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COUNTRY SUPPORT STRATEGY

Slovakia



**UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION**

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ABBREVIATIONS AND ACRONYMS

AIDR	-	Agency for Industrial Development and Revitalization
BICs	-	Business Innovation Centres
CB	-	Consolidation Bank (Konsolidačná banka)
CCB	-	Czechoslovak Commercial Bank (Československa Obchodna Banka)
CEFTA	-	Central European Free Trade Association
CMEA	-	Council of Mutual Economic Assistance
CSB	-	Czechoslovak State Bank (Statni Banka Československa)
CSFR	-	Czech and Slovak Federal Republic
CSS	-	Country Support Strategy
EBRD	-	European Bank for Reconstruction and Development
ECU	-	European Currency Unit
EFER	-	European Foundation for Entrepreneurship Research
EFSAL	-	Enterprise and Financial Sector Adjustment Loan
EFTA	-	European Free Trade Association
EIB	-	European Investment Bank
EIU	-	Economist Intelligence Unit
EU	-	European Union
EVCA	-	European Venture Capital Association
GCB	-	General Credit Bank (Všeobecná Uverová Banka)
GDP	-	Gross Domestic Product
IBIS	-	Instant Business Information System
IBRD	-	International Bank for Reconstruction and Development
IDB	-	Investment and Development Bank (Investičná a Rozvojová Banka)
IFC	-	International Finance Corporation
IIF	-	Institute of International Finance
IMF	-	International Monetary Fund
IP	-	Industrial Policy of the Slovak Republic (document from July 1995)
IPFs	-	Investment Privatization Funds
KCS	-	Old Czechoslovak Koruna

KHF	-	Know How Fund
ME	-	Ministry of Economy of the Slovak Republic
MF	-	Ministry of Finance of the Slovak Republic
NADSME	-	National Agency for Development of Small and Medium Enterprises
NBS	-	National Bank of Slovakia
NPF	-	National Property Fund
OECD	-	Organisation for Economic Co-operation and Development
R&D	-	Research and Development
RAICs	-	Regional Advisory and Information Centres
SAFC	-	Slovak Agricultural and Food Chamber
SAL	-	Structural Adjustment Loan
SCCI	-	Slovak Chamber of Commerce and Industry
SCPC	-	Slovak Cleaner Production Centre
SGB	-	Slovak Guarantee Bank (Slovenska Zaručna Banka)
SITC	-	Standard International Trade Classification
SKK	-	Slovak Koruna
SMEs	-	Small and Medium Enterprises
SNAFID	-	Slovak National Agency for Foreign Investment and Development
SPPF	-	Slovak Post-Privatization Fund
SSB	-	Slovak Savings Bank (Slovenska Sporitelna)
SSO	-	Slovak Statistical Office
SU	-	Soviet Union
UNDP	-	United Nations Development Program
UNIDO	-	United Nations Industrial Development Organization
USAID	-	United States Agency for International Development
USD	-	US Dollar
VAT	-	Value Added Tax
WTO	-	World Trade Organization

SUMMARY

Since it became an independent country at the beginning of the 1993, the Slovak economy has been growing at a fast pace, its inflation has been falling and external position of the country has improved significantly. Successful Macroeconomic management, initiated already in early 1990s, had created a good basis for implementation of structural reforms aimed at transforming the country's economy and integrating it into Western markets. Slovakia's growth over the medium term is crucially dependent on whether the country can improve efficiency through restructuring of capacities. This implies substantial shift in economic structures and improvements in economic performance, particularly at the sector and company levels where significant structural rigidities and imbalances remain.

The main objective of this Country Strategy Study is to identify those demands of the Slovak Republic for UNIDO's services where the Organization has the strongest comparative advantages and where the services provided by the Organization can have the greatest impact on the country. The preparation of the study has been guided by the Memorandum of Understanding with six priority areas for co-operation between the two parties: (i) environment protection and preservation of natural resources, (ii) economics restructuring and private sector development including privatization of state-owned enterprises, (iii) technology transfer, including industrial and technological information, (iv) industrial investment promotion, and (v) development of SMEs, (vi) human resources development. The study consists of seven main Chapters. The introductory one presents the main features of the UNIDO's approach and principles for the preparation of Country Strategy Studies. They are expected to combine two areas, first, technical co-operation, such as policy advice, institution building, training, research and pilot projects, and second, investment related activities comprising of both the identification of investments and investment promotion. The studies are also aimed at strengthening UNIDO's co-operation with international financial institutions as well as with bilateral donors in the core areas of UNIDO's expertise.

Chapter II provides an overview of macroeconomic reforms carried out by Slovakia in the post-1989 period. At the outset of the transformation from centrally planned to market based economy, a comprehensive stabilization package, comprising price and imports liberalization, removal of subsidies, limited internal convertibility and tight monetary policy, was introduced. In the early 1990s, when it was still a part of the federation, Slovakia was very successful in implementing this macroeconomic stabilization package and impressive results in this area continued also in the whole period since 1993 when the country became an independent state. This time, the results have to be attributed primarily to prudent monetary, fiscal and income policies of the Slovak authorities.

Key issues of the Slovak industrial sector, its trends, obstacles, strengths and policies, are discussed in the Chapter III. At the beginning of the chapter, the legacy of the country's pre-1989 industrial development is assessed. Although the

country benefited from rapid accumulation of industrial capital base and creation of an industrial labour force during the centrally planned period, it has also inherited an industrial structure which was highly distorted in many ways: (i) strong emphasis on semi-finished goods, engineering products and armaments, (ii) by and large, uncompetitive industrial capacities with outdated technology, polluting as well as energy and raw material intensive, (iii) high concentration of industrial capacities in a very small number of large industrial enterprises, and (iv) heavily dependent industrial exports and imports on a few important trading partners among the CMEA countries.

The Chapter continues with an extensive analysis of various industrial sector issues, such as (i) growth and structures, (ii) organization of the sector, (iii) industrial employment and labour productivity, (iv) foreign trade and international competitiveness, (v) foreign investment, (vi) environmental aspects of the industrial development, (vii) armament industry, (viii) labour force development, (viii), R & D capabilities, and (ix) information services. The analysis of each of these issues begins with an overview of the structural characteristics and current trends. It then continues with the presentation of the main problems faced by Slovakia in the respective area and ends with an assessment of the government's policy measures introduced to address these problems.

Chapter IV discusses the conceptual framework as well as the actual implementation of the industrial sector transformation in Slovakia. Economic stabilization carried out in Slovakia in early 1990s was accompanied by sharp drops in output and large increases in unemployment. In this circumstances, it has soon become clear that macroeconomic reforms alone, although necessary, would not lead automatically to a supply response needed for a successful transformation of the country. The process of transformation is presented through the analysis of its four important components:

- legal and regulatory environment; The authorities have made significant steps in this area over the last few years. There are, however, still inadequacies, including those ones related to property rights and effective bankruptcy procedures.
- financial sector reform; The largest component of the country's financial sector is banking sector, and as in other countries in transition, the banks' transformation from passive distributors of credits to professional bankers is accompanied by a number of distinguishing features, such as concentration of the banking activities on a few banks, high volume of bad debts, undercapitalization and high transaction costs. As a result of these problems, there continues to be a lack of active involvement of the Slovak banks in the restructuring of the enterprise sector.
- enterprise sector reform; The crux of the transition towards market economy is the development of a private sector through an extensive program of privatization and through mechanisms to support the development of SMEs. The

process of privatization in Slovakia is at the very advanced stage, although the last of the two "waves" of mass privatization has been accompanied by some controversies caused by the policy shift from voucher to cash privatization. As far as the SMEs are concerned, their contribution to the country's industrial sector output and employment has become significant. They have confirmed to be the most dynamic component of the country's economy.

- industrial policy; Of the two general approaches towards the role of an industrial policy in a modern economy, the "laissez-faire" approach and the "government active" approach, the Slovak authorities opted for the latter one. The country's industrial policy is characterized by (i) a detailed set of short-term as well as medium and long-term objectives, (ii) numerous institutional mechanisms to be applied for the achievement of these objectives, (iii) precisely defined priorities for each branch of the industry, and (iv) extremely ambitious investment target. Although a clearly defined industrial policy with enumeration of goals and means can be justified, especially in the country like Slovakia (large industrial sector with various structural weaknesses), this part of the study points out also to potential problems and controversies usually associated with this type of an industrial policy.

In contrast to the Chapters II to IV which analyse various aspects of the Slovak industry development, the Chapters V and VI provide an overview of the foreign technical assistance provided to Slovakia in the post-1989 period. A detailed survey of the magnitude and the areas of operations of major technical assistance providers, especially multilateral financial institutions and bilateral donors, is made in the Chapter V. The survey is aimed at avoiding unnecessary overlapping of UNIDO's activities with activities of other institutions as well as at identifying niches of required international assistance to Slovakia which could be effectively provided by UNIDO. The next chapter, Chapter VI, presents the overview of the bilateral co-operation between the Slovak Republic and UNIDO over the recent years. Within this framework, main patterns of the already completed projects as well as those ones still under implementation are presented.

The last Chapter of the study presents 19 project proposals, all of them drafted by the Slovak national experts, for which foreign technical assistance to Slovakia is required. Majority of the project proposals, No. 1 - 14, are from the five areas identified by the Joint UNIDO-Slovak Committee as priority areas for co-operation between UNIDO and the Slovak Republic. The remaining five project proposals, No. 15 - 19, also address important problems of the country, but in contrast to the first group of projects they are not in the core areas of UNIDO's expertise.

I. UNIDO APPROACH AND PRINCIPLES FOR COUNTRY SUPPORT STRATEGY (CSS)

1.1. Objectives of UNIDO's CSS

The main objective of the CSS is to identify those demands of the member country's for UNIDO's services where the Organization has its strongest comparative advantages and where the services provided by the Organization can have the greatest impact on the country.

UNIDO, as a specialized agency within the UN, has significant experience in industrial restructuring at the level of policy making and at the level of industrial enterprises. It possesses diverse in-house professional expertise in technical, economic policy, investment-related, organization and institutional aspects of industrial development. In addition, it has an access to a large base of international experts on its consultants roster as well as to a large number of international consulting firms. The Organization has also a growing international network of Investment Promotion Offices and other institutional mechanisms for investment promotion.

Based on these expertise, CSS to be prepared by UNIDO are expected to combine two areas. First, technical cooperation, such as policy advice, institution building, training, research and pilot projects, and second, investment related activities comprising of both the identification of investments and investment promotion. This integrated approach does not only address a large set of problems affecting industrial sector in the country but the approach is also hoped to maximize the development impact of external assistance, by allowing mutually beneficial cooperation between an individual donor or a group of donors on the one hand and a recipient country on the other. The preparation of CSS requires the full support of a recipient country in terms of commitment and other essential inputs and is therefore demand driven.

Since UNIDO's human resources are limited, it is felt important to avoid spreading Organization's expertise to thinly. Its strategy should rather be oriented towards building up a critical mass of expertise in selected priority areas to ensure maximum synergy between UNIDO's various internal activities and also with those ones of other organizations.

UNIDO has also limited financial resources of its own to develop substantial programmes of cooperation with individual member countries. Its CSS should therefore be aimed at strengthening cooperation with international financial institutions as well as with bilateral and multilateral donors in the core areas of

UNIDO's expertise. To achieve proper coordination with other on-going or planned international assistance, CSS are expected to analyse activities of their providers in the country. It is important to know the magnitude and the areas of operations of other major players, like EU, international financial institutions and major bilateral donors, in order to avoid unnecessary overlapping of activities and to identify niches of required international assistance which could be effectively covered by UNIDO's services. The CSS should assist also in the fund mobilization activities of the Organization required for the implementation of technical assistance and investment related programs in the country.

1.2. Special Considerations for Slovakia CSS

There are several reasons why Slovakia has been selected as one of the priority countries in the region for the CSS preparation. The most important among them are the following:

(i) needs of the country in the areas of strong comparative advantages for UNIDO's services; As a consequence of its rich industrial tradition as well as of an industrial supplier's role assigned to the country within the former CMEA, Slovakia has entered the process of transition from centrally planned to market economy with a large industrial sector. Production capacities were strongly concentrated in capital intensive heavy industries with a large share of raw material and semi-finalized output while in terms of its trade patterns, the industry was strongly oriented towards the needs and resources of the CMEA countries. With the changes that have started in Slovakia already within the former federation and intensified after it became an independent state, the country has been also faced with a need for drastic restructuring and reorientation of its industrial sector.

(ii) strong commitment of the Slovak government to strengthen cooperation with UNIDO; This was underlined at numerous occasions, including the two sessions of the Joint UNIDO-Slovak Committee held in Bratislava in January 1995, and in Vienna in September 1996. Slovakia has identified needs for international cooperation in many of the areas where UNIDO does have a comparative advantage, such as industrial sector restructuring, environmental management and clean technologies promotion, investment promotion.

In these broad areas which are at the same time the core areas of the recently adopted government's document "Industrial Policy of the Slovak Republic", UNIDO's cooperation is the most required.

(iii) relatively good prospects for mobilizing funds by UNIDO from international financial institutions as well as from multilateral and bilateral donors;

Throughout all the transition period, Slovakia has been receiving quite significant foreign technical assistance from international financial institutions, other international organizations, bilaterals and private sector consultancy services providers. As a significant part of this assistance goes into areas in which UNIDO has a rather strong expertise, this provides an opportunity for the Organization to build up a program of cooperation with them.

(iv) geographical proximity; Last but not least, UNIDO's backstopping services can be provided quite efficiently from the headquarters and at relatively low cost due to a very short distance to Slovakia.

II. BACKGROUND AND MACROECONOMIC DEVELOPMENT TRENDS

2.1. Slovakia Under the Federation

Slovakia's economic development was influenced heavily by the central-planned economic system and policies implemented in the pre-1989 CSFR. As a part of the former communist state, economic development of Slovakia was based on a large-scale industrialization financed in part through transfers from the federation. The result was a highly industrialized economy with distorted emphasis on production of semi-finished goods, engineering products and armaments and in terms of its external trade with strong dependence on markets in the former CMEA countries, especially SU.

2.1.1. Macroeconomic Policy Measures

The cornerstone of the economic reforms in Czechoslovakia was price deregulation. The first liberalization measures were taken in 1990 when many subsidies, especially for food products, were eliminated and prices were freed to reflect true production costs. In the following months the process of price deregulation continued, reducing the extent of price regulation to cover goods making not less than 10% of GDP (in 1990, 85% of GDP had been subject to price regulation). Prices remained regulated largely for goods in monopolized sectors, fuels, energy and municipality services (OECD, 1994, p.34).

Despite rapid liberalization of prices in 1990 and 1991, inflation in Czechoslovakia had been kept under control, mainly through tight monetary policy and restrictive fiscal policy. As wages have responded with a lag to each phase of price liberalization, reflecting the social consensus among employers, employees and government, the authorities had succeeded to avoid a wage-price spiral. This process has also resulted in a drastic fall of real wages (they were reduced by almost 30% in 1991) and that has become an important element of Slovakia's external competitiveness in the following years.

Another cornerstone of the CSFR's post-1989 economic reforms was the introduction of limited internal convertibility. After devalued three times in 1990, cutting its value to half, koruna (KCS) became convertible in January 1991. At that moment, the commercial and tourist exchange rates were unified and fixed to a basket of five convertible currencies at a rate of KCS 28 = USD 1 (World Bank, 1994, p. 19). Because the country's international reserves were low, the IMF provided financial support of USD 180 million under the Systematic Transformation Facility.

Under the newly established system of limited internal convertibility, firms were obliged to sell the foreign exchange earnings from their exports to commercial banks and only a few enterprises were permitted to have foreign exchange accounts. Conversely, all enterprises were allowed to buy foreign exchange freely in order to pay for their imports as well as to meet their other foreign exchange needs, such as profit and dividend remittances. Capital outflows and commercial credit operations of foreign firms have, however, remained subject to controls and authorization in order to minimize the risk of potentially destabilizing effects of financial flows associated with these transactions. Furthermore, individuals were not allowed to buy foreign currencies in excess of specified amount, KCS 7,500 annually in 1992, to cover their travel expenditures abroad.

Limited internal convertibility was an important step in the liberalization of CSFR's foreign trade and was accompanied by a number of other policy measures aimed at opening the economy to international competition. Quotas on imported goods were virtually abolished, export licensing requirements were removed for a large number of products and in addition, the monopolistic status of the foreign trade organizations was eliminated by law adopted in 1988, bringing the number of entities with foreign trading rights from 50 in that year to 3,500 at the end of 1990. All registered enterprises have been allowed to engage in foreign trade (OECD, 1994, p. 37).

In order to cope with the 1990 dissolution of the traditional system of trade and payments between CMEA members, the government reached agreements with several former CMEA countries for shifting to convertible currencies and world prices in trade settlements as of January 1991. As far as creation of institutional conditions for the expansion of trade with Western countries is concerned, an Association Agreement with the EU was negotiated in 1991 (it entered into force in March 1992). In addition, bilateral free trade agreement was reached with the EFTA.

As a result of these and some other measures, such as the 1991 setting up of the Export Guarantee and Insurance Corporation, the country has been successful at shifting its trade to Western markets, although the fall in deliveries to CMEA countries was not fully offset by the growth of export to the West. On the export side, 31% of the 1989 total deliveries were directed to the SU and only 26% to EU countries. By 1992, however, the importance of the SU diminished to only 10% while the share of exports to the EU countries increased to 44%. Similar shift has been experienced on the imports side where the share of EU countries increased from 27% to 50% and that of the SU declined from 30% to 25% in the same period (OECD, 1994, p. 52).

Foreign trade liberalization was accompanied by the country's opening to foreign investors. The process started already with the 1986 legislation that allowed joint

ventures with western firms, but only with an application of restrictive conditions (foreign capital was limited to 49% ownership and government approval was required). This legislation was amended in 1990 (100% foreign ownership was allowed) with a clear objective to attract increased level of foreign direct investment.

2.1.2. Structural Reforms

Once markets were liberalized and the danger of inflation had been mastered, the priority of economic reforms in the post-1989 CSFR shifted to the systematic reforms of the enterprise and the banking sectors.

In the enterprise sector, the crux of the reform was a development of a private sector through an extensive program of privatization of state-owned enterprises and through mechanisms to support the start-up of new private enterprises. This is not surprising taking into account that at the end of the 1980s state-owned units and cooperatives accounted for 100% of industrial output, 78% of agricultural output and 100% of retail trade (OECD, 1994, p. 40).

The privatization process was split in two parts, "small" and "large" privatization. In the process of "small" privatization which started in 1991 and was virtually completed by mid-1993, over 9,300 small shops and service businesses were privatized in Slovakia. About one third of this total was restituted to original owners or their descendants, another third, mainly service outlets located in the groundfloor of apartment blocks, was leased, pending the privatization of these buildings, and the remaining third, usually shops built by the state enterprises, were sold through auctions directly to buyers.

The "small" privatization with cumulative proceeds amounting to SKI 14.2 billion has, in general, received a strong popular support, as the procedures were relatively straightforward and transparent. In addition, the program has provided on a relatively short run strikingly visible effects, as private shops have started to offer an abundance of goods and services previously unavailable in the country.

As far as the "large" privatization, i.e. the privatization involving former state-owned enterprises, is concerned, it was conceived to take place in two "waves", depending on an enterprise's readiness. The first "wave" which started in 1991 and was nearly completed by the time of independence involved 751 Slovak enterprises with the book value of KCS 167 billion (World Bank, 1994, p. 43). Of this total, roughly one half worth of shares in 503 companies were distributed through voucher-based "mass-privatization" scheme. The balance of assets were either transferred free-of-charge to municipalities or were privatized through standard methods, mainly direct sales to predetermined owners. Direct sales as a method of privatization has been applied primarily for smaller enterprises and therefore also

the total sale proceeds from this "wave" of privatization was very modest - SKI Domestic investors acquired about 59% of the property under direct sales, paying on average 5% below the book value, while foreign investors bought the remainder at a price almost twice the book value (World Bank, 1994, pp. 45-46). This indicates their strong ownership interest in a limited number focused firms. Enterprises were typically divested with their liabilities what was not the case in privatization implemented under the "small" privatization scheme.

Successful transformation of the economy requires a financial system which handles resource mobilization and allocation efficiently by providing a broad range of services to depositors and businesses and by imposing financial discipline on loss-making enterprises.

As all other economies in this part of the world, the post-1989 CSFR inherited a very rudimentary financial system. It consisted of CSB, both central bank and the only commercial bank of the country, two savings banks responsible for collecting household savings and lending to consumers, mainly for subsidized housing, and CCB which handled foreign exchange transaction of government and enterprises.

In 1990, this system was transformed into two-tier banking system. The CSB became exclusively a central bank with the same functions as central banks in OECD countries while all its commercial functions were transferred into three newly created banks with universal license. Similar licenses were given also to both savings banks and CCB. There is no doubt that an increased number of banks has provided potential for stronger competition. However, as the activity of some of these banks remained geographically very concentrated and as some of these banks were very slow in the diversification of their operations, the lack of competition has been tackled more seriously only by the opening of the financial sector to foreigners. By the end of 1992, the number of banks increased to eight (in 1990, there were only two and both of them state-owned), of which two were 100% state-owned, three had another structure of exclusively local ownership and the remaining three have some foreign ownership participation (World Bank, 1994, p. 26).

2.2. Shocks in Aggregate Demand

In the period 1989 - 1992 Slovakia shared with the Czech Republic common experiences with the liberalization of the economy and economic policy measures aimed at systematic reforms as well as with the shock of the collapse of CMEA trade. However, although the government policy measures and external events were similar for both Republics, the economic outcome for each of them was not identical.

In this period, the Slovak economy was faced with more difficult challenges than the Czech economy because of its greater dependence on trade with the CMEA and less favourable industrial structure. As a result, the Slovak GDP and industrial production fell by several percentage points more than the one in the Czech Republic between 1987 and 1991 (14.1% against 9.7% for GDP and 21.2% against 13.4% for industrial production) and the Slovak unemployment rate increased much higher than that one of the Czech Republic between 1990 and 1992 (from 0.6% to 11.7% for Slovakia and from 0.4% to 2.8% for the Czech Republic) (IMF, 1995b, p. 3, p. 12).

There are several reasons for the collapse of the aggregate demand (it fell by 23% between 1990 and 1993) for the Slovak products. Part of the shock was a reflection of external relations of Slovakia while the other part was a consequence of severely contracted domestic consumption and investment, as both households and government restrained spending. Consumption fell by about 25% in real terms in 1991, as households saving increased as a precautionary response to rising unemployment and declining value of deposits after the price increase. Investment demand also suffered, reflecting weak consumer demand, declining profitability of the enterprise sector as well as uncertainties created by price and trade liberalization and the process of privatization.

As far as external shocks are concerned, the Slovak economy was affected already by increased Soviet purchases of western capital goods in the late 1980s instead of Slovak capital goods and especially by the collapse of the former SU's trade with other CMEA countries at the end of the decade. The conditions of the country's industrial development over the last decades have namely turned the Slovak economy to be much more dependent on the trade with CMEA countries as this was the case with the Czech Republic. While only a little over 50% of the Slovak exports and 40% of its imports were destined to the OECD countries in 1992, for the Czech Republic these figures were 69% and 52% respectively (OECD, 1994, p. 83).

The impact of the dismantling of the CMEA trading arrangements in January 1991 on Slovakia's trade with these countries was greater in volume than values because both, export and import prices, increased to world market levels following the liberalization of prices and trade in the country. The net effect was nevertheless a deterioration in Slovakia's terms of trade, as prices of imported goods, especially of energy products, rose faster than prices of exported goods. Consequences were especially negative for those producers who depended heavily on imports.

In addition, the Slovak economy was much harder hit than the Czech economy when in 1987 the federal government started adjustment of the economy to a reduced demand for its armament products. Czechoslovak arms industry was

namely predominantly located in Slovakia. At the end of the 1980's, 60% of the country's armament production was concentrated in the Slovak Republic, where it accounted for 6% of industrial production compared to 1.5% in the Czech Republic. Consequently, some 38,000 Slovaks lost their jobs in the armament industry between 1987 and 1992 while for the Czech Republic this figure was significantly lower - some 20,000 (OECD, 1994, p. 78).

For several reasons, Slovak firms also entered the transition with weaker financial position than the Czech firms. As described above, some Slovak firms had faced a larger decline in demand from CMEA countries for their products and had consequently more unpaid bills for deliveries to these countries. Besides, some of the Slovak industries (steel, for example) had been exposed to greater trade barriers in the EU while others, due to their energy-intensity (chemicals and steel, for example) had suffered more from increased prices for energy imports.

Before Slovakia was able to adjust to these shocks, it was hit by another external shock, i.e., by the collapse of the monetary union with the Czech Republic in February 1993. In 1992, Slovakia had an estimated trade deficit with the Czech Republic of about USD 640 million and deficit in the services area of some USD 300 million (World Bank, 1994, p. 8). Until then, the imbalance was financed by transfers through the federal budget. With the break of the federation, the Slovak government had to adjust the budget to the loss of these transfers equivalent to about 7% of GDP.

The fiscal situation was even more complicated for two reasons. First, the country was faced with new expenditure obligations associated with the establishment of an independent state and greater needs for social transfers as a result of the restructuring efforts. Second, on the revenues side, there was an increasing uncertainty in the country related to the new tax system introduced in January 1993. Besides, adjustment in the enterprise sector meant that traditional tax base was shrinking at least on a short run.

2.3. Adjustment to the Shocks: Recent Macroeconomic Performance and Policies

2.3.1. Output, Demand and Inflation

After having declined by 23% between 1990 and 1993, GDP rose by impressive 4.8% in 1994 and 6.5% in 1995. In 1994, a 20% rise in export volumes allowed by favourable external environment (5 - 6% growth of foreign markets) was principally instrumental in triggering the recovery. Although a low level of exports as well as demand conditions at home and abroad explain a good deal of

Slovakia's export performance in that year, it also reflected progress in enterprise restructuring over the last several years, the establishment of marketing networks in foreign markets (before, a significant part of the Slovak exports were channelled through trading companies located in Czech Republic) and the devaluation of the SKK by 10% in July 1993.

TABLE 1: Output, Expenditure and Inflation, 1993 - 1996

(per cent change from previous year)

	1993	1994 ^e	1995 ^e	1996 ^f
Real GDP	- 4.1	4.8	6.5	5.5
Domestic demand	- 4.4	- 8.2	6.8	8.2
- Private consumption	1.2	0.1	6.5	7.0
- Public consumption	4.6	- 9.4	-1.6	2.0
- Fixed investment	-16.0	-10.4	2.5	5.0
- Stockbuilding	- 4.0	- 3.0	2.6	2.3
Consumer prices, average	23.2	13.4	9.9	6.5

e = estimate, f = forecast

Source: IIF, 1996, p.1.

In contrast to 1994, the GDP growth in 1995 was more broad based. Gradual moderation of external demand was more than compensated by a strong recovery in domestic demand, especially in private consumption. It was up by 6.5% (only 0.1% in 1994) thanks to real wage growth of close to 5% (4% in 1994) and employment growth of 3% after falling 2% in 1994. Registered unemployment fell to 13% at the end of 1995 from a peak level of 15% a year earlier.

Buoyant private consumption was accompanied by a recovery of fixed investment, rising 2.5% in 1995 after dropping 10% and 16% in 1994 and 1993 respectively. The upturn in fixed investment, however, has been weak due to lack of funds and uncertainty over the future of the privatization program and enterprise restructuring.

The outlook for economic growth remains fairly optimistic for a period of the next few years. Real GDP growth is expected to remain at a rate of over 4% a year in 1996 and 1997, as slowing import demand from Western countries will be compensated by robust domestic demand and by growth of Slovakia's exports to Central and Eastern European countries. On the longer run, however, Slovakia's

GDP growth highly depends on future investment growth and therefore on the success of structural reform efforts currently under implementation (Hoyland, 1996, p. 10).

In the whole period since independence, Slovak authorities have been able to maintain price stability which had been also a characteristic of the Czechoslovak economy. In the last year of federation, the inflation rate was about 10%, but increased over 20% in 1993. This increase was associated with the introduction of the VAT, a tax which is usually passed on completely to consumers (it caused a one-time increase in prices of 7% to 8%), as well as with the currency devaluation in the middle of the year.

Financial restraint has ensured progress towards price stability in the last two years. Inflation rate on a December/December basis was more than halved in 1994, to 11.7%, and was further reduced in 1995, to 7.2% (Hoyland, 1995, p. 10), despite the sharp rise in domestic spending in that year. Admittedly, part of last year's slowdown can be attributed to the transient benefit of lower food price inflation. However, price rises for other core items, such as durable goods and services, are also slowing now. Lack of inflationary impetus from capacity pressures bode well for the inflation rate of 7% or below in 1996 and 1997.

2.3.1. External Trade, Current Account and Debt

Slovak Republic is an open economy with merchandise exports and imports equivalent to about 1/2 of GDP. The country's foreign trade (excluding trade with the Czech Republic) was approximately balanced at the beginning of the reforms in 1991 and 1992.

In 1993, although the Slovak currency was devalued, the country's imports increased by 13% in the dollar terms while exports remained stagnant in value terms due to the decrease of foreign demand. As a result of these developments, the trade balance, again excluding trade with the Czech Republic, was in deficit of some USD 0.9 billion. If trade with the Czech Republic is included, the overall 1993 trade deficit of Slovakia was of the same magnitude, as their bilateral trade between the newly independent countries was almost balanced.

With surging export volumes (15%) and stagnating import volumes (1%) in 1994, Slovakia's trade balance turned into a surplus of some USD 0.1 billion. It remained at roughly the same level in 1995, as export and import volumes rose at almost the same pace, at 12% and 13% respectively. Export growth eased in comparison to 1994 because increased domestic demand diverted some resources away from exports while imports increased due to domestic demand recovery.

TABLE 2: Current Account Balance, 1993 - 1996

(millions of USD)

	1993	1994	1995 ^e	1996 ^f
Merchandise trade	- 932	105	60	- 400
Exports	5447	6727	8540	9100
Imports	- 6379	- 6622	- 8480	- 9500
Services, income, and transfers, net	331	607	740	700
(Travel receipts)	(390)	(568)	(640)	(690)
(Interest payments due)	(- 184)	(- 236)	(- 350)	(- 400)
Current account balance	<u>- 601</u>	<u>712</u>	<u>800</u>	<u>300</u>

e = estimate, f = forecast

Source: IIF, 1996, p. 2.

Slovakia's export growth has been driven primarily by sales to the EU. Sales to these countries, comprised mainly of raw materials and intermediate goods, rose by almost 40% in 1994 and 20% in 1995. As a result of this trend, the relative importance of the EU in Slovakia's exports increased from 24% in the first year of the independence to almost 40% in 1995. This clearly indicates that the country has been very successful at shifting its trade to these markets. Sales to the Czech Republic rose about 5% in 1995 after a similar increase in 1994, but their share in the total exports was reduced from over 40% to some 35% between 1993 and 1995. The former SU has diminished in importance as a trading partner as well.

On the imports side, similar shifts in the regional structure are underway, as imports from the Czech Republic and the former SU are being increasingly replaced by imports from the EU.

As a result of almost balanced merchandise trade in the last two years on the one hand and of the invisible surplus at a level of USD 0.6 billion and USD 0.7 billion in 1994 and 1995 (about one half of this surplus was with the Czech Republic, reflecting partly earnings from tourism and gas transit fees) on the other, Slovakia's current account registered a surplus equivalent to a level of around 5% of the annual GDP.

The current account surplus combined with external borrowing ended up with the increase of foreign exchange reserves of the NBS to USD 3.4 billion at the end

of 1995 (USD 1.7 billion a year before) which are sufficient for around four months' imports of goods and services (Plan Econ, 1996, p. 33).

In addition to a large current account surplus and increasing foreign exchange reserves, Slovakia has also a very healthy external debt position. Although the volume of external debt (including convertible debt to the Czech Republic) rose to USD 5.2 billion in November 1995 (from USD 4.7 billion at the end of 1994), mainly as a result of borrowing from private creditors, the country's debt service ratio of 9% (debt service payments as percentage of export earnings) is still very comfortable and among the lowest in the region (Plan Econ, 1996, p. 36).

2.3.3. Fiscal Policy

A prudent fiscal policy has been one of the hallmarks of Slovakia's macroeconomic management. In 1993, the first year of independence, the country's budget deficit amounted to over 7% of GDP. This was an extraordinary achievement, taking into account that transfers from the federation were eliminated, that revenues were below projections in virtually all tax categories (administrative problems with the new VAT; difficult financial position of enterprises; general slowdown of the economy) and that expenditures exceeded the projected value (new expenditures associated with the establishment of an independent state; increased need for social transfers).

Strict control on the expenditure side and better than expected revenue performance helped push down the fiscal deficit to 1.3% of GDP in 1994 (against the target of 4%) and to 1.0% of GDP in 1995 (against the target of 2.8%). The 1995 budget revenues increased strongly in response to accelerated economic growth and the higher tax rates put in place in the second half of the 1994. Strong revenues permitted a 9% rise in social spending, including health care, pension outlays and unemployment benefits, as well as 6% real growth of public investment spending, the first increase after three consecutive years of decline.

Despite the success in containing the budget deficit, the size and the composition of public expenditures still reflect largely the pattern of the past. They still absorb close to one half of the GDP and in the structure there are still high social security transfers as well as large subsidies to distressed enterprises.

After tremendous efforts on the fiscal stabilization front over the recent years, the fiscal deficit is expected to widen to 2.5% of GDP this year. The 1996 budget, approved by the Parliament in mid-December 1995, calls also for total revenue and expenditure reduction as a share of GDP. As a result of reduced VAT rate (from 25% to 23%) and planned elimination of the 10% import tax on consumer goods, the authorities envisage that total revenues as percentage of GDP will drop by 5 percentage points (from 47% in 1995 to 42% this year).

Budget expenditures as share of GDP are also expected to fall, although not as much as revenues - for about 3 percentage points (from 48% in 1995 to 45% this year). Within this total, current spending is planned to fall in real terms, mainly as a result of additional cuts in subsidies, while capital spending is expected to increase significantly, reflecting the government's strategy to support economic development through public investment in infrastructure.

TABLE 3: General Government Fiscal Developments, 1994 - 1996

(billions of SKK)

	1994	1995		1996 Budget
		Budget	Estimate	
Revenues	204.6	223.9	238.9	246.7
(% GDP)	(47.2)	(49.8)	(46.9)	(42.3)
- Tax revenues	170.9	193.8	201.2	220.9
- Nontax revenues	33.7	30.1	37.6	25.8
Expenditures	210.4	236.7	244.1	261.0
(% GDP)	(48.5)	(52.6)	(47.9)	(44.8)
- Current	190.5	210.9	220.9	230.8
- Capital and net lending	19.9	25.8	23.2	30.2
Balance	-5.8	-12.8	-5.3	-14.3
(% GDP)	(-1.3)	(-2.8)	(-1.0)	(-2.5)

Source: IIF, 1996, p. 4.

2.3.4. Monetary and Exchange Rate Policy

Following the break-up of the federation and dissolution of the monetary union with the Czech Republic in February 1993, the most important objective of monetary authorities in Slovakia was to establish credibility for the new currency. To stabilize the exchange rate and to curb inflationary pressures, they have used money supply target and credit target as the primary instruments for achieving these goals.

When currency union was dissolved, many people decided to convert their savings into foreign currency in anticipation of a devaluation. As a result, the saving

deposits of households and firms in foreign currencies increased by about 127.5% and 117.4% respectively during 1993. This capital flight caused a sharp decline in foreign exchange reserves of the central bank (from USD 250 million at the end of 1992 to only USD 135 million at the end of March 1993) (Fidrmuc, 1994, p. 21). In response, the authorities introduced a number of exchange controls, they restricted commercial banks' access to foreign exchange held by the NBS and in July they also decided for a 10% devaluation of KSS.

During the 1993, efforts of the monetary authorities were also challenged by the pressure on the NBS to finance budget deficit, as the government was not able to reduce the large fiscal deficit overnight and as the domestic financial markets were poorly developed. The NBS's credits to the government and to the NPF increased from SKK 41 billion in January 1993 to SKK 71 billion in December 1993 or from 14.7% to 26.9% of its total credits. This rapid increase in credits to the government and its privatization agency resulted in the crowding-out of the private sector (Fidrmuc, 1994, p. 21).

Faced with excess liquidity and still very weak external position in early 1994 (foreign exchange reserves were at the level of USD 0.4 billion at the end of 1993 what was equivalent to half a month's imports of goods and services), NBS took strong corrective measures by contracting credit to commercial banks and tightening bank-specific ceilings on credits to enterprises and households.

The credit measures adopted by the NBS and supported by prudent fiscal policy curtailed liquidity and contributed to a strong recovery of the external sector. This development can be attributed primarily to a weakening of the devaluation expectations, influenced by NBS's announced commitment to defend the exchange rate parity.

As a result of improved balance of payments position, foreign exchange inflow began to flow into Slovakia in the second quarter of the 1994. This inflow was first welcomed by the NBS, but it soon gave rise to concern. As the NBS could not be certain whether the resulting increases in broad money corresponded to increased economic activity or to excess liquidity (a decline of one-month interbank rate from 29% to 12% between end-April and end-June had pointed to this direction), it embarked on a precautionary sterilization of foreign exchange inflows. This produced a further improvement in the external position of the country and strengthened the reputation of the NBS.

Later on, in late 1994 and in 1995, when monetary authorities became convinced that foreign exchange inflows were associated with growth in output and exports, NBS started to combine sterilization with normalized credit conditions for enterprises. The central bank has, nevertheless, maintained firm control over liquidity and therefore continues with tight monetary policy.

Tight monetary policy has sustained the nominal exchange rate peg since the 10% devaluation in July 1993. The central rate is pegged to a basket of two currencies, in which the DM constitutes 60% share and the USD 40% share. That devaluation helped Slovakia to restore its price competitiveness to its earlier levels. The effective exchange rate of the SKK in nominal terms remained broadly stable between end-1993 and end-1995, but appreciated 9% in real terms in the same period because Slovakia's inflation was higher than in most of its major trading partner countries.

TABLE 4: Exchange Rate Development, 1993 - 1995

	SKK/USD	SKK/DM	Effective Exchange Rate	
			Nominal	Real
1993 December	33.2	18.8	56.6	115.5
1994 December	31.4	20.0	56.5	122.5
1995 March	29.4	20.9	56.0	121.8
June	29.4	21.0	55.6	120.3
September	30.1	20.6	56.2	124.7
December	29.7	20.7	56.7	126.0

Source: IIF, 1996, p. 5.

The stability of the exchange rate, along with the good economic performance, enabled the authorities to further liberalize their exchange system and to introduce, within the framework of the new Foreign Exchange Law (adopted in October 1995), full current account convertibility set under Article VIII of the IMF.

III. KEY ISSUES OF THE INDUSTRIAL SECTOR: TRENDS, OBSTACLES, STRENGTHS AND POLICIES

3.1. Legacy of the Past

Slovakia has a rich industrial tradition dating back to the 19th century, when the territory was a part of the Austro-Hungarian Empire. During the inter-war period, Slovakia shared with other regions of Czechoslovakia fast industrial growth, bringing the country's development close to a level of those days industrialized countries. In that period, Czechoslovak industry, both light and heavy, made considerable progress in the volume of production as well as world market penetration.

Long industrial tradition, highly skilled labour force and well diversified industrial base were among the most important factors which have determined Czechoslovakia's position within CMEA. Its economic structure has namely been shaped to a considerable degree by the role of industrial supplier it was assigned to play, together with the German Democratic Republic, in the block of Communist countries.

A strictly state-run industrial development framework was characterized by a single decision-making centre and one owner, the state. In order to bring all industry under its control, the economy was nationalized and most of previously existing private firms became part of large industrial companies. During the 1980s, over 60% of all firms in Czechoslovakia employed more than 1,000 workers while firms with less than 100 workers constituted less than 1% of all firms (OECD, 1994, p. 24). The predominance of large firms and virtual absence of small and medium-sized firms emerged from the second major characteristic of this type of industrial development - central planning. Under this system, the government and its planning commissions lay down for each company a production and investment plan as well as prices and profits, but on the other hand it also guarantees supply of inputs and determines marketing channels for output.

The system of central planning employed within Czechoslovakia for the last four decades ensured that priority was given to further development and expansion of the country's already large industrial sector while on the other hand, development of the services has been largely neglected. This could be illustrated not only with a very high share of industrial output in GDP (49% in 1990) what is significantly higher than in developed market economies (an average for OECD countries in the same year was 33%) (World Bank, 1994, p. 3), but also with the share of

workers in the industrial sector (37.4% in 1988-89) which was again higher than that of comparably developed market economies (in 1988-89, 20.9% for Greece, 26.6 for Portugal and 23.8% for Spain) (OECD, 1994, p. 17).

In Slovakia, a less developed of the two republics, push for rapid industrialization was even stronger than the Czech lands, as it was motivated also with an objective to equalize the income and living standard across the federation. Thus, investment outlays in Slovakia grew more rapidly than those in the other republic of the federation. Within the 40-year period of Slovakia's post-war industrialization, financed in part through transfers from the federation, particular emphasize was given to development of engineering and other heavy manufacturing activities while the share of light industries decreased.

TABLE 5: Growth of Industrial Output in the Czech and Slovak Republics by Branches, 1948 - 1989

	Index of industrial output in 1989 (1948 = 100)	
	Czech Republic	Slovak Republic
Energy	1 220	3 947
Fuels	395	4 643
Ferrous metallurgy	777	4 145
Machine building and metalworking	3 448	10 218
Chemicals	3 099	9 035
Construction materials	1 573	2 002
Woodworking	1 213	1 320
Glass	1 037	5 369
Textiles	560	1 967
Clothing	735	1 604
Leather	536	1 397
Foodprocessing	496	1 205

Source: OECD, 1994, p. 31.

Czech and Slovak Republics were not specific only in terms of relatively large industrial sector, but they also had a rather unique industrial branch structure at the end of 1980s when major political changes began in the country. According to

the 1994 OECD study, this structure was characterized by a dual pattern specialization. On the one hand there were relatively small sectors with a long tradition in the country, including textiles, footwear and glass production, which are all relatively labour intensive. On the other side are industries, like steel making, machinery and transport equipment, which were all large employers, but their share of value added or industrial output was even larger, implying their capital intensive character (OECD, 1994, pp. 18-24).

Being a part of the CMEA, it is not surprising that Czechoslovakia's industrial development strategy had been giving a preference to the development of heavy industries and the production of capital goods, including armament. A key feature of the industries that benefited from this industrial policy was their strong orientation towards the needs and resources of the CMEA countries. With an industrial supplier's role assigned to Czechoslovakia within the former CMEA, the country had an access to relatively cheap energy and raw material supplies from the SU as well as to comparatively favourable, but with protectionist measures distorted market of Eastern and Central Europe countries for its industrial products.

Table 6 indicates that in 1988, the last year before the political changes started in the region, 3/4 of the Czechoslovak trade was with these countries. On the exports side, trade with these countries was dominated by industrial products (SITC 5-8) (91.1% of the total), with machinery and transport equipment being by far the most important component (61.9%), while on the side of the imports, the two main categories were fuels and raw materials (SITC 2 and 3) (36.5%) and again industrial products (54.6%).

Industrial sector products were also by far the most important segment of Czechoslovakia's export to the developed market economies (76.6%), but its structure was significantly different from the structure of this sector's export to the socialist countries; this time the share of machinery and transport equipment was much lower (only 22.5%), indicating difficulties the country had in penetrating Western machinery and equipment markets, due to low quality and poor marketing of the products. On the other hand, exports of semi-manufactures and chemicals represented much higher importance in industrial sector exports (they accounted 30.5% and 12.9% of the total respectively). In the case of chemicals, as well as some semi-manufactures, and the same it true for some raw materials, this exports represented the processing and re-export of raw materials imported from SU.

As far as the structure of Czechoslovakia's imports from market economies was concerned, by far the most important component was again machinery and transport equipment (37.7%), as imports of these products and their components

was required if the country wanted to sustain its exports of these products to the socialist countries.

TABLE 6: Structure of Czechoslovak Trade, 1988

(shares of trade with)

Code SITC	Socialist countries		Other countries	
	Exports	Imports	Exports	Imports
0 Food and live animals	0.8	3.9	8.0	11.9
1 Beverages and tobacco	0.4	0.8	0.4	0.8
2 Crude materials excl. fuels	0.9	5.7	6.4	12.8
3 Mineral fuel, lubricants	2.0	30.8	7.5	1.5
4 Animal and vegetable oils, fats	0.0	0.1	0.3	0.7
5 Chemical and related products	5.4	4.4	12.9	15.9
6 Manufactured goods classified by material	12.6	7.6	30.5	10.5
7 Machinery and transport equipment	61.9	37.4	22.5	37.7
8 Miscellaneous manufactured articles	11.2	5.2	10.7	6.9
9 Commodities and transactions not classified elsewhere	4.8	4.1	0.8	1.3
Total	100	100	100	100
Value (mil. KCS), 1988	104 922	100 638	27 859	28 496

Source: OECD, 1994, p. 28.

3.2. Growth and Structural Patterns

3.2.1. Negative Industrial Sector Growth

While Slovakia benefited from rapid accumulation of industrial capital base and the creation of an industrial labour force, it has also inherited an industrial structure with a highly distorted emphasis on semi-finished goods, engineering products and armaments and highly dependent on markets in the former CMEA.

The Slovak economy grew slowly but steadily during the 1980s (GDP increased by 14% between 1984 and 1989), but experienced a sharp decline of 24% between

1990 and 1993 (World Bank, 1994, p. 115). There were three main causes for this fall. The first was the collapse of the exports to the former SU and other Eastern European countries. The second external shock came in 1993, when as a consequence of the dissolution of the federation, the trade between the Slovak and the Czech Republic plunged for about one third. The third, and probably the most important, cause was the introduction of a price and exchange rate liberalization policy in 1990, resulting in a significant cut of domestic purchasing power in real terms. In 1994 and 1995 the economy recovered with GDP growing by healthy 4.8% and 6.5% respectively. In spite of this recovery, the country's real output was at the end of 1995 still 12.1% below its 1989 level.

Not all sectors of the economy were equally affected by these shocks, but the performance of the industrial sector was by far the most drastically hit. In the period 1989 - 1993, industrial GDP almost halved (this indicates that it was reduced much more drastically than the overall GDP), but it recovered in the last two years to about 2/3 of its 1989 record level.

TABLE 7: Growth in GDP and Industrial Output, 1989 - 1995

Indicator	1989	1990	1991	1992	1993	1994	1995
GDP (in 1989 prices)	100	97.5	83.3	82.0	78.7	82.5	87.9
Industrial output (in 1990 prices)	100	96.0	72.3	62.3	55.7	59.3	64.7

Source: Statistical Yearbook, 1994; own calculations for 1995.

Sharp decline of the Slovak industry over the last few years, in nominal as well as relative terms, has been accompanied by a strong performance of the services sector. This is the only sector of the economy which has succeeded to have positive growth rate throughout the whole post-1989 period. There are several reasons for this. First, the sector was completely neglected during the last four decades of centrally-planned economy, thus the starting point was very low. Second, there was a need of filling the gap in the institutional structure of the new and quickly transforming market economy (banks, insurance companies, consulting services, auditing, etc.) as well as the need for various services associated with the establishment of the independent and sovereign state.

The outcome of different performances of individual sectors between 1989 and 1994 is a significant change in the overall structure of the Slovak economy. While the share of the industrial sector in the GDP was reduced from almost one half to less than 1/3 in this period, the share of the services sector increased from below 1/3 to more than one half. Through this process, a highly distorted

structure of the Slovak GDP where the 1989 split between services and industry was 32% / 49% turned by the end of this period into a split 57% / 31% which is already very much in line with a usual distribution of GDP across sector in developed market economies.

TABLE 8: Structure of GDP by Sectors, 1989-1994

(in per cent of GDP)

	1989	1990	1991	1992	1993	1994
Agriculture	9.4	7.4	5.7	6.2	6.6	7.4
Industry	49.3	49.9	52.7	37.9	36.8	30.7
Construction	9.1	9.2	7.4	6.8	6.7	5.0
Services	32.2	33.5	34.2	49.1	49.9	56.9

Source: IMF, 1995b, p. 67.

There is, however, at least one crucial difference between Slovakia and developed market economies in this respect. While in these economies services sector has grown steadily and in proportion with the structural requirements of the overall economic development, in Slovakia the shift in the GDP structure has been made through a deep recession, especially of the industrial sector, and in a very short period of time. Thus, the basic structural change in the Slovak economy was not caused by factors which operate in developed market economies, but by a highly distorted structure of the economy inherited from the central planned period.

3.2.2. Change in the Structure of the Industrial Output

As discussed above, industrial sector production declined significantly since 1989. A comparison of growth rates achieved by individual manufacturing branches relative to the industrial sector as a whole, however, shows differences.

There is only a relatively small number of important manufacturing branches that fell at a more slow rate than the overall industrial average. One of them are chemicals (basic industrial chemicals, petrochemicals and rubber production), a branch originally built on external supplies of low-cost energy, but which stood up fairly well to the recession, especially as far as exports is concerned. In 1994, it

contributed 19% to the total industrial production in 1994 and almost 24% to its exports (in 1990, its share in production was almost the same - 20%, while its share in industrial exports was much lower - 17%). The other important manufacturing branch with relatively good performance over the recent recession period is steel production. Based on international competitive advantage due to the existence of some large modern mills, this sector has succeeded, in spite of EU restrictions, to increase by 1994 its share in overall industrial production and exports to 17% and 24% respectively (in 1990 they were 10% and 14%).

There were some other segments of the industrial sector which were able to fall slower than overall industrial average, like the whole fuel and energy sector as well as some other relatively smaller manufacturing branches, like glass and ceramics, paper and cellulose and wood processing. A common pattern of all these branches is that they base their production on domestic natural resources.

Production of machinery, non-electrical and electrical, and production of transport equipment (in all of them manufactures for armaments played an important role) are the manufacturing branches which achieved the strongest expansion during the pre-1989 period. After that, however, these were also the branches where production, affected by the loss of external markets, was most badly hit. Production in these branches in 1994 was at a level of about 1/3 of its 1989 production, and consequently their share in total industrial sector output and exports declined drastically. While in 1990, these branches contributed 21% to the overall industrial output and even 30% to its exports, in 1994 these figures were significantly lower, 15% and 18% respectively.

To conclude, during the 1989 - 1993 period of severe economic recession, the structure of the Slovak industrial sector was further distorted in two respects. First, it continued to be heavily dependent on heavy industry. The comparison of growth rates achieved by individual manufacturing branches indicate that relative importance of this segment of the industry even increased. Second, within the structure of the industrial sector production, the relative importance of branches producing intermediate products from either imported products (iron and steel, chemicals) or domestic natural resources (wood, paper) grew while the share of those branches producing final products (machinery and transport equipment) declined.

Table 9: Industrial Sector Performance by Branches. 1992-1995

	Year	Goods manufacturing (SKK million)	Total sales (SKK million)	Exports (SKK million)	Pre-tax performance (SKK million)	Added value (SKK million)	Accounted No of employees (natural persons)	Productivity of labour (SKK)	Investments (SKK million)
Production of raw materials to generate energies	1992	6 195	4 890	110	-	-	14 776	405 863	-
	1993	5 618	3 775	85	930	2 521	14 052	383 509	970
	1994	5 497	5 315	80	810	2 655	13 124	418 802	1 096
	*1995	104.7	107.3	68.0			98.3		
Mining of non-energy generating raw materials. ore mining and stone production	1992	4 355	8 998	1 064	-	-	12 518	347 937	-
	1993	3 557	8 999	963	- 97	1 259	10 215	403 527	843
	1994	3 797	3 846	1 171	0	1 386	8 167	464 992	347
	*1995	65.3	69.2	86.0			96.8		
Production of mineral raw materials	1992	10 550	13 888	1 174	-	-	27 294	379 239	-
	1993	9 175	12 774	1 048	833	3 780	24 267	392 067	1 813
	1994	9 294	9 161	1 251	810	4 041	21 291	436 494	1 443
	*1995	88.8	88.6	85.2	150.3		97.7		
Production of food and codiments	1992	63 303	74 132	8 585	-	-	53 480	1 185 284	-
	1993	47 697	56 489	5 400	869	11 236	51 394	1 117 038	3 843
	1994	52 722	61 713	5 363	1 514	12 709	50 963	1 034 525	3 084
	*1995	87.8	87.2	89.7	103.9		98.6		
Textile and clothing industries	1992	17 108	17 641	9 286	-	-	58 442	292 815	-
	1993	14 032	14 360	7 856	174	5 893	55 403	286 698	959
	1994	15 340	16 322	8 864	224	6 312	55 696	275 418	1 007
	*1995	82.5	81.8	85.3	90.6		99.6		
Processing of leather and manufacturing of leather products	1992	7 545	7 816	3 953	-	-	25 688	293 842	-
	1993	5 493	5 456	2 728	- 142	2 153	22 965	245 708	116
	1994	5 097	5 618	2 546	- 597	1 835	20 488	248 762	177
	*1995	133.1	135.4	147.8	8.5		113.1		
Manufacturing of timber goods	1992	11 986	6 180	2 288	-	-	14 971	402 443	-
	1993	9 983	4 913	2 103	- 600	3 539	14 522	370 038	338
	1994	5 462	5 796	2 888	- 868	3 463	14 891	366 797	287
	*1995	124.1	123.8	128.1	50.9		98.6		

	Year	Goods manufacturing (SKK million)	Total sales (SKK million)	Exports (SKK million)	Pre-tax performance (SKK million)	Added value (SKK million)	Accounted No of employees (natural persons)	Productivity of labour (SKK)	Investments (SKK million)
Paper and polygraphic industries. publishing activities	1992	14 578	17 314	6 319	-	-	24 345	682 912	-
	1993	16 636	15 825	6 737	- 153	4 036	23 103	696 304	4 491
	1994	18 183	20 000	9 657	1 300	6 158	22 498	808 187	2 043
	*1995	125.3	128.4	146.7	519.3		101.8		
Cokeing, refin. petrol. processing, manufact. of nuclear fuels, radioactive elements and compound	1992	42 615	43 140	15 834	-	-	8 163	5 215 723	-
	1993	24 589	24 676	10 720	1 449	5 808	7 543	2 945 979	1 055
	1994	27 074	30 224	13 612	3 525	5 878	6 526	4 148 940	1 064
	*1995	114.4	125.8	180.8	109.2		90.4	-	
Manufacturing of chemical products and fibres	1992	26 239	26 647	11 927	-	-	30 119	870 433	-
	1993	24 743	24 808	14 885	1 176	7 057	29 336	919 637	3 054
	1994	28 532	30 401	19 239	1 073	8 484	27 517	1 036 898	2 324
	*1995	113.7	110.5	118.0	134.3		95.4		
Manufacturing of rubber products and plastics	1992	11 234	11 192	7 030	-	-	14 093	796 866	-
	1993	10 189	10 768	6 777	1 052	3 283	13 417	749 819	1 093
	1994	11 912	13 233	7 752	1 079	3 583	14 048	847 918	1 116
	*1995	118.4	122.7	132.5	144.7		103.7		
Production and processing of stone, earths, ceramics	1992	14 329	15 807	6 234	-	-	30 528	469 438	-
	1993	13 097	14 290	7 382	714	5 384	29 154	487 223	1 437
	1994	13 573	15 237	7 988	399	5 566	27 151	499 911	1 351
	*1995	105.0	105.3	115.4	367.4		95.8		
Processing of metals and manufacturing of metal products	1992	52 956	53 199	32 089	-	-	55 132	960 995	-
	1993	50 621	51 976	35 266	12	11 017	54 250	1 017 788	3 041
	1994	58 077	61 084	41 033	380	14 008	54 332	1 068 926	1 381
	*1995	107.1	106.0	102.8	498.0		103.2		
Manufacturing of machines and devices	1992	29 802	31 791	10 655	-	-	94 083	313 001	-
	1993	22 620	24 607	12 136	- 4 846	12 707	80 629	316 862	7 034
	1994	22 489	25 912	11 340	- 6 350	12 376	72 563	309 932	2 579
	*1995	110.5	110.8	118.3	52.8		97.0		
Manufacturing of electrical and optical instruments	1992	15 939	18 303	5 056	-	-	46 893	339 867	-
	1993	14 232	15 942	7 245	174	1 641	40 187	381 481	1 272
	1994	14 825	17 204	8 857	183	1 571	35 596	416 471	1 479
	*1995	101.7	105.1	107.1	16.6		100.3		

	Year	Goods manufacturing (SKK million)	Total sales (SKK million)	Exports (SKK million)	Pre-tax performance (SKK million)	Added value (SKK million)	Accounted No of employees (natural persons)	Productivity of labour (SKK)	Investments (SKK million)
Manufacturing of transport vehicles	1992	12 046	15 801	7 095	-	-	32 715	460 036	-
	1993	12 354	12 989	9 819	- 725	3 692	28 659	509 587	1 533
	1994	15 878	16 763	12 444	77	4 714	26 521	598 681	1 479
	*1995	135.7	135.3	124.6	247.2		110.1		
Other production	1992	1 143	8 935	2 752	-	-	21 956	392 240	-
	1993	1 004	8 265	3 096	91	761	21 012	381 732	349
	1994	7 427	8 402	2 876	99	845	18 685	397 469	825
	*1995	109.2	97.3	111.3	776.1		88.3		
Processing industries	1992	320 823	347 898	129 103	-	-	510 608	641 521	-
	1993	267 290	285 364	132 151	- 644	78 207	471 574	621 940	29 615
	1994	296 589	327 908	154 460	1 298	87 502	447 473	662 809	20 196
	*1995	108.5	106.5	116.1	300.0		99.8		
Generation and distribution of electric power, gas and water	1992	45 025	67 980	1 425	-	-	43 479	987 792	-
	1993	41 558	62 474	966	26 178	35 709	43 870	877 645	10 522
	1994	45 205	87 108	15 534	23 385	36 719	44 730	1 010 615	14 075
	*1995	91.7	91.9	113.9	112.0		95.9		
Industries total	1992	376 398	429 766	131 702	-	-	581 381	656 059	-
	1993	318 023	360 612	134 165	26 366	117 696	539 711	632 987	41 950
	1994	351 088	424 177	171 245	25 493	128 262	513 494	683 723	35 714
	*1995	105.7	102.7	116.1	143.1		99.4	105.9	
Building industry	1992	52 654.0**	-	-***	535.0	-	125 317	420 166	3 114
	1993	32 700.8	-	2 938	615.0	13 092.6	103 817	289 164	3 396
	1994	31 589.0	-	3 993	245.4	12 660.6	90 736	303 044	2 148
	*1995	93.4	-	158.7	48.4	108.1	91.2	102.4	132.

* Index 1st trimester 1995/1st trimester 1994. It is calculated from data obtained from organizations for the year monitored, negative indices correspond to losses.

** Volume of construction works according to the contracts.

*** Contracts abroad.

Source: IP, 1995, p. 81-82.

3.2.3. Other Patterns of the Industrial Sector Structure

An important feature of the Slovak industry and especially of its highly distorted structure is a contribution of individual branches, classified according to their "quality" - on low, medium and high value added contributors, to the total manufacturing sector output and employment. A comparison of these data for Slovakia and seven developed market economies is presented in Table 11. It clearly shows that relative importance of "high quality" branches in Slovakia is lower, in both value added and employment terms, than in any other country under comparison.

Another characteristic of the Slovak industry is its high-energy intensity, well above that in developed market economies. This is in line with high overall energy-intensity of the Slovak economy. Slovakia is among the most inefficient users of the energy in the world. In 1992, with each kg of oil equivalent it produced only USD 0.6 of GDP. For the world as a whole, this figure was USD 3.0 while for the group of high income economies, where practically all OECD countries are included, the figure was even USD 4.4 of GDP (World Bank, 1995, p. 174).

Table 10: Industrial Sector Overview, 1994

Industries	Share in total industry (%)					Index (total industry 100)			
	Goods production	Export	Value added	No. of workers	No. of researchers ¹⁾	Investments	Labour productivity	Average monthly wages	Pre-tax Profit/Loss
Energy raw materials extraction	1.5	0.0	2.0	2.5	1.3	2.9	62	123	258
Non-energy raw materials extraction	1.1	0.7	1.0	1.5	-	0.9	69	100	0
Mining and quarrying	2.6	0.7	3.1	4.0	-	3.9	65	114	149
Food industry	14.6	3.1	9.6	9.5	2.0	8.3	153	95	42
Textile and clothing	4.3	5.1	4.8	10.4	2.2	2.7	41	70	24
Leather and leather products	1.4	1.5	1.4	3.8	2.9	0.5	37	72	- 180
Wooden goods.	1.5	1.7	2.6	2.8	3.0	0.8	54	83	- 254
Pulp, paper, printing, publishing	5.0	5.6	4.7	4.2	1.8	5.5	120	104	110
Coking, oil refining, nuclear fuc	7.5	7.9	4.4	1.2	1.3	2.9	616	157	198
Chemicals & man-made fibers	7.9	11.2	6.4	5.1	-	6.3	154	112	95
Rubber and plastic products	3.3	4.5	2.7	2.6	14.2	3.0	126	112	139
Aggregates and earth, ceramics	3.8	4.6	4.2	5.1	1.1	3.6	74	101	44
Metals and metallic products	16.1	23.8	10.6	10.2	10.0	3.7	159	120	10
Machines and devices/instr.	6.2	6.6	9.4	13.6	36.3	6.9	46	92	- 415
Electrical and optical devices	4.1	5.1	1.2	6.7	19.2	4.0	62	92	19
Means of transport	4.4	7.2	3.6	5.0	-	4.0	89	98	9
Production n.e.c.	2.1	1.7	0.6	3.5	1.8	2.2	59	82	20
Production and distribution of electricity, gas and water	12.5	9.0	27.9	8.4	2.9	37.9	150	136	454
Total Industry	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100

1 Number of researchers with university degree in 1990.

Source: Data from IP; own calculations.

Table 11: Importance of Industrial Branches According to their Value-Added and Employment Contributions

	Slovak Republic 1994	Average ²	Belgium 1990	Denmark 1992	Finland 199	Nether-lands 1991	Sweden 199	Austria 1992	Germany 1991
Value Added¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
– low	23.6	18.7	23.0	24.6	17.1	18.8	14.5	18.9	14.2
– medium	26.6	22.4	22.4	21.2	20.6	26.8	20.2	24.6	20.7
– high	49.8	58.9	54.6	54.2	62.3	54.4	65.3	56.5	65.1
Employment	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
– low	28.4	19.9	26.1	23.4	19.0	22.2	12.4	21.2	15.3
– medium	17.1	18.6	20.6	17.7	20.2	18.7	15.2	22.8	15.6
– high	54.5	61.5	53.3	58.9	60.8	59.1	72.4	56.8	69.1

1 National currencies, current prices

2 Unweighted average for the 7 industrialized countries included in the Table.

Source: Long-term Strategy of the Economic Development of the Slovak Republic, Research Reports No. 27/3, Institute of Economics; Slovak Academy of Sciences, Bratislava, 1995, p. 67.

3.3. Industrial Sector Organization

One legacy of the country's industrial development was a high level of concentration of productive resources in a very small number of large industrial enterprises. A very high degree of industrial concentration in the pre-1989 period was a result of both, institutional preferences for large enterprises in order to simplify the process of central planning as well as the propensity of enterprises to develop strong vertical integration in order to have better control of inputs and components.

In 1990, there were 390 industrial enterprises in Slovakia (only enterprises with more than 25 employees are taken into account) with an average of 1,238 employees and, unlike in developed market economies, the share of large companies (with more than 500 employees) in the sector was very high - over 60%.

TABLE 12: Size of Industrial Enterprises, 1990 - 1994

	1990	1991	1992	1993	1994
	Industry in total				
Number of enterprises					
Enterprises with average number of manual workers	390	600	1 059	1 327	1 515
up to 500	152	394	870	1 162	1 356
501-1000	90	84	88	86	77
1001-2500	95	82	69	55	60
2501-5000	41	31	25	19	18
5001 and over	12	9	7	5	4
Average size of enterprise by number of manual workers	1 283	751	512	417	392
	of which: Chemicals, rubber, asbestos				
Number of enterprises					
Enterprises with average number of manual workers	25	23	63	65	75
up to 500	6	4	46	52	61
501-1000	3	3	5	3	4
1001-2500	9	9	7	6	6
2501-5000	7	7	5	4	4
5001 and over	-	-	-	-	-
Average size of enterprise by number of manual workers	1 830	1 828	734	627	583

	1990	1991	1992	1993	1994
	Production of machinery, metal products, elect. equipment and means of transport				
Number of enterprises					
Enterprises with average number of manual workers	137	112	187	200	228
up to 500	45	67	142	163	197
501-1000	38	20	21	22	17
1001-2500	35	15	16	10	10
2501-5000	15	8	7	4	4
5001 and over	4	2	1	1	-
Average size of enterprise by number of manual workers	1 330	829	595	480	414
	Foodstuffs and seasoning				
Number of enterprises					
Enterprises with average number of manual workers	80	196	242	265	272
up to 500	50	186	233	257	264
501-1000	15	8	8	6	7
1001-2500	15	2	1	2	1
2501-5000	-	-	-	-	-
5001 and over	-	-	-	-	-
Average size of enterprise by number of manual workers	625	215	273	273	268
	Building materials				
Number of enterprises					
Enterprises with average number of manual workers	50	66	90	94	99
up to 500	31	52	81	85	89
501-1000	13	13	4	5	5
1001-2500	5	-	4	4	5
2501-5000	-	-	1	-	-
5001 and over	1	1	-	-	-
Average size of enterprise by number of manual workers	650	347	378	340	351

Source: Statistical Yearbook 1995, pp. 311-312.

The rapid increase in the number of industrial firms over the last five years (their number grew from 390 in 1990 to 1,515 in 1994), was due to the privatization and restitution processes, the emergence of new private firms as well as the trend toward breaking up large state-owned enterprises into a number of separate entities. The breaking up trend was more evident among those firms

whose organization was based on horizontal integration and that operated mainly in light industry branches than in the vertically integrated firms, mainly in heavy industry branches that tended to retain their structure.

As a result of the industry deconcentration processes, the share of large industrial enterprises in the total number of these enterprises was drastically reduced (they accounted not more than 11% in 1994) and the average number of employees came down to around 1/3 of its 1990 figure. There are, however, big differences among individual manufacturing branches.

In food industry branch, for example, large enterprises were practically eliminated, as their share in the total number of firms in the branch fell from 38% to 3% between 1990 and 1994. At the same time, the total number of companies in the branch increased for more than two times in the same period (from 80 to 272).

In the heavy industry and chemicals branches, the situation is very much different. Here, the total number of enterprises increased for less than in the industrial sector as a whole and the concentration of production in large enterprises, although it declined significantly over the past few years, remains high. In 1994, the number of enterprises in heavy industry branches was not even double the number from 1990, and the share of large enterprises in the total number of firms the branch was 14% (against 68% in 1990) while in chemicals branch this share was even 19% (against 33% in 1990).

The process of deconcentration of the Slovak industry has been accompanied by another process, i.e., by its changing ownership structure.

Thanks to deregulation, rapid privatization as well as start up of new enterprises, the private sector has grown quickly in Slovakia. The number of profit-making institutions in the country rose to 36,187 at the end of 1994 (and to almost 40,200 at mid-1995), of them 6,314 were in the industry sector. Out of the total number of profit-making institutions, more than 95% were privately owned.

So far, the process of private sector development took the most rapid pace in the area of services, where the private sector realized 86.6% of all sales in the first three quarters of the 1995. In industry, the share of the private sector production more than doubled in less than two years, from 30.1% in 1993 to 66.1% in 1995/9 of the total. It has, therefore, for the first time surpassed the private sector's share in the overall GDP (62.0% in 1995/9) (MF, 1996a, p. 9).

3.4. Employment and Labour Productivity

Transition of the Slovakia's industrial sector from central planned to market economy has been associated with major changes in the level and structure of employment. Production shocks caused by industry's great dependence on trade with the CMEA as well as by its heavy reliance on energy and material-intensive branches resulted in a drastic decline of employees in this sector. Their number has been consistently decreasing in the period 1990 - 1994 period, although the pace was much slower in the last two years when industry started to recover.

In 1994, there were some 514.000 employees in the sector compared to 819.000 in 1990. Although employment declined in all manufacturing branches, it has been by far the most severe in electrical and electronics (43% between 1990 and 1992 and 24% between 1992 and 1994) and machine tool production (21% and 23%). These are both industry branches with a strong component of armaments production which have all lost their major export markets in the East. These branches together with metal processing branch continue to be among the most important employers in Slovak industry with close to 40% share, although their relative importance declined significantly over the years (see Table 9).

Throughout the transition, Slovakia's industrial output fell faster than employment what resulted in a decline of labour productivity in all the years except 1994. In that year, aggregate industrial output increased for the first time since 1989, and so did the labour productivity. It has to be underlined, however, that at least one part of this productivity growth has to be attributed to further reductions in employment and that the nominal level of labour productivity is still rather low, below SKK 700.000. It was the highest in some high capital intensive branches, such as petroleum processing (over SKK 4 million) and metal processing (over SKK over 1 million), and the lowest in some traditional labour intensive branches, such as textiles and leather processing (in both below SKK 300.000) (see Table 9).

A comparison of labour productivity trends in Slovakia and some other Central and Eastern European countries is presented in Table 13.

TABLE 13: Labour Productivity in Selected Central and Eastern European Countries, 1990-1994

(average percentage change)

	1990	1991	1992	1993	1994
Bulgaria	- 11,3	- 4.2	- 9.0	5.4	14.6
Czech Republic	- 0.4	- 16.6	- 7.6	- 3.5	4.1
Hungary	0.6	- 20.9	12.6	16.0	8.0
Poland	- 21.1	- 11.9	17.1	14.5	18.5
Romania	- 19.2	- 17.9	- 13.5	1.4	13.3
Slovak Republic	-1.4	- 10.6	1.6	- 3.0	7.3

Source: EBRD, 1995b, p. 174.

3.5. Foreign Trade and International Competitiveness

3.5.1. Sectoral Structure of Foreign Trade

A small economy like Slovakia cannot exist without intensive foreign trade. Its share of exports and imports in the GDP is close to one half and has more than doubled throughout the period 1989 - 1994, from 22.6% to 49.5% on the exports side and from 20.7% to 48.8% on the imports side. This growth has been on the one hand a result of the GDP decline and on the other hand of a strong growth of the foreign trade, in both volume and value terms.

The Slovak Republic started the transition period with a highly concentrated trade structure. Exports as well as imports depended heavily on a few important trading partners among the CMEA countries as well as on a selected group of commodities.

In 1989, industrial sector products (SITC commodity groups 5 - 8) accounted for 88.7% of the total exports and 71.8% of total imports in Slovakia. The relatively high share of industrial goods in Slovakia's and lower proportion of such products in imports confirms the role of an industrial economy assigned to Slovakia (a that time as a part of Czechoslovakia) in the international division of labour, especially in relation to the former CMEA. Over the transition period the shares of industrial products in total exports and imports of the country slightly declined,

but they still absolutely dominate Slovakia's foreign trade, with 85.5% on the exports side and 66.9% on the imports side in 1994.

TABLE 14: Foreign Trade by Commodity Groups, 1989 - 1994

(in per cent of exports/imports)

Commodity group (SITC rev. 3)	1989		1993		1994	
	Exports	Imports	Exports	Imports	Exports	Imports
0+1 Foods	4.6	8.8	6.4	8.8	5.2	8.2
2+4 Raw materials	4.7	15.7	5.1	5.4	5.0	5.3
3 Mineral fuels	2.0	3.7	4.3	21.0	4.3	19.6
5 Chemicals	9.0	12.3	12.1	11.4	12.9	13.3
6+8 Intermediate goods and unsophisticated final products	50.9	24.1	52.6	24.1	53.2	25.8
7 Machinery and transport equipment	28.8	35.4	19.5	29.3	19.4	27.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

- Source:
- Statistical Foreign Trade Base of the Slovak Republic in 1989 through 1992, VUVEV Praha 1993.
 - Foreign Trade Statistics of the Slovak Republic, Statistical Office of the Slovak Republic, Bratislava, 1993
 - Bulletin of the Statistical Office of the Slovak Republic, Bratislava, issues for 1992 - 1994.

The export orientation of the Slovak industry can be confirmed by a high and growing share of exports in the total output of the industrial sector (see Table 9). While in 1992, less than one third of the country's industrial production was exported, next year this share increased to 37% while in 1994 it reached a level of almost one half. Among the most export oriented manufacturing branches in 1994 were manufacturing of transport equipment (75%), steel and iron production (71%), production of chemical products (67%), rubber and plastics production (65%), manufacturing of electrical and optical equipment (59%).

Although a relatively stable and high share of the industrial sector products in the country's overall foreign trade is a positive development, it has been accompanied by some unfavourable changes in the structure of this sector's exports. The share

of exports of machinery and transport equipment (SITC commodity group 7), as the most sophisticated and therefore high value-added component of the industry production, declined by 9.4 percentage points between 1989 and 1994 (from 28.8 to 19.4%). This is also the exports' segment which has a strong education and research component, for which more favourable export prices might be achieved and which usually has better foreign currency effect than exports of lower value-added products.

The decline in the relative importance of this sophisticated goods exports (its exports declined also in nominal terms) over the transition period was caused mainly by the drastic fall in the armaments production, where the sales decreased considerably particularly after the dismantling of the CMEA. In some segments, this exports dropped for as much as 90%. The reorientation of the non-military machine and electrical equipment exports towards western countries has succeeded to some extent. It was, however, not able to fill the gap entirely, as the technical and quality competitiveness of this segment of the Slovak exports on the western markets is rather low. The problem with this group of exports has been experienced also on the markets in Central in Eastern Europe, as these countries, for the sake of modernization of technology, prefer imports of technically superior machines and equipment from developed market economies.

The falling share of high value added machinery and transport equipment in the total Slovak industrial exports was filled by a growing share of those industrial products with lower rate of processing and therefore lower value-added. In addition, these products are very often also high material and energy intensive. The most important among them are steel and iron products, petrochemicals as well as wood and paper products. The share of these products (SITC commodity groups 5,6 and 8) in overall export of the country was high already before the transition, 59.9%, but increased later on to 66.1%. This increase was made in spite of the EU protectionist measures introduced for some of the so-called sensitive products (products which are more frequently the target for tariffs, quotas, and other trade barriers), especially in the textile and clothing branch as well as in the metallurgy production.

The trend towards a higher export share of products with lower value added was to large extent stimulated by the devaluations on the national currency in 1990 and 1993. Though devaluations helped to strengthen the Slovak exports in general, it has been very successful for those product segments with high price elasticity of external demand, and that means for raw materials, intermediate goods and unsophisticated manufactures. The effects of devaluations were, however, much more limited for high value added products, like machinery and equipment, as their price elasticity of external demand is rather low due to the fact that non-price competitive factors are of higher importance. The currency devaluations have therefore contributed towards an increased overall exports of the country, but on

the other hand, by de-facto stimulating low value-added exports, they have sent a negative signal to the economy in terms of its restructuring towards more sophisticated products where non-price competitiveness factors, like quality, trade mark, etc., play a more significant role.

3.5.2. Trade Competitiveness

The above conclusion about high and growing reliance of the Slovak industry's exports on unsophisticated, raw materials and energy-intensive products is in line with the empirical data on the competitiveness of its exports on foreign markets. There is a number of concepts for measuring competitiveness, but here only two will be presented.

First, an industry, defined as SITC commodity group, is considered as internationally competitive if the share of national exports in this industry to world (OECD) exports in this sector exceeds the average share of the country in total world trade. In 1991, Slovak exports was at the level of 0.13% of total OECD exports, and the country had the highest comparative advantage in the manufacturing goods group (SITC 6), if one-digit groups are concerned, with 0.2% of OECD exports and with 0.77% of that exports in the iron and steel industry (SITC 67), if two-digit groups are taken into account.

Another measure for assessing country's competitiveness is the index of revealed comparative advantage (RCA) adjusted for unbalanced trade. The measure lies between -1 and 1 and a positive value of the RCA index indicates that the country has a revealed comparative advantage in that sector, whereas negative values indicate comparative disadvantage. Slovakia's figures for 1991 confirm that also according to this methodology the country was the most competitive in SITC 6 and SITC 67 (Fidrmuc, 1994, pp. 87-88).

In a more recent study, the Slovak industry has been broken down according to the production factor intensity. As Table 15 shows, the country has a very high comparative advantage in labour intensive branches, such as textiles and leather production, and this is mainly a result of its cheap labour force. Slovakia has also some comparative advantage in raw material intensive branches, like manufacturing of timber goods, where the competitiveness is based on domestic natural resources as well as in energy intensive branches, especially in the iron and steel production, where relatively good competitiveness can be attributed primarily to modern production facilities. On the other hand, the Slovak industry has a high comparative disadvantage in those industrial branches which are research intensive, and those produce high value added products.

TABLE 15: Competitiveness by Type of Industrial Products, 1993-1995

(revealed comparative advantage - RCA*)

Products	1993	1994	1995 (1. half)
Labour intensive	56.7	51.2	53.8
Raw materials and capital extensive	7.5	7.8	9.8
Research intensive of which	- 28.9	- 26.8	- 29.3
- mobile	- 7.8	- 10.0	- 5.6
- road and rail vehicles	27.3	36.3	11.3
- immobile	- 66.0	- 68.5	- 70.1

* A positive value of the RCA indicates that the country has revealed comparative advantage (RCA) in that product (the higher the value of RCA the higher the comparative advantage) and vice versa.

Source: Gabrielova, H., Identification of Basic Structural Features of the Slovak Economy: Possibilities of Change. Internal paper, EU SAV Bratislava 1995, p. 22.

In the commodity structure of imports, only one significant change has happened during the transition period. It applies to a drastically increased share of mineral fuels (SITC commodity group 3), from 3.7% of the total imports in 1989 to 19.6% in 1994. This was caused mainly by the transformation of the payment arrangement with the former SU in 1991 which has resulted in an one-time increase of the price of oil imported from this country to the world market level.

3.5.3. Foreign Trade Promotion Policy

As already said, a small open economy of the Slovak Republic is vitally dependent on the access to foreign markets. This importance is clearly recognized by the authorities which have placed great emphasis on ensuring that its current and prospective policies are fully consistent with its obligations within WTO, EU, EFTA and CEFTA.

The Slovak Republic has taken a number of measures to promote its exports. One of them is the creation of the Society for Insurance of Export Credits which has developed operations in three areas: (i) it provides commercial risk insurance for short-term exports, mainly in the OECD and other Central European

countries, (ii) it provides political-risk insurance for short-term contracts in countries with higher political risk, and (iii) it provides insurance against medium and long-term commercial and political risk (used mainly by the Slovak producers of machinery and capital goods) (OECD, 1994, pp. 120-121).

In cooperation with PHARE, the Slovak government started with the implementation of an ambitious Slovakia Export Development Program. Its general objective is to increase the foreign exchange earnings of Slovakia through developing the potential to export as well as expediting sales to foreign markets, and to foster long-term international competitiveness of the Slovak enterprises. More specific objectives are the following: to provide up-to-date and practical market information to enable enterprises to take advantage of opportunities in export markets, (ii) to support the export development and promotion of individual firms, (iii) to encourage the development of selected industrial sectors, by undertaking a series of comprehensive programs, combining market, product and company development, (iv) to finance promotional activities aimed at encouraging the country's exports, (v) to enhance the environment for exports by undertaking different types of studies, and (vi) to increase the availability of personnel trained in the strategies and techniques of successful export development.

3.6. Foreign Direct Investment

3.6.1. Volume of Foreign Direct Investments

Although some joint ventures existed before 1990, foreign investment in former federation started from virtually nothing. The 1990 Law on Enterprises with Foreign Participation, amended twice already in 1990, and especially the 1992 Commercial Code provided the basic legal framework of the country in this area, much in line with that of other European countries in transition.

According to this legislation, foreign investors were allowed to acquire an interest in a company in excess of 50%, and can also have 100% ownership (before, foreign capital was limited to only 49%). Various legal forms for joint ventures and foreign investments were allowed, and all restrictions on the repatriation of profits and capital were removed.

There were and still are several reasons for the opening of Slovakia to foreign investors. The post-1989 political changes have namely requested from the country, although at that time still a part of the federation, a reorientation of its foreign economic relations. Entry into new markets and the restructuring of the economy as a whole has meant an immense need for new modern technologies and know

how, organization and management as well as marketing skills and capital, all production factors not available in the domestic economy. It was also expected from foreign investments that, by taking their firm-specific competitive advantages, they would become a new source of country's increased international competitiveness, that they would also be important for the strengthening of intra-industry linkages in the country and that they would also have a positive role in addressing the problems of growing unemployment and unequal regional development.

TABLE 16: Volume of Foreign Direct Investment, 1991 - 1995

(in billions SKK)

IV/91	I/92	II/92	III/92	IV/92	I/93	II/93	III/93	IV/93	I/94	II/94	III/94	IV/94	I/95	II/95	III/95
3508	3526	5186	6095	6607	7684	9244	10091	10756	11480	12096	13743	16542	16940	17516	19750

Source: Ministry of Economy

In terms of foreign investment performance in Slovakia, the transition period could be divided in two subperiods, before and after the independence. During the 1989 - 1992, the inflow of direct foreign investments was rather slow, as their distribution between the Czech and Slovak Republic was clearly in favour of the former, with about 75% of the total located there and with Bratislava as practically the only site of foreign investments in Slovakia. By the end of 1992, 2,038 joint ventures were established in the country with the total foreign capital invested USD 207 million, half of it invested in industry. Among larger investors in this sector from that period are Volkswagen, Molnycke, Samsung-Calex, and Hoecht-Biotika (OECD, 1994, p. 68).

The pace of foreign direct investments in the country accelerated significantly in the period since independence. The number of Slovak entities with foreign capital contribution increased to 8,469 by September 1995 (see Table 18), more than three times growth since the end of 1992. while the total foreign capital invested amounted to USD 661 million (SKK 19.8 billion) what implies over 200% increase since 1993. With these figures Slovakia is among small foreign investment destinations in Central and Eastern Europe (of all foreign direct investment in CEFTA countries by the end of 1994, only 4% came to Slovakia; 47% to Hungary, 25% to Poland, 24% to Czech Republic) but in per capita terms its place is higher.

Approval of foreign direct investment in Slovakia is required only in very particular circumstances. Like domestic firms, however, foreign firms must register their business in trade register and obtain any licences necessary for their operations. Foreign investors may transfer their entire share of after-tax profits to

their countries of origin and in the event of dissolution or liquidation of an enterprise, their foreign-owned capital may be fully repatriated. International agreements on protection and promotion of foreign investment and double taxation agreements are important instruments for the promotion of foreign investment. By the end of 1995, Slovakia had investment promotion agreements ratified with 16 countries (they were all negotiated, signed and ratified under the CSFR), while for another 10 countries, the agreements were signed and the process of ratification is underway (WTO, 1996, p. 25, p. 150, p. 166).

3.6.2. Structural Patterns of Foreign Direct Investments

Over the last three years, not only the volume but also the structure of direct foreign investments to Slovakia changed significantly. Their main structural patterns, with emphasis on investments in the industry sector, are the following:

a) type of foreign investments; In contrast to the pre-independence period when, due to legislation provisions, foreign investments were exclusively in the form of joint ventures, the last few years have seen a rapid growth of legal entities with 100% foreign ownership. Of 8,469 entities with foreign capital participation as of September 1995, 3,330 or almost 40% were already totally foreign owned (in the industry sector this share was lower - 27%). Strong growth of this legal form of foreign investments clearly indicates that foreigners, when they consider to invest in Slovakia, prefer to make the investment into a wholly-owned entity, and that joint-ventures are generally considered only as a second best solution. While at the beginning wholly-owned firms were established primarily as commercial vehicle of foreign companies penetrating the Slovak market, more recently their number has shown an increase also in manufacturing as well as in services, especially in the area of finance and tourism.

b) size of firms with foreign capital contribution; An average investment of a foreigner into Slovakia is very low, SKK 2.3 million, with 4/5 of all investments at a level less than 1 million and with only 4.5% investments larger than SKK 10 million. This reflects the fact that foreign investments are still highly concentrated in sectors where relatively small initial capital is required, where quick return of invested capital is secured and where the risk is relatively low. This is particularly the case with the investments in the trade sector. An average investment in that sector (SKK 1.15 million) was half the value of an average investment in Slovakia while the sector participated with almost 2/3 in the total number of firms with foreign capital contribution. In the manufacturing industry, an average size of a foreign investment is some SKK 8.0 million and is therefore significantly above the average for the country. This average size of an investment is, however, strongly influenced by only a few large foreign investments in the sector.

c) sectoral structure; Although services, including trade, transport, real estate, finance, accounted for the largest number of direct foreign investments in Slovakia (76%), the largest share of these investments in volume terms was invested in manufacturing industry. As of September 1995, total foreign investments in the sector amounted to USD 271 million and over the last three years, their share was reduced from over 50% of total investments in 1992 and 1993 to 41% in September 1995. Manufacturing sector has lost its share due to a higher growth of direct foreign investments into services, mainly in banking and insurance business (its share increased from 6.1% in June 1992 to 17.4 in September 1995).

TABLE 17: Sectoral Structure of Foreign Direct Investment, 1992 and 1995

(share of total)

	June 1992	September 1995
Agriculture	0.2	0.2
Mining total	1.2	0.1
Industry	50.1	42.6
Water, gas, elec. supply	0.0	0.0
Construction	4.1	1.2
Trade, repairment	32.8	30.8
Catering and hotels	0.0	2.7
Transport and telecommunication	0.6	0.4
Finance and insurance	6.1	17.4
Real estates, services	3.7	3.7
Education	0.0	0.0
Health care	0.0	0.0
Other social services	1.0	0.9
Total	100.0	100.0

Source: Statistical Yearbook, various issues

Industrial branches that have enjoyed the main inflow of capital are the following:

(i) engineering industry; In this branch by far the most important are Volkswagen's USD 59 million investment into automobile production (the company is 100% foreign owned) and Samsung-Calex's USD 10.9 million investment into electrical appliances production (44.8% foreign owned).

(ii) chemical industry and pharmaceuticals; The predominant form of foreign investments in this branch are joint venture companies, and the number of established ventures is rather high. The most important are, among others, the following: Chemlon (polyamid and polyester fibres; Rhone-Poulec/France; USD 27.2 million), Sloveca (neon tenzids; Enichem Augusta/Italy), Henkel-Palma (Austria; USD 13.2 million), Dyno-Chemko (emulsion industrial explosives), MG Tatras (technical gas), Hoecht-Biotika (pharmacies, Hoecht/Germany; USD 7.4 million), Fermas (amino acids for foraging ingredients, Germany, USD 13.2 million), Contitech-Vegum (technical rubber products) and Tatrasky Permon (Czech Republic, USD 17.1 million).

(iii) wood processing; This industrial branch is again dominated by joint venture form of foreign investments and includes a wide variety of foreign investors from very different of countries. Some of the projects are the following: production of hygienic health products (Molnlycke/Sweden, USD 11.4 million), Martap (wall-paper products and instruments, Mohr Decor/Germany), Spartan and Swedwood Slovakia (surface finishing of the furniture pieces, IKEA/Sweden), Smrečina (wood for construction industry, Doka/Austria). In addition, there are some other projects under preparation with prospective foreign investors coming from various countries, including Norway, Finland, Austria and Germany).

(iv) other; Other manufacturing branches that benefited from foreign capital include labour intensive textile and clothing industry with a number of smaller investments, like Svik (producer of brand men suits, GFT/Italy, SKK 217 million), Gemtex (producer of knitted underwear, Schiess Holding/Switzerland, SKK 158 million), Temtex-Punto Azuro Slovakia (fitness and leisure sports wear, Punto Azuro/Italy, SKK 73 million) and leather and footwear industries with the largest investment Rieker (footwear production, Rieker Schuh/Switzerland, SKK 142 million) as well as glass industry based on domestic natural resources with the most important investment Izomat (thermal insulating materials based on mineral fibres, Rockwool/Denmark, SKK 228 million). Most of these investments were made through privatization and were accompanied by new investments into technology.

The above survey reveals that interest of foreign investors has been strong in a very limited number of the Slovak industrial branches, and in each of them for very specific and clearly defined reason. The country has experienced the strongest interest of foreign investors in those branches where Slovakia has some comparative advantages over investments in neighbouring countries. Cheap but at the same time highly qualified labour force has been an important factor behind investments in all manufacturing branches, especially in labour intensive textile, clothing and leather production, while domestic natural resources have been decisive for foreign investments in wood processing industry. Chemicals and pharmaceuticals production has attracted foreign capital by its long tradition, again

by its well educated labour force and strong research capabilities, by expected growing domestic demand, and in the case of the chemicals, also by geographical proximity of foreign markets and by not so restrictive ecological standards than in Western countries. Growing demand of the Slovak market together with cheap labour force and geographical proximity of export markets has been also important for investments in engineering industry, especially in automobile part production.

Although the government has defined as one of its priorities to stimulate foreign capital inflow into metallurgy, heavy machinery, electronics industry and precision engineering, all of them strongly affected by drastic reduction of armaments production, the actual results are disappointing. Foreign capital has namely not been attracted by the programs for conversion of industry production capacities from military to civilian purposes.

d) source countries; Investors from more than 40 countries are 100% owners or have ownership participation in Slovak firms, but as in other countries in transition, European investors predominate. Traditionally the top places as foreign investors in Slovakia are taken by countries that know the economy well and have already had experiences in trade and/or production cooperation with the country.

Austria has traditionally been the largest foreign investor in the country. As of September 1995, Austrian firms had participation in 1,364 firms and their investment accounted for 23.4% of total investment. Austrian investments, mainly located in Bratislava, are concentrated in those segments of the economy (trade seems to be particularly important), where geographical proximity plays an important role. German investors with 19.4% of total investment closely follow the Austrians. In their case, investments are more concentrated, as their three largest investment - all in the manufacturing industry (Volkswagen, Fermas and Hoechst Biotika) - accounted for almost 2/3 of German total investment in the country. The third most important investor country is Czech Republic with participation in 1,526 firms and with 15.9% share in total foreign investment. Strong participation of firms from this country is mainly a result of strong economic linkages between the two countries from the times under the federation. The next country with over 10% share in total foreign investment in Slovakia are USA, and this is almost entirely due to one investment in the trade sector (Kmart, USD 65 million) which is at the same time also the largest foreign investment in the country. As of September 1995, the mentioned four countries participated with 71% in total investments. They were followed by France and United Kingdom with shares between 5% and 10% and with Netherlands, Sweden, Italy, Korea, Netherlands Antilles and Canada with shares between 1% and 5%.

Table 18: Foreign Direct Investment by Country of Origin, 1995

Country	Number of organizations with participation of foreign capital						Foreign capital in thousands SKK		Share in total volume of foreign capital in %	
	in total		in which				30.9.1995	30.6.1995	30.9.1995	30.6.1995
			Foreign		Common					
	30.9.1995	30.6.1995	30.9.1995	30.6.1995	30.9.1995	30.6.1995				
Austria	1 364	1 339	561	537	803	802	4 623 314	3 723 816	23.4	21.3
Germany	1 063	1 030	288	273	775	757	3 830 228	3 732 617	19.4	21.3
Czech Republic	1 526	1 419	554	514	972	905	3 135 890	2 614 222	15.9	14.9
USA	208	202	68	63	140	139	2 420 694	2 472 434	12.3	14.1
France	96	90	26	22	70	68	1 276 514	1 275 871	6.5	7.3
United Kindgom	67	60	29	23	38	37	1 132 398	513 845	5.7	2.9
Netherlands	144	141	68	64	76	77	886 021	875 896	4.5	5.0
Sweden	56	53	16	15	40	38	520 724	520 530	2.6	3.0
Italy	420	408	96	90	324	318	439 499	431 407	2.2	2.5
Korea	1	1	0	0	1	1	323 400	323 400	1.6	1.8
Netherlands Antils	1	1	1	1	0	0	302 275	302 275	1.5	1.7
Canada	66	64	16	16	50	48	199 752	199 495	1.0	1.1
Switzerland	226	214	76	73	150	141	164 747	163 798	0.8	0.9
Hungary	486	473	74	75	412	398	118 978	69 897	0.6	0.4
United Arab Emirates	3	2	2	1	1	1	71 640	250	0.4	0.0
Japan	3	3	1	1	2	2	53 317	53 317	0.3	0.3
Belgium	51	48	25	23	26	25	31 960	27 810	0.2	0.2
Denmark	13	11	8	6	5	5	28 448	28 313	0.1	0.2
Yugoslavia	220	217	82	78	138	139	18 253	17 884	0.1	0.1
Poland	163	166	43	41	125	125	18 178	17 666	0.1	0.1
Russia	120	106	27	22	93	84	14 825	11 085	0.1	0.1
Ukraine	149	144	41	39	108	105	14 076	13019	0.1	0.1
China	43	41	35	32	8	9	12 705	12 479	0.1	0.1

Country	Number of organizations with participation of foreign capital						Foreign capital in thousands SKK		Share in total volume of foreign capital in %	
	in total		in which				30.9.1995	30.6.1995	30.9.1995	30.6.1995
			Foreign		Common					
	30.9.1995	30.6.1995	30.9.1995	30.6.1995	30.9.1995	30.6.1995				
Cyprus	16	14	4	3	12	11	11 777	11 621	0.1	0.1
Former S.U.	64	64	5	5	59	59	11 070	11 070	0.1	0.1
Lichtenstein	32	31	10	8	22	23	8 999	8 379	0.0	0.0
Slovenia	31	26	10	8	21	18	8 612	8 232	0.0	0.0
Croatia	61	57	28	26	33	31	7 692	7 341	0.0	0.0
Spain	17	17	3	4	14	13	7 094	7 134	0.0	0.0
Greece	14	14	4	4	10	10	5 204	5 204	0.0	0.0
Norway	9	9	2	2	7	7	4 168	4 168	0.0	0.0
Australia	23	23	3	3	20	20	4 028	4 028	0.0	0.0
Ireland	5	6	0	0	5	6	3 860	8 960	0.0	0.1
Panama	4	4	2	2	2	2	3 320	3 320	0.0	0.0
Vietnam	34	32	20	19	14	13	3 257	2 997	0.0	0.0
Brasil	2	2	0	0	2	2	3 100	3 100	0.0	0.0
Luxembourg	16	16	5	5	11	11	3 089	3 089	0.0	0.0
Turkey	30	30	7	7	23	23	2 335	2 335	0.0	0.0
Bulgaria	20	19	6	6	14	13	2 076	2 026	0.0	0.0
Taiwan	5	5	0	0	5	5	1 650	1 650	0.0	0.0
Others	1 917	1 786	1 186	1 088	731	698	20 931	19 900	0.1	0.1
Total	8 469	7 618	3 330	2 896	5 139	4 722	19 750 098	17 515 880	100	100

Source: Ministry of Economy.

e) regional distribution; Foreign investments in Slovakia are characterized by their high concentration in larger cities, and especially in the capital of the country. As much as 63.9% of total foreign investment in the country has been made in Bratislava. The reasons for this extremely high concentration are numerous, including the following: (i) it is geographically located on the cross-roads of railway, road and river traffic, (ii) it is located at the doorstep of Western markets, (iii) it is an administrative and financial centre of the new state, (iv) in comparison to all other parts of the country, it has well developed physical infrastructure, and (v) it has the largest pool of well qualified manpower in the country. Besides Bratislava, there were only four other cities in the country with more than 3% share in total foreign investment, namely Poprad (4.6%), Prievidza (4.6%), Humenne (4.1%) and Nitra (3.0%). The concentration of foreign investment to Bratislava was even higher in the period 1990 - 92, as most of those time investments were made in the trade sector where the risks are relatively low and the return on invested capital is rather high. In the recent two years, however, when foreign investments in manufacturing started to grow one can detect some positive developments towards more equitable regional dispersion of foreign investments. These has particularly been the case with those manufacturing sector's investments that base their production on Slovak national resources.

TABLE 19: Regional Distribution of Foreign Direct Investment, 1995

Regions	Share in total volume of foreign capital in %	
	30.9.1995	30.6.1995
Banska Bystrica	2.9	3.1
Bardejov	0.0	0.0
Bratislava, hl.m.SR	63.9	60.1
Bratislava-vidiek	0.5	0.4
Čadca	0.1	0.1
Dolny Kubin	0.4	0.5
Dunajska Sreda	0.8	0.9
Galanta	0.3	0.3
Humenne	4.1	4.7
Komarno	0.2	0.2
Košice-mesto	1.4	1.6
Košice-vidiek	0.0	0.0
Levice	0.2	0.2
Liptovsky Mikula	0.1	0.1
Lučenec	0.0	0.0
Martin	1.2	1.3
Michalovce	0.0	0.0
Nitra	3.0	3.3

Regions	Share in total volume of foreign capital in %	
	30.9.1995	30.6.1995
Nove Zamky	0.4	0.4
Poprad	4.6	5.1
Považska Bystrica	0.3	0.3
Prešov	1.0	1.2
Prievidza	4.6	5.2
Rimavska Sobota	0.2	0.2
Rožnava	1.7	1.9
Senica	1.6	1.8
Spišska Nova Ves	0.1	0.2
Stara L'ubovna	0.0	0.0
Svidnik	0.0	0.0
Topol'čany	0.1	0.1
Trebišov	0.0	0.0
Trenčín	0.9	0.8
Trnava	2.1	2.3
Veľky Krtíš	1.3	1.4
Vranov nad Topľou	0.0	0.0
Zvolen	1.4	1.3
Žiar nad Hronom	0.4	0.4
Žilina	0.4	0.4
Total	100.0	100.0

Source: Ministry of Economy.

3.6.3. Major Obstacles for Foreign Investments

There is no doubt that the Slovak authorities have made a long way towards attracting foreign investments. As a result of these efforts, the volume of direct foreign investments increased significantly. This increase was nevertheless much lower than would be needed by an economy in transition and was also below the expectations of the authorities. The following obstacles to the capital inflow in Slovakia are usually mentioned by foreign investors:

(a) negative political image of Slovakia abroad and uncertainties related to the privatization process; One can not neglect the fact that as a result of tensions among the political leaders, changes in the process of privatization and country's relatively short "track record" as an independent state, political situation in Slovakia is being viewed by foreign analysts as politically not very stable. This could be confirmed by the ratings assigned to Slovakia by both world most important rating agencies, Moody's and Standard and Poor's. According to these

ratings, due to good economic performance Slovakia is at the edge of "investment grade", and its rating would be even better if the political risk would be lower. There is no doubt that higher political risk has a negative influence on potential foreign investors, particularly on those ones considering to become strategic investors in larger manufacturing production entities.

(b) relatively weak physical infrastructure; Basic telecommunication facilities are essential to the development of private, competitive enterprises. Slovakia has a rather underdeveloped telecommunications infrastructure. In 1991, there were 24.7 telephone lines per 100 inhabitants in the country in comparison to 50.1 in France, 45.4 in United Kingdom, 41.6 in Germany, 41.0 in Greece, 40.6 in Italy and 34.4 in Spain. As the quality of this infrastructure is also poor, this limits computer networking and access to world's electronic systems. Internal transport links do not appear to be a major bottleneck, although rail, road, pipeline and port links with Western Europe, neglected during the pre-1989 period, need extension and modernization. There is a significant difference in the physical infrastructure of Bratislava and some other larger cities on the one hand and rest of the country on the other. Regional differences in the supply of infrastructure can be illustrated by the telephone lines available per 100 inhabitants. Here eastern part of the country is clearly lagging behind - as with other infrastructure. Bratislava leads with 63 telephones per 100 inhabitants, followed by West Slovakia - 54, East Slovakia - 24 (exception is the city of Košice with 55) and Central Slovakia - 21.

(c) strong competition of other countries from the region; Slovak Republic is in strong competition with other CEFTA countries which are all except Slovenia larger and therefore offer to foreign investors better market opportunities. Besides, all these countries have, due to either their longer history as independent countries or due to the concentration of the former federation's foreign trade activities in Prague, much more established marketing channels as this is the case with Slovakia.

(d) regulatory environment insufficiencies; Although the regulatory burden on foreign investors entering the country has been reduced over the years, it is still heavy and too complex. The country is still characterized by insufficient and not entirely built system of legal institutions which would provide efficient law enforcement mechanisms. For example, an implementation of the bankruptcy law has been lagging behind expectations by overburdened and often not enough experienced juridical system.

(e) legacy of the past in the enterprise sector; Slovak companies are very often characterized with high rate of overemployment, therefore an entrance of a foreign investor into a firm is usually associated with unpopular layoffs of employees. Foreign investors are also destimulated by the requests to take over old debts of

a company as well as to assume its environmental liabilities which are sometimes very difficult to assess.

(f) deficiencies in the financial infrastructure; Although the country has made significant achievements in developing its financial system, it is still characterized with three major problems - the burden of inherited bad loans and thus high interest rates, inadequate competition among the major banks and a lack of nonbank sources of financing. The stock market is still in very early stages of development and banks are very conservative in providing new credits to enterprises.

(g) weaknesses in investment promotion; By establishing SNAFID, as an one-stop agency, and by adopting a variety of other policy measures, the Slovak authorities have started to address this problem. Nevertheless, there is still a lack of coordination among central and regional authorities with respect to providing a complex set of services to a foreign investor, from the initiative stage of the project till the stage of its implementation. The country is also handicapped by relatively weak investment promotion abroad, as its information sources and channels as well as lobby structures are still poorly developed what is not surprising for a newly independent country. Its not clearly and distinctively defined image abroad, especially in countries from where a majority of foreign investors to Slovakia, is expected to continue to be an important barrier for stronger capital inflow into the country.

3.6.4. Promotion of Foreign Investment

Although the Slovak Republic provides a sound macroeconomic environment, the country has neither the image nor the critical mass of existing foreign investment which would cause further investment to be self generating. The following measures have been identified as very important in stimulating foreign capital inflow to Slovakia:

(a) To establish a permanent flow of information which will provide potential foreign investors with a comprehensive and up-to-date information on general investment climate in the Slovak Republic as well as on individual sectors and companies. The country should also strengthen its general presence in major foreign markets through more aggressive public relations activities.

(b) To develop and put into practice a monitoring system for direct and portfolio foreign investment which will provide a statistical basis required as a background for designing and updating government policy measures in this area.

(c) To further reduce government's involvement in the enterprise restructuring, carried out through subsidies, allowances and grants. The existing situation is

namely non-transparent, and consequently induces the impression of being preferential or discriminative, with the possibilities of corruption.

(d) To continue with the development of physical infrastructure, especially in the less developed regions of the country.

(e) To re-evaluate certain elements of the present tax system and if necessary to adjust it in line with the tax legislation in developed market economies. The main issues to be re-examined are those ones that influence companies' long-term tax burden, such as measures to compensate the inflation, including the inventory valuation, investment deduction programs, pension and health care contributions.

(f) To prepare investment studies and industrial feasibility studies for individual enterprises and/or projects which are not possible to be financed from internal financial sources and for which foreign capital involvement is desired. The absence of these studies reduces the efficiency of the country's participation on various international investment forums. Frequent improvisation, proclamation of government's general policy objectives and presentation of partial information on specific enterprises and/or projects have less than optimal outcome.

(g) To further strengthen the system of providing both domestic and foreign investors with information services.

(h) To adjust certain regulations concerning the dispossession of real estate (it concerns the issues of not being able to identify the owners and of the heritages not being settled) and the rights related for the constructions which are in public interest (it concerns the issue of compensation for purchased estates).

(i) To strengthen the judicial system so that legal procedures dealing with dispute settling mechanisms would be more efficient. At present, the judicial system is overloaded by a large number of cases, and there are very limited personal and other resources to remove this obstacle and to speed up the settlement of disputes.

(j) To clearly identify responsibility for "environmental debt" in companies to be privatized. If this responsibility is put on a foreign investor, it will request lower purchasing price so as to incorporate into the price the maximum potential ecological risk.

3.7. Environmental Aspects of Industrial Development

3.7.1. Environmental Heritage

Several of the present environmental problems of Slovakia are clearly rooted in the past economic system and economic policy. Pre-1989 economic development was dictated by the central planners and was subordinated to the declared quantitative economic policy objectives with a large set of detailed production and consumption quotas and with a pervasive impact on the environment. Environmental concerns were not included in the economic policy, not just because that protection was not high on the agenda even in developed market economies, but also because environmental concerns were not compatible with "accelerated growth". The conflict of interests from the situation in which the state as the proprietor of enterprises was at the same time responsible for environmental protection, was typically solved by allowing exceptions to the regulations. This destructive effect of the economic policy was multiplied by rapid growth of the industrial sector, having a capacity well above and structure not adapted to the natural conditions and needs of Slovakia and its environment.

Energy-intensive manufacturing processes together with the use of lignite to produce electricity had created a very bad atmospheric pollution in the country with extremely negative impacts on the health status of the population as well as on forest degradation. The inadequacy of waste-water treatment and the disposal of polluted waste water had led to dangerous contamination of surface and underground waters. Extensive and inappropriate use of fertilizers and pesticides had contributed to further contamination not only of water but also of soil. At the end of the 1980s, ecological degradation of the country reached alarming proportions, as virtually every urban area with more than 15,000 inhabitants suffered from air and water pollution well above safe levels while in some parts of the country also soil was highly contaminated (OECD, 1994, p. 80).

The positive correlation between pace of industrial expansion and the volume of pollutants emerging from industries in the pre-1989 Czechoslovakia clearly indicate that the country's industrial development in that period was ecologically unsustainable on a longer run.

3.7.2. Current Status of the Environment

Environmental deterioration in the country has required a complex assessment of (i) "absolute environmental debt", i.e., contamination of air, water, groundwater, soil and forest caused by activities in the past (past environmental damage), and

(ii) "relative environmental debt", i.e., non-compliance of technological solutions with the environmental legislation requirements.

a) air pollution; It is considered to be the most pressing environmental issue in Slovakia. Emission trends of major air pollutants, presented in Table 20 indicate that emission of all three gases, sulphur dioxide (SO₂), nitrogen oxides (NO_x) and carbon monoxide (CO), were reduced significantly over the last three years, but this is more a result of reduced production capacities with large emissions than of technology restructuring of major polluters. In 1994, the largest contributors to the SO₂ and NO_x emissions continue to be power plants (see Table 21) which burn low-quality coal and heavy fuel oils containing higher concentration of sulphur, and they together with metallurgy and cement industry also produce a majority of CO.

TABLE 20: Emission Trends of Major Air Pollutants, 1989 - 1994

(in tons)

	Years			
	1989	1992	1993	1994
SO ₂	569 022	377 634	323 175	235 763
NO _x	226 622	191 709	183 883	173 015
CO	491 028	382 271	408 345	374 682
Solid emissions	320 991	177 481	143 318	87 301

Source: Ministry of Economy.

The emission of solid material, particularly fly-ash, is also concentrated in the energy sector. The fly-ash generated by burning coal contains many hazardous substances, including arsenic, beryllium, cobalt, nickel, selenium, bismuth as well as radioactive elements such as uranium and thorium. Other larger air polluters are metallurgical plants that release a great amount of harmful substances, such as cadmium, cobalt and other heavy metals, as well as some chemicals producers burdening the atmosphere by various hydrocarbons and in some cases also with hazardous organic substances, including dioxin.

An increased atmospheric pollution in Slovakia has been accompanied by a growing forest degradation in the country. In 1994, there were some 31.6 thousand ha of forest damaged by emissions.

TABLE 21: Importance of Industrial Branches as Air-Pollutants

(percentage share of total emission)

	SO ₂	NO _x	CO	Solid emission
Energy production	88.9	82.5	23.9	83.2
Metallurgy - ferrous	3.6	3.7	36.8	6.4
Metallurgy - non-ferrous	3.5	0.2	11.0	0.9
Mechanical industry	0.1	2.6	8.8	1.1
Petroleum refineries	1.9	4.9	0.7	-
Pulp and paper industry	0.9	1.6	5.0	1.2
Cement and lime industry	0.3	2.4	13.1	5.5
Other industrial branches	0.8	2.1	5.0	1.7

Source: Ministry of Economy.

In connection with depletion of the ozone layer over Central Europe by 2% to 3% within the last three years, the authorities claim that the Slovak Republic does not produce any substances endangering ozonosphere and that consumption of those substances decreased from 0.4 kg to 0.2 kg per capita in the last years.

b) water pollution; Contamination of water resources by organic substances, measured by means of biochemical oxygen demand (BOD) from registered resources, amounted to 337,246 tons per year. The greatest sources of this pollution are urban conglomerates (60%), as municipal water waste is often discharged to rivers with little or no treatment, and industrial plants (36%), very often with no or insufficient sewage treatment. Use of pesticides and fertilizers with nitrates is the principal cause of pollution coming from the agriculture sector.

From the entire 8,210 km of economically important rivers, 3,720 were monitored (286 monitored profiles on 106 rivers). Approximately 75% to 80% of these rivers are in fourth or fifth category of water quality (STN 757 221 Classification of Surface Water Quality).

Groundwater quality has also deteriorated significantly, as more than 80% of water samples were assessed as unsuitable for consumption. The groundwater contains high quantities of iron, manganese, active carbon dioxide, as well as chlorides, sulphate, nitrites, ammonium ions and petrochemicals.

c) solid waste; The most important sources of solid wastes in Slovakia are presented in Table 22. Of the total of 32.3 million tons of solid waste produced in 1994, 21.4 million tons was contributed by the industry sector, of this ore mines and metallurgy participated with more than one half, and the remaining 10.9 million ton by the agriculture. Third important source of solid waste are municipalities. The volume of municipality wastes declined from 2.5 million tons in 1992 to 1.9 million ton in 1994. Of this total a large majority are "households wastes" (62%).

TABLE 22: Solid Waste Generation by Sectors of Economic Activity (Municipal Waste not Included)

(in million tons)

	Total	Waste category		
		Other	Special	Hazardous
1. Agriculture	10 896 529	9 670 880	185 839	1 039 810
2. Food industry	2 127 407	870 500	716 500	540 407
3. Metallurgy	4 649 567	2 983 083	809 879	856 605
4. Machine industry	639 423	226 576	146 035	266 812
5. Electric power industry	893 709	601 595	254 550	37 564
6. Timber industry	918 617	637 751	236 896	43 970
7. Sludge from waste water treatment plant managed by Water and Sludge Plant (dried substance)	67 637		55 105	12 532
8. Health service	35 560	17 474	7 360	11 025
9. Fuels and energy production	1 459 114	181 011	1 195 407	82 696
10. Building industry	118 918	99 489	11 816	7 613
11. Chemical and consumer's industry	695 247	201 493	259 545	234 209
12. Ore mines and magnesite industry	7 422 506	7 280 407	8 176	133 923
13. Other branches	2 348 539	2 276 996	38 871	32 672
TOTAL	32 272 773	25 046 955	3 925 979	3 299 838

Source: Ministry of Economy

Most of Slovakia's solid wastes is landfilled or burned in incinerators. There were 7,204 recorded landfills in the country, but only 335 of them were licensed. Out of the total number, special wastes were deposited in 6,870 and hazardous waste

in 128 landfills. These landfills are very often associated with negative environmental impact on soil as well as on surface and groundwaters.

As far as incinerators are concerned, they are characterized with insufficient abatement technology. Eleven of the 34 smaller industrial waste incinerators have inefficient equipment for capturing exhaust. Only two of 70 incinerators have capacities exceeding 100,000 tons of waste per year and most of them fail to satisfy technical and environmental requirements.

d) nuclear safety; the activities connected with processing and storing of radioactive wastes are being solved by a special concept of disposing radioactive waste from nuclear facilities and other sites with sources of ionizing radiation prepared by the Ministry of Economy in 1993.

3.7.3. Environmental Policy, Legislation and Implementation

Environmental policy is an issue closely dependent and interrelated with the overall development of the national economy. The enormous environmental damages of Slovakia have to be solved gradually and systematically in the course of a relatively long period of 15 to 20 years and with investments at a level between SKK 100 and 150 billion. Environmental damages from the past do not pose only a potential risk to the environment today, but also create an important obstacle for foreign investments. Foreign investors namely very often can not assess adequately (they usually do not have an access to all needed information) potential environmental liabilities of enterprises they would like to invest into.

At the end of the 1980s when the process of economic transition began in the country, there was a strong belief that environmental problems have to be tackled as a matter of priority. There was a tendency towards a fast improvement of the quality of environment by strict requirements to the polluters (even to close down production facilities) and with no adequate assessment of the consequences these environmentally inspired measures will have on other segments of the economy (production, employment). Later on, concern about the environment has been faced with concerns about declining production and rising unemployment as well as with some other economic concerns. Faced with all these concerns, the Slovak authorities have been challenged to incorporate all of them into the economic system and a comprehensive set of economic policy measures.

Economic transformation of Slovakia has already had a significant influence in the country's environmental situation. This situation has improved over the last three years, but only one part of these positive trends may be attributed explicitly to positive and effective environmental policy measures. Generally speaking, an improved environmental status of Slovakia has been achieved by the following changes in the country's economy: (i) liquidation of ineffective production

capacities which were not able to adjust to changed market conditions, (ii) liquidation and downsizing of production capacities which could be efficient but were are not able to cope with changed environmental legislation, and (iii) restructuring of potentially efficient enterprises through privatization, restructuring and modernization. The industrial policy objective of the Slovak authorities is to keep these enterprises in operation and to gradually upgrade them with the introduction of new technologies. These technologies are expected not only to increase productivity but also to be environmental friendly.

The group of potentially efficient enterprises can be, from the point of view of their approach towards resolving environmental problems, divided in the following two subgroups:

(a) a subgroup using "off-line" or "end-of-pipe" approach; This is a more common but in most cases also less effective approach, as it adds an unproductive component ("end-of-pipe" technology) to the existing line of production.

(b) a subgroup using "on-line" or "at the source" approach; This approach, based on a prevention of material and energy losses, tackles pollution problems by cutting down generation of waste. For the time being, there are not many enterprises solving their environmental problems by using this approach.

There is no data which would allow a more thorough assessment of the environmental impact of the increasing role of foreign corporations in the Slovak economy. Fragmentary information indicate, however, that these companies build on their experiences in developed countries and that their practices usually exceed Slovakia's environmental regulations and requirements. They often anticipate future regulations what is rarely the case with Slovak companies. In spite of these generally positive experiences, there have been some isolated examples where foreign owned companies have applied technologies and manufactured products which would be environmentally unacceptable in their home countries.

Transformation of the Slovak centrally planned economy into the free market system, through the process of privatization, growing private sector and enterprise restructuring, is an opportunity when an efficient industrial development and environmental protection might become mutually reinforcing pillars of a sustainable industrial development strategy. This strategy implies that objectives and policy measures will not be directed only by economic criteria but also by environmental protection criteria. Economic efficiency can be improved by the adoption of energy and raw-material saving technologies, especially in a country like Slovakia, so dependent on the imports of both. Better utilization of energy, development of alternative sources of energy, a reduction of material intensity of products are important elements for environmental compliance and are not obstacles for successful industrial development. The country's industrial policy discussed in

Chapter 4.5. is expected to contribute towards a resolution of two important problems of the Slovak industry, i.e. low efficiency and high industrial pollution.

If industrial policy is to be effective, it must incorporate appropriate environmental parameters. The exact nature of the government's involvement in this area depends on its role as a legislator, owner of enterprises and provider of public services.

As a legislator, the state has numerous mechanisms for intervention through land policy as well as through direct intervention into manufacturing process by encouraging the use of cleaner energy sources, by tax incentives as well as by setting strict environmental requirements.

The environmental legislation has changed significantly since 1990. The two main objectives of the Ministry of Environment (till 1992, the Slovak Commission for the Environment) in this process of creating a new environmental legislation have been (i) to significantly improve the environment in a relatively short period of time by setting maximum acceptable pollution levels and by establishing penalties for violation, and (ii) to harmonize Slovakia's environmental legislation with environmental legislation of the EU countries.

There is a need that ministries responsible for environment and industrial cooperation work closely together on policy issues common to industry and environmental concerns. Drafting of environmental legislation and environmental policy measures needs to be done by using integral approach and by compromises accommodating both economic and environmental concerns. Three types of compromises are required: (i) between the level and quality of production and the level of environmental protection, (ii) between present economic and environmental needs and those ones of future generations (sustainable development), and (iii) between consumption and investment.

Over the most recent period, there has been a positive development towards a closer cooperation among governmental bodies dealing with industrial development and environmental concerns. As a good example may serve a broad inter-ministerial expert level cooperation on the preparation of "Chemical Laws". This tendency of closer cooperation seems to be, on the one hand, a result of a better understanding of how the issues are interrelated, and on the other hand, a result of harmonization of the country's legislation with that one in the EU.

The framework for Slovakia's current environmental policy was set in November 1993 by the Governmental Decision No. 619, approved by the Parliament under the title "Strategy, Principles and Priorities of the State Environmental Policy." This complex program covers all aspects of environmental policy, national and international, and sets out major goals to be achieved in this area.

On the basis of this document, the Ministry of Economy prepared in 1994 an "Environmental Action Program" whereby it prescribes maximum acceptable pollution levels to be achieved on a short-term (by 1996), on a medium-term (by 2000 to 2010) and on a long-term (by 2010 to 2030). According to this document, the Ministry of Economy should have its own environmental policy addressed specifically to the industrial sector specifics. One part of this policy is expected to be able to objectively evaluate environmental impact of economic decisions and vice versa.

In line with the "Environmental Action Program for Central and Eastern Europe" endorsed at the Lucerne Conference held in April 1993, the Government has also prepared a "National Environmental Action Program of the Slovak Republic".

All the mentioned documents are future oriented and very broad in their character. In addition, they only define objectives but do not address issues of how these goals are to be reached.

In principle, there are two approaches a country usually applies in designing and implementing its environmental policy. The first one, nation-wide approach, where general principles are determined and implementation is controlled from one centre, and the second approach, at a company level, where environmental problems are addressed at the factory level.

In Slovakia, nation-wide environmental policy management has a vertical organizational structure with the Ministry of Environment at the top of this structure. It is responsible for the preparation of the legislation in this area and together with the Environmental Inspectorate and the 38 regional and 121 district environmental offices also for the implementation of this legislation.

The government has designed a wide range of nation-wide policies to address environmental concerns, such as nation-wide systems for monitoring air and water pollution (in the process of implementation) and regional programs for handling of waste (most of them still apply "end-of-pipe" approach).

To address all these problems, the government has created a number of financial schemes. Apart from the State Environmental Protection Fund (total resources cca SKK 1 billion/year; financed from the general budget and environmental fines and charges; administered by the Ministry of Environment), the following funds are important for environmental investment: (i) the State Fund for Forest Improvements (planned resources for 1994 - SKK 190 million; administered by the Ministry of Agriculture), (ii) the State Water Management Fund (planned resources for 1994 - SKK 28 million), (iii) the State Fund for Protecting and Improving Agricultural Soil (SKK 285 million; administered by Ministry of Agriculture), (iv) the State Fund for the Support of Agriculture and Food Sector (SKK 320 million; administered by Ministry of Agriculture), and (v) the State

Fund for Road Management (SKK 2.2 billion; administered by Ministry of Transport and Communication). For the time being, banks have been rather reluctant in providing financing for environmental projects.

As far as the second approach to the environmental policy in Slovakia, i.e. at the company level, is concerned, it addresses environmental problems primarily through policy framework for promoting cleaner technologies. The concept has been incorporated in the 1995 Industrial Policy of the Slovak Republic (see Chapter 4.5.). This policy framework is aimed at restructuring industry into more effective, less energy demanding and less polluting.

The main patterns of the cleaner technology promotion are the following: (i) environmental regulation (shift away from emission and engineering standards to regulatory measures that incorporate performance standards and economic instruments), (ii) economic incentives (they should be used together with the regulation so as to encourage the adoption of cleaner rather than "end-of-pipe" technology), (iii) technology policies (support for cleaner technology R & D by means of grant funding, tax incentives and procurement incentives), (iv) dissemination of information on cleaner technology, (v) corporate leadership, and (vi) education.

This strategy which aims at promoting voluntary compliance with environmental standards should be encouraged with less reliance on the command and control mechanisms. It is therefore essential for its implementation to shape cooperation between the government and the private sector in such a way that it will encourage industry participation. Firms should find cleaner production primarily as an integral part of their profitable industrial sector activity and not only as a part of the government's intervention based purely on environmental grounds.

A legal framework for the policy towards promotion of cleaner technologies was provided already by the "Environmental Protection Act" (No. 17/1992 and by the "Waste Act" (No. 238/1991). In contrast to the "end-of-pipe" approach which is based on pollution control, the concept of cleaner technology is based on the "on the source" approach and is implemented through activities which minimize waste production.

An extremely important contribution for the introduction of the cleaner production concept in the Slovak industry has been made by the Slovak - Norwegian Cleaner Production Project. It was initiated in 1993 as a project in the industry and for the industry and was supported on the Slovak side by the Industry Confederation of the Slovak Republic. The main objective of the Program was to improve production efficiency simultaneously with environmental improvements.

Within the framework of the Project, the SCPC was established in 1994 with the support of the Ministry of Economy. The fact that authorities have accepted

cleaner production as an important element of its environmental policy is clearly reflected in the "Introduction of Cleaner Production Program". This Program, as a part of the "Industrial Policy of the Slovak Republic", passed the government in the second half of 1995, and the parliament in February 1996.

3.8. Armaments Industry

Within the former CSFR, the production of armaments accounted for 6.3% of the total industrial output of the Slovak Republic compared to 1.5% in the Czech Republic (in 1988); 60% of the country's armament production was concentrated in Slovakia. The industry directly employed some 73.000 persons, plus some 50.000 to 60.000 persons whose employment depended on it indirectly. While high technology production, including aeronautics, was generally located in Bohemia and Moravia, the production of heavy armament manufactures and equipment production was concentrated in Slovakia (OECD, 1994, p. 78).

The armaments industry of the former federation reached the peak in 1987 and exceeded considerably the military needs of the country. In that year, only something more than 20% of the armaments production covered domestic needs while the remaining close to 80% were exported, mainly to the Warsaw Pact countries.

The arms industry decline started in 1988 as a result of the new international strategy and the policy of reducing expenditure on armaments in the SU. Consequently, in 1989 and 1990 orders for military equipment from this and some other Warsaw Pact countries sharply declined while orders from German Democratic Republic came completely to an end.

Although there was some increase of the armaments exports to some third world countries, this did not change the general trend of sharp arms production decline in Slovakia. In 1991, its volume was less than one third of its 1987 volume and this production decline resulted in the loss of some 40,000 to 42,000 jobs (22,000 people directly employed in arms production and another 18,000 to 20,000 people employed indirectly) with different regional consequences. Arms production decline hit 18 districts out of 38. Of them, 5 districts were most hardly affected: Povazska Bystrica (30% of total decline in employment), Zvolen (22%), Humenne (7%), Spiska Nova Ves (6%) and Martin (5%).

Sharp drop in armaments production resulted also in the reduction of its share in the country's total industrial output. From 6.3% in 1988, it declined to 3.2% in 1991 and only 1% in 1994. The decline has been accompanied also by significant changes in the structure of industrial sector production (see Table 23). The technology ties of armaments production were the strongest within mechanical and electrical engineering branches as well as within chemistry, metallurgy, energy

production, textiles and wood-processing branches. The most hardly hit were the backbones of the armaments industry, namely mechanical and electrical engineering branches.

TABLE 23: Structure of Industrial Sector Production, Total and Arms Production

Branch		Index of Production 1992/88	Structure in %	
			1988	1992
Mechanical engineering	a)	0.421	22.2	14.0
	b)	0.173	90.1	96.5
Electrical engineering	a)	0.540	7.01	5.8
	b)	0.049	6.0	1.8
Chemistry	a)	0.714	16.0	17.2
	b)	0.194	0.7	0.9
Wood-working industry	a)	0.744	3.8	4.3
	b)	0.042	0.4	0.1
Clothing industry	a)	0.750	- 1.4	1.6
	b)	0.357	0.3	0.7
Metallurgy	a)	0.930	9.0	12.5
Energy ind.	a)	0.860	5.0	6.5
Textile ind.	a)	0.618	3.6	3.3
Industry in Total	a)	0.667	100.0	100.0
	b)	0.162	100.0	100.0

Notes:

a) total production of the branch

b) arms production within the branch

Source: Data from the Statistical Office of the Slovak Republic, Bratislava

Since the arms production decline was the strongest in mechanical engineering and partly in electrical engineering, the main focus of conversion activities, i.e., activities aimed at converting military production to civilian needs, was concentrated in these two branches. In 1991 and 1992, federal budget aid amounting to KCS 2 billion was allocated for firms under conversion programmes while in 1993 and 1994, the government of the Slovak Republic granted additional SKK 0.5 billion for these purposes.

Based on rather optimistic assessments of the conversion program potentials, it was projected that already in 1994 the production output and employment

generation of enterprises shifted from military to civil production would compensate or even surpass their 1988 - 1992 fall. The reality has confirmed that these projections were far too optimistic.

There are several reasons for this. First, technical feasibility of a conversion of military production to civilian needs. It has namely been estimated that a large fraction, at least one third of the fixed capital in the sector, of the investment carried out in the Slovak arms industry in the 1980s involved highly specialized technologies that are not convertible to civilian use.

Second, existence of adequate demand. The assessment of the real competitive position as well as of effective demand for products potentially viable for conversion is rather difficult due to specific characteristics of the sector, including distortion of prices and costs as well as lack of clear definition of government policy in this area.

Third, lack of financial resources for conversion projects. A significant number of enterprises involved in conversion programs are characterized by liquidity and solvency problems, many of them have very limited access to domestic banking credits and the inflow of foreign capital into this sector has remained rather low. Transfers from the budget continue to be an important financial source for conversion projects and their actual share in the total financing of these projects has even been even higher than anticipated (see Table 24).

TABLE 24: Sources of Financing for Conversion Projects

(share in total investment costs)

	Anticipated	Actual drawing (end of 1994)
Own enterprise sources	20.1	17.6
Credits from home banks	46.1	37.9
Foreign capital	12.3	14.8
State budget and other sources	21.5	29.7

Source: Outrata, R.: Internal paper, EU SAV, Bratislava 1996

Table 25 shows a high share of intermediate products (more than one third) and machinery and equipment for mining industry and construction (more than one fifth) in the total output of conversion projects. Due to the shortage of financial resources and consequently insufficient import of technology, the structure of

production remains rather unfavourable, with low share of high value-added final products, and with labour intensiveness even increased after the conversion.

In spite of the fact that results of the change-over to non-military production are below expectations, production of projects which have been converted from military to civil production grew continuously since 1991. In 1994, their output amounted to SKK 3.4 billion what was equivalent to 23.3% of the total output of armament enterprises. According to the recent projections, the output of conversion projects should increase to SKK 10.5 billion in 1996 and the number of their employees should reach 16,000.

TABLE 25: Structure of Production by Conversion Projects

	(share in total sales)
Consumption goods	4.1
Intermediate products	35.8
Investment in processing industry	3.6
Agriculture	6.2
Mining industry, construction	20.7
Energy	14.7
Telecommunications	3.2
Ecology	6.2
Other	5.5
Total	100.0

Source: Outrata, R.: Internal paper, EU SAV, Bratislava 1996.

3.9. Labour Force

One of the most important comparative advantages of the Slovak industry and economy in general is its relatively highly qualified labour force. It is also an important asset in the process of economy's restructuring away from relatively low value-added and heavy mass-production industries towards the production of higher value-added and more differentiated products.

High quality of Slovakia's labour force can be attributed to several factors. First, Czech and Slovak Republics have a long tradition of engineering excellence, especially in the machinery sector. Second, as one of the most important providers of industrial products within the CMEA, the country had a large share

of its production in engineering industries and that required a relatively high level of skills and proficiency of its labour force. Third, through the system of compulsory education, the country has always been assigning, also during the last four decades, a high priority to general education as well as to vocational training of workers.

Global educational level of the population in Slovakia is relatively high even when compared with developed market economies. This can be confirmed by the fact that of the total active population of the country, 27% attained only primary and 1st stage of secondary education. This percentage is lower than in most Western European countries. On the other hand, as much as 63% of the Slovak active population attained secondary education and 11% university education. Of all the countries under comparison (see Table 26), Slovakia had the highest share of total active population trained under the apprentices. This method of training, well known in some other European countries, like Germany and Austria, has been one of the most important sources of skilled workers in Slovakia. High level of secondary and university education represents an important comparative advantage of Slovakia. Its effective use is, however, subject to the modernization of the industry as well as to the increase of its technological level so that it will be capable of absorbing highly qualified labour force.

The above cross-country comparison gives a rather favourable static picture of Slovakia's labour force education. Looking at the issue from a dynamic point of view, the situation is less optimistic, as the relative number of people enrolled into educational process, measured by number of pupils or students per 100,000 inhabitants, has been decreasing (see Table 27). In 1990, for example, the number of secondary school graduates per 100,000 inhabitants reached in Slovakia only about half the number in EU countries.

An important reason behind this is a drastically changed situation in the area of vocational training. Traditionally, unskilled workers with primary education only acquired their skills mainly through on-the-job training. It was a part of the educational system in the state-owned enterprises where older workers have transferred their skills to the next generation of workers. As during the transition period practically all of these companies have been experiencing financial difficulties and a big number of highly skilled workers has been either retired or has become unemployed, this system of vocational training has been practically abolished. The problem is all the more pressing, as the newly formed private enterprises, under pressure to generate positive financial results already in a short run, have little incentive to invest in vocational training which will bring results only in the medium and long run.

Certain negative trends could be observed also in respect to university level education. Although the reorganization of the university education (mainly through

the introduction of shorter-term programs) contributes to further growth in the total number of students, the relative number of students per 100,000 inhabitants, was only around 60% the number in the EU countries. The major reason behind this unfavourable trend is a decreasing proportion of newly admitted students. In 1991, only 14.8% of the Slovak population in the age group of 18 to 19 years entered the university studies, a proportion significantly lower than in developed market economies.

TABLE 26: Educational Profile of Active Population

(% of total)

		Elementary and 1st stage of second level	Post secondary (2nd cycle)	Vocational (3rd cycle)	University (4th cycle)
Slovak Republic	1993	27	33	30	11
Czech Republic	1993	30	31	29	10
Austria	1993	32	38	23	7
Belgium	1992	55	25	11	9
Denmark	1993	41	40	6	13
Finland	1992	39	43	8	10
Netherlands	1992	42	37	11	10
Norway	1992	21	54	13	12
Sweden	1992	30	46	12	12
Switzerland	1992	19	60	13	8
Greece	1991	66	21	3	10
Spain	1992	77	10	3	10
Portugal	1991	86	7	2	5
Ireland	1992	58	25	9	8
Italy	1992	72	22	x	6
Germany	1993	18	60	10	12
France	1992	48	36	6	10
Great Britain	1992	32	49	8	11

Source: - Slovakia and Bohemia - Statistical Yearbook, Prague, 1994.
 - Education at a Glance, OECD Indicators of Education Systems 1995.

As far as the structure of students by their fields of study is concerned, Slovakia has an extraordinary high share of students as well as graduates in the field of "engineering". In 1991, the share of students in this field in the total number of students in Slovakia was 32.6% compared to, for example, 16.1% in Switzerland and below 10% in Austria and Belgium. Similar proportion is in the area of "agriculture, forestry and fishery" studies. On the other hand, the relative number of students in "humanities, religion and languages", "social and behavioural studies"

as well as in "law" and "commerce and business administration" is far below the corresponding proportions for developed market economies. Development towards a market economy, no doubt, requires certain structural adjustments in the country's university level educational system. These adjustments are expected to result in a more balanced distribution of university graduates which will reflect the rapidly changing needs of the economy in transition.

TABLE 27: Number of Pupils/Students per 100,000 Inhabitants

Country	Number of students on second level ¹ (per 100 thousand inhabitants)		Number of students on post secondary level (per 100 thousand inhabitants)	
Austria	7 983	(1988)	2 714	(1990)
Belgium	8 117	(1987)	2 754	(1989)
Denmark	9 471	(1987)	2 466	(1988)
Finland	8 119	(1988)	3 331	(1990)
Greece	8 348	(1986)	2 200	(1988)
Holland	9 095	(1987)	2 946	(1989)
Norway	8 721	(1986)	3 384	(1990)
Spain	12 286	(1987)	2 981	(1989)
Slovakia	5 534	(1990)	1 204	(1990)

1 First and second level.

Source: - The standard of education in the Slovak Republic. UIPSMT, Bratislava 1992, p. 36, p. 48.
 - Statistical Yearbook 1992, UNESCO 1992, Tab. 3.11.
 - Statistical Yearbook CSFR, Prague, (SEVT 1992, p. 102, p. 570).

One of important tasks of the Slovak Republic in the future will be to reform higher technical and business education as well as vocational training if the country is to keep up with constantly changing demands of the market economy. The overhaul of the Slovak vocational training is necessary at three levels of qualifications and responsibility: for operatives and office workers, for lower super-

Table 28: Students by Fields of Study

	Austria	Belgium	Finland	Switzerland	Slovakia				Index 1994/91
	1989	1987	1989	1989	1991		1994		
					abs.	%	abs.	%	
Total	100.0	100.0	100.0	100.0	52430	100.0	66900	100.0	128
Education science & teacher training	5.7	10.4	10.7	4.3	9835	18.8	11682	17.5	119
Humanities, religion & languages	13.4	5.8	12.5	12.9	1509	2.9	3302	4.9	219
Fine and applied arts	5.1	1.0	2.4	2.9	916	1.7	1344	2.0	147
Law	9.7	5.6	2.6	7.6	1546	2.9	3165	4.7	205
Social & behavioural science includ. economics	9.7	11.8	6.7	17.3	469	0.9	802	1.2	171
Commer. & business administration	16.2	20.9	8.9	11.6	5828	11.1	8775	13.1	151
Natural science, Mathematics & computer science	12.3	10.0	12.6	10.0	2232	4.3	2667	4.0	119
Medical science & health related	8.9	13.9	15.3	8.6	4834	9.2	5097	7.6	105
Engineering	9.8	9.0	21.6	16.1	17075	32.6	21098	31.5	124
Transport & communication	-	0.1	0.0	0.0	3951	7.5	3037	4.6	77
Agriculture, forestry & fishery	3.0	2.0	3.6	2.0	3960	7.6	5158	7.7	130
Other and not specified	6.2	9.1	3.1	6.7	275	0.5	773	1.2	281

Source: - Statistical Yearbook 1991, UNESCO 1991.
 - Statistical Yearbook of Education of the Slovak Republic. UIPSMTV Bratislava 1992, 1994.

visory grades and for managers, especially those ones concerned with marketing and finance.

In designing training programs for workers, care must be taken to ensure that these are forward-looking rather than static. Highly skilled workers in declining industries are namely, in all countries, one of the most important causes for the inabilities of the economies to make necessary structural adjustment. The teaching programs at technical and social science universities have also to be upgraded and reformed so as to respond more directly to the industry's specific requirements.

Since in the present transition stage, there is a large gap of middle-level and senior managers, especially on the commercial and financial sides, practical courses have to become an important complementary method of education. In order to be as focused as possible, these courses should be organized in cooperation with the private sector, chambers of commerce and various professional associations as well as in cooperation with institutions from abroad (OECD, 1994, pp. 122-124).

3.10. R & D Capabilities

In addition to highly educated labour force, the country had another potential advantage in overcoming the obstacles to industrial restructuring, namely the established research and development base. Relative to the other countries in the region, Slovakia had a large number of scientists and engineers in R&D activities before the transition started in 1990. In contrast to developed market economies, where R&D activities are carried out primarily at universities, in Slovakia they were concentrated, on the one hand, around the Slovak Academy of Sciences, and on the other hand, in the research institutes belonging either to branch ministries or to large state-owned enterprises. Slovak universities were, similarly as in other CMEA countries, focused almost exclusively on the teaching function.

The organization of R&D activities in pre-transition Slovakia had provided, in general and with some exceptions, very few incentives for both providers and potential users of R&D to work towards creation and commercialization of marketable technological products. It is therefore not surprising that R&D activities have come under strong pressure during the transition period. As a result of the economic recession in the country, economic policy measures enhancing competitiveness of the Slovak exports mainly through low prices (devaluations of the local currency) as well as due to the lack of policy guidelines for the transformation of R&D activities (they have been treated the same way as production enterprises), R&D capabilities of the country have been drastically cut. This applies to the total number of institutions in the R&D area as well as to the number of researchers employed therein.

Research capacities have been drastically cut throughout the industrial sector. Firms, facing threats to their survival, have usually been forced to adopt measures with only short-term perspective in mind. These measures have very often included cuts of "unproductive employment", including R&D activities, which give results only on a longer run. In the textile sector, for example, there has remained only one independent R&D institution whereas R&D units, organized as non-independent parts within enterprises, have practically all reduced the number of their employees significantly. Similar situation exists in glass industry while the home electronics branch and that of home engineering production have seen a complete extinction of independent R&D capacities.

Technological innovation and the integration of technical advances are essential for the Slovak industrial sector to transform itself from its existing unfavourable structure into a structure which will be less raw material and energy demanding and will put lower burden on the environment.

To achieve such an objective, the strategy of the R & D for the next period, as defined in the IP, will be based (i) on the support of transfers of progressive technologies, (ii) on the revitalization of innovation-related activities, (iii) on the development of technical cooperation with the EU research programs, (iv) on intensive harmonization of technical activities, standards and technical regulations with the EU and (v) on the application of the principles of the quality control.

In order to implement this strategy, it is absolutely necessary to stop eroding existing capacities in R & D and to restructure its institutional structure in line with the current needs of the economy in transition. The government should support the process of integrating the R & D activities in the industrial enterprises through direct policy measures, such as financial support for selected projects, as well as through indirect policy measures, such as tax allowances.

3.11. Information Services

Before 1990, information services and the demand for information were determined by the socio-political and economic system of the country. In the economy with private sector practically non-existing and with overwhelming majority of strongly vertically integrated companies in state ownership, the information services were managed and provided directly by state organizations. They were organized in a way to correspond to the existing structure of not only companies but also of research institutions.

Until 1989, there were three hierarchically built information systems (Pavlik, 1995, p.1):

- (i) the information system for planning and national budget; It was dissolved at the moment when Czechoslovakia started its transition towards the market economy.
- (ii) the socio-economic information system; It was designed primarily to control the plan implementation.
- (iii) the information system for research and technology; It was designed to support development of science by building its own data bases, by selective purchases of databases from Western countries and by international cooperation, especially with other CMEA countries. Access to commercial data bases was strongly centralized to two research centres, one in Prague and another in Bratislava, and even they had a limited access to these databases due to the weak telecommunication connections as well as financial limitations (local currency was at that time not convertible). The whole information system was primarily focused on needs of scientists, researchers and university students. There was no information services for entrepreneurs, as there were hardly any in the country and consequently there was no need for such services.

Between 1990 and 1992, the socio-economic system was transformed into a system of statistic information according to the practice of developed market economies while the system for research and technology was actually disintegrated.

Radical political, economic and social changes in Slovakia have been accompanied by significant changes in the area of demand and supply of information. Demand for technical science information was reduced, as R&D activities were drastically cut (see previous chapter). On the other hand, there has been a growing demand for business information. The transformation into market economy goes namely hand in hand with privatization and formation of SMEs, and their successful start and further development depends largely on supply of the whole set of business information, including information on products, raw materials, technologies, markets, prices, potential partners, suppliers, laws and regulations, domestic and foreign companies, standards, etc.. The lack of these information has become a serious impediment for even faster development of SMEs and for the faster integration of the Slovak economy into Western markets.

A further aspect influencing the information requirements of the Slovak firms is the country's integration into European structures, world economic, trade and financial organizations and into competitive world markets in general. It is not possible to cope with the requirements of this process without harmonizing the information context, tools and standards in the field of information technologies as well as without an easy access to foreign information sources.

The basic framework for the development of Slovakia's informatization is given in the "Principles of State Policies in Informatization" adopted in 1991. In 1992, it

In the Slovak Republic's previous society as well as in the present democratizing society, women have been legislatively granted equality with men. In spite of that, women in many fields do not have opportunities to exercise their rights, either due to customary conventions about women's duties or their role in the reproductive process or in connection with the economic situation.

In the Slovak society has a family very high status and a traditional role of women in the family has an important tradition and has a vital roots in the consciousness of both, men and women. Women are very often prepared to devote themselves in the name of the family or children interest because of „to be correct in the eyes of the traditional society“. According to new sociological research, the majority of women is giving the family on the first place before the profession, approximately a half of all is prepared to reconciliation of family and professional responsibilities. The age and education are by this questions very important. (Bútorová,Z., 1996).

3.12.2. Historic Role of Women in the Economy

In 1945, a communistic form of government was established that had full responsibility for production, the work force, housing, education, culture, the social service sector, and the legal system. The free schooling system made it possible for a large number of girls to attain secondary and higher education. (50% of the University graduates are women and represent 63% of the graduates in science and technology). Nearly everyone was employed because the ideology of the communist state promoted the value of employment. If we say, that the high rate of women's employment was a sign of emancipation of women, so the women were emancipated. But they were pushed to this emancipation from outside, from the side of state and political structures, from the common economical situation. It was not the process of inside emancipation, of self understanding and self-confidence. The full-employment of women was an essential element of providing financial means for the family as most families were dependent on two incomes. The practically full employment of women was that way not the effect of emancipation, but an economical need. It was possible for women to work because there was an excellent system of pre-school care for children. The 1969 Constitution guaranteed the implementation of equal rights for men and women in the family, in employment and in public life. The Family Act established, among other things, that men and women were equal in relationships.

Between 1980 and 1989, obsolete production facilities and poor working conditions were among the problems that affected society. A poor service network and the deterioration of the entire infrastructure forced everyone in the public in general, and women in particular, to rely largely on the oneself. Poorly developed services

were unable to relieve the double burden of women in the home and the work place. there was little awareness of basic human rights and other UN conventions. Most Slovak women were ignorant of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) because it was never translated into Slovak language.

After 1989 break, the Slovak economy lost many traditional markets and many factories and businesses had to reduce operations, shift operations or close. Many women lost their jobs during this period. The first response of women could be expressed in terms of „at last, we will be able to take a break“, but this was soon followed by a feeling of depression because many women were convinced that being employed was an essential element in their lives.

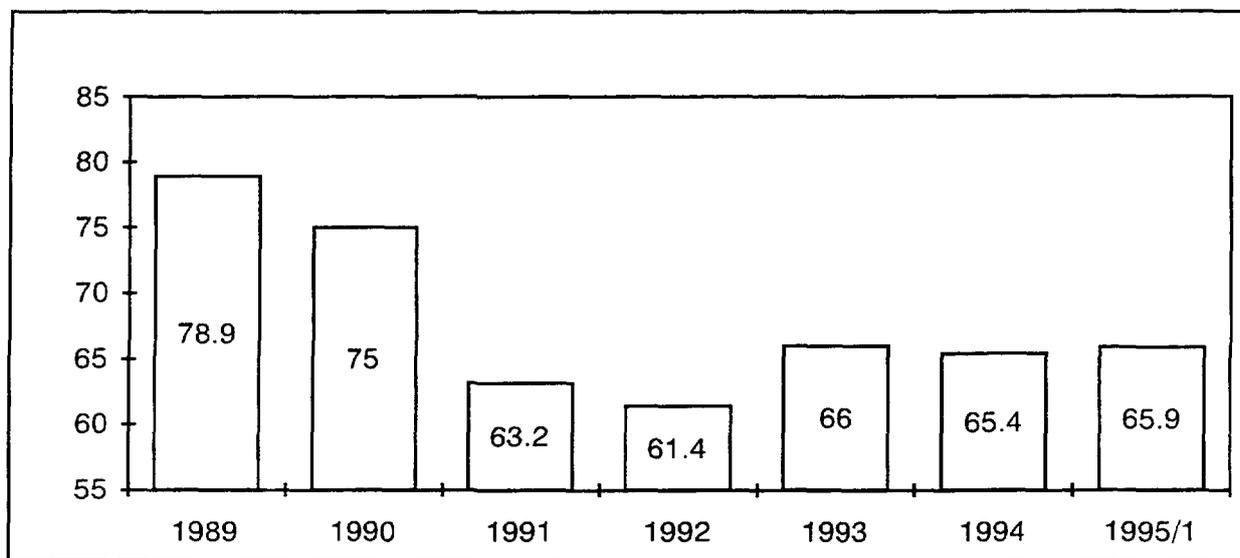
To this time, there was no interministry agency within the government that can discuss the roles that women are playing or might play in the establishment of a market economy in a pluralistic democracy or to review the socio and economic needs and problems of women that have arisen during the transition process. While new opportunities are being created for women as they are free to change jobs, entrepreneurial opportunities have been made more difficult because women have limited access to financial and other resources that are essential for the economic advancement of women. (Vranová, Z., 1994)

3.12.3. Employment and Education

Slovakia belongs among the most active countries in Europe in the amount of contributions from inhabitants of a productive age, which is a basic element in the increase of an economically active population. Some problem situations follow from this fact in including these people in the working process. In 1993, 2,192,000 people (including women on maternity leave) were employed in national economy.

The total rate of economic activity of persons at a productive age has differed according to sex. In 1980, the rate of economic activity of the population at a productive age was 81.1% (men 85.2%, women 76.6%), and in 1991 this indicator increased to 83.5% (men 85.7%, women 81.0%) (Guráð, P. - Filadelfiová, J., 1995). Even in the 20-29 year old age group, the measure of economic activity was higher for women than men (men 70.4 %, women 89.12 %). We have to emphasize that from a demographic point of view, these women are at their period of highest fertility. Such a high measure of economic activity is to a certain extent documented by the decrease in the birth rate, the efforts of young women to be successful in the job market, or simply the "economic necessity" of young families to have two incomes. All age groups of women in Slovakia are highly professionally active. The most striking working activity of women is observed within the age group of 35--49 year old.

FIGURE 1: Women Working in the National Economy in Correlation to Women in Productive Age



Source: Statistic Annual SR 1994, Science Bratislava, 1995, (In Balík, P., 1995)

Women's percentage of total employment is 42.33%. The majority of these women work at their main employment (97.8%). The number of women that have a part-time job or second job is, in fact, negligible. The employment of women has a decreasing tendency in comparison to 1990 when it was 47.48%, now in 1996 it is above 42%. This phenomenon cannot be evaluated negatively at this stage due to the artificially too high full employment of women who mostly have very young children. The possibility of part-time jobs is not enough used by Slovak women.

Women in non-productive areas have an important role, especially in processing industries such as textiles, the clothing and shoe industries, the school system, the health system and trade. An important percentage of employed women is in the food industry, in which women represent 57% of the total number of employees. Women represent about one third of all employees in agriculture, even though their share has significantly decreased compared with previous years. The amount of women entrepreneurs has been increasing, but men still have a decisive share in private entrepreneurship. Women's share in the category of entrepreneurs without employees is 21.6%, and in the category of entrepreneurs with employees, it is 19.7% of all employees.

Women represent 42.6% of all employees with a university education and 57.2% with a full secondary special education with a school-leaving exam, 35.1% of all employees who finished apprentice schools with a school leaving exam, 33.2% of

all employees who finished apprentice schools, and 59,3% of all employees with a basic education.

The educational level of women in Slovakia has traditionally been on a high level and it has a still increasing trend. The educational structure of the economically active population in 1991 and the first quarter of 1994 is documented in the Table 29 (data from the 1991 Census and a selected count of the labour force in 1994).

TABLE 29: Educational Structure of the Economically Active Population, 1991 and 1994

The highest education achieved	1991			1 st quarter of 1994		
	Total	Men	Women	Total	Men	Women
Total	100.00	48.80	51.20	100.00	53.72	46.28
Total	100.00	100.00	100.00	100.00	100.00	100.00
Basic	38.20	30.58	45.25	11,89	8,84	15.43
Apprentice school	25.37	33,99	17.78	32.19	32.19	23.76
Special secondary	2.78	2.76	2.80	8.34	9.44	7,07
Full secondary general	4.27	3.36	5.11	4.10	2.77	5.63
University	7.90	9.58	6.34	13.07	14.15	11.83
Without education	1.57	1.43	1.70	0.05	0.06	0.03

Source: Ministry of Labour, Social Affairs and Family of SR, 1994 Census 1991

From the point of view of the professional structure of working women, the highest number of employed women (210,000) work in the technical, health and educational categories, 162,000 women work in lower administrative posts, 151,000 in services and trade as workers. In the category of scientific and special workers 130,000 women work, out of which almost 65,000 women work as special educational workers. It follows that the problem of the feminization of the school and health systems and probably the generally lower salary evaluation in these categories is connected (where it is difficult to differentiate the cause from the result).

3.12.4. The Right to Work

The protection of the working conditions of women in the SR follows from the legal interpretation of the working conditions of women. Current conditions for work by women are guaranteed by the Constitution and the Labour Code, which is the main work code in the SR and in which the regulations of the

International Labour Organization (ILO) have been included, e.g.: Agreement No. 111 on discrimination in employment and in professions, Agreement No. 89 on night work by women, and many others (Initial Report CEDAW, 1996).

The right to work and the free choice of profession without discrimination according to race, language, colour and sex, religion, social origin and political opinions is in accordance with ILO on the prohibition of discrimination in employment and the professions. The Labour Code and the consequent departmental regulations contain provisions ensuring special protection for pregnancy and maternity, they concern prohibitions against certain work, various allowances, breaks at work, leaves, etc. The amendment to the Labour Code is in accordance with the effort to protect women in the working process but also to achieve a balance in the sense that women should not become too unattractive a labour force on the job market due to too much protection. When women take care of their children and family, they use benefits proceeding from the Labour Code, mainly in relation to business trips, working extra hours and night work, which decreases their amount of management work and thus allows, sometimes justifiably, less important positions and a lower rate of interest in managing positions than had been analysed in detailed sociological research.

However, in spite of it we have to admit that there still exist in Slovakia areas, where the women are not able to fully realize their rights whether because of traditional interpretation of a woman's task as a mother or because of objective obstacles for their realization in social life.

One perduring negative phenomenon is a relatively low exploitation of the reached education of the women in responsible and leading positions. In the model of the simultaneous e professional and family care tasks of the women can this problem hardly be solved because of the deficient system of supporting services like nursery schools and pre-school facilities.

3.12.5. Employment of Women according the Industry Branches

Position of women on the labour market is typical for their concentration in certain industries. They concentrate in education, trade, health care services, textile

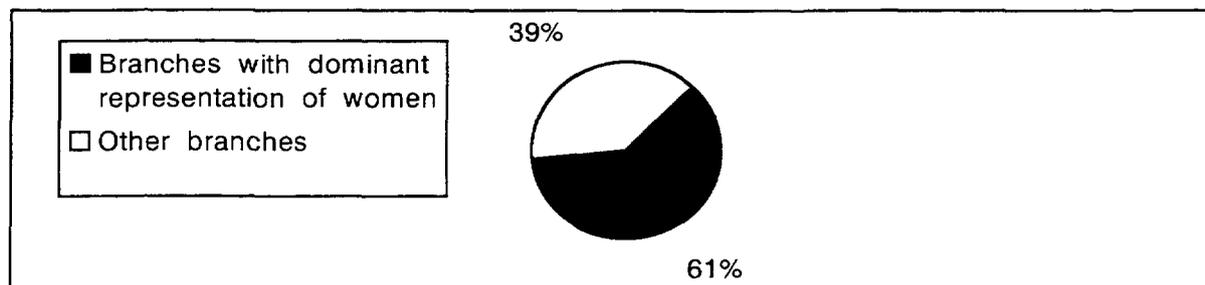
industries, travel services, communication, banking and insurance. Women clearly prevail in the mentioned industries concentrating almost two thirds of all employed women.

Similarly, also concentration of women to certain professions is characteristic. The two types of concentrations, in industries and selected professions are closely related. Both were originating historically and we cannot expect any abrupt changes within the next future. It is a long-term process of removing the quoted imbalances.

In the Slovak Republic the following sectors or economic areas are predominantly feminine:

- education, where 13.9% of all employed women is working. The male population participates in the sector only by 21.5%, the rest (78.5%) are women,
- commerce, where 13.5% of all employed women is working. Women dominate also in this sector with the 59.7% of all employees in commerce leaving to men 40.3%.
- health care where 11.6% of all employed women in Slovak economy work. Again prevalence of women who participate by 81.7% and men by only 18.3%.
- in industrial sector like textile and ready-made-clothes also prevail women participating in textile by 81.6% and by 87.6% in garment industry, by 72.2% in leather industry, food industry where the participation of women and man is equal but great number of women are employed here. In the quoted four sectors of industrial production out of total 23 industrial sectors half of the total number of women employed in industry is working.
- hotels and catering industry employs 69% women of the total number of employees
- communications, with the proportion of women in the total number of employees of 60%
- banking and insuring, where the proportion of women of the total number of employees is 73%.

FIGURE 2: Number of Women Working in Branches with Dominant Representation of Women



Source: Statistic Office SR, Bratislava 1995, (In Balík, P., 1995)

TABLE 30: Most frequent women jobs

	number of workers in thousands
Saleswomen and submitters of the goods	87,7
Bureau professionals	70,2
Help workers, charwomen and laundry women	68,3
Workers in the boarder services	57,4
Nurses, professional attendants	53,9
Professional workers in textile and clothing industry	49,7
Teachers in grammar schools and kindergartens	41,7
Officials, working with number data	37,6
Officials in stores and in transport of goods	31,4
Bureau workers, secretaries	26,9
Not qualified worker in the industry	22,6
Directors and chairs of small businesses	16,3
Technical workers in laboratories	14,7
Bureau workers in libraries and on the post offices	14,7
Scientists	14,2
Teachers on the high schools	12,8

Source: Ministry of Labour, Social Affairs and Family, ISCP, 1995

If we consider all mentioned sectors, eventually the industries, where woman labour prevails, they employ 60.7% of total employed women. In these ten sectors out of 54 observed ones, almost two thirds of women work.

3.12.6. Employment and the Wages

We have also found out interesting results in comparing the salaries of men and women. After comparing the starting salaries of young men and women with an equal education, we can state that there is an approximate balance. But later, quite a big difference occurs. Tables 31-33 reveal that there exist differences in the income of men and women. Women earn less than men in average by 10-15%.

TABLE 31: Average Earnings by Branches

The Highest Earnings in the Branches	
	(average for 1 working hour in Sk)
Telecommunications	56,12
Energetics	51,77
Research and development	46,93
Chemical industry	45,72
Mine industry	45,68
Trade	44,93
Building trade	42,32
Metallurgy	42,15
Average SR	39,11
The Lowest Earnings in the Branches	
	(average for 1 working hour in Sk)
Leather treatment	27,77
Agriculture	28,17
Textiles	28,52
Services	29,34
Clothing production	28,84
Travelling	30,31
Electrotechnical industry	32,26
Food	34,95
Engineering	35,12
Average SR	39,11

Source: Information System on the Work Value, Trexima, Bratislava 1994-95

A closer look at these problems are given by statistical findings called "The Information System on the Work Value (ISCP). (From the report, prepared by Trexima for the Ministry of Labour, Social Affairs and Family of the Slovak Republic, 1995) . The average hourly incomes of women are behind the average hourly incomes of men on average by 22.3%. The above mentioned difference is caused mainly by the lower representation of women than men in the higher salary tables. In individual salary levels, the minimum differences between the average hourly incomes of men and women are: in the eleventh salary level (3.2%), on the tenth salary level (5.4%) and in the ninth salary level (6.4%). The biggest difference in incomes of women and men (26.9%) is in a group which is not included into the table of salary rates and in which mostly managerial workers are included.

The average monthly salary of a physical person was 5.310.- Sk in 1993. In 1995, it was 6.807.- Sk. But as in the past, there are still big differences in the wage scale of women for the same work. The largest number of women are in the wage level of 5.000.- Sk (women 73%, men 45.6%). In wage levels from 5.000 to 6.000.- Sk, 15.3% are women and 23.1% are men. Above this level, there are 11 % women and 31.3% men. If we compare the highest achieved education of the economically active population according to data from 1994, a university education was achieved by 14.15% of the men and 11.83% of the women. Therefore the difference of 20.3% in the number of women in the highest wage levels is very detrimental for women to compare with the highest achieved education. (Source of data: Slovak Statistic Office)

In the year 1995 total average labour market wage was 6.807.-Sk, and the total in industry was 7.158.-Sk. In industries, in which mostly women work, the Slovak Statistical Office reported the wages of women working in each category as:

- textiles	4.932 .- Sk
- clothing production	4.884 .- Sk
- leather treatment and production of leather products	4.825 .- Sk

In the school system the Statistic Office reported these numbers:

- high school teachers	5.760 .- Sk
- teachers in basic schools	5.751 .- Sk
- in health system	6.231 .-Sk
- trade (retail trade)	5.102 .- Sk

The most pronounced differences are in the highest degree of salaries and off-tariff sphere that are domain of men and their income is higher than that of women. Differences in the tariff degrees 6 and 7 are about 15% to the detriment of the female component.

TABLE 32: Average earnings according gender and wage scales

Wage Scales	Sex - Average (Sk/hour)	
	Men	Women
Together	42.84	33.8
1	26.14	24.85
2	29.94	27.99
3	33.12	29.12
4	36.25	32.86
5	41.14	36.27
6	45.67	38.33
7	48.06	40.21
8	48.94	43.44
9	53.21	48.05
10	55.34	51.04
11	60.22	58.06
12	72.57	29.91
Out of wage scales	80.61	60.19

TABLE 33: Average earnings according gender and age

Age	Together	Gender average (Sk/hour)	
		Men	Women
together	39.11	42.84	33.8
under 20	26.66	27.72	25.2
20 - 29	35.39	37.63	30.93
30 - 39	39.67	43.56	33.99
40 - 49	40.87	45.7	34.96
50 - 59	42.03	45.61	35.23
over 60	38.19	43.75	27.05

Source: The Information System of Labour Value. Trexima, Bratislava 1995, (In Balík, P., 1995)

Certain differences show also in age groups of the men and women. They oscillate from 5 to 25% in age group up to 60 years. The most important differences are in age groups over 40 years reaching 25% and more. The quoted difference is lower at the age group of women taking care after children, most important difference is found with women at pre-retirement and retirement age.

3.12.7. Reconciliation of Professional and Maternal Roles

Another negative but long-term phenomenon is the relatively low use of the education achieved by women in responsible and managerial posts. Women, in spite of their high education (64.7% students at secondary schools and 45% at universities are women) are due to their family duties forced, mainly during the period of intensive care of their children, to take less time - demanding posts and fewer responsibilities that do not use and do not respond to their qualifications. On the basis of sociological research, (Plávková, O., 1992) a large portion of women have a pragmatic approach to their working activity (to earn money) than self-realization. Maybe that is why few women prefer the so-called new values, e.g., to be successful at individual entrepreneurialship, to be successful abroad, to have property, to be able to influence public matters, etc. About 30% of women rejected these values. Women prefer more assistance or subsidies from state or non-state institutions than doing business.

A special risk from a lower working income of women is shown in old age. The risk is a larger number of lonely women in the older age group. The working incomes of women given by their working placement and adjusted to the fulfilment of their family role, are significantly lower than that of men. This is also transmitted to the size of pensions, so lonely old women are often facing the danger of social dependence.

A certain implication from developments during the last years since the beginning of transformation changes in the country may be seen. Research conducted in 1992 (Plávková, O., 1992) notes a certain polarity in women's answers, because the interest of women in returning to the household under given conditions has increased (e.g., the higher salaries of men) - 27% of women, 33% of men as a continual professional activity of women (47% of women). Still relatively little interest in part-time work persists (men would prefer part-time jobs for women, but every other woman prefers full-time jobs). Women are not prepared for immediate interruption of working activity because in addition to economic and professional reasons, there are significant losses in social contacts and a feeling of mental overload from long-term society of mostly children. This psychological reason clearly signals a certain cultural poverty of maternal contentment.

The maternal role of women requires the temporary modification of a professional post. By accepting a period of interruption between intensive maternal care, the so-called family phase, and on the other hand, the professional career of women, and creating the proper legal, institutionalized and social and economic conditions for that, it is possible to create an acceptable model for the solution to a competitive relation between the family and social roles of women that would be acceptable for women, children, families and employers.

The model of dual overload for women in which there is the burden of employment and the full care of a household and care of children cannot solve this problem satisfactorily. With the current increase of competition in the job market, we cannot expect that men will help more in households because of the shortage of time.

To alleviate the double burden of women, it would be helpful to build a system of services that would be satisfactorily qualitative and money accessible (as a child-care, laundry, ironing, cleaning, cooking, e.g.). At the moment existing services do not fulfil either of these requirements, mainly they are too expensive.

In the model of the current implementation of maternal and professional roles for women, pre-school facilities play an important role. Nurseries and kindergartens have had a long tradition in Slovakia, and the standard of educational care was at a good level. After 1991, nurseries started to be financed from the community budgets. Due to the low financial budgets of communities nurseries have been, in fact, cancelled throughout the entire territory of Slovakia. Although the interest in using nurseries has decreased a lot, and women most often decide to handle the parental contribution till a child is three or place children over two years in kindergartens, which is possible with new regulations. By cancelling nurseries, women lost one of opportunity for choice that existing facilities gave them in the past.

By cancelling indirect state subsidies, the possibility of placing a child in a kindergarten or other facility for spending the free time of children attending schools is endangered by higher prices. Any measures in this field should not be implemented without a possibility of women to express their opinion. It is possible that opening this matter will become a testing ground of possibilities of cooperation of differently oriented women's organizations.

A maximum of average full-time job according the to Labour Code is 43 hours a week. The majority of women work full-time, therefore, 8.6 hours is considered paid working time. According to a survey from 1990, women work on average 5 hours more daily in addition to paid work, men work at home 2.5 hours a day.

3.12.8. Women and the Private Sector

The private sector began to grow after 1989 when society started to move toward a market economy. Women are typically involved in small and medium enterprises or, alternatively, women entrepreneurs operate as self-employed entities. As the private sector is beginning to develop, there are not enough accurate gender segregated statistics on the share of women in this sector.

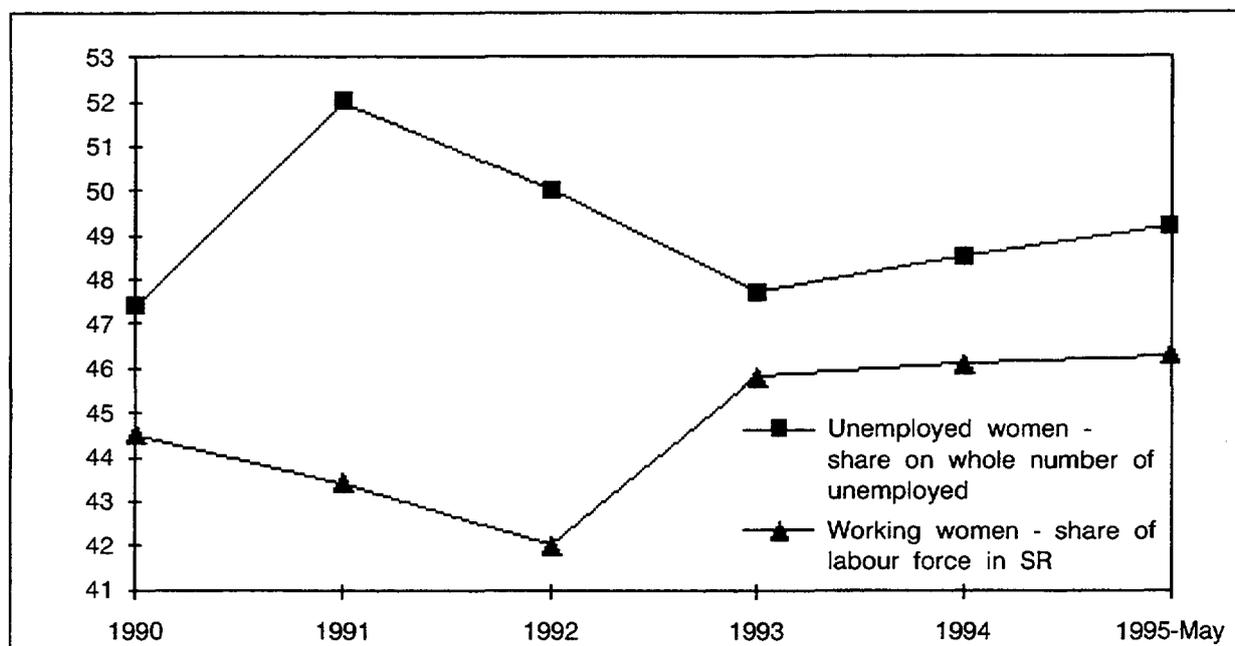
The International Labour Organization (ILO) gave former Czechoslovakia in 1991 the Project for Initiation of Women Entrepreneurs. The scheme was later renamed to promote family businesses. In almost 30 educational centres in Slovakia this project offered women, and later families, information and educational and consulting services. During the implementation of the project, about 4,000 women and 1000 family members were trained. After this phase 1,700 questionnaires were sent to the participants. Out of them 59% of the women said that they do business as partners. Out of the unemployed participants of courses, 13% started to do business. So-called family business as were was started by 32.8%, and 42.5% of women said that they wanted to do business by themselves. The most frequent subject of business was trade and counselling services (25,2%), and small-scale industry and economic services (8.5%). However, there is in function for small entrepreneurs, women and men, the National Agency for SME Development (Vranová, Z., 1994).

3.12.9. Unemployment

Unemployment as a new phenomenon in post-Communist countries began to be followed since 1990. If we are thinking about unemployment, we know short-term and long-term unemployment. Unemployment subsidies are temporary for 6 months, after this time are social subsidies, for that are guilty another regulations. Some people are also unemployable - not able to hold a job.

In 1993, there were 323,216 unemployed people, out of which 155,970 were women, which is 11,276 fewer unemployed women than unemployed men, i.e., 48.25% of the total number of the unemployed. Unemployment of women has a special developmental character. In 1991 and 1992, the unemployment of women was higher than the unemployment of men, at the end of 1993 and in 1994, there were fewer unemployed women than men, but the women's unemployment rate was in all years higher than by men. Unemployment of people with regard to individual regions of Slovakia is very different.

FIGURE 3: The Share of Unemployed and Working Active Women



Source: Statistic Annual SR 1994, Science Bratislava 1994 and Statistic Data from the Ministry of Labour, Social Affairs and Family of SR, 1995 (In Balík, P., 1995)

Development of the unemployment in 1990 - 1994 /in %/ and the percentage of unemployed women in the Slovak Republic can we see in the Table 34.

TABLE 34: Unemployment by Gender

Average for the year	Rate of unemployment, in%		Share of women on unemployment, in %
	Men	Women	
1990	0,57	0,59	49,54
1991	6,75	7,36	50,67
1992	11,02	11,63	50,57
1993	12,72	13,01	48,26
1994	13,85	15,01	48,23

Source: Ministry of Labour, Social Affairs and Family of SR, 1995.

In the structure of takers of subsidies in unemployment, women represent 44.9%, but they participate in requalification courses to a higher degree (50.3%). Among unemployed women the worst category represent women 25 - 49 (at men it is up to 25 and over 50). Among unemployed women there is a large number of

married women (62.4%) compared with single women (about 28%), which is understandable due to the fact that of women 15 years and older, about 60% are married.

According to the degree of education achieved, the lowest rate of unemployment is among university graduates and specialists with a full secondary special education with final exams. A number twice that rate of unemployment affects people with a trade school education with final exams. Observing unemployment of women according to age it seems that the greatest number of unemployed is concentrated to younger age groups. The highest number of unemployed was at the age group of 20 to 24 years old -- total of 37 400 women at the end of the first quarter of 1995 and similar at the end of 1994 when the number of unemployed at the group of 18-24 years old women was 43 800 representing more than a quarter (26.7%) of the total unemployed women. Considerable unemployment is also at the group of 25-34 years old where at the end of the first quarter of 1995 it represented more than a quarter of unemployed women of the total number of 10 age groups. This fact can be perhaps explained by less experience of the women in younger age groups, eventually higher interest at more experienced workers by the employers or higher activity of more experienced workers in search for jobs and their realization at the labour market.

From the point of view of degree of education the largest number of unemployed women is there at the groups with basic education and vocational training. These two groups participate at the present moment by even 56.3% in female unemployment. This situation is a phenomenon with perduring trend. To the mentioned two education groups also a group with full medium level specialized education can be added that participated by 22.7% at the overall number of unemployed women. Similar situation is in the same group of unemployed men. It is closely related to the structure of the job-seekers according to the previous job where the largest number represent the auxiliary or unqualified workers, persons without working ranking and the artisans. Also among the school-leavers the group of the apprentices without the medium level education certificate is the strongest one.

Short-term unemployment of to 3-6 months has a gradually decreasing trend and long-term unemployment over 12 months is being fixed on average to the extent of one-third of all unemployed. Women have a higher percentage in this long-term unemployment, and this form of unemployment brings social and mental problems which must be solved by guidance and consulting specialists.

The temporary imperfections from creating systems of social security (e.g. health insurance) caused the need for some women to become unemployed in order to obtain social security benefits. Some women, mainly in the agricultural fields, welcomed unemployment support for a few months as a good improvement of

their financial situation. But for many women, unemployment is a serious economic and psychological problem, and they can hardly face it.

The highest rate of unemployment persists in largely agricultural districts where women make up 32% of the labour force. Over the past 4 years, employment in the agricultural sector has declined by 44.8%. In 1993, agricultural employment went down by 17% and is likely to have decreased by another 11% in 1994. Long-term unemployment appears to be prevalent among women and primarily those women who have low skills or no skills.

Placing women in work is somewhat behind placing men, this is partially the result of seasonal work because the unemployment of women always increases in the 2nd half of the year.

3.12.10. Conclusions and recommendations

Presented chapter "Gender Issues and Industrial Development" is the basis for some conclusions, pointed down:

Women's percentage of total employment is 42%. The educational level of women in Slovakia has traditionally been on a high level and it has a still increasing trend.

Women represent 42.6% of all employees with a university education and 57.2% with a full secondary special education with a school-leaving exam and 59,3% of all employees with a basic education. If we compare the highest achieved education of the economically active population according to data from 1994 (Source: Slovak Statistic Office), a university education was achieved by 14.15% of the men and 11.83% of the women.

According the wages the largest number of women are in the low wage scales (women 73%, men 45%). In the middle wage scales are the percentages - women 15%, men 23%. But in the highest levels are 11% of women and 31% of men. There are not enough women on high level posts, not enough women in higher management.

Solution of the above problems is after our opinion, in contrast to some advocates of the model of proportional elevation of the number of women in decisive political bodies or decision-making positions, rather complicated. It is probably also a question of assertivity of women, their confidence in their own forces and the interest of the women themselves in the solution of the problems of the society.

An important starting platform for the entry of women in politics is represented by the activities in women's movements. The process of gradual democratization of the society is accompanied also by pluralization of this sphere.

Possibility of the solution to the problem of women's position in Slovakia was offered by the establishment of Coordination Committee for Women Issues as an assessing body to the Government of the Slovak Republic associating experts at the level of the central state administration, Parliament of the Slovak Republic, non-governmental organizations, self-administration bodies, trade unions, research institutions and the Church. It is chaired by the Minister of Work, Social Affairs and Family of the Slovak Republic, entrusted by the assistance to women in their battle with the whole range of problems. Coordination Committee represents by its structure and powers an efficient tool in enforcing the women's rights and interests in all areas of social life, namely by the possibility to participate at the preparation of the legal standards presented to the Parliament of the Slovak Republic.

To more empower women is needed:

- to help women to create more self-confidence and self-consciousness in their own abilities,
- to take from women the double burden of professional and household work by establishing of a system of services, that would be satisfactorily qualitative and more financial accessible.

IV. A FRAMEWORK AND IMPLEMENTATION OF INDUSTRIAL SECTOR RESTRUCTURING

4.1. Macroeconomic Stabilization and Industrial Restructuring

It has been nearly six years since Slovakia began the process of transformation from centrally planned to market based economic system and the process has proved to involve a complex inter-connecting network of changes.

At the outset of this process, a comprehensive macroeconomic stabilization package, comprising price and imports liberalization, removal of subsidies, currency convertibility and tight monetary policy, was introduced. Its basic objectives were to prevent inflation, to eliminate price distortions caused by subsidies and lack of competition and to establish monetary and fiscal balance into economy. To achieve these objectives, the government had to reduce budget deficits, mainly by cutting subsidies and the central bank had to either eliminate or drastically cut the supply of credits to state-owned enterprises.

In early 1990s when it was still part of the federation, Slovakia was very successful in implementing macroeconomic stabilization. The inflation remained under control, the country's external position was rather strong in spite of liberalized imports through tariff reductions and abolition of quotas and the budget continued to be in balance. Impressive results of the Slovak Republic in the macroeconomic area continued also in the whole period since 1993 when the country became an independent state. This time, the results have to be attributed to prudent monetary, fiscal and income policies of the Slovak authorities.

Macroeconomic stabilization in Slovakia carried out in the early 1990s was accompanied by sharp drops in output and large increases in unemployment. It has soon become clear that macroeconomic reforms alone, although necessary, will not lead automatically to a supply response needed for a successful transformation of the country's economy. They do not deal systematically with (i) inadequacies of industrial structure and performance; the existing industries have, by and large, shown to be uncompetitive with outdated technology, energy and raw material intensive, inefficient, unprofitable and polluting, (ii) lack of entrepreneurial cadres as well as managerial and supervisory personnel, and (iii) technological, financial, accounting, marketing and quality control inadequacies.

To address these structural weaknesses at industry and enterprise level, a clearly defined micro-level industrial policy, coordinated and integrated within the macroeconomic framework, has become of crucial importance. Major components of this segment of the transformation from centrally planned to market economy

(it is by its very nature of a much longer term character that macroeconomic stabilization) are the following (see UNIDO, 1994, pp. 39-55):

- a) legal and regulatory infrastructure; The country has to build institutions to support market reforms. In this context, it is especially important to organize a well developed legal and regulatory infrastructure. These institutions are essential in order to protect the material incentives available to the country's citizens as well as to motivate them.
- b) financial sector reforms; As an intermediary between investors and business sector, a well developed financial sector is essential for efficient functioning of a market economy.
- c) enterprise sector privatization and restructuring; It involves three changes. First, commercialization which means shift from administrative to market based economy, requiring decentralization of decision making and greater attention to marketing and finance. Second, private sector development which involves a shift from predominant state ownership, through privatization and promotion of new private firms. Third, restructuring which means a shift away from low value-added industries with high-energy and raw material intensity and with outdated environmentally questionable technology.
- d) industrial strategy; Taking into account macroeconomic limitations as well as country's weaknesses and strengths, it is important for a country to prepare a comprehensive industrial strategy which would guide the processes of its effective integration into the global economy.

4.2. Legal and Regulatory Environment

There are a number of key elements in the legal and regulatory infrastructure needed to support the introduction of a market economy. The first and the basic is an efficient constitutional mechanism which establishes the rules of conduct in the economic system.

In the economic sphere, the most important is legislation providing security of private property and enforcement of contracts. The absence of an operational, transparent and credible set of rules of the game defining property rights, makes the transition towards an efficient market economy practically impossible. Namely, without an effective regulatory framework in place, powerful interest groups will seek concessions for monopolistic privileges, and as a consequence, old habits of the command economy will reassert themselves in a new form.

Unfortunately, the design and implementation of a fully operational legal and regulatory framework takes time and makes heavy demands on scarce human resources.

In Slovakia, the authorities have made significant steps in dealing with the inadequate legal infrastructure relating to property rights. However, the laws on the use of movable goods, like inventories, receivables and securities as well as supporting mechanisms to enforce these laws do not adequately protect the rights of lenders who are therefore reluctant to accept movables as collateral. The rights of mortgage and collateral holders during bankruptcy procedures are also cause of concern.

There has been little progress made with regard to the implementation of an effective bankruptcy law. The initial Law on Bankruptcy was passed in 1991 with virtually no possibility of external creditors forcing companies into bankruptcy. The current law became effective in June 1993, allowing creditors to bring bankruptcy cases to court after three month protective period. By mid-1995, there were almost 1,100 proposals for liquidation. Of this total, only 53 had been actually put into bankruptcy and there has been one out of court settlement (EBRD, 1996, p. 10). A rather unsatisfactory pace in the implementation of the law is a result of a complex conciliation procedures as well as of an overburdened judicial system.

4.3. Financial Sector: Structure, Barriers and Policy Responses

4.3.1. Structure of the Financial Sector

The banking system of Slovakia, by far the largest component of country's financial sector, is under continuous process of transformation and is still heavily influenced by the legacies of the banking system in the CSFR. Drastic changes started in 1990 when two-tier system was introduced. In its early days, it had two priorities: first, to deregulate specialized banks and to give them universal banking licence, and second, to open the market and encourage new entrants.

As of the end of 1995, Slovak banking system consisted of NBS as the central bank and 33 commercial banks licensed to operate, with over SKK 30 billion of equity capital, employing over 22,000 staff. Of these banks, 28 were operational. They include three banks in which the state owns 100% (CB, SSB and SGB), and two others in which it retains a significant share (GCB and IDB). The remainder include 14 newly established private banks, of which majority has foreign participation, and 9 branch offices of foreign banks. There are also 12 representative offices of foreign banks in Slovakia.

Among others, the following foreign banks entered the Slovak financial market: (i) Austrian banks - Osterreichische Volksbanken, Reiffeisen Zentral Bank, Bank Austria, Creditanstalt; (ii) German banks - Commerzbank, Dresdner Bank, Hypobank Munich; (iii) French banks - Banque Paribas, Societe Generale; US banks - Citibank; (iv) Dutch banks - ING Bank; (v) Czech banks - Komerční banka, Agrobanka; (vi) Hungarian banks - Kulkereskedelmi Bank. In total, the share of foreign capital in banks equity in Slovakia amounted to 29% in September 1995 (Mudrik, 1995, p. 3). Although establishment of foreign banks was expected to be followed by a significant inflow of long-term capital to Slovakia and by their strong involvement in corporate financing, their main field of activity seems to be limited to the deposit collection and to the transfer of know-how to the banking sector.

There is no doubt that an increased number of banks, including those ones with the foreign capital participation, has strengthened the competition in the sector with positive effects also on the quality of their management as well as on the professionalism of the Slovak banking in general. Banks now compete among themselves for the best personnel what has resulted in wages which are generally much higher than those in other sectors of the economy.

From the point of view of the requirements, the present number of banks seems to be adequate and in proportion with the needs of the Slovak economy. The sector is nevertheless suffering a number of problems, most of which are common to other countries in the region.

Besides the banks, the Slovak financial sector incorporates also a number of non-banking institutions, and all of them are, similarly as banks, undergoing significant restructurings. The Slovak Insurance Law of 1991 provides regulation of the insurance industry by a supervisory body within the Ministry of Finance. Entry has been liberalized, bringing the number of firms in the Slovak insurance market to 15 in 1995, and in 4 of them foreign capital is predominant. Although insurance industry has grown in Slovakia over the last few years, it is not yet a major player in money and in capital markets. The relative importance of the industry's assets are not much higher than in 1992, when insurance sector had assets worth of only 7% of those of the banking sector. Currently, efforts are under way to review the rules and regulations covering insurance operations and to make them more in line with the EU Directives.

The other group of non-bank financial institutions are IPFs. At the beginning of 1995, there were about 160 IPFs in operation, majority of them established during the first "wave" of voucher privatization, and they are the largest and the most important private owners of enterprises in Slovakia. The ten largest IPFs got control over about 25% of the shares offered in this "wave of mass privatization, and a typical large IPF had a few 100,000 shareholders, with shares in more than

100 companies. Voucher holders were attracted to exchange their vouchers books for shares of IPFs by promises of IPF managers for guaranteed high returns - often 10 times the value of the voucher. The experience indicate that these promises have not been fulfilled.

To order to protect small investors and to improve corporate governance in the privatized companies, the July 1995 legislation has, in conjunction with the cancellation of the second "wave" of voucher privatization, limited the IPFs' role as owners of enterprises. Specifically, they are required to reduce the maximum equity stake of in enterprises from 20% to 10%.

It is yet to be seen to what extent the corporate governance will improve with the new legislation on the IPFs. It seems certain, however, that it will adversely affect the development of a market for equities, since investors are likely to have limited interest in shares that correspond to smaller stakes in companies.

The shortage of longer-term capital underlines the importance of a capital market in Slovakia which is at present still in initial stages of development. The most important catalyst in its formation was the voucher privatization. The privatization created a wide offer of shares. The creation of the capital market institutions was therefore not that much a result of the needs of the issuers and investors, but more of the offer of a great quantity of stocks. The legislation governing this area was created only later, with most recent amendments to the Securities Law passed in August 1995.

The Slovak capital market is not only small but also fragmented with activities divided between three different institutions, the Stock Exchange in Bratislava (in March 1994, 9 companies were listed), the Bratislava Option Exchange and the RM-System (it trades with some 800 companies both distributed under the voucher privatization scheme and newly established). As a result, none of the markets has sufficient liquidity so that over 80% of all trades are conducted over the counter, with a consequent loss of transparency with respect to price and volumes (EBRD, 1996, p. 11). In response to these problems, the mentioned amendments of the Securities Law provide for the establishment of an independent regulatory body to protect investors' rights, they increase minimum capital requirements for brokers and request that all trades be registered, published and completed at prices set by the exchange, thus promoting greater transparency.

4.3.2. Major Barriers and Policy Responses of the Banking Sector

a) concentration; There is a very high concentration in the commercial banking system. On the deposit side, the market is still dominated by three banks, SSB, GCB and IDB. At the end of 1994, their combined portfolio accounted for around 70% of all deposits, down from 90% at the end of 1991.

While most of the SSB deposits come from households (roughly 90% of all the deposits it collects), IDB's and GCB's deposits come mainly from state-owned enterprises which are at the same time also their major borrowers.

On the credit side, the same three banks accounted in mid-1995 for 65% of the total loan portfolio in the banking sector. Their share declined from 79% at the end of 1991, as other medium-size banks, like Tatrabank Agrobank have significantly increased their lending, especially to newly emerging private sector companies.

b) bad debts; Another problem of the Slovak banking sector, common to all other transition economies, is a sizeable stock of nonperforming loans in bank portfolios. They increased from 1.9% of outstanding loans in the banking system in 1991 to 21.8% in 1993 (World Bank, 1994, p. 36).

Unfavourable quality of the banks' credit portfolio is a result of several factors in play by the early 1990s, including the demise of the CMEA and the collapse of Slovakia's traditional export markets, as well as problems resulting from the transformation of the country from the centrally planned into market economy. This debt burden, its complexity and magnitude, has made it all more difficult for loan officers, inexperienced in credit and risk analysis, to decide which prospective borrowers are creditworthy.

Bad loans, although they reflect a loss of resources that has already occurred and not the current efficiency of the banking sector, continue to be a problem as they distort incentives in different ways. First, it is possible that major banks which still have considerable market power (see concentration problem) could increase interest spreads to pay for the cost of bad loans. This increases transaction costs as well as imposes efficiently a tax on both depositors and good borrowers. Second, the need to secure higher spreads leads to adverse selection, a problem exacerbated by the lack of risk-evaluation skills and information. Third, expectation of banks with a significant proportion of bad debts in their portfolio that they will be bailout creates a moral hazard situation by encouraging them to engage in excessively risky lending.

There are basically two alternatives for dealing with the problem of bad debts. First, a centralized or top-down approach - in this case, a special workout agency is established which handles bad debts taken over from the banks. This solution has the advantage that it relieves the banks immediately of the bad debt problem, but on the other hand it involves high fiscal burden and moral hazard problem. Second, a decentralized or bottom-up approach - in this case, banks and enterprises negotiate a solution. The advantage is that the banks do not shed the responsibility for handling the bad debts, but at the same time, the solution is not immediate. Decentralized approach requires right environment for effective

financial restructuring, including adequate financial resources and good risk-evaluation skills in the banks as well as an appropriate legal and procedural framework for bankruptcy.

In dealing with bad debts, Slovakia has combined both approaches. It gave a preference to the centralized approach in the first stage of its bank restructuring process, between 1991 and 1994, while later on, a more decentralized approach has been applied.

Since 1991, the authorities have taken a number of measures to improve the banks' portfolio and to institute prudential lending. In 1991, a sizeable amount of the portfolios of the largest affected banks, such as GCB, was transferred to CB, a new institution created specifically for the purpose of debt collection and work-outs of bad loans (it has been restricted from accepting deposits and extending new loans). This allowed these banks to reduce the book value of their assets, thus improving their weak capital position. GCB, for example had at the end of 1990 a capital/asset ratio of less than 2% (IMF, 1995b, p. 36).

In addition, the authorities have also taken the following measures: (i) they have written off a small proportion of loans to the armament industry and other troubled sectors, and in exchange the banks have received bonds issued by the NPF; (ii) selected banks were recapitalized in 1992 through issuance of NPF bonds; (iii) selected banks received subsidies and tax deductions for pre-1990 long-term and low-interest rate loans they had granted for specific purposes (housing loans and loans to newlyweds); (iv) the NPF assisted enterprises in financial difficulties in servicing their bank debts; and (v) in 1993, the government took over some of the export receivables that became uncollectable due to trade disruptions/embargoes with Iraq, parts of former Yugoslavia and the former SU. The explicit fiscal cost of these and some other bank rehabilitation measures (including amortization) was 3.5%, 3.6% and 3.5% of GDP in 1992, 1993 and 1994 (IMF, 1995b, pp. 36-39).

These measures, though implemented on the ad-hoc basis, were effective in improving the financial standing of banks. The issue of bad debts, however, continues to be one of the major problems of the economy, and its lasting solution seems to be necessary not only for bank sector reform but also for bank privatization and successful restructuring of the enterprise sector. The proportion of non-performing loans is still very high, 25% in 30% of the total banking sector loan portfolio in 1995, of which 90% are held by three largest banks.

The authorities now intend to limit government intervention in the process of bad debt work-out process and to encourage banks to use primarily their own resources to deal with their problems, although they do not deny that some limited assistance from their side may still be forthcoming. This recapitalization

through provisioning and building up reserves represent the second stage of Slovakia's bank reform.

The approach is based on the conclusions of the 1994 study, prepared by the NBS and an international auditing firm (McKinsey). According to the conclusions of this study, practically each of Slovakia's major banks, applying international accounting standards, would be able to generate sufficient resources to address their remaining portfolio problems. More specifically, if banks were allowed to provision for bad debt loans with before-tax profit, they should be able to recapitalize themselves without outside resources. Based on these conclusions, the NBS has created and partially implemented a Program of Bank Restructuring. In July 1995, the NBS adopted regulations on debt classification and loan-loss provisioning. Banks were given three months to adjust to these regulations and three years to comply with the new provisioning regulations. As far as tax-deductibility of loan-loss provisions is concerned, the Ministry of Finance will support the Program by allowing the participating banks to provision tax-free during 1996-98, although this measure also raises certain fiscal concerns over the associated loss in profit-tax revenue.

The authorities expect that the portfolio restructuring Program will be completed by the end of 1998 and that privatization of major state-controlled banks will be considered only after progress has been made with the recapitalization of these banks. Taking into account the government's recent announcement that it intends to deepen bank privatization in the near future indicates that the Program is well underway and reflects its confidence in being able to attract strategic investors.

c) bank supervision; Besides dealing with the old bad debts, the NBS has also strengthened its supervisory role over the last few years. In order to promote prudential management, the central bank requested existing banks to increase a minimum capital adequacy ratio from 6.25% at end-1993 to 8% by the end of 1996 (IMF, 1995b, p. 40). The banks are also required to report monthly and/or quarterly on loans in arrears, on their capital adequacy as well as on many other aspects of their activity, the banks must undergo an annual audit by external auditors whose selection and terms of reference must be cleared by the NBS. In addition, the NBS started with on-site bank inspections in 1993.

d) undercapitalization and high transaction costs; Another potential problem of Slovakia's banking sector is a lack of capacity to finance large scale projects. For example, the total capital of the country's banking sector was at the end of 1995 some USD 1 billion what was equivalent to not more than 7% of the country's GDP. Taking into account internal provisions regarding their exposure to individual borrowers, the Slovak banks have rather limited financial capacity to enter into financing of these projects except on a syndication basis. This indicates that foreign bank participation will continue to be necessary for large project financing.

The structure of the Slovak banking system, especially its concentration, together with its undercapitalization and the impact of bad debts tend to put upward pressure on interest spreads and therefore cause high transaction costs for the economy. At the end of 1993, average deposit rates were 8.6% while average lending rates were 14.0% bringing the spread to 5.4%. By the end of 1995, this spread has even broadened - to 7.4%, what is rather high when compared to developed market economies that can move savings to investors much cheaper (Plan Econ, 1996, p. 23).

4.3.3. Banks and Industrial Restructuring

During the centrally planned period banks had performed a role of a channel for transferring state funds to the enterprise sector. They were not responsible for assessing clients' creditworthiness as credits to state-owned enterprises were automatically generated when required by firms to meet the production targets established by the central plan authorities.

Transition to market economy has forced the banks into their transformation from passive distributors of credit to professional bankers. Banks are now required to be active partners in meeting their clients' financial needs on the one hand, and on the other, they are required to adhere to established performance criteria through capital adequacy regulations and to new accounting rules regarding the provisioning for bad debts. This transformation of the banking sector has been challenged by several obstacles, such as (i) lack of experienced banking staff with experience in credit and risk analysis, (ii) bank staff risk-aversion due to their institutions' balance sheet weaknesses and debt portfolio problems, (iii) lack of banking culture that emphasizes the need for partner-type cooperation with enterprises, (iv) lack of information concerning the financial position or creditworthiness of enterprises and owners, and (v) inadequate protection of lenders' property rights.

As a result of all these problems, there continues to be a lack of active involvement of the Slovak banks in the restructuring of the enterprise sector. Instead of becoming actively involved, banks often remain passive observers, unaware of enterprises' needs. Consequently, they are unwilling and/or unable to play an active role in addressing real problems of the enterprises. As active role requires daily involvement and continuous review of an enterprise's financial performance and as banks still lack experienced staff for these activities, it is not surprising that they do not have a very strong incentive for corporate financing. This incentive is further weakened as investment in government securities carries similar nominal yields as lending to enterprises, but with practically zero risk.

In spite of all these problems, the Slovak banks have made a significant turnaround in their credit allocation practice over the last few years. The poor

financial conditions of many state-owned enterprises and their uncertain future have resulted in a shift in the composition of banks' lending; it shifted from state-owned enterprises to private ones. For example, from end-1990 to end-1994, the share of GCB's loans going to state-owned enterprises fell from 88% to 57% while that one of loans to private entrepreneurs increased from 0% to 31% (share of loans to cooperatives remained practically unchanged, at the level of 10%) (IMF, 1995b, p. 44).

4.4. Enterprise Sector: Private Sector Development, Privatization and Industrial Restructuring

4.4.1. Financial Standing of the Enterprise Sector

Financial weaknesses of the banking sector are a mirror picture of weaknesses in the enterprise sector. Specifically, these weaknesses include high financial losses as well as high volume of inter-enterprise credits and tax and social security overdues.

Given the decline in demand, both foreign and domestic, it is not surprising that many Slovak enterprises started to operate at loss at the beginning of the 1990s. Nearly one third of the 419 state enterprises under the purview of the Ministry of Economy and one third under partial or full NPF ownership reported losses in 1992 (World Bank, 1994, pp. 58-60).

In the same year, the whole manufacturing sector accounted a net pre-tax profit (difference between total revenues and costs) of SKK 2.9 billion with the largest pre tax-losses in the production of machinery and equipment (SKK 1.9 billion), transport equipment (SKK 0.8 billion) and electrical and optical equipment (SKK 0.7 billion, i.e. the branches with a strong armaments production component. In addition, financial losses were registered also in some other branches, including woods and woods products manufacturing, textile and leather production. The most profitable manufacturing branches in 1992 were production of coke and refined petroleum products (SKK 2.0 billion) chemicals production (SKK 1.8 billion) and production of iron and steel (SKK 1.3 billion). These are all energy and raw material intensive branches with a large share of semi-finalized products as their output.

TABLE 35: Profit/Losses of Enterprises by Industrial Branches, 1992 - 1994

	Profit, loss (-) (million SKK, in current prices)		
	1992	1993	1994
Industry in total	14 946	26 366	25 493
of which:			
Mining and quarrying of energy materials	1 897	930	810
Mining and quarrying except energy producing materials	- 63	- 97	0
Manufacture of food products; beverages and tobacco	705	869	1 514
Manufacture of textiles and textile products	- 92	174	224
Manufacture of leather and leather products	- 133	- 142	- 597
Manufacture of wood and wood products	- 579	- 456	- 533
Manufacture of pulp, paper and paper products; publishing and printing	4	- 153	1 300
Manufacture of coke, refined petroleum products and nuclear fuel	1 993	1 449	3 525
Manufacture of chemicals, chemical products and man-made fibres	1 782	1 177	1 073
Manufacture of rubber and plastic products	914	1 053	1 079
Manufacture of other non-metallic mineral products	662	714	397
Manufacture of basic metals and fabricated metal products	1 326	12	- 380
Manufacture of machinery and equipment N.E.C.	- 1 935	- 3 719	- 5 445
Manufacture of electrical and optical equipment	- 682	- 953	- 723
Manufacture of transport equipment	- 798	- 726	77
Manufacturing N.E.C.	- 226	55	- 212
Electricity, gas and water supply	10 172	26 178	23 385

Source: Statistical Yearbook 1995, p. 314.

In 1993, the manufacturing sector went into overall SKK 0.7 billion net pre-tax losses, but the next year it registered again a net pre-tax profit, this time at the level of SKK 1.3 billion. With exception of the transport equipment production which, mainly due to successful operation of Volkswagen, registered a small profit in 1994, all other manufacturing branches which reported losses two years ago remained in red. Even more, a financial position of the machinery production, the

branch with the largest losses in 1992, deteriorated further as the losses more than doubled.

As said, the collapse of CMEA markets and of arms trade together with the liberalization of foreign trade were the most immediate causes of the financial difficulties of the Slovak industrial enterprises. Adjustment to these shocks has been slow and in some cases the response of enterprises, banks and the government has been done in a way which increased the overall adjustment costs.

Enterprises initially responded to the shocks by continuing to produce for inventory. This production as well as some large investments aimed at conversion military production capacities for civilian use were financed through forced bank lending. In contrast to pre-reform time, when loans were distributed to the enterprise sector arbitrarily and carried low interest rate, liberalization of the economy in 1990 and 1991 was accompanied with significantly reduced volume of bank lending. This was mainly a result of two reasons. First, to attract deposits of households, banks increased deposit rates and consequently also lending rates to the neighbourhood of 15%. In addition, high collateral was required.. Second, banks established much more careful financial management practice what has further squeezed enterprise liquidity.

In circumstances of strong liquidity squeeze (loans from banks were not available or were available only in limited amounts; sales have collapsed) and with a clear priority to pay labour costs first, enterprises started to defer their payments to suppliers. This has, of course, resulted in a rapid increase of inter-enterprise debt which amounted to some KCS 89 billion at the end of 1992, only for enterprises with the Ministry of Economy and the NPF. A number of these firms was also in arrears on their tax and social security payments (World Bank, 1994, p. 62).

The government responded to the shocks basically in two ways. On the one hand, it provided financial resources to finance conversion projects and operating losses in the enterprise sector. At the beginning, government's resources were channelled mainly through long-term bank credits while later, most of the financial support was given in the form of the NPF loans and guarantees.

The other more direct form of the government's financial support to the enterprise sector are general government (central and local) subsidies. During 1992, the Slovak Republic provided SKK 16.2 billion in current subsidies and SKK 3 billion in investment subsidies what was altogether equivalent to 6.3% of the country's GDP. In the next year, this percentage increased to 7.1% while then after it went down to below 6% a year in 1994 and 1995.

The decline in budget subsidies during the last two years does not mean that the overall financial support of the government to the enterprise sector was reduced, as it started to use extrabudgetary means to channel resources to enterprises,

especially by requiring the NPF to provide (it is not treated as a part of the general government) loans and guarantees. In addition, some enterprises have also been receiving indirect subsidies through subsidized energy prices.

TABLE 36: Subsidies to Enterprises, 1992 - 1995

	billion SKK				% of GDP			
	1992*	1993	1994	1995**	1992*	1993	1994	1995**
Current expenditures of this:	16.2	17.2	18.5	20.1	5.3	5.1	4.6	4.4
- Agriculture	8.2	8.7	7.6	7.5	2.7	2.5	1.9	1.6
- Industry	1.1	0.6	0.3	0.4	0.4	0.2	0.1	0.1
- Transportation	1.7	2.6	2.8	3.0	0.6	0.8	0.7	0.7
Investment expenditures	3.0	6.9	3.9	5.9	1.0	2.0	1.0	1.3
Total	19.1	24.1	22.4	26.0	6.4	7.1	5.6	5.7

* Estimated by IMF staff.

** Projection.

Source: IMF, 1995b, p. 86.

4.4.2. Privatization

"Small" privatization as well as the first "wave" of the "large" or mass privatization (coupon method) were practically completed by the end of 1992, i.e., before Slovakia became an independent country (see Chapter 2.1.).

The second "wave" was initiated in 1993 and, as initially envisaged, involved over 1,000 enterprises with a book value of about SKK 260 billion. As in the first "wave", voucher scheme as well as standard methods were suppose to be used. In September 1994, the interim government actually started this "wave" of mass privatization with the sale of voucher books to 3.5 million Slovaks at a nominal price. However, the new government initially postponed and, in June 1995, after extensive internal debate over the most appropriate method of privatization cancelled the second "wave" of voucher privatization and replaced it with standard privatization methods.

In the authorities' view, the coupon method had dispersed ownership to widely what had led to weak and ineffective corporate governance as well as to small inflow of foreign direct investment. The shift in the privatization policy towards

standard methods was therefore aimed at enhancing corporate governance through transfer of property to clearly defined owners. It was also aimed at protecting smaller investors and therefore at reducing the role of IPFs, whose interests may often be in conflict with those of company managers, as well as at attracting foreign investors, mainly in the form of joint ventures that convey technological and management know-how in the country. Last but not least, the policy shift towards standard methods also met the demands of some smaller coalition partners which either oppose selling state property or favour limiting privatization.

Under the new privatization legislation which passed the Parliament in July 1995, each of the 3.5 million voucher holders received interest bearing bonds with a nominal value of SKK 10,000 issued and guaranteed by the NPF. The bonds (their total amount is SKK 3.5 billion or 8% of GDP) with 5-year maturity may be redeemed at the maturity or may be used for a number of defined purposes, including the purchase of shares in privatized companies in which they are employed or in companies in the NPF portfolio as well as for supplemental pension and health coverage. The bonds can be used also to make downpayments on residential housing. There is no doubt that issuance of privatization bonds will have a significant effect on the financial position of the NPF.

Within the July 1995 privatization policy package, the government decided to retain ownership or control in a large number of "important" and "strategic" enterprises. Law No. 175/1995 specifies 29 "important" enterprises with a total book value of about SKK 100 billion in which the state intends to maintain full ownership. The list includes big utilities, armament and engineering industry firms, pharmaceutical firms, post and telecommunications, agricultural enterprises and railway lines. As the bulk of these companies had been initially included in the second "wave" of mass privatization, this law effectively reduced the book value of enterprises under second "wave" of privatization to some SKK 170 billion, i.e., the roughly same amount as in the first "wave".

In addition, the law identifies 45 "strategic" enterprises, with the book value of about SKK 110 billion, mainly in mining, chemicals, construction, engineering and the agricultural sectors. In these companies, some of which have already been privatized, the government intends to retain or regain special voting rights, including veto power over key decisions in stockholders' meetings. The law has also shifted the exercise of ownership rights over "strategic" enterprises from the NPF to the founding ministries. This is a clear indication that it is expected from the respective ministries to have a strong influence on the governance of these enterprises and therefore also on their restructuring and privatization.

The policy shift toward cash privatization was expected to speed up the privatization process. True, the authorities have accelerated direct sales of state property since the voucher scheme was cancelled. While in 1994, assets with the

total book value of SKK 28.4 billion in 280 enterprises were privatized, in 1995 this figure went up to SKK 48.9 billion (IMF, 1996b, p. 1). Although different forms of cash privatization were applied, most of the assets were sold to current managers of the companies at deep discounts, with very little initial down payment (usually 10%) and with offsetting the remaining amount against subsequent investment expenditures (usually a 10 year payment period). Foreign investors purchased in 1995 just over SKK 1 billion of the total sold in a handful of companies (IIF, 1996, p. 6).

TABLE 37: List of 29 "Important" Enterprises

Gas and energy

- Slovak Gas Industry
- West Slovak Power Engineering Works
- Central Slovak Power Engineering Works
- East Slovak Power Engineering Works

Post and telecommunications

- Slovak Post
- Slovak Telecommunication

Armaments and general machinery

- ZTS Dubnica
- ZTS TEES Martin
- ZVS Dubnica
- Koštruktura Defence, Trenčín
- Koštruktura Industry, Trenčín
- SM Kremenica

Pharmaceutical

- Medika
- Imuna

Agriculture, forest, and water

- 12 enterprises

Railway transport routes

Other

- Transpetrol
- Slovak Power Plants

Source: Law 175/1995, paragraph 2.

TABLE 38: List of "Strategic" Enterprises

Crude oil processing, mining and metallurgy

- Nafta Gbely
- Hormon. Bane
- Mine Dolina
- East Slovak Iron Works
- ANP Works

Processing of other raw materials

- Solivary

Machinery

- Povazske Engineering Works
- Calex Zlate Moravce
- Podpolianske Engineering Works
- ZTS Hrinovske Engineering Works

Chemical and consumer industries

- Slovinaft
- Benzinol
- Duslo
- Chemlon
- Istrochem
- Novacke Chemical Works
- Izomat
- North Slovak Cellulose and Paper Works
- South Slovak Cellulose and Paper Works

Transport

- Slov. plavba dunajska

Agriculture and water industry

- Žrebčín Motešice
- Žrebčinec Velky Šariš
- Slacht. stanica Horna Streda
- Istropol
- Slacht. stanica Levočske Luky
- Research Institute of Fruit and Decorative Trees, Bojnice
- Research and Cultivating Institute of Potatoes, Velka Lomnica
- Polnonakup Agropros
- Polnonakup Navys
- Polnonakup Tekov
- Polnonakup Tatry
- Polnonakup Trnavan
- Tokaj
- Vodarne a kanalizacie
- Zapadoslov. vodarne a kanalizacie
- Stredoslov. vodarne a kanalizacie
- Severoslov. vodarne a kanalizacie
- Vychodoslov. vodarne a kanalizacie

Pharmaceutical industry

- MEVAK, a.s.

Construction industry

- Považska cementaren
- Cementarna Turna
- Kamenolomy a štrkopieskovne
- Panelaren Žilina
- Panelaren Košice
- NIBACO

Source: Law 175/1995, paragraph 3.

Slovakia's 1995 privatization results confirm that after the July privatization policy shift, direct sales, including management and employee buy-outs, will be the main form of privatization. It also confirms that domestic investors with resources less than ample to finance investment in the firms acquired will have a preferential status and that they will therefore dominate in the process of privatization.

Although the faster pace of Slovakia's privatization in 1995 is positive in principle, high reliance on management and employee buy-outs also raises concerns. In particular, the proliferation of buy-outs could have negative consequences for the transparency and efficiency of the management of privatized firms. The further concern is that similar to mass privatization also this method of privatization is not conducive to foreign investor participation and to restructuring in general since it fails to create strategic ownership stakes.

W Source: Law 175/1995, paragraph within the July 1995 privatization package, the government also passed a legislation aimed at enhancing transparency in the capital markets, strengthening the regulatory framework for IPFs and limiting their role in enterprise governance. The government was namely of the opinion that IPFs had to often needlessly intervened in the day-to-day management of enterprises through inexperienced representatives, that they had been engaged in anti-competitive actions through their participation in the management boards of many companies, that they had been using insider information in trading shares and that they had made difficult to meet promises of uninformed investors. The curtailed role of IPFs was consistent, in government's view, with the increased emphasis on standard methods of privatization and with practices in Western countries, especially in the United States, with regard to mutual funds. While the legislation improved transparency and strengthened the regulatory framework for IPFs, it also tends to prevent the latter from playing a constructive role in enterprise governance.

4.4.3. Small and Medium Enterprises Development

a) Growth and Organizational Forms; The entrepreneurial tradition in Slovakia can be traced back in the mid-war period when crafts and small businesses formed the country's economic and industrial system. The tradition was interrupted for 40 years by centrally planned economic system dominated by large state-owned enterprises.

Since 1989, conditions were changed dramatically in this area. One of the most important processes for the transformation of the country from the planned to market economy was the development of SMEs. The process was initiated in 1990 when laws were adopted setting up a legal framework for small businesses. The regulatory framework has been upgraded several times since then (before 1993 by federal government and by the Slovak government then after). In addition, the government has passed a number of documents confirming a priority status of SMEs in the country's economic development, and the most important among these documents is the act of the Slovak Parliament on the "State Support to Small and Medium Enterprises", passed by the Parliament in 1995.

This Act distinguishes between (i) small entrepreneurs (physical persons doing business, with permanent residence in the territory of the Slovak Republic, or legal entities doing business, with principal office registered in the territory of the Slovak Republic) with a maximum of 24 employees and (ii) medium entrepreneurs (again physical persons and legal entities) that employ between 25 and 500 employees.

SMEs may be organized in various organizational forms, but from the analytical point of view the most appropriate is their distinction on the following two forms: (i) licensed self-employed entrepreneurs which are not registered as firms (in the further text "self-employed entrepreneurs") and (ii) companies which are registered in the Commercial Register (in the further text "registered SMEs")

Development in the area of entrepreneurship in Slovakia since 1990 has undergone two stages. In the first one which took place in 1991 and 1992, the radical increase of SMEs happened, mainly as a result of small scale privatization of retail outlets and shops. The result was that during 1992 the number of "registered SMEs" more than doubled (from 9,838 to 19,317) and that the number of "self-employed entrepreneurs" increased in for almost 50% (from 191.632 to 286.284).

From 1993 on, the growth patterns of the two SMEs' organizational forms differ significantly. After reaching the peak in 1992, the number of "self-employed entrepreneurs" has been continuously declining reaching a total of 258,665 in June 1995. The main reason for this drop appears to be the changes in the legislation, such as new provisions for health and social insurance as well as the introduction of additional obligations of entrepreneurs, including obligatory use of electronic cash registers. In addition, due to the expansion of their businesses, some "self-employed entrepreneurs" opted for re-registration from this form of SMEs into "registered SMEs".

It has to be underlined that not all "self-employed entrepreneurs" properly registered by the authorities have also been active in business. The results of two

surveys carried out during 1994 show that that some 35% of them were not doing business at all. Of those who were active in business, 62% did business as their full-time job (89% of them employed other persons) and the remaining 38% did business on a part-time basis (11% of them employed other persons) (NADSME, 1995a, p. 30).

As far as sectoral structure of "self-employed entrepreneurs" is concerned, a dominance of services sectors is more than apparent. In mid-1995, entrepreneurs from this sector participated with almost 2/3 in their total number, with the highest share taken by trade services (34.7%) and followed by economic and financial services (14.8%), tourism (6.3%) and transport (4.8%). Entrepreneurs from industrial sector participated with 18.4% in the total number of the Slovak entrepreneurs.

In contrast to a slightly declining trend in the number of "self-employed entrepreneurs" the number of "registered SMEs" has been steadily rising, by approximately 7,000 entities a year, also in the period 1993 - 1995. In mid-1995, their number was 37,636, and this figure includes all profit-oriented organizations incorporated in the Commercial Register. It therefore includes also those small entrepreneurs who are registered crafts and trade persons (around 1% of the total), but it does not include agricultural cooperatives and companies and also not those organizational units of foreign residents which are not legal entities according to the applicable registration.

b) SMEs Performance; As a result of fast growing SMEs sector, their contribution the national output and employment has become very significant, and what is even more important the sector has confirmed to be the most dynamic component of the country's economic development.

(I) production; In 1994, industrial output of Slovakia rose by 6.4%, but its fastest growing component were SMEs whose industrial output increased by 10%. As a result, the share of SMEs in the total industrial output of the country increased to 35.5% in 1994 and to 36.3% in the first half of 1995, with small enterprises (up to 25 employees) contributing 13.8% and medium enterprises (with 25 to 500 employees) contributing 22.5% to the total industrial output. This share, although significantly increased over the last years, is still much lower than in some other sectors of the economy, like road transportation (97%), trade (91%) or building construction (74%).

Very strong economic performance of the Slovak SMEs, including those ones in the industrial sector, has been confirmed by the findings of the detailed survey of more than 800 fast growing and successful private companies in five Central European countries prepared by Žižek and von Liechtenstein. The survey, financed by PHARE and carried out in 1993 and 1994, was based on interviews of at least 150 dynamic entrepreneurs per country. In

Slovakia, 163 companies were incorporated in the survey (in the further text the Survey). It has to be underlined that only successful SMEs were taken into the sample and thus also the Survey's findings are to certain extent biased towards this group of SMEs.

The Survey has come to the conclusion that a majority of surveyed companies in all the five countries have been involved in several activities. In Slovakia, 44% of the total turn over of all the surveyed companies (each of them might be involved in more than activity) has been created by manufacturing and this sector has also contributed the largest share to their overall profit - 45%.

The turnover of the surveyed companies in Slovakia has grown at very fast rate since they were established. In the second year of their operation, over one half of the companies recorded three-digit growth rates of annual turnover and only 4% of the surveyed companies recorded decline in their annual turnover. In the following years, the growth rates have become lower but still remained extremely high in comparison with the performance of the economy in general.

- (ii) employment; SMEs are extremely important also as a source of employment. There were 1,954,797 persons employed in Slovakia in 1994. Of these, 34,806 were employed in companies with up to 10 employees and 34,534 in companies with 11 to 24 employees. Companies with 25 to 499 employees employed 425,382 persons, bringing the total employment by "registered SMEs" to the total of 494,722. As "self-employed entrepreneurs" accounted for additional 295,000 persons, the total employment by the SMEs sector in Slovakia accounted for 789,722 persons what was 60.4% of the total number of employees in profit-oriented businesses. The balance were profit-oriented companies with over 500 employees with total employment of 516,389 persons (NADSME, 1995a, p. 40).

In 1994, employment of SMEs rose by more than 8% even though there was an overall decline of employment in the entire economy of 1.8%. The most dynamic employment growth was recorded by micro enterprises with less than 10 employees (53.4%), followed by companies with 11 to 24 employees (23.1%) and companies between 25 and 99 employees (5.1%) while the number of people in companies with 100 to 499 employees even declined for 0.7%.

One consequence of the differences in employment growth patterns of different sized SMEs are changes in the structure of this employment. While micro enterprises more than doubled their share in the total SMEs employment between 1993 and 1995/6 (from 4.8% to 10.0%) and enterprises with 11 to 24 employees increased their share significantly (from 5.9% to 8.9%), the losers were SMEs with 100 to 499 employees (their share dropped from 67.1% to 57.8%).

This analysis of employment patterns for SMEs in general, is to a large extent shared by the patterns for industrial sector as well (see Table 33). In this sector, total employment by SMEs increased by 17.8% between 1993 and 1995. Again, the most dynamic employers were entities with less than 24 employees (their share increased from less than 5% to almost 15%) while the share of those SMEs with between 100 and 499 employees in the total SMEs industrial sector employment declined from 4/5 to 2/3.

TABLE 39: Structure of Employment in Industrial Sector SMEs, 1993 - 1995

(number of employees)

	up to 10	11-24	25-99	100-499	Total
Industry 93	3,468	4,915	26,258	138,829	173,470
% of total	2.1	2.8	15.1	80.0	100.0
Industry 94	7,157	7,009	32,902	136,052	183,120
% of total	3.9	3.8	18.0	74.3	100.0
Industry 95	7,871	22,058	36,272	138,148	204,349
% of total	3.9	10.8	17.8	67.5	100.0

Source: NADSME.

The impressive growth of the Slovak SMEs in terms of the number of employees has been confirmed by the Survey. A comparison of employment data in the first year of operation with figures for 1992, 1993 and 1994 proves that most of the surveyed firms were fast growers and important job creators in Slovakia. While in the first year of operations, 66% of surveyed firms had less than 20 employees, by 1994 the percentage of these firms of this size declined to only 18%. Simultaneously, the percentage of surveyed firms with between 20 and 199 employees increased from 27% in the first year of operation to 71% in 1994.

(iii) other; The Survey reveals also some other interesting information about the performance of the surveyed SMEs in Slovakia. Some of the findings are the following:

- physical capital; More than two thirds of the surveyed companies operate in buildings which are either entirely owned or are partly owned and partly leased. This high share is quite surprising taking into account how young the companies are and with how little start-up capital they began their operations. The majority of surveyed companies in Slovakia - 69% also own all machinery and equipment of the firms while another 20% of surveyed firms own more than half of the

machinery and equipment with the rest being leased. There are still 41% of companies that fully depend on imported equipment.

- financial capital; Table 34 shows differences in the relative importance of the sources from which the Slovak entrepreneurs finance their start-ups, investment and working capital in the last two years and the sources from which they expect to finance planned investment. It is not surprising that personal savings represented an important financial source for starting the business. What is, however, more surprising is that Slovak entrepreneurs were able to raise as much as 41% of their start-ups financial needs from banks (in all other Central European countries, except Czech Republic, this share was below 12%). The structure of financial sources to finance investment and working capital is rather different. Although bank loans are again important, they are not as important as reinvested profits. Also planned investments are expected to be financed primarily from these two sources. Importance of personal savings has become practically negligible not only for the working capital financing but also as a source of planned investments.

TABLE 40: Financial Sources for Slovak SMEs

	Start-ups	Investment and workin capital	Planned investments
Savings (own, family)	31	6	2
Bank loans	41	31	45
Profits	17	52	41
Other	11	11	12

Source: Žižek and von Liechtenstein, 1995, p. 30.

c) Obstacles to SMEs Development; There are several obstacles that the Slovak entrepreneurs have been facing. Some of them are associated with transition itself and are common to other countries in more advanced stages of transition while other obstacles are more country specific.

Among the most significant barriers to even faster development of the Slovak SMEs are frequent changes in the regulatory environment as well as high level of taxes. Although on both these issues significant improvements have been made during the recent years and therefore the extent to which they are still seen as constraints has been reduced, entrepreneurs continue to claim that complicated and unstable legislation is not conducive towards faster SMEs development. As far as taxes are concerned, the existing legislation is considered to be of a to high

financial pressure on SMEs. In this context, high charges for health and social insurance schemes are most frequently mentioned. Present tax law is also criticized from the point of view that it does not provide sufficient support for start-ups, though it is possible, under certain conditions, to arrange the postponement of tax payments and that it does not provide sufficient incentive for capital reinvestment.

The above assessment has been confirmed by the findings of the Survey in this area. According to this Survey, over 90% of the Slovak entrepreneurs had no or moderate problems obtaining registration, licenses or permits, but more than half of them had to wait for 1 - 3 months to obtain the required documents. As far as taxes on profits are concerned, a very high majority of surveyed SMEs, 88%, are of the opinion that they are too high and a very similar proportion, 85%, believes that laws do not provide sufficient incentives for reinvestment of profits.

The Survey reveals also interesting findings about the official and private attitude towards SMEs and their activities. Of all the surveyed entrepreneurs, 80% rated the attitude of the government, public officials and managers of state enterprises toward private business and profit making as negative or very negative. It was rated lower, 69%, in the case of average citizen's attitudes to these issues. This rather hostile perception of entrepreneurs, characteristic for rather early stages of transformation (at those stages, private entrepreneurial activity was often regarded as anti-social behaviour and seen to be at the expense of other members of the community and derived from connections with the "nomenclature"), provides a considerable psychological barrier to the entry and growth of the SME sector. It is expected, however, that this perception will dissipate as social acceptance of the market deepens and a critical mass of entrepreneurs is established.

As discussed in the previous chapter, the Slovak entrepreneurs generally rely on their own savings and bank credits for starting up, and then, once SMEs are established, they mainly combine reinvested profits and bank credits. The high level of interest rates on long term credits (16% to 18%) as well as high collateral requirement (up to 150% - 200% is required) are regarded by entrepreneurs as the two main constraints for a more adequate access of SMEs to bank loans. SMEs report that they first have to identify a niche in the market in which high returns could be reached before they could take out a loan and pay the high interest rates. Overcoming this obstacle requires improvements in the banking sector (banks are preoccupied with their "bad" loans and do not want to lend money and therefore trade mostly on the inter-bank money market; application procedures are rather complicated and time consuming) as well as changes in enterprise behaviour. For example, underreporting of profits and turnover for tax avoidance purposes reduces SMEs' borrowing capacity. This capacity is also reduced by SMEs' failure to register ownership of assets.

It is clear that the Slovak private sector encounters serious shortages of financing. For SMEs financing, the major obstacle is the lack of venture capital financing in the form of equity investment. There are some loan programs for SMEs, but loans are usually not the most appropriate form of financing emerging businesses.

Access to training and information is another obstacle for SMEs development in the country. Although over the last three years a lot of efforts has been put for diminishing the negative impact of these obstacles, there is still an inadequate access to them. There is still a lack of services which will provide specialized training for SMEs aimed at a quality improvement, management, export support and technology counselling for individual manufacturing branches.

d) Support to SMEs Development; The support to SMEs, as an important instrument of industrial restructuring and development policy, can be basically of three major types: (i) measures that institute an appropriate legal environment for the development of SMEs, (ii) measures that create an information and training support as well as measures that stimulate the necessary scientific and technological know how, and (iii) measures providing financial assistance.

(i) legal environment and institutional framework; The Ministry of Economy has responsibility for the formulation and implementation of the state policy of SMEs development. It has established NADSME as the most important institutional instrument for SMEs development. The institution was founded in January 1993 as a result of the joint initiative of the Slovak government and PHARE. NADSME is a foundation managed by its board of trustees which includes representatives of the Ministries of Economy and Finance, entrepreneurs associations, the Slovak Chamber of Commerce and Industries and the Association of Towns and Villages. NADSME coordinates all activities, including financial, pursued in support of SMEs in the Slovak Republic, on all levels, international, national, regional and local.

NADSME cooperates with associations and unions of entrepreneurs and sole traders to facilitate communication between the government and entrepreneurs. In the field of legislation, in cooperation with entrepreneurs' organizations in Slovakia, it identifies and analyses the barriers in the development of SMEs. In addition, it has been involved in the preparation of the legislation for SMEs.

(ii) information services, training and scientific support; NADSME provides advisory services and training for SMEs through a network of RAICs and BICs, both supported by PHARE. The RAICs, established as non-profit organizations, provide advisory, counselling and information services to entrepreneurs at the regional level. In 1995, a network of 12 RAICs was fully established.

BICs play a significant role within the system of support to SMEs, as they focus on innovations in all fields of firm development. BICs provide these firms with support for a period of typically 2 to 3 years. In addition to advisory services, the BICs' mission is to provide general business consulting, to provide material assistance and to provide beginning firms with an "incubator environment" to reduce the inevitable start-up costs. BICs also mediate contacts between the Slovak firms and firms within the European Business and Innovation Centre Network. At present, there are four BICs.

In 1995, RAICs and BICs provided entrepreneurs with more than 10,000 consultations, worked out 930 business plans, evaluated 600 business plans, carried out the training for more than 1,800 participants and assisted in the establishment of 543 SMEs, from which 93 were innovative companies.

As far as their information service activities are concerned see Chapter 3.11..

(iii) financial support; In performing its principal role, i.e., to support the development of SMEs, the NADSME also coordinates financial support to SMEs. In this context, a set of loan guarantee schemes and loan schemes as well as a "seed capital" program have been set up.

- "Guarantee Scheme" - guarantees for SMEs distributed through the SGB; The Bank, established to underwrite private sector development, has four broad areas of responsibility. Its prime objective is to support SMEs creation and development, but it also helps to restructure and privatize enterprises, encourages businesses to penetrate foreign markets and assists in solving regional economic problems. More specifically, it guarantees loans by commercial banks to business enterprises, subsidizes interest on loans to implement public development programs, provides financial advice, assists large and medium enterprises with guarantees for the acquisition of firms and finances strategic projects in the context of governmental programs.

In 1992, NADSME developed its "Guarantee Scheme" which was co-funded by PHARE in the amount of ECU 2 million and the equivalent of that amount in SKK by the Slovak government. In 1993, an additional ECU 1 million was provided by PHARE to "Small Guarantee Scheme". In 1994, both schemes were merged into one program.

By September 1995, the total number of approved applications under the guarantee schemes was 77, totalling SKK 159 million (of this, some 40% for SMEs in the industrial sector). The average credit guarantee accounted 62% of the total credit.

In 1995, the SGB had under implementation, in addition to the "Guarantee Scheme for SMEs", another four guarantee schemes: (a) program to support SMEs in agriculture, (b) program to support arrangement of seasonal agricultural work, (c) program to support construction and reconstruction of small water power stations, and (d) program to support the development of combined transport. During the existence of these programs, there were more than 1,300 guarantees issued in the total amount of SKK 2,600 million.

- " Small Loan Scheme" - scheme implemented through the SSB; The scheme financed in 1994 with ECU 1 million provides loans to SMEs with the maximum amount up to SKK 800,000, with a repayment period of 5 years and with the interest rate of 2.5% over the current discount rate of the NBS. A SME borrower has to meet the following criteria to be eligible for a loan: (a) the enterprise should have up to 25 employees; (b) it should be founded after 1st January 1990; (c) it has business activity in the area of manufacturing, tourism, crafts, repair and maintenance, (d) the loan could be used for fixed assets, and/or to finance reconstruction.

The scheme was fully disbursed by the end of 1994. In total, some 80 loans were approved.

- Credit Support Program"; By resolution No. 740 from July 1994, the Slovak government approved implementation of the Credit Support Program in the total amount of SKK 600 million, of which SKK 200 million was provided by the general budget, SKK 200 million by PHARE and SKK 200 million by three participating banks, Slovak Agriculture Bank, SSB and Tatra Bank. The program targets SMEs employing maximum 500 people in manufacturing, services, crafts, tourism. The maximum loan amount is SKK 5 million, repayment period 5 years and the interest rate 2.5% over the discount rate of the NBS.

As of the end of 1995, the funds were practically disbursed, and the continuation of the program in 1996 is planned with another SKK 600 million from the same sources.

- Seed Capital Company"; At the end of 1994, the Seed Capital Company was established to help SMEs to overcome the lack of initial capital. Entrepreneurs are very interested for this type of venture capital financing. The main objective of the Company is to provide financial investments into new companies with viable business plans, who either lack equity or are unable to provide sufficient bank guarantee.

The Company manages the so-called Start-Up Capital Fund from which investments of up to SKK 5 million can be made. It began its operation in January 1995, and by the end of the year more than 100 applications were submitted and first investments approved. The Company expects that its funding potential will be increased with the participation of more domestic and foreign donors.

- credit lines of the EXIM Bank of Japan and the EIB (see Chapters 5.2.4. and 5.1.3)

4.5. Industrial Policy (IP) of the Slovak Republic: Main Features and General Assessment

4.5.1. Objectives

In 1995, the Slovak government prepared and adopted the document titled "Industrial Policy of the Slovak Republic" (IP). According to this document, the strategic aim of the Slovak Republic is to achieve a level of economic efficiency and people's standard of living which will be comparable to that one in developed European countries. As a part of Slovakia's full-fledged integration in EU structures, this aim is expected to be achieved by the turn of the millennium or at latest by 2010.

Taking into account the importance of the industrial sector in the Slovak economy (its large share in GDP and employment) as well as its structural weaknesses (predominance of heavy industries; large size of enterprises; weak financial position), it is not surprising that industrial policy and implementation of industrial restructuring has soon become one of the government's priorities. The complexity of the problem is well illustrated by the competitiveness status of the Slovak companies (see Table 41).

Based on these characteristics, strategic objective of Slovakia's IP is to induce transformation, revitalization, and restructuring of the country's industrial sector so as to achieve its higher efficiency, output growth and structural changes that will be able to provide competitive manufacturing with high labour productivity and value-added as well as with effective employment structure.

TABLE 41: Competitiveness Status of Slovak Companies: Estimate of the 1995 Status and Projections

Conditions	Status
Long-term company strategies in the field of foreign trade	Mostly lacking
Financial resources (for international business)	Limited or absolutely insufficient
Information (analytical and prognostic, including those related to the development of international markets)	Rather insufficient
Marketing methods on foreign markets	Weakly diversified, insufficiently aggressive
Utilization of compensatory settlements	Rare
Capital investments (also abroad)	Insufficient
Own research and technical potential	Fragmented
Innovation capacities	Limited
International marketing, level and means	In its initial stages
Orientation of the production programme towards future international markets	Weak
Position on international markets by their quality ratings	Giving up top markets or leaving possibilities unused
Management level	Insufficient in a majority of cases
State support	Inadequate
Burdens of the economy	Significant
Legislation	Inadequate

Reference: Projection of the Development of the Economy of the Slovak Republic Aimed at Promoting the Growth of Export Capabilities through the year 2000 - Study prepared for Ministry of Economy of the Slovak Republic, Doc. Ing. Peter Bala , Csc., Economic University, Bratislava, modified by opinions of Industrial Committee members.

Source: ME, 1995, p. 16 and p. 17.

In addition to this strategic objective, IP has also defined a whole set of more specific objectives, short term as well as medium and long-term. Among the short-term objectives of industrial sector restructuring and revitalization are the following:

- (i) to maintain the rate of economic growth;
- (ii) to start more fundamental structural changes, using privatization process, transfer of ownership rights and entrance of foreign capital;

- (iii) to continue significant reduction of ineffective productions and to start revitalization of companies in temporary crisis, respecting environmental considerations;
- (iv) to create a strategic link between government's sectoral development program and its export promotion program

On a medium and long-run, however, IP has, among others, the following objectives:

- (i) to contribute towards the establishment of the economic system that will enable Slovakia to meet Maastricht Treaty conversion criteria and consequently to integrate itself into West European economic structures on the turn of the century;
- (ii) to contribute towards economic growth, stability and balance of the Slovak economy as well as towards its reduced vulnerability against external shocks;
- (iii) to maintain the competitive market environment and liberal trade policy both aimed at encouraging further structural changes;
- (iv) to increase the importance of services sector in the economy as well as the importance of SMEs in the national economy;
- (v) to support industrial sector's structural changes aimed at long-term reduction of those productions that are highly energy resource intensive and/or are based primarily on import resources;
- (vi) to increase the relative importance of high value-added final products in the industrial sector output and to increase export efficiency;
- (vii) to assure industrial development with an appropriate attention to the sector's ecological concerns;

4.5.2. Institutional Framework

The government intends to reach IP's objectives by combining two basic sets of policy measures. On the one hand, with the systemic measures aimed at creating competitive market environment and on the other hand with sector specific measures aimed at direct and indirect support of these sectors to make them competitive on the world market. The government therefore sees its principal role in the process of transformation in putting forward key systematic changes required by this process while at the same time minimizing its involvement into economic problems of operational and short-term nature. This macro fine-tuning of industrial sector restructuring is expected to be done primarily:

- (i) through continuous implementation of macroeconomic stabilization policies as well as through creation of a stable legal and regulatory environment consistent with the overall liberalization of economic activities in the country;
- (ii) through assistance to companies facing temporary crisis due to their inability to match macro and micro-economic policies;
- (iii) through government supported structural adjustment programs and through its direct or indirect participation in these programs.

To actively implement these activities, IP relies heavily on the so-called "institutional mezzosphere". It is composed of several institutions, of which some have already quite a lot of experience while other have yet to be established:

- a) Economic Development Agency; Its objective is to initiate and promote interest of the business sector in the implementation of the goals of the industrial policy and of its transformation into the regions of Slovakia through various government sponsored development programs. The Agency, conceived as a kind of a "chapeau" institution which will deal with various aspects of industrial development, will comprise of representatives from the Ministry of Economy, the NPF, national agencies involved in industrial development, like SNAFID or NADSME, as well as representatives from several financial institutions. It is expected to be financed from various sources, including the central budget, domestic bank credits, foreign credits and technical assistance as well as from revenues from its own activity.
- b) Slovak Credit Institute; The Ministry of Economy started preparatory works for the establishment of a special financial institution similar to the German KfW, under the working designation of Slovak Credit Institute. The institution, if established, is expected to be of a strictly development type and its activity will therefore be focused on granting medium and long-term credits in compliance with the banking criteria for granting and securing credits.
- c) SPPF; In cooperation with the EBRD and the EU, the concept of the SPPF has been developed. Its resources (ECU 43.3 million for investment and ECU 8.0 million for technical assistance) are expected to assist the restructuring process of newly privatized or private companies under precisely agreed contractual terms and procedural conditions. The idea of the SPPF has been based on the venture capital concept whereby investments are made in those entities which, at present conditions and criteria of allocation of domestic and foreign resources, are not eligible for their financing.
- d) AIDR; To implement the program of restructuring and revitalizing Slovak industries and individual enterprises, AIDR was established in Košice, with

three regional centres, in Prešov, Martin and Bratislava. The centres are public associations of organizations from various fields of activity, including production and technology development, foreign trade and marketing, counselling and banking. They are mutually linked, allowing to set up expert groups for revitalization processes out of a pool of experts. AIDR's main sources of financing are expected to be the NPF, commercial bank credits and PHARE.

4.5.3. IP and Individual Industrial Branches

IP provides a rather extensive survey of individual industrial branches. All the branches are classified in three main categories.

- (i) "strategic" industrial branches which incorporate branches important for either national security (the fuel and energy complex, manufacturing of machines, devices and vehicles, including military production) or export orientation of the country (processing of metals and manufacturing of metal products, chemical and pharmaceutical industries);
- (ii) industrial branches utilizing domestic raw materials (mining, building materials industry, manufacturing of timber goods, paper and polygraph industries); and
- (iii) branches important for sustained industrial development (textile and clothing, leather production, glass and jewellery industries and manufacturing of electrical and optical instruments).

Presentation of each branch starts with an analysis of the role and importance the branch has had in the national economy and of its previous economic development. It then continues with a presentation of development objectives, including financial resources required to achieve these objectives and completes with an overview of revitalization and restructuring processes necessary to meet the development objectives.

Developments in the Slovak fuel and energy branch reflect the overall industrial development trends in the country. Over the recent years, revitalization of industry was concentrated mainly in branches with high energy demand. The government considers as necessary to revert the development of the relations between the annual percentage growths of industrial production and that of its energy consumption. Rationalization, energy savings and the associated development of new technologies are therefore determined as strategic development objectives in this branch, although it is not expected that reduced demand for energy could be achieved before the year 2000.

Manufacturing of machines, devices and transport vehicles, including military production, represents a traditional segment of engineering industries. The segment was hardly hit by demand shocks and what remained of its all comparative

advantages are a well qualified and cheap labour force. Long-term development of the branch depends crucially on new production programs with strong sales potential. As implementation of these programs requires significant capital input, in particular in areas where high technological investments are needed, the future dynamics of the branch is highly dependent on cooperation with foreign partners.

A special position in the ongoing process of restructuring of this branch has the restructuring of the production capacities for defence purposes. In defining development objectives of this segment of the industrial production, strict economic criteria were combined with criteria of the country's security and other strategic interests. The establishment of the Holding of Armament Industries, a joint stock company directly responsible for manufacturing of strategic products and repair of military technique, is expected to be an important institutional mechanism of implementing these objectives.

In the interest of maintaining and/or strengthening its export position, the metal processing and the metal products manufacturing has been and will continue to be the subject of intensive restructuring process. This process which requires high capital investment is aimed at modernizing and rationalizing the existing capacities as well as at bringing the status of their environmental protection closer to the new environmental legislation of the country. The main challenge the branch is facing is how to retain its strong competitiveness in light of (i) raising energy prices, and (ii) the branch's full dependence on imports of iron ore.

The chemical and pharmaceutical industries are the only branch which shows a significantly improved utilization of production capacities and strong export penetration. This has been achieved through the implementation of an innovation-led restructuring process. The branch, seen from the perspective of the industry as a whole, is characterized by significant improvement of its absolute and relative position. This can be confirmed by the output and exports growths as well as by its healthy financial situation, a characteristic that not long ago would only be applicable to the metal processing and metal products manufacturing. As a branch with strong foreign trade surplus, mainly in developed market economies, chemical and pharmaceutical industries are expected to remain one of the country's development priorities, in the framework of which the raw material and material basis will develop for other sectors of the economy, and that these industries will contribute towards further export expansion of Slovakia.

The building material industry represents a technically and technologically rather well developed branch based on utilization of domestic raw materials. The present and future restructuring of the branch is expected to be based on the introduction of new modern technologies (which will be less raw material and energy intensive and will comply with the country's environmental requirements) while its dynamics

will be strongly influenced by the strength of the construction activity in the country.

Restructuring process in the manufacturing of timber goods, paper and polygraph industries (they became over the last few years important exporters) is mainly directed towards an increasing share of finalized products and energy saving as well as towards general modernization and environment friendly products.

In the textile and clothing industries, characterized by large-scale production units and highly oriented towards eastern and domestic markets, sales dropped by 30% to 40% in the period 1990 - 93. The branch has succeeded to reorient its sales and exports to developed market economies, and this was made possible primarily due to a single comparative advantage - cheap labour force. Privatization of the branch has not attracted much foreign interest and this has been the case for the following two reasons (i) low technological level of equipment and consequently requirements for large investments, and (ii) significant over-employment associated with socially negative effects of potential layoffs.

Similarly as textile and clothing industries, leather as well as glass industries are also confronted with the restructuring. The processes are aimed at changing the production structure which will respond to the demands of the domestic and foreign markets (exports of leather should reach 50% of total sales of the branch by 1998). The other objectives of these branches' restructuring are (i) to reduce their energy and raw material intensity, (ii) to increase the use of local raw materials, (iii) to contribute towards a more equitable regional development, and (iv) to comply to environmental requirements.

To conclude, in comparing the structure of the industry of the Slovak Republic with those of smaller Western-European countries, IP comes to the conclusion that the country's industry is overdimensioned in relation to heavy industries, in particular the processing of metals and manufacturing of metal products, heavy chemistry as well as heavy machinery engineering. In the heavy chemistry sector there is a disproportionate primary petroleum processing and heavy petrochemistry while in the machine engineering there is a strong accent on raw material intensive building and road construction machinery.

On the other hand, the Slovak industry is underdimensioned in those sectors which may be competitive on the world market, such as timber goods, paper and polygraph industries, light chemistry, light engineering and food industries. All these are sectors which put lesser demands on raw material and energy, but pose higher demand on education, research and know-how. The said structural gap shows a tendency to expand.

4.5.4. Investment Requirements of the IP

IP identifies a whole set of financial problems which influence the process of industrial sector restructuring. The document claims that the sector is strongly undercapitalized (app. 1/4 of the business sector operate with negative working capital), that its profitability is low (app. 50% of enterprises had losses in 1994) and that consequently the business sector has reached a high level of insolvency (inter-enterprise overdues amounted to SKK 230 billion).

To address the insolvency problem, IP proposes a wide range of policy measures, including (i) write-offs of bad debts, (ii) capitalization of defaulted credits, (iii) deblocking of foreign receivables by issuing state securities to cover them, (iv) stimulation of the banking sector to be more active in corporate financing, (v) efficient execution of the bankruptcy law.

The structure of investments of the industry sector by the sources of funding clearly confirms the problems faced by the enterprise sector, as almost 2/3 of their investment financing came from their own sources in 1993 and 1994 (see Table 42). The other two important sources are domestic bank credits and subsidies from the general budget, each of them with between 10% to 15% share. The importance of foreign capital in funding investment needs of the Slovak industry was below 8% what is 1 to 1.5 times less than in the case of developed market economies.

TABLE 42: Structure of Industrial Sector Investment, by Sources of Financing, 1993 - 1994

Year	1993	1994
Own resources	57.4	62.4
Credits	13.4	10.4
Subsidies from National Budget	14.0	11.5
Foreign resources	7.8	5.2
Other	7.4	10.5
Total	100.0	100.0

Source: ME, 1995, p. 86.

IP puts investment demand required for revitalization, restructuring as well as for the government programs of development in industries and building industry (this includes infrastructure financing) for the period 1995 - 2000 at the level of SKK

217 billion. This figure is significantly below the SKK 500 billion set in 1993 for the period 1993 - 2000, a target which has proved to be far too optimistic due to the continuing complexity of the economic situation in the business, the complexity of the privatization process and the acute shortage of financial credit resources.

TABLE 43: Investment Demand, 1995 - 2000

	Years 1995-2000		thereof 1996	
	SKK billion	%	SKK billion	%
Needs of resources thereof	216.9	100.0	50.3	100.0
- own resources	159.7	69.5	30.4	60.5
- credits (dom. and foreign)	54.2	25.0	16.6	33.1
- subsidies from National Budget	3.3	1.5	1.0	1.9
- other	8.7	4.0	2.3	4.5

Source: ME, 1995, p. 90.

As shown in Table 43, enterprises own resources are expected to remain by far the most important source of investment financing. As a part of the government's strategy, subsidies from the general budget are expected to become far less important than before. They should have a role of an auxiliary resource reflecting the commitment of the government to promote structural changes.

Significantly more important role is expected to be played by domestic banks as well as by foreign creditors. Expectations about a stronger role of domestic banks in enterprise financing is based on the fact that general budget will be providing a limited amount of state guarantees for bank credits required for the implementation of established governmental programs of development. A limit of SKK 18 billion was assumed for 1995 and subsequent years; the payment is expected to have the form of long-term credits with deferred repayment. Similar guarantee provisions will be available also from the NPF, again for the implementation of governmental development programs as well as for enterprises in which, after 1995 changes in the privatization law, the government holds at least 34% ownership share.

As far as foreign resources are concerned, the authorities are of the opinion that, taking into account the external position of the country as well as its credit rating, they should not have major difficulties in raising financial resources abroad, either in the form of loans or publicly or privately placed bonds.

4.5.5. Industrial Development Programs Incorporated in the IP

The last chapter of the IP provides a brief overview of governmental programs of industrial development. The programs are divided in two groups, general industrial development programs and sectoral programs. In each of the two groups, some of the programs have been launched in previous years, they were funded from government budget (resources were used for interest subsidies, guarantees for bank credits and other forms of financial assistance) and they are expected to be continued in the period 1996 - 98 while other programs are expected to be launched in 1996.

- a) general programs of industrial development; There are four programs in this group which are expected to continue in the following two years
 - (i) Promotion of Small and Medium Sized Enterprises Program - started in 1993 (financial requirement for 1996: general budget SKK 450 million, PHARE ECU 6.7 million),
 - (ii) Reduction of Energy Consumption in Apartment Houses and Apartments Program - started in 1993 (financial requirements for 1996 - SKK 120 million),
 - (iii) Promotion of Travel Movement Program - started in 1994 (financial requirement for 1996 - SKK 150 million), and
 - (iv) Promotion of Economic Activities in Savings of Energies and Imported Raw Materials - started in 1992 (financial requirements for 1996 - SKK 60 million).

In addition there are three programs to be initiated in 1996.

- (i) Assistance to Enterprises Facing Temporary Crisis; The Program, to be administered by the Ministry of Economy and Ministry of Finance, is aimed at supporting businesses classified among those ones which have to be consolidated because they contribute towards the implementation of industrial policy objectives, in particular with respect to the regional development and/or employment objectives. The Program will not be limited to projects in specific industrial branches and is expected to include also companies in the armament production, especially those ones under the Holding of Armament Industries.
- (ii) Promotion of Science and Technology; The Program's main objective is to close the gap between the Slovak industry's competitiveness and that one in developed market economies. It is intended for all business entities and will comprise of a number of individual scientific and technical projects derived from the strategic directions of Slovakia's industrial sector development (new materials and technologies; reduction

of energy and material requirements; environmental debts and problems; conversion from military to civil purpose production; quality improvement). The support is envisaged to be in different forms, depending on the type of activity, and is expected to be provided partly by the budget, partly by the business sector and partly by foreign technical assistance funds.

(iii) Introduction of Cleaner Production Program; Its objective is to contribute towards a reduction of environmental pollution and gradual revitalization of the environment by using the so-called "at the source" approach (see chapter 3.7). The Program administered by the Ministry of Economy is again intended for all business entities addressing their technological problems by the introduction of cleaner technologies, and thus minimizing their negative environmental impact. The Program is expected to be supported by financial instruments (financial support to companies introducing cleaner technologies), institutional mechanisms (Slovak Centre for Cleaner Technology; international standards ISO 9000 and ISO 14000; eco-technological information centres and data-bases; eco-technological regional systems of counselling and technical assistance; system of statistical registration; etc.) and legislation instruments (voluntary system of marking environmental friendly products; system of control in the form of non-mandatory technical standards; etc.). For 1996, the program plans to be financed from the government budget (SKK 3 million), UNIDO (USD 140.000), Norway (Norwegian Crowns 1 million) and Netherlands (Guilders 300.000).

(iv) Export Promotion Program;

b) sectoral programs of industrial development; In 1991 the government started the Military Production Conversion Program which is expected to continue in the period 1996 - 98 with its activity closely coordinated with the objectives of the Holding of Armament Industries.

In addition, there is the Promotion of Sectoral Projects Program to be initiated in 1996. Its main objective is to support activities required to increase competitiveness of the Slovak industries. The program is intended for all business entities providing for economic growth and for the objectives of the industrial policy of the Slovak Republic, in particular from the aspect of structural changes. The main source of financial support are expected to be general budget and the NPF guarantees for bank credits as well as non-guaranteed credits from domestic and foreign sources. As far as budget guarantees are concerned, they are expected to amount to SKK 58 billion for the period 1995 - 2000 (SKK 9.5 billion for credits from domestic financial institutions and SKK 48.5 billion for credits from abroad).

4.5.6. General Assessment of Slovakia's IP

There are in general two approaches towards the role of an industrial policy in a modern economy. On the hand are countries where industrial policy and the implementation of industrial restructuring is left largely in abeyance. Under this hands-off policy approach, it is assumed that stable macroeconomic environment would bring about necessary adjustment in the industrial enterprises and that governments should follow pragmatic policy of intervening only in exceptional cases. This laissez-faire approach argues that industrial policy ought to be largely left to the market who should select winners and losers among country's firms. There are arguments that industrial development should be left entirely to the market forces, but there are also counter arguments. These are based on the fact that market imperfections and defects, without authorities' correctives (either in the form of direct intervention or through indirect measures aimed at making markets work better), might lead to socially and economically less optimal outcome.

The other approach towards industrial development, applied also in case of the Slovak Republic, calls for a state as an active participant in defining objectives and instruments of industrial development as well as in selecting branches of industry for support. In addition to traditional theoretical arguments and based on the experience of some developed industrial countries, there are several country specific considerations which have led the Slovak authorities to the conclusion that a national industrial policy with clearly defined goals and means is required to guide the process of effective integration of the country in the global economy. Some of these considerations are the following:

- (i) The country has inherited extremely unfavourable situation in the industrial sector (predominance of the industry in the economy, and within in, of certain heavy industry branches; large sized industrial enterprises; strong reliance on military purpose production; strong regional concentration).
- (ii) Due to the demand shocks in early 1990s, the country was faced with a drastic decline in output accompanied by high growth of unemployment and inter-enterprise debt.
- (iii) In 1993, when Slovakia became an independent state, it was faced with another transition, i.e., transition from a regional to nation-state economy.
- (iv) The country is within the process of privatization, which will, together with industrial sector restructuring process, decisively influence the future structure and performance of the industrial sector.
- (v) The Slovak economy is rather small, and consequently some industrial branches are dominated by a few large firms. This raises at least two significant questions: (a) how to design industrial policy measures that they will not be more or less firm-specific in their impact, and (b) how to

balance the needs of the domestic market for a competitive environment with the desire to maintain firms whose size will permit them to be competitive on international markets.

Although a clearly defined industrial policy with enumeration of goals and means can be justified and, indeed, can be seen as a logical reaction to the mentioned country specific circumstances, it nevertheless raises at least some questions and/or doubts about Slovakia's IP.

A detailed set of the IP's short-term as well as medium and long-term objectives, although defensible in general terms, creates a strong possibility for conflicts between various objectives. The IP is also characterized by numerous institutional mechanisms which have been or are supposed to be established as well as by a large number of special development programs, both with the objective to support implementation of the IP's objectives. Too many institutions with not precisely defined mandates might create problems of duplication while too many development programs might have negative implications on the transparency of the industrial restructuring process.

IP is very specific also in the sense that it covers practically all industrial branches. This in principle is again not a problem, the problem, however, is that there is no actual priority given to each of them. True, industrial branches are classified in three groups: (i) strategic branches, (ii) branches utilizing domestic raw material base, and (iii) branches important for sustained industrial development. However, this classification, made by combining very different criteria, does not really mean that certain sectors have been selected for priority attention. This can be confirmed by the fact that all the branches are analysed more or less the same way and with more or less the same level of indebtedness.

Another characteristic of the IP associated with its branch by branch approach is that objectives set for each industrial branch are precisely determined. For most of industrial branches, the document goes even deeper as it identifies the firms that are to be the targets of industrial policy and in some cases it also identifies specific technological activities that the firms are to undertake and the value of investments required to implement these activities.

Such an approach, although rational from the point of view of the IP's objectives, might be very doubtful as the lack of clear criteria by which choices were formulated allows that economic principles are not the most important in defining industrial policy and that other arguments, including that one arguing to preserve the existing industrial structure, become of major importance in its formulation. In this context, the specificity of the policy measures at the branch level might even suggest that they have been strongly influenced by the lobby of influential

industrial enterprises and those government authorities responsible for their development.

Another striking feature of the IP is that it sets an extremely ambitious investment target for the period 1995 - 2000. How to explain this? As in many other countries, also in Slovakia the national industrial policy was prepared by the ministry responsible for industrial sector development - the Ministry of Economy. Taking into account its mandate, this ministry considers restructuring as a top priority for the country's economy as a whole and consequently is in general more inclined towards a interventionist industrial policy than some other segments of the government and economy in general.

To what extent the ambitious industrial policy proposals of the ministry responsible for industry (it is often supported by the ministry responsible for social affairs) will be adopted at the government level and/or will actually be implemented depends on other objectives of the government as well as on the importance of other players in industrial restructuring, especially the ministry responsible for finance (budget consideration), and the central bank (monetary consideration).

In the case of Slovakia, the Ministry of Economy has succeeded that a very ambitious IP was adopted by the government. However, taking into account that the Ministry of Finance and the central bank are known for their extremely prudent fiscal and monetary policy, it is fairly safe to assume that financial resources available for the IP's implementation will actually be lower than planned in this document. This conclusion seems to be even more certain because of the ongoing problems in the domestic financial system, relatively low volume of direct foreign investments and still rather limited access of the Slovak entities to credit resources abroad.

V. FUNDS, INSTITUTIONS AND PROGRAMS OF INTERNATIONAL ASSISTANCE TO SLOVAKIA

International financial and technical assistance to the Slovak Republic has been growing rapidly during the last few years and many programs of international financial institutions and bilateral sources bear direct relevance for the industrial sector.

The chapter provides an overview of financial arrangements (loans, equity participations, technical assistance programs) made between the Slovak government and entities on the one hand and international financial institutions and bilateral donors on the other hand.

Slovak debt towards multilateral financial institutions increased from below USD 100 million in 1990 to an estimated amount of over USD 1,000 billion at the end of 1995. More than 3/4 of it was the debt vis-à-vis the IMF (USD 494 million) and the IBRD (USD 288 million) and remaining to the EIB and EBRD. The country has also received some equity investment from multilateral financial institutions, especially from the EBRD (IIF, 1996, p. 3).

As far as technical assistance in the grant form is concerned (from both, multilateral sources and bilateral donors), the Slovak sources put its total amount to USD 213 million in the period 1990 - 1994, with the following annual break down: USD 7 million in 1990, USD 20 million in 1991, USD 38 million in 1992, USD 60 million in 1993 and USD 88 million in 1994. More than one half of this total was provided by the European Union's PHARE which is by far the largest donor in the country. Although data for 1995 are not available, it is safe to assume that the growing trend continued. It has to be underlined, however, that these figures cover only grant aid, and do not include loan financed technical assistance.

Information for this chapter was obtained from (i) contributions of local experts participating in the preparation of the CSS, (ii) documents of certain multilateral institutions and bilateral donors, and (iii) interviews with representatives of a number of multilateral and bilateral agencies resident in Slovakia. Nonetheless, the information provided in this CSS, especially those ones concerning activities of bilateral donors, should be seen as indicative and not complete.

5.1. Multilateral Assistance

5.1.1. International Monetary Fund (IMF)

In July 1993, the Slovak government signed an agreement with the IMF for a USD 180 million loan under the Systematic Transformation Facility. The agreement was aimed to reduce the Slovak budget deficit and inflation, to improve tax collection and to trim social benefits. Both tranches of the loan were disbursed by mid-1994. In July of that year, Slovakia entered into another arrangement with the IMF, a stand-by loan facility, valued at USD 169 million.

In the whole period since 1991, IMF has been providing technical assistance to the NBS and the Ministry of Finance on a broad range of operations under their responsibilities, including monetary instruments and operations, foreign exchange operations, monetary and balance of payments statistics, banking supervision as well as public finance management and tax policy and administration.

5.1.2. The World Bank Group

When it was still a part of the CSFR, Slovakia received one part of the USD 450 million SAL from the IBRD. The Czech and Slovaks have assumed repayment obligations in the ratio of 2 : 1. The SAL was co-financed by the Japanese EXIM Bank in the amount of USD 200 million and has been fully disbursed.

In the first year of independence, the country made two loan agreements with the IBRD. In July 1993, the Bank approved a USD 55 million to Slovenske Telekomikacie to finance part of the 1993 - 95 telecommunication development project aimed at strengthening the international and domestic long-distance network. The project is co-financed with loans from the EIB (ECU 45 million) and EBRD (ECU 44 million).

An Economic Recovery Loan of USD 80 million was approved in November 1993 to support Slovakia's ongoing transformation by financing fiscal and structural adjustment (financial sector development; privatization; private sector development; enterprise restructuring; energy price adjustment; social safety net) associated with restructuring and the break-up of the federation. As of January 1995, the loan has been fully disbursed.

Since 1994, progress towards developing new credit arrangements with the IBRD has been slow. A significant amount of work has been put into the preparation of an EFSAL with a tentative amount between USD 150 to 200 million. The credit was aimed to simultaneously address enterprise and financial sector restructuring.

In this context, diagnostic studies of 24 companies with proposals for their financial restructuring were prepared in cooperation with PHARE and USAID. There is no clear indication on the side of the government whether it is still interested for the program or not.

In addition to the EFSAL, there are some other projects in the pipeline in the areas of energy, forestry, health finance and in the social sectors, but their scope and timing has not been agreed yet between the IBRD and Slovak the government.

On the technical assistance side, the IBRD is assisting Slovakia through grants from the Global Environmental Facility in phasing out ozone depleting substances and in protecting biodiversity in three transboundary zones. The Bank has also begun to assist in the development of alternative energy resources (bio-mass and geo-thermal).

IFC has decided to support the development of SMEs in Slovakia through credit lines and venture capital funding. It will assist the country through establishing and/or strengthening leasing and factoring companies. In March 1995, IFC approved its first loan to Slovakia; the USD 18 million credit facility to Istrobanka aimed at supporting the restructuring and expansion of private and privatized companies.

IFC is also seeking to attract foreign investors to Slovakia. To this end, IFC's Foreign Investment Advisory Services completed a diagnostic study on foreign investment climate in the country in 1993 and held a number of investment seminars. Sectors of particular interest include pharmaceuticals, forestry products, glass, construction materials and durable consumer goods.

Slovakia is a member of the Multilateral Investment Guarantee Agency. Two preliminary guarantee operations have been received, but guarantees have not yet been issued.

5.1.3. European Investment Bank (EIB)

As of end 1995, the total EIB commitment to Slovakia amounted to ECU 253 million. The bank which is the second largest multilateral creditor of this country has the following credits to Slovakia in its portfolio:

- (i) June 1992 - an ECU 28 million loan to finance SMEs ventures. The project is directed to provide funds to local banks to be further distributed for manufacturing and tourism enterprises as well as for smaller-scale energy saving and environment protection schemes.

- (ii) April 1993 - an ECU 10 million loan to improve the European E-road network with Slovakia (EBRD made a parallel loan).
- (iii) June 1993 - an ECU 45 million loan to Slovenske Telekomunikacie; co-financing with the IBRD and EBRD (see the World Bank Group). In 1994, further ECU 20 million was approved for this project.
- (iv) June 1993 - an ECU 55 million loan to POZAGAZ for the extension of an underground natural gas storage facility close to the Czech and Austrian borders.
- (v) 1994 - an ECU 15 million loan to upgrade the air traffic control system.
- (vi) 1995 - an ECU 30 million loan for gas transmission.
- (vii) 1995 - an ECU 50 million credit line through the NBS for the SMEs.

Future areas of cooperation are expected to include roads and railways investment in trans-European networks, environmental improvements in the power sector, a municipal financing facility and support for future phases of telecommunications development.

5.1.4. European Bank for Reconstruction and Development (EBRD)

EBRD is the largest multilateral creditor of Slovakia. By the end of 1995, it had approved funding for 13 projects for a total investment of ECU 359 million, of which about ECU 300 million is in the private sector. In the public sector, the EBRD has approved two loans (both in 1993), one of ECU 44 million for the Slovenske Telekomunikacie (cofinancing with the IBRD and EIB; see the World Bank Group) and another of ECU 15 million for the improvement and rehabilitation of E-road network (in parallel with the EIB; see EIB).

Among the private sector projects, by far the largest is the loan/equity financing for the ZSNP aluminium smelter. The Bank provided an ECU 94 million loan and entered into ECU 12 million equity participation (another foreign equity participant is Hydro Aluminium, a subsidiary of Norway's Norsk Hydro). The funds were to finance completion of the smelter and redress existing environmental damage at the ZSNP site. Technical cooperation was also provided for environmental studies. In December 1995, the smelter went into operation.

Other EBRD industry sector financing operations in Slovakia include:

- (i) Sloveca - a loan of ECU 8.2 million was made to Sloveca, a joint venture formed by Enichem Augusta - 51% (a subsidiary of the Italian ENI Group), Novacke Chemicke Zavody - 33% (a Slovak state-owned chemical complex) and Slovnaft - 16% (a Slovak state-owned petrochemical and refining enterprise). The funds were used to build an advanced ethoxylation plant

within Novacke's existing complex site in Bratislava. The plant is to produce a variety of chemicals used primarily by the detergent industry.

- (ii) Slovnaft - In December 1994, EBRD approved an ECU 23 million loan to Slovnaft, Slovakia's national petroleum and petrochemical refinery company for an investment program to expand and modernize its retail petrol service station network. In July 1995, the Bank followed up with ECU 45 million equity investment in the company made through participation at the large share offering by Slovnaft designed to raise capital for the purchase and installation of a heavy petroleum residuals upgrading complex at its Bratislava refinery.
- (iii) SPPF - In November 1995 the EBRD approved an equity participation of ECU 30 million to finance SPPF, a venture capital fund for Slovak companies. The Fund is established with EC-PHARE equity participation ECU 12 million and technical cooperation contribution of ECU 8 million as well as with the fund manager contribution of ECU 1.3 million. The SPPF is to be managed by Framlington/CET, a joint venture formed by Framlington and the Central Europe Trust.

The SPPF will provide equity, effective governance and management assistance to private and privatized medium sized companies (100 to 200 employees) that are presently unable to raise private equity capital. EBRD staff and its consultants have reviewed a total of 250 Slovak companies, visited 52 and recently analysed 30 of these companies in detail. The appraisal has shown a good number of potential investment candidates and therefore that the capital of the SPPF will be invested in its totality.

- (iv) Polnobanka - In addition to the acquisition of 20% stake (ECU 5 million) in 1993 and further increased equity participation in 1995, EBRD has extended three co-financing facilities to the Bank with their total amount of ECU 30 million (Polnobanka provided another ECU 30 million). The funds are used for financing small and medium-sized investment projects in agribusiness.
- (v) Tatra Bank Credit Line and Istrobanka Credit Line - The proceeds of both credit lines (ECU 16 million and DEM 30 million; both approved in 1995) are being used primarily to fund long-term investments projects and permanent working capital requirements of small and medium-sized private enterprises. The loans are being used to finance the banks pipelines of projects, mainly in the manufacturing sector branches.

In addition to loans and equity financing, EBRD approved 19 technical cooperation programs for Slovakia for a total funding of ECU 5.7 million by September 1995. By far the largest amount, ECU 1.9 million, was used for technical assistance related to the Mohovce nuclear power plant project (the project was initially in the pipeline for the EBRD financing, but was later on,

due to its political controversy, removed from the list). Besides, technical assistance has been directed towards project preparation and support in the fields of environment, military conversion special restructuring program, telecommunications, railways, aluminium smelter shipyards, banking, energy efficiency and regional development.

The EBRD's broad strategic goals for Slovakia will also in future concentrate in four areas: (i) support for privatization and restructuring (equity and loan financing as well as improved corporate governance; restructuring of large Slovak enterprises; encouraging the inflow of foreign capital; promoting export oriented companies; supporting military conversion activities), (ii) support for financial sector development, (iii) support for SMEs mainly through local intermediaries, and (iv) support for public infrastructure and environmental protection (energy efficiency; transport; telecommunications; environmental rehabilitation).

5.1.5. European Union's PHARE Program (PHARE)

By far the largest provider of multilateral grant aid to Slovakia is EU and its principal institutional mechanism for channelling aid to the country is PHARE. Its basic intention is to support the transformation process of the countries of Central and Eastern Europe while the major forms of technical assistance it provides include studies, services of experts, organization of seminars as well as funding of necessary equipment required for the project implementation. In special cases, the PHARE funds may also be used for the financing of basic capital.

During 1990 - 1994 period, the total PHARE commitments to Slovakia amounted to ECU 168 million with approximately 50% already disbursed by mid-1995. The Program covered four main areas:

- (i) private sector development (ECU 62 million); The activity was concentrated on technical assistance for restructuring and privatization and for the development of SMEs. Technical assistance for SMEs has been channelled primarily through NADSME (in 1995, it became the PMU of the PHARE SME Program) and has been focused on the areas of development and further refining of the state policy towards the SMEs, of direct support for SMEs and craftsmen associations and of continued active role in the organization and participation of SMEs activities at home and abroad are carried out. By 1995, more than ECU 23 million was disbursed by PHARE for these purposes. In addition, development assistance to the SMEs has been provided also through different financial schemes, such as Small Loans Fund, The Guarantee Fund and the new Seed Capital Fund.
- (ii) infrastructure development (ECU 36.4 million); The program in this area was focused on transport and communications, energy and environmental

protection. In the area of transportation, the Program emphasized the need for coherent transport policy in the context of European integration while in the area of energy, an importance was given to a preparatory study for the establishment of an energy policy fund. The program also included the creation of an environmental fund.

- (iii) human resource development (ECU 50 million); The Program incorporates management training courses, especially in the banking and fiscal institutions (implemented through Human Resource Development Fund - HRDF as well as through Trans European Mobility Programme for University Studies - TEMPUS).
- (iv) implementation of the EU Association Agreement including harmonization of administrative and legal system with the EU and other initiatives (ECU 19.6 million).

In December 1995, the new Multi-Annual Indicative Program for 1995 - 1999 was signed between Slovakia and the EU. In the context of Slovakia's preparation for membership in the EU, the country will have to achieve two important objectives (i) the adoption of the *acquis communautaire*, and (ii) the consolidation and strengthening of the Slovak economy.

With these two objectives in mind, the 1995 - 1999 Indicative Program with an indicative budget of ECU 200 - 220 million (ECU 37 million for 1995) has similar priorities as PHARE's technical assistance to Slovakia in the previous period. It again include four areas:

- (i) assistance to private sector development so as to stabilize the economy in order to withstand the competitive pressures of the internal market (in 1995, ECU 37 million was planned for technical assistance in this area). More specific objectives of direct relevance for industrial sector development as well as projects and other activities aimed at their implementation include:
 - (a) support for the restructuring and privatization process of enterprises; The largest project in this area is SPPF (see EBRD) with planned PHARE contribution of ECU 5 million in 1995.
 - (b) further support to SMEs development through NADSME with its network RAICs and BICs; The Program with planned resources of ECU 7 million in 1995 continued to support NADSME's role in the development of refinement of the state policy towards SMEs, it will also support its information, counselling and training activities (RAICs and BICs; Subcontracting Exchange established using UNIDO know-how; Euro-Info Correspondence Centre; spin-off task force). In addition, PHARE continued its assistance for the credit and finance schemes for SMEs. In 1994, ECU 15.6 million (1/3 from PHARE, 1/3 from the Slovak government and 1/3 from commercial banks) was made available

for small loans scheme to SMEs. The scheme needs replenishments and the same stands for venture capital and seed money schemes. As a new financial initiative, a micro-credit scheme, similar to the ones in Hungary and Poland, has been under consideration. Small loans up to ECU 5000 would be provided on a short term basis.

- (c) support for trade and foreign investment promotion activities; Given the crucial importance to a small, open economy such as Slovakia of attracting foreign capital and maintaining healthy export sector, PHARE continued in 1995 with assistance to SNAFID (planned resources of ECU 0.7 million) and to the initiatives in the export promotion sector (planned resources of ECU 1.5 million). In regard to the former, the resources are mainly oriented towards further institutional strengthening of SNAFID so as to become stronger institution which has the capabilities to attract the foreign direct investment required for successful economic transformation. As far as export promotion is concerned, a new program was supposed to be launched in 1995. The goal of the proposed Slovakia Export Development Program is to increase exports as key element in the further internationalization of the Slovak economy and in the enhancement of its economic competitiveness. The components of the Program are export information, export marketing, product development, enterprise and sector development, training, development of support institutions and services and enhancement of the export environment.
- (ii) support for infrastructure investment to facilitate both the functioning of a healthy market economy and the integration of Slovak infrastructure into EU networks (in 1995, ECU 5.2 million was planned for technical assistance in this area); More specific objectives of direct relevance for industrial sector development as well as projects and other activities aimed at their implementation include:
 - a) to assist fulfilling the commitments of international nuclear safety standards and to improve energy efficiency including energy conservation measures and development of renewable energies; The Program with planned financial resources of ECU 3 million in 1995 was concentrated in four areas. The first one is technical assistance in the area of legislation, regulation and energy pricing in order to assist in completing and implementing the energy policy already defined by the government. The second area consists of a number of studies and projects (energy audits and feasibility studies; energy efficiency in district heating survey; energy saving in the housing sector project; regional energy study) which are all aimed at increasing energy efficiency. The third and fourth areas deal with energy diversification (studies) and securities of energy supply (feasibility assessment in the field of geo-thermal has confirmed good

- potential for investment in the Košice region; the IBRD and the EBRD have expressed interest in geo-thermal energy projects).
- b) to attain environmental standards that are economically and socially viable; The 1995 Program worth ECU 1 million was focused on the implementation of the National Environmental Action Plan whose main objective is to integrate the environment into economic transformation. The Program has four components, waste recycling (focused on establishing recycling circuits), air quality monitoring (focused on creating public awareness on the level of air pollution), rational use of waters (focus on assessing the introduction of economic tools encouraging rational use of waters) and institutional support for the Slovak Inspectorate of the Environment and the Slovak Environmental Agency.
 - (iii) support for institutional, legislative and regulatory development pre-requisite for the integration of the Slovak Republic into the EU (in 1995, ECU 5.5 million was planned for technical assistance in this area); The 1995 Program provided continued support for the implementation of the Europe Agreement (approximation of laws and the elaboration of the pre-accession strategy), for the development and strengthening of the judiciary, for the development of institutions central to the functioning of a market economy and integration into EU (the statistics, customs, industrial property, competition, standards administration) and for the development of civic society (support to the development of non- governmental organizations).
 - (iv) support for human resource development (in 1995, ECU 4.4 million was planned for technical assistance in this area). This segment of the Program addresses the establishment of an effective and efficient social protection and health system, further development and refinement of a labour market and orientation of the human capital development towards the requirements of the economic and social reform process.

5.1.6. Organization for Economic Cooperation and Development (OECD)

OECD created in March 1990 the Centre for Cooperation with the European Economies in Transition as a focal point for cooperation between OECD and the countries in Central and Eastern Europe. In 1991, the activities of the Centre expanded to include the former SU and, in the following year, Mongolia. In 1993 the Centre was renamed Centre for Cooperation with the Economies in Transition to reflect its wider geographical coverage.

Since 1991, the Centre has been operating special Partners in Transition program. Its target has been to provide targeted assistance to the four Vysegrad countries - Czech Republic, Hungary, Poland and Slovakia, i.e., to the countries more advanced in introducing market-oriented reforms to the process and to the

countries which desire to become OECD members. After Czech Republic, Hungary (they are already members) and Poland (it will join OECD in the second half of 1996), Slovakia is expected to become a member of the Organization by the end of 1996 or at latest in 1997.

Within the framework of Partners in Transition Program, a country specific program of technical assistance for Slovakia was designed and implemented. The Program has focused on the following activities: (i) economic survey of the Czech and Slovak Republic (completed in November 1993), (ii) industry review of the Czech and Slovak Republic (completed in 1993), (iii) technical assistance with industrial restructuring policies, (iv) review of foreign investments legislation and promotion policies, (v) training in privatization policies, (vi) technical assistance on financial sector reforms, (vii) strengthening accounting practices, and (viii) improving of income tax compliance. In 1996, the OECD plans to complete its first economic survey focusing solely on the Slovak Republic.

5.1.7. European Free Trade Association (EFTA)

In 1993, EFTA organized two technical assistance seminars for Slovakia, one on Public Procurement and the other on Trade Policy and there is a possibility to organize further educational activities on European trade related issues, such as harmonisation of Slovak standards, determination of goods origin, customs, etc.

5.1.8. United Nations Development Program (UNDP)

The UNDP's resources for Slovakia in the period 1993-96 are USD 832,000. As of November 1993, three projects had been approved: (i) tourism development in Slovakia, phase II (USD 150,000), (ii) transfer of knowledge to expatriate nationals (USD 50,000), and (iii) training in management (USD 16,000). In addition to these approved projects, the following three projects were submitted to UNDP for consideration in 1994: (i) assistance in management and development of human resources in the field of telecommunications (USD 200,000), (ii) investment promotion in the Slovak Republic (USD 110,000) and (iii) improvement of salt iodization and removal of deficiencies caused by the lack of iodine in Slovakia (USD 80,000).

In 1994, the Slovak Republic was also participating in three UNDP regional programs, the first of which was operational at that time with the remaining two at the approval stage: (i) turn-around management program being executed by the EBRD, (ii) inter-model transport information system, and (iii) applied statistics for countries in a process of transition.

Slovakia participates in the 1995-98 regional statistical project "Support for Development of Social Statistics" and UNDP has also co-financed international seminar "Integrated Statistical Information Systems" held in Bratislava.

In cooperation with UNDP, the Ministry of Economy implemented in 1995 the Tourism Development Project aimed at strengthening of tourism in regions with the special interest in management and marketing.

5.1.9. EUROSTAT

The institution supports the transformation of state statistics in the countries of Central and Eastern Europe. The main lines the institution's activity in this respect are the following: (a) support to multilateral projects aimed to improve statistical registers, transform the classifications and create national accounts system, (b) establish bilateral cooperation with West European statistical offices, (c) organize education and training within TES framework, and (d) provide expert assistance required to resolve specific statistical problems.

5.2. Bilateral Assistance

Since the creation of the Slovak Republic, significant bilateral assistance has been provided to the country by a large number of industrialized countries. Basically, all programs focus their activity on one or more of the following areas: promotion of the democratization, economic restructuring and development of market economy as well as social sector reforms. This overview presents only those segments of their assistance which are directly relevant for industry sector development. Within this context, the overview is focused on areas defined as priority areas for cooperation between the Slovak Republic and UNIDO, i.e., on industrial restructuring and privatization, technology transfer including industrial and technological information, environmental protection, industrial investment promotion and development of SMEs.

5.2.1. United States

US technical assistance to Slovakia carried out through the USAID has been concentrated on enterprise restructuring, financial and business sector development, democratic pluralism initiatives and health sector reforms. As of September 1995, a total of USD 136.4 million of aid has been committed for Slovakia.

In the area of enterprise restructuring and development, including SMES, energy and environment, the assistance has been carried out through various projects and programs, including the following ones:

- (i) Slovak American Enterprise Fund; It is a financial fund supporting development of SMEs through equity investment and credit schemes. Investments are directed to selected businesses which create new jobs, stimulate exports, improve state of environment and save energy. By the end of 1995, the Fund committed USD 25.5 million for 32 projects. The majority of investments are in manufacturing, agriculture and agribusiness. The Fund Board also authorized USD 3 million from USD 6 million joint small lending program with Slovenska Polnohospodarska Banka. The Program which began in 1994 operates through 15 local branches of the bank.
- (ii) Entrepreneurial Management and Executive Development Project and Participant Training Project for Europe; The first one provides entrepreneurs and senior level managers of SMEs the opportunity to enhance their skills through practical management and development training in the United States. Skill development areas include marketing, general business, export management, product development, quality control and human resource development. Approximately 100 entrepreneurs have been trained under this program since 1992. The second project is also specifically oriented towards the development of SMEs through training of their senior staff members in the United States. In 1994, an aggregate of USD 530,000 was invested in individual training programs for participants from Slovakia (USD 120,000 in 1993).
- (iii) Slovak Enterprise Restructuring Project; The project which began in August 1995 provides direct restructuring and turnaround technical assistance to formerly state-owned enterprises to help them to become competitive, viable businesses.
- (iv) US Peace Corps; The main objective of this program is to recruit US small business volunteers who then come in Slovakia to advise local entrepreneurs on SMEs development. At the end of 1995, there were 20 volunteers in Slovakia who mainly work in the offices of local administrations or in branches of national institutions, in NGOs and schools. Some of them work also in RAICs and BICs where they help identify viable business plans and provide consulting in the areas of planning, financial management and marketing.
- (v) Nuclear Safety Program; US Department of Energy is implementing a short-term operational safety program at Bohunice. This program includes providing training, a plant analyzer and a probabilistic risk assessment. In addition, the US Nuclear Regulatory Commission supports the Slovak Nuclear Safety Authority by upgrading its capacity through provision of diagnostic computer safety codes, legal information and inspector training.
- (vi) Environmental Action Program Support; It provides training and institutional capacity building for environmental, technical and financial managers at

industrial enterprises and municipalities. The program focuses environmental policy and institutional reforms on investment which will work to solve environmental risks such as air and water pollution.

- (vii) World Environmental Centre; It has carried out two demonstration projects in chemical industry. The projects were implemented in the framework of industrial waste minimization programs in Central and Eastern European countries.
- (viii) Others; In the area of enterprise restructuring and development, other projects and programs include MBA Enterprise Corps Volunteers (volunteers - recent graduates - are placed in banks, brokerage houses and private companies in order to help their client in solving its day-to-day problems and evolving its business strategy), the International Executive Service Corps (volunteers are seconded to companies seeking assistance in management, marketing, process and quality control), American Business Centres, Entrepreneur Centres (in Bratislava, Košice and Banska Bistrica).

5.2.2. Great Britain

The British government provides its program of technical assistance to Slovakia through the KHF. Active in Slovakia since 1990, KHF's principal objective is to help establish and develop democratic institutions and the necessary framework for a market economy. Within this context, its activity has been focused in the areas of finance and banking, management and educational development, assistance to SMEs, local government, public administration and good governance.

From a point of view of industrial sector development, the following projects and programs from SMEs and environment areas are in preparation or in different stages of implementation:

- (i) Business Support Agency Development; A two year pilot project with RAICs in Martin and Zvolen, consisting of two components: RAIC capacity building and skills development and the promotion of commercial linkages between UK and Slovak partners.
- (ii) RAIC Poprad; Two projects are underway in this RAIC. The first one "Poprad Regional Tourism Project" is focused on the preparation of a sustainable tourism development plan in the Poprad region while the purpose of the second one, "RAIC Poprad and ISO 9000", is to assist to introduce procedures which conform to the requirements of the international quality control standard ISO 9000 and to achieve certification from a recognized third party auditor.

- (iii) Regulatory Barriers to SMEs Development; the aim of the project is to research and identify the regulatory barriers to SMEs development and to prepare recommendations for future action.
- (iv) Information System Development; In 1995, a two year program of technical assistance aimed at information system development and project management infrastructure was initiated, in cooperation with INFOSTAT and other governmental departments. The project will enable the improvement of cost, quality, timeliness and user satisfaction of the delivered information system. It will also enable applying modern methods of management and design of information systems, SSADM and PRINCE, both developed in the UK. The methods will be tested in three selected pilot projects.
- (v) Environmental course; KHF continues to support the development of a distance-learning package on environmental education and training at one of the universities through the translation and adaptation of an environmental course from one of the British universities.

5.2.3. Germany

Technical assistance from Germany has been concentrated in the area of SMEs and has been carried out primarily through NADSME. The assistance consists of three segments.

- (i) cooperation with RKW (Rationalisierungs Kuratorium der Deutschen Wirtschaft e V.), a non-profit organization in Germany, which provides consultancy and other training for SMEs in Germany. The project of cooperation for 1995 and 1996, funded by the German Ministry of Economy, is mainly designed to train advisors who will then provide consulting to newly established enterprises and to train branch advisors who will then operate either in RAICs or in various unions and associations of entrepreneurs. The project also contemplates establishment of closer cooperation links between business associations of individual sectors in Slovakia and Germany.
- (ii) cooperation with the SEQUA (the Foundation for the Economic Development and Expert Qualification) of the Central Association of German Entrepreneurs and the Slovak Union of Small Entrepreneurs was launched in 1995. The three years project, funded by the German Ministry of Economic Cooperation, has three objectives: to strengthen an institutional capacity of the Slovak Union of Entrepreneurs, to create conditions for the production of high quality products in the selected regions and branches of Slovakia's community of small entrepreneurs, and to establish conditions necessary for practical and theoretical training according to the needs of small entrepreneurs in selected areas.

- (iii) cooperation with the RKW of Baden-Wurttemberg; In cooperation with RAIC Považska Bystrica, the foreign partner has prepared a project of training and support in the area of metallurgy and metal processing.

5.2.4. Japan

The most important form of Japanese bilateral assistance to Slovakia is the so-called two step loan provided by the EXIM Bank of Japan to the NBS in February 1994. The loan in the total value of JPY 4,290 billion was designed for the support of SMEs in the Slovak Republic, and the support of Slovakia's transition to a market economy. The loan was granted for a period of 15 years with 4 years grace period.

These funds, channelled to the end users through four commercial banks (GCB, CCB, Slovenska poľnohospodarska banka and Tatra banka), have addressed one of the major obstacles in the Slovak SMEs development, i.e., the shortage of medium and long-term resources. By September 1995, 88% of the total resources had been actually committed for more than 150 individual projects.

Another form of Japanese assistance to Slovak SMEs is a cooperation of the Japanese Agency for International Cooperation with NADSME. It started in 1994 by visits of Japanese experts in Slovakia and continued by the participation of three NADSME representatives at the Small Business Policy Training in Japan.

5.2.5. France

Since 1994, a French working group, financed by the French Ministry of Foreign Affairs, has been involved in providing support and assistance to the NADSME's Subcontracting Exchange of Slovakia, mainly in the initial period of its operation. Activities of the working group are also directed towards establishing cooperation contacts between French and Slovak companies, primarily in the areas of machinery, textile and wood production and electronics.

In cooperation with CEPAC SOISSONS of France and the Fund of Employment of the Slovak Republic, NADSME initiated establishment of an interest association whose aim is to provide training and retraining of those unemployed who intend to or who have just become entrepreneurs. The first courses were conducted through RAICs in Považska Bystrica and in Trenčín.

As far as environmental issues are concerned, French technical assistance was provided for inventory of geo-thermal resources and their possible exploitation in Slovakia.

5.2.6. Netherlands

The project of cooperation within the framework of PSO 1994 for the years 1995 - 1996 with Guilders 950,000, designed to support activities of NADSME, started in January 1995. The project is aimed at improving the quality of NADSME's management and at supporting the network of RAICs/BICs by improvements in services provided to SMEs. The project is also designed to facilitate the access of SMEs to capital funds through increasing the quality of business plans, assistance in elaboration of 500 business plans and mediation of business contacts between the Slovak SMEs and Dutch companies.

Environmental protection is another area of Dutch technical assistance to Slovakia. With the Slovak-Dutch intergovernmental agreement, it was decided to develop a project within the framework of the program of cooperation with Central and Eastern Europe demonstrating clean production and energy saving options. In subsequent discussions the two sides agreed to focus this demonstration project on the sugar industry. The two year project, being carried out in close cooperation with SCPC, focuses on two factories in Trnava and Sladkovičovo and it started in 1995. The total budget of the project is Guilders 620,000.

Other Dutch ecological projects in Slovakia includes transfer of know-how for decontamination of contaminated soils (project prepared by Geos, Bratislava and INGEO, Žilina) and introduction of ecotoxicological and biological monitoring in the system of measurements of surface waters in Slovakia (project prepared by the Slovak Hydrometeorological Institute and Ecotoxicological Centre, Bratislava).

On the basis of Memorandum of Understanding between the Dutch and Slovak governments the project of alternative education for new information technologies is under implementation. The project, financed partly by the Dutch and partly by the Slovak government, will develop a comprehensive system of training modules for databases, data analysis, data modelling and data management, structured programming, software engineering methods and techniques, data communications and networks, organization and information policy, office information processing and decision support systems.

5.2.7. Norway

Slovak Republic was chosen as a host country of the Norwegian environmental aid program for the Central and Eastern European countries. The main goal of the program is the human and institutional capacity building in cleaner production and waste minimization.

The Slovak - Norwegian Cleaner Production Project was launched in 1992. At the beginning (1992 - 1994), the project consisted of training and demonstration. The

first one-year capacity building program (training of trainers) with nearly 40 participants and in-company demonstration in 11 companies started in April 1993 and was completed in February 1994. This post graduate study was repeated from April 1994 to February 1995 with approximately the same number of participants, but this time already with all needed materials translated into Slovak and with some of the participants from the first program as lecturers. Both programs have been organized under the auspices of the Norwegian Society of Chartered Engineers.

In December 1994, SCPC was founded as part of the Slovak Cleaner Production Project and since January 1, 1995 it is included in the network of national centres of the UNIDO - UNEP program (at the same time a total budget of USD 417,000 was granted by the UNIDO - UNEP for the period of 3 years; see for details Chapter VI: UNIDO's Cooperation with Slovakia).

With the creation of SCPC, the Slovak - Norwegian Cleaner Production Project entered into a new phase. Over the years 1995 and 1996, it will continue with training activities, so that at its completion at the end of 1996 its overall output will be: (a) 150 persons trained as cleaner production advisors in industry, consulting companies and universities, (b) 50 cleaner production assessments completed in enterprises with up to 40% reduction of emissions and waste generation and significant economic savings, and (c) decisive influence in the establishment of the SCPC. Norwegian financial contribution to the Project for 1995 was Norwegian Crowns 950,000.

Norway has been involved in another technical assistance in the environmental area. It has supported mapping of crucial environmental impacts in Slovakia prepared by the Slovak Hydrometeorological Institute in 1995.

5.2.8. Other

Many other countries have been providing technical assistance to Slovakia, including Austria, Belgium, Canada, Denmark, Luxembourg and Switzerland. An important area of their technical assistance are environmental projects. Some of the examples are the following:

Austria; (i) study on exploitation of geo-thermal energy in basins of Lipovsky Mikuláš and Košice, (ii) study of waste waters in area of March River as a part of the program for the Danube River Basin financed by the IBRD (prepared by Allplan, Wien in 1994), (iii) "Report on Environment Wien - Bratislava" (study ordered by the Austrian Ministry of Research and Development, 1994), (iv) project of combustion gas-percolation from malting technology in Bratislava and Trnava glass factories, (v) pre-investment study of hazardous waste incinerator in chemical enterprise Duslo, (vi) evaluation of present state of environmental

technologies and techniques - application of cleaner technologies (University of Graz and Stenum GmbH, Graz; started in 1995 as part of the SCPC activities), and (vii) project aimed at reduction of air emissions in petrochemical industry and refineries.

Belgium; (i) production of beringit for purification underground and surface waters by heavy metals (started in November 1995).

Canada; (i) a complex monitoring of environment in the area of the dam on Vah river near Žilina, and (ii) monitoring system aimed at controlling trade of radioactive materials on border crossings of the Slovak Republic.

Denmark; (i) vapour recovery unit for gasoline-vapour in Slovnaft refinery, Bratislava, (ii) ecotoxicological methods and strategies for evaluation of environmental impact (implemented by Ecotoxicological Centre; 1995), (iii) use of waste in region of Poprad for energy production (to start in 1996), (iv) use of geo-thermal resources for heating (to be carried out by Eco-Trend Consulting, Geological Institute and a Slovak company from Žiar nad Hronom; beginning scheduled for 1996), and (v) renewable energy and regional development project (coordinated by the Ministry of Economy, 1996).

Luxembourg; (i) (monitoring air-pollution in Košice (completed in 1995), and (ii) impact of hazardous organic pollutants on the quality of air in Košice (draft of the project under evaluation).

Switzerland; (i) continual measurement and evaluation of flying ash emissions from Slovak coal-power plants (draft of the project - Slovak Electricity), and (ii) regional waste treatment plant in Jablonica (draft project prepared by ASO, Bratislava).

VI. UNIDO'S CO-OPERATION WITH SLOVAKIA

6.1. Memorandum of Understanding

Since the establishment of the independent Slovak Republic on 1 January 1993 the Slovak Government has underlined the importance of developing a close cooperation with different UN agencies, especially UNIDO. To facilitate this cooperation a "Slovak Centre for the United Nations" (SCUN) was set up in January 1994, within the legal framework of ISTROCONTI Co., concentrating its effort on providing Slovak expertise for the specific needs of developing countries.

During the visit of the UNIDO Director-General to Bratislava in January 1994 a Memorandum of Understanding was signed between UNIDO and the Government of the Slovak Republic on cooperation in industrial development. The document was signed by Mr. Jozef Moravcik former Minister of Foreign Affairs and Mr. de Maria y Campos, Director General of UNIDO. The Memorandum forms a framework of cooperation between UNIDO and Slovakia.

The Memorandum specified the following priority areas for co-operation.

- Environmental protection and preservation of natural resources,
- Economic restructuring and private sector development, including privatization of state-owned enterprise,
- Technology transfer, including industrial and technological information,
- Industrial investment promotion,
- Development of small and medium-scale enterprises
- Human resources development.

In order to facilitate the implementation of the programme of cooperation between UNIDO and the Slovak Government the Memorandum covers also a provision on the establishment of the Joint UNIDO-Slovak Committee. The tasks of the Joint Committee include:

- (a) Preparing and recommending programme of cooperation,
- (b) Reviewing the progress of implementation of the agreed programme,
- (c) Making recommendations regarding working procedures, as well as organizations, financial and technical matters for strengthening cooperation,
- (d) Identifying new possible areas of cooperation between the two parties.

The Joint Committee meets once a year alternatively in Vienna and Bratislava.

6.2. Joint UNIDO-Slovak Committee

The first session of the Joint UNIDO-Slovak Committee was held in Bratislava, 16-17 January 1995. It was chaired by Mr. Jozef Šestak, State Secretary in the Ministry of Foreign Affairs, and attended by the high-ranking officials representing the Ministry of Foreign Affairs, the Ministry of Economy, the Ministry Environment, the Ministry for Administration and Privatization of National Property, the Ministry of Agriculture, Forestry and Food. UNIDO delegation was headed by Ms. A. Tcheknavorian, Managing Director, ISED.

Mr. J. Šesták, State Secretary in the Ministry of Foreign Affairs, Co-Chairman of the Joint Committee, underlined in his statement that Slovakia considers UNIDO as one of the most significant specialized agencies of the UN system and attaches great importance to cooperation within the framework of the Joint Committee. The Slovak Government's intention is to use this channel to strengthen cooperation with developing countries and countries in transition to share its experience and achievements under the so called "outreach" activities.

The Slovak Republic with its economic and human potential wishes to continue a close cooperation with UNIDO, promoted so successfully for many years within the framework of the Joint UNIDO-Czechoslovak Committee. Various Slovak institutions were involved in the past in the activities of this Committee. Many participants from developing countries participated in study tours, workshops, individual fellowships and group training programmes and seminars organized by Slovak enterprises and research institutions in the field of non-metallic industries.

In parallel to outreach activities the Joint Committee will promote UNIDO technical cooperation with the Slovak Ministries, industrial enterprises, industrial research institutes and other public and private associations and companies. Priority will be given to projects in the fields of environmental protection, economic restructuring and private sector development including industrial policy promotion, technology transfer, investment promotion, SMEs development and human resource development.

The promotion of UNIDO technical cooperation with Slovakia will be of particular importance in the transition phase of the economy with a view to strengthening and accelerating the process of economic transformation and mitigating the consequences of industrial pollution, restructuring industrial enterprises, including conversion of military production, promotion of SME and foreign investments.

Thus the Joint Committee is seen as a broad platform for promoting two-way oriented UNIDO cooperation on the one hand for the benefit of Slovakia and on the other hand - developing countries and countries in transition.

The preparatory meeting to the second session of the Joint Committee was held in Košice on 23 -24 May 1996. Its major purpose was to discuss the outline of

the strategy of a joint cooperation with Slovakia in 1977 - 2000 as well as the new modalities of programme/project implementation. The meeting reviewed also the progress achieved in the implementation and formulation of the technical cooperation projects in Slovakia as well as the outreach activities of the two UNIDO Programmes in Bratislava and Košice. The second session of the Joint Committee is tentatively scheduled for 12 September 1996 in Vienna.

The Second Session of the Joint Committee was held on 12 September 1996 in Vienna. The Committee endorsed the UNIDO-Slovak Strategy for Cooperation in 1997-2000. The Slovak Government's intention is to intensify cooperation with UNIDO in various fields to be financed not only from the Governmental but also from the private sector resources. In order to facilitate this cooperation the Government intends to transform the present national programmes for cooperation in non-metallic and metallic industries in UNIDO Centre(s) for Technical Cooperation. The meeting underlined also the usefulness of this forum for monitoring the progress achieved in the implementation of the ongoing projects with the identification of constraints and measures to overcome them, as well as programming of future activities and identification of funding opportunities.

6.3. Outreach activities of the UNIDO Programmes in Bratislava and Košice

The follow-up decision of the Slovak Government of 21 February 1995 laid a ground for the establishment of the non-metallic and metallic industries programmes located Bratislava and Košice respectively to promote outreach activities for developing countries and countries in transition. The activities are predominantly financed from the Slovak Government contribution to UNIDO.

6.3.1 Bratislava Non-metallic Programme

The major objective of the joint programme in non-metallic industries (JP/NMI) is to create an organizational framework and provide human and budgetary resources for the transfer of know-how, expertise and experience of the Slovak non-metallic industries in order to meet the acute needs of developing countries and countries in transition in the process of their industrialization and industrial restructuring. To respond to these needs the activities will concentrate on human resource development (training), consultancy, technological data collection and dissemination as well as keeping the roster of the Slovak experts for TC services in developing countries. The activities will be carried out within the framework of the Slovak Centre for UN by the Joint Stock Company ICT Istroconti (umbrella organization of JP/NMI) and its partners from non-metallic industries and research institutions.

development, many technological innovations and achievements as well educated managerial and technical staff.

Non Metallic Industries (MNI) occupy an important position in the Slovak economy. They are well developed, with relatively modern technologies employed with due regard to clean production and environmental protection, skilful management and experienced labour force.

The first workshop on Glass Industry was held in Bratislava from 9 to 15 June 1996. the objective of the workshop was to promote the small-scale glass manufacturing industry in selected group of countries. The workshop was attended by 14 participants from 8 developing countries.

6.3.2. Košice Metallic Programme

The UNIDO-Slovak Joint Programme in the Metallic Industries (JPMI) is established within the East Slovak Steelworks VSZ Group in Košice based on the metallurgical and engineering capacity of VSZ, and the experience in training and technical cooperation with the developing countries of various regions. The main activities of JPMI will focus on human resource development, technical cooperation, transfer of know-how and technology in metallurgy, engineering, mining and other basic industries in the developing countries.

The metallurgical industries (steel, copper, aluminium and ferro-alloys) are important sectors in Slovakia due to its high export contribution. 76% of metallurgical production is exported of which represents 30% of total Slovakia exports. The privatization process is well advanced; 9 major enterprises out of 13 were privatized.

Engineering industries with considerable production capacities, mutual interconnection of deliveries, size and qualification structure of the work force belong to the key branches of the Slovak Republic's economy. The structure of engineering industry production in Slovakia includes over 130 major producers practically 80% of the possible engineering production range out of these the most significant profile is represented by 25 product ranges. Slovakia is the fifth largest country world-wide in the deposits of refractory raw materials for both metallic and non-metallic industry and acquired considerable know-how in their processing.

In 1996 the Košice Programme organized international workshops on Management Information System, International Conference on Restructuring, and workshop on Maintenance. In addition the activities include study tours, diagnostic mission to identify needs for Slovak expertise and survey of Slovak companies to cooperate with UNIDO.

6.3.3 Slovak Companies visit to UNIDO

A group of more than 60 representatives from 30 Slovak industrial enterprises visited UNIDO on 5 December 1994.

The major purpose of this visit was to show the Slovak companies what UNIDO is doing in various developing regions, to present UNIDO programmes of cooperation in specific industrial sectors and to explain how the Slovak companies, as well as suppliers and/or users of industrial technologies. Though Slovakia has a status of a "recipient" country, the Slovak Government is strongly promoting "outreach" activities in developing countries in cooperation with UNIDO.

The visit confirmed that a huge potential exist to strengthen UNIDO-Slovak cooperation in many areas of industrial cooperation for the benefit of developing countries.

6.4. UNIDO technical cooperation programme

6.4.1 Completed projects

In October 1993 UNIDO completed its first TC project for the Slovak Republic, the feasibility study on "Modernization, Balancing and Expansion Project of Polypropylene in Slovakia", following the Government request received on 20 January 1993. The project was financed under the ongoing project US/GLO/92/006 - "Industrial cooperation for the promotion of investment projects in developing countries to be undertaken by the Japanese private sector".

The objective of the analyses was to determine whether or not the commercial operation of a polypropylene facility by SLOVNAFT, in cooperation with Japanese partners, was viable on the basis of existing tax incentives in Slovakia. The project was found to be unprofitable on strict financial criteria. A simulation analysis using the tax incentives granted by the Government of Hungary as an alternative generated the result that the project meet accepted international profitability criteria.

Given this result, the potential for the project to generate considerable foreign exchange earnings, the positive contribution the project would make to environmental protection, and the strong demand expected in Western European markets for polypropylene till at least year 2005, UNIDO recommended that the project should be undertaken.

6.4.2. UNIDO ongoing projects

6.4.2.i. Establishment of an industrial subcontracting and partnership exchange (SPX) in Bratislava (EU/SLO/94/001)

Total allotment: US\$ 104846

Government Counterpart: National Agency for the Development of Small and Medium enterprises in coop with various national industrial associations

Brief description:

The project focuses on assistance in the establishment of an industrial subcontracting and partnership exchange (SPX) in Bratislava to provide information and advisory services to small and medium industries in Slovakia and to promote subcontracting and partnership agreements between Slovak subcontractors and national or foreign main contractors based on UNIDO software. The ultimate goal of this project is to establish a network of the Slovak companies with two-three branch offices and Headquarters in Bratislava, consisting of 500-1000 registered companies. At present there are more than 100 registered companies mainly SMEs in the field of metal working, wood processing, metallurgy, engineering, textile, electronics. Two - three branch (regional) offices are planned to be established, each of them with 100 to 200 registered enterprises.

The project is financed from the PHARE resources assigned for Slovakia under special trust fund arrangements with UNIDO.

6.4.2.ii Technical Assistance to Novacke Chemicke Zavody Co. (SI/SLO/95/801)

Total allotment: US\$ 47,000

Government counterpart: Novacke Chemicke Zavody

Brief description:

The project was designed to evaluate the feasibility of the Novacke Chemicke Zavody development programmes. Many of the existing processes in this petrochemical complex are obsolete and some of the plants have to be shut-down. Therefore, new processes have to be selected and new units be built to accommodate the factory to the rules of a market oriented economy. The basic conclusions of the experts' report are that the factory requires serious modernization and investments to be competitive on the local and int. markets. Its product range should be diversified, the technological lines (reactors) as well as the instruments and control system need improvement.

The project was financed under UNIDO Special Industrial Services (SIS) resources.

6.4.2.iii. Slovak Cleaner Production Centre (SCPC)

Total allotment: US\$ 417,500
Government counterpart: Industry Confederation of the Slovak Republic
Ministry of Economy
Slovak Technical University
Ministry of Environment
Association of Cleaner Production Managers

Brief description:

Purpose of project is to achieve a critical mass of awareness, expertise and experience in the application of cleaner production in the industry so that the dissemination and application of the concept can proceed on a sustainable basis. To achieve the purpose, the project supports the establishment and functioning of a Slovak Cleaner Production Centre (SCPC) through which the cleaner production concept and methodology will be disseminated in the industrial enterprises, focusing primarily on medium and small-scale industry. Cleaner production case studies will be prepared, and at least partly implemented, in 20 industrial enterprises, and the findings and lessons learned will be exhibited in a manual. At least 50 people will be trained in cleaner production practices and application. The activities under this project are quite advanced. The cooperation has been established with three Slovak regions and the direct linkages are to be established with 3 to 8 enterprises in each of them. The project has already achieved a high degree of sustainability. The demonstration workshops are organized regularly including training.

The project is financed from the Austrian Government contribution to IDF.

6.4.2.iv. Slovakia TECHMART'96

Total allotment: US\$ 94,000
Government counterpart: Slovak Chamber of Commerce and Industry, Regional Office Trencin

Brief description:

TECHMART is a business forum where the rights to manufacture and upgrade existing product and processes can be bought and sold through direct contacts between technology seekers and technology suppliers from developed and countries in transition. The purpose of this project is to facilitate the entrepreneurs of small and medium industries to identify and acquire appropriate technologies from

Austria, Belgium, Canada, Germany, Japan, Netherlands, Switzerland, United Kingdom and United States of America as well as to negotiate and conclude contracts and joint-ventures and to upgrade the awareness of entrepreneurs on technology negotiation and acquisition process.

The TECHMART took place in Vienna (first day) and TRENCIN from 12 to 15 November 1996.

The project was financed from the Austrian Government contribution to IDF.

6.4.2.v. Policy Advice for SME Promotion (TF/SLO/95/005)

Total allotment: US\$ 270,000 to be paid in instalments

Government Implementation Agency: The National Agency for Development of Small and Medium Enterprises

Associate Agency: USAID

Brief description:

The project aims at strengthening the capacity of the National Agency for Development of Small and Medium Enterprises to analyse SME sector information and make recommendations to the Government on the necessary changes in policies, in the legal and regulatory framework as well as on incentives for development of SMEs. The project will assist in the establishment of a sustainable process for data collection and analysis to serve as a basis for policy formulation. The methodology for sector analysis and policy formulation process will ensure full participation of SME associations.

The project is financed from USAID resources assigned for UNIDO execution.

6.4.2.vi. TF/SLO/94/x01 Restructuring Assistance to ISTROCHEM

Total allotment: US\$ 285,850

Government counterpart: ISTROCHEM

Brief description:

Following UNIDO preliminary assistance delivered to ISTROCHEM under TSS-I resources (impartial evaluation of the restructuring strategy prepared by the Company) follow-up project activities have been designed.

The UNIDO assistance is expected in the fields of:

- Re-assessing the competitive advantage of the company and developing strategic marketing;

- Assess the overall structure of the company and propose necessary changes, (spin-offs);
- Improvement of quality and reliability of products;
- Introduce better financial and cost control;
- Reduce production costs and improve productivity;
- Introduce better management functions and procedures at plant level;
- Examine the possibility of joint ventures with Western Companies.

The project was approved quite recently. It is financed from the UK Know-How Fund under trust fund arrangements.

6.4.3. Slovak participation in regional project executed by UNIDO

6.4.3.i. Environmental Management/Industrial Policy Seminars in the Danube River Basin - DU/RER/91G31

Total allotment: US\$ 88,000

Brief description:

Following a letter of agreement between UNDP/UNOPS and UNIDO, two workshops were organized by UNIDO in cooperation with the Danube Programme Coordination Unit in 1995. The aim was to promote environmental management in industry to introduce the principles and practices of sustainable industrial development as a step towards establishing integrated policies for industry and environment.

The first workshop was organized in Sofia in April 1995 for the officials of the Ministries of Industry and Environment as well as plant managers from Bulgaria, Moldova, Romania and Ukraine. The second workshop was held in Bratislava (Slovakia) in September 1995 for the Czech Republic, Croatia, Hungary, Slovakia, and Slovenia. Its major focus was on the licensing of industrial activities.

The project was financed under the Letter of Agreement by UNDP/OPS.

6.4.3.ii. SME Programme for Central Europe (XP/RER/96/022, XP/RER/95/022)

Total allotment: US\$ 13,750

Brief description:

The project will produce a comparative analysis of current SME policies and programmes in Central European Initiative (CEI) countries that will provide a systematic basis for identifying areas of mutual interest and developing collaborative and complementary projects to support the development and promotion of SMEs in the economies in transition. A critical appraisal of current

SME policies and programmes, particularly their impact on the development of SMEs in various subsectors will enable UNIDO to provide appropriate policy advice and recommendations on effective interventions for subsector based small enterprise support. The project will also provide valuable inputs to the UNIDO SME programme in fine-tuning approaches and methodologies to address the specific requirements of the countries in the subregion and of economies in transition. ECE has expressed keen interest to cooperate with UNIDO.

The project was financed from the UNIDO regular budget for operational activities.

6.4.3.iii First Workshop on Environmental Management in Pulp and Paper Industries in the Czech and Slovak Republics, February 1995, Bratislava

Total allotment: US\$ 73,800
Government Counterpart: Research Institute for Pulp and Paper

Brief description:

A three day workshop was organized in Bratislava in 1995 with lectures and round table discussions among participants and leading international consultant on the following topics: introduction to environmental management; organization of environmental arrangement systems in the mill; legislation, standards and emission limits; new cleaner production technologies including forestry management and sustainability, pulping, bleaching, chemical recovery and recycling, waste paper utilization, papermaking, effluent treatment/disposal, energy and water savings. One output of the workshop was recommendations for activities to be carried out by the national Cleaner Production Centres in Czech and Slovak Republics.

The project was financed by the Austrian Government contribution to UNIDO.

6.4.3.iv Workshop on pollution abatement and waste management in the tanning industry (US/RER/94/105)

Total allotment: US\$ 104,700
Government counterpart: Tanners Associations
Chambers of Industry
Environmental Protection Agencies
Selected tanneries

Brief description:

The purpose of the project was to take stock of the pollution emanating from the tanning activities in the selected countries of the Danube River Basin and to enhance professional skills in introducing cleaner processing methods and in treatment and safe disposal of tannery wastes. Special emphasis was on handling chrome containing effluent and solids including chrome recycling, recovery and high exhaustion tanning. Specific examples - case studies - with designs, investment and operation cost estimates were reviewed. The workshop prepared series of recommendations for applications in tanneries.

The project was financed from the Austrian Government contribution to UNIDO.

6.4.3.v. Regional Programme for the establishment of high-tech incubation systems at the Academies of Sciences in the Czech Republic, Hungary, Poland and Slovakia

Total allotment: US\$ 1,578.610

Host country counterpart: Academies of Sciences of Czech Republic, Hungary, Poland and Slovakia

Brief description:

The programme is a follow-up to project SI/CZE/92/803 through which a high-tech incubator was established in the Czech republic at the Institute of Chemical Process Fundamentals of the Academy of Science. It is aimed at supporting the establishment of high-tech incubation systems (establishment and development of high-tech incubators into science parks) in selected institutes of the Academies of sciences of the participating countries. such business will utilize mostly industrial know-how resulting from the R&D efforts at the Academies. Although regional, the project is in fact composed of four national components with a strong orientation to exchange of experiences. In the longer term the experience gained can be of use to other less developed countries.

The project is financed by the Dutch Government contribution to UNIDO.

VII. PROJECT PROPOSALS

The Chapter contains basic information on 21 project proposals in Slovakia, for which foreign technical assistance is required. Majority of the project proposals (19), have been drafted by the Slovak national experts, two project proposals (No. 15 and 16) have been submitted by the Agency for Development of Small and Medium Enterprises. The project proposals can be broadly classified in the following two groups:

- (i) project proposals which address problems that are in direct UNIDO's field of competence (No. 1 - 16), and
- (ii) project proposals which address problems primarily dealt with by other international organisations but UNIDO is interested to cooperate (No. 17 - 21).

Project proposals from the first group represent all five broad areas identified by the Joint UNIDO-Slovak Committee as priority areas for co-operation between UNIDO and the Slovak Republic.

- (i) industrial restructuring and privatization; project proposals No. 1 - 4,
- (ii) industrial investment promotion; project proposal No. 5,
- (iii) development of SMEs; project proposals 6 - 11, 17, 18, 20, 21
- (iv) environment protection; project proposals No. 12, 13, 19
- (v) industrial and technological information; project proposals No. 14 - 16.

PROJECT PROPOSAL NO. 1

Enterprise Restructuring: Pilot Case Study of Elektrosvit, Nove Zamky and General Guidelines

1. Background and Justification

During the transition from centrally planned to market economy, the firms in Slovakia have experienced severe shocks. Instead of planning authorities telling companies what to produce and providing necessary inputs and financing, firms must now sell their outputs and buy their inputs at prices set by the market. In addition, demand for their products in traditional markets has been reduced. Firms, have therefore been forced to find new markets, often in unfamiliar Western countries with higher quality requirements.

The major challenge for Slovakia is to reform its economic system so as to create an environment that will encourage its firms to restructure. In the broadest sense, enterprise restructuring in Slovakia refers to the process of reorganising the relationship between its enterprise sector and the world economic system so as to increase international competitiveness. At the company level, enterprise restructuring encompasses a broad range of activities, including legal, financial, technical, marketing as well as organisational and operational restructuring.

Elektrosvit, Nove Zamky is a company whose main line of business is manufacturing of electric light devices, small electric machinery as well as cooling and air-conditioning appliances. As a result of severe shocks which have accompanied its transition to market economy conditions, the company has been faced with drastic decline of sales and consequently with significant losses. The company is in the process of privatization. For the time being, 97 per cent of the stocks are owned by the Fund of National Property and the remaining 3 per cent by the Restitution Fund.

2. Objectives

General objective of the project is to assist the government in its efforts to increase the international competitiveness of the Slovak enterprise sector through the process of its overall restructuring.

Within this framework, the project has two specific objectives:

- (i) to prepare a restructuring program of Elektrosvit, Nove Zamky, as a pilot case study,
- (ii) to prepare, on the basis of the pilot case study under (i) and other relevant documents, general guidelines addressing all major aspects of a restructuring at the company level in Slovakia.

3. Expected Output

- (i) case study for restructuring of Elektrosvit, Nove Zamky; - it will address, among others, the following segments of restructuring: (a) legal (issues of corporazation), (b) financial (restructuring of the enterprise's balance sheet - its debt and equity), (c) technical (restructuring of production processes), (d) marketing (pricing, organising a sales force and modern distribution channels, identification of potential partners in the country and abroad), (e) environmental and quality control (establishing the system compatible to international standards), and (g) organisational and operational (introducing modern management techniques),
- (ii) survey of restructuring activities implemented in Slovakia over the last few years, and
- (iii) general guidelines for enterprise restructuring, prepared on the basis of the pilot case study under (i) and other relevant documentation.

4. Activities Required to Implement the Project

The project will be implemented in two phases. The first one will consist of the following activities:

- (i) assessment of the macroeconomic framework (legal and regulatory, financial and banking sector reform, privatization, industrial policy) in which the restructuring of the Slovak enterprises is taking place,
- (ii) drafting of the survey of restructuring activities implemented in Slovakia over the last few years (what has already been done in this area - for example, 24 company studies prepared within the framework of the proposed EFSAL credit or studies prepared with the framework of the Slovak Post-Privatization Fund),
- (iii) drafting of the pilot case study for the restructuring of Elektrosvit, Nove Zamky,
- (iv) workshop aimed at reviewing the two drafts and at providing suggestions for the preparation of the general guidelines for enterprise restructuring, and
- (v) finalization of the Elektrosvit pilot case study. The following activities are expected to be implemented in the second phase of the project:
 - (i) drafting of general guidelines for enterprise restructuring,
 - (ii) workshop aimed at reviewing the draft guidelines, and
 - (iii) finalization of the guidelines and their publication.

5. Counterparts in Slovakia

Ministry of Economy of the Republic of Slovakia (primarily for the preparation of the guidelines) and Elektrosvit, Nove Zamky (primarily for the preparation of the pilot case study).

6. Budget

The project, envisaged to be completed in the period of one year, has a total budget equivalent to \$ 192,000. Of this total, participation of the foreign technical assistance is estimated at \$ 152,000, and participation of the Slovak side at \$ 40,000. In addition, the Slovak side will provide office support for the foreign consultants during their stay in Slovakia.

\$

	Foreign Technical Assistance	Slovak Participation	Total
A. Phase One			
a) International expert (1 person; 6 man/months) - pilot case study (4 man/months) - survey (2 man/months)	(32,000) (16,000)		48,000
b) National expert (1 person; 6 man/months) - pilot case study (4 man/months) - survey (2 man/months)	(4,000)	(8,000)	12,000
c) Workshop for 10 participants, of whom 5 from abroad - travel costs (3,000) - other (documentation, facilities, lodging, etc.)	(15,000)	(10,000)	25,000
Subtotal A	(67,000)	(18,000)	85,000
B. Phase Two			
a) International experts (2 persons; 6 man/months)	(48,000)		48,000
b) National experts (2 persons; 12 man/months)	(12,000)	(12,000)	24,000
c) Workshop for ten participants, of whom 5 from abroad - travel costs (3,000) - other (documentation, facilities, lodging, etc.)	(15,000)	(10,000)	25,000
d) Publication of guidelines	(10,000)		10,000
Subtotal B	(85,000)	(22,000)	107,000
Total	(152,000)	(40,000)	192,000

PROJECT PROPOSAL NO. 2

Strengthening of the Management Capabilities for the Needs of Privately-Owned Companies

1. Background and Justification

In the enterprise sector, the crux of the transition towards market economy is the development of a private sector through an extensive program of privatization of state-owned enterprises and through mechanisms to support the start-up of new private enterprises.

As a result of these processes, the private sector grew rapidly in Slovakia since 1989. The number of enterprises in the country increased to over 40,000 in mid-1995, of them some 20 per cent in the industrial sector. Out of the total number, more than 95 per cent are privately owned.

The management in both, privatized enterprises as well as in newly established private enterprises, is faced with similar challenges - to establish or restructure the volume and profile of their products, to introduce appropriate production technologies and marketing techniques, to strengthen financial and human development management and, most importantly, to plan their future on the basis of an understanding of their competitive strengths and their situation in the world market.

2. Objectives

The general objective of the project is to support the government's efforts aimed at strengthening the capabilities of the management structures in privately-owned companies. On a more specific level, the project has the following objective:

- (i) to develop teaching material (curriculum) for a 5-day course on company management for managers from privately owned companies; the course would have, among others, the following four modules: (a) business plan module, (b) module on marketing, (c) module on financial management, and (d) human resource management module,
- (ii) to organise the course in Bratislava, Žilina, Banská Bystrica and Košice, with 40 - 50 participants each.

3. Expected Outputs

- (i) teaching material (curriculum) for the course on company management (for each module, two sets of papers will be prepared, one addressing the theoretical side of the subject and the other one, usually in the form of a case study, discussing practical issues),

- (ii) the course participants (160 - 200) with substantially improved understanding of problems faced by company managers and options they have for addressing these problems,

4. Activities Required to Implement the Project

- (i) telaboration of the outline for the course on company management, by assessing relevant literature and by consulting relevant foreign institutions,
(ii) drafting of the teaching material (curriculum) by the course lecturers,
(iii) preparation and organisation of the four courses.

5. Counterparts in Slovakia

Empiria Ltd, Bratislava in co-operation with the Ministry of Economy.

6. Budget

The project, to be implemented in 8 months, has the total budget equivalent to \$ 132,000, of which the Slovak side (Empiria Ltd, course participants) will participate with \$ 56,000.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 2 man/months)			16,000
- outline (0.5 man/months)	(4,000)		
- teaching material (1 man/months)	(8,000)		
- course (0.5 man/months)	(4,000)		
b) Lecturers (10 man/months)			20,000
- drafting teaching material (10 persons; 8 man/months)	(16,000)		
- courses (10 persons; 2 man/months)	(4,000)		
c) Empiria Ltd staff (2 persons; 8 man/months)		(16,000)	16,000
d) 4 courses for 40 to 50 participants each			80,000
- travel costs for lecturers (2,000)	(20,000)		
- lodging/other for lecturers (2,000)	(20,000)		
- other costs (documentation, facilities, etc.) (5,000)		(40,000)	
Total	(76,000)	(56,000)	132,000

PROJECT PROPOSAL NO. 3.

Total Quality Management Project

1. Background and Justification

The classical centrally planned economy relied on material balances using input - output matrices to match available resources and desired demand of final goods. The main emphasis was on quantitative measures and indicators to the detriment of other considerations, especially cost efficiency and quality.

In order to improve the international competitiveness of its economy, the Slovak authorities launched the Slovak Quality Development Program in 1989. The Program established the following three priorities: (i) to increase the number of companies with ISO 9000 quality certificates for their products, (ii) to establish National Quality Centres aimed at promoting quality control, and (iii) to develop ISO 9000 quality management system.

For the time being, the activities of the quality management system have been highly concentrated on a relatively small number of large export-oriented industrial enterprises. With the objective to broaden the quality awareness campaign on other segments of the economy, especially on small and medium-sized enterprises, the introduction of the total quality management system is considered as one of the government's priorities in this area.

2. Objectives

General objective of the project is to support the government's efforts to increase the quality level of the Slovak industrial sector products so that they will be more competitive on international markets. More specifically, the project has three objectives:

- (i) to prepare a total quality management guide,
- (ii) to elaborate teaching material (curriculum) for a training course on total quality management, and
- (iii) to prepare and organise a one-week training course on total quality management for 15 - 20 participants; they will be trained to later on organise similar courses for company managers in different regions of the country ("training of trainers").

3. Expected Output

- (i) guide on total quality management,
- (ii) teaching material (curriculum) for the training course on total quality management,
- (iii) 15 - 20 trainers with sufficient skills to organise education of company managers on total quality management in different regions.

4. Activities Required to Implement the Project

- (i) definition of terms of reference for both, the guide and the training material (curriculum) on total quality management, by assessing relevant literature and by consulting relevant foreign institutions (short-term study tours),
- (ii) drafting of the both documents by a group of international and national experts,
- (iii) training course for trainers (15 - 20 participants); at the course, the teaching material will be tested,
- (iv) finalization of the guide on total quality management and its publication.

5. Counterparts in Slovakia

The project will be implemented by the Ministry of Economy of the Slovak Republic, in co-operation with the Institute of Education from Trenčín and Marketing and Management Academy from Žilina.

6. Budget

The project, to be completed in 12 months, has an estimated budget equivalent to \$ 105,500. Of this total, foreign technical assistance is estimated at \$ 89,500. The rest, in the form of in kind participation, will be provided by the Slovak counterparts.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 8 man/months) - guide (4 man/months) - teaching material (4 man/months)	(32,000) (32,000)		64,000
b) National experts (3 persons; 6 man/months) - guide (2 man/months) - teaching course (1 man/months) - training course (1 man/months)		(4,000) (6,000) (2,000)	12,000
c) Short-term study tours (3) - travel costs (2,000) - lodging/other (1,500)	(6,000) (4,500)		10,500
d) Training course for trainers (20 participants) - travel/lodging (500) - documentation, facilities, etc. (200)	(10,000)	(4,000)	14,000
e) Printing of the guide	(5,000)		5,000
Total	(89,500)	(16,000)	105,500

PROJECT PROPOSAL NO. 4

Regional Development Agencies (Pilot Project)

1. Background and Justification

The Slovak Republic is, similarly as most other countries in transition to market economy, a centralised state where regional and district authorities wield only administrative and executive powers.

Being aware that some degree of political and administrative regionalism would make it easier to draw public support for certain aspects of economic reforms, particularly those having the highest social and political cost, the Slovak government has been introducing different policy measures addressing the problem of economic revitalisation of districts that have been particularly hard hit by the transition.

In September 1995, the Slovak government adopted a special resolution, whereby autonomous Regional Development Agencies (RDAs) will be established to support the overall regional development of the country. The resolution also requests that in order to avoid duplication, the network of RAICs/BICs (the basic element through which NADSME implements its support to SMEs on a regional basis) should be used as catalysts for RDAs' establishment and development.

2. Objectives

The general objective of the project is, by taking advantage of the existing RAICs/BICs, to develop and put into operation the concept of RDAs. More specifically, the project has the following two objectives:

- (i) to prepare a feasibility study which will (a) specify activities to be carried out by a RDA (preparation of regional development plans and projects, preparation of studies analysing regional comparative advantages, training activities, etc.), and (b) elaborate forms of co-operation between RDAs and RAICs/BICs (are these to be two separate networks or the activity of existing RAICs/BICs will be broadened so as to cover also activities to be carried out by RDAs).
- (ii) to establish and put into operation two pilot RDAs.

3. Expected Output

- (i) feasibility study on the role of RDAs and their relationship to RAICs/BICs,
- (ii) criteria for the selection of regions or districts where the two pilot RDAs will be established,
- (iii) two fully operational RDAs.

4. Activities Required to Implement the Project

- (i) definition of the terms of reference for the RDA feasibility study,
- (ii) drafting the RDA feasibility study,
- (iii) setting up criteria for the selection of the regions where the two pilot RDAs will be established,
- (iv) short-term study tours to relevant foreign institutions dealing with regional development problems,
- (v) workshop aimed at reviewing the RDA feasibility study draft and the criteria for setting up the two pilot RDAs,
- (vi) selection of the locations where the two RDAs will be established and development of their centre-specific business plan,
- (vii) putting into operation both pilot RDAs.

5. Counterparts in Slovakia

NADSME in co-operation with regional and district authorities.

6. Budget

The pilot project with the expected duration of 6 months has the total budget equivalent to \$ 98,500, of which the Slovak side will participate with \$ 15,000. In addition, it will provide the premises required for the work of the two pilot RDAs will be provided by the regional or district authorities.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 6 man/months) - feasibility study (3 man/months) - establishing two pilot RDAs (2 man/months)	(24,000) (16,000)		40,000
b) National experts (3 persons; 9 man/months) - feasibility study (1 person; 3 man/months) - establishing two pilot RDAs (2 persons; 6 man/months)	(6,000)	(12,000)	18,000
c) Short-term study tours (3) - travel costs (2,000) - lodging/other (1,500)	(6,000) (4,500)		10,500
d) Workshop (10 participants, of whom 3 from abroad) - travel costs (3,000) - other	(9,000)	(3,000)	12,000
e) Equipment - 2 Pcs (5,000) - 2 printers (1,000) - other	(10,000) (2,000) (6,000)		18,000
Total	(83,500)	(15,000)	98,500

PROJECT PROPOSAL NO. 5

Institutional Strengthening of the Ministry of Economy in the Area of Foreign Direct Investment

1. Background and Justification

Although the volume of foreign direct investment (FDI) to Slovakia increased significantly over the last couple of years, the country's share in the total FDI stock among CEFTA countries is not more than 5 per cent. In spite of a sound macroeconomic environment, the country has neither the image nor the critical mass of existing FDI which would cause further investment to be self generating.

Recognising the crucial importance of FDIs for a small and open economy (they are instrumental for the introduction of new technologies, know how, organisation and management as well as of marketing skills and capital), the government of Slovakia has decided to strengthen its activities aimed at stimulating the inflow of FDIs in the country. In the past, none of the governmental offices has systematically covered these issues.

A special department of foreign investment has been established in the Institute of Economics; the Institute was established in October 1995 to provide an analytical backup to the Ministry of Economy. The main objectives of the Department are (i) to establish and put into operation a monitoring system for FDIs which will provide an integrated data base required as a background for designing and updating government policy measures in this area, and (ii) to develop analytical capabilities which are required for the analysis of FDI trends and barriers which obstruct their inflow in the country as well as for drafting the government policy and strategy aimed at promoting FDIs. In addition, the Department is expected to develop a system of providing both, domestic and foreign investors, with information services required throughout the investment cycle. With all these activities, the Department will strengthen the country's institutional capabilities in the area of FDIs. The Department is namely aimed not at duplicating but at complementing those FDI services which are already available by some other Slovak institutions, like SNAZIR or the Slovak Chamber of Commerce and Industry.

2. Objectives

The general objective of the project is to support the institutional strengthening of the recently established Department of Foreign Investment. More specifically, the project has the following objectives:

- (i) to support the establishment (designing a software and installing a hardware) and putting into operation of a modern information system for FDI. From the substance

point of view, the system is expected to be able of monitoring a whole range of the Department's activities, including the investment planning, promotion and implementation. As far as the technical side is concerned, the system is expected to link the Department with appropriate regional offices as well as with other relevant institutions in the Slovak Republic and abroad, especially in OECD countries.

- (ii) to provide various forms of training to the Department's professional staff. The overall objective the training is to upgrade the staff's capabilities so as make them capable of meeting the expectations putting before the Department.

3. Expected Output

- (i) software for the information system aimed at monitoring various aspects of FDI's in Slovakia,
- (ii) data bases to be used in the information system under (i), and,
- (iii) core group of the Department's professionals (3 to 5 people) with special training of various issues relevant for FDI's; the group is expected to disseminate its experiences to other staff members.

4. Activities Required to Implement the Project

The project will be implemented through two mutually reinforcing lines of activities, establishment of the information system for FDI's and training of the Department's staff.

Activities related to the establishment of the information system will consist of the following: (i) defining the outputs to be provided by the information system, (ii) designing the software and determining the data bases, (iii) defining the configuration of the hardware, (iv) testing the software and installing the hardware, and (v) putting the software into operation

As far as training activities for the Department's staff are concerned, they will consist mainly of three types: (i) on-the-job training (work in the team with international experts), (ii) short-term study tours (up to two weeks) to countries with relevant experiences in the area of FDI's, and (ii) training (up to two months) in specialised foreign institutions.

5. Counterparts in Slovakia

The Institute of Economics at the Ministry of Economy of the Republic of Slovakia, in co-operation with some other local institutions dealing with FDI's in Slovakia.

6. Budget

The project, to be completed in 12 months, has a budget equivalent to \$ 293,500 (office facilities to be provided by the Ministry of Economy) with the following breakdown:

\$

	Foreign Technical Assistance	Local Participation	Total
a) International experts (2 person; 18 man/months)			144,000
- concept of the Department (1 person; 12 man/months)	(96,000)		
- software and data basis (1 person; 6 man/months)	(48,000)		
b) Department's professional (3 persons; 36 man/months)		(72,000)	72,000
c) Short-term study tours (5)			17,500
- travel costs (2,000)	(10,000)		
- lodging/other (1,500)	(7,500)		
d) Training up to two months (3)			15,000
- travel costs (2,000)	(6,000)		
- lodging/other (3,000)	(9,000)		
e) Equipment			45,000
- 5 Pcs (5,000)	(25,000)		
- 5 printers (1,000)	(5,000)		
- other	(15,000)		
Total	(221,500)	(72,000)	293,500

PROJECT PROPOSAL NO. 6

Subcontracting Exchange of Slovakia (Second Phase of the Project)

1. Background and Justification

The Subcontracting Exchange of Slovakia (SES) began its operation in 1994, upon signing a contract among the NADSME, EU's PHARE Program and UNIDO. The main strategic objective of SES is to establish links and develop industrial co-operation between the Slovak firms and major foreign contractors. These activities are of crucial importance for speeding up the country's full integration into the world leading market economies

With the support of foreign technical advisors, mainly from UNIDO and France, the SES has implemented most of the objectives put forward at the time when the project was launched. Nowadays, there are about 100 companies which are members of the SES. They have been continuously promoted as potential Slovak partners for co-operation with foreign companies. Specific activities and/or programs carried out by the SES include the following: (i) technical analysis of 10 industrial companies, using the know-how of the UNIDOSS information system, (ii) organisation of the International Market Place for Subcontracting, Zemplinska Širava, September 1995, (iii) participation at specialised subcontracting fair MIDEEST, Paris, November 1995, (iv) two day seminar for foreign SES advisors conducted by UNIDO.

The above mentioned promotional activities of the SES have been complemented also by concrete business contracts between Slovak subcontractors and foreign main contractors. For example, the SES was involved in the operation of a bilateral co-operation between French main contractors and Slovak subcontractors.

2. Objectives

The main objective of the second phase of the SES is to strengthen its institutional capability so that it will be able to provide efficient support to the Slovak companies in getting into business contracts with foreign companies. More specifically the project has the following objectives:

- (i) to establish and further develop an across-the-country network of the national SES experts who will be able (a) to professionally conduct a technical analysis of a company interested for subcontracting co-operation, and (b) to ensure continuous flow of information between the SES and its members.
- (ii) to introduce and develop the UNIDOSS information system which will facilitate the use of unified European nomenclatures, and

- (iii) to broaden the team of SES's foreign experts with a good knowledge of and experience in the industrial sector (especially in the metal, electrical engineering, plastics and rubber branches) of their home countries; following a good experience with the French technical assistance in the first phase of this project, the SES members have expressed a strong interest to strengthen, on similar lines, also the co-operation with other EU countries (in the further text "interested EU country").

3. Output Expected

- (i) core group of the national SES experts (up to 20 persons) trained to successfully implement the tasks defined in the Objectives, under (i),
- (ii) introduced and fully operational UNIDOSS information system,
- (iii) established contacts between the Slovak subcontractors and foreign contractors in the "interested EU country",
- (iv) profile of the Slovak companies seeking subcontractual arrangements with contractors in the "interested EU country".

4. Activities Required to Implement the Project

The second phase of the SES project will be implemented through three mutually reinforcing lines of activities, first, establishing and training of a core group of national SES experts, second, introducing UNIDOSS information service, and third, strengthening co-operation with the "interested EU country".

Activities related to the establishment and training of core group of national SES experts will consist of the following: (i) preparation of the guidelines for the work of national SES experts, (ii) short-term study tours, and (iii) workshop for national SES experts.

As far as activities related to the strengthening of co-operation with the "interested EU country" are concerned, they will include the following: (i) preparation of the profile of Slovak companies seeking subcontractual arrangements with contractors in the "interested EU country", (ii) organisation of business trips for managers of selected SES members to potential contractors in the "interested EU country", (iii) organisation of other contacts between the SES members and contractors from the "interested EU country".

5. Counterparts in Slovakia

The National Agency for Development of Small and Medium Enterprises

6. Budget

The second phase of the project, with the duration of 12 months, has a budget equivalent to \$ 218,500. Of this total, foreign technical assistance is estimated at \$188,500

and participation of the Slovak side at \$ 30,000. In addition, the Slovak side will contribute to the implementation of the project by providing premises needed for the project implementation.

\$

	Foreign Technical Assistance	Local Participation	Total
A. Establishment and Training of the Core Group of National SES Experts			
a) International expert (1 person; 2 man/months) - guidelines	(16,000)		16,000
b) NADSME staff (2 persons; 4 man/months) - guidelines	(8,000)		8,000
c) Workshop for National SES experts (20 participants) - travel/lodging (500) - other (200)		(10,000) (4,000)	14,000
Subtotal A	(24,000)	(14,000)	38,000
B. Introducing UNIDO's Information Service			
a) International expert (1 person; 2 man/months)	(16,000)		16,000
Subtotal B	(16,000)		16,000
C. Strengthening of co-operation with the "interested EU Country"			
a) International expert (1 person; 12 man/months) - preparation of the Slovak companies' profile (6 man/months) - other activities (6 man/months)	(48,000) (48,000)		96,000
b) National expert (1 person; 12 man/months)		(16,000)	16,000
c) business trips (10) - travel costs (2,000) - lodging/other (1,500)	(20,000) (15,000)		35,000
d) Short-term study tours for national SES experts (5) - travel costs (2,000) - lodging/other (1,500)	(10,000) (7,500)		17,500
Subtotal C	(148,500)	(16,000)	164,500
Total	(188,500)	(30,000)	218,500

PROJECT PROPOSAL NO. 7

SMEs Development through “Spin-Off” Method (Second Phase of the Project)

1. Background and Justification

One legacy of Slovakia's industrial development was a concentration of productive resources in a small number of large industrial enterprises. This was a result of both, institutional preferences for large enterprises in order to simplify the process of central planning as well as the propensity of enterprises to develop strong vertical integration in order to have better control over suppliers of inputs and components.

Transition to market economy, of which enterprise privatization and restructuring is an integral part, is aimed at increasing enterprise sector efficiency. In terms of the industrial sector organisation, there are several methods which can contribute toward achieving this objective. One of them, successfully implemented in many industrialised countries, is the spin-off method. The logic behind this method is to streamline the large company's activities to its core business only by spinning off potentially viable non-core business units into successful independent enterprises.

The spin-off project of the National Agency for Development of Small and Medium Enterprises (NADSME), launched in co-operation with the French consultancy agency ANCE in 1995, has an overall objective to identify and assist those SMEs that can be spun-off as independent entities from larger state or privately owned industrial sector companies. In the first stage, the project has had the following outputs: (i) identification of some 100 companies willing to address their restructuring and overemployment problems also by applying the spin-off method, (ii) five large companies have nominated their special spin-off co-ordinators (in most cases, highly ranked personnel managers) who have been trained to assist the potential start-up managers with development of their projects, and (iii) twelve potential managers for running spun-off SMEs have been trained, six of them have elaborate their business plans and five SMEs actually started their operations.

The experiences with the first phase of the project indicate that one of the main drawbacks for its even more successful implementation is the lack of company specific information about their spin-off potential.

2. Objectives

The general objective of this (second) phase of the project is to strengthen the process of the identification and assessment of those units in individual large-scale industrial companies which have a good potential to be spun-off into viable, independent entities.

This would directly contribute towards a more efficient implementation of industrial sector restructuring.

More specifically, the project has the following two objectives:

- (i) to analyse the restructuring programs of three pilot project companies (they should be selected in co-operation between the Ministry of Economy, NADSME and the donor) and to identify and evaluate their spin-off potential,
- (ii) to strengthen the institutional capability of NADSME in the area of spin-off identification and assessment.

3. Expected Output

- (i) company-level studies for three pilot project companies with clear identification and evaluation of units which have a good potential to be spun-off into viable, independent entities,
- (ii) core group of the NADSME professionals (2 persons) trained to co-ordinate preparation of company-level studies for other companies.

4. Activities Required to Implement the Project

- (i) drafting of the studies for the selected three companies,
- (ii) short-term study visits of the 2 NADSME professionals in relevant foreign institutions,
- (iii) workshop to discuss the drafts of the three company studies; the objective of the workshop would be to analyse the common features and problems as well as to provide some guidelines for the preparation of studies to be later on prepared for other companies.

5. Counterparts in Slovakia

The National Agency for Development of Small and Medium Enterprises (NADSME), in co-operation with the companies for which the studies will be prepared.

6. Budget

The project, to be completed in 8 months, has the total budget equivalent to \$ 126,000. Of this, the participation of the foreign technical assistance is estimated at \$ 92,000, while the participation of the Slovak side would amount to \$ 34,000.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 8 man/months)	(64,000)		64,000
b) National experts, one from each company (3 persons; 9 man/months)	(18,000)		18,000
c) NADSME professional staff (2 persons; 16 man/months)		(32,000)	32,000
d) Short-term study tours (2)			10,000
- travel costs (2,000)	(4,000)		
- lodging/other (3,000)	(6,000)		
e) Workshop for all involved in the preparation of the studies (up to 10 participants)		(2,000)	2,000
Total	(92,000)	(34,000)	126,000

PROJECT PROPOSAL NO. 8

Strengthening Women Entrepreneurship in Slovakia

1. Background and Justification

Transition from centrally planned to market economy has been accompanied by a growing unemployment in Slovakia. Within this process, many women have dropped out of the labour force and, as in many other countries of the region, they account for a disproportionate share of unemployed. Part of the drop in the labour force participation reflects women's free choice, but much of the decline represents women being forced to stay home.

The survey carried out among the members of Slovakia's largest women's association, the Democratic Union of Slovak Women, has indicated that a high proportion of currently unemployed women was willing to actively search for new employment possibilities by establishing their own businesses. Although certain activities supporting this process have been launched and implemented (for example, the 1991 ILO project on Initiation of Women Entrepreneurship), they have not significantly reduced the needs of potential or existing women entrepreneurs for assistance. Some of the major problems they are usually facing are general lack of technical, marketing and business skills.

2. Objectives

The general objective of the project is support the establishment of an institutional set-up aimed at strengthening women's entrepreneurship in the country. More specifically, the project has the following objectives:

- (i) to prepare a teaching material (curriculum) for a training course on a wide range of technical, marketing and business related issues relevant to potential and existing women entrepreneurs.
- (ii) to prepare and organise a one-week training course for 15 - 20 participants ("training of trainers")
- (iii) to prepare and organise 3 seminars in 3 different regions of the country, each for up to 20 existing and future women entrepreneurs; the seminars will be organised and carried out with by the trainers trained under (ii).

3. Expected Output

- (i) teaching material (curriculum) for the training course and workshops,

- (ii) 15 - 20 trainers (particularly from Consulting Centres of NADSME) with sufficient skills to organise education of women entrepreneurs through the system of workshops on the local level,
- (iii) up to 60 potential and existing women entrepreneurs participating the three seminars.

4. Activities Required to Implement the Project

- (i) definition of terms of reference for the training material (curriculum) by assessing relevant literature and by consulting relevant foreign institutions (short-term study tours),
- (ii) drafting the training material and reviewing the documents at the "training material workshop",
- (iii) training course for trainers ("training of trainers"); at the course, the teaching material will be tested,
- (iv) three seminars for up to 60 potential and existing women entrepreneurs.

5. Counterparts in Slovakia

The Bratislava International Centre for Family Studies, in co-operation with NADSME (Bratislava), Association of Women Entrepreneurs (Bratislava) and Agency for Rural Development (Nitra).

6. Budget

The project, to be implemented in 8 months, has the overall budget equivalent to \$ 94,000. Of this, foreign technical assistance is estimated at \$ 73,000, and participation of the Slovak side at \$ 21,000. Office facilities needed for the project co-ordinator, "training material workshop" and training course for trainers will be provided by the Bratislava Centre for Family Studies and other co-operating institutions.

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 2 man/months)			16,000
- training material (1.5 man/month)	(12,000)		
- "training material workshop" and training course (0.5 man/months)	(4,000)		
b) Project co-ordinator (8 man/months)	(22,000)	(2,000)	24,000
c) National experts (3 persons; 3 man/months)	(2,000)	(4,000)	6,000
d) Short-term study tours (4)			14,000
- travel costs (2,000)	(8,000)		
- lodging/other (1,500)	(6,000)		
e) "Training material workshop" (10 participants, of whom 3 from abroad)			14,000
- travel/lodging (3,000)	(9,000)		
- other		(5,000)	
f) Training course for trainers (15-20 participants)			12,000
- travel/lodging (400)	(8,000)		
- documentation, facilities, etc. (200)		(4,000)	
g) Seminars (3 x 20 participants)	(2,000)	(6,000)	8,000
Total	(73,000)	(21,000)	94,000

PROJECT PROPOSAL NO. 9

Institutional Strengthening of the Association of Entrepreneurs of Slovakia (Phase One: Technical Study)

1. Background and Justification

The Association of Entrepreneurs of Slovakia (AES) was established in 1989 as the first business interest association in Slovakia and at present, it represents one of the most influential entrepreneurial organisations. The AES has more than 20,000 members organised in 80 district branch offices and 21 collective members which represent different professional groups of entrepreneurs. Some of these groups gather entrepreneurs from industrial sector activities.

The AES is a non-profit organisation financed exclusively by the membership fee as well as by local and foreign corporate grants and contributions from individuals. Its activities are, therefore, carried out exclusively on the voluntary basis. The relationship between the AES General Board, as its the highest executive body, on the one hand and the individual local branch offices and collective members on the other follows the principle of a constructive communication.

The basic objective of the AES is to create an umbrella organisation which will represent entrepreneurs' interests throughout the process of Slovakia economic, social and political development. More specifically, the organisation's objectives are the following: (i) to initiate and take an active part in drafting the legislation relevant for private sector development, (ii) to represent the members in the negotiations with either the government or/and with labour unions, (iii) to collect and disseminate information necessary for successful business operation (information on consultancy services, agency services and other specialised services), (iv) to create conditions for a more positive attitude of public officials, managers in state owned enterprises and public in general towards private business, and (v) to act as a lobbying institution of the Slovak's entrepreneurs.

2. Objectives

The objective of the project is to prepare a technical study which will identify and assess ways and means for institutional strengthening of the AES.

Among others, the study should provide answers to the following questions: (i) how to improve the AES's management, information and lobbying functions?, (ii) what should be done in order to establish co-operation of the AES with similar organisations in industrialised countries and to get access to their know-how in this area?, (iii) what types of training activities are required for the AES's executives so that they will be able to

of training activities are required for the AES's executives so that they will be able to cope successfully with challenges of the AES's management, and (iv) how to increase the awareness of the target groups (for example, government officials, bankers, employees, etc.) and of the public in general about the AES's objectives and its activities.

3. Output Expected

Technical study.

4. Activities Required to Implement the Project

- (i) assessment of the AES and the environment in which it operates,
- (ii) short-term study tours to similar institutions in other countries,
- (iii) drafting, review and finalization of the technical study.

5. Counterparts in Slovakia

The Association of Entrepreneurs of Slovakia (AES).

6. Budget

The project, to be completed in 6 months, has the total budget equivalent to \$ 70,000, with the following breakdown:

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 6 man/months)	(48,000)		48,000
b) National expert with a good knowledge of the AES's activities (6 man/months)		(12,000)	12,000
c) Short-term study tours (2)			10,000
- travel costs (2,000)	(4,000)		
- lodging/other (3,000)	(6,000)		
Total	(58,000)	(12,000)	70,000

PROJECT PROPOSAL NO.10

SME Task Force

1. Background and Justification

This project proposes the establishment of a Task Force comprised of entrepreneurs who will examine the business environment from a private sector perspective and set out their own recommendations for the achievement of a stronger and more dynamic SME sector in Slovakia.

The Task Force will have a clear majority of business people but with some limited public sector representation and will be supported by:

- (i) Secretariat / Management Group consisting of a National Co-ordinator, Senior UNIDO Advisor and Slovak project administration managers;
- (ii) National and international short term experts;
- (iii) A technical referral panel drawn from within the public service.

The agenda for work will be determined largely by the Task Force itself but it will be expected to cover such major topics as the legal and regulatory environment, finance for SMEs, the promotion and encouragement of new small businesses, obstacles to business expansion and how to overcome them, and the impact on SMEs of the taxation and social security systems.

Slovakia already has a relatively well developed SME sector and a number of programmes for SME support. In 1993, the National Agency for Development of Small and Medium Enterprises (NADSME) was established as the primary agency for SME policy and development in Slovakia.

ADSME is currently acting as National Counterpart for a UNIDO sponsored SME Policy Advice and Monitoring project due for completion in July 1997. This project has identified a need for greater private sector participation in the policy making process. The proposed SME Task Force, which will have full access to the work of the SME Policy Advice and Monitoring project, is seen as a major step in this direction.

2. Objective

The objective is to ensure the permanent place of the SME sector at the forefront of public policy development by means of a structured partnership between relevant government institutions and SMEs themselves which will achieve an effective and fully recognised role for the SME sector in the design of policy, more focused and upgraded policy formulation capabilities and responsive implementation mechanisms.

3. Output Expected

A comprehensive and practical policy statement prepared by SMEs themselves setting out the steps required to achieve a greater economic contribution from and improved operating environment for the SME sector and the means for monitoring implementation.

4. Activities Required to Implement the Project

(i) A programme of work in line with the methodology proposed as follows:

- Decide on agenda and select topics for examination
- Advertise for submissions
- Split into working groups by topics
- Research issues to include interviews with individual businesses
- Hear views of interested parties in public and private sectors
- Prepare sections of draft report
- Refer draft recommendations for technical assessment
- Prepare final report.

(ii) Workshop for Task Force working groups designed to review work in progress including sections of draft report.

(iii) The provision of technical assistance including documentation and other support material to the Referral Panel.

5. Counterpart in Slovakia

The National Agency for Development of Small and Medium Enterprises (NADSME).

6. Budget

The project, to be completed in eight months has a total budget of USD 150 000 as follows:

\$

	Foreign Technical Assistance	Local Participation	Total
a) International experts (3 persons, 12 man/months) - 1 long term expert (8 m/m) - 2 short term experts (2x2 m/m)	(64,000) (32,000)		96,000
b) National professional staff; (5 persons, 24 man/months) -1 national co-ordinator (12 m/m) - 4 short term experts (4x9 m/m)	(6,000)	(12,000) (18,000)	36,000
c) Technical assistance for referral panel - documentation - technical support	(2,000) (4,000)	(2,000) (2,000)	10,000
d) Workshop for working groups (15 participants) - training material - travel/lodging	(2,000) (2,000)	(2,000) (2,000)	8,000
Total	(112,000)	(38,000)	150,000

PROJECT PROPOSAL NO. 11

Harmonisation of Slovakia's SME Data Systems with EU Conditions

1. Background and Justification

Policy formulation for SMEs requires comprehensive and authoritative data on the sector. Although much is known about SMEs in Europe, the statistics are often inadequate. The important economic role played by the SMEs in Central European Countries (CEE) is very often not fully and homogeneously quantifiable. This inadequacy is due to the use of non-homogenous methodologies for collecting statistics, which do not permit valid comparisons of data, even when they are available.

In the case of Slovakia there has been a dramatic business evolution since 1990 and a new segment of society has emerged - the private business sector which comprises some 250 000 sole traders and 53 000 legal persons registered in the commercial register. This sector now represents 75% of GDP and 60% of total employment. Data in respect of the SME sector are gathered from central sources such as ministries and the Statistical Office of the Slovak Republic and comprehensively summarised by the National Agency for the Development of Small and Medium Enterprises (NADSME), established in 1993 as the primary agency with responsibility of SME policy and development in Slovakia.

NADSME is currently acting as National Counterpart for a UNIDO sponsored SME Policy Advice and Monitoring project due for completion in July 1997. The monitoring component of this project is reviewing all available sources of SME relevant data in the public sector and is preparing recommendations for the extraction of this data and for its integration into a national system of SME monitoring and analysis.

In line with Slovakia's efforts to integrate with European structures it will necessary to implement this new system and adapt it to achieve harmonisation with EU methodologies.

The progressive integration of the countries of CEE into the political and economic framework of the EU is already underway. European institutions and EU bodies increasingly demand data on the SME sector in a common format. In Slovakia, NADSME is the national contact point for such data requests. NADSME's ability to respond fully in line with the required format is limited by the capacity of the Slovak institutions that provide basic data. These are not fully harmonised to the needs of monitoring of the SME sector as presented in the Annual Report of the European Observatory for SMEs presented by the European Network for SME Research.

2. Objective

To achieve a system of monitoring and analysis of the SME sector in Slovakia which conforms with conditions in the EU through harmonisation of methodologies used in Slovakia with those used in EU member states.

3. Output Expected

- (i) an implemented and functioning system for monitoring and analysis of the SME sector in Slovakia based on the recommendations of the 1996/97 UNIDO SME Policy Advice and Monitoring project;
- (ii) a comprehensive report setting out recommendations for adaptation of this system to conform with present and likely future methodologies within EU member states;
- (iii) a model workshop;
- (iv) a study tour to relevant institutions in other European states.

4. Activities Required to Implement the Project

- implementation of monitoring and analysis system recommended by 1996/97 UNIDO sponsored project;
- assessment of Eurostat requirements and capacity of Slovakia's system for SME monitoring and analysis to meet these requirements;
- identify what needs to be done to achieve adaptation and upgrading of Slovakia's system to bring it into line with EU requirements;
- review progress of similar systems in other CEE countries;
- prepare first draft of report;
- study tour to EU and relevant national institutions;
- workshop with participation by Slovak, CEE, and EU experts;
- prepare final report with detailed recommendations.

5. Counterpart in Slovakia

The National Agency for Development of Small and Medium Enterprises

6. Budget

The project, to be completed in eight months has a total budget of USD 155 000 as follows:

	Foreign Technical Assistance	Local Participation	Total
a) International experts (7 persons, 16 man/months) - 1 long term expert (6 m/m) - 2 short term experts (2x3 m/m) - 4 short term CEE experts (4x3 m/m)	(48,000) (48,000) (8,000)	(5,000)	109,000
b) National professional staff; (12 man/months)	(4,000)	(18,000)	22,000
c) Short term study tours (2) - travel costs - lodging/others	(4,000) (3,000)	(2,000)	9,000
d) Training (2 weeks) - travel costs - lodging/others	(4,000) (5,000)	(2,000)	11,000
e) Workshop (3 days) - working materials - others	(2,000) (1,000)	(1,000)	4,000
Total	(127,000)	(28,000)	155,000

PROJECT PROPOSAL NO. 12

Management of Environmental Problems of Industrial Sector Enterprises Identified in the Post-Privatization Period

1. Background and Justification

Most discussions concerning environmental liability and privatization have focused on the desirability of acting on environmental problems before an enterprise is privatized. Usually, a prudent buyer identifies and assesses a property's environmental liabilities and negotiates with the seller concerning legal responsibilities for these problems before the property is transferred.

In Slovakia, as in many other transition economies, the pressure to privatize the national economies quickly has led to tight schedules of privatization programs. In addition, there has not been much time to address the environmental problems of enterprises also during the privatization process. While only foreign investors have usually requested environmental audits and negotiation of contractual clauses concerning pre-existing environmental damage, privatization deals involving domestic investors have seldom involved such precautions.

As a result, many industrial sector enterprises have been transferred to new owners without being properly assessed for environmental liabilities. This situation raises several questions, as for example: What can be done after privatization with respect to these liabilities? Are there steps that policymakers can take to assess existing environmental problems and to clarify if clean-up or other actions need to be taken? Who should take over the costs for these actions, private owners and/or governments?

2. Objectives

The general objective of the project is to support the Slovak government in addressing the environmental problems in those industrial sector enterprises which have already been privatized. More specifically, the project has the following objectives:

- (i) to clarify property rights and thereby facilitate future property transactions,
- (ii) to draw a clear line between pre-existing environmental damage and damage caused by the new owners after privatization as well as to send strong signals to new private owners that they will be held responsible for any environmental problems occurring after privatization, and thereby encourage prevention of further damage,

- (iii) to develop standards for determining when clean-up actions need to be taken,
- (iv) to prepare an inventory of privatized industrial sector enterprises with serious past environmental damages and to set up a system establishing priorities for clean-up activities,
- (v) to encourage redevelopment of sites which have already been used for industrial purposes and thereby discourage industrial development of "greenfield sites".

3. Expected Output

- (i) a study which will provide (a) an inventory of privatized industrial sector enterprises in Slovakia with serious past environmental damages, (b) a thorough assessment of these liabilities, and (b) conclusions and recommendations how the government should address these problems,
- (ii) draft text of the law regulating the whole subject of past environmental damages in industrial sector enterprises.

4. Activities Required to Implement the Project

- (i) definition of the terms of reference for the study,
- (ii) short-term study tours to industrial sector companies abroad facing similar problems with past environmental damages,
- (iii) preparation of the inventory of privatized industrial sector companies with serious past environmental problems,
- (iv) drafting of both documents, the study and the law, by a group of international and national experts,
- (v) workshop where both documents will be discussed,
- (vi) finalization of the study as well as of the draft law on past environmental damages.

5. Counterpart in Slovakia

Ministry of Economy in co-operation with the Ministry of Environment.

6. Budget

The project, to be completed in 8 months, has the total budget equivalent to \$ 170,000, of which the participation of the foreign technical assistance is estimated at \$ 117,000.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International experts (2 person; 10 man/months)			80,000
- study (2 persons; 6 man/months)	(48,000)		
- draft law (2 persons; 2 man/months)	(16,000)		
- other (2 persons; 2 man/months)	(16,000)		
b) National experts (2 persons; 14 man/months)			28,000
- study (2 persons; 4 man/months)		(8,000)	
- inventory (2 persons; 6 man/months)		(12,000)	
- draft law (2 persons; 2 man/months)		(4,000)	
- other (2 persons; 2 man/months)		(4,000)	
c) Short-term study tours (2)			7,000
- travel costs (2,000)	(4,000)		
- lodging/other (1,500)	(3,000)		
d) Preparation of inventory of the past environmental damages in industrial sector			5,000
- travel/lodging		(3,000)	
- other		(2,000)	
e) Workshop for 20 participants of whom 10 from abroad			50,000
- travel costs (3,000)	(30,000)		
- other		(20,000)	
Total	(117,000)	(53,000)	170,000

PROJECT PROPOSAL NO. 13

Strengthening Environmental Quality Management

1. Background and Justification

In pre-1989 Slovakia, economic development was subordinated to the centrally planned economic policy objectives with a large set of detailed production and consumption quotas and with a negative impact on the environmental and product quality considerations.

Being aware of the fact that environmental quality of products is becoming a very important component of their international competitiveness (products which do not meet environmental standards might be exposed to various kinds of non-tariff barriers), the government has addressed this issue in its 1995 Industrial Policy. The document underlines that industrial development of Slovakia requires the introduction of conditions which, among others, will stimulate industrial sector producers to embark on comprehensive environmental quality improvement programs. The final objective of these programs would be to upgrade their product so that they will meet the requirements of the ISO 9000 and ISO 14000 standards as well as British Standard BS 7750.

In 1992, the Slovak - Norwegian Cleaner Production Project was launched with the objective to support institutional capacity building (training and demonstration) of the country in cleaner production and waste minimisation. The capacity building program (training of trainers) with nearly 40 participants started in 1993 and was completed in 1994. The post-graduate study was repeated in 1994/95 with approximately the same number of participants. It was within the framework of this Project that the Slovak Cleaner Production Centre (SCPC) was established in 1994 in co-operation with UNIDO - UNEP.

For the time being, the SCPC's activity has been focused exclusively on capacity building in cleaner production while environmental quality management has not been addressed systematically.

2. Objectives

The general objective of the project is to increase the international competitiveness of Slovak products by supporting the country's institutional capacity building in the area of environmental quality management (how to improve the quality of products so that they will meet ISO 9000, ISO 14000 and BS 7750 standards). The project is envisaged as a complement to and an extension of the ongoing SCPC's activities. within this general

framework, the project has the following more specific objectives:

- (i) to prepare an assessment of the environmental quality management in two industrial sector companies (test studies); the selection of the two companies will be made with the agreement among all the parties concerned (SCPC, Ministry of Economy, provider of technical assistance, and the candidate companies),
- (ii) to prepare teaching material (curriculum) on environmental quality management,
- (iii) to organise the training course for company managers on environmental quality management,
- (iv) to prepare a manual on environmental quality management.

3. Expected Outputs

- (i) assessment of the environmental quality management in the two companies (test studies),
- (ii) teaching material for the training course on environmental quality management,
- (iii) 10 - 15 persons trained as environmental quality management advisors,
- (iv) case studies on environmental quality management for 6 - 8 companies, i.e., for all companies those from which the training course participants are coming from,
- (v) manual on environmental quality management.

4. Activities Required to Implement the Project

The project will be implemented in two phases. The first one will consist of the following activities:

- (i) identification of the two industrial sector companies for which the environmental quality management assessment will be made (test studies),
- (ii) short-term study tour for managers of the two companies in selected foreign companies,
- (iii) seminar aimed at discussing (a) the results of the two test studies, and (b) the concept of the training program to be carried out in the second phase of the project (the seminar will also be an opportunity for the identification of suitable candidates for the training),

The following activities are expected to be implemented in the second phase of the project:

- (i) preparation of the teaching material (curriculum) for the training course,
- (ii) organisation and implementation of the training course on environmental quality management for 10 - 15 managers from 6 - 8 companies as well as from some other institutions, like consulting companies or technical university; the training course will be a combination of (a) plenary sessions, (b) work in the participants' own companies (preparation of case studies; see under (iv)), and individual consultations provided by international and national experts,
- (iii) preparation of case studies on environmental quality management for all companies (6 - 8) from which managers are taking part at the training course.
- (iv) preparation of the manual on environmental quality management.

5. Counterparts in Slovakia

The Slovak Cleaner Production Centre (SCPC), in co-operation with the Ministry of Economy.

6. Budget

The project, to be completed in 18 months (phase one in 6 months and phase two in 12 months), has the total budget equivalent to \$ 227,000. The Slovak partner will provide facilities for the seminar and the training course.

\$

	Foreign Technical Assistance	Local Participation	Total
A. Phase One			
a) International expert (1 person; 3 man/months)			24,000
- two test studies (2 man/months)	(16,000)		
- seminar (1 man/months)	(8,000)		
b) National experts (2 person; 4 man/months)			8,000
- two case studies (2 persons; 4 man/months)		(8,000)	
c) Short-term study tour (2)			7,000
- travel costs (2,000)	(4,000)		
- lodging/other (1,500)	(3,000)		
Subtotal A	(46,000)	(18,000)	64,000
B. Phase Two			
a) International experts (2 persons; 12 man/months)			96,000
- training material (2 persons; 4 man/months)	(32,000)		
- training course (2 persons; 6 man/months)	(48,000)		
- manual (2 persons; 2 man/months)	(16,000)		
b) National experts (2 persons; 16 man/months)			32,000
- training material (2 persons; 6 man/months)	(6,000)	(6,000)	
- training course (2 persons; 8 man/months)	(8,000)	(8,000)	
- manual (2 persons; 2 man/months)	(2,000)	(2,000)	
c) Travel costs for international and national expert (for individual consultations in companies)	(10,000)	(10,000)	20,000
d) Material expenses related to the training material	(10,000)	(10,000)	20,000
e) Publication of the manual	(5,000)		5,000
Subtotal B	(137,000)	(26,000)	163,000
Total	(183,000)	(44,000)	227,000

Integral Information System of the Slovak Chamber of Commerce and Industry

1. Background and Justification

One segment of information services for which the demand has been growing rapidly in Slovakia are business information. The transition of the country into market economy goes namely hand in hand with privatization and formation of SMEs, and their successful start and development depends largely on a whole set of business information. In Slovakia, the lack of these information is a serious impediment for even faster integration of the country's economy into Western markets.

The Slovak Chamber of Commerce and Industry (SCCI) is a specialised institution that represents and co-ordinates common interests of the enterprise sector. Among other activities, it (i) participates in the preparation of the legislation and economic policy relevant for the entrepreneurial sector, (ii) establishes contacts between the members and co-ordinates co-operation with similar institutions abroad, (iii) provides consultancy services, and (iv) organises training.

All these activities are supported with various information systems which, for the time being, are not yet interconnected into an integral information system. On the one hand, the SCCI collects and disseminate information on commercial and legal environment in foreign markets, on customs regulations in individual countries as well as provides information about potential business partners at home and abroad. On the other hand, the SCCI has established a comprehensive data base containing all relevant information of its close to 20,000 members, many of them from the industrial sector. The database is regularly updated through the system of the 13 SCCI's regional offices.

2. Objectives

The general objective of the project is to establish and put into operation an integral information system of the SCCI which is expected to increase the quality of information services provided to the SCCI's members as well as to improve the working efficiency of the SCCI's headquarters and its regional offices. More specifically, the project has the following objectives:

- (i) to establish direct information links among the local area networks of computers in all 13 regional offices and the computer networks in the Bratislava headquarters (two offices).

- (ii) to establish an information system which will provide E-mail services to the SCCI's members.
- (iii) to establish an information system which will provide the SCCI's members with an access to Internet and to various international databases of companies (on CD ROMs, these data bases are already available in the headquarters).
- (iv) to develop and put into operation a system which will protect the information available in the integrated information system.

3. Expected Output

- (i) an information network of the SCCI which will connect its Bratislava headquarters (two offices) and the 13 regional offices into fully integrated information system.
- (ii) fully operational information departments in the SCCI's headquarters and regional offices with a direct access to information services produced either by the SCCI itself or by other business information providers in the country and abroad.

4. Activities Required to Implement the Project

- (i) definition of the objectives of the integrated information system as well as of the outputs the service is expected to provide to its users,
- (ii) design of the needed software applications and definition of the hardware configuration,
- (iii) training of the SCCI's staff members from the headquarters and the regional offices,
- (iv) short-term study tours to business information centres in selected industrialised countries,
- (v) testing the software, installing the hardware and putting the integrated information system into operation.

5. Counterpart in Slovakia

The Slovak Chamber of Commerce and Industry.

6. Budget

The project, to be completed in 12 months, has a total budget equivalent to \$ 205,500, with the following breakdown:

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 5 man/months)			40,000
- integrated information system (2 man/months)	(16,000)		
- software application (2 man/months)	(16,000)		
- training (1 man/months)	(8,000)		
b) SCCI's professional staff (5 persons; 15 man/months)			30,000
- integrated information system (2 persons; 4 man/months)		(8,000)	
- data base development (3 persons; 9 man/months)		(18,000)	
- software applications (2 persons; 2 man/months)		(4,000)	
c) Short-term study tours (5)			17,500
- travel costs (2,000)	(10,000)		
- lodging/other (1,500)	(7,500)		
d) Training course for SCCI's staff members (40 persons)			12,000
- travel/lodging (200)		(8,000)	
- other (100)		(4,000)	
e) Equipment			101,000
- 15 Pcs (5,000)	(75,000)		
- 15 printers (1,000)	(15,000)		
- 11 modems (1,000)	(11,000)		
f) Service costs for the leased lines in the first year	(5,000)		5,000
Total	(158,500)	(47,000)	205,500

PROJECT PROPOSAL NO. 15

Institutional Strengthening of the Slovak Centre of Scientific and Technical Information in the Area of Technical Information for SMEs.

1. Background and Justification

The Slovak Centre of Scientific and Technical Information (SCSTI), together with the state scientific libraries in Banská Bystrica and Košice as well as libraries at universities and some larger enterprises, is today the main source of scientific and technical information in the country. The library has a strong tradition in building the collection of standards, patent documentation as well as of company and trade documentation. Currently, the SCSTI provides only the customary library services; it collects, stores and makes accessible to the users, including through interlibrary loan service, full text documentation as well as bibliographical information services.

With respect to the current needs of the entrepreneurial sector, especially of the SMEs, the services offered by the SCSTI are far from being adequate. The institution is faced with the following problems: (i) generally outdated hardware, software and communication equipment, (ii) insufficient connection with foreign sources of scientific and technical information, (iii) insufficient awareness of the enterprise sector about the information available in the SCSTI, (iv) lack of experience in providing specific information services required by entrepreneurs from SMEs, and (v) insufficient financial resources to acquire more complex and expensive foreign data bases as well as to provide an access to foreign data bases.

In 1992, the Slovak government passed the National Program of Information Science in Slovakia. According to this document, the SCSTI has been selected as the country's National Centre for Scientific and Technical Information.

2. Objectives

The general objective of the project is to assist the SCSTI in designing and putting into operation a modern technical information service adapted to the specific needs of the SMEs. More specifically, the project is aimed at:

- (i) collecting domestic and foreign documentation (books, journals, reports, information services, databases, etc.) in the fields of technical standards, patents as well as company and trade documentation,
- (ii) establishing an access to foreign information services and data bases in the fields specified under (i),

- (iii) strengthening the data bases already in existence in the SCSTI as well as developing new data bases in demand by entrepreneurs from SMEs.
- (iv) providing searches from domestic and foreign information services and data bases as well as from SCSTI's own databases in the fields specified under (i).

3. Expected Output

Fully operational technical information service at the SCSTI which is adapted to the specific needs of the SMEs, especially in the areas of technical standards, patents as well as company and trade documentation.

4. Activities Required to Implement the Project

- (i) definition of the objectives of the technical information service as well as of the outputs the service is expected to provide to its users,
- (ii) design of the needed software applications and definition of the hardware configuration,
- (iii) develop and put into operation communication links (fax, E-mail, etc.) with foreign information services and data bases,
- (iv) broadening the already existing data bases and developing new ones,
- (v) short-term study tours to a selected number of technical libraries in other countries,
- (vi) training of the SCSTI's staff to efficiently operate the technical information service

5. Counterpart in Slovakia

The Slovak Centre of Scientific and Technical Information

6. Budget

The project, to be completed in 12 months, has a total budget equivalent to \$ 99,500. Of this, foreign technical assistance is estimated at \$ 75,500 and participation of the SCSTI, in the form of the in kind contribution, at \$ 24,000.

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 4 man/months) - technical information service development (2 man/months) - software applications (1 man/months) - training of the SCSTI staff (1 man/months)	(16,000) (8,000) (8,000)		32,000
b) SCSTI experts (2 persons; 12 man/months) - technical information service development (2 persons; 2 man/months) - data base development (2 persons; 8 man/months) - software applications (2 persons; 2 man/months)		(4,000) (16,000) (4,000)	24,000
c) Short-term study tours (3) - travel costs (2,000) - lodging/other (1,500)	(6,000) (4,500)		10,500
d) Equipment - 3 Pcs (5,000) - 3 printers (1,000) - other	(15,000) (3,000) (5,000)		23,000
e) Service costs for access to foreign information services and data bases	(10,000)		10,000
Total	(75,500)	(24,000)	99,500

Strengthening of the Entrepreneurial Information System

1. Background and Justification

In 1993, the Slovak government established The National Agency for Development of Small and Medium Enterprises (NADSME) as a national co-ordinating agency for the development of SMEs. The Agency has provided the SME sector and all those who want to support with a single reference point for most of the issues that confront the sector. During the three years of its operations, NADSME has made considerable achievements and is accepted as a significant force for SME development.

Taking into account that lack of business information has been one of the most serious obstacles for an even faster SME development, NADSME has put a lot of efforts for diminishing the negative impact of this obstacle. In order to provide its client with different types of information, the Agency has introduced a set of information services, and one of them was the Entrepreneurial Information System (EIS). The main objective of this specific project was to create a complex information system, using the network of regional centres (RAICs/BICs), which would enable the users (SMEs, government institutions, foreign partners) to have a direct access to (i) data bases created directly by RAICs/BICs as well as to (ii) international information systems and data bases.

Although the project has been more or less completed from the technical and hardware point of view, it is becoming obvious that further activities are needed for its outputs to be more broadly used by the SMEs. For the time being, data are gathered and processed manually, they are put into the system without being prepared according to a common methodology and the data are often also out of date. In addition, the system provides technical capacities to contain a much broader set of information interesting for potential users than this is the case at present.

2. Objective

The general objective of the project is to make a better use of the existing technical capacities of the EIS. Within this framework, the project has the following more specific objectives:

- (i) to improve the quality and reliability of data bases already existing in the EIS,
- (ii) to design and introduce new data bases which might be of interest to potential EIS users,

- (iii) to increase the awareness of potential EIS's users about the information services and data bases provided by the system.

3. Expected Output

The project is expected to have one major output - an increased use of the EIS by all segments of its potential users, i.e., by SMEs, government institutions as well as by the interested foreign partners. This will be achieved by broadening the information services and data bases provided by the system as well as by upgrading the quality and reliability of data provided by the system.

4. Activities Required to Implement the Project

- (i) preparation of the report which will (a) critically assess the weaknesses of the EIS, and (b) provide guidelines for strengthening the existing role of the system,
- (ii) workshop where the main findings of the report will be reviewed,
- (iii) designing, testing and introducing software applications for the existing and newly created information services and data bases
- (iv) preparation of a EIS booklet for potential users,
- (v) other activities aimed at increasing potential users' awareness about the information systems and data bases provided by EIS.

5. Counterparts in Slovakia

The National Agency for Development of Small and Medium enterprises.

6. Budget

The project, to be executed in 6 months, has the total budget equivalent to \$ 82,000, of which foreign technical assistance is estimated at \$ 62,000.

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 6 man/months) - report (2 man/months) - software applications (2 man/months) - booklet (1 man/months) - other (1 man/months)	(16,000) (16,000) (8,000) (8,000)		48,000
b) NADSME professional staff (2 persons; 8 man/months) - report (2 persons; 2 man/months) - software applications and data base creation (2 persons; 4 man/months) - training of RAICs/BICs staff (2 persons; 2 man/months)		(4,000) (8,000) (4,000)	16,000
c) Workshop (10 participants, of whom 3 from abroad) - travel costs (3,000) - other costs	(9,000)	(4,000)	13,000
d) Publication of the booklet	(5,000)		5,000
Total	(62,000)	(20,000)	82,000

PROJECT PROPOSAL NO. 17

Centre for Developing Entrepreneurship, Trades, Crafts and Commerce, Žilina (Feasibility Study for a Pilot Project)

1. Background and Justification

The Slovak Association of Crafts (SAC) is a professional association of entrepreneurs. Its main objectives are the following: (i) to support creating an environment conducive for private sector development, (ii) to articulate the interests of entrepreneurs in relation towards the state administration as well as towards regional and local authorities, (iii) to provide information, training and advisory services to its members, and (iv) to stimulate co-operation of its members among themselves and with their colleagues from abroad.

The SAC associates both, natural and legal entities on voluntary basis. Membership is either individual or collective. Individual member are associated in guilds (professional associations), communities of entrepreneurs and regional associations.

Regional Craftsmen Association in Žilina (RCA, Žilina) is a very active regional member of the SAC. By having a full support of the Žilina district, Žilina city, Technical University Žilina and the regional office of the Slovak Chamber of Commerce and Industry, RCA is considering the establishment of the Centre for Developing Entrepreneurship, Trade, Craft and Commerce (CDTCC, Žilina) which would have, among others, the following functions: (i) education of craftsmen and entrepreneurs as well as their employees, (ii) introduction of vocational training schemes, and (iii) building of model workshops.

The CDTCC is planned to be a pilot project and its experiences are expected to be later on used in the creation of similar centres in other regions of Slovakia. There are several reasons which justify taking CDTCC, Žilina as a pilot project: (i) geographical location of the region, (ii) commitment of local authorities for the project, (iii) strong concentration of scientific and technical potentials, (iv) wide range of entrepreneurs in the production activities, and (v) the region was strongly affected by sharp decline of arms industry production.

2. Objective

The general objective of the project is support the Slovak Association of Crafts in the efforts to strengthen its activities on the regional and district levels. Within this framework, the project has one specific objective, i.e., to prepare a feasibility study which would analyse all aspects relevant for the establishment of the CDTCC, Žilina.

3. Output Expected

Feasibility study.

4. Activities Required to Implement the Project

- (i) assessment of the existing situation in the region relevant for the establishment of the CDTCC,
- (ii) short-term study tours to similar institutions abroad,
- (iii) drafting of the feasibility study,
- (iv) workshop aimed at reviewing the draft feasibility study,
- (v) finalization of the feasibility study.

5. Counterparts in Slovakia

The Slovak Association of Crafts (SAC) and its Regional Craftsmen Association in Žilina.

6. Budget

The project, to be completed in 6 months, has the total budget equivalent to \$ 90,000. The participation of the foreign technical assistance is estimated at \$ 73,000 and the in kind participation of the Slovak side at \$ 17,000.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 6 man/months)	(48,000)		48,000
b) National professional staff; one from SAC and one from RCA Žilina (2 persons; 6 man/months)		(12,000)	12,000
c) Short-term study tours (2) - travel costs (2,000) - lodging/other (3,000)	(4,000) (6,000)		10,000
d) Workshop (10 participants, of whom 5 from abroad) - travel costs (3,000) - other	(15,000)	(5,000)	20,000
Total	(73,000)	(17,000)	90,000

PROJECT PROPOSAL NO. 18

Model Workshops Establishment

1. Background and Justification

One of the most important comparative advantages of the Slovak industry is its highly qualified labour force. This can be attributed to several factors; (i) long tradition in engineering excellence, (ii) large share of its production in engineering industries, and (iii) the system of education which has been assigning a high priority to general education as well as to vocational training.

As some other segments of the education, vocational training has been drastically hit by the transition of the country into market economy. Traditionally, unskilled workers with primary education only acquired their skills mainly through on-the-job training. It was a part of the educational system in the state-owned enterprises where the older workers have transferred their skills to the next generation of workers. As during the transition period most of these companies have been experiencing financial difficulties, and a big number of skilled workers has been either retired or has become unemployed, this system of vocational training has been practically abolished. The problem is all the more pressing, as the newly formed private enterprises, under the pressure to generate positive financial results already on a short term, have little incentive to invest in vocational training which bring results only on medium and long run.

This being so, the Slovak authorities have to address this problem as a matter of urgency and through a combination of different schemes. One of the schemes envisages the establishment of special vocational training centres. They will provide programs directly responding to the specific requirements of small entrepreneurs. Taking into account that vocational training centres need special facilities for on-the-job training, an establishment of model workshops for different types of industrial crafts has been identified as an appropriate solution.

2. Objectives

The general objective of the project is to assist the Slovak entrepreneurs in their efforts oriented towards achieving European standards in productivity and quality. More specifically, the project is aimed at designing, establishing and putting into operation two model workshops. An integral part of the project is also education and training of the model workshop staff (training of trainers) so as it will be capable of transferring the skills on modern technology, equipment, organisation and working methods to the interested entrepreneurs.

3. Output Expected

- (i) a survey which will find out for which crafts of industrial production (for example, locksmiths, plumbers, etc.) the model workshops are most badly needed,
- (ii) trained staff for the two model workshops (3 persons in each),
- (iii) two model workshops established and put into operation.

4. Activities Required to Implement the Project

- (i) preparation of the survey; on this basis, the decision will be taken in which of the two crafts of industrial production the model workshops are most badly needed.
- (ii) definition of the technology and equipment configuration,
- (iii) training of the model workshop staff (3 for each of them) in foreign institutions familiar with the technology and equipment to be introduced in the model workshops,
- (iv) installing and testing of the technology and equipment,
- (v) putting the two workshops into operation.

5. Counterpart in Slovakia

The Slovak Association of Crafts (SAC).

6. Budget

The project, to be implemented in 8 months, has a budget equivalent to \$ 163,000, of which the Slovak side will participate with in kind contribution estimated at \$ 36,000. This budget takes into account only expenses related to the preparation of the survey and the training for the two model workshops staff. The budget, however, does not include financial resources required for the acquisition of the equipment, as it is not known for which crafts of industrial production the two model workshops will be established and put into operation.

\$

	Foreign Technical Assistance	Local Participation	Total
a) International experts (3 person; 12 man/months) - survey (1 person) - model workshop organization (2 persons; 10 man/months)	(16,000) (80,000)		96,000
b) National professionals designated by SAC for the model workshop staff (6 persons; 18 man/months)		(36,000)	36,000
c) Short-term study tours (2) - travel costs (2,000) - lodging/other (1,500)	(4,000) (3,000)		7,000
d) Training up to one month (6) - travel costs (2,000) - lodging/other (2,000)	(12,000) (12,000)		24,000
Total	(127,000)	(36,000)	163,000

PROJECT PROPOSAL NO. 19

Industrial Accident Management Course

1. Background and Justification

Over the last few years, a course on industrial accident management has been regularly organised in Slovakia. The main objective of the course has been to provide education in the areas of risk control and accident management and consequently to contribute towards a higher level of the environmental protection in the country and reduced volume of losses caused by accidents.

On the technical side, the industrial accident management courses have been organised by the House of Technology. As far as the contents the course is concerned, it has been provided by a group of national experts with extensive experience in this area. The national experts (they have been lecturers at the course and authors of the training materials) are from very different institutions, including technical university, governmental offices, industrial sector companies and consulting firms.

Taking into account the interest for the course on the one hand and rapid changes in the area of industrial accident management in the world on the other, the lecturers are of the opinion that the concept of the course has to be modernised and that consequently the teaching material (curriculum) used at the course has to be revised and updated.

2. Objectives

The main objective of the project is to support industrial accident prevention activities in Slovakia. More specifically, the project has the following objectives:

- (i) to elaborate the outline of the new, modern course on industrial accident management (targeted population, lecturers, duration, modules, etc.),
- (ii) to prepare a revised and updated teaching material (curriculum) for the course on industrial accidents management in Slovak and English languages,
- (iii) to organise the course for 40 - 50 participants.

3. Output Expected

- (i) revised and updated teaching material (curriculum) for the training course on industrial accidents management in Slovak and English languages,

- (ii) the course lecturers (8) with substantially broadened and updated knowledge and data base about various aspects of industrial accidents management,
- (iii) the course participants (40 - 50 industrial sector management) with better understanding of problems associated with industrial sector accidents as well as of methods specifically designed to manage these problems.

4. Activities Required to Implement the Project

- (i) review of the existing teaching material (curriculum) for the course on industrial accident management with the objective to identify its strengths and weaknesses,
- (ii) elaboration of the outline for the new, modern course on industrial accident management,
- (iii) drafting of the revised and updated teaching material (curriculum) by the course lecturers,
- (iv) short-term study tours of the lecturers abroad to get acquainted with the up to date information and new trends in industrial accident management,
- (iv) workshop aimed at discussing drafts of the revised and updated teaching material (curriculum),
- (v) finalization of the revised and updated teaching material (curriculum)
- (vi) preparation and organisation of the course where the new teaching material (curriculum) will be used,

- (viii) translation of the new teaching material (curriculum) into English language.

5. Counterparts in Slovakia

The group of local experts with extensive experience in the area of industrial accident management (lecturers at the course and authors of the teaching materials) and the House of Technology providing all technical services for the organisation of the course.

6. Budget

The project, to be implemented in 4 months, has the budget equivalent to \$ 79,000. Its breakdown is the following:

\$

	Foreign Technical Assistance	Local Participation	Total
a) International expert (2 man/months)			16,000
- review of the existing teaching material (0.5 man/months)	(4,000)		
- outline of the new course (0.5 man/months)	(4,000)		
- other (1 man/months)	(8,000)		
b) National co-ordinator, also lecturer (4 man/months)	(8,000)		8,000
c) Lecturers (7 persons; 7 man/months)			14,000
- drafting teaching materials (7 persons; 3.5 man/months)	(7,000)		
- workshop and course (7 persons; 3.5 man/months)		(7,000)	
d) Short-term study tours (8)			28,000
- travel costs (2,000)	(16,000)		
- lodging/other (1,500)	(12,000)		
e) Workshop (up to 10 participants)		(5,000)	5,000
f) Course for 40-50 participants		(5,000)	5,000
g) Translation into English		(5,000)	5,000
Total	(59,000)	(20,000)	79,000

PROJECT PROPOSAL NO. 20

Micro Credit Scheme

1. Background and Justification

In performing its principal role, i.e., to initiate the development and growth of existing as well as newly founded SMEs, the National Agency for Development of Small and Medium Enterprises (NADSME) co-ordinates also the financial support to SMEs. In this context, a whole set of loan guarantee schemes, loan schemes and venture capital schemes has been set up.

The most recent financial scheme, established in 1996, is the so-called Micro Credit Scheme. The scheme which is to be implemented in close co-operation between NADSME headquarters and its regional offices (RAICs/BICs), will provide to the borrowers short term credits in the amount between DM 10,000 to 25,000 (SKK 200,000 to 500,000) per credit. The scheme is designed for start-ups and developing businesses and is expected to be suitable also for women entrepreneurs. To obtain the loan, the borrower is not required to provide a guarantee; the submission of a business plan is sufficient. Business plans are expected to be prepared by potential borrowers, with the assistance provided by RAICs/BICs. Disbursement of credits as well as their repayment will be made through branch offices of those commercial banks included in the scheme.

At present, some DM 415.000 (SKK 8.3 million) is being available for the scheme and a tender for two to three RAICs/BICs which will run the scheme on a pilot basis is underway.

2. Objectives

The project has two main objectives. On the investment side, its objective is to raise additional financial resources for the scheme from foreign donors, while on the technical assistance side, the objective of the project is to strengthen institutional capacity of all parties involved in the management of the scheme.

As far as technical assistance side of the project is concerned, it has the following more specific objectives:

- (i) to create a communication infrastructure among the entrepreneur, SME advisor at RAIC/BIC and credit officer at the commercial bank which will facilitate the process of credit commitments and disbursements as well as of credit repayments,
- (ii) to train the RAICs/BICs advisors for providing assistance to entrepreneurs seeking financial resources from the scheme,

- (iii) to help potential borrowers in the preparation of their business plans required as a basis for the loan,
- (iv) to train respective credit officers at commercial banks to effectively manage the banking side of the scheme.

3. Expected Output (Only for the Technical Assistance Side of the Project)

- (i) fully operational Micro Credit Scheme in the two or three RAICs/BICs selected by the tender to run the scheme on the pilot basis,
- (ii) guidelines for managing the Micro Credit Scheme in other RAICs/BICs,
- (iii) RAICs/BICs advisors trained to provide necessary support to entrepreneurs seeking credit from the scheme,
- (iv) brochure providing basic information about the scheme to potential borrowers.

4. Activities Required to Implement the Project (Only for the Technical Assistance Side of the Project)

- (i) preparation of the guidelines for managing the Micro Credit Scheme,
- (ii) training course for RAICs/BICs advisors; the course will be used also for testing the guidelines,
- (iii) seminar for bank officials responsible for handling the banking side of the scheme,
- (iv) seminars for potential borrowers prepared and implemented by respective RAICs/BICs,
- (v) preparation of the brochure,
- (vi) other activities required to make the Micro Credit Scheme known to potential borrowers.

5. Counterparts in Slovakia

The National Agency for Development of Small and Medium Enterprises (headquarters plus the two or three of its RAICs/BICs selected in the tender), in co-operation with participating commercial banks.

6. Budget (Only for the Technical Assistance Side of the Project)

The project, to be completed in 6 months, has the total budget equivalent to \$ 71,000. Of this, participation of the foreign technical assistance is estimated at \$ 56,000, and participation of NADSME at \$ 15,000.

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 6 man/months) - guidelines (3 man/months) - brochure (1 man/months) - training activities (1 man/months)	(24,000) (8,000) (16,000)		48,000
b) NADSME professional staff (2 persons; 4 man/months) - guidelines (2 persons; 2 man/months) - training (2 persons; 2 man/months)		(4,000) (4,000)	8,000
c) Training course for RAICs/ BICs advisors (10 participants) - travel/lodging (500) - other (200)	(5,000)	(2,000)	7,000
d) Seminar for bank officials (up to 10 participants)		(3,000)	3,000
e) Seminars (2) for potential borrowers organised by RAICs/ BICs (up to 40 participants)		(2,000)	2,000
f) Publication of the brochure		(3,000)	3,000
Total	(56,000)	(15,000)	71,000

PROJECT PROPOSAL NO. 21

Strengthening the Managerial Capacity of the Seed Capital Company

1. Background and Justification

As in all other transition economies, the private sector in Slovakia encounters serious shortages of financing, and especially of venture capital financing in the form of equity investment.

To address this problem and in its efforts to expand the scope of services in the area of financial support to SMEs, the National Agency for Development of Small and Medium Enterprises (NADSME) established the Seed Capital Company at the end of 1994. The main objective of the Company is to provide venture capital financing for companies with viable economic programs, who either lack equity or are unable to provide sufficient bank guarantees.

The Company has a special Investment Committee which evaluates the projects submitted for financing and also takes final decisions about the Company's investments. A beneficiary can get from the Company an investment equivalent of not more than DM 250.000 (SKK 5 million) and for the maximum period of 5 years.

The activity of the Seed Capital Company is constrained by two major factors. First, it has a rather small investment potential. At present, the Company's financial resources amount to some DM 2 million (SKK 40 million). Second, the Investment Committee has a rather weak capacity to evaluate the submitted project proposals. Its project assessment expertise is below the project assessment standards applied in well established venture capital companies in the industrialised countries.

2. Objectives

The project has two general objectives. On the investment side, its objective is to raise additional resources for the venture capital scheme from foreign donors, while on the technical assistance side in main objective is to strengthen institutional capacity of the Company in the area of project generation and assessment.

As far as technical assistance side of the project is concerned, the project has the following more specific objectives:

- (i) to provide training to the Company's professionals on various aspects of venture capital management (project generation, project assessment, risk management, etc.),

- (ii) to prepare operational guidelines for the Company's project assessment management,
- (iii) to strengthen co-operation with RAICs/BIC in order to increase the inflow of project proposals (according to the experiences of venture capital companies in industrial countries, only 3 to 5 per cent of submitted projects is viable for venture capital financing).

3. **Expected Output (Only for the Technical Assistance Side of the Project)**

- (i) core group of the Company's professional staff (2 - 3 people) trained in venture capital financing management,
- (ii) guidelines for project assessment management in the Company
- (iii) RAICs/BICs advisors trained to provide necessary support to entrepreneurs preparing project proposals to be submitted to the Company for venture capital financing.

4. **Activities Required to Implement the Project (Only for the Technical Assistance Side of the Project)**

- (i) on-the-job training (day to day work in the team with the foreign consultant),
- (ii) short-term study tours (up to two weeks) to venture capital companies in the industrialised countries,
- (iii) training (up to two months) in selected foreign venture capital companies,
- (iv) preparation of the guidelines for project assessment management,
- (v) seminars for RAICs/BICs advisors.

5. **Counterparts in Slovakia**

Seed Capital Company (NADSME) in co-operation with RAICs/BICs.

6. **Budget (Only for the Technical Assistance Side of the Project)**

The project, to be completed in 12 months, has a total budget equivalent to \$ 154,500 (office facilities will be provided by the Seed Capital Company), with the following breakdown:

	Foreign Technical Assistance	Local Participation	Total
a) International expert (1 person; 12 man/months)			96,000
- on the job training (10 man/months)	(80,000)		
- guidelines (2 man/months)	(16,000)		
b) Seed Capital Company's professional staff (3 persons; 12 man/months)		(24,000)	24,000
c) Short-term study tours (3)			10,500
- travel costs (2,000)	(6,000)		
- lodging/other (1,500)	(4,500)		
d) Training up to two months (2)			10,000
- travel costs (2,000)	(4,000)		
- lodging/other (3,000)	(6,000)		
e) Seminar for RAICs/BICs advisors (20 participants)			14,000
- travel/lodging (500)	(10,000)		
- other (200)		(4,000)	
Total	(126,500)	(28,000)	154,500

APPENDIX: LIST OF PERSONS MET IN SLOVAKIA

The Government Office of the Slovak Republic

- Daniela Vrbovska, Director, Department of Economic Policy

Ministry of Foreign Affairs

- Ivan Horvat, Director, Department of Foreign Assistance
- Dušan Bela, Director, Department of International Economic and Commercial Cooperation

Ministry of Economy

- Miloš Lelovsky, Deputy Minister*)
- Marcela Šajtlavova, Director, Department for Strategy and Economic Policy*)
- František Kubica, Director, Section of Machinery and Electrotechnical Industry
- Viliam Daniš, Chemical and Pharmaceutical Industry*)

Ministry of Finance

- Juraj Sipko, Director, International Relations

Ministry of Environment

- František Kelbel, Director, Department for the Implementation of Environmental Projects
- Zuzana Kasanicka, Programme Implementation Unit

Ministry of Agriculture

- Jan Bernat

Slovak Guarantee Bank

- Gabriela Sedlakova, Director, Bank Management Division

Investment and Development Bank

- Ignac Prno, Director, Strategy and Planning Department

National Property Fund

- Jan Kato, Director, Strategy, Property, Administration and Information Section
- Vladimir Luptak

National Agency for Development of Small and Medium Enterprises

- Ivan Katriak, Director, Department of Coordination*)

Slovak National Agency for Foreign Investment and Development

- Victor Tegelhoff, Investment Operations Director

Slovak Chamber of Commerce and Industry

- Anton Lisy, Director
- Jan Šafarik, Informatics Department

Slovak Academy of Sciences; Institute of Economics

- Anton Klas**)

Infostat

- Pavol Dujnič, Deputy Director*)

Slovak Centre of United Nations

- Juraj Vrabko, Executive Director

The Bratislava International Centre for Family Studies

- Zuzana Vranova, Director*)

Slovak Cleaner Production Centre

- Anton Blažej, Director

Delegation of the European Commission, Bratislava

- Dušan Dobrovodsky, Programme Manager

European Bank for Reconstruction and Development, Bratislava Representative Office

- Jaromir Cekota, Resident Representative

U. S. Agency for International Development, Bratislava Office

- Gloria Jean Garland, Esq., Commercial Law Advisor

Know How Fund, British Embassy Bratislava

- Caroline Barker, Second Secretary

*) National expert for the CSS.

***) National coordinator for the CSS.

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SELECTED BIBLIOGRAPHY

- Balik, Peter, "Analysis of Status of Women on the Labour Market", Research Institute of Labour, Social Affairs and Family, June 1995, Bratislava, (Balik, 1995).
- Brkel, Josef and Foltin, Jan, "Support for Small and Medium Enterprises in the Slovak Republic", in Levitsky, Jacob (ed.), "Small Business in Transition Economies", 1996, London: Intermediate Technology Publications, (Brkel and Foltin, 1996).
- Butorova, Zora, "She and He in Slovakia", FOCUS, 1996, Bratislava, (Butorova).
- Census 1991, Statistic Office of the Slovak Republic, (Census, 1991).
- "Czechoslovakia: Industrial Transformation and Regeneration", 1992, London: Blackwell Publishers, UNIDO, (UNIDO, 1992).
- Economies in Transition: Restructuring of Large-Scale Industries", UNIDO document CPD.7 (SPEC.), 22 August 1994, (UNIDO, 1994).
- European Bank for Reconstruction and Development, "Slovak Republic: Country Profile", Document presented at the time of the 1996 EBRD Annual Meeting in Sofia, 1996, London, (EBRD, 1996).
- European Bank for Reconstruction and Development, "Strategy for the Slovak Republic", January 28, 1994, London, (document not for public use), (EBRD, 1994).
- European Bank for Reconstruction and Development, "Strategy for the Slovak Republic: Update", September 11, 1995, London, (document not for public use), (EBRD, 1995a).
- European Bank for Reconstruction and Development, "Transition Report 1995", 1995, London, (EBRD, 1995b).
- Fidrmuc, Jan and others, "The Slovak Republic After One Year of Independence", Study commissioned by Bank Austria AG and prepared by the Institute for Advanced Studies and the Centre for Economic Strategies of the Slovak Republic, July 1994, Vienna, (Fidrmuc and others, 1994).
- Guran, Peter, and Filadelfiova, Jarmila, "The Main Demographic Trends and a Family. The World - Europe - Slovakia", International Centre for Family Studies, 1995, Bratislava, (Guran and Filadelfiova, 1995).

- Hoyland, Katharina, "Slovakia: Is Rapid Growth Sustainable", Emerging Markets Data Watch, (February 16, 1996), JP Morgan, New York, (Hoyland, 1996).
- International Monetary Fund, "Slovak Republic: Selected Background Issues", August 18, 1995, Washington D.C., (document not for public use), (IMF, 1995b).
- International Monetary Fund, "Slovak Republic: Staff Report for the 1995 Article IV Consultation", August 8, 1995, Washington D.C., (document not for public use), (IMF, 1995a).
- Know How Fund, Information provided by the British Know How Fund representative in Bratislava, 1996, (KHF, 1996).
- Materials and Data from the Ministry of Labour, Social Affairs and Family of the Slovak Republic, (Materials).
- Ministry of Agriculture, Food, Forestry and Water Management of the Slovak Republic, "Report on Agriculture and the Food Industry of the Slovak Republic 1995 (Green Report)", September 1995, Bratislava.
- Ministry of Economy of the Slovak Republic, "Industrial Policy of the Slovak Republic", July 1995, Bratislava, (ME, 1995).
- Ministry of Finance of the Slovak Republic, "The Position of the Process of Privatization in Slovakia", Paper presented at the meeting of CEFTA Finance Ministers, 1996, Budapest, (MF, 1996b).
- Ministry of Finance of the Slovak Republic, "The State of the Slovak Economy in 1995", Paper presented at the meeting of CEFTA Finance Ministers, 1996, Budapest, (MF, 1996a).
- Ministry of Foreign Affairs of the Slovak Republic, "Initial Report of the Slovak Republic on the Convention on the Elimination of all Forms of Discrimination against Women", 1996, Bratislava, (Ministry of Foreign Affairs, 1996).
- Mudrik, Jozef, "Two Step Loan Seminar", Paper presented at the seminar organized by EXIM Bank of Japan and EBRD, November 1995, London, (Mudrik, 1995).
- National Agency for Development of Small and Medium Enterprises, "Annual Report 1994", 1995, Bratislava, (NADSME, 1995b).

- National Agency for Development of Small and Medium Enterprises, "State of Small and Medium Enterprises and Its Support in Slovak Republic - 1994", 1995, Bratislava, (NADSME, 1995a).
- National Bank of Slovakia, "Selected Economic Indices: Slovak Republic", October 10, 1995, Bratislava, (NBS, 1995).
- Organisation for Economic Co-operation and Development, "Industry in the Czech and Slovak Republics", The Centre for Co-operation with the Economies in Transition, 1994, Paris, (OECD, 1994).
- Pavlik, J., "Regional Industrial and Business Information Service: Slovak Republic", Vienna, (UNIDO Document IRD/R.9, December 21, 1995), (Pavlik, 1995).
- Plan Econ Report, "Slovak Economic Monitor", April 18, 1996, Washington D.C., (Plan Econ, 1996).
- Plavkova, Olga, "Civic Initiatives of Women - the Platform of Regeneration of Women's NGO in Slovakia", (Sociology 1992, No. 1-2), (Plavkova, 1992).
- "Report of the Regional Workshop on Industrial and Business Information Services in Central and Eastern Europe", Bratislava, November 14-15, 1996 (UNIDO Document IRD(R.10, December 21, 1995), (UNIDO, 1995).
- Slovak Cleaner Production Centre, "Slovak Cleaner Production Programme", 1995, Bratislava, (SCPC, 1995).
- "Slovak Financial Revue", International Edition, Bratislava, issues No. 1 and 2, 1995.
- Slovak National Agency for Foreign Investment and Development, "Investor's Guide", 1995, Bratislava, (SNAFID, 1995).
- Slovak National Agency for Foreign Investment and Development, "The Second Wave of Privatization in the Slovak Republic", 1996, Bratislava, (SNAFID, 1996).
- "Statistical Yearbook 1995", Slovak Statistical Office, 1996, Bratislava (SSO, 1996).
- The Economist Conferences, "Roundtable with the Government of the Slovak Republic", Bratislava, January 24-26, 1996, (EC, 1996).
- The Economist Intelligence Unit, "Czech Republic, Slovakia", Country Profile, 1995-96, London, (EIU, 1995).

- The Institute of International Finance, "Slovak Republic: Country Report", February 6, 1996, Washington D.C., (document not for public use), (IIF, 1996).
- The National Property Fund of the Slovak Republic, "Information Bulletin, 1995", Bratislava, (NPF, 1995).
- United States Agency for International Development, "U.S. Assistance to Slovakia", January 26, 1996, Bratislava, (USAID, 1996).
- Vranova, Zuzana, "Situation and Status of Women in the Slovak Republic", Report for UNICEF, September 1994, Bratislava, (Vranova, 1994).
- World Bank, "Country Profile: Slovak Republic", April 1996, Washington D.C., (World Bank, 1996).
- World Bank, "Slovakia: Restructuring for Recovery", A World Bank Country Study, September 1994, Washington D.C., (World Bank, 1994).
- World Bank, "World Development Report 1994", 1995, Washington D.C., (World Bank, 1995).
- World Trade Organization, "Trade Policy Review: Slovak Republic", March 1996, Geneva, (WTO, 1996).
- Žižek, Jan and von Liechtenstein, Heinrich, "Venture Capital and Entrepreneurship in Central and East Europe: 750 Central and East European Dynamic Entrepreneurs Database Survey", PHARE, EFER and EVCA Final Report, 1995 (Žižek and von Liechtenstein, 1995).

