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Regional and employment consequences of the defence industry transformation in East Central Europe

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Foreword

This study highlights the connections between defence industrial restructuring and regional development in the transforming economies, on the basis of the cases of Slovakia and Hungary. Hungary and Slovakia were chosen for comparison because they represent two different models of addressing both the crises of the defence industry and regional development. The defence industry was one of the core branches of the former economic and social system in the countries of East Central Europe. It collapsed together with the old system and defence-related enterprises were obliged to undergo major changes to have a chance of survival. This study examines how defence-related enterprises managed to cope with the crisis and the challenges presented by the new socio-economic situation, and what role the larger national environment played in their restructuring efforts.

The radical political changes brought important changes in the regional development of the countries as well. Regional differences have increased, causing serious tensions within the respective countries. At the same time, newly elected local governments were formed that were given new administrative and economic powers to address their regions' specific problems. There were many settlements and regions that in the past were largely dependent on defence industry both in Slovakia and Hungary. The sector's crisis left these regions particularly vulnerable. The paper shows how regional authorities tackled the problems caused by the collapse of defence industry enterprises.

In the past, centrally taken decisions had a predominant role in shaping both sectoral and regional development in the countries of East Central Europe. Since the end of the Cold War the importance of both local and enterprise level decisions has significantly increased. Within the same macro-economic and political framework rather different regional and enterprise development patterns have been created. To be able to evaluate these differences concerning crisis management, adjustment and future development projects, at both the enterprise and regional levels, several enterprises and their respective regions were chosen for comparison in the two countries. The study shows how governments, regional authorities and enterprises addressed defence-related unemployment, structural adjustment and regional development problems in the two countries. One of the major findings of this research is that only the combined restructuring efforts of enterprise and regional authorities can respond effectively to the problems caused by the collapse of the defence industry and implement long-term adjustment measures.

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I. Introduction [1]

The crisis of the East Central European defence industry has been unfolding slowly from the late 1980s, when détente and gradual economic and political liberalization appeared on the agenda of the Eastern European governments. However, the factors that shook directly the military sectors - the collapse of the Warsaw Treaty Organization, the demise of the CMEA, and the loss of Third World markets and state protection - surfaced with a dramatic abruptcy. East Central European defence industry companies went into an unprecedented deep crisis. They experienced a massive fall in production and exports, large-scale redundancies, major productive and financial bottlenecks and threatened if not actual bankruptcy. Only a few civilian productive industries were hit to a similar extent. Agriculture, textiles, and the machinery industry had been geared predominantly towards the CMEA markets and suffered significantly. Several of the branches in those industries had direct connections with the defence industry.

The defence industry in Hungary was relatively small. In 1988, when military production reached its peak, its output was Ft20bn, it employed 35,000 people and its share in the country's processing industry was three per cent. The sector was dominated by the relatively developed - and in theory easily convertible - military electronics industry. Production was concentrated in Budapest and where present elsewhere it was not the dominant factor in regional economies.

In Slovakia the traditional defence industry was one of the pillars of the country's economy. At its peak in 1989 it produced CSK19.3bn, representing approximately 24 per cent of the country's machinery and electronic industrial output. It employed about 80,000 people. It was highly concentrated regionally and dominated by large-scale traditional heavy weaponry production.

The crisis had a similarly devastating impact in both countries' military sectors. By 1993, military production had shrunk in Slovakia to 10 per cent, and in Hungary to about 20 per cent of its pre-1989 peak. In Slovakia it is considered that around 50,000-60,000 job losses are connected to the defence industry's crisis; in Hungary the job losses are estimated at 25,000.

At the beginning the region's governments had similar reactions to the crisis that was unfolding in the defence sector from the mid-1980's. They advocated demilitarization and a radical conversion of defence-related production into civilian activities. By 1992-1993 the governments' policies had radically changed. Then they proposed to preserve and eventually support those defence-related branches and enterprises that had an export potential, were attractive for foreign investors or might have a role in modernizing the countries' national armed forces.

The new policy was defined and carried out differently in the two countries. In Hungary, after some hesitation, the government by and large left the companies to cope on their own. Apart from occasional support provided on a case-by-case basis, companies had to elaborate their own strategies to tackle both the crisis and the adjustment to the new market economy. In Slovakia, in contrast, the fear of regional tensions and massive unemployment was used to justify the government's renewed intervention in the management of defence industry. Direct government subsidies were provided to ease the companies' financial difficulties, joint, state-coordinated research and development projects were launched and in 1995 a state-owned holding company was set up to coordinate and promote defence industrial activity.

Both in Slovakia and Hungary the crisis of the defence industry reached its nadir in 1992-1993. By late 1997 the situation of the sector was relatively consolidated in both countries,

[1] I would like to thank the enterprise managers, local government and Ministry officials in Hungary and Slovakia for their time and candour in participating in this study. I am thankful to Christine Evans-Klock at ILO for her insightful comments and encouragement during research and writing. I would like to thank Peteri Gabor in Hungary and Dr Fred Fischer from the LSGAC in Slovakia for their help to organize my interviews.

with production and employment levels at about 20-30 per cent of their pre-1989 peaks. A large amount of productive assets, workforce, technology and know-how became idle, dispersed or permanently lost. Since the state's resources and willingness to deal with these losses is rather limited, the burden principally rests on the enterprises and the affected regions.

In the first panic, created by the collapse of the old system, defence industry enterprises tried to find solutions by themselves and only for themselves. To cope with their financial crisis, they sought to diminish their overhead costs in every possible way. One method was to shed their social functions. Some of these were completely abandoned; some were delegated to the regional authorities. The reduction of productive activity, the redundancies and the radical cuts in social benefits carried out by the enterprises had a strong negative impact on the regions. Both enterprises and regions tended to close into themselves. After the first years, however, the identification with the problems of their wider environment regained importance in the enterprises' survival strategies. In some companies it was still a remnant of the past's paternalistic approach. In other cases the regional dimension offered unexpected new opportunities to deal with the defence industry's crisis.

The relationship between enterprises and their direct regional environment has been rather strong in East Central Europe. There was a strong, but asymmetrical interdependence: the well-being of the town or region was tightly related to that of the enterprise and - although to a lesser extent - the enterprise's prospects were dependent on those of the region. In the case of defence-related regions and enterprises this dependence was even stronger. Due to the specific security requirements of military-related production, many companies were located in special, remote places, where no other work opportunities existed or where other economic activities were tightly linked to the defence-related production.

There were many company town situations that made settlements particularly vulnerable when the sector's decay began. Towns and regions with important defence-related facilities had received increased financial contributions from the state. Their infrastructure, cultural and sport establishments were at above average levels. The factories created and maintained health, daycare, recreation and cultural facilities, they built and kept up flats for their employees and often they provided even heating, electricity or water for the entire settlement.

Other defence-related companies were located in well-developed industrial centres, where they became the core of the local economy. In some cases, a wide range of productive activity was created "around" the defence industry core. Once defence industrial activity began to diminish, local repercussions created serious, financial problems due to the loss of high incomes, (see the case of Slovenske Lodenice, companies in the Slovak military triangle or DIGEP AG).

Defence industry employees formed a sort of working class elite that enjoyed higher remuneration and benefits and better living conditions than average. They had a strong feeling of identity and awareness of their privileged position. Once their situation began to deteriorate, many of them were able to switch rapidly to new activities. Those, who remained at the companies, were able to protest and lobby for their interests much more efficiently than the population of other depressed regions.

The companies and regions chosen for comparison in this study represent different survival strategies that were introduced in different local and national contexts. ZTS TEES Martin, in Martin, ZVS Dubnica and ZTS Dubnica in Dubnica nad Vahom and PPS Detva in Detva formed the famous "Slovak military triangle" in North and central Slovakia. Each of these enterprises produced heavy military equipment and employed several thousand workers. Since the political system changes each of them and their respective regions have been in a deep crisis.

However, even in this similarly difficult situation important differences emerged, due to different ways of managing the crisis at both the enterprise and regional levels. The case of ZTS Martin and Martin district shows how the lack of genuine restructuring blocks development at both the enterprise and regional levels. The example of ZTS Dubnica and Vahom and the town of Dubnica manifest that a promising regional development is possible, even if the town's key enterprise fails to recover. The case of PPS Detva and ZTS Hrinova in the town and region of Detva show what impact partial reforms can have on enterprise and regional development. It also demonstrates that the lack of correspondence between the different levels of decision-making - enterprise- town- region - can hinder progress. The example of Slovenske Lodenice in Komarno in the South of Slovakia presents a successful industrial restructuring and an uneasy situation for regional reform attempts.

In Hungary most defence industry enterprises were based in Budapest. The impact of the collapse of the defence industry and the subsequent large-scale redundancies became part of the crisis of the large-town economy and its unemployment problem. Most of the released workers eventually found some kind of new employment and were reabsorbed in the recovering capital economy.[2] There were however some important defence facilities in the countryside that played a major role in their respective regions' well-being.

The case of the Videoton company in Szekesfehervar presents a successful example where both the enterprise and the city managed to overcome their crisis, join their restructuring efforts and start an impressive development cycle. The example of a former Videoton branch company and the town of Ajka shows that a creative local self government is able to launch an efficient crisis management programme, even if some key enterprises are unable to restructure. The cases of Digep-Army Coop and Eszak-Magyarorszagi Vegyimuvek in North-East Hungary at the same time illustrate how the unresolved enterprise reforms weigh on a region's economy and how difficult it is, on the other hand, to encourage individual company development in a depressed region. The case of Matravideki Femmuvek in the small mountain village of Sirok shows how a micro-region is tied to its main employer and how the impact of a relatively efficient enterprise readjustment remains isolated in such a closed environment.

The research was based on interviews carried out by the author with defence industry enterprise managers and Ministry officials on the one hand, and representatives of the regional authorities on the other hand. The interviews were complemented with information published in the local press, academic publications and background materials provided by the interviewees. The principal question of the research was to establish the connection between industrial and regional development and find what factors could facilitate or hinder the development of either one or both.

II. Country cases: defence industry and economic development in Hungary and Slovakia

1. Political-economic background

1.1 Slovakia

Before the Second World War the former Czechoslovakia had the most advanced industrial development and democratic system in East Europe. Within Czechoslovakia, however, Slovakia had different historical traditions. When Czechoslovakia was created in 1918, Slovakia was an agricultural country, with very little industry. It was more underdeveloped and traditional than the Czech lands. Massive industrialization of Slovakia started after the Second World War, in particular in the 1950s. Although the gap between the Czech lands and Slovakia diminished significantly, certain differences still remained.

After the "Velvet Revolution", the introduction of the market-oriented economic reforms and political liberalization took place much slower in Slovakia than in the Czech Republic. The

[2] The situation was similar in Bratislava, Slovakia. In addition, defence-related companies in the capital were much smaller than those in the provinces.

growth of the private sector, especially in industry and the introduction of the new market institutions proved to be far slower and more complicated in Slovakia then in the rest of the country. At the same time during the “transition crisis” industrial output, productivity and profits fell to a greater extent. Primary and secondary insolvency was paralysing the bulk of enterprises. (Gabrielova, 1993, Karasz 1993).

The break-up of the country in 1993 made these problems worse. Living standards and the general level of economic development were lower than in the Czech lands to begin with, but after the separation they were doomed to shrink even more, with the loss of direct Federal government allocations and crucial production and exchange contacts. Key projects of the macro-economic stabilization and reform package, like privatization, balancing the state budget and eliminating mutual enterprise indebtedness, were slowed in Slovakia. GDP and industrial production continued to decrease, while inflation, unemployment, trade and budget deficits kept climbing.

A serious obstacle to development was posed by political uncertainties in Slovakia. Prime Minister Vladimir Meciar’s personalized and impulsive style of running government affairs made things rather unpredictable in Slovakia. In the Spring of 1994, Mr. Meciar’s cabinet was ousted and a new government, led by Mr. Josef Moravcik, former Minister of Foreign Affairs, was formed. The new administration made an heroic and rather successful attempt to stabilize the economic situation and address major development bottlenecks. However, time was too short for many important changes to be implemented and when the interim government’s mandate was over, in November 1994, the electors brought back Mr. Meciar and his allies to power.

The Slovak economy manifested important signs of recovery from 1994 on. Economic growth resumed and reached 5 per cent by the end of the year. Industrial production also began to recover, as well as exports and private consumption. At the same time, inflation, the budget deficit and trade balance were under control. (*Financial Times*, 16 December 1994; *Figyelö*, 3 November 1994). In 1995-1996 the Slovak economy manifested impressive signs of growth, with GDP growth at 6-7 per cent and the lowest inflation rate (5 per cent at the end of 1996) in East Central Europe. In 1977, GDP grew by 6.5 per cent. The rate of industrial output growth dropped from 8.3 per cent in 1995 to 2.7 per cent in 1997. Inflation increased slightly to 6.5 per cent (UN/ECE, 1998, No. 2, p. 12).

At the beginning of 1997, however, the economy’s deep structural problems became evident. The current account deficit reached 10 per cent and that of the state budget mounted to 5 per cent of GDP. The increase of exports was principally due to a massive sale of raw materials or low value added products that showed clear signs of exhaustion. According to the calculations of WIIW, the Vienna based Comparative Economic Studies Institute; productivity has decreased by 20 per cent, compared to 1990 (*Figyelö,* 7 August 1997). Despite its positive economic indicators in the mid 1990's, Slovakia attracted very limited foreign investment (FDI), due principally to its unstable political climate. Heavy external borrowing largely financed the investment and consumption upsurge experienced during these years, which lead to a swift increase of foreign indebtedness (*Financial Times,* 28 October 1997).

One of the worst negative consequences of the radical economic and political transformations, unemployment increased dramatically, from 2 per cent in 1990, to 15 per cent in 1993-1995 stagnating at about 14 per cent since 1996 (Allison-Ringold, 1996, p.60). In 1997 the rate of unemployment was 12.5 per cent (UN/ECE, 1998, No. 2, p. 12). In 1995, half of the registered unemployed were long-term unemployed (Boeri-Lippoldt, 1996, p. 55).

1.2 Hungary

Hungary had a fairly advantageous starting position for introducing a genuine market economy and a Parliamentary democracy. Beginning from the early 1950's it had a long history of economic and political reforms. In the late 1980's, in the last stage of Hungary's one-party history, both the centralized command economy and the state-socialist political system were significantly reformed and liberalized.

The first post-Communist government that took power after the elections in 1990 was led by the center-right Hungarian Democratic Forum (MDF). The Forum was a new political formation, hastily put together from several currents of rather different political and ideological background. Once in power it was entangled in permanent internal struggles that eventually led to several fractions. During its four years in power, the MDF government became increasingly authoritarian and nationalist, antagonizing most of the Hungarian population and creating tensions with neighbouring countries. It lost the 1994 elections.

A new coalition of the Socialist Party (the reformed HSWP, Hungarian Socialist Workers' Party, the former monopolist Party) and the Free Democrats, (a party created by the former opposition of the Communists) was created. The coalition was able to progress in some crucial issues, like privatization, the creation of market economy institution system and political reforms. Despite these positive changes, unpredictability, internal power struggles and corruption characterized this coalition's governance as well.

In the early 1990s, macro-economic stabilization and general economic transformation projects took place with serious delays and deficiencies in Hungary. The transition crisis became unexpectedly long. The fall of production, deterioration of major macro-economic indicators, like the budget deficit, foreign trade deficit, external and internal indebtedness, unemployment and inflation continued. In the Spring of 1995 a severe economic restriction policy was introduced, aimed at stabilizing the economy and restructuring macro-economic balances. The package had serious negative consequences on welfare, but proved to be efficient in stabilizing the economy that gave way to recovery. Since 1996 the Hungarian economic situation has improved considerably.

GDP growth resumed to 1 per cent in 1996 and reached 4.4 per cent in 1997. In the first half of 1997, industrial production grew by 7.8 per cent and investments by 8.3 per cent. End year figures showed an impressive 11 per cent increase in industrial output. The leading branch of the industrial recovery was machinery production, which grew by 50 per cent compared to 1996 and provided the bulk of the 15 per cent export growth achieved by 1997. (*Figyelö,* 10 July 1997). Inflation, though still rather high, decreased from 28.2 per cent in 1995 to 18 per cent by 1997.

The favourable macro-economic indicators manifested some genuine structural changes. The institutional system of a market economy was established. By the end of 1996 approximately 60-70 per cent of the GDP was produced by the private sector. Many obsolete, inefficient industrial branches went bankrupt and modern, high-tech sectors were created. According to the calculations of WIIW, the Vienna based Comparative Economic Studies Institute, productivity has increased by 68 per cent compared to 1990 (*Figyelö,* 7 August 1997).

Another factor that contributed to the Hungarian recovery was the high amount of FDI. Despite its relatively small size, Hungary received the highest per capita foreign capital inflow in the whole East Central European region. Foreign direct investment was estimated to have amounted to $20bn between 1990 and 1997 (*Financial Times,* 9 December 1997).

One of the worst consequences of the radical changes in the country's economic and political structure was massive unemployment. Between 1990 and 1992 unemployment rocketed from 1.9 per cent to 12.3 per cent and has stagnated between 10-12 per cent since, despite a variety of means adopted to address it. In 1997 unemployment stood at 10.4 per cent. Its composition has also been shifting towards a growing share of long-term unemployed.

1.3. Regional development and reorganization in Slovakia and Hungary

Both in Slovakia and Hungary strong regional differentiation is a serious negative byproduct of the major economic and political system changes. Before 1990 the state-led regional policy aimed at compensating territories of lower levels of development. The state carried out an intense redistribution policy, collecting extra revenues from the more affluent regions and redistributing them to the poorer ones. In addition, employment opportunities were created, mainly through setting up subsidiaries of large enterprises in backward regions. After 1990 this practice came to an end.

The radical changes in the productive sectors reshaped regional relations. The original, historical and economic differences among the different regions became manifest and increased further, due to the uneven nature of the market-led economic transformations. In both countries efficient industrial restructuring, foreign investments, and new private enterprises concentrated in the capitals and in a handful of emerging regions. Unemployment, poverty and obsolete economic structures became characteristic in a large number of regions and the distance between the two poles was increasing. In Hungary development concentrated in Budapest and some Western counties of the country. In Slovakia, Bratislava, Kosice and some Northern and Central districts excelled.

In Slovakia between 1992 and 1995, GDP per capita was above the national average in Bratislava, Kosice and Trnava. These districts, together with Trencin district, received two thirds of all investments in the country. At the same time approximately half of the districts had a GDP per capita ratio lower than 60 per cent of the national average. Cadca, Kosice-vidiek and Svidnik districts were in the worst situation. More than 62 per cent of the foreign capital was invested in the district of Bratislava, another four districts received 16 per cent and the rest of the country received the remaining 12 per cent. In 1995 more than 50 per cent of the Slovak GDP were produced in four districts (Bratislava, Kosice, Trnava and Banska Bystrica). Unemployment showed similar regional disparities. At the end of 1995 the lowest level was 4.7 per cent in Bratislava, while the highest ratio reached 26.4 per cent in Rimavska Sobota (Karasz et al, 1996.; Krivy, 1996).

In Hungary, the GDP per capita in Budapest and its immediate economic region was three times higher than in Northeast Hungary, Borsod-Abauj-Zemplen and Szabolcs-Szatmar-Bereg counties. Consumption, wages, revenues and unemployment showed similar or even greater differentials. Eighty per cent of the invested foreign capital went to Budapest and its region and to the North Trans-danubian region. In these regions the FDI per habitant ratio was US$2,700 while in the rest of the country it was only US$270 per capita. In Borsod-Abauj-Zemplen and Szabolcs-Szatmar-Bereg counties it hardly reached US100 per capita (*Figyelö*, 25 July, 1996). Unemployment was polarized regionally as well. In 1996 the number of unemployed per 1,000 habitants was the lowest in Gyor county (24) and Pest county (28). At the same time in the Northeast of the country, in Szabolcs-Szatmar-Bereg county, it reached 78, in Borsod-Abauj-Zemplen county 75 and in Nograd 72 (*Heti Vilaggazdasag*, 11 May 1996).

Experts in both countries point out that increasing regional disparities might become a major obstacle to economic and political development in the near future (Hegedus, 1996; Karasz, 1996; Krivy, 1996). National level regional policy guidelines aimed to ease the regional tensions and diminish differences. Special projects were designed to assist the districts that were in the most difficult situation. These measures, even though they eased somewhat the increasing tensions, were unable to change the situation. The problem had to be addressed by local and regional authorities.

The system of regional administration has been radically changed since 1990 in both countries. In the past there was a strongly centralized state and party administration that had local branches at the county, district and local levels. In 1990 reforms of the territorial administrative system and regional elections took place in Hungary and Slovakia. In Slovakia the system was reorganized again after gaining independence in 1993 and following a proposal of Mr. Meciar's party, the HZDS, in 1996.

In Slovakia there are 2,853 local self governments, each led by a municipal council and a mayor, who is elected directly. There are 38 districts that are organized in eight sub-regions. In Hungary, according to the new Law on local self-governments, 3,084 independent local governments have been created, within 20 counties.[3] Representatives of local self- governments are elected directly by the population. Local governments delegate their representatives to the direction of the counties. The counties are regrouped to eight sub-regions.

The self-governments' financial situation determines their chances of playing an active role in promoting economic activity. One of the special features of the Hungarian local administration system is that the local governments are in charge of many functions, but their size and their revenues do not correspond to their responsibilities. Approximately 70 per cent of the self-governments' budget are provided by the state budget, the rest is generated by them from local taxes, rents and eventually their economic activity (Illes, 1996). In Slovakia, the scope of the local authorities' activity is even more restricted. According to local experts, self-governments in general lack resources for significant improvement projects (Krivy, 1997; Minarovic, 1996). Local government budgets represent 5 per cent of the GDP, while in Hungary they reach 15.7 per cent (Credit Local de France, 1996. p.4).

2. The traditional defence industry and its crisis in East-central Europe

The first major blow to traditional defence industry enterprises in Central Europe was the sudden collapse of the Warsaw Pact-based military-economic cooperation. At the turn of 1990-1991, the large-scale and lucrative military markets of the region ceased to exist. When the Warsaw Treaty Organization (WTO) was dissolved, all major defence-related companies in East Central Europe had large stocks of military equipment, unfinished production, unusable spare-parts and large raw material inventories and considerable unpaid bills. Having lost their major incomes, they quickly became insolvent. Their financial difficulties were aggravated by the burdens of unsold stocks and reserves.

The collapse of the Warsaw Pact military markets took place simultaneously with the collapse of the civilian markets, organized in the CMEA (Council of Mutual Economic Assistance) system. Dual purpose defence industry enterprises exported large quantities of civilian goods to the Eastern European markets. In addition to the loss of incomes and markets, the disappearance of the WTO and CMEA meant the collapse of an extended supply system for military-related enterprises in Central Europe. They could no longer rely on plentiful and cheap raw material and energy supplies from the Soviet Union and they lost their stable network of intra-regional subcontractors as well. This was another factor that pushed production costs upwards and caused major practical problems in reorganizing the firms' economic activities.

Another, unexpected blow was the loss of the traditional Third World markets, principally the Arab countries. This market had become an increasingly important source of hard currency revenue since the mid 1970s. The Gulf war and the subsequent United Nations embargo on Iraq and Libya froze these business contacts.

Defence-related enterprises not only lost their markets and major sources of revenue, but could not count on the backing of the state that until then had assured their privileged position. Due to radical defence budget cuts there was a drastic drop in state orders. This meant the loss of stable and comfortable local markets. In addition, since the national armed forces did not order new weapons, the industry was deprived of their references that facilitated export promotion.

[3] Budapest, the capital is also defined as a county.

According to the new, market-oriented ideology, the state was expected to reduce radically its direct involvement in economic life. It was envisaged that the previous practice of maintaining, protecting, partially financing and, if needed, rescuing defence industry enterprises should definitively come to an end. The direct forms of state protection, special subsidies, access to investment and credits, tax-, export- and import allowances, and specific forms of remuneration were supposed to disappear as well. In Hungary this process has been gradually unfolding since the late 1980s, but in Slovakia it appeared with a dramatic abruptness. Even though the state's withdrawal was not as radical as it was first presented in the official rhetoric, for those in the defence industry it was felt as a genuine abandonment. This created panic and uncertainty and contributed to a further deterioration of the companies' situation.

The transformation process that was unfolding in all Eastern European countries added new elements to the defence-related firms' crises and at the same time made it extremely difficult for them to tackle them. A new economic environment was created which shook deeply all state-owned enterprises. In addition to their problems stemming from their specific profile, defence industry enterprises had to cope with the challenges of privatization, trade liberalization, and new monetary and fiscal policies.

2.1 Slovakia

According to Slovak sources, military production in Slovakia reached its peak, CSK19.3bn[4] in 1988. Slovakia contributed more then 60 per cent of the whole Czechoslovak output, while its population represented only 33 per cent of the country. Most of the military-related production was concentrated in the heavy engineering and electronic industry. In 1988 arms manufacturing represented 24 per cent of the total output of these two branches. (The corresponding share in the Czech Republic was 7 per cent) (Droppa, 1993 p. 7).

At its peak, the Slovak defence industry directly employed approximately 80,000 people. Taking into account the wide subcontractor network, their number nearly doubles. In 1988 more then 24,000 employees worked in the core 24 companies, another 80,000 jobs in direct sub-contractor and suppliers, and another 50,000 in indirectly cooperating enterprises (Stanek, 1993, p. 95).

Slovak sources list 25 major arms manufacturers in the country[5]. In 1988-89 there were five major end producers, nine main suppliers and the rest, 22 companies, operated in 60 supplier sub-branches, providing spare-parts and semi-finished products (Magvasi, in ZTS TEES Martin, 1993). All military enterprises were dual purpose factories; they produced for both military and civilian purpose, often using the same technology. In 1988 in the former Czechoslovakia, only one third of the military-related companies had more than one fifth of their total production in military output. In Slovakia, however, 56 per cent of the respective companies had higher rates of military dependency. [6] Between 1980 and 1990, 60 per cent to 90 per cent of all investments carried out in these enterprises were dedicated to military purposes.

The bulk of Slovak defence industry firms were large-scale establishments. In 1988 the average production of the Slovak firms was about CSK600mn a year, nearly double the Czech average, CSK290mn. The average employment in the Slovak firms was 12,000-14,000 people. (Outrata 1993, p. 84-85). In 1991 the largest Slovak enterprise, ZTS Martin, produced

[4] In 1989 1$ was worth of 30CSK. (Czechoslovak Crown). In 1992, the exchange rate was 1$=28CSK. At the end of 1993, 32.8 Slovak Crowns (SK) was worth 1$. At the end of 1997, the exchange rate was 1$=33.7Sk.

[5] The federal statistics listed 36.

[6] More precisely, 16 factories, where the share of military production ranged from 30 to 65 per cent, played the key role in military production (Stanek, 1993, p. 95).

CSK1,500mn worth of output, while the Czech firm with the largest output, Tesla Pardubice was roughly one-tenth that size, CSK150 mn. [7]

In Slovakia, as in the other less industrialized economies of Eastern Europe after the Second World War, the establishment of a Soviet-style weapons industry was carried out in the framework of a forced industrialization programme. Most defence industry enterprises were greenfield investments. The Slovak arms industry specialized in large-scale heavy-weaponry production, principally under Soviet licenses. The share of local R&D was relatively modest, although the most important enterprises had their own R&D institutes and Konstrukta, the Military Research Institute in Trencin, was generally acknowledged for its projects.

Another characteristic of the Slovak defence industry was its high regional concentration. In 1987-88, 32.6 per cent of the Czechoslovak workforce employed in the sector was located in the Central Slovak region. There were more than 30,000 workers in the so-called “military triangle” of Martin, Detva and Dubnica. The regions’ defence dependence was also strong. In cities like Martin, Dubnica, Detva and Povazska Bystrica military-related production was the main, sometimes the only, employment opportunity. Most of the defence-related enterprises were under the control of the special department of the Ministry of Economy. [8] The rest of the companies, principally the ones specializing in repair work belonged to the Ministry of Defence.

The crisis

According to Karol Droppa, head of the Armament and Reconversion Division of the Ministry of Economy of Slovakia, between 1988 and 1991 defence industry output fell from CSK19bn to CSK3.5bn. By 1992 output was a mere CSK1.8bn. This represented 9.3 per cent of the 1988 peak production level. The crisis caused the loss of 30,000 jobs in the sector (Droppa, 1994(a) p. 9). Arms exports suffered a similar decrease: between 1976 and 1988, average annual sales reached about CSK7bn, in 1991 and 1992 they amounted to only CSK3.7bn (Outrata, 1993, p. 88-89).

Table 1. Slovak military production: main indicators

	1988	1992
Output (CSK billion)	19.3 billion	1.8 billion
Employment	80,000	50,000
Enterprises	25	25
Military production’s share of these enterprises’ total output	30-65%	0-10%
Military production’s share of total output in heavy engineering and electronics industries	24%	n/a

Sources: Calculations on the basis of Droppa (1993 and 1994b) and Stanek (1993).

The defence sector’s crisis had a severe impact on employment. In 1992, according to official data, defence-related unemployment peaked at 15-18 per cent in Slovakia and 5-8 per cent

7 Tesla Pardubice employed 6-7,000 workers at peak capacity. Even the biggest concentration of factories in the Czech lands, in Slavicin, Bojkovice and Uherski Brod, accounted for no more than 10,000 people altogether.

8 Before 1990 it was under the Ministry of Engineering and Electrotechnics, and became the Ministry of Economy after 1989.

in the Czech lands[9]. An additional blow to the workforce was the almost complete elimination of its special status and advantages that in the past made defence related employment so attractive for many. Employment decreased dramatically, but certainly much less then production. This created overemployment and further financial burdens for the companies.

In the early 1990s most of the Slovak defence-related enterprises were in a virtual state of bankruptcy and faced dim future prospects. They had lost their traditional markets and had difficulties finding new ones. They lacked resources to modernize military production, follow up conversion projects or maintain existing production levels. They were also in the midst of political and institutional instability that made their situation even worse. In early 1994 defence industry output was only SKK2bn, approximately 10 per cent of its peak in 1988. At least half of the previously employed workforce was made redundant, causing unemployment in some heavily affected areas to reach 30 per cent.[10] If the bankruptcy law in preparation were introduced and enforced, approximately 50 per cent of the companies faced immediate liquidation (Droppa, 1994b).

In addition to their problems emerging from their special profile, Slovak defence industry firms had to struggle with serious difficulties stemming from the generally poor state of the economy. It was very difficult for the redundant workforce to find new jobs and for enterprises to find new subcontractors or to get credit for development projects from either the state budget or local banks. The general underdevelopment of the basic institutions of the market economy made the introduction of enterprise level reforms very difficult.

2.2 Hungary

In 1988, the most successful year of the Hungarian defence industry, approximately 40 factories were directly involved in military-related production. They all had mixed profiles producing for both military and civilian use. There was only one exception, the Godolloi Gepgyar, (Machine Factory, Godollo) an armoured vehicle and weapon repair factory, whose entire output was military. A total of 93 per cent of the country's military output was produced by 17 enterprises. The share of military production ranged from 7.1 per cent up to 82.2 per cent of their total production. There were only five companies where defence-related production represented more than half of overall output and only one completely military plant.

According to data published in 1994, in the peak year of 1988, output was Ft21.4bn,[11] which represented 2.5 per cent of the manufacturing industry's output (*Heti Világgazdaság*, 5 November 1994). Three-fourths of production was exported - 60 per cent to the former Soviet Union. Around 30,000 people were employed in the defence industry, or approximately 2 per cent of the economically-active population (*Figyelö*, 14. February 1991).[12]

Statistics for the Hungarian defence industry only included those end-producers whose direct weapons, military equipment and other military-related output represented at least 10 per cent of the company's output. Subcontractors and enterprises providing tools, instruments, vehicles, uniforms, raw materials or food were excluded. The scope of these activities and their importance for the respective enterprises' activity was unknown. There was another group of enterprises that stopped military related production, but were obliged to maintain their defence-related productive capabilities for cases of emergency.

[9] At the time general unemployment reached 12-13 per cent in Slovakia and 3-5 per cent in the Czech lands (*Financial Times*, 22 March 1992).

[10] According to *The Economist* this meant the layoff of 60,000 people (Economist, 6 November 1993). Average unemployment was 14 per cent in early 1994, in some regions reaching 20 per cent (*Le Monde*, 5 April 1994).

[11] In 1988 the exchange rate was 70 Hungarian Forint (Ft) to 1$, in 1993, 100Ft=1$, in 1997, 200Ft=1$.

[12] Other sources ranged from 20,000 to 35,000.

In the late 1980s communication electronics and precision instruments represented 75 per cent of total military output. The rest was 12 per cent weapon and ammunition, 8 per cent vehicle and air plane repair and 5 per cent other goods like chemical and textile products (*Figyelö*, 13 April 1990). The share of defence-related activity in machinery production reached 6 per cent and in the electronics and instrument production, 25-30 per cent (Kovacs, 1993).

Military producers were subordinated to the Ministry of Industry.[13] The most important 20-25 factories were under strict state supervision, with managers appointed directly by the Minister of Industry. All other Ministries whose activities were connected with military production had a special "closed department", whose function was to assure the needs of military-related activity. These special departments had separate funds within the respective Ministry's budgets.

Defence industry was concentrated in Budapest. Some important companies were established in the countryside in other major industrial centres, like DIGEP in the Northeastern heavily industrialized region or Szekesfehervar in the Trans-danubian region. There was a handful of greenfield investments in remote areas, where defence-related facilities were easy to disguise.

The largest defence-related company was Videoton, which at its peak employed 20,000 people, out of whom approximately 6,000 worked in the military-related divisions. The average size of enterprises or divisions specializing in military-related production was 2,000-3,000.

The crisis

After the 1988 production record, 1989 brought a drastic reduction of military orders in Hungary. Both WTO and local demand have decreased dramatically. Although various sources offer contradictory data, the following table illustrates the extent of the crisis as early as 1991.

Table 2. Hungarian military production: main indicators

	1988	1992
Output (Ft billion)	20 billion	3.6 billion
Employment	35,000	6,300
Enterprises	45	45
Military production's share of these enterprises' total output	20%	4.7%
Military production's share of total output in heavy engineering and electronics industries	3%	0.5%*

Sources: Military Industrial Office. In *Heti Világgazdaság*, 28 November 1992.
*According to data published in 1997, the share was 1.5% (Figyelö, 15 October 1997).

By 1993 production fell further to Ft6,7bn, of which Ft14bn was exported (*Heti Világgazdaság*, 5 November 1994). Despite the deepening crisis, only one enterprise closed down and very few factories liquidated their military-related productive capacities. This meant an enormous waste and a rapid amortization of unused fixed assets. By the end of 1993 the sector utilized only 20 per cent of its still existing productive capacity.

13 Except the one 100 per cent military-devoted company that belonged to the Ministry of Defence.

3. Conversion

The first reaction of the East Central European governments to the surfacing problems of the traditional defence industry was to propose the radical conversion of the sector. The new Czechoslovak leadership led by Vaclav Havel, Jiri Dienstbier and Jaroslav Sabata tried to fulfill their ideal of a peaceful, democratic country, described among others in the documents of Charter 77. The decision about conversion was driven both by the strong moral commitment of the new government and “economic disarmament”, aimed to diminish losses caused by the fall in demand witnessed in the late 1980's. Several Acts were created envisaging the halt of tank and armed personnel carrier production and the conversion of special technology dedicated to military-related production. In all of post-Communist East Central Europe these were the only laws introduced to promote nation-wide conversion.

In order to promote conversion, in 1990, a wide-scale conversion competition was announced for enterprises and research institutes. Successful projects could receive state subsidy or/and apply for special loans from the regional banks. Altogether 125 plans were approved, 60 in the Czech lands and 65 in Slovakia. The largest-scale projects, the Hannomag and Lombardini projects at TEES ZTS Martin, the mobile hydraulic cranes project at ZTS Dubnica and the chassis production project in Detva, were all in Slovakia.

The Federal Government provided considerable financial support, in the form of direct subsidies, funds to reduce damages caused by the halt of military production and for retraining. The selected conversion projects were due to begin in October 1991. According to Slovak Deputy Prime Minister, Roman Kovac, there were 11 ongoing conversion projects in Slovakia in early 1993 covering about half of the drop in military production (*Telegraf*, 19 August 1992).

In Slovakia, where the military sector was larger, more concentrated in heavy weaponry and older technologies, and less diversified by industrial branches, the crisis was felt more severely than in the rest of the country. The Slovak reaction was twofold. On the one hand the Slovak government tried to soften the original decision advocating the radical conversion of the defence industry. On the other hand it became actively involved in conversion programmes. In January 1991 it published its own document, which attempted to lay out a comprehensive strategy to deal with the problem, including the negative side-effects of the rapid decrease of military production.

In Hungary, conversion was never promoted as part of the official policy concerning defence industry. In the early 1990's the authorities suggested that defence-related companies should convert, but in rather theoretical terms. Only very limited technical or financial assistance was offered by state agencies.

By early 1992, political decision-makers in Czechoslovakia came to a conclusion that conversion was much slower, more expensive and complicated than expected. In May 1992 it was decided that only those factories that completely stopped the production of weapons would receive further subsidies from the State (*Noviny*, 29 May 1992). This was a major blow for conversion, since even the enterprises most committed to conversion envisaged a gradual transformation. In addition, simultaneously new, more relaxed guidelines were introduced concerning arms exports. The representatives of the defence industry interpreted these two moves as an indirect incentive to continue producing and exporting weapons.

Even though conversion was gradually abandoned by the Czechoslovak Government, the question of arms industry, trade and conversion became one of the factors in the escalation of economic and political tensions that led to the break-up of the Federation. Conversion and the conflicts it triggered were used as a pretext to fuel separatist ambitions both on the Czech and the Slovak sides. They also became a major issue whose discussion provided an opportunity to articulate the ideological and political differences of the emerging new political leadership of the two Republics.

In the campaign of the emerging Slovak nationalist opposition, led by Vladimir Meciar, conversion became the scapegoat for the dramatic consequences of the unfolding economic crisis. Since the Federal Government was unable (and somewhat reluctant) to take care of the Slovak enterprises "hit by conversion", the "genuinely national" movement promised to undertake the issue. The real losses, Prague's continued insensitivity to specifically Slovak problems and determination by the political leadership on both sides led to popular acceptance of the break-up of the country. Before June 1992, in an absurd electoral end-game, arms production and exports became the symbol of Slovak national sovereignty, worthwhile to defend at any price.

4. Reorganization

4.1 Slovakia

Immediately following the break-up of Czechoslovakia, as new Prime Minister of Slovakia, Mr. Meciar declared that "arms production will be resurrected wherever it was possible" (*Rude Pravo*, 6 January 1993). In a meeting with representatives of the Ministry of Defence, he promised that "the Slovak army will have enough means to guarantee its efficiency, even if these means will have to be provided at the expense of other budget items" (*Lidove noviny*, 5 January 1993). According to the new policy guidelines the resurrection of the military industry was needed to generate export earnings, but also to enforce the new Slovak national army facing the "threats" of neighbouring Hungary (*Liberation*, 6 January 1993).

At the beginning there were some dissenting voices, even in defence industry circles.[14] However these first discords were soon settled, and since then all major participants of the Slovak political scenario seem to agree that Slovakia needs to continue producing and selling arms. The basic differences appear in the details: what scope, what branches of the sector should be preserved and under what conditions.

In addition to government circles, the main representatives of both employers and employees also pushed for continued arms production and state support for it. The Union of Engineering Industry of the Slovak Republic, that unites both state-owned and private enterprises involved in military-related production, tried to exert pressure on state agencies to slow down the conversion process and re-establish a level of arms production that was "in harmony with the country's needs and possibilities" (Magvasi, 1993). The KOVO trade union, representing employees in the metal and engineering industry, from 1990 on fought to modify the government's policy, promoting a gradual, slow conversion process, with the revenues from maintained military production invested to promote conversion (Krumpolec, 1993).

The government intended to consolidate the military sector both by new institutional arrangements and renewed financial support. The principal means to preserve the government's direct influence over military-related firms was through maintained ownership.[15] Under Mr. Meciar's first government the whole privatization process was slowed and the privatization of defence industry enterprises was blocked. Privatization became a central issue of internal political struggles that eventually led to the fall of the government. Mr. Moravcik's cabinet

[14] Mr. Peter Magvasi, Director of the Special Division at ZTS Martin declared that it was impossible to revive the production of some military equipment as suggested by the Prime Minister, particularly in such a short time as he called for (*Mlada Fronta Dnes*, 9 January 1993). Mr. Ludovit Cernak, Minister of Economy claimed that Slovakia was not considering modernizing the arms industry, since world arms markets suffered a major slump (*Ekonom*, 16 January 1993, No. 5).

[15] One of the manifest signs that the former Czechoslovak government did not mean to assign special treatment for defence industry firms was that military-related enterprises were selected to take part in the first wave of coupon privatization that began in February 1992. Fourteen companies were selected to be privatized - seven Slovak and seven Czech. For several years the only privatized Slovak defence-related firms were the ones that had participated in this programme.

intended to carry out a radical and rapid privatization. It was suggested, among others, that weapons factories would be sold too, with the state keeping only 2-3 per cent of the shares (*Lidove noviny*, 18 April 1994). A month later however it was announced that armament companies would not be included in the (planned) second round of privatization, but would be dealt with on a case-by-case basis (*Hospodarske noviny*, 18 May 1994). The Moravcik government did not manage to pass the new privatization law.

During Mr. Meciar's second term a controversial privatization process was carried out. Coupon privatization was halted and the sale of state-owned enterprises was carried out on a case-by-case basis, principally through direct sales.[16] The result was a complicated system of cross-ownership, in which the real owners of the military related enterprises are predominantly state-owned banks, companies and other state institutions.

As of 1 May 1997, all defence industry enterprises that were nor privatized previously, became 100 per cent state-owned shareholders companies. The state as founder and owner of these companies is represented by different state organizations. The Ministry of Economy has five companies under its tutorship: ZTS TEES Martin, ZTS and ZVS Dubnica nad Vahom, Konstrukta Defence (a R&D Institute) and Konstrukta Industry Trencin. Some other enterprises, for example PPS Detva, belong to the Fund of National Property. Another group, principally companies specialized in repair, is under the control of the Ministry of Defence.

The Slovak government intended to create new organizations to coordinate and promote defence industry production more efficiently. In early 1993 the authorities established a state-owned trade company, ARMEX, to promote exports. Its performance has not been regarded highly.

In 1995 the Ministry of Economy, the Fund of National Property, some other Ministries, enterprises and banks founded the DMD holding company in Trencin. There are approximately 20 defence-related enterprises that belong to the holding company now. DMD owns 34 per cent of the shares of the five companies under the Ministry of Economy and has varying but minor participation in the rest of the companies. Approximately 10 per cent of the holding company's output is defence-related. The aim of the holding company is to coordinate the member companies' exports, R&D and technological innovation activities and to facilitate their cooperation and communication. DMD holding is expected to push its companies to restructure and introduce new promising projects. It can also assist them in receiving external capital for their projects (Dudak and others, 1997).

The government also provided direct financial support to the crisis-stricken enterprises of the military sector. In 1993, SKK500mn was scheduled for ongoing conversion projects. By the end of the year, as an emergency step, the government provided SKK2bn to write off the military enterprises' bad debts (Droppa, 1993 and 1994, *Pravda*, 31. January 1994). In 1994, the Moravcik government decided to allocate another SKK245mn for conversion projects (*Lidove noviny*, 18 April 1994). In June 1994, a decision was taken to help about 30 companies with another SKK300mn to resolve the problem of their bad debts. (*Lidove noviny*, 22 June 1994).

By the middle of 1994 some signs suggested that the Slovak state's efforts to revive defence-related production had brought fruits, at least in the short run. In June 1994 Mr. Kovacik, Director of the Machinery and Electronics Department of the Slovak Ministry of Economics declared that by the end of 1995 the large heavy weaponry producers of the country could stop producing losses if the problem of their bad debts were resolved (*Lidove noviny*, 22 June 1994).

[16] The National Property Fund sold companies directly to invited buyers, without public tenders. The selected new owners were to create the "new Slovak capitalist class". In most cases they paid a fragment of the price, the rest was forgiven in exchange for promises of further development of the companies. In 1995 only approximately one fifth of the privatization deals, concerning mostly small-scale companies, was carried out through public tenders (*Heti Vilaggazdasag*, 15 June 1996).

According to Mr Dudak, head of the Department of Special Production of the Ministry of Economy, in 1997 the Slovak defence industry's output was one tenth its peak production levels at the end of the 1980's. The sector used 20-30 per cent of its productive capacity. The bulk of the production was repair and production of spare parts. Local demand covered 5 per cent of the defence industry output. The last major export was the tanks sold to Syria in 1993. Since then, through a UN tender Slovakia sold some tanks to India and Bozena anti-mine devices to Bosnia. Due to the crisis and transformation of the military-related production, 30,000 people became unemployed in Slovakia (Dudak and others, 1997).

According to independent experts, defence industry output grew considerably after the nadir of 1992-1993. Smith claims a 40 per cent increase in 1995 and 13 per cent in 1996 (Smith, 1997). Blaha states that defence-related production contributed 7-8 per cent of the processing industry's output in 1996 and cites J. Brhel, Secretary of State for the Economy, who confirms that this share could well increase to 30 per cent by the year 2000 (Blaha, 1997). According to *New Europe*, by mid-1997 the workforce in the whole sector was reduced to 18,000 people (*New Europe,* 13-19 July, 1997).

In late 1997, according to Ministry of Economy officials in charge of the sector, the bulk of the presently or formerly defence-related companies still struggled with serious economic and financial problems. They had very high levels of debt and very limited ability to restructure themselves without state assistance. The government felt specific responsibility for these companies, due to their strategic importance and the generally held view that their precarious situation was principally due to external circumstances.[17] It was acknowledged however that human and management problems also contributed to the problem.

In 1997 the Slovak government created the Act 211/1997 on revitalization of the enterprises. Since the bulk of Slovak enterprises had serious financial problems, that law envisaged assisting these companies to sort out their debts and clean their balance sheets. Companies can apply for state support with a detailed programme of enterprise restructuring that presents the enterprise's actual situation, the measures envisaged to restructure production after financial consolidation and the scope and forms of government assistance requested. There are 21 forms of possible government help that can be requested, for example tax reduction, postponement of tax payment, debt for equity swaps, debt forgiveness amid others.

The aim of the revitalization law is to unblock the companies' financial situation and make it possible for them to launch new restructuring projects, creating new, profitable profiles. The first condition to receiving help is the promise of efficient production, the second is the possibility to improve the employment situation. Government assisted consolidation projects will have a special consideration for those mother companies that were created by the decentralization of the large-scale defence industry enterprises. These companies kept the defence-related production and took over the former state-owned enterprises' bad debts.

According to Mr. Dudak, The objective of the further development of the Slovak defence industry is to assure the country's efficient defence and provide the Slovak armed forces with up-to-date equipment. The rest of the output is hoped to be exported, to non-embargoed countries. Another hope of revival for the heavy industrial firms engaged in military-related production is becoming sub-contractors for the - foreign capital owned - automobile industry. The Slovak government currently is elaborating its long-term strategy on the future of machinery industry, including defence industry. The government has selected six major fields that have promising development and export potentials. Enterprises active in these branches will be promoted by the government, through direct and indirect means.

[17] The bulk of bad debts that paralyzed most companies, for example, was considered a result of the break-up of the Czechoslovak Federation. The separation certainly had a role in escalating the Slovak enterprises' economic and financial problems. The problem however existed long before the separation and no significant measures have been taken to resolve it since.

Foreign capital participation in the transformation of the Slovak defence industry has been rather modest. In 1991-1992, when conversion was officially promoted, foreign capital participated in conversion programmes with CSK152.9mn, which represented 3.1 per cent of the costs. (Kosir, 1994). Participation in the privatization of the defence-related companies was minimal. There were however some cases of cooperation with Western companies in some specific military-related projects. The most important programme was the modernization of T72 tanks at ZTS TEES Martin and ZTS Dubnica nad Vahom, with the participation of the Belgian Sabca company, two French enterprises and the British GEC Marconi. There was foreign cooperation at the completion of the Zuzana automatic gun system at ZTS Dubnica nad Vahom as well. (*Jane's Defence Weekly*, 6 Mar. 1993).

4.2 Hungary

After a relatively short interval of leaving the defence industry to its fate, by early 1991, Lajos Fur, than Minister of Defence declared in an interview that Hungary needed a modernized arms industry to supply its armed forces. (*Heti Világgazdaság*, 20 April 1991). On 1 January 1992, according to a government decree, a Military Industrial Office (MIO) was set up, to coordinate and promote military production and related activities in Hungary. This independent, civilian agency was financed directly from the budget of the Prime Minister's Office and its director, Mr. Jeno Laszlo, had a state-secretary rank.

The MIO's major aspiration was to create a military industrial holding in order to protect and promote the core enterprises of the Hungarian defence industry. The assets of 10 main military producers were to be transferred to a state-owned military-industrial holding, under the supervision of the Military Industrial Office. The project was to be financed directly from the state budget and other independent sources, like the Fund for Technical Innovation. According to the Office's proposals, by 1994 military output could have reached Ft10-20bn and employed 20,000 people. In a later stage, according to Mr. Laszlo's ambitious plans, output could have even increased to Ft200-250bn (Laszlo interview, *Nepszava,* 21 April 1993.)

Due to internal political struggles in the governing MDF Party, Mr. Laszlo was dismissed in June 1993. The Military Industrial Office as an independent government agency was dissolved. Some of its personnel and its functions were transferred to the Ministry of Industry and Trade. Although it preserved its title, it became a department of the Ministry, with restricted administrative power and financial means.

After additional leadership changes in October 1994, a new project prepared by the Military Industrial Office was published. The document asked for a Ft15.5bn emergency financial infusion to rescue the sector. (The whole military budget for the year was Ft66.5bn). The document listed 59 enterprises[18] that were involved in defence-related production and were proposed to receive special state protection. According to the document, state-backed orders, financed (partly or entirely) from the state budget could still save the enterprises from definitive bankruptcy. The authors claimed that the Ministry of Industry and Trade, Ministry of Defence and Ministry of Interior supported the proposal (*Heti Világgazdaság*, 5 November 1994).

Less than a month after the document was published, the Office's Director, Mr. Janos Isaszegi was removed. The Military Industrial Office was again reorganized and sank one further step downward in the administrative hierarchy into a simple Ministry department. The new Director, Mr. Bela Takacs was transferred from the Ministry of Defence. It seems that the last reorganization of the MIO put a definitive end to state-led, large-scale rescue projects of the Hungarian defence industry. The new official approach concerning the Hungarian defence industry was rather pragmatic. It confirmed that state agencies were unable and unwilling to recreate

[18] Most of the companies were created from the vestiges of the former major defence industry firms that had split into several smaller units.

artificially the defence sector on its former scale. They tried to assist some companies in their struggle for survival, but by and large were resigned to cooperate with those companies that managed to survive on their own.

Even though a large-scale, comprehensive rescue project was not introduced in Hungary, defence industry enterprises did receive both direct and indirect support from state agencies on an individual basis. Representatives of the MIO, the Ministry of Defence and Ministry of Foreign Economic Relations tried to help the sector's troubled enterprises to survive. Some companies were bailed out by the state, some received advantageous credits for new development projects. In a major "consolidation" project, announced by the state in 1993, 13 large-scale state-owned enterprises were selected, due to their "crucial macro-economic importance" and were to receive intense state help, in form of debt-forgiveness and other protective measures. Five military-related enterprises featured among them (Karsai, 1996; Regos, 1996). In the Spring of 1997 some bad debts of the defence-related companies, related to pre-1989 investments, were written off (Takacs, 1997).

Another indirect way of supporting the defence sector was to promote military-related R&D. In 1993 a special "Defence industry and defence technology development committee" was set up within the OMFB, the state agency in charge of coordinating and promoting R&D. Enterprises could apply for special, preferential loans from a separated state budget fund reserved for R&D to develop competitive new products. The principal military-related Research Institute, the HTI (Haditechnikai Intezet) and some other, minor military-related R&D Institutes continued developing projects even in the worst years of the defence industry's crisis (Balotay, 1993; Takacs, 1997).

In late 1997 most defence-related companies were privatized. Five enterprises, specialized in repair, remained under Ministry of Defence control and some other companies, specialized in research, belonged to the Ministry of Industry and Trade. According to the new Law on privatization, 10 Hungarian companies were selected to remain in long-term state ownership, under the management of the State property management holding. Three of these were military-related companies.

The government policy concerning defence industry was one, but not the only, decisive factor that shaped the future of the sector in Hungary. The impact of market forces and the enterprises' own efforts to cope with the crisis played an equally important role.

The first major drop of Hungarian military production was followed by massive erosion and disintegration of the sector. Defence industry enterprises were plunged into a chaos of administrative reorganizations, decentralizations and changes of legal form. Most went through several stages of transformation of legal form, became commercialized and partially or entirely privatized. Companies were reorganized: large-scale enterprises were divided into several smaller units that became independent. A few companies went bankrupt and were forced to close down, but many survived with a reduced workforce and output.

In order to adjust to the changed circumstances, companies also attempted to diversify their production. Most firms concentrated their energies on developing their civilian profiles, although they did not liquidate their defence-related productive assets. And, if they could afford it, many tried to continue at least the development of military-purpose products. The majority hoped for renewed military orders, either locally or for export. Some enterprises became exclusively military contractors. Aware of the limitations of the internal market, the most dynamic companies tried to increase their exports.

Since resources from the state budget were very limited, the major additional financial contribution that helped companies to survive was foreign investment. Foreign capital participated in privatization or enterprise restructuring projects, but not in specific military related projects. The fact that a certain company had military related assets might have had an additional attraction for foreign investors, but unlike in Slovakia there were no major military development projects carried out with foreign participation.

By 1997 the Hungarian defence industry employed only one tenth of its peak workforce and its output was approximately 20-30 per cent of its record production levels in the late 1980's. By and large the sector shrank to a level at which companies were able to maintain themselves, without large-scale external contributions.

The changes taking place in the Hungarian defence industry were principally determined by the recently introduced market forces and the enterprises' own survival efforts. The companies' individual survival interest turned out to be a stronger force shaping its future than were broader sectoral or state interests. In addition, after the demise of the MIO, there was no state agency or sectoral organization to define and represent these interests effectively. As a consequence, the sector's structure that formerly had always been shaped by external and internal political forces, now is principally shaped by independent, external market demand.

III. Enterprise / region cases

1. Slovakia

Case 1. ZTS Martin company – Martin town – Martin district

The company ZTS Martin Turcianske Strojarne was one of the largest arms producers of the former Czechoslovakia. It specialised in heavy weaponry, principally tank production. By 1992 the company's output had dropped to less than 50 per cent of its peak 1988 level and military-related production had shrunk from 70 per cent to 40 per cent of output. Facing the decrease of military-related exports from the mid-1980's on, the leadership of ZTS Martin introduced large-scale conversion projects. In 1988 the company signed a contract with the German Hannomag company to produce tractors and construction machinery, using Hannomag licenses and technology. In 1989 a similar deal was concluded with the Italian Lombardini firm to produce small diesel engines. Large engines were produced under license from a French firm.

The new licence agreements with foreign companies, while carrying the right to produce well-known products also carried restrictions that limited their profitability. For example, the Lombardini engine project was originally planned for 60,000 unit production per year. In actuality, a production line for 40,000 units was set up that produced 15,000 engines in 1993. In late 1997, it was considered a success that 4,000 units were sold. According to the agreement with Lombardini, sales were limited to eastern European countries. Unquestionably, the economic and political difficulties of these countries made sales difficult. To boost civilian production further, in the late 1990's the company's additional prospects included building Lombardini factories in China, returning to the long-abandoned production of train engines for East European countries modernising their railroads, and becoming a sub-contractor for Volkswagen.

Although civilian products continued to gain importance in the company's activity, military production remained the most profitable division. This was due in part to the fact that arms were sold in a special market with distorted prices. According to the company's Strategic Director, "It takes 86 tractors to equal a single tank. And the world market for tractors is soft" (*The Prague Post*, 24-30 November 1993). To improve the company's prospects of continuing to participate in the lucrative military markets, ZTS TEES Martin took part in the modernisation programme of the T-72 tank (beginning in 1992). This was a major military development project carried out by the most important Slovak defence industry contractors together with the Belgian company SABCA.

During the 1990s, the company went through major organisational changes. In 1992, several of its former branch companies became independent, civilian companies: a foundry, an engine producer, a toolmaker and a Research and Development Institute. As of late 1997, three of these companies were insolvent, principally due to their bad debts, marketing and financing problems.

The fourth company, Martin Diesel was one of the very few Slovak enterprises that managed to carry out radical internal restructuring and conversion. At the end of 1997 ZTS TEES Martin was divided further into a mother company and four daughter companies in civilian endeavours: One specialised in agricultural machinery production, another in forestry machinery, a third in power generation production and the fourth in tools and repair. According to representatives of company management, these spin-off companies will be obliged to perform under normal market conditions. Accordingly, they have brought down the size of their workforces in line with production needs, rather than social considerations.

At the beginning of the restructuring process, the company tended to take into consideration the interests of its employees as well as the general economic situation in the region, which had been completely dependent on the company. According to ZTS Martin's head of personnel, if only the enterprise's narrow interests had been taken into consideration, it would perhaps have been better to have carried out one radical reorganisation, with substantial cut-backs of employment, in the early 1990's. The company management however preferred to maintain a relatively high level of employment, always in hope of quick rehabilitation of military-related production. They were also aware of the social burden sudden, massive redundancies would have caused in the town and region.

In the early 1980's, ZTS TEES Martin had 15,720 employees. As of October 1997 the number has dropped to 4,141. In accordance with an agreement with the trade unions, when there is not enough work, employees are sent on prolonged holidays or placed on reduced work schedules. ZTS TEES Martin retained a core of some 100-150 workers specialised in defence production, but in the absence of work for them to do "lends" them to other companies, for example to Volkswagen Bratislava. The workers continue to be employed by ZTS Martin, who pays their wages and social benefits, but they temporarily work for the other enterprises.

In 1997 the company's financial situation was still rather grim. The company had managed to survive thanks to its civilian products and state subsidies. The management hoped to get additional relief through the state-assisted revitalisation project as well as envisaged further extension of civilian production.

Martin town, with 60,000 inhabitants, is located in the Martin district of the Turiec region, in the picturesque valley of the Vah River surrounded by the lower Tatra Mountains. Historically, the town has played an important role in the development of the Slovak national consciousness.[19]

Despite its symbolic weight, Martin had very serious problems. According to the mayor, this was principally due to the slow economic recovery of ZTS TEES Martin and the fact that being one of the few politically independent self-government leaders, his chances of mobilising resources for the city's development were rather limited.

The city's leadership considered that Martin's best prospect for development was culture and tourism. The town's major projects were the creation of a new ski centre and new pedestrian roads in the city centre. Both projects have been progressing rather slowly due to lack of finances.

The town management tried to foment cooperation between Slovak and European cities at the grassroots level. The mayor participated in a "local democracy embassy" programme, coordinated by the European Union. The town had extended partnership programmes with several European and American cities, but in general these links were limited to cultural exchanges. There was a large-scale health-care project with the town of Cleveland, USA, beginning with a detailed survey of the town's health facilities and needs.[20]

Martin district had a population of 112,900 in 1994, almost 60 per cent in the town of Martin. In the late 1980's approximately 25 per cent of the labour force of the Turiec region was employed by the company (FEWDI, 1992). ZTS Martin's crisis pushed the town of Martin and its region into a critical situation.

In the early 1990's, the Head of the District Office and his team elaborated a comprehensive crisis management programme. On the basis of a regional development study, produced by an

[19] It is here where Matica Slovenska, the Slovak national cultural organization was created in the last century. To underline Martin's specific importance, there is a state appointed special official (a superintendent) in charge of the town's cultural development.

[20] The cooperation was first established thanks to the fact that Cleveland has a large Slovak population.

Austrian consultancy firm (financed by the OECD), projects to promote alternative economic activity and training were elaborated. A Regional Advisory and Information Centre was established to encourage small and medium size enterprise development, partially on the company’s premises and by workers formerly engaged in military production. Proposals to develop tourism, establish a language school and to create a Labour Foundation were prepared (FEWDI, 1992; Kaldor, 1992).

In 1993 the Head was removed from the district office. This put an end to coordinated crisis management actions on a regional level. Only some elements of the restructuring plan were carried out. In August 1992 a consulting centre for small and medium-size enterprises was set up with the help of the European Union's Phare programme. In 1994 the Labour Foundation was launched with European Union funding through the Phare programme.[21] The Labour Foundation offered employment recruitment, management training, organised retraining courses, providing advising services and psychological assistance for the unemployed. In May 1997 the Phare financing came to an end and no other organisation in the region was able to finance the Foundation. It had to be shut down.

After administrative reorganisations in 1995, in 1997 the Martin district had 97,000 inhabitants, out of which approximately 40-41,000 were economically active. In 1997 the rate of unemployment was 9.7 per cent. Its level has been unchanged for several years. There were 9,572 registered entrepreneurs in the district, 22 per cent in production, 42 per cent in trade and 36 per cent in the service sector. The regional business centre headed by the former head of the district office was very active. The planned regional development company had not been set up. Martin district's present regional administration concentrates its efforts on gathering information and transmitting it to the higher levels of state administration, in the hope of receiving subsidies from the state budget for regional development (Martin district, 1997).

Conclusion: Despite its early attempts to adjust to decreasing military demand and a considerable amount of foreign attention on its conversion efforts, ZTS TEES Martin did not succeed in converting nor in genuinely restructuring its activity. The rigid, inefficient organization structure, the slow, hierarchical decision-making process and the management's attitude did not change fundamentally. They were still largely dependent on the central authorities: waited for signals "from above" to design their future strategy and hoped for financial contributions to carry it out. The new civilian production profiles were run the same way as the old-style military production. Preliminary feasibility and marketing studies were not carried out, production was over-sized and the management proved to be unable to react to problems emerging during the production and sale process.

At the turn of the 1990's there was an unfortunate discrepancy between development initiatives at the enterprise vs. the regional levels. In the late 1980's ZTS Martin's first conversion efforts were not envisaged as part of a more wide-scale restructuring programme that needed follow-up both at the level of the entire company and the region. By the early 1990's, when Martin district authorities wanted to launch their development project, the ZTS leadership had already became tired of conversion efforts and the surrounding publicity. It also became clear for them that state authorities would again support defence-related production. The regional initiatives received very weak responses both from the enterprises and the state and were gradually abandoned. In 1997 the representative of the regional authority manifested a rather passive, bureaucratic attitude. There was no question of designing independent development projects or energetically promoting economic or cultural activity.

The attitude of the town leadership in contrast was dynamic, critical and creative. Local initiatives however were limited to cultural and political exchanges and cooperation, which was not sufficient to move the town out of its economic malaise. The town leadership did not think the regional authority had any way of initiating or participating in economic projects. By and large the

[21] ZTS TEES Martin was one of the centre’s founders. It provided the premises and part of the staff. The first President of the Foundation was ZTS TEES Martin's then head of personnel.

heritage of large-scale military production became a burden, instead of a development asset, for both the enterprise and the region.

Case 2. ZTS Dubnica nad Vahom company - Dubnica nad Vahom and Nova Dubnica towns

The company ZTS Dubnica nad Vahom had specialised in the production of artillery and other heavy weaponry products. Between 1989 and 1993 the workforce dropped from 16,000 to 7,500 and output fell from CSK 7bn to CSK 1.2 billion. In 1987 nearly 75 per cent of the company's output was military-related, by 1993 the share had dropped to about 5 per cent.

To be able to survive, the factory took up several conversion projects beginning in 1990. The original plans envisaged producing mechanical gearboxes and machinery for the rubber, chemical and food industries. A large-scale conversion project carried out in cooperation with a US-based company targeted production of oil pumps for the Russian market. Other division products were hydraulic equipment, small-size multipurpose cars and light-weight construction elements developed principally by the company for the domestic market. The majority of these projects ran into serious marketing difficulties. Despite all efforts to diversify the production profile, it was clear that the enterprise management expected renewed military orders and possible arms exports to improve the company's situation. The enterprise developed and produced the Zuzana self-propelled artillery system that was considered as a possible export item.

During the 1990's the company was decentralised and reorganised. Production and decision-making processes were reorganised and simplified. The company was divided into a mother company and several daughter companies, in which the former owns varying amounts of shares. The defence-related production profile remained at the mother company. In 1996 ZTS Dubnica nad Vahom a.s. became a shareholders company, but 100 per cent owned by the state. Despite these important reorganisation and diversification efforts, in late 1997 the company was still in a very difficult financial situation. Its everyday survival and future depended on state help.

As of October 1997, 4,900 people worked at the enterprise, 1,700 at the mother company. The management had been negotiating with the trade unions and with the Ministry of Labour and Welfare to provide some assistance to those workers that were made redundant. Management tried to avoid massive abrupt retrenchments by introducing retraining programmes and reduced working hours. A group of highly qualified workers, which the management intended to keep at the company but for whom it was unable to provide work, were "lent" to other companies. Approximately 2,500 former ZTS employees who had been retrenched worked abroad, mostly in the Czech Republic, Germany and Austria.

The management of ZTS Dubnica nad Vahom was also keen to preserve some of the former extensive social welfare services. As well as continuing to subsidize meals and commuting and providing daycare, recreation, and health facilities, it had transferred its vocational training school to the Ministry of the Economy. In 1997, after 7 years of disruption, the company was again able to pay scholarships to 60 students at the school. Originally built by the company, the school once had 1,400 students trained by and for the company.

The town of Dubnica nad Vahom is situated in the Vah valley, about 150 km northeast of Bratislava. It has 27,000 inhabitants, nearly 40,000 if taken together with the nearby town of Dubnica Nova. In the past, two large-scale defence-related enterprises determined the life of the town: ZTS Dubnica nad Vahom (15,000 employees) and ZVS Dubnica nad Vahom (3,000), with thousands of commuters daily from throughout the region. Thanks to them the town received higher than average contributions from the state for infrastructure and for social and cultural services.

With the crisis in the defence industry, employment opportunities have dramatically diminished in the town. In 1992-1993 unemployment reached 10-12 per cent, despite the fact that both enterprises had intended to carry out reductions gradually and with due consideration of the social circumstances of those to be made redundant.

By 1997 unemployment was down to 8 per cent. This was due in part to the "export" of some 2,500-3,000 qualified workers that regularly commuted abroad.[22] The other important factor was the rapid proliferation of small and medium-scale enterprises in Dubnica nad Vahom itself. There were more than 3,000 registered enterprises in the town. They ranged from self-employed tailors to medium-sized electromechanical workshops producing for Western export. The official procedure to license new businesses was accelerated and facilitated by the local administration. The city rented city-owned premises at favourable rates and even provided property free of charge to new enterprises. The strong dependence on the fate of the ZTS and ZVS enterprises has gradually lessened. Together with Trencin and some other smaller towns in the region, the city made substantial infrastructure investments-- financed by a Danish company and bank loans. Dubnica intended to mobilise external sources for its other construction projects as well. The city leadership intended to cooperate with nearby settlements to promote regional development, principally in industrial production and tourism.

The town of Nova Dubnica was built as a modern "dormitory town" for the employees of ZTS and ZVS Dubnica nad Vahom. It had 12,600 inhabitants, mostly 50 year-olds who originally came to live in Nova Dubnica as young workers or professionals. One of ZTS's affiliates, EVU, a company specialised in electromechanical research predominantly for defence-related production, was established in the town. In the past it employed 1,200-1,500 people.

When the defence industry's transformation began, EVU was divided into three independent shareholder companies, each with about 300-350 employees. In late 1997 the single company that had good chances to survive had fewer than 400 workers. One important new enterprise had been established in Nova Dubnica since 1989; it employed 300 people.

The unemployment rate was 9 per cent in the town. (In 1993-94 it reached 12-14 per cent). With the crisis of the large ZTS and ZVS companies, many former employees sought work elsewhere or tried to set up their own business. In 1997 there were approximately 500-800 registered entrepreneurs. These startup companies employed some 1500-2000 people in the town. Since 1990 about 200 inhabitants have left Nova Dubnica.

After the political changes the town's leadership intended to change the "sleepy town" nature of their settlement. Since this effort failed, they concentrated their efforts on improving quality of life factors in the town. For example, the proceeds from selling enterprise flats (received free of charge) are to be used for constructing houses for the socially disadvantaged.

Conclusion: The situation of ZTS Dubnica nad Vahom was rather similar to that of ZTS TEES Martin, although the management was more flexible and entrepreneurial. Many important steps were taken to reinvigorate the company, but their impact was weak because they did not fundamentally alter the company, maintaining traditional objectives and management. The enterprise management hoped for renewed state assistance to get the company out of its difficult financial situation.

The mayor of Dubnica had a fundamentally different approach. Despite his own personal attachment to the ZTS Dubnica nad Vahom company, he came to terms with the fact that the splendour of the old days had gone forever. He concentrated his efforts on trying to capitalise on the accumulated values - productive assets, facilities, infrastructure, workers' skills and professional contacts - and use them in a different way. Instead of tying the town's prosperity to the company's (externally induced) consolidation, the mayor's strategy was to promote new economic activities. Since the towns' economic possibilities were restricted, the management tried to mobilise additional resources, both inside and outside the community (using the citizens' own savings, finding foreign funding, issuing bonds). An important element of the town's adjustment strategy was the creation of horizontal networks with other towns.

The situation of Nova Dubnica was considerably worse. The town was established for one specific function. Once this function began to disappear, the whole existence of the settlement was

[22] This exchange was organized through private employment offices set up in the region.

placed in jeopardy. Even if the local management was much more imaginative, neither the town's endowments, nor its position gave it much manoeuvring space.

Case 3. ZTS Hrinovske Strojarne a.s. and PPS Detva companies – Detva town – Detva district

The company Hrinovske Strojarne a.s. is located in central Slovakia, in a deep valley, less than 20 kms northeast of the town of Detva. The enterprise produces motors and spare parts for vehicles and for agricultural and construction machinery.

In the former Czechoslovakia, Hrinovske Strojarne enterprise had been a standout company. Thanks to its defence-related activity, its technology level was outstanding and full-shifts production schedules were unable to meet customer demand. At the beginning of the crisis, in 1990-92, prospects seemed good for a successful adjustment, based primarily on the company’s long-standing cooperation with the Italian Fiat Company. However, an over-emphasis on maintaining employment levels rather than improving productivity diminished foreign interest and led to new, unproductive production, even “make-work”, to maintain employment.

In 1996, the company’s new general managers introduced a thorough restructuring programme. The new emphasis was on increasing productivity, as a means to increase production and induce employment gains. The new strategy was based on the company’s assets: good technology base, highly skilled workforce, and increasing demand for defence-related products. An internal and external audit of enterprise assets led to a thorough reorganisation of the entire management and production system. One of the principal strategic aims of the company was to obtain ISO 9001 certification by the end of 1998.

The whole internal system of decision-making and management was decentralised. Work was reorganised in small teams, whose leaders had direct responsibility for the organisation of work, cooperation with other teams, remuneration and other personnel questions. The internal information system was simplified and made more direct. Between 1996 and 1997, with the fundamental reorganisation of the entire enterprise, Hrinovske Strojarne achieved the goal of doubling its productivity.

The production structure was reshaped as well. As of end 1997, defence-related production represented approximately 33 per cent of the company’s output. Another 30 per cent was accounted for by the production of automotive gears for vehicles and construction machinery and another 20 per cent by the production of aggregates and mountings for agricultural tractors. The rest, about 8 per cent of output, was fabrication of special tools and instruments. The past’s monocultural production structure has disappeared.

In October 1997 Hrinovske Strojarne employed 999 people. At its peak, in 1988, the company had 1,600 workers. The company management employed a selective labour-force policy in carrying out the downsizing in order to increase productivity and improve the workforce structure.

Hrinovske Strojarne was privatised through the direct sale method. Unfortunately the privatization did not provide considerable new resources for the company. Despite the spectacular improvement of the enterprise’s economic activity and the high demand for its products, Hrinovske Strojarne had to struggle with everyday survival problems due to lack of liquidity (Hrinovske Strojarne a.s. 1997).

The company PPS Detva was established in 1955 to produce machines for the defence, construction and agriculture industries. In the late 1980's, 60 per cent of the company’s output was military-related, 30 per cent was construction and earthmoving equipment and 10 per cent was special purpose tools and machines. As of May 1990 output had dropped by 45 per cent and employment by 50 per cent.

To compensate for the decline of its military markets, the company tried to expand its civilian production. It has been developing new lines of construction equipment and began to produce components for Western companies, such as John Deere, Bitelli and Hannomag-Komatsu. PPS Detva has managed to expand its exports to both Eastern and Western markets. Despite these positive developments, as of 1994 the company's prospects were rather limited due to its grave financial problems and insecurity concerning its privatisation. The enterprise was bankrupt and had huge debts and non-sellable inventories related to its military production (World Bank, 1994. p. 65.).

Until 1989 PPS Detva comprised 12 enterprises and employed 14,000 people in East-Central Slovakia. In 1990 there were 6,700 employees in the four Detva-based factories. In 1997, 2,450 people worked in the factory (Detva, 1997).

By late 1997 PPS Detva's problems were still unresolved. The company was still in a deep financial crisis. To reduce operating costs, the workforce was radically cut back and the enterprise only worked four days a week. The problem of privatisation also remained unresolved. PPS Detva was under the control of the National Property Fund and there were no clear guidelines about its future.

The town of Detva in central Slovakia has 15,500 inhabitants. In July 1995, it became the administrative centre of its district. The town’s new leadership aimed to convert Detva into a flourishing regional centre.

A principal adjustment strategy was to encourage new business startups. Administrative procedures to start new business were made more transparent in order to encourage would-be entrepreneurs. The town of Detva rented premises or sold property for new establishments, lowered taxes for some, and forgave taxes temporarily for young first-job seekers who set up new enterprises. In some cases the town mediated between banks and would-be entrepreneurs to get loans.

Indirect measures, for example road construction, establishment of a new digital telephone network, doubling electricity distribution capacity, and establishment of two new banks also facilitated entrepreneurship. Some of these investments benefited from the Slovak government’s projects to develop infrastructure and the service sector. Before 1996 there were 896 entrepreneurs, in 1997 there were already 1,100. The new businesses were predominantly small and medium-size enterprises, in retail trade and in the service sector. Several new companies were set up to market PPS Detva's products.

As of October 1997, the town’s unemployment rate was 12 per cent. The proportion of first job seekers and unemployed Romas was rather high. The town's management hoped that PPS Detva would be privatized soon and a new production profile would be defined. If the company overcame its crisis, on the basis of the local skills and already existing infrastructure, a whole network of sub-contractors could be created in Detva and its region (Detva, 1997).

The region district of Detva consists of the towns Detva and Hrinova and 13 villages. It has 35,000 inhabitants. The new regional administrative division presents new opportunities and new challenges to the district.

In 1989, the company PPS Detva produced some SKK4.5 billion worth of output that accounted for 65 per cent of the GDP of the Zvolen district, the administrative region to which it belonged at that time. Current district management did not think it possible to substitute this output with the production of small and medium level enterprises. They saw the solution in the consolidation of PPS Detva.

Unemployment has held steady at 9 per cent in the district since the early 1990's. It has been addressed principally by the local Labour Office. The nearest business information centre was situated in nearby Zvolen (28 kms west of Detva). The regional management of the Detva district hoped that eventually a local office of this centre would be opened in Detva to assist and promote business development. Small-scale productive establishments carried on the region's handcraft traditions. There were plans to develop agro-tourism based on the interesting natural and historical monuments of the region.

Conclusion: The case of PPS Detva resembled that of ZTS TEES Martin and Dubnica. Despite quite remarkable efforts, the company had a prolonged crisis, the solution of which seemed to depend exclusively on state authorities. The situation of these three former pillars of the Slovak military triangle was the worst among all military related producers in Slovakia. Their size, complicated internal productive and organizational structure and their production profile, heavy machinery and, specifically, heavy weaponry, made their restructuring efforts much more difficult and demanding than that of others.

The mayor of Detva placed his vision of the future of the town in the framework of the general economic recovery of Slovakia. He was close to government circles and seemed to know how to use his knowledge and connections for Detva's benefit. Despite important efforts to promote new economic activities, the mayor, as well as the representatives of the regional development office, insisted that the region's future depended on the consolidation of PPS Detva.

ZTS Hrinovske was an example of very successful enterprise restructuring. This performance was even more impressive because the dynamic company manager and his team followed a different philosophy than the one promoted officially. They targeted first increasing productivity and intended to maintain (or increase) employment only in correspondence with future production gains. Despite a radical streamlining of both management and the production process, promising future prospects, stable external contacts and a formally private ownership, the company's survival depended on a state decision to write off the financial burdens accumulated in the past.

Again in this case, the approaches followed by enterprise and region administrators were inconsistent. While the leadership of the township Detva aimed at broad restructuring, the management of PPS Detva chose a go-steady stay-with-what-we-know approach. The balance was just the opposite at the regional level, where district leadership was less innovative and management of ZTS Hrinova more eagerly pursued radical enterprise transformation options.

Case 4. Slovenske Lodenice company – Komarno town

The company Slovenske Lodenice was founded on the Danube in 1898 as an affiliate of a large steamboat company based in Gyor, now in Hungary. By the end of the 1950's the enterprise had become the largest shipbuilding manufacturer in Eastern Europe. The change of the political system presented multiple challenges to the company: Its Eastern markets collapsed, it faced multiple transformations leading to its privatisation and it had to undertake conversion.

To be able to survive Slovenske Lodenice had to carry out both product and market conversion. Before 1989 it produced large series of river boats for the Eastern European market. After the political turnover it had to shift to maritime ships for West European markets. Today Slovenske Lodenice has a 10 per cent share of the European market, gained with the help of a German partner and on the basis of 10-15 per cent lower production costs than its competitors. Sixty per cent of its exports go to Germany, 40 per cent to CIS countries. In 1997 Slovenske Lodenice was one of the strongest companies and largest exporters of Slovakia.

Conversion of the military related productive assets posed other difficulties. In 1970, according to a government decree, the major Czechoslovak heavy machinery producers were united in the ZTS trust, based in Martin, in which, as a main defence producer, Slovenske Lodenice was a partner. It produced turrets and parts for armoured vehicles. Defence-related production occupied only 200 people, out of a 4,700 strong workforce, but represented 40 per cent of the company's revenues.

In 1989-90, military-related production came to a halt. The company management decided to convert the defence-related facilities into production of ISO containers and chassis production for agricultural machines and vehicles. They received considerable government support for the project. The single-purpose technology used for the defence-related production was mostly liquidated, partially sold. During the reorganisation of the enterprise, the container-producing division became an independent company. By the time the investment was finished, the world market for containers has slumped. Due to the lack of markets and its financial difficulties it is the most problematic daughter company of Slovenske Lodenice.

At present Slovenske Lodenice consists of a mother company, with 2500 employees, and 10 daughter companies that employ approximately 1000 people. Most of the workforce reductions were carried out through early retirements. Many of the retained workers, formerly employed in the military division, were retrained in the use of new automated technology introduced for the containers production. Some white-collar workers also participated in language and computer skills courses. In addition to these major structural changes, important organisational changes took place at the company as well. In 1995 Slovenske Lodenice received the ISO No. 9001 Quality Certificate. In 1991 Slovenske Lodenice became a shareholders company and in 1992 it was privatised. At present it is 100 per cent privately owned.

Slovenske Lodenice was one of the very few Slovak companies that liquidated completely its defence-related productive assets. Its situation was however comparatively easy, since military related production had been established relatively recently, as an addition to its civilian production profile. Conversion did not pose major technological problems, but did create substantial financial and marketing difficulties. Even though the defence-related activity was relatively minor, it was a principal source of revenues for the company. The financial losses, and costs of technological changes, were partially compensated by state (Czechoslovak) subsidies but the problem of succeeding in new markets had to be addressed at the enterprise level.

The two towns of Komarom and Komarno form one of the oldest settlements of the Carpathian basin, situated where the Vah River meets the Danube, in a large, fertile valley on the Slovak-Hungarian border. After the first World War the town was divided into two parts, the Southern part, Komàrom, belonging to Hungary, the Northern part, Komarno, to Czechoslovakia, at present to Slovakia. A bridge connects the two parts. Komarno has a population of 38,000, two thirds of which belongs to the Hungarian minority. Thanks to its historical heritage, it is one of the most sophisticated Hungarian-Slovak settlements.

Slovenske Lodenice was and is the largest employer of the town. All the other relatively important enterprises were liquidated or were separated into small, independent units. In connection with the production of Slovenske Lodenice, a department of the Slovak University of Technology was also established in Komarno.

The situation of Komarno contrasts sharply with that of Detva. Whereas small enterprise development was a cornerstone of economic redevelopment in Detva, no new major manufacturers had been established in Komarno since the political changes. The several new companies that had been established were small and in retail, personal services, or construction. Whereas the local government agencies in Detva had been able to access state investment funds, Komarno's city leadership was severely restricted in its own authority and was unable to mobilise external economic resources. In 1997, there were no local taxes under the competence of city agencies and the main sources of revenue were service fees and rents. Applications for state funding of development projects, real estate and post-secondary education training institutions have been denied. Local government officials attributed these political problems to the historical connections to Hungary and the large proportion of Hungarians in the town's population. Before the political changes, Slovenske Lodenice drew workers from Hungary, and many women from Komarno commuted to the Hungarian Komarom-based textile factories. After 1989, it was the "foreigners" who lost their jobs first, on both sides of the border. In 1997 in the region of Komarno unemployment reached 12-18 per cent, in the town it oscillated between 12 and 13 per cent.

Conclusion: The company Slovenske Lodenice and the town of Komarno did not coordinate their efforts. A while after the political system changes Slovenske Lodenice suspended its welfare functions in Komarno. Once the company's economic situation became relatively consolidated, sponsoring was partially renewed. The city and the enterprise at the same time did not cooperate for joint development. The reason for this might be that Slovenske Lodenice enjoyed a relatively good position and was one of the successful examples of the Slovak industrial recovery. The company management had good contacts in Slovak economic and political circles and had excellent foreign relationships. In a way it did not need *local* support: The major factors determining its future development were decided at different levels. At the same time the situation of the local administration of Komarno was rather delicate. Too close relationship might have been considered politically disadvantageous (because of the ethnic composition of the town). The town management was resigned to struggle by itself, trying to find allies outside the community, principally in Hungary.

Table 3. The companies, Slovakia

	ZTS TEES Martin	ZTS Dubnica nad Vahom	PPS Detva	ZTS Hrinovske Strojarne	Slovenske Lodenice
Workforce	1987:16,000 1997:4,000) = -12 000	1987:17,000 1997:4,900) = -12 100	1987:14,000 1997:2,450) = -11 550	1988:1,600 1997:1,000) = -600	1988:4,700 1997:2,500 (+ 1,000)) = -1 200
Output	1988: Csk 14 bn 1997: SKK 2.5-3 bn	1987: CSK 7 bn 1991: SKK 4 bn	1988: Csk 2.5 bn 1991: Csk 1.1 bn	n/a	1997: SKK 2.9 bn
Military production's share of output	1988-89: 60-70% 1997: 5-10%	1987: 75% 1997: 5-10%	1987: 60% 1997: -	1989: 80% 1996: 0 1997: 33%	1988:40% 1997: 0
Survival strategy	Diversification, military production is maintained at a reduced level	Diversification, military production is maintained at a reduced level	Diversification, military production halted	Diversification, increasing military production after 1996	Diversification, completed conversion
Organizational changes	Decentralization, daughter companies	Decentralization, daughter companies	Decentralization	Radical internal reorganizing and restructuring	Radical internal reorganization and restructuring
Ownership status	State-owned	State-owned	State-owned	Private	Private
Situation in 1997	Severe financial situation, uncertain future prospects	Severe financial situation, uncertain future prospects	Difficult financial situation, uncertain future prospects	Difficult financial situation, good economic possibilities	Unresolved financial situation, good economic possibilities

Table 4. The regions, Slovakia

	Martin	Martin district	Dubnica nad Vahom	Nova Dubnica	Detva	Detva district	Komarno
Population	60,000	97,000	27,000	13,000	15,500	35,000	38,000
Unemployment	9%	9.7%	8%	9%	12%	9%	12-13%
Local initiatives	Development of culture, infrastructure and tourism	n/a	Intense promotion of economic development	Plans to improve life conditions	Promotion of economic and infrastructure development	Plans to promote tourism	Development of culture and infrastructure
Enterprise-region cooperation	Passive, dependence is strong	Passive, dependence is still strong	Increasing regional autonomy	Passive, dependence is still strong	Dependence is still strong	Passive, dependence is still strong	Passive
External economic assistance	Not important	Possibility to get state subsidies	Foreign financial assistance, cooperation, bonds	-	State funds for development projects	State funds for development projects	-
Situation in 1997	Difficult	Difficult	Improved, with good future prospects	Difficult	Improving, with good future prospects	Difficult	Difficult

2. Hungary

Case 1. Videoton company – Szekesfehervar town

The company: In 1987, when the Hungarian defence industry was at its peak, Videoton was the eighth largest industrial enterprise and the third largest exporter of the country. It employed approximately 20,000 workers, about one third in the military-related production. In 1988, 35.5 per cent of the company's output was defence-related (*Figyelö*, 14 February 1991). The military division produced radio reconnaissance and jamming systems, radio receivers and transmitters and aerial systems. In 1991 the company went bankrupt and was bought by a consortium of Hungarian private entrepreneurs.

The company's new owners established Videoton-holding that consisted of 16 enterprises created from the remnants of the old Videoton. Videoton's assets, activity and development potential were systematically analysed. New accounting, organisation, information and motivation systems were introduced that aimed at increasing efficiency.

In 1992 financial stability was achieved and from 1993 onwards the company has become profitable. When sold in 1991, the company had 6,000 employees. By the end of 1996 their number had already grown to 10,000.

Videoton not only managed to survive the crisis but succeeded in restoring its position as one of the country's major companies on the way of becoming a genuine economic empire. Videoton had daughter companies in several Hungarian towns, both in the Transdanubian region and the eastern part of the country. It also founded new joint ventures in Russia, Ukraine and Romania. In late 1996 the Videoton leadership undertook the crisis management of the other large industrial enterprise of Szekesfehervar, the Ikarus bus-making company that had been in a state of crisis since the political system changed in 1990.

The diversification of the Videoton company was based on the new management's acceptance of the idea that Videoton would not become a world leader in its product lines, since it lacked the necessary technological level and capital for a significant advance. An intense contact-building and marketing campaign was launched to find new work, new markets and eventually new capital infusions for the company. At the beginning, Videoton undertook simple sub-contracting work for its major competitors in the consumer electronics market, for example Akai, Philips, ITT-Cannon and IBM. Later the range and forms of activity widened, from simple assembly work to establishing joint ventures and launching joint development projects. Business partners included companies from the US to Ukraine. Emphasis was also placed on maintaining or reviving the former Videoton's connections in other Eastern European countries, principally in the former Soviet Union. Since partners were often unable to pay in cash, initially business was carried out on the basis of barter arrangements. Part of the former state-owned enterprise's enormous industrial property was turned into an industrial park. Foreign companies rented space there, providing additional revenues for the company and job opportunities for its former employees.

The radical restructuring of the Videoton Company included the military-related branch as well. One of the holding's independent companies, Videoton-Rendszertechnika continued the production of military telecommunication and reconnaissance systems. In 1994 the company had a staff of 200, but including its subcontractors, around 1,000 people were employed on its projects. In 1993 the share of military-related production in the whole holding company's output reached 20 per cent and further increases to 33 per cent were planned. By 1992 the Videoton-holding became so strong financially that it entrusted Videoton-Rendszertechnika to create a subcontractor system to meet its increasing orders. The handful of companies that managed to survive the crisis of the once outstanding Hungarian electronics industry were re-united under Videoton-Rendszertechnika as a prime contractor.

The town Szekesfehervar, one of the oldest Hungarian towns, is located about 100 km southwest of the capital, Budapest, and north of the lake Balaton. The town's present population is 107,000. The collapse of the CMEA and WTO pushed the town's major companies and Szekesfehervar into a deep crisis. Unemployment reached 30 per cent, much higher than the national average. The local self-government was in a desperate financial and political crisis. When the large-scale enterprises went bankrupt, their social infrastructure was transferred free of charge to the self-government. This was one of the reasons for the town's significant budget deficit. They had to maintain and eventually reconstruct obsolete facilities, for example extensive home-heating systems.

In 1992 the city management elaborated a large-scale programme to overcome the crisis. Their strategic target was to diminish unemployment radically. The self-government prepared a compact information package about the town's assets and development potential and sent it to numerous foreign economic forums and to Hungarian embassies or consulates abroad. The city set up an "Economic development and city marketing office" to create contacts and facilitate investment in Szekesfehervar.

The administrative procedures necessary to set up a new company were streamlined and simplified. To illustrate how effective Szekesfehervar's "quick start" assistance had become, in 1996 IBM needed only six months to start production after making its site selection decision. Local enterprise taxes were reduced. For local small and medium- scale entrepreneurs an Incubator House was set up in an abandoned military barrack. Other facilities vacated by the Soviet military were also converted: an air base was converted into an industrial park and a school was turned into a vocational training centre. The vocational school tailored its curriculum to the needs of newly-arrived foreign investors and local companies.

Initially Szekesfehervar offered general tax holidays for potential foreign investors. Some foreign companies took advantage of the five years' tax holiday and when it came to an end transferred their plants to other locations. In 1997 the city management introduced a selective tax policy, according to which, in the future, only those new investments that corresponded to the town's development projects would enjoy special advantages.

The local authority took over some abandoned, formerly military-related properties and entrusted them in an independent holding, in which the city council held a share. In 1997 a logistics service centre was planned with funding from German, French and Italian official development projects.

By the end of 1995 Szekesfehervar had overcome its crisis and was on its way to become a flourishing regional economic centre. It had three industrial parks and an enterprise region and hosted companies from 12 countries.[23] Although the city's management still struggled with financial problems, by 1995 industrial output had grown by 48 per cent and unemployment had dropped to 9.6 per cent, which was below the national average (*Figyelö*, 19 October 1995). By 1997 the rate of unemployment had dropped further, between 6 and 7 per cent, and most unemployment was considered temporary rather than structural. The development of Szekesfehervar may act as a catalyst at the regional level as well, as the benefits of the city's development are already felt in its immediate region. In the surrounding townships unemployment has practically disappeared.[24] Several towns in Hungary regard Szekesfehervar as a model and try to cooperate with it and learn from its experience.

Conclusion: The success of Videoton holding was possible thanks to the mobilization of both economic and political forces, drawing resources from both the state and the private sectors. The head of the holding company was able to use his reputation and political connections to mobilise the necessary capital, credits and contacts in the interest of the company.

Whatever the importance of these inputs of a political nature, they could not have succeeded without a genuine, professional restructuring of the company (as was shown to be markedly absent in the cases of ZTS TEES Martin and Dubnica, for example). It was the reorganisation of the management, production and marketing activity that led to a significant increase of efficiency and profitability and to the company's impressive expansion. Defence-related production remained one of the most lucrative profiles, but it was not the only one.

The restructuring of the town of Szekesfehervar was exemplary. The city management was able to capitalise on the city's assets, design a dynamic development strategy and mobilise both internal and external resources to carry it out. They also manifested an impressive flexibility and openness towards new challenges and possibilities. By 1997, the city was planning major infrastructure projects – new sewage, water supply and road construction – all coordinated with the development plans of the major companies. The harmony between the ambitious enterprise management and city leadership was very fortunate. Both sides recognised the advantages of cooperation and decided to coordinate their projects. These simultaneous and partially related programmes led to a virtuous development cycle that benefited not only Videoton and Szekesfehervar, but the whole region.

The military heritage became an important development asset, for both the enterprise and the town. Workforce, know-how, informal networks, technology and facilities were eventually reused in non-military endeavours and contributed substantially to the dynamic transformation of the enterprise and the region.

Case 2. Kwattro-Ajkai Elektronikai Kft. company – Ajka t own

The company: The predecessor of the Ajkai Elektronikai Kft. was established in 1962, as a branch company of the former Videoton state-owned enterprise. In 1978 the mass production of military radio systems for the Soviet market was transferred here. This specialisation brought significant new investments: new buildings, infrastructure and machinery were installed. The

[23] Companies included Ford, several branch companies of Philips, Parmalat, Loranger, Nokia, Wienna Plex, IBM, Stollwerk, Shell, Emerson and Alcoa-Fujikura.

[24] Local entrepreneurs had already begun to put out work to the less developed eastern part of the country.

company went bankrupt in 1991 and was sold that same year, in a closed privatisation deal, to Kwattro Ltd.

At the peak of its production, the company employed 2,800 persons. In 1991, when the company was sold, the new owners promised to keep 500 employees out of the 792 who were still working there. In 1992, Kwattro's sole production was minor sub-contracting to other companies. Large-scale development plans however envisaged participation in the development of the Hungarian telephone network and the revival of the defence industry. The new general manager had decided to introduce a new work-organisation system, based on projects. Independent project leaders were expected to act as private entrepreneurs, finding new orders and organising production (Eorsi, 1992).

In 1996 Kwattro went bankrupt and was liquidated. Its successor, Ajka Elektronika Kft, with 250 employees, was founded by two Hungarian private companies - related to the owners of Videoton holding. Videoton backed the company both financially and "spiritually" helping it to reorganize production, get new orders and set up new business contacts.[25]

The historical *town of Ajka* has some 35,000 inhabitants and is also located in the Transdanubian region. In the past Ajka was one of the typical "socialist" towns, with an economy based on traditional heavy industry. After 1990 the town sank into a deep crisis.

In 1994 the town's new management launched a comprehensive restructuring project. First cultural events, industrial exhibitions and conferences were organised. The city management elaborated some development projects and through its new contacts (established principally through the above mentioned events) succeeded in mobilising external financing for its projects. The city management's first major development projects were the reconstruction of the city garbage collection and disposal system, the renovation of the hospital and the establishment of the industrial incubator. Once these first developments began to function, they attracted other projects and mobilised support by the town's citizens as well.

Ajka had a unique, "preventive" unemployment programme. The city management was aware that workforce reductions had not yet ended. Due to government decisions, three mines and a coal-based power plant were expected to close shortly, entailing another 1,500 job losses. The self-government hoped that the bulk of the released workforce would be able to integrate into the new economic structures created since the political system changes. The city management had already undertaken some preparatory work, including offering retraining courses to make the transition easier for these workers. [26]

The town's projects included other social concerns besides employment generation. Two flat building projects were launched to stop the process of emigration of young and qualified people from the town and the whole region. The first was aimed for those in a difficult social situation, the other (individually designed living blocks) for young professionals. The projects were financed by loans, some municipal support and the would-be tenants' own savings.

In 1995 an Incubator and Innovation Centre was opened. Its purpose was to provide modest credits for first-time job seekers and for unemployed would-be entrepreneurs, to inform them about legal, tax and insurance matters and offer premises at preferential rates. The city's next project was the creation of an industrial park, "The new Atlantis," that began to function in early 1998.

Besides putting in place basic institutions to promote economic activity, the town directly supported the creation of new enterprises through its tax policy. Before 1990 there were approximately 200 small and medium-scale entrepreneurs in Ajka. As of October 1997, there were

[25] According to more recent information, in 1997 Ajkai Elektronikai Kft. had 450 employees and cooperated with Suzuki-Hungary, a Szekesfehervar-based Philips company and other German enterprises. It had obtained the ISO 9002 quality certificate. (*Napi Gazdasag*, 11 September 1997 and 26 May 1998).

[26] Many of the qualified workers who had to leave the former large enterprises in the early 1990's went to work for the mines. Even though it often meant a professional degradation, the employment -then - seemed to be stable and the pay was still relatively high.

1,700. According to the Deputy Mayor, most of the new businesses were set up in order to avoid unemployment, rather than out of entrepreneurial interest. About 60 per cent of the new companies were active in retail trade and services, the rest were dedicated to manufacturing activities. Increasing numbers of these new enterprises were becoming subcontractors of major Hungarian and foreign firms. Many qualified workers dismissed from Videoton decided to remain in Ajka. On the basis of their high-tech electronics industry skills, several new, private enterprises were launched.

At the end of 1996 the "New Atlantis regional development association" was created with the participation of the town of Ajka. The aim of the Association was to coordinate and promote economic, environmental, agricultural and tourist development projects. Some forty communities participated in the Association, with a combined population of 70,000. By 1997 the economic basis of Ajka had completely changed and the town was on its way to becoming a prosperous township.

Conclusion: Kwattro, the former Videoton branch company in Ajka, did not manage to cope with the challenges of independent existence and the heritage of the past in a seriously depressed economic region. It was unable to realise the plans envisaged at the time of becoming independent. A remnant of the original enterprise managed to survive, mostly with sub-contracted work. The renewed intense relationship with the Videoton holding considerably improved the company's situation and future prospects.

Ajka provides an example of a dynamic, constructive crisis management in a town that had suffered the collapse of several traditional productive branches, including defence industry, heavy metallurgy and mining. It is not yet sure that the town will be able to overcome its crisis soon, but the local self-government did its best to change the negative trends and prompt a recovery. Ajka's economic base has diversified and modernised. The way the city management attempted to introduce preventive strategies to avoid further deterioration of the local economy, its ability to envisage feasible future development directions and to mobilise resources and wider alliances were also very promising.

The case of Ajka also illustrates the increasing importance of location and regional relations. The situation of Ajka is not entirely consolidated yet, but the town is on its way to recovery. In addition, it is located in a region that has substantial development potential. The whole Transdanubian region, but specifically the Szekesfehervar- Veszprem- Ajka- Varpalota - Szombathely axis are in process of becoming one of the most dynamic regions of Hungary. The town of Ajka is ready to contribute to and benefit from this prosperity.

Case 3. MFS Magyar Loszergyarto company – Sirok town

The company Matravideki Femmuvek Sirok (MFS) was established in 1952 to produce ammunition for hand weapons. It reached its largest size in the mid-1970's, when, together with a branch company in the nearby Fuzesabony, it employed 3,700 people, 3,000 in Sirok alone. The share of defence-related production was approximately 20 per cent, but due to its profitability, special status and the related privileges and advantages, it played a decisive role in the enterprise's life. Before 1989, an average of 80 per cent of the military related output was produced for export. About 30 per cent of the civilian output was sold on the CMEA markets.

By 1991 Matravideki Femmuvek was bankrupt. Both civilian and military markets had collapsed, it was in deep financial crisis and the state institutions did not provide further economic lifesavers for it. Defence-related production came to a halt. At the end of 1994 Matravideki Femmuvek was divided into three spin-off companies. The ammunition producing facility, Magyar Loszergyarto Kft, was first sold to an American-Canadian businessman, but in 1997 the Hungarian

State bought it back. It is now 100 per cent state-owned. According to present plans, probably 51 per cent of the shares will remain state-owned and the rest will be offered for sale again.[27]

The new management carried out a thorough quality and profit-centred reorganisation of the company. Production was reorganised according to the ISO quality control system. On the basis of the ISO qualification, Magyar Loszergyarto Kft. received a certificate from the Quality Control Committee of the Hungarian armed forces for military products. In 1997 approximately 90 per cent of the company' s output was military related. Since 1994 the level of output has not increased, but by 1996 the company had already produced a small profit.

In 1989 in the valley of Sirok there were 3,000 people working for MFS. As of October 1997 there were 800 people employed at the successor companies. Magyar Loszergyarto Kft., the wholly-military devoted plant, had 200 employees. The first big wave of redundancies took place in 1990-91, when the company's military orders stopped simultaneously with the collapse of its East European civilian markets. Some people took early retirement, but many became unemployed, especially women, unskilled workers and Romas whose chances to find new jobs were limited.

The company's principal problem is lack of capital. After becoming independent, Magyar Loszergyarto Kft. was obliged to create its own administrative and service infrastructure, using up its last remaining financial reserves. Purchase of the most necessary tools, instruments and documentation for the introduction of the ISO quality control required a small subsidy from the Ministry of Industry and Trade. In early 1998 the company was balancing at the edge of insolvency, due to its bad debts and relatively modest incomes.

The village of Sirok, with a population of 2,350, is located in a small valley in the Matra Mountains in Northeast Hungary. In the past it had formed a joint settlement, in terms of administration and economic management, with other nearby villages, but recently became administratively independent.

Until 1985, when Matravideki Femmuvek was still a thriving company, workers commuted to the village from 44 surrounding settlements. Between 1991 and 1993 unemployment peaked at 20 per cent. It began to diminish slowly in 1994 and by the end of 1997 it was 14.2 per cent.

The local self-government intended to facilitate the quick privatisation of Matravideki Femmuvek. They declared the plant's estate municipal territory and prepared a plan that made it possible to sell the productive units separately, with the property that belonged to them.[28] In 1997, 10 companies were in operation on the property of the former Matravideki Femmuvek.

The village leadership tried to promote new entrepreneurship in the settlement. For years it did not increase the local enterprise tax. It tried to improve the infrastructure, the gas (including industrial gas), water and telephone networks. The self-government assigned lots that were rented or sold to new entrepreneurs at preferential rates. The most ambitious plan was to convert the facilities of the former Matravideki Femmuvek into an industrial park in order to put to good use its otherwise unused premises.

Sirok, together with 16 other small settlements in its immediate environment, formed a Microregional Association. The Association hopes to revive agriculture and to re-open two machine industry plants, a glass factory and various mines that once were relatively prosperous in the region. It also envisaged the development of tourism, specifically small-scale rural tourism.[29]

[27] The Hungarian State bought back the company for two reasons. First, the foreign owner, instead of injecting new capital and finding new markets had followed a strategy of realising quick profits, against the company's long-term interests. Second, a decision was taken that ammunition for soldiers' hand weapons would be produced by local industry.

[28] According to the mayor, this was an unprecedented move in Hungary. Undoubtedly there are many legal and financial complications stemming from the ambiguity of real estate property relations that jeopardize company liquidation or privatization processes.

[29] About 10 per cent of the population of Sirok were Roma. They originally came to work in the weapons plant, as cheap and available labour. By the late 1990's most were long-term unemployed and lived in poverty. The regional retraining programmes could not help them because they offered higher level programmes while many of the Romas hardly had elementary education. Roma unemployment was very high in both Slovakia and Hungary. Recent research has shown a high

Conclusion: The restructuring of Matravideki Femmuvek-Magyar Loszergyarto Kft. can be considered a halfway solution. The company suffered serious losses in employment and production levels. Magyar Loszergyarto Kft. carried out a significant internal reorganisation, introducing strict efficiency and profitability criteria. The company's future, however, was not assured. It was based on one military product that did not have important local orders and faced tough competition in foreign markets. The financial basis of the enterprise was also unstable. It is probable that Magyar Loszergyarto Kft. will survive, thanks to its dynamic management, the revived official backing and renewed demand if Hungary joins NATO. It seems unlikely, however, that the company will grow significantly or that its stabilization could contribute significantly to the economic or employment base of either the village of Sirok or of the wider region.

Matravideki Femmuvek Sirok was a classic example of an artificial industrial establishment in a region where it lacked an historical or economic base. The principal location criterion was strategic: to hide the plant in the Matra hills. After its establishment the enterprise was artificially inflated with expansive military production and alibi civilian production profiles. As a consequence of the transformation crisis, military production decreased to an operationally minimum level and civilian production to an economically sustainable level. The "extra" capacities, workforce, territory, establishments, technology, became superfluous. They were abandoned, made redundant or only partially used. The losses were principally born by the workforce and the local community.

A small settlement in Sirok’s position can do very little to improve such a situation. It has no means with which to keep up the past's relatively high level of services and its possibilities to find alternative economic activities are very limited. The mayor's proposal of creating an industrial park appeared to be an excuse to apply for central government funds, rather than a genuine development project. It was based on the idea of reusing what was left of the once extensive company assets. Similarly, the micro-regional cooperation aimed to reconstruct the past instead of finding new types of activities.

Case 4. DIGEP AG and EMV companies – Borsod-Abauj-Zemplen county

The companies Diosgyori Gepgyar Altalanos Gepgyar (DIGEP AG), Hungary's only important heavy weaponry factory, was established in 1949 to produce large weapons for the Hungarian and Soviet armed forces.[30] To utilise fully the large productive capacities, civilian products such as compressors and machine parts were also fabricated. Their share of civilian production ranged from 5 to10 per cent. In January 1989 civilian production came to an end and DIGEP became a 100 per cent military-devoted producer.

In the mid-1980's, when the company was at its peak, the company had a Ft1.2-1.7 billion worth of annual output. By 1992, production - subcontracted work for another machine company, had dropped to Ft50 million. In 1983-85, the company employed 1300-1500 workers. By 1994, the workforce had fallen to 450 employees. The company management spent the years from 1990 to 1994 trying to convince Ministry officials to include DIGEP AG into a restricted circle of defence-related enterprises that were to remain state property. Their efforts failed, principally on the resistance of the Ministry of Defence[31].

The company remained committed to maintaining military production, even though its prospects were not promising. Despite rather clear negative signals from the economic environment and the political establishment, management insisted on pursuing further military related development, for example developing a new type of grenade launcher. However, no concrete orders have materialised.

correlation between stagnant regional unemployment and Roma population in Hungary (Abraham-Kertesi, 1996). Local authorities in both Slovakia and Hungary felt uneasy about the question, although actual treatment (from efforts to further isolate them to supporting NGOs working in their communities) differed widely across countries and localities.

[30] Originally the production was based on Soviet licenses. There was a time when even the production process was under Soviet military control.

[31] The Ministry of Defence declared that the Hungarian armed forces would only need about 10-15 per cent of the company's output, even if the state had sufficient resources for that much procurement, which seemed rather unlikely in 1994.

The company's efforts to establish new civilian product lines failed for a variety of reasons. Heavy competition in both local and international markets foiled a project to produce industrial pushcarts. World-wide crisis in the mining sector restricted sale prospects for mining machinery. German unification put an end to plans to expand production of spare parts for a printing machine factory, after DIGEP AG had used its last reserves to expand that production line.

DIGEP AG was part of a large-scale heavy industrial trust, DIGEP. In November 1989 a liquidation process was started against the company. DIGEP was divided into independent enterprises that were offered for sale individually. The defence-related enterprise was taken over by two Hungarian entrepreneurs and renamed Army-Coop in October 1992.

The privatisation of DIGEP AG proved to be a major mistake. Reorg, the state privatisation agency, sold the entire company without preserving the minimum 10 per cent state ownership that prevailing regulations prescribed at the time. It turned out that behind the two Hungarian businessmen was a dubious Russian-American corporation. The company' s new management proved to be unable to reorganise production, find new markets or other work opportunities for the enterprise. After the first year, during which the new owners were obliged to keep the workforce (500 persons), according to the privatisation contract, significant redundancies took place. In November 1994 the company, with its remaining 50 workers, suspended its activity.

The company Eszak- Magyarorszagi Vegyimuvek (EMV) was founded in 1949 to produce gunpowder and its components. By the end of 1960 the company produced gunpowder, drugs, pharmaceutical intermediary products and insecticides. In 1989-1990 the company not only had to face the end of military orders, but the collapse of its large-scale civilian markets in the CMEA, principally in the Soviet Union.

In 1986 military-related production came to a halt at EMV. All facilities, connected to military related production, including a brand new TNT plant[32], became sealed and turned into "cold capacity".[33] In March 1992 the company's bankruptcy process began. The management tried to avoid liquidation by finding buyers for one of its divisions that became an independent branch company, Poran Ltd. Poran was bought by an Austrian firm and has been fairly prosperous.

In 1996 the liquidation agency bought back and reunited the decentralised company assets. In 1996 the company had a Ft950 million output (principally from sub-contracted work) and even produced a modest (Ft58 million) profit. EMV was sold in April 1997 to a consortium formed by Hungarian companies and private persons. After the sale one important problem remained to be resolved: environmental damage, whose clean-up was estimated to require an investment of Ft480-620 million.[34]

EMV's workforce peaked at 3,600 persons at the turn of the 1950-1960's. It diminished to 2,400 by the mid-1980's, but when the liquidation process began in 1992, there were still 2,000 people working at the company. In late 1997 there were 480 people working in Poran Ltd. and approximately 400 workers at the privatised Eszak-Magyarorszagi Vegyimuvek Ltd. Together with the other minor successor firms, about 1000-1200 people were able to keep their jobs after the transformation. The rest went to early retirement, found employment elsewhere or became unemployed.

EMV's industrial estate was enormous, comprising three valleys in the Bukk Mountains with full utilities and roads (in case of natural disaster or war). In the Autumn of 1997 a new private corporation, Sajobabony Vegyipari Park Kft. (Sajobabony Chemoindustrial Park Ltd). was set up to create an industrial park specialized in the chemical industry. The corporation planned to reconstruct, rehabilitate and modernize the industrial estate. Once the estate was rehabilitated and

[32] In 1979 a TNT explosive production plant exploded, killing several workers. Shortly afterwards a new plant was constructed, with up-to-date Bofors technology.

[33] Cold capacities are productive assets (technology, materials and workforce) that are maintained and, in theory, can be activated at any time when they are needed.

[34] In May, 1998, Eszak-Magyarorszagi Vegyimuvek was sold to the US-based TRI company. The new owners promised new markets and investments and environmental rehabilitation of a cost of Ft150mn (*Napi Gazdasag*, 12 May 1998).

its services functioning properly, Sajobabony Vegyipari Park Kft. planned to invite new, foreign and Hungarian, companies to establish themselves in the future industrial park.

The region: In the past, Borsod-Abauj-Zemplen county enjoyed special economic and political importance in Hungary. It was the centre of the heavy industry, mining, metallurgy, heavy chemical and defence industries, promoted intensely during the extensive industrialisation process. Thanks to its economic and political importance, as a major “working class bastion,” the county received large-scale subsidies from the state. After the political system changes the region sank into a crisis that was one of the worst of any area of the country, with a dizzying speed. By the early 1990’s it was characterised by a paralysed industrial restructuring, massive unemployment and dangerously pauperising regions.

As of October 1997, Borsod-Abauj-Zemplen County was in the worst situation in Hungary as far as the number and structure of unemployed is concerned. The rate of unemployment reached 18.9 per cent, the highest in the country. Approximately 10 per cent of the registered unemployed were first-time job-seekers and 80 per cent were long term unemployed[35] (Kelemen, 1997).

In two of the most critical towns, Ozd and Diosgyor, "employment companies" (foglalkoztatasi tarsasag) were set up to soften the impact of the industrial crisis. According to the Deputy Director of the Labour Office of Borsod-Abauj-Zemplen county, the employment companies served to reduce political tensions and provide work for a limited number of people. They were, however, an expensive method of providing an only halfway solution: There were still several thousands of unemployed persons and serious tension existed between those who were re-employed by the spin-off companies and those who were left out.

Authorities at the county level tried to attract investment by improving the infrastructure, promoting its relatively well-trained workforce, and creating industrial funds to promote entrepreneurship. They prepared a study together with the University of Heavy Industry of Miskolc, trying to identify the county's development potential. To facilitate entrepreneurship in the county, some new institutions - a county level development bank, the Rakoczi bank, the Labour Office and an Enterprise Development Foundation - were established.

According to county management, the main obstacle to development is the lack of foreign investment. The county’s share of total FDI in Hungary is only 2 per cent. However, even the investments that have materialised have created few replacement job opportunities. A foundry in Ozd was sold to a German company but efficient production requires only a small portion of the original workforce. Foreign entrepreneurs invested in modernising and expanding marketing for the historical vineyards of Tokay, but did not create new jobs. The privatization of some major chemical companies did not have important employment-generating effects either.

Another major bottleneck is transportation, with roads and inter-county transport facilities rather underdeveloped. Projects under consideration included transforming an abandoned Soviet airbase into a small civilian airport and extending the major East-West highway to Miskolc and beyond to the Ukrainian border.

[35] Sixty-eight per cent of the unemployed had been looking for a job for more then two years.

Table 5. The companies, Hungary

	Videoton	Kwattro-Ajkai	MFS-MLSZ	DIGEP AG-Army-Coop	EMV
Workforce	1988: 20,000 (6,000 in defence production) 1997:10,000 (200)) = -10,000	1988: 2,800 1997: 250) = -2,550	1989: 3,000 1997: 800) = -2,200	1985: 1,300-1,500 1994: 50) = -1,250	1987: 2,400 1997: 400) = -2,000
Output	1988: Ft 20 bn 1994: Ft 14 bn 1996: Ft 18 bn	n/a	1988: Ft 4.0 bn 1991: Ft 1.2 bn	1987: Ft 1.2-1.7 bn 1992: Ft 50 million 1997: -	1997: Ft 950 million
Military production's share of output, 1988	1988: 35.5% 1994: 20%	1988: 60% 1998: -	1989: 20% 1997: 90%	1989: 100% 1997: -	1987:30% 1997: 0
Survival strategy	Diversification, military production is maintained at a reduced level	Diversification, complete halt of military production	Specialization on military production	Specialization on military production	Diversification, complete halt of military production
Organizational changes	Radical internal reorganization and restructuring	Internal reorganization	Decentralization, radical internal restructuring	Decentralization	Decentralization
Ownership status	Private	Private	State-owned	Private	Private
Situation in 1997	Good	Improving	Uncertain, despite relatively good performance	Suspended	New chances for survival

Table 6. The regions, Hungary

	Szekesfehervar	Ajka	Sirok	Borsod-Abauj-Zemplen county
Population	107,000	35,000	2,350	742,000
Unemployment	6-7%	8.4%	14.2%	18.9%
Local initiatives	Comprehensive city development project	Comprehensive city development project	Development of infrastructure	Development of economic infrastructure
Enterprise-region cooperation	Good cooperation	Cooperation beginning	No common projects	Formal
External assistance	Foreign capital investments, foreign financing	State funds for development, foreign financing	Possibility to get State funds	State funds for development
Situation in 1997	Good	Improving, good future prospects	Difficult	Very difficult

Conclusion: The management of DIGEP AG and Eszak-Magyarorszagi Vegyimuvek was unable to carry out a genuine internal restructuring process and assure the company's future. In the crucial period 1990-1994 both companies' management concentrated their efforts on maintaining the status quo, instead of looking for alternatives for the future. There were many external obstacles beyond the company's competence as well. Both enterprises are in heavy industry, which is rather difficult to convert. For several years the respective Ministries seemed to be unable to reach a consensus on whether preservation of the two companies was indispensable for the country's defence. This uncertainty, in turn, blocked decisions at the enterprise level (or at least was a major pretext for postponing important decisions).

In addition, the privatisation of both companies turned out to be rather unfortunate. The foreign buyers wanted to purchase the company for only short-term, ill-defined purposes, not having in mind the long-term interests of the enterprise and its employees. In principle the state privatisation agencies should have examined both cases better, but seemingly they were in no position to do so.[36]

In the case of DIGEP- Diosgyor, the problems of local unemployment and economic recovery were addressed principally by the centrally founded Employment Office. In Sajobabony, according to the representatives of Eszak- Magyarorszagi Vegyimuvek, the local self-government was rather passive. The initiative of converting the company’s industrial property into an industrial park was completely private, launched by a former employee of Eszak- Magyarorszagi Vegyimuvek.

The county management of Borsod-Abauj-Zemplen seemed to accept the position of depressed region with a certain resignation. There were some local efforts to improve the state of affairs, but they did not seem to have a major impact.

[36] According to the representatives of each of the companies, the management strongly opposed the deals in both cases.

IV. Conclusions

1. Defence industry restructuring at the national level

In the past the principle player that created and maintained the defence industry in East Central Europe was the state. Government decisions established and maintained military-related enterprises and created privileged conditions for them for decades. Their respective regions have also enjoyed preferential treatment. After the political system changed, the state no longer assured privileges that had guaranteed survival of defence industry enterprises. The sector suffered a dramatic collapse that had serious consequences on employment and regional development.

In Hungary, after the first, dramatic manifestations of the crisis, further erosion and disintegration continued in the sector in the early 1990s. This was the result of inconsistent government policy and the chaotic changes created by the recently introduced market forces and the sector's spontaneous reaction to these changes. By late 1997, the Hungarian defence industry had consolidated. It was diminished in size to a level at which it can survive by and large on its own. Eventual politically-motivated government assistance and foreign capital infusions could improve individual companies' development potential but are not the principal factors keeping the sector alive. The Hungarian defence industry's structure at present is shaped principally by exogenous market forces. It does not correspond to "natural" needs of the armed forces or political needs (state level decisions).

In Slovakia by contrast, the principal argument for rescuing and promoting the defence industry was to make it able to meet the needs of the modernized Slovak armed forces and to expand exports. Politically articulated needs determined both the sector's survival and structure. Multiple government interventions aimed at avoiding further collapse and even more radical transformation of the sector. All defence industry enterprises were forced to diminish radically their output and workforce, but none was closed down. In this still quasi-protected environment very few companies carried out genuine enterprise restructuring. Despite the fact that the bulk of the defence-related companies have been formally privatized, their survival still depends on active state participation.

In Hungary, companies were more exposed to market pressures and were forced to struggle for survival. There were more companies that had to go through a genuine restructuring and at the same time more went bankrupt or shrank to minimum levels. In Slovakia, companies were more protected and less obliged to carry out comprehensive enterprise streamlining. In both countries the changes were achieved with enormous material and human losses. Active state intervention and financial contributions in Slovakia do not seem to have diminished significantly these losses. It is still an open question whether defence industry restructuring will continue absorbing scarce development resources or whether the latest revitalization programme will help to create viable economic units and put the sector on a self-sustaining track.

In addition to the state and the increasingly active enterprise management, in the 1990's a new actor, foreign capital, began to play a role in the transformation of the defence industry in East Central Europe. In Hungary, foreign capital participated in some defence enterprise privatization and development projects. The military dimension was generally an attractive factor when an enterprise was bought, but there were no specific military-related projects carried out with foreign cooperation. In Slovakia, there were fewer cases of foreign participation in the privatization process, but some cases of foreign capital involvement in military development projects.

At the beginning of the transformation process in East Central Europe there seemed to be a wide consensus that privatization was going to resolve the problems of ailing state-owned enterprises. Due to their political and strategic importance however, the privatization of the defence industry enterprises was more contested than that of other companies, both in Slovakia and Hungary. The long insecurity and difficulties surrounding their privatization had a significant negative impact on enterprise performance.

By the end of 1997 most Hungarian defence industry enterprises were in private hands; only a restricted group of companies were to remain under state control. Most Slovak companies were formally privatized but were under the *de facto* control of state-owned banks, institutions or companies. The evidence of the case studies suggests that neither quasi-state nor shaky private ownership can resolve the deep-rooted problems of the defence-related companies. As the cases of ZTS TEES Martin, ZTS Dubnica nad Vahom or PPS Detva show, the maintained state ownership usually is unable to provide sufficient financial resources for the necessary restructuring and rarely induces strict efficiency criteria. At the same time privatization turned out to be disastrous in the cases of DIGEP AG and MFS-Magyar Loszergyarto. The change of ownership only helps the company if it creates genuine owners with long-term perspectives and ability to mobilize capital for the inevitable restructuring of the firms. A genuine change of managerial attitude is indispensable both at private and state-owned companies.

2. Defence industry restructuring at the enterprise level

The crisis of the defence industry first caused panic and paralysis at the enterprises. Later, enterprises tried to adjust through various survival strategies. There were two crucial questions company management had to decide: product profile changes and enterprise reorganization. As far as production profile changes were concerned, the options ranged from complete conversion into civilian production to becoming entirely military-oriented. Reorganization measures varied from formal reorganization and decentralization of the company to genuine enterprise restructuring. These measures are shown in synopsis form in Table 7.

In order to survive in their new economic environment, all enterprises tried to reduce their overhead costs radically. Massive redundancies, internal reorganizations, reduction of working hours, transfer of social services and productivity enhancing measures served this purpose. Enterprise reorganization, radical decentralization and the creation of new, independent companies from the previous enterprise divisions aimed to both reduce costs and increase productivity. The numerous layers of hierarchical decision-making were gradually eliminated and the internal structures of the remaining companies were also streamlined. As part of the cost-reduction measures, most of the enterprises sold or rented out their social service network or transferred it free of charge to the municipal authorities. Interestingly enough, companies in the worst financial state, ZTS TEES Martin and ZTS Dubnica nad Vahom, put a special emphasis on preserving at least some of their once broad social services. All companies were forced to carry out drastic reductions of workforce.

Four companies in the sample, PPS Detva, Slovenske Lodenice, Kwattro and EMV decided, or were pushed, to carry out a complete profile change. PPS Detva, Kwattro and EMV were in a severe economic situation and the latter two could only survive because more powerful business partners bought them up. Slovenske Lodenice was considered one of the success stories of the (Czechoslovak) government-initiated conversion programme. The management of ZTS Hrinovske Strojarne a.s. decided to resume military production, after it was completely halted in the mid-1990s.

A few companies carried out an inverse profile change, shedding the civilian profiles inherited from the past's mixed production systems and becoming predominantly military contractors. In the case of MFS-Magyar Loszergyarto this strategy was based on reducing costs and concentrating on restructuring the main military production profile. In the case of DIGEP AG this decision was not followed up with productive reorganization, marketing and new investments, so the company was forced to suspend its activities.

The majority of the companies opted for diversification. They reduced, but preserved their defence-related activity and the related assets, and simultaneously widened their civilian production. There were two versions of diversification. In the first case military production remained the core and most important segment of the company's economic activity, even if its share had dramatically diminished and its future prospects were not very promising. Civilian profiles were developed, but often as "alibi" activities, to provide work for the workforce and make use of the productive assets. In the second case, military-related production continued thanks to its good economic prospects. Strict efficiency criteria were introduced in both military and civilian production. Examples of the first type were ZTS TEES Martin and ZTS Dubnica nad Vahom, while Videoton holding and ZTS Hrinovske Strojarne represented the second model.

Most of the formerly or presently defence-related companies are in a difficult economic situation both in Hungary and Slovakia. They have deep structural problems, serious financial burdens and insecure future prospects. Nevertheless, some of the companies have been able to turn the defence industry heritage into a development asset. They were able to build on the positive elements of this heritage such as the higher than average technological and infrastructural level, highly skilled and versatile workforce, strong cooperation and information links with other enterprises, accumulated equipment and materials, and large usable facilities. Even such problematic companies like ZTS TEES Martin were able to design and produce completely new products on the basis of their existing assets. In the best examples of successful enterprise restructuring, like that of Videoton holding in Hungary or ZTS Hrinovske Strojarne a.s. in Slovakia, these elements were used in innovative ways to create a new-style company with new market targets.

All companies in the sample, even the best performing ones, had very serious financial problems. They were saddled with debts, often lacked resources for everyday functioning and were usually unable to carry out new investments. Due to their situation they lacked access to credit and depended on state agencies to bail them out. The only enterprise that was able to mobilize the necessary financial resources for its restructuring and expansion was Videoton. Even companies that carried out a successful reorganization and produced (some) profit, like Slovenske Lodenice, ZTS Hrinovske Strojarne or Magyar Loszergyarto Kft., had serious problems of liquidity. Thanks to its relatively strong position in the Slovak economy, Slovenske Lodenice was able to receive some expensive, short-term loans, unlike the bulk of its counterparts, but in 1997 it failed to receive a major loan from the EBRD because it did not meet EBRD lending criteria [*Financial Times*, 28 October 1997]. In 1997 Magyar Loszergyarto Kft. managed to survive thanks to a medium-term bank loan received with state guarantee.

In the sample only Videoton holding and Slovenske Lodenice were able to make significant new investments. Videoton created several new production profiles and daughter companies, Slovenske Lodenice introduced a new internal information system and updated its production system. The other companies could not afford new investments. The most necessary tools, instruments and documentation for the introduction of the ISO quality control system at Magyar Loszergyarto Kft. for example were assured by the inherited assets of the company and a small subsidy from the Ministry of Industry and Trade. Since 1989 the only "investment" ZTS Hrinovske Strojarne was able to carry out was the purchase of two measuring instruments for the introduction of the ISO quality control system.

3. Regional restructuring

The principal question for both enterprises and regions was how to survive the unprecedented crisis that hit the defence industry. The most innovative enterprise and regional level managers however went further and crafted adjustment strategies that capitalized on the past's heritage in generating new development.

Table 7. Checklist of measures taken by the enterprises

	Slovakia					Hungary				
	ZTS Martin	ZTS Dubnica	PPS Detva	ZTS Hrinovske	Slovenske Lodenice	Videoton	Kwattro-Ajkai Elektronikai	MFS Magyar Loszergyarto	DIGEP AG	EMV
Decentralization										
Creation of independent daughter companies	V	V	V		V	V				V
Becoming independent				V			V	V	V	
Internal reorganization										
Formal reorganization	V	V	V				V		V	V
Genuine restructuring				V	V	V		V		
Facility reuse										
Reusing facilties for new purposes	V	V		V	V	V		V		
Renting out facilities for outside partners	V	V	V			V	V			V
Human capital management										
Reduction	V	V	V	V	V	V	V	V	V	V
Retraining	V	V	V	V	V					
Hiring (selective)				V		V				
New markets										
Internal	V	V				V				
External	V	V	V	V	V	V	V	V		
FDI or foreign cooperation										
In civilian production			V	V	V	V	V			
In military production	V	V								
Investment										
					V	V				
Financing										
State subsidy	V	V	V		V					
Loans				V	V	V	V	V		V
Foreign financing						V				
Social infrastructure										
Preserved (partially)	V	V			V	V				
Transferred to other institutions	V	V	V	V	V	V	V	V	V	V

The situation of defence-dependent regions became problematic in the countryside and smaller settlements of both Slovakia and Hungary. Companies based in the capitals either had more opportunities to adjust to the new economic environment or their displaced workers had more opportunities to find replacement jobs. Most of the defence-related companies in Slovakia were established as large-scale greenfield investments. They created artificially inflated industrial centres in regions that had no other economic base or where the forms of previous economic activity were suppressed. Once the defence industry sank into crisis, the principal source of demand for these regions' production was drastically cut off.

According to the findings of the case studies, successful regional management was characterized by the regional authority's ability to:

(1) decrease dependence on the one or two dominant large-scale defence industry companies;
(2) diversify the region's economic basis and create new job alternatives; and
(3) mobilize resources for these efforts.

A positive example of regional restructuring was Dubnica nad Vahom in Slovakia. Despite the fact that the town's key enterprise could not overcome its deep structural crisis, nor change its dependence on the defence industry, eventually the town or region was able to do so. In the town's economic space a slow reorganization of activity has been taking place, outside the influence zone of the key enterprises. The company ZTS Dubnica nad Vahom was gradually reduced to a more or less economically viable size and simultaneously the workforce and the town found alternatives for themselves. The variety of measures employed by region authorities are summarized in Table 8.

The local or regional management's efforts to promote new economic activities were often jeopardized due to financial difficulties. The local administration's competence was often measured on how able it was to mobilize the necessary resources for its efforts.

The resources mobilized for regional restructuring in the successful cases included:

(a) internal non-financial resources, for example citizens' goodwill and active participation in development projects;
(b) internal financial resources, for example citizens' savings or reallocation of administrative budgets;
(c) external non-financial resources, through connections with other townships in the region, other regions or abroad;
(d) external financial resources, for example special state funds, credits, foreign financial support.

Where local and regional leadership was dynamic, specific emphasis was placed on improving the services of local governments. These leaders realized that by providing good public services they created an important new development asset vis-à-vis their citizens and potential outside investors. The goodwill and confidence created by improved public services could eventually be used for mobilizing participation and contributions in restructuring efforts designed by the regional authorities.

Contact between regions and towns proved to be crucial. Horizontal network building could be extremely fruitful because it offered the possibility of concentrating resources for common development projects and it provided valuable personal contacts, information and know-how. Contact building and cooperation emerged across administrative borders, including country borders. The positive examples in the sample were Dubnica or Ajka, that tried to create networks in their region and abroad. The negative example was Komarno, where even previously established links (economic cooperation, economic and cultural exchanges, commuting) were cut between the Slovak and Hungarian parts of the town, due to the political changes.

Table 8. Checklist of measures taken by the regions

	Slovakia							Hungary			
	Martin town	Martin district	Dubnica	Nova Dubnica	Detva	Detva district	Komarno	Szekesfehervar	Ajka	Sirok	B-A-Z county
Facility reuse Base redevelopment or reuse of enterprise facilities			V	V	V			V	V	V	V
Human capital reuse New job opportunities			V		V			V	V		
Improving local governance	V		V	V	V		V	V	V		
Improvement of social infrastructure Flats, services, cultural & social institutions, etc.	V		V	V	V		V	V	V		
Improvement of economic infrastructure Roads, telecommunication, gas, water, sewage, etc.			V		V			V	V	V	V
Establishment of new economic institutions Incubators, business service centres, industrial parks	V							V	V		V
Small business development Facilitating administration procedures, tax favours, specific regulations			V		V		V	V	V	V	V
Coordination with social partners Employers, unions, other regional partners, NGOs, etc.	V		V		V			V	V	V	V
Foreign investment, assistance or cooperation	V		V				V	V	V		

Mobilizing external and internal resources for regional development was a daunting task for most local leadership. All applied for state-provided development funds and if they had information about it, many tried to gain access to grants offered by international agencies. In a rather new approach, the public administration in Ajka and Dubnica used citizens' savings to partially finance new construction projects. Some managements were able to gain access to foreign loans or (in Hungary) to borrow on the domestic market. Only the most advanced ones, like Szekesfehervar, were able to generate considerable revenues through new economic activities.

3.1 Defence industry restructuring and regional development

In the past the regions were strongly and unilaterally dependent on their main companies. The relationship between companies and their respective regions was rather passive: the regions received the companies' contributions to the local economy but did not initiate projects or programmes that would create an environment conducive to the development and productivity of these enterprises.

Since the changes in economic and political structures, enterprise and regional development is more mutually dependent than in the past. The erosion of uniform centralized state regulations provided an increasing role for the local economic environment in enterprise adjustment efforts. The ability of the enterprises to mobilize external resources and the potential of the wider region are becoming crucial. A company's location, its accessibility and the general level of regional development have become important factors taken into account by potential investors. Regional authorities at the same time have more freedom to make use of their endowments and form links with their major enterprises. As a result of these transformations, the relationship between regions and companies have changed considerably. Many regions overcame their traditional role as passive receivers of (state) and enterprise contributions and became active actors shaping their own development. In some cases they were able to cooperate and launch joint projects with local companies that had far-reaching positive impact both on the enterprises and the regions.

This new type of relationship was reinforced by the strong personal links between defence industry enterprises and regional agencies, principally in Slovakia. The reform of the regional administration system required many new cadres. This gave a unique chance for professionals who were losing their jobs due to de-industrialization or the crisis of their enterprise. They could be retrained and take key positions in the newly-formed local or regional administrations. In the field work this was the case for high-ranking regional and local officials in Dubnica, Detva and Martin district.

The evidence of the case studies shows that even the best restructuring efforts at the enterprise or regional level are ineffective if they are isolated. The lack of shared commitment blocks or limits development. A coordinated, committed action on both sides can produce genuine long-term results that are beneficial both for the enterprises and their regions.

Among the cases studied, four different types of region-enterprise cooperation were created (see table 9):

(1) In the best case, there was initiative and willingness to cooperate on *both sides*. Both the enterprise and the region launched genuine restructuring projects. At a certain stage these efforts became coordinated, so they could mutually stimulate and reinforce each other. Cooperation made it possible to concentrate resources, eliminate development bottlenecks and accelerate progress. This was the case of Videoton and Szekesfehervar, where the combined restructuring efforts of the company and the region stimulated the whole regional economy.

(2) Development efforts were *one-sided,* concentrating only on *enterprise* survival. Regional authorities were not partners, either they were not invited or they were unwilling to cooperate in wide-scale enterprise-based regional development projects. The success of the enterprises made it possible to reduce further losses and eventually created a modest increase of employment and economic activity. The positive impact, however, was limited

by the reduced size of the enterprise, without important multiplier effects. This happened for example at Slovenske Lodenice, ZTS Hrinovske Strojarne a.s. and Magyar Loszergyarto Kft.

(3) The other type of *one-sided* development efforts was when restructuring efforts were limited to a *region-centred* survival. The region's key companies were unable or unwilling to reform themselves, so regional authorities had to concentrate their efforts on creating alternative economic opportunities. This made possible crisis management and development at a regional level, even if the companies that formerly dominated the region were unable to contribute to the process. Such was the case of Dubnica and Ajka. The chances of regional development-based survival can be extremely low if there is overwhelming dependence on one enterprise and hardly any alternative resources available for the region. In the sample such was the case for Nova Dubnica and Sirok.

(4) In the worst case *neither* the company *nor* the region was able to overcome its crisis. The negative effects of the crisis multiplied. The lack of initiative and cooperation blocked development on both sides, as shown in the examples of Martin and its district or DIGEP AG and EMV in Borsod-Abauj-Zemplen county.

3.2 The problem of employment

The links between defence-related enterprises and regions have several important dimensions: employment, general economic activity, direct material contributions. The most evident and complicated aspect is employment. The problem is often presented as a catastrophe scenario, with tens of thousands of unemployed and depressed regions created by the reduced defence industry activity. Undoubtedly employment at defence industry companies has been drastically reduced, raising social tensions in defence-related areas. The dimensions of the problem however were exaggerated in the official rhetoric in Slovakia (while they were almost completely ignored in Hungary) and were often used to justify certain economic and political decisions, for example renewed state intervention in the economic management of defence enterprises.

The problem however is much more complex than it appears to be. Thanks to their advantageous starting position at the beginning of the economic and political transformation, defence-related regions are not in the worst position in East Central Europe. Even in Slovakia, where defense industry had played a more crucial role in the national economy than in Hungary, the general economic situation and particularly the problem of unemployment was much worse in the North, East and South border regions of the country. These areas were formerly heavily dependent on agriculture, had a high percentage of Roma population and very few newly created business and work opportunities. *One of the principle targets of the Slovak official policy was to preserve the maximum possible employment in the defence industry enterprises.* Unemployment ranged from 7 to 10 per cent in the heavily defence-related regions of Slovakia.

Able economic and political actors could use the defence-related companies' and the regions' assets for regenerating development, as happened in several cases in the sample (Szekesfehervar, Ajka, Dubnica, Komarno). However, the problems emerging during the painful transformation of defence industry could also be used by political decision-makers, representatives of the military-industrial lobby and a group of the (former and present) employees of military-related companies to gather support for maintaining past paternalistic relationships and economic structures, even at a rather high price for the overall economy.

Table 9. Summary of adjustment outcomes thus far, by enterprise and locality

		Enterprise restructuring	
		Successful	Disappointing
Town/ Region Adjustment	Successful	Videoton in Szekesfehervar (Hungary, Case 1)	ZTS Dubnica nad Vahom in Dubnica (Slovakia, case 2) Kwattro in Ajka (Hungary, case 2) PPS Detva in Detva (Slovakia, case 3)
	Disappointing	ZTS Hrinovske Strojarne in Detva district (Slovakia, case 3) Slovenske Lodenice in Komarno (Slovakia, case 4) Magyar Loszergyarto in Sirok (Hungary, case 3)	ZTS Martin in Martin (Slovakia, case 1) DIGEP and EMV in Zemplen (Hungary, case 4)

In the past there was considerable overemployment at defence-related enterprises. The workforce structure was not very healthy either. There was an inflated administrative and managerial staff, often of low competence. Redundancies in principle could have been used to create a healthier and more competent workforce structure. However, in general redundancies were accomplished according to social rather than professional criteria in Slovakia (with the exception of core workers which most enterprise managements were keen to keep). For example, most Slovak companies examined workers' cases individually and took into consideration the number of dependent children and other family members, the employment status of the spouse and the opportunity to find new jobs of the would-be unemployed. In a way it was a more humanistic approach, but it often became a trap, leading to a permanent postponement of crucial, painful decisions about changing production and employment structures. In Hungary the practice was more mechanical; employees were retrenched when companies had to face major streamlining.

As a result of these "soft" redundancy practices in Slovakia, those who remained at the already ailing companies in general were not the top workers. This limited further the companies' chances of a radical restructuring. There were very few cases where redundancies and eventual new recruitment were carried out according to the professional needs of restructuring. For example at ZTS Hrinovske Strojarne a.s., along with a "natural decrease" of the workforce the company recruited new employees if a team leader was able to show how employing a proposed new colleague would increase the company's productivity.

In most cases, the best-qualified, most entrepreneurial employees left defence-industry enterprises first, when the employers' crisis became manifest. Even if the enterprises could no longer use their creativity, this pool of workers became an asset in the regions' redevelopment strategies. If the regions were unable to take advantage of the opportunity and create the proper environment for new economic activities, the best workers left the regions, as was the case with the commuters in the Slovak military triangle.

The rest of the workforce released from the traditional heavy industrial centres caused serious problems for the regions. Trained for traditional industrial needs or unskilled, these workers were very difficult to re-employ or retrain. The problem of this massive redundant workforce was in general addressed by central state employment agencies in both countries.

The evidence of the case studies suggests that the enterprises do not have sufficient resources and capabilities to tackle the problem of worker displacement created by the company's restructuring. Despite significant state financial assistance for ongoing production, the Martin and Dubnica companies had to apply to the National Labour Office for support to cover their labour costs as well. In 1997, for six months the Office paid 60 per cent of their workers' salaries. The companies also received special support for retraining and introducing production of new civilian products. The Ministry of Labour provided assistance for employment programmes in Dubnica, Martin and Detva. In Hungary, redeployment and social services were more the responsibility of regional or national agencies than of the enterprises themselves.

Experience gathered from the case studies suggests that it may be more productive if the companies concentrate their efforts on restructuring, increasing production and improving productivity while the problem of released workforce is addressed at a much wider level - both state and regional. In this case both regions and specialized state agencies should have additional resources and tools with which to deal with worker displacement and unemployment, to contribute to the creation of new job opportunities and to help increase the mobility and flexibility of the workforce in their respective areas. International agencies can be very helpful, as the example of the assistance provided by the Phare programme for the Labour Foundation in Martin showed.

The examples of the case studies also show that the unions lost ground during the transformation process in East Central Europe. Their role in decision-making mechanisms concerning general management and specifically human capital issues has diminished significantly. Their participation in the Hungarian cases was practically negligible. (In addition in many companies unions were not reorganized after privatization). In Slovakia, specifically at the large-scale enterprises, like ZTS TEES Martin, ZTS Dubnica nad Vahom or PPS Detva, they still had an important role, specifically in welfare and hiring questions. State agencies had active cooperation with the KOVO trade union on the questions of defence industry restructuring. Ministry of Economy and Labor officials had a regular “control day” to discuss the sector’s specific problems with the trade union representatives (Dudak and others, 1997). There were regular consultations between the management, union representatives and Ministry of Labour representatives that tried to respond to the challenges stemming from the economic pressures.

3.3 The role of the state in promoting area-based economic development

It is a state-level political decision how much allowance towns or regions are to receive from the state budget and how free they are to use them. In Hungary in 1994 local budgets represented 73 per cent of the state budget and 15.7 per cent of GDP. In Slovakia they were 14.5 per cent and 4.4 per cent respectively. The real value of state contribution has been diminishing since 1994 in both countries. (Crédit Local de France, 1996. pp. 4-7).

In the Slovak sample four out of the five local self-governments were headed by officials who did not belong to the governing coalition parties. They each had serious economic and financial difficulties, which they addressed in different ways, ranging from passive acceptance to intense search for external resources. The town of Detva, the only one whose mayor was close to the government, did not seem to have any difficulty in finding funding for its large-scale projects. In Hungary, the lobbying capacity of local self governments was also an important factor, but local authorities are becoming more active in trying to find other ways of financing their projects.

National agencies in both countries could be encouraged to free more resources both for local self-governments in general and for specific regional development projects in particular. Large-scale local or regional development projects need much larger resources than self-governments or local regional authorities can possibly have. Local authorities should be able to draw additional resources from a variety of national and international development funds.

At the same time, according to the representatives of the regional authorities in both countries, the procedures for distributing central government development funds are bureaucratic and slow. The coordination between development projects at the regional and sectoral level is also weak. State authorities could take measures to address these shortcomings.

National and international agencies should find the proper units of reference for efficient promotion of region-based development projects as well. The example of Borsod-Abauj-Zemplen county in Hungary suggests that a county might be too large a unit to promote local development efficiently. County-level projects tend to be vague and difficult to account for. It is at this level, however, where most of the government-provided development funds are distributed. At the same time, the lowest level of regional direction, that of the individual villages, often appears to be too small. The recent proposals of the Hungarian government to create micro-regional associations and entrepreneurial regions suggest that there is a search for more appropriate units. National and international sponsorship could probably become more effective if it were provided on the basis of projects, instead of territorial units.

There are four levels of decision-making: state, region (county, district or other larger geographical unit), immediate town or village and the enterprise itself. Ideally all these different levels should pursue similar objectives and cooperate in common projects. As the cases of Detva, Martin and Borsod-Abauj-Zemplen county and their enterprises show, this coordination is often lacking. The lack of understanding and cooperation limits the chances for development. Specialized agencies both inside and outside the respective countries could help build the necessary bridges across the various levels of decision-making and facilitate coordination.

Regional and state authorities could also play a more active role in facilitating the mobility of the local workforce. At present the bulk of people formerly employed by defence-related companies remain in place, even if their company goes bankrupt or radically reduces its activities. The increased costs of travel, the difficulties of commuting and the general scarcity of accommodation seriously restrict mobility. Commuting has significantly diminished within Hungary and Slovakia. [37]

Personal experience, networking, information sharing and training all played crucial roles in articulating and accomplishing development projects at both the enterprise and regional levels. In each case of efficient and dynamic management, there was an enterprise manager or a regional representative with personal experience of how things could work better who tried to adapt it to suit their special circumstances. State organizations and international agencies can provide efficient help for region-based economic development, through training and creating opportunities to share experience, but effective local leadership is a prerequisite for this assistance to be put to good use.

In general, both enterprise managers and local and regional officials in Hungary seemed to have more tools with which to deal with their problems than did their counterparts in Slovakia. This was principally due to a more open, flexible economy, the society's broader and longer experience of economic reform and entrepreneurship, less direct political influence in enterprise and regional management, more highly developed inter-enterprise and international contacts and easier access to information. Concrete forms and methods of addressing restructuring bottlenecks could be promoted more efficiently, independent of the general economic and political circumstances. International agencies could play a more active role in introducing, assisting and eventually financing projects to set up Labour Foundations, industrial parks, special enterprise development areas and business incubators, etc. They could also provide training in economic and civic management.[38] Such projects would provide local authorities with more tools to address their own specific problems and facilitate new network-building within regions and between countries.

The invitation to the Czech Republic, Poland and Hungary to join NATO will stimulate their national defence industries, and further widen differences with other Eastern European countries who may join in a second round. It will probably accelerate the modernisation of certain defence-related branches and companies, leaving others behind. The rest of the companies and their regions would face again the option of radical conversion, modest defence-related development or stagnation and even marginalization. The lessons of companies and regions that were able to adjust successfully to the changing conditions in the aftermath of the Cold War could be helpful for company, regional and national decision-makers who would face these problems in the future.

The experience of East Central Europe could provide valuable lessons for the CIS and Southeast European countries. In these countries the weight and economic importance of the defence industry was even greater than in East Central Europe. The military sector's decay and transformation is exacting a heavy economic toll, felt especially keenly in defence-dependent regions. If these areas of concentrated industrial and regional tensions are not dealt with urgently, their conditions could lead to serious security threats for the whole Eastern European region.

International agencies and national level decision-making organisations should address these problem areas before a further deterioration of the situation. Targeted projects, financed by these agencies, could potentially help launch new development processes. The evidence of the case studies demonstrates that improvement is possible, even if the actual resources for change are limited. Intensifying company-regional level co-operation, increasing regional autonomy, actively searching for outside co-operation possibilities and economic partners, decentralising management and improving the efficiency of both enterprises and local agencies proved to be key elements in the adjustment strategies pursued by private and public actors in the more successful cases studied in Hungary and Slovakia.

[37] Commuting to the Czech Republic was a very special case, due to a very specific historical constellation. The shared history, common language, tight personal contacts and the pull effect created by the economic decline on one side of the border and the progress on the other side after the breakup of the Federation, made this choice understandable, as well as feasible.

[38] In Slovakia for example, a very successful programme was run by the LSGAC, the Local Self Government Assistance Centre.

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