However, the over-employment is still an important factor influencing the performance of the machinery branch. According to transport equipment, there is potential for further growth of employment through the further increase of new VW suppliers as well as the announced PSA entry to Slovakia.

In the *Czech Republic* some businesses mainly in the field of production of vehicles and electro-technical apparatus have already reached the productivity level of the EU

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[1] Summary of the Studies on the Machinery Sector prepared for the AMCHAM-ICEG European Center Conference on Expected Effects of the EU Accession on the Visegrád Countries, March 20-21, 2003, Budapest

thanks to the strong foreign presence. Therefore these sectors belong to the most dynamic and most growing branches of the Czech industry. In the future their growth potential will depend on the development of the enterprises with foreign capital, on the growth of labour productivity, on the Czech producers' participation in R&D projects and on the development of external demand due to their highly export-oriented feature. Weak spots may be found, however, in the manufacture of machinery and equipment n.e.c. regarding mainly the lack of finances for revitalization and technology development, the lack of low-interest loans and insufficient re-structuralization of some of the production lines. The growth of investment is crucial for the future of this sector. A significant part in this growth is also determined by foreign capital. Among the strong sides of this sector are definitely its export potential and the existing highly qualified labour, which creates potential for research and development.

The growth of *Polish* machinery industry may accelerate due to comparative advantage resulting from low labour cost combined with relatively high technical standards of products. In the case when growth acceleration will contribute in creating high attractiveness of the sector, it will be possible gain funds for intensive investment process and strengthening R&D activity. In such scenario the sector will expand and enlarge its share in manufacturing.

The *Hungarian* machinery industry is characterised by presence of foreign affiliates as well as that of other countries in the region. Nevertheless, several corporations with foreign capital operate as a transplant. Due to problems with quality and deadline in relation to SMEs and capacity and references of them, most of the foreign companies are still barely integrated into the local economy. The development of this integration and the opportunity of further establishments of foreign affiliates meaning basically the improvement of the SMEs will play an important role in the growth dynamics. The last two years' macroeconomic developments decisively determinated the short run growth potential. On the one hand, import demand in countries of the European Union has weakened (especially in Germany), but the competitive advantage of Hungarian machinery companies are vanishing as well, especially because of rapid increase in wage costs. As a result of these developments some of the large multinational corporations decided to close down its Hungarian affiliates, especially in the manufacture of electrical and optical equipment. In addition, Hungarian settlements have been unable to attract investors in the field of manufacture of car components for several years.

3. Foreign trade

The proportion of machinery industry in foreign trade of Visegrád countries is rather large. The structure of foreign trade as a whole as well as relating to the machinery industry only shows similar patterns in every country. During the transition one of the most significant trends that accompanied the economic reform and restructuring was the dramatic shift of trade from the former Soviet Union to the west and, in particular, to the EU-15. This shift in trade patterns was, however, accompanied by a large and increasing trade deficit with the EU. To some extent this inevitable deficit was the consequence of the real competition that each country had to face following the collapse of communism and of the ever-growing foreign participation in restructuring of production lines accompanied by immense imports of investment goods.

The latter phenomenon had determined the trade balance of V4 countries until the transformation of the machinery sector was complete and the export of machinery goods started growing. These developments have been taking place at a different pace in the four countries, of course. However, in all countries a tendency of decreasing trade deficit of machinery can be observed except the Czech Republic, where the balance is already active. This trend is expected everywhere to continue after the accession. Nevertheless, the development of trade balance is remarkably influenced by the macroeconomic environment in the EU in regard to the high degree of integration of V4 countries' foreign trade.

In *the Czech Republic* production of motor vehicles and transport equipment is one of the most dynamic sectors of manufacturing industry. Transport equipment has been compensating with its high actives in foreign trade the deficits of the remaining sectors of foreign trade. Only small changes are predicted in the territorial structure of foreign trade after the accession to the EU. Exports will be heavily influenced by the economical situation of the target country. This has been already revealing itself on the small growth of German economy, (Germany is the biggest purchaser of Czech machinery goods). The development of exports and imports reflects itself on the partial trade balance of machinery goods. Their development influences the long-term of total foreign trade. After years of passive trade balance in machinery goods (until 1999) there has been a substantial change and foreign trade ended up slightly positive in the trade balance of machinery goods. Most importantly, the machinery goods have kept an active trade balance even in the difficult year of 2002 as many companies were facing unfavourable development of the Czech currency rate during this year. This could be interpreted as a sign of achieving relatively high levels of competitiveness. In comparison to the recent years, the growth of export will be less influenced by the inflow of FDI in future.

In *Poland* the effects of accession on foreign trade in machinery and equipment are expected to be positive. In recent years export from this sector has been growing quite fast while import diminishes. Deep restructuring process that has taken place results in growing labour productivity and higher competitiveness. Enough to mention, that in the last 8 years number of employees diminished by one third. Net export of machinery has been always negative in Poland, but its size tends to diminish. Negative net export is a result of high demand on machinery and equipment as investment goods. On the other hand, almost 80 percent of exports has been located on the European Union markets. Prospects for further diminishing of net exports depend on opportunities connected to easier EU market access after the accession.

In *Slovakia* there is only one significant change concerning foreign trade caused by the accession. The trade relations between the Czech Republic and the Slovak Republic, promoted through their customs union, continue to be intensive despite the decreasing volumes. Although the customs union arrangements indeed copy the regional trade integration of the EU, the common commercial policy rules of Brussels do not provide temporary exception for maintaining such preferential trade relations after the accession of the two candidate countries. In general, Slovakia's trade with its former federal counter-part will face the most significant changes within the region. According to the projections the abolishment of this preferential arrangement will influence the trade balance of machinery with the Czech Republic the most negatively among all industries.

4. Foreign direct investment

In terms of FDI in machinery industry in general all four countries have undergone rather similar developments in recent years and are facing similar challenges in relation to the accession. The importance of the foreign investment does not derive exclusively from the amount of money for restructuring as such; rather it is the change of ownership and management. Foreign direct investments ease the entrance to foreign markets together with raising the technical-economic parameters and improving the levels of company management. Foreign investors contribute to the Visegrád countries not only in terms of providing the necessary capital, but also by introducing effective management and influencing the quality of both formal and informal institutions.

The high level of FDI inflows into the sector is strongly connected to the development of its foreign trade. One of the main reasons of these investments was to exploit the cheap labour force and the geographically good conditions. At the sector level, this is true mainly for the scale-intensive industries where low labour costs play a significant role and the share of unskilled workers is relatively high, including beyond labour-intensive apparel also some of the key branches of machinery industry, namely electrical machinery, measuring instruments, motor vehicles and other transport equipment

FDI flows from the EU to V4 countries induce an increase of both exports and imports of the V4 countries to/from the EU.

In *Poland* the pace of growth of FDI in machinery industry[2] is slower than in other manufacturing industries. One may explain this by a strong position of domestic sector and by difficulties with entries to a difficult market. It can be therefore concluded that in the machinery industry dominates domestic companies and such situation, which is not typical for other manufacturing will continue to persist. The European integration may change a little in such situation. Better performance of foreign companies brings positive effects on domestic companies activity.

In *the Czech Republic* the numbers of foreign owners, especially in the area of establishment of new companies, are rising mainly in the most dynamic sectors such as automobile industry and electro-technical industry. Large industrial investments are mainly aimed towards machinery businesses such as *FIC CZ, FOXCONN* – computers, *LG Philips Displays Technology Centre- televisions, TPCA – automotive industry* and others. It may be assumed that after the accession to the EU will the structure of the investment change (decrease of investment in the form of privatisation – many businesses in engineering industry are already in foreign hands). Technology demanding machinery sectors (Medical and optical instruments and equipment; radio, television, communications equipments, office machinery and computers) may expect interest from the side of foreign investors after the accession to the EU. It is assumed that the accession into the EU as such will have an impact on the increase of investment in regards to these fields.

The new conception of tax reform in *Slovakia* will not take into account tax privileges for local as well foreign investors, neither tax holidays. This investment stimulus will be cancelled after EU accession.

5. Labour market

Rather similar developments took place on the labour market of the Visegrád countries during transition. As a result of restructuring of the corporate sector in order to make post-socialist companies economically efficient, reduction in number of employees in other activities of a company (construction and repair services, transport units, social facilities) was inevitable in all four countries, but it also accompanied by a change in employment structure connected with the main activity. Modernisation of production equipment or facilities, new production techniques, new and more efficient organisation of work and management techniques are other factors contributing to labour force reduction in machinery industry.

[2] Meaning the manufacture of machinery and equipment only

Although a remarkable fall in employment of machinery could be observed in the early years of transition, in countries that performed well in restructuring the economy, such as Hungary and the Czech Republic, there are signs of a moderate increase in employment of the most competitive branches of the machinery industry (e.g. manufacture of electrical and optical equipment and manufacture of transport equipment). This trend is apparently expected to continue after EU accession. In the case of Poland the restructuring process is not completed yet and one may expect further reduction of labour force in machinery sector, however, the pace of change may be slower.

Average number of employees in machinery industry

	1999	2000	2001	2002
The Czech Republic	..	344,9	349,3	360,9
Hungary	213,4	236	242,8	..
Poland	599,4	558,3	531,8	471

In all countries, contrary to the development of employment, the wages in the machinery industry have been continuously increasing according to the convergence play. This trend has been, however, accompanied by a great increase of labour productivity, of which source was not only the decrease in employment, but also the adoption of new technologies and production techniques.

The lowest ULCs can be observed in Hungary and the Slovak Republic, due to comparatively high labour productivity, while the Czech Republic and Poland are characterized by relatively high wages and high productivity. Slovakia is the most (cost) competitive producer in transport equipment. Hungary seems extremely cost-competitive in electrical and optical equipment as well in transport equipment. Hungary’s position in cost-competitiveness has been gradually changed thanks to the expansive income policy carried out last year.

Poland is by far the most expensive producer among the V4 countries in machinery and equipment, in electrical & optical equipment as well in transport equipment. Czech Republic has very high ULCs in transport equipment, Slovakia in electrical & optical equipment.

There is a great need of further improvement of labour productivity, because the real convergence, and therefore the catch-up of income levels, is expected to accelerate after EU accession.

The fear of the EU citizens, who are worried about the inflow of cheap labour from Eastern Europe, is not justified on rational basis. Moreover, the language barrier of the manual workers would not provide them with a good premise of attaining a job abroad.

6. Market structure

As far as the current market structure of the machinery industry and its development in the future are concerned, it may be considered as the result of the long transitional process and it is not expected to radically change owing to the formal accession. In the Visegrád countries the evolvement of ownership structure is strongly connected with privatisation. The foreign penetration reached quite high level in fields with perspective prosperity such as the automotive industry in every country or the manufacture of electrical and optical equipment in Hungary and the Czech Republic. In addition, the share of conventional heavy industries have been diminishing.

At present the privatisation process is about to be complete in all countries, only few companies are left in state ownership. However, most of them should undergo severe consolidation in the near future. The foreign penetration is therefore expected to raise.

Although the market structure of machinery industry is more oligopolistic rather than competitive concerning the final producers (especially in the automotive industry), the sub-supplier base mostly consists of small and medium size enterprises. Due to the expected increase of automotive and electro-technical industry the SMEs’ position is believed to improve in these sectors.

7. Regulatory framework

The related parts of the acquis are by and large adopted by the Visegrád countries. The legal harmonisation has been implemented by gradation during the pre-accession period. Some of the directives have already become effective in the national legislations, some of them will be in force as of the day of accession.

Concerning the technical requirements and standards there will be no remarkable changes induced by the accession. Although some of the enterprises will face additional costs connected with compliance to many of the EU regulations, there is a relatively long period for adjustment.

On the contrary the investment incentive policy applied by all of the Visegrád countries so far will have to be modified because of the strict regulation of state aid. The EU is trying to enforce state subsidy regulation, consequently a decline in comparative advantages as a motive for FDI inflow may be assumed. That means also a real threat to local companies, even though the SME sector enjoy particular treatment in the EU.

8. Short-term policy recommendations

With regards to the similar position of the Visegrád countries the following measures seem to be common goals:

- encourage of further FDI inflows,
- completion of the privatisation process,
- cultivation and stabilization of the business environment and support of the cooperation of SMEs with large corporates and with scientific and research establishments,
- strengthening of competitiveness by support of science and research, by development of infrastructure and by development of educational system,
- support of the SME sector.

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