

Belarus Infrastructure Monitoring

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List of abbreviations

EBRD – European Bank for Reconstruction and Development

BR – Belarusian Railways

CPI – consumer prices index

GET – German Economic Team

PPI – producer prices index

IPM Research Center – Research Center of the Institute for Privatization and Management

Weights, measures and other units

BYR – Belarusian Ruble

bcm – billion cubic meters

bn – billion

cm³ – cubic centimetres

eop – end of period

kWt – kilowatt

kWth – kilowatt hours

m - million

tcm – thousand cubic meters

trn – trillion

USD – United States Dollar

yoy – year on year

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1. Infrastructure Monitoring: Objectives and Methodology

1.1. Background and objectives

Infrastructure modernisation and development is of crucial importance for sustainable economic growth in Belarus. However, the progress in this sector has been considerably limited. Due to the lack of internal and foreign investments in the infrastructure as well as a political will to privatize the main infrastructure enterprises the process of technical renewal in the infrastructure sector is restrained. The tradition of public ownership and operation of the infrastructure coupled with theoretical justifications for government intervention has placed this sector of the economy among the slowest to show reform. It is a sector overburdened with government mismanagement.

Restructuring of the sector along with an efficient supply of infrastructure services and the introduction of private incentives with the creation of an environment conducive to private investment should be goals of government policy. These are worthy pursuits as reforms in an infrastructure sector conducive to the general progress in market reforms in transition economies.

Belarusian Infrastructure Monitoring (BIM) was designed by the IPM Research Center, which is an independent research body, together with the German Economic Team in Belarus (GET). BIM is a tool used to survey the progress in key infrastructure industries and has as its goal the monitoring of annual changes in the infrastructure sector. Indicators developed within the BIM are intended both for monitoring the government's infrastructure policy and for research purposes.

The methodology used in BIM follows the concept of the Infrastructure Monitoring for Ukraine (IMU) of the Institute of Economic Research and Policy Consulting (IER) in Kiev, Ukraine.¹ This concept is based on the approach developed by the EBRD, which estimates infrastructure indices for all 26 transition countries. Since 1998, these indices have been published annually in the EBRD Transition Report. Both IMU and BIM follow the EBRD approach for reasons of compatibility. However, BIM disaggregates the indices, thereby extending the methodology of infrastructure monitoring. The need for this extension arises because disaggregation leads to a more differentiated view of country's infrastructure and, hence, more in depth analysis and richer policy conclusions. Existing indices do not attach values to factors of infrastructure reform such as poor implementation of legislation or to key performance indicators like payment arrears and mutual settlements.

1.2. Criteria of evaluation

The theoretical justification of the infrastructure evaluation criteria is presented in detail in the EBRD Transition Report 1996.² The main idea behind the BIM is to trace ownership, market structures, and regulatory changes for the purpose of future research and to relate them to changes in sector efficiency.

The BIM indices, patterned after the EBRD approach, focus on three broad areas of reform: commercialisation and privatisation, tariff reform, and regulatory and institutional development.³ The indicator of each of the monitored infrastructure sectors (railways, roads, gas and power) that describes the country's success in transition is calculated as the mean of three narrower aspects. These in turn are based on the means of the specific indicators which refer to the peculiarities of the infrastructure industry in question. In total there are 21 infrastructure indicators common to all infrastructure sectors.⁴ Their descriptions and scoring methods are presented in

¹ www.ier.kiev.ua.

² EBRD (1996) *Transition report 1996: Infrastructure and Savings*, p. 34–76.

³ EBRD (2000) *Transition report 2000: Energy in Transition*, p. 41.

⁴ In case of power and gas sectors only 20 indicators are used.

Appendix 1 and Appendix 2. The BIM indicators use the same scale as the EBRD indicators, i.e. from 1 (minimum) to 4 (maximum) including plus and minus scoring. For example, 1+ is equal to 1.3 and 2- is equal to 1.7.

In comparing the EBRD and IER approaches, it is important to mention that the BIM applies the same criteria to all sectors, while the EBRD uses different criteria for each sector.⁵ Additionally, the peculiarity of BIM is that it estimates the progress in the gas sector which is crucially important for Belarus. Finally, the EBRD monitors the changes in telecommunication and water supply sectors while BIM does not.

Commercialisation and privatisation are divided into the following three aspects:

- Ownership transformation of the natural monopoly, potentially competitive businesses and ancillary businesses;
- Operation (management) of the natural monopoly, potentially competitive businesses and ancillary businesses;
- Progress in organisational separation of potentially competitive and ancillary businesses from the infrastructure and the level of decentralisation.

Tariff reform is evaluated under such conditions as:

- Structure of tariffs including a tariff setting procedure, cost covering pricing of the natural monopoly and free market prices in potentially competitive businesses;
- Payment arrears between/within infrastructure and potentially competitive businesses, consumer payment collection, budget compensation for indebtedness;
- Level and procedure of budgetary payments.

Regulatory and institutional developments are evaluated using the criteria of:

- Design of effective regulatory institutions including management selection in potentially competitive businesses, independence of the natural monopoly regulator and the transparency of the regulation procedures;
- Network access regulation concerning the regulation method and level of access pricing.

The EBRD indices take into consideration developments over a full year. In this first issue, the BIM is reporting information for 2002 and 2003.

⁵ This is explained in EBRD (1996) *Transition report 1996: Infrastructure and Savings*, p. 50.

2. Summary

Infrastructure reforms are among the first reforms to be implemented after the basic market reforms — liberalization, macroeconomic stabilization, privatization and the creation of the institutional environment. The goal of infrastructure reform is the implementation of elements of competition in the branches of the so-called “natural monopoly”. As a result of the reforms, supply of infrastructure services should be offered by mainly efficient, privatised companies with tariffs close to hypothetical market level (i.e. long-run marginal costs) and subject to objective, transparent regulatory process. However, due to the lack of base market reforms, progress in the reforming the infrastructure in Belarus has been insignificant at best.

In 2003, slight positive changes in the infrastructure sector, mainly in power and gas sectors, could be seen. This was caused by the first steps towards privatization of Beltransgaz. An increase in the price for gas and Russia requiring that all debts for previous consumption be paid have led to a stiffer payment discipline and a reduction in the share of barter. In spite of the obvious progress of reforms in energy sector, the changes in transport sector regulation were inconsistent. Some reforms were positive and others were not. On the one hand, a shift in the policy towards reducing cross subsidizing between different kinds of rail transport was continued. Procedures of holding tenders have become more open. Additionally, some government measures have led to a decrease in the private sector share. As well there were no changes in ownership. The improvements of infrastructural policy in 2003 were rather minor and cannot be considered as serious reforms.

For the **railway** sector the index has not changed. It was 1.4 for 2002 as well as for 2003. The monopolist railway operator Belarusian Railways preserved its status. There were no changes in ownership, operation, budget financing or tariff setting procedure. The main positive changes in this sector in 2003 was the continued elimination of cross-subsidization and more disclosed tendering procedures, now posted on the web site. These changes were minor and have not led to a change in the overall index.

The **road** sector’s index was the only one which decreased from 1.9 to 1.8. In general, reforms in this sector previously have moved at a greater rate than in other infrastructure sectors. In 2003, this started to reverse. For example, operation of private passenger transportation companies became more difficult due to more strict permission requirements in many towns. This resulted in their market share to be reduced from 13% in 2002 to 10% in 2003. Also, duties for leased trucks used in international transportation were introduced, leading to reallocation of carrier companies to Russia. At the same time, the licensing procedure was simplified.

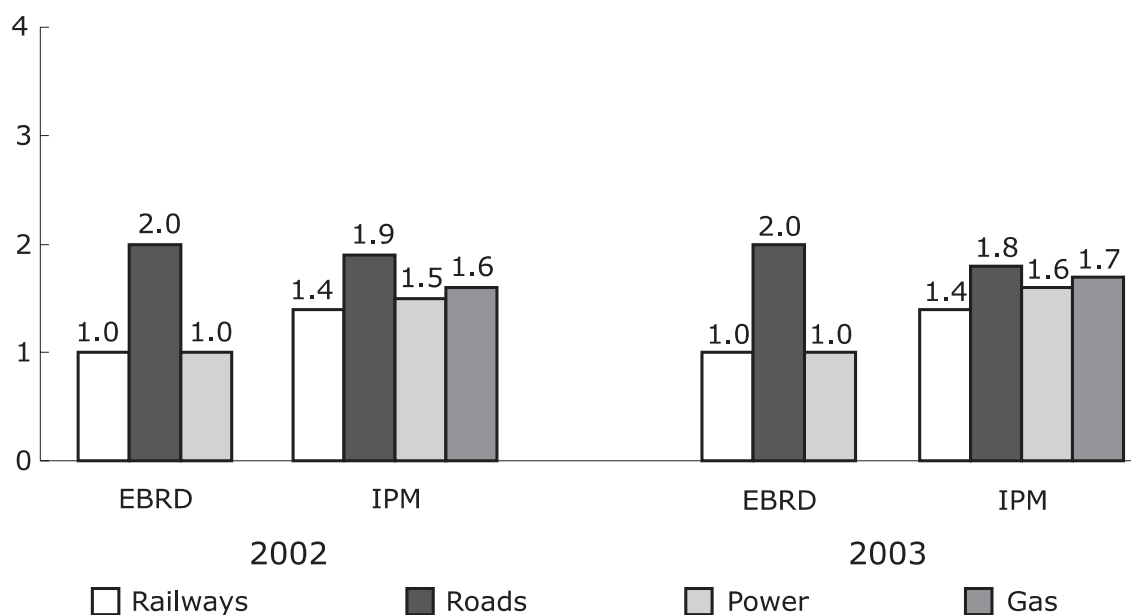
The **gas** index increased from 1.6 to 1.7. In 2003, the state enterprise Beltransgaz was corporatized. However, there were no changes in ownership (privatization) of this enterprise. Beltransgaz and the majority of enterprises belonging to the concern “Beltopgaz” are mainly state owned. Despite the necessity to make all purchases on a tender base, possibilities of the private sector in providing ancillary services are limited. In 2003, the majority of consumers paid 100% of relevant consumption. The government has achieved considerable success in stiffening the payment discipline and reducing the share of barter in energy payments. Nevertheless, the state has failed to significantly reduce the arrears of the previous years, mainly to Russia.

In 2003, reforms in the **power** sector were a slightly accelerated. This index has increased from 1.5 to 1.6. The government has achieved considerable success in the liquidation of cross-subsiding households by industry as well as stiffening the payment discipline and reducing the share of barter. However, the enterprises of the concern “Belenergo” are mainly state owned.

The majority of BIM indices (except roads) produced by the IPM turned out to be higher than the EBRD indices and are significantly higher for power and railways. This can be attributed to the difference in methodology of estimation and to the incorporation of key performance and legislation implementation indicators. Specifically, the high level of aggregation in the EBRD indices does not allow for a detailed enough perspective to capture the relatively low pace of reforms. As a result the indices remained apparently unchanged.

The following figure summarises the infrastructure reform indices for Belarus during 2002 and 2003.

Figure 1
Infrastructure reform indices for Belarus



Sources: EBRD (2002) Transition report 2002: Agriculture and Rural Transition, EBRD (2003) Transition report 2003: Integration and Regional Cooperation, IPM Research Center estimations.

3. Belarus Infrastructure Policies in 2000-2003

The effective functioning of the infrastructure sector has significant importance for the Belarusian economy. On one hand this is possibly related to the geographical location of Belarus and the possibility to guarantee safe and convenient transit through its territory. There is a natural trunk gas pipeline by which Russia exports gas to consumers in Western Europe. The Belarusian energy system imported electric power and provided transit for Russian electrical power. A developed network of roads and railways is important for transit as well as for internal purposes. On the other hand, a successfully working infrastructure potentially has a key significance for the long-term economic and social development of the country.

However, infrastructure maintenance and development requires considerable investments and efficient management. This plainly shows the necessity for reforms in the area of infrastructure. In spite of the adoption of the Law "On Natural Monopolies" in 2002, one can unequivocally state that the progress in market reform implementation in Belarus is even slower than the pace of its implementation in the neighbour countries – Ukraine and Russia.

The performance of the *transport sector* reflects the actual pace and directions of economic reform in Belarus. No attempts were undertaken to reform Belarusian Railways, a large state holding, that is the monopolist railway operator and provider of transportation services. On the contrary, auto transportation markets were quite open to competition. Many private companies developed, though state-owned ones have not been privatised (60 of them were corporatized but government kept the shares). In 2003, reforms had been reversed leading to the decrease of the index. Attempts to continue the old structure of transport sector management and operation, with restricted entry and protection from foreign and domestic competition, would perpetuate the constraints of growth within the transport sector. In turn, this would influence the output level and performance of the Belarusian economy in general. By contrast, a freer transport sector would nurture and encourage entrepreneurial activity in other sectors.

The Belarusian *fuel and energy sector* consists of the following: the Belarusian state energy concern "Belenergo", the Belarusian state concern for fuel and gasification "Beltopgaz", the Belarusian enterprise for transportation and gas delivery "Beltransgaz", and the Belarusian state concern for oil and chemistry "Belneftehim". Until 2002, corporatization, privatization and restructuring the biggest "natural monopolies" — Beltransgaz, enterprises of the concerns "Beltopgaz" and "Belenergo" — was not even topical. This can be explained by the slow pace of privatization and general restructuring in Belarus. However, the intergovernmental agreement "On Single Price Policy" between Russia and Belarus signed in April 2002, as part of the creation of a single union state obligated the Belarusian government to privatize Beltransgaz and to create a joint venture with Gazprom within one year.⁶ It is the conditions of the privatization of Beltransgaz that determined the further relationship between the two sides. This was a specific 'incentive' for some reforms in the gas and power sectors in general — stiffening payment discipline, reducing barter, liquidating the cross-subsidizing of households by industry.

Attempts by the government for a stiffer payment discipline have led to significant progress. For example, on January 1, 2004, external debts for gas and power amounted to USD 199.2 m (USD 170.1 m — for gas and 29.1 m — for power). This, compared to January 1, 2003, when the energy debts decreased by 12% (USD 226.1 m: 172.1 m for gas and 54.0 m for power). The total gas and power debts constitut-

⁶ It should be noted that the first mention of the necessity of privatization Beltransgaz and creation joint venture with Russian Gazprom was in Agreement on creation of the single state between Russia and Belarus signed in 1999.

ed of 34% for all debts of suppliers for goods and services in the Belarusian economy. Compared to January 1, 2003 all energy debts decreased by 4.4% while consumer prices increased by 25.4% for this period (which means reducing of real debts by 30.9%). In 2003, 88.7% of all gas and power debt were debts of the final consumers.

Despite a profitability of 12%, the functioning of the majority of enterprises in the energy sector was influenced by a lack of independent regulatory bodies as well as market mechanisms as a motivation for reducing costs. The conclusion being that, the government, in 2004, should initiate comprehensive reforms within power and gas sector. The government should also determine natural monopoly enterprises and potentially competitive businesses and divide them by procedures of corporatization, privatization and restructuring. Additionally, it should separate the regulatory function from the operational function and create truly independent bodies. Steps should also be taken to raise transparency in tariff politics and financial flows, as well as work out special legislation and national strategies to reform this sector.

3.1. Railways

3.1.1. Situation before 2003

At the beginning of 2003, the basic railway network was 100% owned by the state. The major part of rails that link enterprises and the basic network are owned by enterprises.

The railway infrastructure, freight and passenger transportation are integrated into one monopolist state-owned enterprise — Belarusian Railways. BR also incorporates ancillary services and social infrastructure. The enterprise actively participates in non-core activities. BR owns several agricultural enterprises, production plants, hospitals etc. The share of non-core activities measured as the share of staff employed in non-core businesses in the total number employed at BR was approximately 25% in 2002. Altogether, Belarusian Railways consists of 99 legal entities that employ more than 100,000 people.

Belarusian Railways are operated in a similar manner to a government department. The CEO is appointed directly by the president, although Belarusian law prohibits straight political interference in the decision-making process. The BR consists of 6 regional companies.

According to the national legislation, tariffs on transportation should cover the full cost for the services. In practice, transportation services within the country, both freight and passenger are not profitable. This forces BR to cross-subsidize them at the expense of profitable transit transportation. In the first half of 2003, revenues from internal transportation were 65% of the cost of the service (for internal passenger transportation — 30%). Suburban transportation exhibited the most substantial losses. At the same time, the profits of the BR earned from transit transportation accounted for 90%. As a result of these proceeds, subsidization of loss-making internal transportation is financed and overall profits are still realized (Table 1).

Table 1

Profitability of railway transportation services, 1999 – 2003

Year	1999	2000	2001	2002	2003
Profitability, %	19.4	20.5	11.4	16.9	9.5

Note: Profitability is defined as ratio of profits to total costs.

Source: Ministry of Statistics and Analysis.

A distorted structure of tariffs exists due to the fact that the tariff-setting procedure is highly politically determined. Tariffs for transportation services, and freight and passenger services, are set by the Ministry of Economy. Tariffs, especially on suburban

trains, are considered to be socially important. These tariffs have been considerably lower (not cost-covering) in comparison to tariffs on international and transit transportation, whose rates are set according to international agreements.

According to national legislation, 59 different categories of the population were subject to preferential tariffs. The government is supposed to compensate losses from serving privileged users. The sum of supposed compensations in 2002 amounted to BYR 26 bn, but only BYR 55 m were paid off in fact (USD 15 m and 31,000 correspondingly).

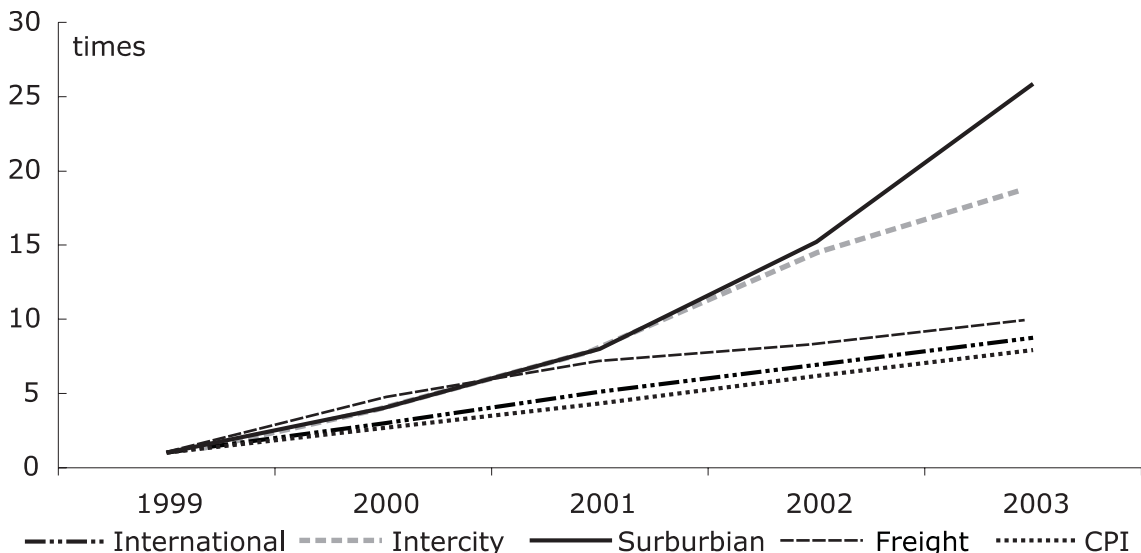
3.1.2. Progress in 2003

Cross-subsidization of internal transportation services at the expense of transit transportation remained one of the main issues for Belarusian Railways. The share of internal transportation services in the total amount of services provided by BR was 30%. Internal transportation brought BYR 140 bn in losses to this enterprise in the first half of 2003. To cover losses, Belarusian Railways had to add 45 cents to each dollar of revenue. In case of internal passenger transportation, the amount of subsidy equaled 70 cents to each dollar.

The tariff setting policy in 2003 continued to shift towards elimination of cross-subsidization between internal and transit transportation. Moreover, tariffs on passenger transportation in 2003 grew faster than on freight transportation leading to a decreasing scale of cross-subsidization between these two kinds of transport.⁷

In 2003, tariffs on all forms of rail transportation increased by 19.6%.⁸ This coincided with tariffs on international passenger transportation which increased by 26.3%, on intercity transportation — by 31.4% and on suburban transportation (which is the most heavily subsidized) — by 70% (Figure 2).

Figure 2
Growth rates of tariffs on railway international, intercity, suburban, freight transportation and CPI



Note: Indices, eop cumulative. December 1999=1.
Source: Ministry of Statistics and Analysis.

⁷ Both internal freight and internal passenger transportation operate at a loss. The rate of return, however, for freight transportation is not as low as in the case of passenger transportation. This means producers pay relatively more for transportation services than individuals. Increasing tariffs on passenger transportation reduces the burden on other types of railway transportation.

⁸ Or less than the CPI (25.4% yoy in 2003).

No progress was detected in the sphere of budget financing of Belarusian Railways. The amount of the subsidy received equalled BYR 95 m, which is comparable to 2002 figure of BYR 55 m and is many times less than losses from provision privileged consumers with the service.

In 2003, BR began announcing tenders at its recently launched website allowing potential contractors to have better access to information about new tenders. Generally, the delivery of machinery and materials is auctioned by tenders, and quite rarely are they applied to construction contracts and the like.

3.1.3. Reform agenda

It is vital for the development of the national railway network that all categories of consumers pay the full cost for the service. The complete elimination of cross-subsidization between freight and passenger transportation and between internal and transit transportation must be realized. This would be possible if the number of privileged consumers decreases and income compensations replace price compensations.

For a better functioning railway transportation system it is necessary to split the railway network operation and provision of transportation services. The separation and privatization of non-core businesses will be the main challenge for Belarusian Railways to institute. The enterprise should be freed from a social support burden and have profit-making as its primary goal.

Initially, BR should rid itself of social infrastructure holdings such as housing stocks, hospitals, and kindergartens. Additionally, production plants, farms and service companies should be separated from the company as well.

The second step should be the state forming a clear regulatory framework by separating regulation from economic activities of the railways. Tariff setting policy should not be influenced in any way by the BR and become fully transparent.

Finally, the economic activities in this sector should be divided into separate companies. At the beginning these companies should form a holding. Then, when everything is organized and corporatized, privatization would be possible.

3.2. Roads

3.2.1. Situation before 2003

Roads are 100% in state ownership. Belavtodor, the Department of the Ministry of Transport and Communication, is the natural monopoly operator. Roads are managed by 6 regional companies that are subordinate directly to Belavtodor. In addition, arterial highways are managed by a separate company, Magistralavtodor. All these companies are formally separated from both potentially competitive businesses and ancillary service providers. Road construction, maintenance and repair can be done by any firm: state-owned, private and even foreign. In order to be awarded a contract from Belavtodor a firm has to win a tender. These bids are widely announced and have clear criteria for giving a contract.

Most ancillary businesses are state-owned. Seven (19% of the total number) of them have been corporatized, but there are almost no private shares in company stocks.

Belavtodor is financed from a special Road Fund (central and local ones), which is included in the state budget.

Road Fund consists of the following contributions:

- Tax on road use (paid by legal entities),
- Tax on the sale of motor fuel,
- Tax on the purchase of vehicles,

- Fees for road use collected directly from truck companies,
- Fees for using toll roads. Currently the only one toll road in Belarus is M1/E30 (Brest – Minsk – Russian Federation border).

Road users did not bear the full cost of the service. Belavtodor management argues that financing covers 40–45% of amount needed to maintain roads in satisfactory condition. For instance, officials state that non-residents completed 380,000 'free rides' through Belarus in 2002. If non-residents had to pay for transit, it could bring additional USD 53 m into the Road Fund. Annual expenditures of the Road Fund amounted to USD 260 m in 2000 and 2001 and USD 326 m in 2002.

The M1/E30 road became a toll road after renovation which took place in 1994–1998. The length of the road is 610 km and toll rates differ from USD 6 to 50, depending on the type of vehicle. The road was free for Belarusian firms and individuals but the tolls for heavy truck of Belarusian firms were introduced in 2002. Renovation of the road was partly financed by EBRD USD 50 m credit and currently 75% of revenues are directed to loan repayment. The annual revenue of the road varied from USD 14 m to 16 m in 1997 – 2002. In some years revenues were not sufficient to cover maintenance costs (even if debt were not repaid).⁹

Transportation services are provided by competing state-owned and private enterprises. Until 2003, licenses on freight and passenger transportation (excluding local) were issued by Ministry of Transport. Licenses for urban passenger transportation were issued by local authorities.

Private carrier companies appeared on the market in early 90s and became very successful even including a breakthrough into Western European markets. At the same time, state-owned truck companies were not privatized and showed losses. In fact, 60 companies were corporatized, but government retained the shares in the companies. State-owned companies are free to set tariffs. In reality, the procedure is influenced by the Ministry of Economy.

Private firms began entering the urban passenger transportation market in mass by 1999–2000. Private firms and individual entrepreneurs developed quickly due to the absence of administrative impediments, especially in the towns where public companies failed to satisfy population demand. In 2002, private firms provided services for 20% of the total number of routes. Private firms and individual entrepreneurs possessed as many buses (approximately 8000) as the state-owned companies. Private owners primarily operate minibuses with the number of seats ranging from 7 to 20. They use them more actively than public companies use their large regular buses. In this regard, the official figure on the private sector share in the total amount of passenger transportation services (measured as number of passenger carried) that equals only 13% seems to be underestimated.

State owned transportation companies perform as independent legal entities. These companies are obliged to provide free service or charge lower prices to privileged customers. The law on the state budget ensures subsidization 25% of revenues of local transportation companies (50% in case of Minsk). In practice, however, the "cost plus" approach is used to calculate amount of subsidy for a given enterprise. This subsidy only covers production costs and generally is too small to allow for the enterprise' development. In 2001, revenues of urban public transport covered only 54.3% of the total costs, for suburban public transport — 53.8% (on average, both excluding Minsk). In 2002, the ratio increased to 75.7% for urban public transport and to 61.4% for suburban transport. The number of privileged consumers is extremely large. For example, in the city of Minsk whose population is 1.7 m people, approximately 800,000 people are privileged passengers of which 200,000 are transported free of charge.

⁹ Costs of the reconstruction were not included in these calculations.

3.2.2. Progress in 2003

During 2003, revenues of the Road Fund continued to be significantly lower than the needed financing estimated by Belavtodor. The ratio of the amount of actual funding to the one required was 46% in 2003 (40% in 2001, 38% in 2002).

The single Belarusian toll-road was not profitable in 2003 as well. According to Belavtodor, revenue for the road in 2003 amounted to USD 21 m while USD 35 m was spent on the maintenance. In previous years, the amount of tolls collected covered maintenance costs, though they were twice lower — USD 17 m. Increase in costs occur due to the improving quality of the road. Additionally, maintenance costs are planned to be USD 35 m in 2004. The question whether Belarusian users should pay for the toll-road usage was widely discussed during 2003. Currently only heavy trucks of Belarusian companies should pay tolls. Light trucks, buses and private cars are exempt though there is certain intention of the government to introduce fees for transit of all Belarusian vehicles.

The market of freight transportation came under pressure by the Resolutions of the Council of Ministers №406 and №677 regarding import of heavy trucks. Nearly 40% of trucks used by Belarusian transportation companies are leased. Previous laws allowed for no duties on imported trucks and semi-trailers if they are used for international transportation.¹⁰ Since May 2003, companies have to pay VAT and duties, which are prohibitively high, especially for used vehicles. The duty rates are 5–10% for trucks not older than 3 years, but 50% if the vehicle is older. Moreover, the sum of the duty cannot be lower than EUR 3 per cm³ of the engine. The average volume of the engine is 12,000 cm³ so the average duty is EUR 36,000, which is higher than the price of a used truck. Almost no heavy trucks were imported into the country after this regulation came into effect regardless of the fact that the duty can be paid in partial payments of 3% a month. The same resolution made it impossible for the operation of trucks registered in other countries. This forced many companies to move to Russia where the regulation framework was more favorable for transportation companies that use used imported trucks.

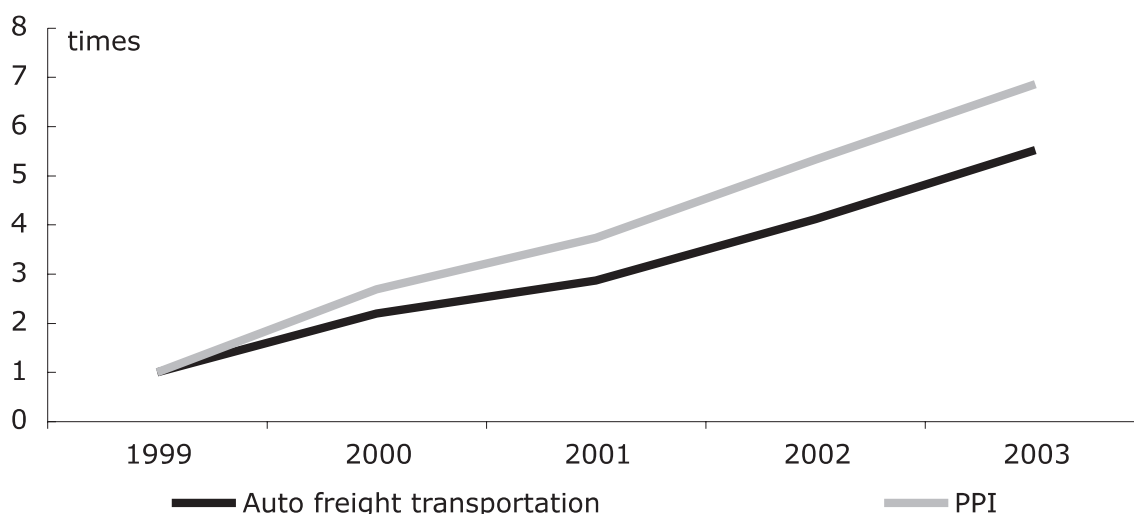
At the same time, the licensing procedure for transportation companies and individual entrepreneurs became less complicated. Now a transportation company can receive only one license from the Ministry of Transport instead of getting numerous licenses for each kind of transportation (internal freight, foreign freight, urban passenger etc.) Local authorities previously issued licenses for local transportation services.

The dynamics of tariffs on auto freight transportation proves that the market has become quite competitive in recent years. Unlike the case of railway freight transportation, tariffs which grew considerably faster than producer prices, growth rate of tariffs on auto freight transportation were below PPI (Figure 3). Moreover, the volume of auto freight transportation services export has been growing rapidly and in 2003 even surpassed the volume of railway services export. The resolutions previously mentioned will lead to a reduction in competition between roads and railways in favor of the latter.

The institutional framework for private passenger transportation companies was still very obscure. On one hand, the licenses began to be issued by Ministry of Transport instead of local authorities. On the other hand private transportation companies still have to acquire a permission to work on a specific route from the local authorities. The procedure of sharing routes, either it tender or something else, is not well regulated by national law. This leads to ad-hoc decisions by local authorities. In towns where local authorities made the procedure of getting the permission to work on a route complicated and expensive, local passenger transportation markets are not

¹⁰ Applies only to leased vehicles.

Figure 3
Dynamics of the tariffs on auto freight transportation and PPI



Note: Indices, eop cumulative. December 1999 = 1.

Source: Ministry of Statistics and Analysis.

competitive. In such towns private companies are underdeveloped and the service is more expensive than in towns where authorities were more market-oriented. In 2003, the most widely referred cases of inadequate regulatory procedures happened in Gomel and Mozyr. Grodno is another example where in this city private transportation firms were asked by local officials to make contributions to the local budget in order to get permissions for working on specific routes. Some contributions amounted to as much as 10,000 USD.

3.2.3. Reform agenda

To ensure sustainable development of the national road network it is necessary to contribute more money into road funds. To do so transit freight traffic should be increased through the creation of favorable conditions of transit via Belarus. Then all categories of users, including residents, would pay tolls at the M1/E30 road.

The competitiveness of the national transportation market will depend on the ability of the government to create a favorable regulatory framework. To stop the emigration of national freight transportation companies it is necessary to make duties on imported trucks lower than in Russia. An ideal way would be to rescind duties on imported vehicles.¹¹ At the same time it is equally important to start the restructuring and privatization of state-owned truck companies.

To better develop urban passenger transportation markets the government has to clearly define the role of local authorities in regulating these markets. Currently, local authorities have too many tools that can be used to restrict competition on the market. This may result in corruption and underdevelopment of the service. Therefore national legislation should defend local transportation companies from local authorities' intervention. Local authorities should not limit the number of buses on a route and let private service providers compete. It must be ensured that transportation companies pay their 'fair share' to local road funds at the same time. State-owned and private companies should be treated equally, including the same requirements for the technical characteristics of vehicles.

Since all public transportation companies are operated at a loss, the government needs a strategy of their restructuring. The first step might be getting rid of the

¹¹ Applies only to leased vehicles.

freight transporting vehicles and redundant assets, since the major part in the overall volume of the service is provided by private farms. Then the subsidization policy must be shifted towards compensating the income of privileged consumers instead of giving price compensations.

3.3. Gas

3.3.1. Situation before 2003

The gas sector in Belarus was dominated by state owned concern, managed and controlled by the Ministry of Energy of Belarus, "Beltopgaz", and the Belarusian enterprise for transportation and gas delivery "Beltransgaz". While Beltransgaz is responsible for gas transportation to Belarus and for managing gas transit, Beltopgaz deals with gas distribution and retail sales inside Belarus to the final consumers.¹²

The gas sector in Belarus is organized as follows: At the first stage Russian company Gazprom or other Russian suppliers sell gas to Beltransgaz. Beltransgaz then resells it to Beltopgaz. Finally, regional distribution companies of Beltopgaz sell gas to final consumers (enterprises and households). Therefore, the result is the existence of a division between the transportation and the distribution of gas. However, Beltopgaz and its regional branches (so-called Oblgaz) still unite gas distribution and sales to the final consumer. The tariff on distribution services is not explicitly set and is concealed in the final gas price. The same applies to the transportation tariff which is concealed in the price Beltransgaz sells gas to Beltopgaz. Therefore, competition in the potentially competitive segment of transportation and distribution market is limited as there is no clear rule for third party access to transportation and distribution networks and access is negotiated on case-by-case basis.

Price formation on all stages relies on the "cost plus" approach. Beltransgaz adds 20–25% to the initial import price of gas. Costs, profit and taxes of Beltopgaz then add another 20–25%. The Ministry of Economy must approve initial prices (declarations) in the form of a special document. The final price could be less than demanded. Gas prices vary not only based on the category of consumers (population, industry etc.) but also inside categories of final consumers due to granted privileges and exceptions (for example, different industrial enterprises charge different prices).

In spite of the fact that in most cases revenues cover total costs, some groups of consumers are cross-subsidized. For instance, calor (condensed) gas for the population is subsidized. Agricultural and some industrial enterprises also buy gas at a lower price based on the principle of political expediency of such state support. Losses from gas sales at preferential rates are covered primarily by industry.

Prices and tariffs for domestic consumers were set by the Ministry of Economy and not by Ministry of Energy. Thus the procedure of price setting is separated from economic activity. However, the price includes transportation and distribution costs which are not explicitly set. The Ministry of Economy plays the part of a regulator by setting prices using a "cost plus" approach. However, in the absence of a truly independent regulator in this sector, it is unlikely that companies have enough incentives to lower costs under the existing regulatory framework.

Gas is a critical input for the Belarusian economy. The household share in gas consumption is only 8% whereas 87% is used by the energy system: 58% is used for power and heat generation and industry uses 29%. In attempts to decrease the cost of national producers by using cheap Russian gas, the share of gas in the energy balance of Belarus has been increased from 43% in 1990 to 79% in 2003. 95–97% of Belenergo the power generators run on gas, making it a critically important compo-

¹² The length of the trunk pipelines are 5,899.8 km. The overall length of all gas pipelines belonging to "Beltransgaz" is 18,933 km. The gas distribution system consists of over 190 gas distribution stations and gas distribution houses. In 2002, Belarus consumed 17.4 bcm, and in 2003 – 18.1 bcm.

ment of domestic power production. Gas is also a critical component for the industrial sector in Belarus. The biggest industrial gas consumers are chemical and oil enterprises — GrodnoAzot, Himvolokno, Naftan. These plants are among the biggest taxpayers and exporters in Belarus. A shortage of gas would mean shutting down the closed production circle and bearing significant losses to recover the production for most of them. Additionally, the economic consequences for the lack of gas is a threat to the political stability of the country — 90 cities out of 104, and 57 towns out of 110 are heated using gas.

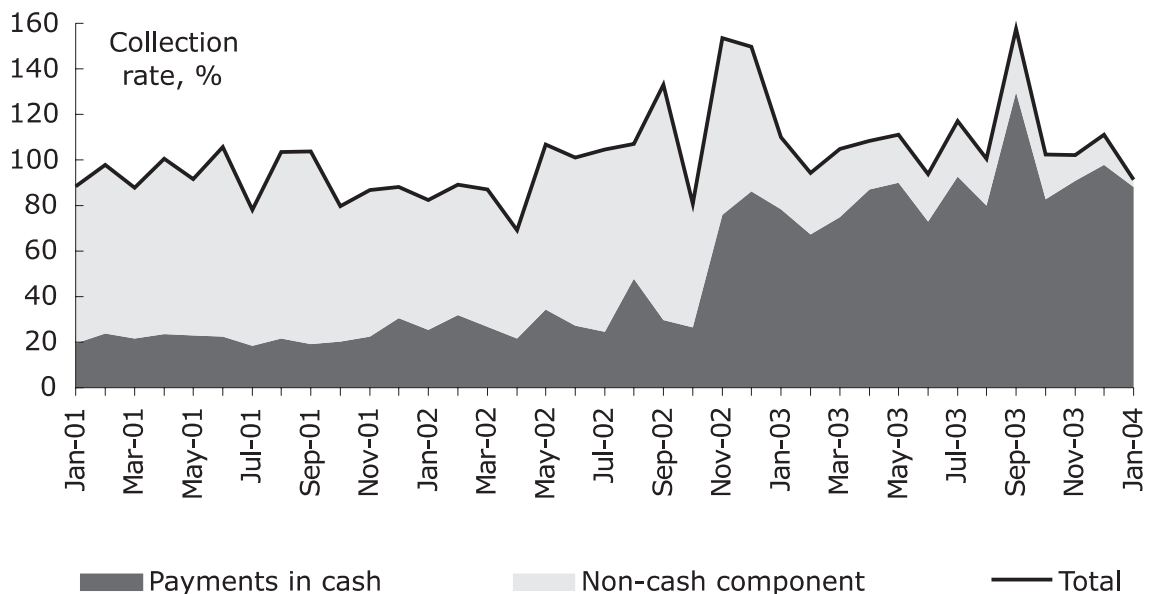
Gas consumption in Belarus is increasingly exposed to the price risk as Belarus exclusively relies on Russian gas. Until 2002, Belarus bought gas from Russia at commercial prices, which were the equivalent to USD 40-50 per tcm.¹³ In April 2002, Belarus and Russia signed the intergovernmental agreement "On Single Price Policy", which led to decrease of gas prices for Belarus. The price for Russian gas at the Russian-Belarusian border was set at USD 22 per tcm, which was the price of the fifth gas price zone of the Russian Federation. At the same time Russia lowered gas prices only by a volume of 10 bcm per year, which was to be delivered by Gazprom. This price reduction did not cover the remaining gas delivered by other companies.

In November 2002, Belarus faced its first decrease in the delivery of the cheaper gas. Gazprom reduced gas delivery to Belarus by 30% due to the fact that Belarus consumed 30% more gas than agreed on at the cheaper price. The result at the end of 2002 was that Belarus bought gas at USD 38 per tcm (instead of USD 22 per tcm) from Russian company "Itera". The gas price increase was an incentive for the government to improve the payment discipline throughout the sector (Figure 4).

As a result, gas prices for all categories of consumers were raised considerably. The government demanded more cash payments without delays.

Figure 4

Collection rate for gas as % of the total value of gas supplied and share of cash payment



Source: Ministry of Energy.

¹³ The effective price was somewhat lower due to multiple exchange rates at that time – the official rate was 2-3 times lower than the market rate; more than 80% of payments were done with barter goods and services.

3.3.2. Reforms in 2003

Russia's position in terms of cheap gas delivery, servicing debts and setting up the joint venture as a result of the privatization of Beltransgaz became an incentive for reforms in the gas sector. In 2003, out of 18.5 bcm of the gas consumed by Belarus, Russia sold only 10.2 bcm at the price of its fifth gas price zone (USD 29). The remaining volume of gas was sold by other commercial suppliers at the price of USD 40 per tcm and higher.

On May 2, 2003, the Presidium of the Council of Ministers approved conditions for the establishment of a joint venture based on Beltransgaz. The Belarusian side estimated the market value of Beltransgaz to be BYR 7 trn (USD 3.5 bn), which was five times more than the cost of the rented capital of the company. The Belarusian side also demanded keeping the control stock of the proposed joint venture and in conjunction with several additional conditions (for example investment into gas pipelines and network in the amount of USD 1 bn). Regardless of the fact that a final agreement on creation of a joint venture was not reached, in June 2003, the state enterprise "Beltransgaz" was corporatized.

On September 6, 2003, the Chairman of Gazprom stated that due to the high price of the joint stock company and the additional conditions, Russia was no longer interested in setting up a joint venture company and selling gas to Belarus at preferential prices. The Federal Energy Commission of Russia, relying on the decision of the Russian government,¹⁴ freed Gazprom from the obligation to deliver gas to Belarus at the fifth gas price zone starting from January 1, 2004. The Belarusian government, however, insisted that Belarus had fulfilled all its obligations in regards to the intergovernmental agreement from April 12, 2002, on broadening cooperation in the gas sector. The main parameters of further negotiations included: market price of Beltransgaz, volume of Russian gas transit through Belarus, ownership rights for the control stock of the joint venture that was supposed to be created and also contribution to the authorized capital of the joint venture of the Belarusian part of the gas pipeline "Yamal – Europe".

In October – December 2003, intense negotiations between Gazprom and Beltransgaz continued, but the parties failed to reach any agreement by the end of the year. The parties had failed to set up a joint venture based on Beltransgaz and for the first time in five years the countries did not sign the single energy balance. Neither the prices, nor the volumes of gas delivery had been agreed upon. In the beginning of 2004, Belarus bought gas from so-called commercial suppliers: TransNafta and Itera.

All of the above mentioned events urged the government to increase the level of gas payments inside the country. This was manifested mainly in the requirement to make 100% payment for current gas consumption as well as in cash rather than through barter schemes. Since February 1, 2003, new norms of using barter in payments for energy resources were set. Almost all gas and electricity consumers must pay 95% of the energy resources consumed in cash. For the first time the government decided to cut off gas supply for the non-payers. Several directors of state enterprises were laid off for failing to meet this new requirement. However, taking into account difficult financial status of many enterprises in various sectors and of different forms of property many exemptions from this requirement were made. As a result, the share of non-cash forms of payment in the structure of the revenue in 2003 shrank from 53% to 25.9% (Table 2).

The necessity to pay for 100% of current gas supply made enterprises and Beltransgaz take loans. At the same time the turnover of commercial bills has substantially increased. The overall turnover of Beltransgaz bills in the secondary market amount-

¹⁴ The Clause 2 of the Order of the government of the Russian Federation №927p as of 09.07.2002 was declared void.

Table 2
Structure of payment for gas supplies

	2001	2002	2003
Total value of gas supplied, USD m	505.3	426.7	619.7
Payment rate, % of the total value of gas supplied (including previous debts)	86.7	119.4	102.2
Payments in cash, %	19.9	47.0	74.1
Including			
• Construction services	7.2	3.0	1.6
• Transportation services	9.4	9.5	14.1
• Cash payment	3.3	34.5	56.1
• Commercial bills	—	—	2,4
Non-cash component, %	80.1	53.0	25.9
Including			
• Payment in kind	50.0	37.1	2.4
• Payment by debt transfer and clearance scheme	30.1	15.9	23.5

Note: Construction services are rendered to Russia in construction of Yamal – Europe gas pipeline; Transportation services are services of Russian gas transit; commercial bills are accounted for as “cash payments». All three components represent quasi-monetary transactions or mutual settlements but are out of the boundaries of barter schemes.

Source: Ministry of Energy.

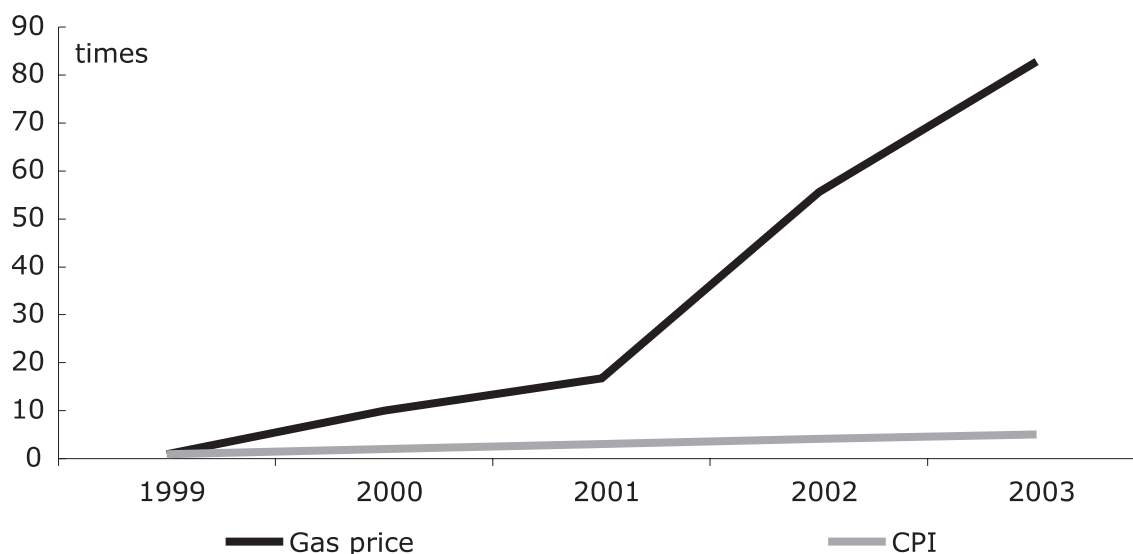
ed to USD 126.5 m and the number of issued bills increased by 83.7%. Trying to strengthen its positions in the coming negotiations with Gazprom, Beltransgaz and the government did its best to reduce its debts to Gazprom, but with minor success. The debts for Russian gas amounted to USD 172.1 m and at the end of 2003 were at the level of USD 170 m. Current consumption was covered, however, debt from previous years was hardly contracting during the 2003. And according to the data of the Ministry of Statistics and Analysis the debts of domestic consumers for gas in 2003 which dropped from USD 774.6 to 594.4 m. In 2003, 39.1% of all energy resource debts were gas debts.

Taking into account that the cheap Russian gas amounted to just the half of all gas consumed by Belarus, the government raised gas prices for domestic consumers several times, including households. In general, in 2000 – 2003, gas prices for households were growing much faster than consumers’ prices. The government began the process of reducing cross-subsidization of the households by industry in 2000 when gas prices for consumers began to soar. The increase was particularly considerable in 2000 and 2002 (in 2001 — the year of presidential election the increase was much less. For example, in 2000 prices were increased in 10.9 times, whereas in 2001 — only in 1.7 times). In general, gas prices for households were raised 83 times between 2000 and 2003. Consumer prices for the same period increased ‘only’ 5 times. For the price trend and gap in it’s increasing during four previous years (Figure 5).

Eventually, in 2002–2003, gas prices of households were no longer cross-subsidized by industries. Rather, in December 2003, the gas price for the population covered up to 150% of its cost (around USD 50–55 per tcm).

Figure 5

Dynamics of gas price for the households and consumer prices (CPI)



Note: Indices eop cumutative, December 1999 = 1.

Source: Authors' calculations based on data of Ministry of Statistics and Analysis.

3.3.3. Reform agenda

It must be acknowledged that considerable progress has been made in covering the cost of the gas supply. However, this is certainly insufficient for the guaranteeing of the sustainable functioning in the gas sector. Rather, important tasks such as the need for new investments and further price adjustments in the future, call for an implementation of a more flexible organization for the gas sector in order to reduce adjustment costs in the future. For this goal to be attained, the first crucial step is the improvement of tariff setting by a separation between transportation and distribution of gas within the system of Beltopgaz.

Once the separation of tariff setting is realized, the potential for an abuse of market power should be reduced in order to prevent high gas prices for consumers. Therefore, the second step should be the introduction of an independent regulator for gas tariffs. This introduces a primary check and balance system for the price level of which the gas companies say they are 'cost covering'.

However, to also stimulate incentives for efficiency improvements, the regulator should switch from current "cost plus" regulation to a "price cap" regulation. This third step means that rather than setting normative levels for costs and profits, the regulator should simply give a maximum price level while distributor and transporting companies have an incentive to reduce their costs in order to raise profits.

Finally, Beltopgaz should be separated into a distribution and trading company in order to generate the necessary conditions for the introduction of more competition in the gas sector, e.g. by allowing potential competitors access to gas pipelines in Belarus.

3.4. Power sector

3.4.1. Situation before 2003

The Belarusian power system consists of six independent regional companies (one for each region (oblast) — oblenergos). The system has high voltage connections among the companies and is connected with the power systems of neighbouring countries – Poland, Lithuania, Russia, and Ukraine. Belenergo is the central holding which administrates the system of six oblenergos. In turn, the concern reports to the Ministry of

Energy.¹⁵ The Belarusian power system is fully vertically integrated. There is no separation of different stages of power production, transportation and distribution.

Belenergo uses gas (95%) and oil slurry as its sources of primary energy. In 2001–2003 approximately 70% of Belarus' demand for electric energy was met by domestic producers.¹⁶ Imported power, primarily from Lithuania and Russia, supplied the remaining 30% of the internal demand.¹⁷

The natural monopoly of Belenergo for the production and distribution of power is integrated into the whole energy sector of the country. This is why the government has the right and opportunity to regulate tariffs. Price formation is done according to the "cost plus" principle. Electric energy is sold to all consumers of the country at single regulated tariff. At the same time tariffs are different for 11 different groups of consumers (for four groups of industry, for households, for budget organizations, etc.).

Regional power-distributing companies (oblenergots) calculate tariffs for industrial consumers (declarations), which are reported to Ministry of Economy. After the introduction of a new declaration on the level of electric energy tariffs (referring to electric energy sold by Belenergo enterprises) the previous tariff is nullified. Consumers pay for electricity at levels that are indexed by the exchange rate change of the BYR to USD on the day of payment.

Before November 2003, tariffs for the population were set by Ministry of Economy. Starting from the third quarter of 1999, tariff indexation is done on quarterly basis. During 2001–2002, tariffs for the population were increased considerably. According to the Ministry of Energy data, tariffs for all groups of consumers have covered the costs of production during the past five years and households only since 2002. Nevertheless consumption of thermal energy by households is still subsidized (Table 3).

Table 3

Electric energy production cost and prices for different groups of consumers, USD cents per 1 kWth

Power tariffs for	On 1.01.2000	On 1.01.2001	On 1.01.2002	On 1.01.2003	On 1.01.2004
Production cost	2.60	2.53	2.02	2.32	3.21
Budgetary organization	3.50	3.39	3.39	3.00	4.02
Industry	4.30	4.15	4.15	4.41	5.90
Households	1.20	1.26	1.19	2.39	3.32
Utility sector	3.58	3.53	3.39	2.44	2.66
Other	4.30	3.39	4.15	4.41	5.90

Source: Ministry of Energy.

3.4.2. Reforms in 2003

In 2003, electric energy tariffs for the population increased 1.5 times (Figure 6).¹⁸

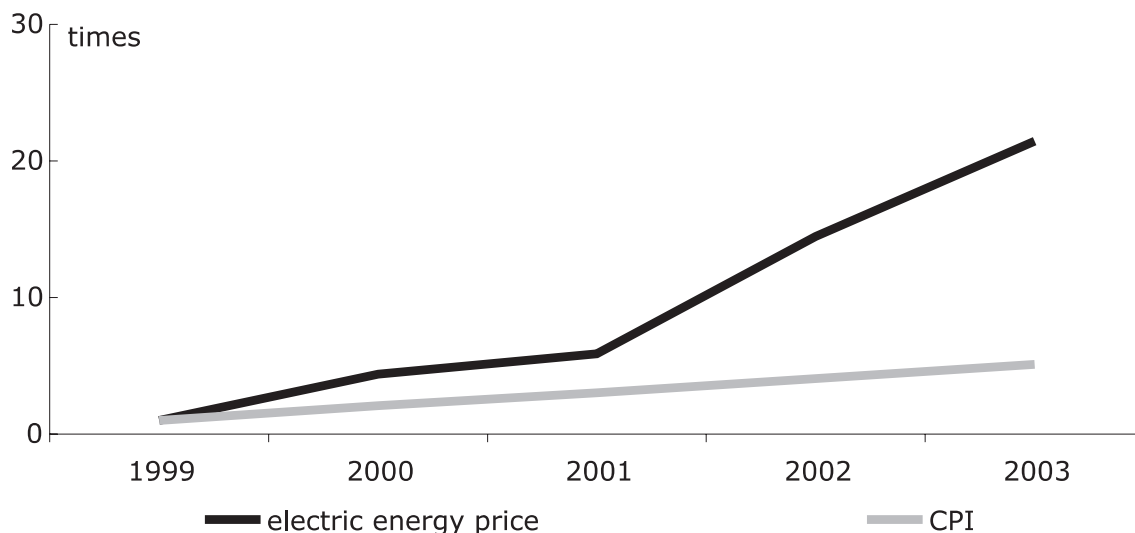
¹⁵ The Belarusian power sector includes 28 thermal electric energy power stations with capacity of 7810 thousand kWt in addition to nine industrial thermal electric power stations are connected with the system. Their capacity is 88 thousand kWt. There are 9 small hydro electric power stations with overall generating capacity of 6.8 thousand kWt. The length of electric lines is 22,000 km, including thermal electric power stations lines – more than 4,800 km. 2,000 km are main thermal lines.

¹⁶ Since 2004 Belarus does not import electricity.

¹⁷ In 2002, Belarus consumed 33 bn kWt of electric energy and 26.5 bn kWt of them was produced in Belarus. In 2003, Belarus produced 26.6 bn kWth and 7.6 bn kWth was imported (3.5 bn kWth from Russia and 4.1 bn kWth – from Lithuania).

¹⁸ According to Presidential decree No 487 signed on 5.11.2003 the functions of the Ministry of Economy on utilities tariffs regulations (including gas and electric power) replaced to the Council of Ministries. In addition, the norm of 1996 on 50% households subsidizing has been canceled.

Figure 6
Price change for electric energy for households and change of consumer prices (CPI)



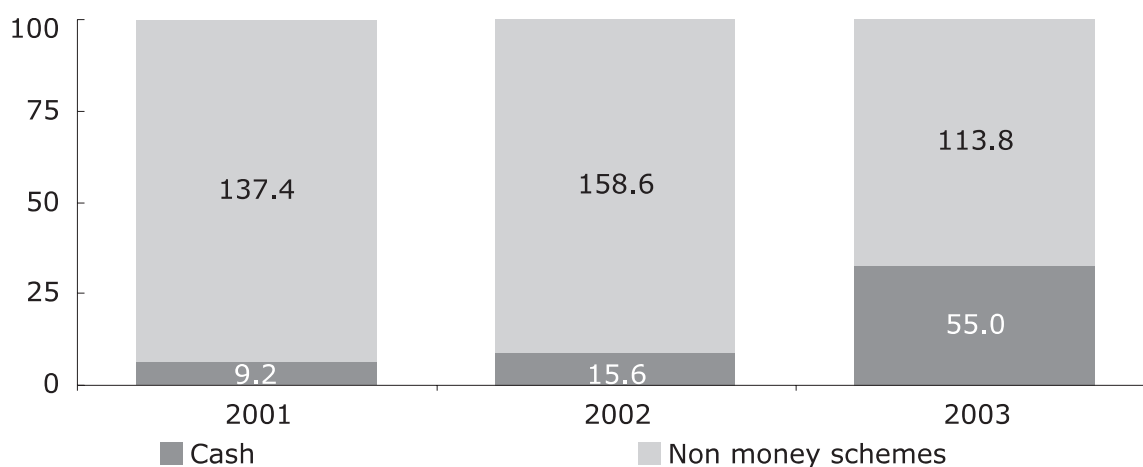
Note: Indices eop cumulative, December 1999 = 1.

Source: Authors' calculations based on Ministry of Statistics and Analysis data.

The government began reducing cross subsidization of households in 2000. Since that time the prices for power use for households is increasing considerably higher than inflation. In 2002, the beneficial price for rural households was increased. During the last four years, electric energy prices for the population rose 21 times. Cross subsidization for households by industry was completely liquidated in 2003.¹⁹ According to information provided by the Ministry of Economy, tariffs covered 107% of its costs by the end of 2003.

Meanwhile, increased gas prices and Russia's demand to eliminate debt arrears for energy resources have led to the tightening financial discipline in the electric energy sector. The structure of payment for imported power has changed. The overall volume of payment in 2003 was 117.3%. The cash component in the payment amounted to 32.6% or USD 55 m (Figure 7).

Figure 7
Amount (USD m) and structure of payment for imported power



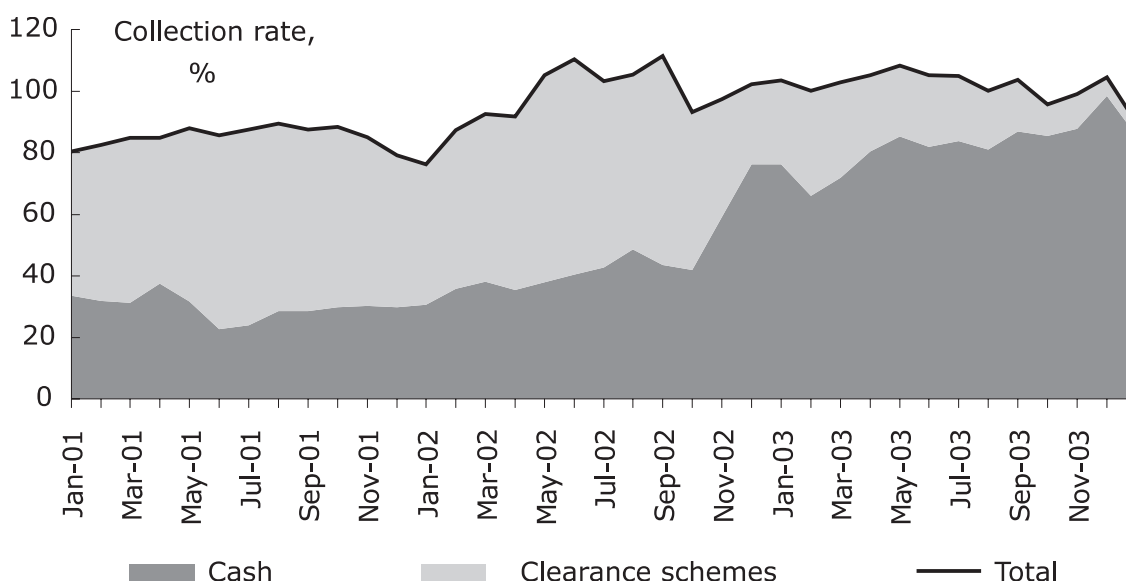
Source: Ministry of Energy.

¹⁹ In 2004, due to an increase of gas price, households subsidizing was introduced again.

The structure of payment for internal consumption also has changed. The government has set limits for non-cash payments for electric energy (5–10%).²⁰ Most enterprises had to pay a higher price (coefficient 1.23) if the actual amount for non-cash payments for electric energy was higher than the set limits. This coefficient was applied to the difference between factual level of non-cash payment and the set limit. As a result, enterprises have been forced to reduce the rate of non-cash payments considerably (Figure 8). Nevertheless, according to the Belenergo statistics, some consumers, mainly enterprises of the Ministry of Agriculture, have still failed to keep these limits.

Figure 8

Collection rate for electric energy as % of the total value of power supplied by final consumers and share of cash payment



Source: Ministry of Energy.

Due to the progress in an improved payment discipline, the total stock of debts of power consumers was considerably reduced. This resulted in the decrease of debts for domestic power consumers in 2003 from USD 758.6 m to 692.2 m while foreign debt dropped from USD 54.0 to 29.1 m. In 2003, 45.6% of all energy debts were electric energy debts.

3.4.3. Reform agenda

Belarus is one of few post-socialist countries that still have failed to start reconstruction and reform in the power sector, in particular the separation of production, distribution and the sale of electricity.

Despite the fact that the Belarusian system is one of the most effective in the CIS countries, a substantial share of depreciated equipment and machinery needs to be replaced by new assets and major modernization for some of the production processes. However, there is lack of the necessary investment funds for such an undertaking.

The main problems in the power sector that need to be addressed by reform are:

- Lack of transparency and proper use of financial flows and tariff setting within production, distribution and sales of electricity. As a consequence, “cost-covering” tariff levels are difficult to quantify and the production stages that require substantial investments do not necessary raise sufficient revenues;

²⁰ Ruling of the Council of Ministers №234 as of 24.02.2003 “On Minimal Norms of Cash Payment and Maximum Limits for Non-Cash Payment for Gas, Electric and Thermal Energy in 2003”.

- Absence of a competitive environment and market mechanisms that create the necessary incentives to increase efficiency at all stages of production, transportation and distribution of electric energy is as a consequence – unattractive for investment.

In 2002–2003, the Ministry of Energy and Belenergo drafted 4 variants of sector restructuring. All are similar in that they foresee change to the current structure by the integration and separation of production, distribution and sales. The major difference is whether Belenergo as the current central holding should remain or should be liquidated. The attitude toward the privatization of electric energy enterprises is also different. However, all variants of restructuring presume excessive state regulation and a very limited share of private enterprises in the system. The final draft is expected to be approved by Council of Ministries in 2004.

However, it remains to be seen how far this concept will indeed lead to an effective separation and corporatization of production, distribution and sales units that allows for more transparency in tariff setting and increased incentives for necessary investments.

4. Appendices

Appendix 1

General description of the infrastructure indicators

This appendix presents a brief description of the criteria for the scoring each indicator.

1 Commercialisation and Privatisation

1.1 Ownership

1.1.1 Natural monopoly: A natural monopoly is a network operator. A score 1.0 means that the whole network is state owned; the score increases with an increased share of corporatized, privatised and newly constructed private fixed networks in the total length of networks. The maximum score 4.0 is reached with private ownership of all networks.

1.1.2 Potentially competitive business: A potentially competitive business is an operator using networks to provide its services; it is a market related to a natural monopoly. A score 1.0 implies that the businesses are part of the state owned natural monopoly. The score increases with separation, corporatization and privatisation of existing operators, or with increased market penetration by newly established private agents. The maximum 4.0 is reached when all the businesses are in private ownership.

1.1.3 Ancillary business: Ancillary businesses are concerned with network construction, maintenance, input of supplies, and social infrastructure. A score 1.0 means that these businesses are state owned. The score increases with the degree of separation, corporatization and privatisation, or the increase in new private establishments.

1.2 Operation

1.2.1 Natural monopoly: A score 1.0 is given when the natural monopoly is operated as a government department. The score increases with reorganisation into an independent state agency or a company and the establishing of an independent regulator. The maximum score 4.0 is assigned if a private company manages the natural monopoly, and only an independent regulator, established by law, can intervene.

1.2.2 Natural monopoly planning and investment decisions: A score 1.0 implies political interference in making business and investment decisions. The score increases as commercial objectives such as profitability and operational efficiency grow in importance. The highest score 4.0 applies if network extensions and new investment projects are realised solely on the basis of profitability considerations and reflect marginal social costs.

1.2.3 Private sector participation in service contracts: A score 1.0 means that the private sector does not participate in construction, maintenance or rehabilitation, etc. The score increases with increasing participation in these activities by the private sector.

1.3 Organisational structure

1.3.1 Separation of natural monopoly and potentially competitive businesses: A score 1.0 means there is no separation between the infrastructure and the service providers' managements, as well as separation between the managements of different service providers. The score increases with unbundling of the industry. The highest score 4.0 applies when different services are provided by separate private companies.

1.3.2 Separation of ancillary businesses: A score 1.0 means no separation of ancillary businesses from the natural monopoly or potentially competitive businesses. The score increases with increasing degrees of separation. The maximum score 4.0 is assigned when ancillary services for the natural monopoly and for potentially competitive businesses are supplied by the market.

1.3.3 Decentralisation: A score 1.0 implies no or minimal decentralisation and increases with increasing decentralisation. Decentralization is both regional and functional and implies autonomy of decision making at the regional level concerning tariffs and investments. The highest score 4.0 is assigned when the industry is divided into competing regional operators.

2 Tariff reform

2.1 Structure of tariffs

2.1.1 Political vs. regulated operators: A score 1.0 implies strong political interference in tariff setting. The score increases with declining political interference and its transfer from the central government to the corresponding government agency and finally to the regulatory body. The maximum score 4.0 is reached for full cost reflective tariff setting by an infrastructure operator regulated by an independent regulator.

2.1.2 Natural monopoly pricing: A score 1.0 corresponds to pricing below cost accompanied by a substantial amount of cross-subsidisation. The score increases as the tariff approaches the long-run marginal cost reflecting cost covering levels, with cross-subsidisation declining.

2.1.3 Potentially competitive businesses pricing: A score 1.0 means a lack of cost reflective pricing. The score increases when markets becoming increasingly competitive and prices approach a market equilibrium level.

2.2 Payments

2.2.1 Intra-industry payment ratios: A score 1.0 implies that arrears are constantly accumulating and transactions between companies within an industry are basically non-monetary. The score increases as monetary settlements are carried out and arrears are approaching zero.

2.2.2 Final consumer collection rates: A score 1.0 means low revenue collection from final consumers (households, companies, budgetary organizations) and constantly accumulating arrears. The score increases as progress with revenue collection is made and services are fully paid for.

2.2.3 State indebtedness: A score 1.0 corresponds to growing arrears for state compensations to privileged consumers. The score improves as this indebtedness is reduced zero.

2.3 State funding

2.3.1 Subsidies level: A score 1.0 means that some groups of consumers are heavily subsidised by the government in an explicit or implicit form. Both the depth of the subsidisation and the distribution of subsidies are important. The government may pursue a constant practice of debt forgiving and restructuring. Abstention from implicit and explicit subsidies leads to improved scores.

2.3.2 Subsidies procedure: A score 1.0 is assigned when the subsidies are directed to service suppliers and are provided in non-transparent ways. The score improves as the process becomes more transparent and income compensations replace price compensations.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Management selection of competitive businesses: A score 1.0 means that the management is appointed by state officials. The score increases when the management is elected by the shareholders and reaches its maximum 4.0 when the shareholders are private companies or individuals.

3.1.2 Independence of regulator, insulation from political influence: A score 1.0 is assigned when a government department provides the service. The score increases as a state commission is introduced and an independent regulator is established. The highest score 4.0 applies when an independent regulator acts according to law.

3.1.3 Transparency of regulation: A score 1.0 implies an absence of legislation defining clear rules for businesses, and obligations for governing bodies. The score increases with the development of legislation and its enforcement, including when the decision-making becomes public. The maximum score 4.0 is reached when the performance of natural monopolies in an industry is regulated only by an independent regulator in accordance with law and all decisions are disclosed.

3.2 Access regulation: A score 1.0 means that the access right is arbitrarily determined by the state or the state-owned operator. The score increases as access is regulated by an independent regulator, later negotiated, finally determined by market mechanisms.

Appendix 2

Explanations for the infrastructure indicators evaluation

RAILWAYS

1 Commercialisation and privatisation

1.1 Ownership

- 1.1.1 The basic rail network is 100% state owned. Rails linking enterprises and basic network are owned by enterprises. 2002 and 2003: 1.3.
- 1.1.2 Passenger and freight transportation is 100% state owned. Though companies of Belarusian Railways are separated and are independent legal entities. One of the forwarding companies is the joint venture between BR and a Swiss company. 2002 and 2003: 1.3.
- 1.1.3 All ancillary businesses are state owned and constitute the part of Belarusian Railways, though they are divided into separated legal entities. 2002 and 2003: 1.3.

1.2 Operation

- 1.2.1 According to the law, Belarusian Railways is a state holding not directly regulated by the government. Law prohibits governmental interference into the decision-making process within the corporation. However, this often is not the case. 2002 and 2003: 1.7.
- 1.2.2 According to the statute of Belarusian Railways the primary objective is satisfaction of needs of producers and population in transportation services. Achieving profitability is second to the primary objective. There is also a certain amount of state interference into business and investment decisions. 2002 and 2003: 2.0.
- 1.2.3 There is private sector participation in service contracts. Tendering procedure is quite transparent including posting of announcements at the website. Notwithstanding the scale of outsourcing has not reached satisfactory amount. 2002 and 2003: 1.7.

1.3 Organisational structure

- 1.3.1 No separation of potentially competitive businesses from natural monopoly operators has taken place so far. 2002 and 2003: 1.0.
- 1.3.2 Ancillary businesses are independent legal entities within the structure of Belarusian Railways. The share of non-core businesses in the structure of Belarusian Railways is very high (about 25% if measured as the share of employed). 2002 and 2003: 1.3.
- 1.3.3 The Belarusian Railways consist of 6 regional companies. Altogether the company unites 99 legal entities. 2002 and 2003: 2.0.

2 Tariff reform

2.1 Structure of tariffs

- 2.1.1 Tariffs on internal transportation services are set independently from the railways by the Ministry of Economy, on international transportation – according to international agreements. However, there is strong political influence on the tariff setting process, as they are believed to be affecting living standard in the country. 2002 and 2003: 1.7.
- 2.1.2 According to the law, tariffs should cover cost of the service provided and allow development of railway network. There is a considerable amount of cross-

subsidization especially towards suburban transportation (diesel and electric trains). During 2003, tariffs for suburban transportation grew faster than on other kind of passenger and also freight transportation (70% compared to 19–31%). This fact shows the willingness to decrease the amount of cross subsidization. The indicator was increased from 1.3 in 2002 to 1.7 in 2003.

- 2.1.3 Belarusian Railways constantly makes profit. Due to distorted structure of tariffs, however, the amount of cross-subsidisation is still inexcusably high. 2002 and 2003: 1.7.

2.2 Payments

- 2.2.1 A certain amount of indebtedness between different enterprises within Belarusian Railways exists. 2002 and 2003: 2.0.

- 2.2.2 Revenue collection for passenger transportation is 100%. A large percentage of consumers have privileges, especially on suburban transport. Free rider practices on suburban transport are common. Concerning freight transportation there is permanent indebtedness of firms that use transportation services to Belarusian Railways. 2002 and 2003: 2.0.

- 2.2.3 Government indebtedness to the Belarusian Railways equalled BYR 86 bn in 2002 with no significant changes in 2003. 2002 and 2003: 1.0.

2.3 State funding

- 2.3.1 Same groups of consumers, especially users of suburban and intercity trains, are subsidized at the expense of the enterprises that deliver their goods via railway. Budget coverage of losses resulted from provision privileged consumers with the service is low (about 1% in 2002). No progress was made in this regard in 2003 as the amount of subsidy equalled BYR 95 m. 2002 and 2003: 1.0.

- 2.3.2 The law enforces government to cover expenses carried by railways, which result from providing privileges to certain categories of consumers. In practice the procedure of price compensation is not disclosed. 2002 and 2003: 1.0.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

- 3.1.1 The CEO of Belarusian Railways is appointed directly by the President. The appointees' deputies are appointed by the Council of Ministers. 2002 and 2003: 1.3.

- 3.1.2 Belarusian Railways is operated as an independent state owned holding. State administration has no right to intervene in particular activities of the company. This often turns out not to be the case in practise. 2002 and 2003: 1.3.

- 3.1.3 Rules of Belarusian Railways' operation are clearly defined in a number of legislation documents. Yet the decision-making procedures have not been made open to the public. 2002 and 2003: 1.7.

- 3.2 Access regulation.** The access of outside firms to the market is not possible. 2002 and 2003: 1.0.

ROADS

1 Commercialisation and privatisation

1.1 Ownership

- 1.1.1 Roads are 100% in state and communal ownership. 2002 and 2003: 1.0.

- 1.1.2 State transportation enterprises are separated into independent legal enti-

ties, each of which operates in a certain region. Private urban transportation is highly developed in some towns, reaching 50% of the share of market in some of them. The market share of private passenger transportation firms was about 13% at the country scale in 2002 and dropped to 10% in 2003. Private freight transportation enterprises and individual entrepreneurs provide about 80% of total amount of services. The index was decreased from 2.3 in 2002 to 2.0 in 2003.

- 1.1.3 Ancillary businesses are state owned. All of them are independent legal entities separated from the road management and approximately 1/5 are corporatized. 2002 and 2003: 1.7.

1.2 Operation

- 1.2.1 Natural monopoly operator Belavtodor operates as a government agency — a part of Ministry of Transport and Communications. 2002 and 2003: 1.3.
- 1.2.2 There is political interference into business and investment decisions of state owned firms from state administration including local offices. 2002 and 2003: 1.3.
- 1.2.3 Road construction and maintenance is provided by state owned firms, 19% of which are corporatized. There is private sector participation in service contracts through tenders. Yet the scale of outsourcing has not reached satisfactory amount. 2002 and 2003: 1.7.

1.3 Organizational structure

- 1.3.1 Road management is completely separated from freight and passenger transportation services. 2002 and 2003: 3.0.
- 1.3.2 Road construction and maintenance are separated from natural monopoly operators. Cooperation between them is based on tendering procedures. 2002 and 2003: 2.0.
- 1.3.3 Natural monopoly operators are divided into regional monopolies, although these monopolies are heavily regulated by the central and local administration. 2002 and 2003: 1.7.

2 Tariff reform

2.1 Structure of tariffs

- 2.1.1 Although tariffs are politically determined state owned firms have some freedom in setting their own tariff. It happens that in the towns where competition with private contractors is stronger, tariffs of state owned firms are lower. Investment decisions are highly influenced by the state administration. 2002 and 2003: 2.0.
- 2.1.2 According to the state legislation, road funding should derive from the contributions, which are applied to the price of all products and paid by producers, and other payments such as tax on fuel. Also, user fees are levied on truck companies depending on distance of travel and parameters of a truck. Tariff rate for Belarusian firms is just 25% of general tariff rate. There is one state owned toll road (M1/E30 Brest – Minsk – Russian Federation border), which revenues do not cover its operational costs yet. According to Belavtodor state financing equalled 46% of the needed amount. 2002 and 2003: 2.0.
- 2.1.3 The trucking and bus transportation markets are competitive, though competition in the urban transportation market is limited by strict permission requirements. Tariffs on passenger transportation services of state owned enterprises are set by the Ministry of Economy though the former have some freedom to change them. Private freight and passenger transportation companies and individual entrepreneurs are free to set their own tariffs. 2002 and 2003: 2.0.

2.2 Payments

- 2.2.1 A certain, but not large amount (about 5% of the Road Fund expenditures) of indebtedness between ancillary services providers exists. 2002 and 2003: 2.3.
- 2.2.2 Revenue collection for passenger transportation is close to 100%, though price compensations for serving privileged passengers remains an issue. Free rider practices in urban transport are also common. The ratio of revenues (excluding subsidies) of public transport enterprises to their total costs in 2003 were similar to the previous year — -25.7% for urban public transport and -39.1% for suburban transport. 2002 and 2003: 2.0.
- 2.2.3 Budget financing for road construction often comes late so the taking credit is a common practice at Belavtodor. USD 40 m credit was obtained in 2003. Public transportation companies receive budget funding with permanent delays as well. 2002 and 2003: 2.0.

2.3 State funding

- 2.3.1 Government uses “cost-plus” approach to cover losses of public transport firms instead of compensating them the cost of providing services to privileged consumers, which would be in accordance with the law. Private firms are not obliged to provide privileges. In many cases prices of private firms resemble prices of their public competitors (price discrimination). 2002 and 2003: 1.3.
- 2.3.2 Subsidies are directed straight to the service providers in a non-transparent way. 2002 and 2003: 1.3.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

- 3.1.1 Management of all state owned companies is appointed by the state administration, either central or local. 2002 and 2003: 2.0.
- 3.1.2 Belavtodor, the monopoly road operator is a department of the Ministry of Transport. Road maintenance companies and transportation companies are separate legal entities. 2002 and 2003: 1.7.
- 3.1.3 There are clear rules of operation of the natural monopoly described in legislative acts. However, the decision making process is not disclosed to the public. Decisions are highly politically determined. 2002 and 2003: 1.3.

3.2 Access regulation. Access is regulated by licensing. At the local level route tendering procedures are not transparent. The rules of route sharing out among various contractors are not clearly stated and the public control is absent. Regulatory framework became more obscure for truck companies (regarding import of vehicles) and in some cities for urban transportation firms during 2003, which resulted in elimination part of them from the market. The market share of private providers of passenger transportation services dropped from 13% in 2002 to 10% in 2003. Therefore the indicator was decreased from 2.3 in 2002 to 2.0 in 2003.

GAS

1 Commercialisation and privatisation

1.1 Ownership

- 1.1.1 Main gas and distribution gas pipelines are 100% state property. In summer 2003 Beltransgaz was turned into a joint stock holding company (the state owns 100% of shares). The indicator for 2003 was increased from 1.0 to 1.3.
- 1.1.2 Transportation and distribution of gas are unbundled. Enterprises that form the concern “Beltopgaz” are mostly state enterprises. 2002 and 2003: 1.3.

1.1.3 Construction, infrastructure maintenance and other ancillary enterprises are mostly state owned and/or are controlled by the state concerns. 2002 and 2003: 1.3.

1.2 Operation

1.2.1 Ministry of Energy regulates activities of Beltransgaz and regional organizations (Oblgaz), but the enterprises function as independent financial units. 2002 and 2003: 1.3.

1.2.2 Commercial goals are weak. Political influence on management and investment decisions prevail. 2002 and 2003: 1.7.

1.2.3 Private sector takes a minor part in providing service for the gas sector 2002 and 2003: 1.7.

1.3 Organizational structure

1.3.1 Gas transportation is separated from distribution and sales. The concern "Beltopgaz" deals with transportation and sales of gas to consumers. 2002 and 2003: 1.7.

1.3.2 The enterprise that provide supporting services (delivery, installation) are separated economically and organizationally but they are parts of the concern. 2002 and 2003: 1.7.

2 Tariff reform

2.1 Structure of tariffs

2.1.1 Setting prices and tariffs are still under strong political influence. They are determined by state priorities in economic development. Economic activities are separated from regulatory functions. All important prices and tariffs are set by the Ministry of Economy. This ministry performs some functions of the regulatory body. 2002: 1.7, in 2003 the indicator was increased to 2.0.

2.1.2 Beltransgaz prices cover costs, but prices and costs depend much on the price of imported gas, which is lower than market prices. 2002–2003: 2.3.

2.1.3 Overall revenues of enterprises that make up Beltopgaz cover costs. In general the system of price formation is based on the method "cost plus". Gas prices for domestic consumers do not depend on the distance of gas delivery. Prices for some consumers are below costs. In 2003 the gas prices were considerably increased (primarily for the population) 2002: 2.0, in 2003 the indicator was increased to 2.3.

2.2 Payments

2.2.1 In 2003, debts inside the sector were reduced and the share of cash payments among enterprises of the sector increased. 2002: 2.3, the indicator for 2003 was increased to 2.7.

2.2.2 Enterprises, especially in industrial sector, increased their gas payments. In 2003, they paid fully for current gas consumption, though they resorted to loans to do it. Besides, bill circulation increased. Nevertheless debts of various consumers still remain. 2002: 2.7, for 2003 the indicator was increased to 3.0.

2.2.3 Budget and budgetary debts are low and they do not exceed the level of payment for monthly gas consumption. 2002 and 2003: 3.3.

2.3 State funding

2.3.1 Some categories of consumers buy gas at preferential prices. Their debts are restructured and they are given payment deferment. However, in 2003 writing off debts has not been practiced. 2002: 1.7, for 2003 the indicator was increased to 2.0.

- 2.3.2 The procedure of granting subsidies lacks transparency and it does not target individual consumers. Certain categories of consumers get subsidies on the permanent basis. One-time subsidies are given; there are cases of implicit state aid (for example, budget loans). 2002 and 2003: 1.7.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

- 3.1.1 Top management of Beltransgaz and enterprises of the concern Beltopgaz are appointed by the Ministry of Energy after the approval from the President. 2002 and 2003: 1.0.
- 3.1.2 Ministry of Economy performs some regulatory functions in the sector. 2002 and 2003: 1.3.
- 3.1.3 Administrative regulation is strong not only in management and decision making, but also in contract performance both of suppliers and consumers. There is no specific legislation that regulates the sector. 2002 and 2003: 1.0.

- 3.2 Access regulation.** The exception (about 2% of all volume of services) is the tariff for gas delivery to the final consumers for foreign companies (not for Gazprom). It is negotiated with Beltransgaz and oblgas. The gas distribution network of Beltopgaz can be accessed after reaching an agreement with Beltopgaz. 2002 and 2003: 1.0.

ELECTRICITY

1 Commercialisation and privatisation

1.1 Ownership

- 1.1.1 The enterprises of Belenergo are mainly 100% state property. 2002 and 2003: 1.3.
- 1.1.2 Generation, transportation and distribution of electric power are not unbundled. They are mostly state enterprises. 2002 and 2003: 1.0.
- 1.1.3 Construction, infrastructure maintenance and other ancillary enterprises are mostly state owned and/or are controlled by the state concerns. 2002 and 2003: 1.3.

1.2 Operation

- 1.2.1 Ministry of Energy regulates activities of the Belenergo enterprises, but the enterprises function as independent financial units. 2002 and 2003: 1.3.
- 1.2.2 Commercial goals are weak. Political influence on management and investment decisions is prevalent. 2002 and 2003: 1.7.
- 1.2.3 Construction and infrastructure maintenance are provided by the enterprises of Belenergo, part of which are privatized. 2002 and 2003: 2.0.

1.3 Organizational Structure

- 1.3.1 There is no separation between production, distribution and sales. 2002 and 2003: 1.0.
- 1.3.2 The enterprise that provide supporting services (delivery, installation) are separated economically and organizationally, but they are parts of the concern. 2002 and 2003: 1.7.

2 Tariff reform

2.1 Structure of tariffs

- 2.1.1 Setting prices and tariffs are still strongly politically influenced. The Ministry of Economy sets all important prices and tariffs. This ministry also performs some functions of the regulatory body. In 2003 cross subsidization was re-

duced — tariffs for households were increased, tariffs for industry were reduced. 2002: 1.7, in 2003 the indicator was increased to 2.0.

2.1.2 Prices cover costs nevertheless cross subsidizing still takes place. 2002 and 2003: 2.3.

2.1.3 Overall revenues of enterprises cover Belenergo costs. In general the system of price formation is based on the method "cost plus". Electricity prices for domestic consumers do not depend on the distance of electricity delivery. In 2002, prices for some consumers were below costs. In 2003 the electricity prices were considerably increased (primarily for the population, budget and agriculture organizations). 2002: 2.0, in 2003 the indicator was increased to 2.3.

2.2 Payments

2.2.1 In 2003, debts inside the sector were reduced and the share of cash payments among enterprises of the sector increased. 2002: 2.3, the indicator for 2003 was increased to 2.7.

2.2.2 Enterprises, especially in industrial sector, increased their electricity payments. In 2003, they paid fully for current electricity consumption, though they resorted to loans to do it. Additionally, bill circulation increased. Nevertheless debts of various consumers still remain. 2002: 2.7, for 2003 the indicator was increased to 3.0.

2.2.3 Budget and budgetary debts are low and they do not exceed the level of payment for monthly electricity consumption. 2002 and 2003: 3.3.

2.3 State funding

2.3.1 Some categories of consumers buy electricity at preferential prices. Their debts are restructured and they are given payment deferment. However, in 2003, writing off debts has not been practiced. 2002: 1.7, for 2003 the indicator was increased to 2.0.

2.3.2 The procedure of granting subsidies lacks transparency and it does not target individual consumers. Certain categories of consumers get subsidies on the permanent basis. One-time subsidies are given; there are cases of implicit state aid (for example, budget loans). 2002 and 2003: 1.7.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Top management of the enterprises of Belenergo are appointed by the Ministry of Energy after approval from the President. 2002 and 2003: 1.0.

3.1.2 Only household tariffs are set externally from Belenergo. Belenergo declares tariffs to the Ministry of Economy. Belenergo is managed by the Ministry of Energy. 2002 and 2003: 1.0.

3.1.3 Administrative regulation is strong not just in management and decision making, but also in contract performance both of suppliers and consumers. There is no specific legislation that regulates the sector. 2002 and 2003: 1.0.

3.2 Access regulation. Access to the power lines network is provided by Belenergo, nevertheless it is not closed. 2002 and 2003: 1.0.

Appendix 3 Infrastructure Indicators Evaluation

	Indicator	Railways		Roads		Gas		Power	
		2002	2003	2002	2003	2002	2003	2002	2003
1	Commercialization and privatization	1.5	1.5	1.8	1.7	1.5	1.6	1.4	1.4
1.1	<i>Ownership</i>	1.3	1.3	1.7	1.6	1.3	1.4	1.2	1.2
1.1.1	Natural monopoly	1.3	1.3	1.0	1.0	1.3	1.7	1.3	1.3
1.1.2	Potentially competitive businesses	1.3	1.3	2.3	2.0	1.3	1.3	1.0	1.0
1.1.3	Ancillary businesses	1.3	1.3	1.7	1.7	1.3	1.3	1.3	1.3
1.2	<i>Operation</i>	1.8	1.8	1.4	1.4	1.6	1.6	1.7	1.7
1.2.1	Natural monopoly	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3
1.2.2	Natural monopoly planning and investment decisions	2.0	2.0	1.3	1.3	1.7	1.7	1.7	1.7
1.2.3	Private sector participation in service contracts	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0
1.3	<i>Organizational structure</i>	1.4	1.4	2.2	2.2	1.7	1.7	1.4	1.4
1.3.1	Separation of natural monopoly and potentially competitive businesses	1.0	1.0	3.0	3.0	1.7	1.7	1.0	1.0
1.3.2	Separation of ancillary businesses	1.3	1.3	2.0	2.0	1.7	1.7	1.7	1.7
1.3.3	Decentralization	2.0	2.0	1.7	1.7	-	-	-	-
2	Tariff reform	1.4	1.5	1.8	1.8	2.2	2.4	2.2	2.4
2.1	<i>Structure of tariffs</i>	1.6	1.7	2.0	2.0	2.0	2.2	2.0	2.2
2.1.1	Political vs. regulated operator's	1.7	1.7	2.0	2.0	1.7	2.0	1.7	2.0
2.1.2	Natural monopoly pricing	1.3	1.7	2.0	2.0	2.3	2.3	2.3	2.3
2.1.3	Potentially competitive businesses pricing	1.7	1.7	2.0	2.0	2.0	2.3	2.0	2.3
2.2	<i>Payments</i>	1.7	1.7	2.1	2.1	2.8	3.1	2.8	3.1
2.2.1	Intraindustry payments ratios	2.0	2.0	2.3	2.3	2.3	2.7	2.3	2.7
2.2.2	Final consumers collection ratios	2.0	2.0	2.3	2.3	2.7	3.3	2.7	3.3
2.2.3	Budget indebtedness	1.0	1.0	2.0	2.0	3.3	3.3	3.3	3.3
2.3	<i>State funding</i>	1.0	1.0	1.3	1.3	1.7	1.9	1.7	1.9
2.3.1	Subsidies level	1.0	1.0	1.3	1.3	1.7	2.0	1.7	2.0
2.3.2	Subsidies procedure	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
3	Regulatory and institutional development	1.2	1.2	2.0	1.8	1.0	1.0	1.0	1.0
3.1	<i>Effective regulatory institution</i>	1.4	1.4	1.7	1.7	1.0	1.0	1.0	1.0
3.1.1	Management selection of competitive businesses	1.3	1.3	2.0	2.0	1.0	1.0	1.0	1.0
3.1.2	Independence of regulator, insulation from political influence	1.3	1.3	1.7	1.7	1.0	1.0	1.0	1.0
3.1.3	Transparency of regulation	1.7	1.7	1.3	1.3	1.0	1.0	1.0	1.0
3.2	<i>Access regulation</i>	1.0	1.0	2.3	2.0	1.0	1.0	1.0	1.0
	IPM infrastructure reform index	1.4	1.4	1.9	1.8	1.6	1.7	1.5	1.6
	EBRD infrastructure reform index	1.0	1.0	2.0	2.0	-	-	1.0	1.0

Sources: EBRD (2002) *Transition report 2002: Agriculture and Rural Transition*, EBRD (2003) *Transition report 2003: Integration and Regional Cooperation*, IPM Research Center estimations.

About the project

The joint project of the German Economic Team and the IPM Research Center was launched in May 2003 with support of the Ministry of Economy and Labor (Germany) under TRANSFORM program. The main objective of the project is to support the Belarusian government in the field of economic policy. To achieve this, the team of experts regularly prepares analytical papers on different topical issues and presents recommendations to the officials from the Council of Ministers, the National Bank, the Ministry of Finance, the Ministry of Economy and other institutions involved in the process of formation and implementation of economic policy.

Activities

- Analysis of the economy of Belarus;
- Monitoring of main sectors of the economy;
- Promotion of professional dialogue between Belarusian and German experts on important issues for the economic development of Belarus.

Team

German Economic Team

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Dr. Ricardo Giucci, Team Co-Leader

IPM Research Center

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Dr. Yury Valevich, institutional economics and public finance

Dzmitry Babicki, transport sector and agriculture

Alexander Chubrik, economic growth and monetary policy

Dzmitry Kruk, banking sector

Vera Volchok, M.A., financial and real sector

Products

Current research products and publications of the project are available through Internet (<http://ipm.by/get>).

Belarusian Monthly Economic Review (BMER)

A monthly bulletin has been published since October 2002. It provides readers with recent news on politics and economics, covering such sectors of economy as real sector, structural trends, external sector, public finance, monetary policy and banking sector.

Policy Papers

Analytical materials on specific economic issues providing policy recommendations for the government and other organizations involved in the process of formation and implementation of economic policy.

- PP/01/03 *Belarus' Accession to the WTO: The Banking Services Dimension.*
- PP/02/03 *Proposals for Further Development of Deposit Insurance System in Belarus.*
- PP/03/03 *Should the Voucher Privatization Scheme Be Extended?*
- PP/04/03 *Subsidizing Agriculture in Belarus: Declared Objective and Actual Outcomes.*
- PP/05/03 *Transforming "Factory Towns": Lessons Learned and Best Practices from East Germany.*
- PP/06/03 *Belarus and the Kyoto Protocol: Opportunities and Challenges.*
- PP/07/03 *Recommendations for Improving the Effectiveness of Mortgage Banking in Belarus: The Refinance Side.*
- PP/08/03 *First-Time Sovereign Bond Issues: A Conceptual Framework.*
- PP/09/03 *Personal Income Tax Reform in Belarus.*
- PP/10/03 *Shifting Belarus' Agricultural Policy Towards Measures Envisaged by the Green Box.*
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- PP/02/04 *Eurobonds Conference: Key Findings.*
- PP/03/04 *Belarus as a Gas Transit Country.*
- PP/04/04 *Seminar on Gas Transit: Key Findings.*
- PP/05/04 *The Main Problems and Directions of City-Company Restructuring in Belarus.*
- PP/06/04 *Reform of the Simplified System of Taxation for Small Business in Belarus.*
- PP/07/04 *The Insurance Sector in Belarus: Analysis and Recommendations.*

Belarus Infrastructure Monitoring

Monitoring of present situation and perspectives for the development of energy and transport sectors in Belarus. The following sectors are monitored: power, gas, railways and roads.