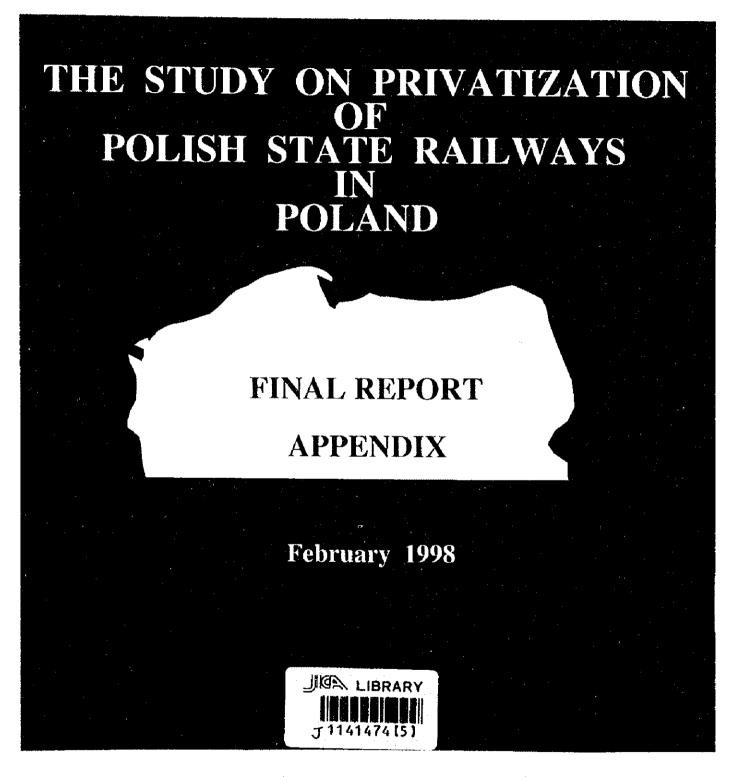
MINISTRY OF TRANSPORT AND MARITIME ECONOMY REPUBLIC OF POLAND

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JAPAN RAILWAY TECHNICAL SERVICE DAIWA INSTITUTE OF RESEARCH LTD. TONICHI ENGINEERING CONSULTANTS, INC.

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JAPAN INTERNATIONAL COOPERATION AGENCY

MINISTRY OF TRANSPORT AND MARITIME ECONOMY REPUBLIC OF POLAND

# THE STUDY ON PRIVATIZATION OF POLISH STATE RAILWAYS IN POLAND

# FINAL REPORT APPENDIX

February 1998

JAPAN RAILWAY TECHNICAL SERVICE DAIWA INSTITUTE OF RESEARCH LTD. TONICHI ENGINEERING CONSULTANTS, INC.

1 US Dollar = 3.20 PLN = 115 Yen (June 1997)

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#### APPENDIX 1

# SOCIOECONOMIC AND TRANSPORT SITUATION IN POLAND

#### 1.1 SOCIOECONOMIC SITUATION

#### 1.1.2 Population and area

Poland is the largest country in Central Europe with a population of 38.6 million (December 1995) and a total land area of 312.683 thousand square kilometers, located in the geographical center of Europe with the Baltic Sea as its northern border and also bordering with seven other countries - Germany, the Czech Republic, Slovakia, Ukraine, Belarus, Lithuania and the Russian Federation. Poland's territory is used in 60% for agriculture and 28% is covered by forest. The population density is 123 persons per square kilometer with 61.6% of the population living in urban areas.

#### 1.1.3 Political system

#### (1) Historical development

At the end of the war, Poland was subordinated to the Soviet zone of influence as a result of the Yalta and Potsdam Conferences. For the next 45 years, the communist Polish United Worker's Party came to power. The political system was based on one-party rule, adopting the Soviet type patterns such as nationalization and central planning of the economy and suppression of political opposition. The dominance of the communist rule, although periodically interrupted by serious political and economic crises in 1956, 1968, 1970 and 1976, lasted until Solidarity was created in August 1980. Solidarity was the first independent trade union in the entire Soviet block. The implementation of Solidarity's democratic economic and political program and its massive support (over 10 million members) in Poland were stopped by the introduction of the martial law on 13 December 1981. At the same time, the Solidarity leaders were interned and some months later, in October 1982 Solidarity was officially banned, although it worked underground. The martial law formally ended in June 1983. In the next years, the communist authorities introduced some political

and economic reforms, especially the last communist government in 1988 - 1989, but the scope of those reforms was too limited to change the system in a significant way.

# Major Historical Events 1945 - 1996

Year	Historical Events	Major Economic Events
1945	Subordination to the Soviet zone after the Jalta and	Introduction of Soviet type economy
	Potsdam conferences	
	Poland's frontiers moved westwards: 25% loss of total	
	territory	
	Communist party came to power	
1946-1955	Political repression and stalinization	Reconstruction of the economy
		Nationalization of industry and
		collectivization of agriculture
		Socialist industrialization
1956	Strikes and unrest in Poznan in June	Economic reforms in industry
	New communist party leader Mr. Gomulka introduced	Dissolution of collective farms in
	"Polish road to socialism" in October	agriculture
1968	Student protests and manifestations in March	Economic stagnation
1970	Strikes and riots against food market price rises in	Deterioration of disequilibrium in
	Gdansk in December	consumer markets
1971-1976	New communist party leader Mr. Gierek	Certain economic liberalization
	Political opening to the West	"Active foreign credit policy"
	Administration reform	Investment boom
1976	Strikes and unrests against food market price rises in	Deterioration of food markets
	Radom in June	Growing foreign indebtedness
1980-1981	Protests and strikes in Gdansk in August 1980	Collapse of consumer markets and
	Establishment of Solidarity - the first independent	introduction of rationing for many basic
	trade union in the Soviet bloc	consumer goods
	Introduction of the martial law by general	
	W. Jaruzelski on 13 December 1981	

1981-1983	Liquidation of Solidarity and political repression against opposition	Poland's economic isolation by Western countries in response to the martial law Deterioration of economic situation
1988	Last communist government of Mr. Rakowski introduced new elements of economic and political liberalization	First legislative steps towards small scale privatization
1989	"Round table talks"  Formation of the first non-communist government of Mr. Mazowiecki in September 1989	Gradual liberalization of the economy
1990	Political liberalization  Mr. Walesa won the presidential elections in  December 1990	Radical reform program ("Balccrowicz Plan") towards a market economy
1991-1993	Post Solidarity parties won the first free election in October 1991 Continuation of political reforms Last Russian troops left Poland	Macroeconomic stabilization  Ownership changes in the economy  Foreign debt reduction and restructuring - agreements with the "Paris Club"
1993-1996	Left-wing parties won the parliamentary elections in September 1993 Mr. Kwasniewski won the presidential elections in December 1995	Effects of radical economic reforms - strong economic growth, falling inflation, stable currency and development of capital markets Restructuring agreement with the "London Club" in 1994 Mass Privatization Program launched in November 1995
		Membership of the OECD in July 1996

#### (2) Political changes after 1989

In April 1989, the communist government and the opposition led by Solidarity after long lasting "round table" discussions agreed to arrange competitive elections to a bicameral Parliament (lower chamber Sejm and upper chamber Senate). The results of June 1989 elections confirmed the victory of Solidarity candidates for available seats in Sejm and by a 99% majority in completely free elections for the Senate. A similar victory was reached by

Solidarity in local elections in May 1990 and in November 1990, when the former Solidarity leader Mr. Lech Walesa was elected in the first free presidential election since World War II. The last parliamentary elections were held on 19 September 1993 and won by the left wing parties - Democratic Left Alliance and Polish Peasant Party with 66% of the seats in the Sejm and 73% in the Senate, which formed the present coalition government. The main opposition parties are represented by the Freedom Union and the Labor Union. As of 31 December 1995, 460-seat Sejm has the following composition:

Caucus	Number of seats
Democratic Left Alliance	168
Polish Peasant Party	130
Freedom Union	73
Labor Union	36
Non-Partisan Bloc for the Support of the Reforms	17
Confederation for an Independent Poland	16
German Minority	4
"New Democracy" Caucus	4
Republicans Caucus	3
Polish Socialist Party	3
Independent	6
Total	460

Source: Rocznik Statystyczny 1996, Central Statistical Office, Warsaw 1996

#### 1.1.4 Radical economic reforms

The radical reform process began on January 1st 1990 with the introduction of the Balcerowicz Plan ("shock therapy"), the first and most radical economic program in Central and Eastern Europe. The main purposes of the program were:

- macroeconomic stabilization, aiming at reducing hyperinflation, introduction of tight monetary policy, cuts in subsidies to reduce the budget deficit, internal convertibility of currency with one exchange rate;
- liberalization of the economy, aiming at the introduction of a legal framework for market mechanisms instead of centrally planned economy, liquidation of the state monopoly for foreign trade, access of foreign capital, liquidation of price controls, creation of social protection for unemployment;

• privatization process, aiming at ownership changes into private sector of the economy.
The transformation processes, very painful for the society in their first stages, have considerably changed the Polish economy. The radical comprehensive reforms towards a market economy resulted in one of the fastest growing economics in Europe from 1994 to 1996, increasing international importance and membership in the OECD since July 1996.

#### 1.1.5 Economic developments in 1991 - 1996

The main economic indicators of the Polish economy in 1991 - 1996 are presented in the table below. The data for 1996 are preliminary:

**Key Economic Indicators** 

% p2	1991	1992	1993	1994	1995	1996
-						<b>(E)</b>
Real GDP	-7.0	2.6	3.8	5.2	7.0	6.5
Investment	-4.1	0.4	2.3	8.2	21.2	20.0
Unemployment Rate(end period)	11.8	13.6	16.4	16.0	14.9	13.5
Inflation (end period)	60.4.	44.3	37.6	29.5	21.6	18.5
Budget Balance (% of GDP)	-3.8	-6.0	-2.8	-2.7	-2.6	-2.8
Public Debt (% of GDP)	81.4	85.2	86.0	69.5	56.2	54.0
Exports	4.2	-11.5	7.3	21.9	32.8	9.0
Imports	61.1	1.0	18.4	14.5	34.7	29.0
Current Account Balance (\$ bn)	-1.359	-0.269	-2.329	-0.944	-2.299	-4.300
Exchange rate (zloty/\$, end period)	1.096	1.577	2.134	2.437	2.468	2.815
External Debt (\$ bn)	48.412	47.044	47.246	42.174	43.957	43.600
External Debt, (% of GDP)	65.7	64.1	63.0	45.8	35.4	32.5
Private Sector, (% of Employees)	54.3	56.0	58.9	60.6	62.6	64.0

Source: Central Statistical Office, Central Office of Planning

#### (1) GDP

The Polish economy, like all transitional economies in Central and Eastern Europe, had experienced a fall in GDP as it moved towards a market economy. However in the case of Poland this process was considerably shorter, limited only to the years 1989 - 1991. Poland returned to positive growth rates in 1992 and indicated the strongest development dynamics in Europe with a 7% GDP growth rate in 1995. The total nominal GDP is estimated at \$ 150 bn in 1996 or \$ 3886 per capita at market exchange rates in 1996.

#### (2) Investment

The fall in investment, much weaker than that in other economics in transition, was successfully stopped in 1992. The relatively low positive investment rates in 1992 to 1994 were substituted by high growth rates from 1995 to 1996. Investment growth exceeds 20% annually and has emerged as the main engine for economic growth since 1995.

The positive performance of the Polish economy over the last few years and the continuation of the privatization processes has attracted a significant increase in foreign investment inflow to Poland from 1995 to 1996. The total amount of foreign capital invested in 1995 was \$ 2.5 bn and \$ 4 bn in 1996. The total cumulative amount increased to over \$ 12 bn during the entire transition period, placing Poland in second position, after Hungary and already overtaking the Czech Republic, among the countries of Central and Eastern Europe at the end of 1996. It is necessary to note that the data, registered by the Polish Agency for Foreign Investment (PAIZ), take into account only investments exceeding \$ 1 m, whereas in Hungarian statistics smaller investments are included. The number of largest companies, which have received investment exceeding \$ 1 m, amounts over 430 and represents only a small part of the over 24,000 companies with foreign capital registered at the end of 1996. The capital flows come from the European Union countries represent 50% of the total, the USA 25% and 10% from international financial corporations. 62% of the foreign capital goes to industry, 21% to the financial sector, 5.5% to construction, and only 0.5% to transportation. The largest foreign investors are Fiat, EBRD, ING Bank, Coca Cola, Philip Morris, Nestle and Daewoo with commitments exceeding \$ 1.5 bn.

#### (c) Employment

Unemployment has been officially registered since 1990, and grew sharply in the first years of transformation, mainly due to the restructuring processes in the economy. The highest unemployment rate of 16.4% was reached in 1993. In the next years a falling tendency was observed down to 13.5% in 1996, as the consequence of an improvement in economic activity and the creation of new jobs.

#### (d) Inflation

The price liberalization, liquidation of subsidies and opening of the economy have caused very deep changes in the price structure. The former price system had been controlled by the central authorities with no direct relation to the world price structure. Additionally prices were biased through a complicated system of subsidies, i.e. maintaining relatively low price levels for basic goods and transportation. As a result of the new price policy, a price explosion of over 600% was observed in 1989 and over 240% inflation rate in 1990. The anti-inflationary policy, subsequently realized in the following years, has reduced inflation to 18.5% in 1996. The reduction of inflation is one of the crucial concerns of the economic policy. According to the government document "Poland 2000. The New Economic Strategy", single digit (5%-7%) inflation is projected for December 2000

#### 1.1.6 The state budget

The relation of the state budget deficit to GDP declined considerably from 6% in 1992 to a level of 2.6 to 2.8% from 1993 to 1996. These results indicate the fulfillment of fiscal requirement for European Monetary Union (Maastricht Treaty).

The public debt, composed of internal and external indebtedness, as a percentage of GDP has significantly declined from 81.4% in 1991 to 54% in 1996 (under the Maastricht criterion). The main reasons have been a reduction in external debt and restructuring agreements with creditor countries ("Paris Club") and commercial bank creditors ("London Club") and the growing GDP in the years 1992 to 1996.

#### 1.1.7 Foreign trade

The geographical composition of Polish foreign trade has significantly changed. The trade with the European Union accounted for 70% in 1995 to 1996 with the very strong position of Germany absorbing over 30% of total trade. The share of Eastern and Central Europe (former Comecon countries), which showed dynamic growth in 1995 to 1996, declined from 50% in the late 1980s to around 20% in 1996. The commodity structure is dominated by manufacture with their share over 70% of the total trade share.

Exports grew strongly in 1994 to 1995, after a fall in 1992. The growth rate in 1996 slowed to 9% due to the appreciation of the zloty and a decrease in foreign demand, especially in Germany. Imports, after an explosion of 61% in 1991 (in response to trade liberalization) and a slight increase in 1992, grew dramatically in the next four years. The higher import growth rates than those for exports, compensated partially by unregistered border exports, resulted in a high negative balance of payments in 1996.

#### 1.1.8 Exchange rate policy

The introduction of a convertible zloty for current account transactions was one of the most important instruments of the Balcerowicz Plan in January 1990. The zloty was fixed against the US Dollar from January 1990 until May 1991 ("nominal anchor") and then fixed against a basket of currencies until October 1991. The currency basket has been composed of the following weights: the US Dollar 45%, the Deutsche Mark 35%, the Pound sterling 10%, the French franc 5% and Swiss franc 5%. Since October 1991, the National Bank of Poland has introduced a "crawling peg" based on monthly rate of devaluation against the currency basket. The crawling peg has been gradually adjusted, from 1.6% in 1994 to 1% in December 1995, mostly due to falling inflation. On 16 May 1995, the 2% exchange rate band under crawling peg was substituted with 7% floating range around the central NBP rate set every day.

#### 1.1.9 Banking system

The privatization program of the banking sector by the Ministry of Finance, was initiated in 1989 by the break-up of the state banking monopoly and the creation of 9 commercial banks on the basis of 400 operational branches of the National Bank of Poland (NBP). The first step elaborated in the 1991 privatization program was the commercialization of these nine banks into the State Treasury Corporations and the appointment of a special commission aimed at the selection of banks for privatization.

The privatization of the banking sector by the Ministry of Finance started in 1992 with the sale of Bank Rozwoju Eksportu. In 1993 Wielkopolski Bank Kredytowy was privatized as the first bank belonging to the group of nine large commercial banks, followed by the public

offering of Bank Slaski, the second one of this group. The next two large commercial banks of the group of nine, Bank Przemyslowo-Handlowy and Bank Gdanski, were privatized in 1994 - 1995. At the end of 1996 12 private banks were listed on the Warsaw Stock Exchange.

The structure of the banking sector, excluding the NBP, which acts as the central bank of Poland and does not engage in commercial banking, was composed of 88 banks by the end of 1996 and included 2 state banks, 8 joint stock banks wholly owned by the State, 12 foreign banks, 3 foreign bank branches and 63 other commercial banks. In addition, there were over 1,600 local cooperative banks and 39 foreign banks had representative offices.

An important change in the banking system is the initiation of consolidation for four big commercial banks - PeKaO in Warsaw, Powszechny Bank Gospodarczy in Lodz, Bank Depozytowy in Lublin and Pomorski Bank Kredytowy in Szczecin into the strongest banking group (PeKaO Group) in Poland.

#### 1.1.10 Capital markets

The Warsaw Stock Exchange (WSE) was reopened in April 1991 after a 52 year break. The securities market is supervised by the Securities Commission, which regulates the IPO, establishment of investment funds and the functioning of brokers. Foreign and domestic investors operate on the same conditions. At the end of 1996, the equity shares of 83 companies were listed on the main and parallel markets with their capitalization of about PLN 23 bn (\$ 8.2 bn) and the WIG increased by 89.1%. The number of companies and their capitalization will significantly increase in 1997 due to the announced privatization of many large companies, like the copper company KGHM and Bank Handlowy and the listing of NIF companies.

A company can apply for admission to trading on the WSE after the approval for public trading by the Polish Securities Commission. The company, depending on its size and track record, can be traded on the main, parallel or third tier - free market. The current requirements of listing came into force on 10 August 1996. The primary criteria for the main, parallel and free market are presented in the table below.

# Criteria for Listing on the WSE

Main Market	Parallel Market	Free Market		
or a state of facilities	1 Character admined for multip	1 (1)		
	1. Shares are admitted for public	·		
trading	trading	trading		
· ·	2. Transferability of the shares is not	·		
limited		limited		
3. The value of shares to be admitted				
must be at least PLN 24 million	must be at least PLN 12 million	must be at least PLN 4 million		
4. The book value must be at least	4. The book value must be at least	4. The book value must be at least		
PLN 24 million	PLN 12 million	PLN 4 million		
5. The value of the share capital must	5. The value of the share capital must	5. The value of the share capital must		
be at least PLN 7 million	be at least PLN 3 million	be at least PLN 1.5 million		
6. Shares of at least PLN 12 million	6. Shares of at least PLN 6 million	6		
must be distributed among small	must be distributed among small			
shareholders (who individually own	shareholders			
no more than 5% of the total number				
of votes)				
7. At least 25% of shares to be listed	7. At least 10% of shares to be listed	7		
must be distributed among small	must be distributed among small			
shareholders	shareholders			
8. At least 500 shareholders must	8. At least 300 shareholders must	8		
hold the shares to be admitted	hold the shares to be admitted			
9. The company must have registered	9. The company must have registered	9		
a pre-tax combined profits for the	a pre-tax profit for the last financial			
past three financial years of at least	year			
PLN 5 million and a pre-tax profit				
for the last financial year				
10. The company must have publicly				
disclosed audited annual financial	10. The company must have publicly	10. The company must have publicly		
reports for the last three financial		disclosed audited annual financial		
years	reports for the last two financial			
	years	-		
	ľ			

# 1.1.11 Poland as transition leader in the region

All the countries of Central and Eastern Europe experienced several years of sharp decline in GDP after the introduction of economic and political changes in 1989. The recovery processes and their dynamics have differed greatly among the countries. Some of them, like the Russian Federation, have not yet returned to positive growth. In the case of Bulgaria, a dramatic collapse was observed last year.

Poland was the first country to return to positive growth in 1992, while other countries (excluding Russia) followed in the period from 1993 to 1994. Poland attained the strongest growth in the region and even in Europe in the next several years. In addition the Polish GDP in 1996 was about 18.7% above 1990 level, which is the best result in Central and Eastern Europe. Other countries, including Czech Republic, Hungary and Slovakia, also very advanced in the transition processes, are still about 9-11% below their 1990 levels. A dramatic picture is presented by the Russian case with an almost 50% fall in GDP.

Economic Growth in the Central and Eastern European
Countries in 1991 - 1996

real GDP,	1991	1992	1993	1994	1995	1996	cumulative
(% p.a.)						<b>(E)</b>	1990-96
Bulgaria	-11.7	-7.3	-2.4	1.4	2.5	-9.0	-24.4
Czech Republic	-14.2	-6.4	-0.9	2.6	4.8	4.1	-11.0
Hungary	-11.9	-3.0	-0.6	2.9	1.5	1.0	-11.4
Poland	-7.0	2.6	3.8	5.2	7.0	6.5	18.7
Romania	-12.9	-10.0	1.3	3.5	6.9	4.5	-8.2
Russia	-13.0	-19.0	-8.7	-12.6	-4.0	-6.0	-54.8
Slovakia	-14.5	-7.0	-3.7	4.9	7.4	6.0	-8.6

Source: EBRD, Central Statistical Office, Central Office of Planning

The EBRD (European Bank of Reconstruction and Development) publishes its evaluation of progress in transforms once a year. The results of the last report are presented in the following table and confirm that Poland belongs to the most advanced and successful countries in the transformation processes in Central and Eastern Europe.

Poland shares the best evaluation in all the distinguished economic activities except being behind the Czech Republic and Hungary in the realization of large scale privatization. Large scale privatization will be significantly accelerated in 1997 as a result of MPP's performance and some big privatizations, which have been already announced.

Progress in Transition - Central and Eastern European Countries, end of 1996

Country	· · · ·	Enterprises			Markets and Trade			Financial Institutions		Legal Reform	
	Private Sector (share of GDP in % mid 1996)	Large- scale Privat	Small- scale Privat.	Enterpr Restruc.	Price Liberal.	Trade and FX system	Compet. Policy	Banking Reform & Interest Rate Liberal.	Bond Market and Non- banking Financial Instit.	Legisl, of Invest	
Bulgaria	45	2	3	22	2	44	2	2	2	4	
Czech Republic	75	4	4*	3	3	4*	3	3	3	4	
Hungary	70	4	4*	3	3	4*	3	3	3	4	
Poland	65	3_	4*	3	3	4*	3	3	3	4	
Romania	60	3	3	2	3	3	ì	3	2	3	
Russia	60	3	4	2	3	4	2	2	3	3	
Slovakia	70	3	4*	3	3	4*	3	3	3	3	

Source: EBRD, Transition Report 1996

The EBRD evaluation is composed of a 5 point scale, from 1 to 4 and 4\*, where 1 indicates the lowest level and 4\* the most advanced level of transition (e.g. most economies of EU would get the category 4\*). The figures express also some quantitative components, e.g. under "large scale privatization" a 4\* rating denotes "standards and performance typical for advanced industrial economies - more than 75% of companies in private ownership", while a note 4 indicates "over 50% of assets have been privatized and generated substantial outsider ownership". A note 3 informs that "over 25% have been privatized (or are in the process) but possibly with major unresolved issues regarding corporate governance".

#### 1.1.12 Economic outlook for 1997

The positive trends in economic development in Poland should continue in 1997. The GDP growth is expected to be roughly 6-6.5%. We assume a continuation of dynamic development in domestic demand. Investment should increase by around 18-20%, strongly supported by growing foreign direct investment (FDI). Consumption demand will be stimulated by growing real wages and the continued increase in household credits as a result of the decline in interest rates, expansion of differentiated banking credits, and improvement in the financial situation of households. Strong growth in domestic demand will determine the high dynamics of imports, and the liquidation of import tax in 1997.

On the other hand we expect an increase in external demand, represented by higher growth in Western Europe and especially in Germany, the main trade partner, absorbing over 35% of total Polish exports. A significant improvement is also expected in exports to Central and Eastern European countries as result of falling tariff barriers among CEFTA countries and an increase in exports to the CIS countries. The growth in exports, expected on the level of 15-18%, will not be strong enough to compensate for the high import demand, and the trade deficit in 1997 will be at least as high as in 1996.

The unemployment rate should be reduced to a level under 13%. The low budget deficit policy will continue and the target deficit will reach a level under 2.8%. The inflation rate should be lower than that in 1996 and should not exceed 14% on a year on year basis.

This year seems to be a very important one for the ownership changes and development of Polish capital markets. Some Initial Public Offerings of many profitable companies have been already announced by the government. The privatization of such enterprises like the KGHM (one of the largest copper companies in the world), Polish Airlines LOT and Bank Handlowy (one of the best banks in the region), will certainly have influence on the growing market capitalization of the Warsaw Stock Exchange. In addition, the listing of the first MPP enterprises is expected as well.

In 1997 an acceleration in some institutional reforms is of great importance, particularly the reform of Poland's inefficient social security system, the restructuring of loss making state

owned companies ("socialist legacy") in heavy industry like coal mining sector and the restructuring of the state railways etc.

One of the most important institutional problems is the existing pension system. Its reform should be finished or at least considerably accelerated in 1997. Under the current system, inherited from the communist era, the Social Security Office (ZUS) collects from employers 45% of worker's wages and spends the cash on pensions. The budget's subsidy amounts for over 20% of its revenue annually and it can create a huge budget problem due to the increase in the number of pensioners from the current 9 million to 11 million in 2010. The reform plan proposes the creation of new privately managed pension funds and an endowment of the funds with the shares of privatized companies. These funds would create the second source of pensions, together with the restructured ZUS.

#### 1.2 EXISTING TRANSPORT CONDITION

#### 1.2.1 Outlook of the transport system in Poland

The Polish national transport system consists of railways, roads, maritime and inland water transport, air transport, pipeline. These transport system have an extensive network; (1) railways with a route length of 23,986 km including 22,599 km of standard gauge sections and 11,627 km of electrified sections (2)273,153 km of paved road network (3) 33,353 km of inland water lines (4) 9,306 km of pipelines.

It is mentioned that Poland is located at the relay point between western Europe and eastern Europe, and development of international transport network gives Poland considerable advantage. As the east-west trunk line route, both E20 and E30 lines are target section of railway modernization, and A2 and A4 motorway routes are target sections of road upgrading.

In correspondence with the transformation of the Polish economy, the Polish transport system is undergoing a transition process to turn to the market oriented one including privatization. Since the beginning of 1990, the government has introduced a number of legislation to restructure the old transport administration system with intent to achieve higher efficiency through competition, reduce state subsidies, lower barriers of international transport services, and change ownership and institutional framework and so on.

#### 1.2.2 Passenger transport

#### (1) Long distance transport

Table 1.1 shows the number of passengers and passenger-kilometers carried by railways. The total number of passengers, reached a peak of 1,107 millions in the end of 80\*s, has shown decrease from 1985 to present. This is attributed to:

- the fall of the transport mobility of the population (from 21 passages in 1990 to 12 passages per one inhabitant in 1995)
- the divergence of the society in terms of income per one member of the household
- the growth of the unemployment
- the rise of tariffs for railway and bus passenger transport
- the growth of the number of private and individual cars

Table 1.1 Passenger Transport

Thousands of Passengers									
Transport Mode	1985	1990	1991	1992	1993	1994	1995		
Railway	1,005,107	789,922	651,991	549,302	541,089	494,617	465,901		
Road	2,434,423	2,084,708	1,709,441	1,513,067	1,380,762	1,215,323	1,131,593		
Sea	301	569	573	680	630	624	458		
Inland Waterways	6,471	3,816	975	667	606	660	1,208		
Air Transport	1,790	1,715	1,208	1,254	1,405	1,596	1,847		
Private cars	1,354,600	2,099,000	2,621,700	2,985,300	3,310,500	3,419,700	3,512,300		
Total	4,802,692	4,979,730	4,985,888	5,050,270	5,234,992	5,132,520	5,113,307		
			Millions of	Passenger-ki	lometers	:			
Transport Mode	1985	1990	1991	1992	1993	1994	1995		
Railway	51,978	50,373	40,115	32,571	30,865	27,610	26,635		
Road	52,088	46,599	41,720	39,009	37,812	34,262	34,024		
Sea	218	193	195	214	189	186	151		
Inland Waterways	99	28	21	15	13	18	25		
Air Transport	2,859	4,430	3,589	3,577	3,653	4,005	4,633		
Private cars	44,400	70,000	88,900	102,800	115,900	120,100	123,800		
Total	151,642	171,623	174,540	178,186	188,432	186,181	189,268		

Source: Statistical Yearbook 1996(GUS),

POLAND International Economic Report 1994/1995 (Warsaw School of Economics) and

**JICA Study Team** 

According to the table, railway and road transport (bus) has lost its share for the total traffic in last decade, while private cars gets share considerably in same period. This situation corresponds with the experience in western countries which faced rapid motorization due to the increase of private vehicles, and it is explained by the trend of registered number of private vehicles in Poland.

Table 1.2 Registered Vehicles in thousand

Vehicle	1985	1990	1991	1992	1993	1994	1995
Passenger Car	3,671	5,216	6,112	6,505	6,771	7,153	7,517
Bus	83	92	87	86	86	87	85
Truck & Trailer	780	1,045	1,151	1,212	1,235	1,307	1,354
Agricultural Tractor	919	1,192	1,183	1,183	1,192	1,215	1,212
Motorcycle &	1,547	1,357	1,236	1,134	1,068	1,008	929
Scooter							
Others	89	139	91	87	85	88	89
Total	7,089	9,041	9,860	10,207	10,437	10,858	11,186

Source: Statistical Yearbook 1996 (GUS)

#### (2) Urban & local transport

In addition to long distance trip, there are a number of urban areas where various kind of daily trips such as commuting trip, business trip and private trip, are taking place. Especially comprehensive urbanized area, including suburban cities, has accompanied a lot of trip production. Urban passenger transport services in cities and suburbs are supplied by city and state enterprises. Main transport means consist of Bus and Tramway system operated by local authority, while PKP also provides urban railway services which connect the city center with suburban areas in pivotal urban areas. Urban transport services are concentrated in city areas. Only the 20% more portion of total network serves the country side.

Table 1.3 Existing Urban Transport by Agglomeration

	ig Urban Tran		ize	Agglomeration		Urban Transit			
				trans	sport				
				PKP	PKS	Seat C	apacity	Transport	
Voivodship	Agglomera- tion	Area km²	Population	Pass.	Pass.	BUS	Tram	Volume	
			x 1000	x 1000	x 1000	x 1000	x 1000	x mil.	
Warszawskie	Warszawska	495	1635.1	82,412	14,004	216.0	112.5	1210.8	
Białostockie	Bialostocka	203	393.8	4,509	18,802	45.2	0.0	84.0	
Bielskie	Biclsko-	125	180.4	16,079	35,736	31.3	0.0	91.0	
	Bialska		:			Ì			
Bydgoskie	Bydgoska-	175	386.0	11,956	32,166	42.6	16.9	139.0	
	Torunska								
Czstochowskie	Czestochows	160	259.1	6,426	20,912	30.2	9.0	125.0	
	ka								
Gdanskie	Gdanska	262	463.0	62,517	27,311	68.8	32.5	336.0	
Katowickie	Katowicka	165	351.5	31,577	39,684	177.5	64.2	869.0	
Kieleckie	Kielecka	110	213.8	5,116	57,519	47.6	0.0	114.0	
krakowsie	Ktakowska	327	745.0	11,313	13,456	73.3	71.2	566.0	
Legnickie	Legnicko-	56	107.9	3,005	26,383	22.5	0.0	45.0	
	Glogoska								
Lubelskie	Lubelska	148	354.6	4,788	27,774	38.5	0.0	213.0	
Lodzie	Lodzka	295	823.2	9,335	12,338	65.1	69.3	353.0	
Opolskie	Opolska	96	130.2	7,735	35,267	26.3	0.0	62.0	
Poznanskie	Poznanska	261	581.2	13,528	14,727	55.4	43.9	229.0	
Rzeszowskie	Rzeszowska	54	160.3	3,732	23,992	30.3	0.0	86.0	
Szczecinskie	Szczecinska	301	418.1	9,138	20,976	45.3	30.9	154.0	
Walbrzyskie	Walbrzyska	85	139.2	2,920	20,132	27.6	0.0	54.0	
Wrocławskie	Wrocławska	293	642.0	14,278	24,246	50.3	57.9	332.0	

Source: PKP statistical yearbook 1995, Transport, Result of Activity 1995 GUS

#### 1.2.3 Freight transport

Table. 1.4 shows the freight transport trends in tonnage and ton-kilometers. For many years railway was dominating on the freight market. In 1985, 419 million tons of freight has transported by railways. The sudden drop of the demand for freight by railways observed from 1985 to 1992 when the demand for the freight transport decreased two times. On the contrary the share of the freight transport in ton-kilometers by railways is about 50% of on

land transport at present. Table 1.5 shows the modal share of selected products. About 80% of hard coal is dominantly carried by railways. Freight transport by railways in Poland still occupies one of first positions among European railways enterprises.

Table 1.4 Freight Transport

Thousands of Tons								
Transport Mode	1985	1990	1991	1992	1993	1994	1995	
Railway	419,378	281,658	227,797	201,663	214,212	214,745	225,348	
Road	1,393,644	1,292,358	1,188,697	1,121,686	1,071,221	1,060,709	1,086,762	
Pipelines	38,737	32,995	26,399	30,205	31,235	34,419	33,353	
Sea	31,941	28,477	27,563	26,953	23,869	23,168	24,968	
Inland Waterways	14,537	9,795	7,828	7,875	8,720	10,115	9,306	
Air Transport	9	14	11	13	17	20	22	
Total	1,898,246	1,645,297	1,478,295	1,388,395	1,349,274	1,343,176	1,379,759	
			Millions of	Fon-kilomet	ers			
Transport Mode	1985	1990	1991	1992	1993	1994	1995	
Railway	120,642	85,530	65,146	57,763	64,359	65,788	69,116	
Road	36,592	40,293	39,641	42,037	40,744	45,365	51,200	
Pipelines	16,996	13,887	10,388	11,932	12,203	14,298	13,493	
Sea	176,110	207,430	202,281	193,086	155,092	144,080	165,863	
Inland Waterways	1,413	1,034	737	750	661	793	876	
Air Transport	16	57	45	52	55	62	74	
Total	351,769	348,231	318,238	305,620	273,114	270,386	300,622	

Source: Statistical Yearbook 1996 (GUS)

Table 1.5 Modal Share of Selected Products in 1995

PKP commodity Number	Commodity	Railway	Road and Others
1	Hard Coal	77.3%	22.7%
2	Brown Coal and Coke	12.3%	87.7%
3	Ores	33.7%	66.3%
5	Sand and Gravel	3.9%	96.1%
6	Oil and Refined Products	34.2%	65.8%
7	Metal and Products	48.7%	51.3%
9	Cement and Products	41.6%	58.4%
10	Fertilizers	39.5%	60.5%
11A	Grain	7.9%	92.1%
11	Potatoes	0.6%	99.4%
12,13,14,15	Sugar & Beets	7.0%	93.0%

Source: Statistical Yearbook, PKP Yearbook and World Bank report

#### **APPENDIX 2**

#### PRESENT SITUATION OF PKP

#### 2.1 DEMAND CHARACTERISTICS OF RAILWAY TRANSPORT

These surveys are consisted of acquisition of existing database, origin destination survey and passenger interview survey. The interview survey includes stated preference survey in which each respondent was asked about the preference to railway under a certain railway service level prepared and assumed by study team. This result gives useful information about the preference parameter for railway choice. An analysis was made based on above database susing the statistical analysis method. According to the analysis, following demand characteristics are made clear.

#### 1) For short distance train

Based on the survey result for the train users in agglomeration level, the demand characteristics for intra region railway service are obtained.

#### (a) The composition of trip purpose

Table 2.1 Trip purpose of short distance train users

Trip purpose	Response	%
Work	99	32.0%
School	63	20.4%
Business	32	10.4%
Private and others	115	37.2%
Total	309	100.0%

In the agglomeration level , 50% over of train users make trips for commuting .

#### (b) Reason for the choice of railway

Table 2.2 and 2.3 show the reason of railway choice and relationship between reason and related factors. According to that ,largest portion mentioned to "no other possibility", which shows that certain part of short distance railway users are so called railway captive users. Except for above reason ,selection is dispersed relatively in even ,however it is likely that the railway service gets higher advantage in term of price ,speed ,convenience rather than

safety, frequent service and reliability. Observing the result by each related factor, it is considered that no own car group and lower income group have higher railway captives and are more price conscious than another groups.

Table 2.2 Reason to choose train by car ownership

	Own N	o car T	OTAL
	car		
No other possibility	43	89	132
Cheaper	16	24	40
Quicker	10	13	23
Safer	4	3	7
Frequency service	3	1	4
Reliability	3	5	8
Convenient	16	31	47
Access to ST	12	14	26
Other	14	12	26
TOTAL	121	192	313

Table 2.3 Reason to choose train by income

	Monthly income						
	up to	500-	1000-	1500-	2000	unknown	TOTAL
	500	1000	1500	2000	over		
No other possibility	39	48	9	1	0	35	132
Cheaper	12	. 12	2	1	0	13	40
Quicker	4	7	3	1	1	7	23
Safer	2	. 0	0	0	1	4	7
Frequency service	0	2	0	0	0	: 2	. 4
Reliability	0	3	1	0	0	4	8
Convenient	17	' 9	2	3	1	15	47
Access to ST	5	5 5	4	0	0	12	26
Other	2	8	. 7	2	: 1	6	26
TOTAL	81	94	28	8	4	98	313

#### 2) For short distance train

Based on the survey result for the inter city train users, the demand characteristics for inter region railway service are obtained.

#### (a) The composition of trip purpose

Table 2.4 Trip purpose of long distance train users

Trip purpose	Response %	
Work	14	3.9%
School	20	5.5%
Business	152	42.1%
Private and others	175	48.5%
Total	361	100.0%

For inter city train users, dominant trip purpose is business or private purpose.

#### (b) Reason for the choice of railway

Table 2.5 shows the reason of railway choice and relationship between reason and income. According to that ,many respondent select the speed and safety as the favorable points of intercity train service ,and the cheapness of train fare and reliability follows them ,while there are some respondents who answer the no transport means other than train. It is considered that time reduction and safety are most important issues for railway system improvement of interregion train service. In addition to that ,it is assumed that higher income group prefers more quicker service that means high quality service while lower income group likes more cheapness of railway than speed and safety.

Table 2.5 Reason to choose inter city railway service

	Month	Monthly income					
	up to 500	500- 1000	1000- 1500	1500- 2000	2000 over	unknown	TOTAL
No other possibility	20	23	13	6	7	6	75
Cheaper	17	' 8	6	1	3	8	43
Quicker	12	9	12	6	18	9	66
Safer	12	5	7	5	23	8	60
Frequent service	6	1	0	1	3	1	12
Reliable	10	11	9	2	15	2	49
Close to station	- 3	5	2	0	1	0	11
Easy access	7	' 1	1	1	2	0	12
Other	. 3	7	3	3	12	5	33
TOTAL	90	70	53	25	84	39	361

#### (c) Demand elasticity

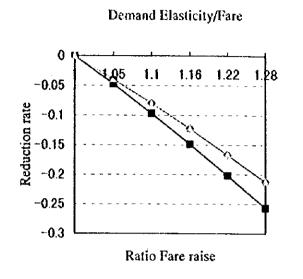
It is said that the passengers of long distance transport such as inter city train, have a tendency of high demand elasticity which means easier modal shift by a brief change of transport service quality like time and fare. The Stated Preference survey is used to clarify this hypothesis. Table

2.6 shows the result of SP model examination of which the parameters are obtained by disaggregated model analysis and its aspects are illustrated in figure 2.1. According to the result the fare elasticity of passengers is estimated roughly -0.8 while the time elasticity is roughly 1.5. This shows the passenger of intercity train has relatively high demand elasticity and especially higher at the time elasticity rather than cost. These whole picture describes it is very important to make the service quality of intercity train being higher rather than maintaining present service level without extra investment.

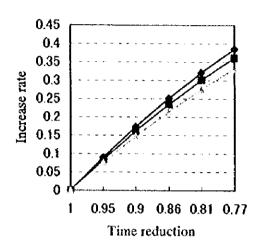
Table 2.6 Demand Elasticity Test by SP Model

Purpose	Business	Private	All-purpose
Time coefficient	-0.01092596	-0.0101767	-0.009281813
Fare coefficient	-0.1729214	-0.2109478	-0.1725463
Mode constant	-1.50607	-1.318061	-1.373029
		Base case	
time	329	329	329
fare	9	9	9
U1	0.001284991	0.00140922	
U2"	0.001284991	0.00140922	0.002529681
		Scenario	
Time*1.0	329	329	329
Fare*1.2	10.8	10.8	10.8
U2	0.000941287	0.00096399	0.001854305
Elasticity	-0.15438484	-0.1876044	-0.154055283
Time*1.0	329	329	329
Fare*1.4	12.6	12.6	12.6
U2	0.000689516		
Elasticity	-0.30158159	-0.3624522	-0.30096769
Time*0.8	263.2	263.2	263.2
Fare*1.2	10.8	10.8	10.8
U2	0.001931741	0.00188317	0.003415258
Elasticity	0.201057945	0.14395285	0.148963238
Time*0.8	263.2	263.2	263.2
Fare*1.4	12.6	12.6	12.6
U2	0.001415047	0.00128821	0.00250345
Elasticity	0.048168259	-0.0448631	-0.005211645

Figure 2.1 Demand Elasticity



# Demand Elasticity / Time reduction



#### 2.2 RELATED LAWS AND REGULATIONS

The legislative framework of the PKP is regulated by the Law on the state owned enterprise "Polish State Railways" (PKP), which was passed on 6 July 1995. PKP was classified as a public transport enterprise, which is running its business on market rules with state budget subsidies stated in the State Budgetary Law. PKP's legal base of operations and headquarters are in Warsaw.

#### 2.2.1 Scope of PKP activities

The scope of PKP activities includes:

- 1) transport of people and goods and their related services,
- construction, modernization, renovation and maintenance of railway lines,
- 3) national and international transport,
- 4) ensurance of railway lines access to other business entities.
- 5) preparation of railway lines and rolling stock resulting from the state defense needs,
- 6) establishment and use of the internal railway telecommunication network.

PKP may also conduct other activities if they do not limit the basic activities, determined above.

PKP is obligated to maintain the railway lines in conditions to ensure undisturbed transport, regularity and safety of railway traffic, protecting of the environment, installation of the fire protection equipment, complying with sanitary requirements, payment of pensions to railway employees and their families, and to create and maintain the railway health care.

#### 2.2.2 Assets and finance

The PKP is responsible for managing and protecting its assets and can contribute organized parts of assets to the company or other mutual capital enterprise for lease, if the Minister of Transport agrees on this. PKP may transfer its unnecessary provisions to the State Treasury. The list of railway lines of the national importance is set up by the Council of Ministers.

Subsidies from the state budget are determined by the budgetary act each year with respect to

one railway kilometer or the railway maintenance performed. Subsidies are designated for investments regarding railway lines of national importance, costs of liquidation of closed railway lines and compensation to finance the difference between justified costs of domestic passenger transportation and profits obtained from this activity.

The PKP covers the costs of maintenance of all railway lines, ;investments regarding railway lines (except the ones of the national importance). PKP charges fees for leasing railway lines, which are established by the PKP's Board of Directors with consultation with the Ministry of Transport.

A detailed manner of financing PKP by the state budget will be determined in the agreement executed between the State Treasury, represented by the Minister of Transport and the Minister of Finance, and PKP, represented by the Management Board of PKP. The agreement will determine the following subjects of financing:

- a) the scope of assets of railway lines of national importance,
- b) rules for the use of funds for investment and liquidation of closed railway lines,
- c) rules for determination and use of the subsidies
- d) the scope and standard of services rendered by PKP.

An integral part of the agreement is constituted by the protocol executed each year after the enactment of the budgetary act. The protocol will determine:

- a) the list of assets, the amount of funds for investment and liquidation of closed lines, dates of transferring funds in a particular budgetary year,
- b) types and value of maintenance work,
- c) costs of performance of one kilometer with respect to the increase in prices of production factors, application of new technologies of transport and the increase in the standard of services rendered to passengers,
- d) the amount of funds for subsidies to compensate the differences arising between the amount of justified costs of national passenger transport with the profit margin and the amount of profits obtained for such transport with respect to one railway kilometer of the performed railway maintenance and dates of transferring such funds,
- e) the method of the account settlement with respect to the funds received from the state budget

for a particular budgetary year.

#### 2.2.3 Organization, authorities and representation

The PKP organization is determined by the by-laws of PKP, which are resolved by the Council of PKP and approved by the Minister of Transport. These by-laws determine the territorial division of PKP railway lines and names and seat of PKP's organization units, rules for creation, connection and liquidation of organizing units (including PKP representative offices abroad), the system of internal control, legal relations among the PKP organization units, the method of electing commissions for disputes concerning assets which may arise among PKP organization units, its composition and a method of proceedings, organization units, whose managers are elected in the tender, and rules for the conduct of such tender.

Authorities of PKP consist of the Council of PKP and the Management Board of PKP. The nine members of the Council of PKP, including the Chairman and the Vice Chairman, are elected by the Minister of Transport for four years (the first office for two years) and shall terminate after the approval of the PKP's financial report for the previous turnover year. The representatives of employees shall have three seats in the Council of PKP. The remuneration of the members of the Council is determined by the Minister of Transport. The annual report of the Council should be submitted and accepted by the Minister of Transport, as well as the annual financial report of PKP.

The scope of responsibilities of the Council of PKP shall include appointment and dismissal of the President of the Board of Directors, General Director of PKP and other members of the Board of Directors of PKP, periodical and annual examination of activities of PKP and the PKP's Board of Directors, examination and presentation to the Minister of Transport of the annual financial report of PKP along with the opinion of an auditor, approval of the annual plan of PKP regarding assets and finance, examination of long-term development programs, approval for the PKP to engage in a joint venture with a company or other mutual capital undertaking, if the value of contribution exceeds the amount stated in the PKP by-laws, approval of proposals of liquidation railway lines or parts of railway lines, examination and approval of guidelines of the employment and remuneration policy, legal actions related to employment of the PKP's Board of Directors and determination of conditions of their work and

remuneration, resolution of its by-laws and presentation of such by-laws to the approval of the Minister of Transport, examination of the draft agreement and draft protocols on state subsidies, examination of the other matters submitted by the Minister of Transport or the PKP's Board of Directors and performance of the other responsibilities referred to in the Law or the by-laws of PKP. In the case of negative annual evaluation of activities of the Council of the PKP, the Minister of Transport may dismiss its members.

The Management Board consists of the President of the Management Board - General Director of PKP, its deputies and 3 to 5 members. The Board is appointed by the Council of PKP for the period of three years. The General Director of PKP is responsible for current activities of PKP.

The Management Board of PKP resolves an approval of the by-laws of PKP or amendments to the by-laws; annual plan concerning assets and finances or amendments to such plan, financial report and of the report on PKP activities for the previous year, contribution by PKP or obligations exceeding limits of values determined in the by-laws, determination of transport tariffs, liquidation of closed railway lines or their parts, determination of guidelines of the employment and remuneration policy, establishment of business activities and representative office of PKP located abroad, lease of railway lines or its parts to national or foreign business entities, appointment and dismissal, referred to in the by-law of PKP of managers of PKP organization units and representative office of PKP located abroad, approval of the by-laws of the Management Board of PKP and amendments to such by-laws and other matters which are considered to be of crucial importance for activities of PKP and presented by the President of the Management Board of PKP - General Director of PKP.

Appointment and recall of representatives by Management Board of PKP must be revealed in the register of state-owned enterprises. The Board may issue internal decisions, professional instructions and by-law determining organization and activities of PKP.

#### 2.2.4 Supervision

The PKP shall be supervised by the Ministry of Transport as a founding body. On the grounds of motion of the commission appointed by the Minister of Transport, the Minister may obligate the Management Board of PKP to conduct internal proceedings leading to improvement of the

conomic condition of PKP, present of a proposed program of remedy of the economic condition of PKP and perform the program approved by the Minister of Transport.

If the Minister of Transport finds out that the decisions of authorities of PKP are contradictory to law, he shall suspend their performance and shall obligate such authorities to change such decisions. The Management Board of PKP shall be entitled to appeal against decisions regarding its enterprise taken by the Minister of Transport within 14 days.

If the Minister maintains all decision in force the Management Board is entitled to submit the case to the court.

#### 2.2.5 Amendments to the existing provisions

By December 31, 1998, the Minister of Transport may (after consultation with the Council of PKP) separate from PKP organization units or organized portions of assets of this enterprise in order to use them for the establishment of separate state-owned enterprise or other state organization units or use them as contribution to companies or transfer them to the separated entities or lease them by an agreement, applying respectively provisions on privatization of state owned enterprises.

Employees of the PKP employed in State Own Enterprises separated should retain their job agreement. Railway employees whose employment contract has been terminated due to the organization changes or employment reductions performed in PKP may retire earlier (after insurance installment periods of at least 35 years for women and 40 years for men).

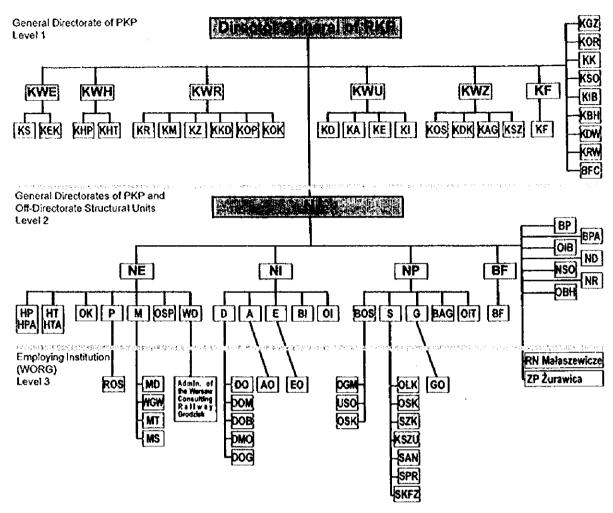
# 2.3 STAFF AND LABOR MANAGEMENT, PRODUCTIVITY AND DEVELOPMENT

#### 2.3.1 Organization and Structure of the PKP

Organization of PKP currently consists of a horizontal structure which receives its direction and control from Headquarters in Warsaw. Standard cost and statistical data is collected at the lowest level of work unit and eventually passes up through the Central Statistical Office (CIK) where it is aggregated, published and disseminated. Costs borne, for example, in one DOKP are not necessarily captured at the source. Rather, they may be carried to a neighboring region where all the costs are loaded instead of a portion. This leads to the present inability to control and accurately budget for the true fixed and variable cost basis of each operating region. Previously, only 40% of operating costs could be accounted for as a result. At present, approximately 70% of total costs are accountable and as new indices are developed, accountability is rising. This is a very positive development coupled with a Financial Management Information System (FMIS), which is intended to enable local managers to capture and monitor their budget and expenditure while taking corrective action faster.

The attached table shows the current PKP Structure with a key attached on the following page.

#### **Organization Chart of PKP**



#### Management level 1

- K Director General of PKP
- KWE 1st Deputy Director economic issues and restructuring of the PKP
- KWH Deputy Director trade issues
- KWR -- Deputy Director -- operational matters
- KWU Deputy Director infrastructure
- KWZ Deputy Director staff matters and collaborations with trade unions
- KF Chief Accountant of PKP
- KS Strategy office
- KEK Economic Analysis Office
- KHP Central Trade Office for Passenger Service
- KHT Central Trade Office for Freight Service
- KR General Administration of Railway Traffic
- KM General Administration of Rolling Stock
- KZ Materials Managment Office
- KKD Independent Departament of Commuting Railways
- KOP Main Inspectorate of Fire Protection
- KOK Headquarters of Railway Security Service

- KD General Administration of Railway Maintenance
- KA General Administration of Automation and Telecommunication
- KE Chief Power Engineer of PKP
- KI Office of Investment, Technology and Construction
- KOS Office of Staff and Welfare Issues
- KDK Office of Staff Education and Improvement
- KAG Administration-Housekeeping Office
- KSZ General Managment of Health-Care Service
- KF Finance and Accounting Office
- KGZ Office of Director General of PKP and for Foreign Cooperation
- KOR Legal-Organization Office
- KK Control Office
- KSO National Defence Office
- KIB Chief Inspectorate of Railway Traffic Safety
- KBH Chief Inspectorate of Industrial Safety
- KDW Supreme Disciplinary Commision
- KRW Supreme Disciplinary Spokesman

Managment le	vel 2
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N -- Managing Regional Director of State Railways

NF - Deputy Managing Regional Director - operating matters

NI - Deputy Managing Regional Director - infrastructure

NP — Deputy Managing Regional Director — staff matters and collaboration with trade unions

BP -- Regional Chief Accountant of State Railways

HP - Trade Office for Passenger Service

HT - Trade Office for Freight Service

OK - Regional Headquarters of Railways Security Service

P - Administration of Service

M - Administration of Traction and Cars

OSP -- Regional Inspectorate of Fire Protection

WD - Administration of Commuting Railways

D - Administrations of Roads

Λ – Administration of Automation and Telecommunication

E - Chief Power Engineer Regional Directorate of PKP

OI - Regional Computerized Data Processing Center

BOS - Staff and Welfare Administration

S – Health-Care Service Administration

G - Materials and Technical Procurement Administration

BAG - Independent Administration-Housekeeping Departament

OIT - Regional Center of Scientific, Technical and Economic Information

BF - Economic-Financial Office

BP - Legal-Organizational Office

OIB - Regional Inspectorate of Railway Traffic Safety

NSO - National Defence Office

OBH - Regional Inspectorate of Industrial Safety

ND - Disciplinary Commission

NR - Disciplinary Spokesman

BPA - Independent Departament of Loading Units, Poznań

#### Management level 3

ROS - Regional Station

MD - Engine Shed

WGW -- Car Shed

MT - Rolling Stock Facility

MS - Motor Vehicle Facility

DO - Departament of Roads

DOMI - Departament of Mechanized Road Work

DMO - Departament of Bridge Work

DOG - Departament of Geodesy

AO - Departament of Automation and Telecommunication

EO - Departament of Power Supply

OGM - Departament of Housing

USO -- Welfare Departament

OSK - Regional Training Center

GO - Materials-Technical Procurement Departament

RN - Malaszewicze Loading District
Management

ZP - Żurawica Loading Facility

OLK - Railway Health Care District

OSK – Regional Railway Hospitals SZK – Railway Hospitals

KSZU - Railway Health-Resort Hospitals

SAN - Sanatoriums

SPR - Preventoriums

SKZF - Railway Departament of Phar-

maceutical Procurement

#### 2.3.2 Political Environment

To prepare this section, we compiled PKP statistics, reviewed MERCER analysis and had numerous interviews with the following individuals:

- · PKP Head of Labor Relations
- PKP Head of Human Resources
- · PKP Director of Strategy Department
- Director and Deputy Director, Railways Department MT&ME
- Director and staff of the MT&ME Privatization Department
- · Ministry of Labor, Interministerial Team for the Restructuring of PKP

At the present time, labor-management negotiations are proceeding on an intensive basis. During our three month stay in Poland (November 6, 1996 through February 1, 1997) we witnessed three separate Union demonstrations and possible strike actions. Another round of

negotiations is ongoing with another possible strike action scheduled for March 1997 if accord is not reached. An estimated 50 percent of the total 231,346 employees are unionized. Three of the 28 Trade Unions represent 90 percent of the Unionized labor force. In each case, the Trade Unions' threatened actions have resulted in either a cancellation of a strike or a postponement. Management and labor have agreed to reconsider the issues and continue negotiations. The table below provides data on Union membership within PKP relative to other Unions at PKP. Data on the number of employees who are members of more than one Union is not available. Comparative Trade Union membership for the three largest Unions is:

- Federation of Railway Workers (43%)
- Solidarity (36%)
- Train Drivers Union (10%)

Two of the largest trade unions, Solidarity and the Federation of Railway Workers, have members spread across many functions and hence are not specialized in trades but represent political organizations.

In general it is important to appreciate the political drivers behind PKP labor-management relations. The Phase II restructuring program is subject to the accord of the Trade Unions:

- Both PKP and the Trade Unions have direct access to the Sejm (lower parliament with 460 members);
- Unions have stated that there should be a set of specific legislation governing the PKP restructuring program. No such law currently exists but is being prepared by MTME under pressure from the labor unions;
- The Train Driver's Union have been most vigilante in their actions as a function of management's desire to limit working hours where the train drivers are demanding additional compensation (for lost wages above 12 per day) of between 150 PLN to 450 PLN per month;
- Management and labor have been negotiating a Social Agreement for several months;

The trade unions and distribution by region are shown below:

# PKP Trade Union Representation by Region (DOKP)

	General	DG	<u> </u>			DOK	P Region	······································			Total	Percent
Union Name	Dire-	Re-	Central	Eas-	Sou	Silesian	Low	Wes-	Coastal	Nor-	by	of Total
	ctorate	ports		tern	thern	ŀ	Silesian	tern		thern	Union	
Federation of PKP Employees Trade Union			11797	6364	6071	10199	5311	8013	5611	9160	62826	43%
Solidarity			6966	6113	7610	8815	8178	3652	3850	7269	52483	36%
Locomotive Operators			2125	1580	1384	2705	916	1513	798	3107	14158	10%
Traffic Supervisors			607	510	311	503	456	123		1070	3612	2%
Federation of Automatic and Telecom Dept. Employees			618	721	<b>2</b> 32	579	311	512		558	3561	2%
Rolling Stock Workshop			91	735	65	700	89	61	261	63	2068	1%
Employees PKP's Security Guards			208	317	92	276	246	<b>2</b> 88		150	1577	1%
Ticket Guards			94	457	110	186	309	91	149	164	1560	1%
Rolling Stock Controller			249			264				310	823	1%
Traffic Directors			36		63	100	55	101	41	77	473	0%
Railway Service Employees				353							353	0%
PKP Health Care Solidarity			411		559	490		319	254	413	2506	2%
Solidarity 80				18	110	70	233	34	13	36	512	0%
Transportation Service					282		47		131		460	0%
Kontra Trade Union				13	10				30	- 1	53	0%
Trade Union of Doctors				20			13		30		63	0%
Loco Depots Idzikowice				56							56	0%
Young Employees				28					-		28	0%
Wagon Service				75							75	0%
Trade Union at Deblin				105							105	0%
Trade Union at Lublin				21	·						21	0%
Supervisory and Admin. of the Railway Service Kadra							67				67	0%
Technical Supervisors							62				62	0%
Managers/Self-Reliants				-			10					
Electricity Service							14					
Silesian Railwaymen						165						
Wagon Service Maint.						40						
Total for All Employees	861	4272	38446	23430	23254	39 <b>07</b> 7	34301	25367	24964	17371		
DOKP Total			23232	17486	16929	25424	16347	14737	11169	22407	147502	100%
Percent Union by DOKP			16%	12%	11%	17%	11%	10%	8%	15%		
Union-DOKP % of Total Labor	-		10%	8%	7%	11%	7%	6%	5%	10%		
Total PKP Employment								Total Pl	(P Emp	oyment	231346	

PKP management has a political challenge whenever it discusses reductions of force in response to excess employment. PKP management has agreed to a policy of "no mass layoffs" through 1997. While the Unions requested no layoffs through 2,005, no such commitments were made by management.

In addition, the Board will encourage each Vertical Sector Director to engage in decentralized decision making under the new vertically structured organization. The Sector Director, answering to the Board, will be responsible for determination of optimal staffing level within their sector. PKP has not determined staffing levels and positions for all vertical sectors. In October 4, 1996 senior posts for the Traction and Workshops Sector had published in the PKP Bulletin Number 24. However, PKP management wishes to avoid specific commitments on the number and type of posts considered redundant. This policy is designed to enable an incremental approach to the determination of staff needs.

Following the vertical sector implementation, PKP plans to eliminate 300 of the remaining 500 workshops during Phase II. Similarly, the need for workshop supervisors and mid-level managers will be diminish accordingly but not proportionately.

We intend to interview the head of the Lublin Pilot Program (Eastern DOKP region) for his thoughts on employment at the New PKP. We understand that Lublin pilotage has been deemed a success. Yet, clear evaluation criteria have not been made explicit.

#### 2.3.2 Status of Labor-Management Negotiations at PKP

At the present time, the PKP Board is negotiating with the Trade Unions to gain consensus on a number of employment, wage, benefits and severance-related issues in order to facilitate the advent of the restructuring program. Management has advocated for a collective bargaining arrangement. The Trade Unions have rejected this concept. Rather, they are pressing the following major issues:

- PKP Specific Restructuring Laws related to real estate, fixed assets and an agency to deal with the treatment of surplus labor.
- Employment Security, Wages, and Benefits. Trade Unions want job security. PKP
  management wants flexibility in assigning labor to tasks as well as the ability to negotiate for
  such issues as:
  - Performance-Based Pay
  - Housing Allowances for Train Drivers

- Maximum Distance to Travel from Work
- Maximum Hours Worked
- Projected Positions under the Restructured Organization. This includes positions projected under the Phase II vertical-business structure model.

#### 2.3.3 Hiring, Firing and Severance Policies

PKP has had a hiring freeze in effect for the past five plus years since the first Phase of Restructuring was introduced. The strategy was to reduce surplus employment through:

- Retirement
- Early Retirement (1990-1994)
- Separation of non-core business

While obvious in its benefits, this approach also presents some risks. New hires, with rare exceptions, are not being made. Historically PKP had no difficulties attracting employees. As a function of the natural attrition policy:

- the existing labor force is aging
- years in service and unit costs of labor are rising
- the ratio of pensioners to those contributing to the pension fund (active employees) is going up
- experience gaps are emerging system wide
- certain depot and workshop managers have expressed concern over inadequate staffing levels in workshops
- an aging labor force is more resistant to organizational change

#### 2.3.4 Phase I Causes of Reduction in the Labor Force

Total employment has been reduced by over 105,000 since 1990 from 337,000 to 231,346 as of November 1996. According to PKP Statistical Yearbooks 1992-1994, the causes of decrease in employment were as follows:

- Retirement 41%
- Other 25%
- Mutual Agreements 12%
- Fired as a penalty 11%
- Ouit 7%
- Fired 4%
- Attrition labor force reduced as a function of retirement, early retirement and voluntary departure.
- 2) Hiring Freeze PKP has had an effective freeze on hiring for several years now. New hires can be made but special permission for special skills must be gained by the top local manager at the DOKP or headquarters level.
- 3) Transfer of Personnel to Separated Business Approximately 87 PKP work units were separated into joint stock companies through the NIF program. Approximately 65 percent of those who left PKP during this period were re-hired by the separated enterprises. There is no data on how many remain employed with these enterprises since leaving the employ of PKP.
- 4) Separated/Privatized Business Employment PKP has the right to negotiate the cost of a tender with the selected bidders. For example, labor and management at one of the major rolling stock workshops were forced by PKP to take a pay cut of two thirds their previous wages in order to obtain a contract. This was PKP's preferred method of reducing excess labor and controlling labor costs given its constraints during Phase I restructuring.

#### 2.3.5 Description of Roles and Responsibilities

The PKP Human Resources Guidebook is used to qualify and categorize staff for existing positions at PKP. This Guide includes line, administrative and management positions. We will be reviewing and assessing the roles and responsibilities contained therein for their applicability to the New PKP. The Guide ranks qualifications and experience for each position and classifies these positions into a numerical ranking used to determine base pay and productivity.

We have obtained a copy of PKP's "Work Norms". This document is not to be confused with a job description. Rather, it is used to form the basis of productivity assessment and the types of work activities to be performed by labor. The scope of roles contained in the work norms

relate primarily to unionized positions and their roles within the following sectors at the line level:

- Passenger Services
- Traction
- Infrastructure

These documents are used for purposes of productivity planning and analysis and have been agreed upon by the Trade Unions in concert with PKP Management. These baseline agreements were agreed upon prior to the creation of the PKP Board of Directors. The Board subsequently agreed to this document after it was established.

Importantly, these work norms establish the basis for wages. All of these norms and practices are in the process of renegotiation at the present time with the Board and the Labor Unions.

# 2.3.6 Wages, Benefits, Pension and Severance

We have collected information on PKP wages, fringe benefits and severance packages. As of November 1996, average gross wage at PKP was 778 PLN per month or 638 PLN net per month. By comparison, we have also obtained the wage scale of another state-owned company Polska Telecom, SA. The average gross salary for Telecom is substantially higher than PKP. However, Polska Telecom is the most profitable state-run telephone monopoly in Poland.

Two wage structures are planned for management and line personnel under the vertical model. Management wages will be subject to the Board discretion and will be more variable based on performance as the vertical sector model is progressed.

# (1) Details of the Wage Structure

Management proposes to institute a change in the payment system from the current years in service based pay formula to a based standard of payment. PKP would continue to use level of education and qualifications as entry and promotional criteria:

 Existing Wage Structure (simplified) = Position Base Wage + 1.5%(years in service) + bonus pay.

#### Where:

Position base wage is determined by 1) education level 2) qualifications 3) certification(s):

- Bonus established by type and time of work; e.g. at night, Saturday, Sunday or in Transportation service, etc. over base pay.
- the largest component of bonus is Transportation service. For example a formula is used to determine the Train Drivers Bonus based on:
  - a) drivers' train-kilometers\*
  - b) in-yard wait time
  - c) other factors
  - \* The largest factor is train-kilometers per shift

Currently there is no lifetime limit on the number of years in service which can be applied to base pay. Years in service is currently the largest component in determining base pay. Management has proposed to cap the years in service provision to 20 years maximum for new workers and limit older workers to a maximum of 30 years in service for application of the base pay formula.

The base rate for annual labor increases is indexed to inflation plus 2 percentage points higher as legislated by the overall labor agreement for state-owned companies.

Fringe benefits for labor are shown below:

- coal allowance
- uniform allowance
- subsidized housing in PKP flats
- accommodations while away from the work place
- unlimited railway transport for family members
- family health benefits in company care facilities
- Retirement/Pension after 62 years in service for women and 65 years in service for men;
   or after 35 years for women and 40 years for men including a minimum of 15 years
   railroad employment. Employees can retire early if terminated by PKP.
  - (Article 47, PKP Law July 6, 1996 in effect until December 31, 1998)
- Early retirement currently under consideration.

Benefits and the wage structure are currently the topic of negotiation at PKP. The Social Agreement will contain the tenets of this information. As of February 1997, it was not yet finalized.

# 2.3.7 Current Employment Levels

Our team has obtained information on employment levels and wages from the following sources:

- PKP Central Statistical Publications (monthly reports)
- PKP monthly reports on wages and employment level (January 1996 and November 1996)
   During the month of November 1996, PKP average employment was 231,346 employees. A breakdown of employment level for system, region (DOKP) and functions is given below:

# PKP Employment by DOKP and Sector (November 1996)

	Gener al	Units								Total	1 {		Percen t	
Sector	Dire- ctorate	Re to DG	Centra 1	Eas- tern	Sou- thern	Silesia n	Low Silesian	Wes- tern	Coastal	Norther n	by Fun- ction	Subsec t	Sectors	of Total
Transport			12740	6914	8286	13690	10709	8710	7234	5930	1		74213	
Sale	-		5235	2172	3488	1825	4140	3017	2615	2183		27975		
Passenger			3741	1586	1911	2839	2931	2091	1755	1456	18310			
Freight/Cargo			1494	886	1577	1986	1209	926	860	727	9665			
Exploitation		<b>-</b>	18697	11702	11948	19866	16807	11823	10648	8358		109849	63611	
Train Dispatch	<del> </del>	<b> </b>	7505	4442	4798	8865	6569	5693			<del></del>			
Rolling Stock	<del>                                     </del>	<b></b>	11192	7260	7150	11001	10238	6130				<b></b>		<del> </del>
	<b></b>	<b>_</b>	11439	7499	6024	11169		8158	9298		<b></b>	70172	70172	
Infrastructure	<b></b>	<del> </del>			L	6747	6945	5362		1	<del></del> _		101,2	
Maintenance	<b> </b>	<b>ļ</b> —	7016	4668	3748					ļ		1	<b> </b>	
ElectoEnergeti c			2477	1536	1164	2272	1952	1619	1575	954	13549			
Telecom/ Automation			1946	1295	1112	2150	2077	1477	1602	944	12603			
Non-Core	1		3075	1757	1794	3217	2380	2069	2403	1519	)	18214	18214	
Supply	1	<u> </u>	317	155	197	356	286	227	183	178	1896			
Social	†	<del> </del>	676	179	505	1001	509	617	427	193	4107	1	ļ	
Security	<del> </del>		777	418	352	518	578	428	400	325	3802		<b>1</b>	<del></del>
Narrow Gauge	┨	1	142	149	0	160	73	0	427	191	1137	<del> </del> -	<u> </u>	-
Sanitary			70	<u> </u>					5-	<del></del>		<b>†</b>		
Inspection Technical	<del>                                     </del>		32	91	17	35	32	35	28		190			
Inspection Training Center		-	30	9	18	3 23	79	29	2:	2 (	210			<b>†</b>
Centrala DRP	1			1	<b>i</b>		<del>                                     </del>	<u> </u>			82	2	1	
Centrala DOKP			<u>†</u>								6336	5		
DG Staff	86	1	<del>                                     </del>	1		T					864	86	864	
Units Reporting to DG	0	427	2								427	2 427	4279	2
Management							10					231340	3	
Total for Al Employees	11 86	4 427	2 38446	2343	2325	1 3907	7 34301	2536	7 2496	4 1737	1 231340	6 <b>2313</b> 4	5	
Core Busines Total	s					16	5					20799	3	909
Non-core Business						40	0					1179	5	59
Management Staff												728	2	39
Central Services Staff												427	2	2
1	Total PKP Employment 231346						6							

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# 2.3.9 Productivity and Employment Benchmarking

# (1) PKP Measures for Evaluating Productivity

PKP uses a variety of internal measures to evaluate employment and productivity. We have had a series of meetings with our productivity counterparts to discuss those measures used on the railway as follows:

- Descriptions associated with specific work units to establish "Employment Norms"
- Regression analysis to determine the average time it takes to complete each function contained for a set of activities
- Employees per track-kilometer benchmarked against other EU Railways.

#### (2) MMC Labor Productivity Measures

As part of its Employment benchmarking task, MMC utilized the following measures to compare PKP employee productivity with other European Railways:

- line-km per employee
- train-km per employee
- traffic unit per employee (weighted average)
- gross-ton per employee

The results of the analysis prepared internally and by MMC will be presented in the Interim Report. PKP currently has a ratio of 10 employees per line-kilometer. The narrow gauge system is much more efficient with a ratio of one employee per line-kilometer. Part of the explanation for low system level productivity relates to inefficient general and administrative support functions. As PKP moves towards a vertically structured core transportation model, the need for many of these staff is expected to diminish and the ratio of employees to traffic, lines and tonnage expected to improve. As in the past, the separation of internal units from the enterprise will also hasten the departure of PKP employees.

#### 2.3.10 Labor-Management Issues

At the present time, PKP management and labor are engaged in a set of negotiations concerning the Social Agreement. As described previously, this agreement covers wages, fringe benefits, severance pay and employment security issues. PKP is well aware that it must reduce the labor force in order to lower the unit-cost of both freight and passenger business.

The Social Agreement guarantees no mass layoffs in 1997. At the current rate of attrition, about 5,000 to 6,000 per year or 2.4 percent of the total labor force retire each year.

The Year 2,015 Strategic Plan appears to use attrition alone to achieve employment reduction. In 1980, PKP's was nearly 100 percent unionized and about half the labor force is unionized today. This decrease represents a sharp decline from the past. The Trade Unions (with one members acting in a dual capacity as PKP Board member and Union Member) maintain a strong influence at PKP. Similarly, Solidarity is well represented in Parliament and at PKP and hence they have a social responsibility to conduct business in the best interests of the society at large. Here lies the dilemma.

The approach used to project optimal PKP employment levels will be driven by:

- balancing traffic with employment ratios; e.g. adjusting market share with labor costs
- considering rolling stock and infrastructure investment needs to enable substitution of technology for labor
- redeployment of resources under the vertical structure model

#### 2.3.11 Labor Laws

We have collected a wide variety of current labor laws concerning labor-management flexibility with regard to restructuring and subsequent privatization. PKP employment policy is governed by:

- Laws established by the Republic of Poland. Laws issued by the Parliament, signed by the Prime Minister, and orchestrated by the Ministry of Labor. These laws apply to all sectors nationally.
- PKP Laws. Laws which are negotiated by PKP management and the Trade Unions.

These are issued as a set of agreements and together comprise a wide body of statute governing all aspects of wages, job tenure, seniority, pension, work conditions, separation and retirement.

- Laws on Restructuring. At the present time, there is no PKP-specific law on restructuring. However, the Trade Unions are advocating for the creation of a law which specifically lays out the restructuring methodology including staffing plan under the vertical structure model. The MTME is in the process of drafting a restructuring law to:
  - establish an external Settlement Agency to absorb surplus PKP workers and liquidate targeted capital assets and real estate.
  - identify a government source of severance funds to enable PKP to induce excess staff to leave on their own accord.

#### 2.3.12 Phase II Restructuring and Rationalization of the Labor Force

PKP is well aware that it must reduce unit-costs for labor now at 45 percent of total expenditure. Central issues to achieve these objectives are:

- Methods and timing to achieve employment reduction
- Optimal number of employees
- Attracting staff with the requisite skills to compete in the global economy such as:
  - Finance and Investment Strategy
  - Marketing
  - Logistics
  - Accounting
  - Sales
  - Specialized expertise in intermodal operations, unit-train operation, and expedited freight delivery services.

Under the Phase Two restructuring plan, introduction of the Traction and Workshops vertical sector is scheduled for March 1997 with Passenger, Cargo and Infrastructure Sectors to follow thereafter. By January 1, 1999, the four core sectors shall be operating. There are various proposals for non-core sectors.

Under this scheme, the Director of each Sector will answer to the Board. Transfer of excess employees to an internal restructuring agency or external settlement agency (whichever model is adapted) will be under the authority of the Sector Director.

Eight Districts are planned to replace the current eight DOKP Regions. Administration will be self-contained within each sector. Challenges are anticipated with regard to the efficient

allocation of the labor force consistent with freight and passenger revenue bases and:

- Lines of International Importance
- Lines of National Importance

Labor mobility, lack of available housing flats and resource deployment are central labor challenges to resolve during the second phase of restructuring. To be successful, labor policies must ensure equitable treatment and adequate compensation to the losers of restructuring (workers who are older, or have tow-skills and education levels). In Chapter 5-4-10, JICA proposes a set of measures to compensate the losers of restructuring. We propose that surplus PKP employees be offered an equitable package of severance (based on years in of service with a lifetime cap), below market flats, training for alternative positions, re-employment in related businesses and possible privatization of existing small works units of the railway. Due to the current economic realities in Poland at this time, we urge the fullest exploitation of early retirement/severance incentives to fairly compensate the losers of restructuring where no viable alternative options exist.

Discussion with PKP top managers also reveals the following:

- PKP General Directorate has not yet established its internal staffing requirements, the
  distribution of the restructured labor force, or when the vertical model will be fully
  implemented. We do have some clues however:
  - Phase II of the restructuring is scheduled to be implemented incrementally starting in March 1997.
  - Certain provision in the July 6, 1995 PKP law affecting employment will be effective only until the end of 1998.
  - Human Resources has recently initiated a pilot program to identify regional staffing needs of the four vertical sectors and eight divisions.
  - PKP is now considering sources of capital to finance severance pay for inducing additional labor force reductions.

#### 2.3.13 Education and Training

Our meetings with the Departments of Strategy, Education and Training, and Human Resources reveal the following:

- Limited budget is available for human resources (HR) functions.
- Only 4% of staff attended college, 36% have high school education, the rest have elementary or occupational level education. PKP projects 10% will have a college education and 60% will have completed high school by the year 2,005.
- PKP has an extensive network of training and trade schools located throughout the country. A railway training trade school is also operated. While this network is adequate, there is a need to introduce new methods as technology changes on an ongoing basis.
- Intensive mini-courses are given to managers across the PKP network in basic business practices including accounting, marketing, sales, business planning and the like. These courses are financed by a grant from EU-PHARE and are given by outside consultants. Courses are extremely popular. There is a two year waiting period to attend. In addition, a Swiss firm is giving courses in business strategy. These courses are designed to help PKP managers prepare for market entry forces and to provide them with business start-up skills in the event they leave the railroad.

The railway will need to recruit certain skills to enable development of new and expanded markets and revenue sources. Railway management desires to develop its internal staff to meet the challenges of the competitive marketplace. PKP often experiences the following constraints on recruitment and in employee retention areas:

- PKP will have difficulty attracting mid-level professionals because it cannot compete
  effectively with the pay scales of the private sector.
- At PKP expense, managers are typically sent to high quality specialized training programs
  in other European countries and return better qualified and able. However, these
  individuals often leave for more attractive employment options elsewhere.

#### 2.3.14 Motivating Staff

We have had extensive dialogue with PKP concerning the nature of its salary structure both for managers and line staff. Among PKP management, there is widespread agreement that performance-based pay is a motivational tool which should replace the current system based on years in service.

At the present time, there is a proposal for top managers ranks within each vertical structure to accept positions which involve a large component of performance-based pay. We will

document the system of pay for the Interim Report as it is authorized by the Board. At present, we can report that the proposal for managers contains:

- Proposed Base Pay. Part one of the wage proposed wage structure concerns base pay.
   It is subject to a salary cap where any percentage up to 100% of the cap can be authorized by a manager's supervisor (or the Board in the case of the top sector director position)
- Bonus Pay. Part two of the system entails a bonus up to 50% above the base salary cap as an additional motivational tool.
- Regular Performance Reviews. Criteria and frequency of performance reviews must be established together with the structure of wages.
- <u>Company Performance Benefits</u>. There has been some consideration of attaching company performance measures (as a function of gross revenue) to employee bonus. The status of this proposal is not yet clear.

Proposed wage structure for line personnel is similar to management. However, there is an incentive built in to do more with less. This formula will be presented when it is approved.

#### 2.3.15 Opportunities and Challenges in Personnel Areas

The main problems associated with PKP's personnel systems can be traced to moving from a former Socialist system of rewards and employment levels to a Capitalist enterprise system. Our activities will focus on fair and equitable methods of a) compensating the losers during the restructuring process and b) providing alternatives where they can be winners:

Constraint	Opportunity	Stakeholder	
Excess labor	Severance packages		Shareholder/Manager
			Older Employees
	Improve profits		Shareholders
	Reduce subsidy		Public
	Increase wages	ļ	Remaining employees
High unit-labor costs	Substitute technology		Effectively compete
•			Industry & passengers
Performance-based	Improve efficiency		Managers
	Recognize individuals	,	Newer employees
	Attach pay to traffic		Shareholder
Hiring freeze	Reduce excess labor		Managers/shareholder
	Achieve target	labor	Shareholders/public
Specialist skills	Import professionals		Management
			Shareholders
			Investors

Specifically, we have made the following early observations based on the First Stage site visit in Poland. We will refine these into a set of recommendations for improved labor utilization:

- Train Dispatchers. Of the 23,500 line-kilometers in the PKP network, there is very little
  Computerized Train Control. The most obvious example of inefficiency is the 46,238
  train dispatchers (called traffic controllers). If CTC were introduced, most of these
  individuals would be unnecessary.
- Train Drivers. PKP is now negotiating with its locomotive engineers to separate them from the locomotive. In the past, one driver stayed with one cab, rather than the method employed for decades on US railways where the driver stays in the loco cab for his shift and is relieved by a new driver en-route for the next shift. Assigning locomotive engineers at the shift level to any locomotive where their services are needed will significantly improve driver and train utilization. PKP is now negotiating a work premium in exchange for accepting maximum 12 hour train driver shifts.
- Elimination of Aging Wagons and Coal Cars. Wagons and hopper cars are very old and inefficient at PKP and require frequent repairs and cause low service reliability.

- Replacement of these fleets with modern equipment would reduce loading/unloading dwell time and consequent labor costs and while improving trip times and reliability.
- Ticket sales. Many of the smaller passenger stations are not on-line with a computerized
  ticket reservation and issuing system. Manual sale of tickets is labor intensive and incurs
  high labor costs in the long run. Automation of this function with increased utilization of
  self-service ticketing in stations would allow significant staff reduction in stations.
- Contract-Based Services. PKP has already initiated many contracts where external labor
  can do the job without internal staff while producing revenues for the business and for
  PKP. Accelerating the rate of contracting for station services represents a prime example
  of this opportunity.
- Real-Time Waybill Samples. PKP has no method of identifying the location of a
  shipment in real time to identify the cause and source of train delays or schedule
  adherence. Introduction of a waybill tracking system with automatic car identification
  (ACI) would greatly enhance this process and reduce rolling stock maintenance, loco
  maintenance and staff labor.
- Spare Parts Availability. Many locos operated in the fleet, particularly the diesel fleet, are old and unreliable. Obtaining parts for them typically requires the cannibalization of like units. This is expensive, labor intensive and decreases locomotive availability and reliability. In the long-run, replacement of the aging diesel fleet is recommended as a priority item. Higher horsepower and AC traction locomotives also reduce the number of units required to obtain the same equivalent horsepower per consist.
- Stations Department Personnel. Food service for employees remains a part of many internal station services. When alternatives such as franchising exist, these services can be contracted and be revenue producing rather than cost generating.
- Rail-Highway Grade Crossings. Many of these remain manually operated and hence labor intensive and expensive to operate. Introduction of automatic gates would substantially reduce associated labor requirements.

#### 2.4 Financial Situation

One of the purposes of this study is to evaluate restructuring and privatisation options of the PKP. The need for restructuring arises due to the burden on the State of the PKP. The privatisation options can only be considered if areas to be privatised can be proved to be profitable to the buyer. Thus the financial situation of the PKP and its subsidiaries needs to be analysed.

The accounts of the PKP are not the consolidated (acquisition method) results of the PKP and its subsidiaries. As a result it is impossible to comment on the financial situation of the group. The results of the holding company PKP enjoy the benefits of government grants (not loans) and so look relatively strong.

There is a lack of transparency regarding the financial results of subsidiary companies and joint ventures. Details of related party transactions (e.g. between the main PKP and subsidiaries) are not available.

The Balance Sheet Assets, the Balance Sheet Liabilities and Profit & Loss is shown in tables 5.4.1, 5.4.2 and 5.4.3 respectively. Note: comments are based on the auditors report prepared for the World Bank where the numbers vary slightly from the segmental information shown.

#### 2.4.1 The Balance Sheet (see tables 2.4.1 and 2.4.2)

The Balance Sheet as of 31 December 1995 shows assets and liabilities of 21,193m PLN (\$7,711m).

# (1) Intangible Assets

The intangible assets of 31,853K PLN (\$12.9m) comprises mainly of purchased software, licences and interest on credit (pre-1991). These assets are depreciated over a period of 5 to 10 years.

- grossvalue of intangible assets at 31/12/1995	47,139,459.75
- depreciation	15,286,777.91
- net value of intangible assets	31,852,681.84

#### (2) Land and Buildings

Land and Buildings of 13,830,001K PLN (\$5,603.7m) accounts for 65% of the total assets (75% of the fixed assets) of the PKP.

Only the property owned by the PKP is included in the fixed assets for 1995. Property that is rented (from the government or others), property for which ownership records have been lost or of disputed ownership is not included in the Balance Sheet.

An estimation of the proportion of land not included in the fixed assets can be made from the 1994 financial statements which shows 82,891,360.16PLN as rented and 2,312,561.58PLN as owned. In the 1995 statements, only the owned portion is shown i.e. over 97% of the land utilised by the PKP is not owned and thus not included in the current financial statements.

#### (3) Depreciation of fixed assets

	1995	1994
- gross value of depreciable assets at 31/12	41,043,887,872	40,638,671,644
- depreciation	22,527,009,562	22,058,040,004
- net value of depreciable assets	18,516,878,310	18,580,631,640

The above analysis excludes land, assets in construction and pre-payments as these assets are normally not depreciated.

As can be seen from the table, the net value of these assets has gone down showing that overall there is a lack of investment. If one considers the inflation effect e.g. transport equipment being depreciated at historical costs, the net underinvestment would be that much greater.

# (4) Investments in progress

Investments were financed by the PKP itself, government subsidies, PHARE funds and loans from the International Bank for Reconstruction and Development and the European Investment Bank.

Fixed assets in construction	for 1/1/95	378,967,664.12
Expenditure during the year		1,029,514,638.32
Transferred out		808,238,873.36
Fixed assets in construction	for 31/12/95	600,243,429.08

Although expenditure for the year exceeded inflation, the value of assets brought into use was lower than the depreciation for the year. To this must be factored in the fact that fixed assets are being depreciated at historic costs (not current costs).

## (5) Financial fixed assets

This is comprised of 23,699,190.14 PLN in investments in shares and Long-term loans granted of 74,172,775.02 PLN.

Shares in other companies on 1/1/95	21,307,036.54
Increases during the year	3,411,113.86
Decreases during the year	1,018,960.26
Shares in other companies on 31/12/95	23,699,190.14

Dividends received from the shareholdings amounted to 305,434.49PLN.

The loans granted are the receivables from technical back-up companies external to the PKP. These loans have been financed by money from the IBRD and the EIB.

# (6) Long-term receivables

This consists mainly of loans granted to current and ex-employees from the PKP's Social Benefits Fund.

# (7) Stocks

The inventory amounted to 530,632K PLN, a 10.4% increase over the previous year. This is less than the rate of inflation.

The stock turnover period can be calculated as:

stock X 365

value of goods and materials sold + consumption of material and energy

This shows 120 days. In actuality, the figure would be higher because the denominator includes energy costs.

#### (8) Debtors

Debtors amount to 938,383K PLN, a 1.1% increase. The debtors tumover period i.e. (debtors/total operating incomes) X 365 was 47 days.

#### (9) Cash

The cash balance was 459,010K PLN and consisted mainly of cash in the bank (75%) and in hand (22%).

# (10) Legal Capital

The capital increased during the year from 8.2 bn PLN to 19.4 bn PLN mainly as a result of reevaluations to tangible assets (unrealised profit) totalling 10.6 bn PLN. Included is also a government subsidy of 95.8 m PLN.

The legal capital accounts for 92 % of total assets. The changes in the statutory fund and enterprise funds were as follows:

statutory fund at 1/1/1995	5,054,516,768.19
revaluation of tangible assets	6,094,290,894.48
updated value on 1/1/1995	11,148,807,662.67
donations received	95,780,000.00
tangible assets received	6,861.00
tangible assets donated	-269,012.37
cost of buying buildings	-58,329.53
transfers to other companies / institutions	-435,580.80
statutory fund at 31/12/1995	11,243,831,600.97

i.e. during 1995, the statutory fund increased by 95,786,861.00 PLN and decreased by 762,922.70 PLN.

enterprise fund at 1/1/1995		3,867,939,935.33
revaluation of tangible assets		4,530,344,556.14
updated value on 1/1/1995		8,398,284,491.47
profit to share		669,256.40
received donations		751,461.51
other		1,399,033.00
other		1,500,427,89
transferred free		-202,939.16
expenditure on buildings		-1,293,360.73
donated to other companies		-678,471.70
donations to country budget		-111,913.18
transfer of 1994 losses		-111,434,768.86
transferred donations	(technical	-1,159,019.55
infrastructure)	•	
other decreases		-1,520,205.07
enterprise fund at 31/12/1995		8,286,203,992.02

i.e. during 1995, the enterprise fund increased by 4,320,178.80 PLN and decreased by 116,400,678.25 PLN.

# (11) Long-term liabilities

The long term liabilities of 507.3 m PLN are due to a loan from the International Bank for Reconstruction and Development (303.7 m PLN) and 2 loans from the European Investment Bank (totalling 203.4 m PLN).

The long-term liabilities account for just 2.4% of total assets.

#### (12) Current liabilities

The current liabilities of 1,275.7 m PLN are made up of short -term bank loans (36.3 m PLN), accounts payable (959.5 m PLN), Social Benefits Funds (100.5 m PLN) and advance payments received (179.4 m PLN).

The creditors turnover period is 49 days i.e. (operating costs/creditors) X 100.

#### 2.4.2 The Profit & Loss Account (see table 2.4.3)

The Profit & Loss Account for the year to 31 December 1995 shows a loss of 106m PLN (\$43m) compared to a loss of 111m PLN for 1994. In the area of transportation activity, the passenger service incurred a loss of 1.6 bn PLN (including subsidies) while the freight services made a profit of 1.5 bn PLN (without entitlement to any subsidy). Non-transportation activity includes the Railway Health Service (30.8 m PLN loss), the social activity (24.2 m PLN loss), the housing activity (75.1 m PLN loss) and financing activity (10.7 m PLN profit).

If the costs include depreciation, then there is a deficit. If however we exclude depreciation but include state subsidies, then there is an operating profit i.e. positive cashflow from operations.

#### (1) Revenues

The total revenue of 7.3 bn PLN was from freight (4.3 bn PLN), passengers (1.1 bn PLN) other sources (1.0 bn PLN) and government subsidies (1.0 bn PLN). Revenues increased by less than the rate of inflation. Freight handled was 225.3 m tons (up 4.9%) and was carried 69,116.4 m ton-km (up 5.1%). Passengers carried totalled 465.9 persons (down 5.8%) over a distance of 26,635.2 m passenger-km (down 3.5%).

In the case of passengers, the Ministry decides tariffs. This is because the Ministry buys the services from the PKP and also because of PKP's monopolistic position.

In the case of freight, prices have been deregulated since 1994 except for coal and iron ore for which the MTME and the Ministry of Finance set prices.

Freight tariffs rose on average by 24.6% whilst passenger tariffs rose by an average of 27.6 %. These increases are comparable to the inflation rate for industrial production (25.4%) and the retail price index (27.8%) respectively.

Government subsidies were for passengers (338 m PLN), maintenance (366 m PLN) and the Rail Medical Service (308 m PLN).

1) Analysis of Transportation Income (Vertical) see Table 2.4.5

This table shows the actual incomes for 1995 and January to October 1996 and an extrapolated estimate for the full 1996. Also percentages shown are for each category a percentage of the total revenue for the year.

This table shows that the estimated transport income is likely to drop from 94.1% to 91.2% of income. Thus the proportion of the targeted subsidy will increase from 5.9% to 8.8% of total income.

Freight transportation incomes as a percentage of total transportation incomes might be lower in all categories of freight i.e. falling to 72.3% from 75.2% of total income.

Passenger tickets may fall by 1% (from 15.9% to 14.9%). The total for passengers however will remain the same due to a new type of transportation benefits accounting for 1% of total income. Thus the passenger total will remain steady at 18.6% of the total.

2) Analysis of Transportation Income (Horizontal) see Table 5.4.6

This table shows the actual incomes for 1995 and January to October 1996 and an extrapolated estimate for the full 1996. The estimated difference between 1995 and 1996 is also shown and

the difference as a percentage of the actual for 1995 has been calculated.

(2) Expenses

Expenses were 7.4 bn PLN of which 99% was for operating costs. In addition there were

financing costs of 63.9 m PLN and extraordinary losses of 4.2 m PLN. A different analysis of

expenses shows that wage related costs were 46%, energy and materials - 23%, external

services - 13%, depreciation - 12% and other expenses 6% of the total expenses.

The total equivalent full-time staff was 240,792.

The percentage increase in expenses almost exactly matches the percentage increase in

revenues at 22% for 1995.

(3) Net Loss

The net loss for the year was 106.2 m PLN and differs from the figure in the English version of

"Annual Report PKP 1995" which shows a loss of 71.0 m PLN. (Note: The audited financial

statements show income to be 12.1 m PLN lower and costs to be 23.1 m PLN higher).

(4) Operating ratios

PKP's operating ratios are:

with subsidies

101.55

without subsidies

117.98

2.4.3 The Cashflow Statement (see table 2.4.4)

The Cashflow Statement for the year to 31 December 1995 shows a net increase in cash of

202.8 m PLN (\$74m).

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Inflows consisted of a net positive income from operations (758.5 m PLN) and from net financial activity (230.2m PLN) whilst outflows were from net investment activity.

#### 2.4.4 Auditors Report

The auditors of PKP are a firm called "Finans-Servis". They audited the financial statements for the year 1995 in accordance with the relevant Polish regulations and have given "an unqualified opinion".

#### 2.4.5 Reporting procedure

There are about 500 accounting offices (e.g. each locomotive has its own accounting office) that report to the 8 divisional offices (i.e. DOKPs). Separately there are 22 units that report the DGPKP. Finally the results of the 8 DOKPs and the DGPKP is consolidated.

The Financial Statements of the PKP are obtained by consolidating 9 divisions i.e.:

- General Directorate PKP
- Central DOKP in Warsaw
- East DOKP in Lublin
- · South DOKP in Kracow
- Silesian DOKP in Katowice
- North DOKP in Gdansk
- · Lower-Silesian DOKP in Wroclaw
- West DOKP in Poznan
- Pomeranian DOKP in Szczecin

The General Directorate PKP accounts for the following 22 organisations:

- A Railway Information Centre (ClK) in Warsaw
- A Railway Technical -Scientific Centre (CNTK) in Warsaw

- A Central Office of International PKP Settlements (CBRZ) in Bydgoszcz
- A Central Office of Buying and Selling (Ferpol) in Warsaw
- A Central Equipment Store (Cetakol CSEA) in Sosnowiec
- A Central PKP Construction Office (CBK) in Poznan
- Central Travellers Service Office (POLRES) in Warsaw
- An Office of an Income Control in Lodz
- An Office of an Income Control in Kracow
- An Office of an Income Control in Olsztyn
- · An Office dealing with Free-Ticket Transport in Gniezno
- An Office dealing with the disability pays for railway workers in Olsztyn
- The Centre for Diagnosis and Welding of the Railway Trucks in Warsaw
- · Public Cable Ways in Zakopane
- The Work of Truck Machines in Gdansk
- . The Work of Truck Machines in Krakow
- The Work of Truck Machines in Wrocław
- The Work for the Regeneration of the Sleepers in Ostrowia Mazowiecka
- The Railway Printing-office in Warsaw
- · The Railway Printing-office in Krakow
- The Railway Printing-office in Poznan
- The Directorate of the Railway Health Care Service in Warsaw

#### 2.4.6 Accounting separation of subsidiary companies

The accounts of wholly owned subsidiaries, partially owned subsidiaries and joint ventures are not consolidated into the accounts of the PKP i.e. the financial statements of the parent company alone are shown. The partial equity method is used to account for all investments i.e. only the PKP's shareholding is included (in financial fixed asset). PKP's P&L too does not include the turnover etc. of subsidiary companies but only the dividends received.

In this respect, the PKP does not produce true consolidated financial statements. True consolidated financial statements should use the acquisition method of accounting.

There are approximately 40 unconsolidated subsidiaries. Not all of these are 100% subsidiaries. The Annual Report of the PKP does not list major subsidiaries as is done by 'western companies'.

#### 2.4.7 Method of depreciation

Depreciation is carried out by the straight-line method to reflect the useful lives of individual assets. The rates used have been set by the Ministry of Finance in the Taxation Law.

# 2.4.8 Consistency of Polish GAAP with IAS

Polish GAAP (Generally Accepted Accounting Principles) have been revised (Accounting Law, 9/1994) to bring them closer to International Standards. The Annual Report PKP 1995 (in English) certainly does not meet the disclosure requirements as required by Western countries.

Additionally, Stock Exchanges have additional reporting and disclosure requirements. The Annual Report PKP certainly does not fulfil these requirements as well.

#### 2.4.9 Profitability by lines

This information cannot be derived from the current accounting information received from the PKP / MTME.

The PKP receives subsidy targeted at unprofitable passenger services. The amount of the subsidy is the difference between the cost and the income from such services ( see also section on subsidies i.e. chapter 5.7). This would indicate that both the MTME and the PKP have an idea of the costs and incomes by service / line.

# 2.4.10 Project / Investment appraisal

The Investment Department is responsible for making feasibility studies for all proposed investments. Alternative investment plans are made, a cost-benefit analysis is done, the financial effects are estimated and the shortfall is known.

A discount rate of 12% is used to appraise potential investments. This rate reflects the cost of funds from the World Bank and European Investment Bank.

#### 2.4.11 Monthly Management reports

The financial statements for each month is used as the Management Information System. There is no separate system of management accounting. Control is exercised by using "Detailed Costs Accounting".

An annual budget is prepared and actual incomes and costs are compared to the budget.

# 2.4 12 Experiences of previous privatization

The companies providing technical services to the PKP were privatised in a process that started in 1991. A total of 70 industrial enterprises were separated including:

- 20 companies to maintain rolling stock
- 5 companies producing concrete sleepers
- 5 companies producing wooden sleepers

The method of privatisation was liquidation by the NIF. Although the companies are still in a difficult position (as capacity is higher than requirements), only 2 of these (very weak and with few staff) have closed down. Four have yet to be privatised.

#### 2.4.13 Conclusion

The true value of all of the assets being used by the PKP is not shown in the financial statements (e.g. leased property). There is also no mechanism to value PKP's investment in subsidiary companies.

The PKP should form Business Units for all its functions and produce audited accounts for them. The financial performance for each should then be improved. This will ensure that in any possible privatisation, proceeds will be maximised.

The current disclosure requirements mean that the PKP has to disclose very little information to its shareholders - the citizens of Poland. Under such circumstances, there can be abuses of trust with little chance of discovery. Improved disclosure will ensure that valuable assets cannot be disposed of without adequate compensation.

The lack of debt (the PKP has less long-term debt than any country in the EU), means that the PKP can be privatised that much more easily.

#### Annex 1 List of WORG units (cost-centers) by DOKP

The following is a list of the 501 cost-centers of the 8 DOKPs. Each of these cost-centers is an independent, self-contained unit with its own accounting office. The importance is that all these units can be easily separated from the PKP and disposed of if they are converted into profit-centers.

#### 1) Central DOKP - list of WORG units:

- 1. Direction of Transhipment Regions (DRP) Ma3aszewicze
- 2. Regional Station (ROS) West Warszawa
- 3. Regional Station (ROS) Ostro³čka
- 4. Regional Station (ROS) £uków
- 5. Regional Station (ROS) Kutno
- 6. Regional Station (ROS) Koluszki
- 7. Regional Station (ROS) Bialystok
- 8. Regional Station (ROS) £6dŸ
- 9. Regional Station (ROS) Siedlee
- 10. Regional Station (ROS) Tluszcz
- 11, Regional Station (ROS) East Warszawa
- 12. Regional Station (ROS) Warszawa Praga
- 13. Regional Station (ROS) Warszawa Main Freight
- 14. Board of Directors of Warsaw Regular Travel Line (WD) Warszawa
- 15. Plant of Exploitation of Warsaw Regular Travel Line (ZE) Grodzisk Mazowiecki
- 16. Locomotive Garage (MD) Bia³ystok
- 17. Locomotive Garage (MD) £ódŸ
- 18. Locomotive Garage (MD) Łuków
- 19. Locomotive Garage (MD) Piotrków Trybunalski
- 20. Locomotive Garage (MD) Sochaczew
- 21. Locomotive Garage (MD) Tuszcz
- 22. Locomotive Garage (MD) Warszawa Grochów
- 23. Locomotive Garage (MD) Warszawa Ochota

- 24. Locomotive Garage (MD) Warszawa Odolany
- 25. Locomotive Garage (MD) Warszawa Praga
- 26. Locomotive Garage (MD) Warszawa Olszynka Grochowska
- 27. Rolling Stock Plant (MT) Czeremcha
- 28. Rolling Stock Plant (MT) Kutno
- 29. Rolling Stock Plant (MT) Ostro®ka
- 30. Rolling Stock Plant (MT) Siedlee
- 31. Cars Garage (MS) Bia3ystok
- 32. Cars Garage (MS) Warszawa
- 33. Wagons Garage (WGW) Bia3ystok
- 34. Wagons Garage (WGW) Koluszki
- 35. Wagons Garage (WGW) £6dŸ
- 36. Wagons Garage (WGW) Warszawa Grochów
- 37. Wagons Garage (WGW) Szczĉœliwice
- 38. Wagons Garage (WGW) Warszawa Freight
- 39. Road Section (DO) Bia3ystok
- 40. Road Section (DO) Kutno
- 41. Road Section (DO) £ódŸ
- 42. Road Section (DO) Siedice
- 43. Road Section (DO) East Warszawa
- 44. Road Section (DO) West Warszawa
- 45. Mechanised Road Works Section (DOM) Bia3ystok Starosielce
- 46. Mechanised Road Works Section (DOM) Warszawa
- 47. Buildings Section (DOB) Bia3ystok
- 48. Buildings Section (DOB) £6dŸ
- 49. Buildings Section (DOB) West Warszawa
- 50. Bridges Section (DMO) Warszawa
- 51. Geodesy Section (DOG) Warszawa
- 52, Automatic and Telecommunication Section (AO) Bia³ystok
- 53. Automatic and Telecommunication Section (AO) £ódŸ
- 54. Automatic and Telecommunication Section (AO) Siedlee
- 55. Automatic and Telecommunication Section (AO) East Warszawa

- 56. Automatic and Telecommunication Section (AO) West Warszawa
- 57. Electric-energetic Feeding Section (EO) Bia ystok
- 58. Electric-energetic Feeding Section (EO) £6dŸ
- 59. Electric-energetic Feeding Section (EO) Siedlee
- 60. Electric-energetic Feeding Section (EO) S³otwiny near Koluszki
- 61. Electric-energetic Feeding Section (EO) East Warszawa
- 62. Electric-energetic Feeding Section (EO) West Warszawa
- 63. Materials Maintenance Section (GO) Bia3ystok
- 64. Materials Maintenance Section (GO) ŁódŸ
- 65. Materials Maintenance Section (GO) Siedlee
- 66. Materials Maintenance Section (GO) Warszawa
- 67. Training Centre (OSK) Warszawa
- 68. Social Section (USO) Warszawa
- 69. Flats Managing Section (OGM) Bia³ystok
- 70. Flats Managing Section (OGM) £ódŸ
- 71. Flats Managing Section (OGM) Siedlee
- 72. Flats Managing Section (OGM) Warszawa
- 73. Railway Health Care Service District (SOB) Bia³ystok
- 74. Railway Health Care Service District (SOB) ŁódŸ
- 75. Railway Health Care Service District No 1 (SOB 1) Warszawa, Nowogrodzka Street
- 76. Railway Health Care Service District No 2 (SOB 2) Warszawa, Brzeska Street
- 77. The W3odzimierz Roefler Railway Hospital (SZP) Pruszków
- 78. Railway Plant of Pharmaceutical Maintenance (SKZF) Warszawa
- 79. House for Experienced Railway Workers (UDW) Milanówek

### 2) East DOKP - list of WORG units:

- 1. Regional Station Kielce
- 2. Regional Station Lublin
- 3. Regional Station Stalowa Wola Rozwadów
- 4. Regional Station Deblin
- 5. Regional Station Sèdziszów
- 6. Regional Station Idzikowice
- 7. Regional Station He3m
- 8. Regional Station ZamoϾ
- 9. Regional Station Radom
- 10. Regional Station Skarzysko-Kamienna
- 11. Board of Directors of Regular Travel Lines Che3m
- 12. Locomotive Garage not classified ZamoϾ Bortatycze
- 13. Locomotive Garage not classified Skarzysko-Kamienna
- 14. Locomotive Garage not classified Kielce
- 15. Locomotive Garage not classified Déblin
- 16. Locomotive Garage not classified Stalowa Wola Rozwadów
- 17. Locomotive Garage not classified Idzikowice
- 18. Locomotive Garage not classified Lublin
- 19. Rolling Stock Plant Che3m
- 20. Rolling Stock Plant Sêdziszów
- 21. Cars Garage Lublin
- 22. Wagons Garage not classified Lublin
- 23. Wagons Garage not classified Kielce
- 24. Wagons Garage not classified Skar¿ysko-Kamienna
- 25. Wagons Garage not classified ZamoϾ
- 26. Wagons Garage not classified Idzikowice
- 27. Road Section Lublin
- 28. Road Section ZamoϾ
- 29. Road Section Kielce
- 30. Road Section Skar, ysko-Kamienna

- 31. Mechanised Road Works Section Radom
- 32. Buildings Section Lublin
- 33. Buildings Section Kielce
- 34. Bridges Section Skartysko-Kamienna
- 35. Geodesy Section Lublin
- 36. Automatic and Telecommunication Section Lublin
- 37. Automatic and Telecommunication Section Kielce
- 38. Automatic and Telecommunication Section Radom
- 39. Electric-Energetic Feeding Section Lublin
- 40. Electric-Energetic Feeding Section Kielce
- 41. Electric-Energetic Feeding Section Radom
- 42. Materials Maintenance Section Lublin
- 43. Materials Maintenance Section Skartysko-Kamienna
- 44. Training Centre Lublin
- 45. Social Section Lublin
- 46. Flats Managing Section Lublin
- 47. Flats Managing Section Kielce
- 48. Regional Railway Hospital Lublin
- 49. Railway Health Resort Hospital Na<sup>3</sup>êczów
- 50. Railway Health Care Service District Lublin
- 51. Railway Health Care Service District Stalowa Wola Rozwadów
- 52. Railway Health Care Service District Skargysko-Kamienna
- 53. Railway Plant of Pharmaceutical Maintenance Lublin

# 3) South DOKP - list of WORG units:

- 1. Head Office of the South DOKP
- 2. Trans-shipping Plant urawica
- 3. Regional Station Kraków
- 4. Regional Station Kraków Prokocim
- 5. Regional Station Trzebinia
- 6. Regional Station Chabówka
- 7. Regional Station Nowy Stcz
- 8. Regional Station Tamów
- 9. Regional Station Rzeszów
- 10. Regional Station Jas<sup>3</sup>o
- 11. Regional Station Przemyœl
- 12. Locomotive Garage Kraków-Prokocim
- 13. Locomotive Garage Kraków-P³aszów
- 14. Locomotive Garage Nowy S1cz
- 15. Locomotive Garage Sucha Beskidzka
- 16. Locomotive Garage Dêbica
- 17. Locomotive Garage Tamów
- 18. Locomotive Garage urawica
- 19. Locomotive Garage Jas3o
- 20. Wagons Garage Kraków
- 21. Wagons Garage Kraków-Prokocim
- 22. Wagons Garage Nowy S1cz.
- 23. Wagons Garage Rzeszów
- 24. Wagons Garage urawica
- 25. Road Section Ktraków
- 26. Road Section Rzeszów
- 27. Road Section Nowy S1cz
- 28. Mechanised Road Works Section Débica
- 29. Building Section Kraków
- 30. Building Section Rzeszów

- 31. Bridges Section Sucha Beskidzka
- 32, Geodesy Section Kraków
- 33. Automatic and Telecommunication Section Kraków
- 34. Automatic and Telecommunication Section Rzeszów
- 35. Electric-energetic Feeding Section Kraków
- 36. Electric-energetic Feeding Section Rzeszów
- 37. Materials Maintenance Section Kraków
- 38. Materials Maintenance Section Rzeszów
- 39. Materials Maintenance Section Nowy Stcz
- 40. Training Centre Kraków
- 41. Social Section Kraków
- 42. Flats Managing Section Kraków
- 43. Flats Managing Section Rzeszów
- 44. Railway Health Care Service District Kraków
- 45. Railway Health Care Service District Nowy Stcz
- 46. Railway Health Care Service District Przemycel
- 47. Railway Health Care Service District Rzeszów
- 48. Railway Health Care Service District Tarnów
- 49. District Railway Hospital Kraków
- 50. District Hospital of Lungs Illnesses and Tuberculosis Maków Podhalański
- 51. Railway Plant of Pharmaceutical Maintenance Kraków
- 52. Railway Health Resort Sanatorium Krynica
- 53. Railway Health Resort Sanatorium Rabka
- 54. Railway Preventorium Nowy Targ Kowaniec

## 4) Silesian DOKP - list of WORG units

- 1. Regional Station Katowice
- 2. Regional Station Katowice Muchowice
- 3. Regional Station Jaworzno Szczakowa
- 4. Regional Station Lazy
- 5. Regional Station Gliwice
- 6. Regional Station Bytom
- 7. Regional Station Kêdzierzyn KoŸle
- 8. Regional Station Tarnowskie Góry
- 9. Regional Station Rybnik
- 10. Regional Station Racibórz
- 11. Regional Station Czêstochowa
- 12. Regional Station Bielsko Bia3a
- 13. Regional Station Czechowice-Dziedzice
- 14. Regional Station Oœwiêcim
- 15. Locomotive Garage not classified Czêstochowa
- 16. Locomotive Garage Czechowice-Dziedzice
- 17. Locomotive Garage £azy
- 18. Locomotive Garage Rybnik
- 19. Locomotive Garage Katowice
- 20. Locomotive Garage Gliwice
- 21. Locomotive Garage Tarnowskie Góry
- 22. Rolling Stock Plant Jaworzno Szczakowa
- 23. Rolling Stock Plant Kêdzierzyn KoŸle
- 24. Cars Garage Katowice
- 25. Wagons Garage Katowice
- 26. Wagons Garage Gliwice
- 27. Wagons Garage Tamowskie Góry
- 28. Wagons Garage Racibórz
- 29. Wagons Garage Czêstochowa
- 30. Wagons Garage £azy

- 31. Wagons Garage Zabrzeg Czamolesie
- 32. Road Section Katowice
- 33. Road Section Gliwice
- 34. Road Section Tarnowskie Góry
- 35. Road Section Rybnik
- 36. Road Section Czêstochowa
- 37. Road Section Bielsko Bia³a
- 38. Mechanised Road Works Section Katowice
- 39. Buildings Section Katowice
- 40. Buildings Section Gliwice
- 41. Buildings Section Czêstochowa
- 42. Bridges Section Dibrowa Górnicza Zibkowice
- 43. Bridges Section Kêdzierzyn KoŸle
- 44. Geodesy Section Katowice
- 45. Automatic and Telecommunication Section Katowice
- 46. Automatic and Telecommunication Section Gliwice
- 47. Automatic and Telecommunication Section Tamowskie Góry
- 48. Automatic and Telecommunication Section Rybnik
- 49. Automatic and Telecommunication Section Czêstochowa
- 50. Automatic and Telecommunication Section Bielsko Bia³a
- 51. Electric-Energetic Feeding Section Katowice
- 52. Electric-Energetic Feeding Section Gliwice
- 53. Electric-Energetic Feeding Section Bielsko Bia³a
- 54. Electric-Energetic Feeding Section Czêstochowa
- 55. Materials Maintenance Section Jaworzno Szczakowa
- 56. Materials Maintenance Section Czêstochowa
- 57. Materials Maintenance Section Bytom
- 58. Materials Maintenance Section Katowice Piotrowice
- 59. Training Centre Maczki
- 60. Social Section Katowice
- 61. Flats Managing Section Gliwice
- 62. Flats Managing Section Tamowskie Góry

- 63. Flats Managing Section Rybnik
- 64. Flats Managing Section Czêstochowa
- 65. Railway Health Care Service District Katowice
- 66. Railway Health Care Service District Sosnowiec
- 67. Railway Health Care Service District Rybnik
- 68. Railway Health Care Service District Gliwice
- 69. Railway Health Care Service District Tarnowskie Góry
- 70. Railway Health Care Service District Czêstochowa
- 71. Railway Health Care Service District Bielsko Bia³a
- 72. District Railway Hospital Katowice
- 73. Railway Hospital Sosnowiec
- 74. Railway Hospital Wilkowice-Bystra
- 75. Railway Plant of Pharmaceutical Maintenance Gliwice

# 5) North DOKP - list of WORG units

- 1. Regional Station Bydgoszcz
- 2. Regional Station Gdynia G Vwna
- 3. Regional Station Olsztyn
- 4. Regional Station Toruñ Wschodni
- 5. Regional Station Gdynia Port
- 6. Regional Station Gdańsk Główny
- 7. Regional Station Tezew
- 8. Regional Station Chojnice
- 9. Regional Station Inowroc³aw
- 10. Regional Station Zduňska Wola Karsznice
- 11. Regional Station Toruň G'ówny
- 12. Regional Station Malbork
- 13. Regional Station Pawa
- 14. Regional Station Dzia<sup>3</sup>dowo
- 15. Locomotive Garage Gdynia Grabówek
- 16. Locomotive Garage Gdynia Chylonia
- 17. Rolling Stock Plant Bydgoszcz
- 18. Rolling Stock Plant Zduńska Wola Karsznice
- 19. Rolling Stock Plant Chojnice
- 20. Rolling Stock Plant Inowroc³aw
- 21. Rolling Stock Plant Zaj'czkowo Tczewskie
- 22. Rolling Stock Plant Olsztyn
- 23. Rolling Stock Plant Pawa
- 24. Rolling Stock Plant Toruñ
- 25. Wagons Garage Gdynia Port
- 26. Road Section Inowroc³aw
- 27. Road Section Bydgoszcz
- 28. Road Section Gdynia
- 29. Road Section Toruñ
- 30. Road Section Pawa

- 31. Road Section Olsztyn
- 32. Road Section Malbork
- 33. Road Section Tezew
- 34. Mechanised Road Works Section Gdańsk
- 35. Buildings Section Sopot
- 36. Buildings Section Olsztyn
- 37, Buildings Section Toruñ
- 38. Bridges Section Bydgoszcz
- 39. Bridges Section Grudzi¹dz
- 40. Geodesy Section Gdańsk
- 41. Automatic and Telecommunication Section Gdynia
- 42. Automatic and Telecommunication Section Bydgoszcz
- 43. Automatic and Telecommunication Section Toron
- 44. Automatic and Telecommunication Section Olsztyn
- 45. Electric-Energetic Feeding Plant Sopot
- 46. Electric-Energetic Feeding Plant Bydgoszcz
- 47. Electric-Energetic Feeding Plant Zduńska Wola-Karsznice
- 48. Electric-Energetic Feeding Plant Olsztyn
- 49. Materials-Technical Maintenance Section Bydgoszcz
- 50. Materials-Technical Maintenance Section Tozew
- 51. Materials-Technical Maintenance Section Olsztyn
- 52. Training Centre Gdańsk Stogi
- 53. Training and Rest Centre Pradocin
- 54, Social Section Gdańsk
- 55. Flats Managing Section Gdańsk
- 56. Flats Managing Section Bydgoszcz
- 57. Flats Managing Section Toruñ
- 58. Flats Managing Section Olsztyn
- 59. Railway Health Care Service District Gdańsk
- 60. Railway Health Care Service District Bydgoszcz
- 61. Railway Health Care Service District Olsztyn
- 62. Railway Health Care Service District Toruñ

- 63. 61. Railway Health Care Service District Tozew
- 64. Railway Hospital Gdańsk
- 65. Railway Hospital Olsztyn
- 66. Railway Plant of Pharmaceutical Maintenance Gdańsk
- 67. Railway Health Resort Hospital Ciechocinek
- 68. Railway Sanatorium Inowroc³aw

#### 6) Lower Sileslan DOKP - list of WORG units

- 1. Regional Station Legnica
- 2. Regional Station Opole
- 3. Regional Station Wa3brzych
- 4. Regional Station Wroc³aw
- Regional Station Jaworzyna Œl¹ska
- 6. Regional Station Jelenia Góra
- 7. Regional Station Kamieniec Thkowicki
- 8. Regional Station Kluczbork
- 9. Regional Station Nysa
- 10. Regional Station Wêgliniec
- 11. Regional Station Wroc³aw Brochów
- 12. Regional Station Głogów
- 13. Regional Station Wroc³aw Nadodrze
- 14. Locomotive Garage Legnica
- 15. Locomotive Garage Wa³brzych
- 16. Locomotive Garage Kamieniec Tbkowicki
- 17. Locomótive Garage Opole
- 18. Locomotive Garage Kluczbork
- 19. Locomotive Garage Wroc³aw G³ówny
- 20. Locomotive Garage Wroc³aw-Brochów
- 21. Wagons Garage Mi³kowice
- 22. Wagons Garage Kluczbork
- 23. Wagons Garage Jaworzyna Œl¹ska
- 24. Wagons Garage Wroc³aw
- 25. Road Section Legnica
- 26. Road Section Opole
- 27. Road Section Wa³brzych
- 28. Road Section Wroc3aw
- 29. Mechanised Road Works Section Wroc³aw
- 30. Buildings Section Opole

- 31. Buildings Section Wa'brzych
- Buildings Section Wroc³aw
- 33. Bridges Section Oleonica
- 34. Bridges Section Jelenia Góra
- 35. Geodesy Section Wroc³aw
- 36. Automatic and Telecommunication Section Legnica
- 37. Automatic and Telecommunication Section Opole
- 38. Automatic and Telecommunication Section Wa3brzych
- 39. Automatic and Telecommunication SectionWroc3aw
- 40. Electric-Energetic Feeding Section Legnica
- 41. Electric-Energetic Feeding Section Opole
- 42. Electric-Energetic Feeding Section Wa<sup>3</sup>brzych
- 43. Electric-Energetic Feeding Section Wrocław
- 44. Materials-Technical Maintenance Section Wroc³aw
- 45. Materials-Technical Maintenance Section Wa3brzych
- 46. Training Section Wrocław
- 47. Social Section Wroc3aw
- 48. Flats Managing Section Opole
- 49. Flats Managing Section Wa3brzych
- 50. Flats Managing Section Wroc³aw
- 51. Railway Health Care Service District Legnica
- 52. Railway Health Care Service District Opole
- 53. Railway Health Care Service District Wa3brzych
- 54. Railway Health Care Service District Wroc³aw
- 55. Railway Health Care Service District Jelenia Góra
- 56. Railway District Hospital Wroc³aw
- Railway Hospital of Lungs Illnesses and Tuberkulosis Szklarska Poréba
- 58. Railway Plant of Pharmaceutical Maintenance
- 59. Railway Health Resort Sanatorium Szczawno Zdrój
- 60. Railway Health Resort Sanatorium Duszniki Zdrój
- 61. Railway Sanatorium of Lungs Illnesses and Tuberkulosis Gucho azy
- 62. Railway Sanatorium of Motion Organs Rehabilitation

63. Railway Preventorium Janowice Wielkie

## 7) The list of WORG units of West DOKP:

- 1. Central Office Poznañ
- 2. Regional Station Poznaň Główny
- 3. Regional Station Poznañ Pranowo
- 4. Regional Station Poznañ Pi¹tkowo
- 5. Regional Station Gniezno
- 6. Regional Station Jarocin
- 7. Regional Station Kalisz
- 8. Regional Station Kêpno
- 9. Regional Station Konin
- 10. Regional Station Leszno
- 11. Regional Station Ostrów Wielkopolski
- 12. Regional Station Rzepin
- 13. Regional Station Zb¹szynek
- 14. Regional Station Zielona Góra
- 15. Regional Station agañ
- 16. Board of Directors of Regular Travel Lines Poznañ
- 17. Locomotive Garage Poznañ
- 18. Locomotive Garage Leszno
- 19. Locomotive Garage Ostrów Wielkopolski
- 20. Rolling Stock Plant Zb¹szynek
- 21. Rolling Stock Plant Czerwieńsk
- 22. Rolling Stock Plant Gniezno
- 23. Rolling Stock Plant agañ
- 24. Cars Garage Poznañ
- 25. Wagons Garage Poznañ
- 26. Wagons Garage Ostrów Wielkopolski
- 27. Road Section Poznañ
- 28. Road Section Leszno
- 29. Road Section Ostrów Wielkopolski
- 30. Road Section Wrzecenia

- 31. Road Section Wigrowice
- Road Section Zb¹szynek
- 33. Road Section Zielona Góra
- 34. Mechanised Road Works Section Poznañ
- 35. Buildings Section Poznañ
- 36. Buildings Section Ostrów Wielkopolski
- 37. Bridges Section Poznaň Franowo
- 38. Geodesy Section Poznań
- 39. Automatic and Telecommunication Section Poznañ
- 40. Automatic and Telecommunication Section Leszno
- 41. Automatic and Telecommunication Section Ostrów Wielkopolski
- 42. Automatic and Telecommunication Section Zielona Góra
- 43. Electric-Energetic Feeding Section Poznaň Wschód
- 44. Electric-Energetic Feeding Section Poznaň Zachód
- 45. Electric-Energetic Feeding Section Ostrów Wielkopolski
- 46. Electric-Energetic Feeding Section Zielona Góra
- 47. Materials Maintenance Section Poznañ
- 48. Training Centre Poznaň
- 49. Social Section Poznañ
- 50. Flats Managing Section Poznañ
- 51. Flats Managing Section Zielona Góra
- 52. Railway Health Care Service District Poznañ
- 53. Railway Health Care Service District Leszno
- 54. Railway Health Care Service District Ostrów Wielkopolski
- 55. Railway Health Care Service District Zielona Góra
- 56. Railway District Hospital Puszczykowo
- 57. Railway Hospital Poznañ
- 58. Railway Children Hospital Ostrów Wielkopolski
- 59. Railway Sanitary Store Poznaň Franowo
- 60. Railway Sanatorium Mi³owody
- 61. Railway Sanatorium of Lungs Illnesses and Tuberculosis Chodzie;

#### 8) The list of WORG units of Pomeranian DOKP:

- 1. Regional Station Szczecin Główny
- 2. Regional Station Szczecin Port Centralny
- 3. Regional Station Szczecin D<sup>1</sup>bie
- 4. Regional Station Œwinoujœcie
- 5. Regional Station Stargerd
- 6. Regional Station Koszalin
- 7. Regional Station S'upsk
- 8. Regional Station Szczecinek
- 9. Regional Station Pila
- 10. Regional Station Krzyć
- 11. Regional Station Gorzów
- 12. Regional Station Kostrzyň
- 13. Board of Directors of Regular Travel Lines Szczecin
- 14. Locomotive Garage Szczecin
- 15. Locomotive Garage Szczecin Port Centralny
- 16. Locomotive Garage Stargard Szczeciński
- 17. Locomotive Garage Krzyi
- 18. Rolling Stock Plant Bialogard
- 19. Rolling Stock Plant Szczecinek
- 20. Wagons Garage Szczecin Główny
- 21. Wagons Garage Szczecin Port Centralny
- 22. Wagons Garage Gorzów
- 23. Rolling Stock plant Supsk
- 24. Road Section Szczecin
- 25. Road Section Bia3ogard
- 26. Road Section Gorzów
- 27. Road Section Stargard
- 28. Mechanised Road Works Section Stargerd
- 29. Buildings Section Szczecin
- 30. Buildings Section S³upsk

- 31. Bridges Section Stargard
- 32. Geodesy Section Szczecin
- 33. Automatic and Telecommunication Section Szczecin
- 34. Automatic and Telecommunication section Stargard
- 35. Electric-Energetic Feeding Section Szczecin
- 36. Electric-Energetic Feeding Section Bia3ogard
- 37. Electric-Energetic Feeding Section Krzyż,
- 38. Materials Maintenance Section Stargard
- 39. Social Section Szczecin
- 40. Flats Managing Section S<sup>3</sup>upsk
- 41. Flats Managing Section Szczecin
- 42. Railway Health Care Service District Szczecin
- 43. Railway Health Care Service District Stargard
- 44. Railway Health Care Service District Supsk
- 45. Railway Health Care Service District Gorzów
- 46. Hospital Szczecin
- 47. Sanitary Store Szczecin
- 48. Sanatorium Ko3obrzeg

# Annex 2 Presumptions for preparing the forecast of PKP's financial situation (without Railway Health Service) for the years 1995 -2015

## **Version 2.03 dated September 1995**

worked out in three scenarios, according to the three scenarios of the basic data for financial prognosis (see appendix)

- 1. optimistic scenario O
- 2. realistic scenario R

#### 3. pessimistic scenario · P.

- 1. The prognosis was prepared taking into account the situation in the year 1995 and the average prices level form that year (in thousands of new zlotys).
- 2. The base of the prognosis was:
- PKP's financial-material plan, with the presumption that it will be realised fully,
- prognosis in the range of freight and passengers transport and employment agreed on the 7<sup>th</sup>
  of August 1995 by KS and KHT, KHP, KOS.
- The effects of the new Law on accounting, introduced 29.09.1994, were taken into account.
   By the moment of finishing preparing the prognosis the value of the fixed assets was not reassessed, so for counting over the assets' value index 2 was taken.
- 4. The incomes from freight and passengers transport were counted using the average income in zlotys for one working unit, it means ton-km and passenger-km. The incomes from nontransport activity was estimated proportionally to the incomes from the passengers and freight traffic based on the year 1994.
- 5. The value of subsidy (objective and subjective) according the Country Budget for 1995 and this value was taken for the whole period of prognosis. The value of subsidy for investments and grants was taken from the prognosis prepared by KL.
- 6. The costs of wages and derivatives (defined in the prognosis as other operational costs) are proportional to the employment. As presumption, anticipated increase of wages in the second half of 1995 was taken.
- 7. Average depreciation rate was estimated as about 4,23% of tangible assets gross value. The depreciation of tangible assets bought from the investments' donations and grants and of the buildings (flats) was separated. According to the law, introduced 1. 01.1995, the depreciation value of tangible assets mentioned above can't be considered as a part of costs of getting incomes. (position in profit and loss account statement depreciation, which is not a cost of getting incomes).
- 8. Income tax and prizes from profits were counted according to the obliging regulations (40% and 8,5%).
- Reassessment of loans (in 1995) regards the difference in exchange rates from 31.12.1994
  and 30.06.1995 National Bank of Poland don't predict the exchange rates for the end of
  the year.

- 10. The costs of financial operations are interests, margins of profits, payments for "being ready" according to the schedule of paying back the loans.
- 11. Paying back long-term loans is conducted according to the schedule, mentioned above.
- 12.Increases/decreases in circulating capital result from the changes of year debts, stocks and payments.
- 13. Paying back the loans, which were lent to the plants of technical backup considers the loans from the World Bank and European Investment Bank.
- 14.All money for investments constitute possible-to-use means for investments, modernisation and improving tangible assets, (reconstruction, development, adaptation), which value is limited by the coefficient of cash generating: )= 1, required by European Bank for Reconstruction and Development.
- 15. Necessary external financial means are the difference between the money spent for investments and capital net.
- 16.External means of investments financing result from signed and being realised agreements, signed and predicted by KI agreements about loans from international financial organisations.
- 17. The value of donations and grants were taken according to the prognosis of KI.
- 18. The value of cash for the end of the year was taken from the year 1994, and also results from the taken coefficient of cash generating.
- 19.Debts were defined based on the value of incomes from the freight traffic and other incomes.
  One cycle of debt rotation was decreased from 80 days in 1995 to 51 days in 2015.
- 20.Stocks for the needs of prognosis were defined based on the petrol and energy costs and materials (without the division for permanent stocks (emergency, reserves, special) and current stocks).
- 21. The gross value of tangible assets in 1995 was reassessed and increased by investments finalised in 1994 and started and finished during the year 1995. In the next years the gross value of tangible assets is increased by the value of investments realized during the previous year and started and finished during the current year.
- 22. Amortisation of tangible assets is the cumulated value of previous years' amortisation. Reassessment of tangible assets value in 1995 was taken into account. Also there is presumption, that the percentage of tangible assets liquidation varies, depending on the amount of money spent on investments; but the minimum liquidation = 2% and maximum

- = 4,23%. (amortisation of liquidated tangible assets = 100%). The moral growing old of tangible assets was not taken into account,
- 23. Obligations (payments) are decreased, but slightly. From 70 days in 1995 to 60 days in 2015.
- 24.In the prognosis the short-term loans were not taken into account.
- 25. The own funds are all the funds from the last year increased by the value of donations for investments and grants in the current year. In 1995 the increase of the funds from reassessment of tangible assets was taken into account.
- 26. The profit (financial result) takes into account the value of amortisation, which doesn't constitute the costs of getting incomes.
- 27. The funds total are the sum of own funds and the profit (financial result). Warsaw, 4.09,1995