

PRIVATIZATION PROBLEMS AT INDUSTRY LEVEL

Privatizing Road Haulage in Central Europe

Table of Contents

| | <u>Pages</u> |
|---|--------------|
| I. Guideposts | 1 |
| II. The Initial Position: Road Haulage at the End of the 1980s | 5 |
| Transport in GDP and Road Haulage in Transport | 5 |
| Organization..... | 8 |
| Division of the Market..... | 10 |
| III. The First Reform, and Consequences | 15 |
| Reform by Dismemberment | 15 |
| The Successor Enterprises | 15 |
| The Characteristic of Integration..... | 15 |
| Passengers Combined with Freight..... | 16 |
| Firm Sizes | 17 |
| Enterprise Assets and Facilities..... | 17 |
| Range of Operations | 18 |
| Enterprise Structure for a Market Economy | 18 |
| Transformation: Legal Framework, Policy, and Road Blocks..... | 20 |
| Formal Status of Enterprises | 20 |
| Legal Framework..... | 22 |
| Impedances | 24 |
| Internal Transformation and Sideways Privatization | 27 |
| IV. Premises of Policy | 30 |
| Privatization: Speed, and Order of Precedence | 30 |
| Privatization Models, and Implementation | |
| The Case for Gradualism | 34 |
| Management, and Incentives for Management..... | 34 |
| V. The Options | 37 |
| Freight and Passengers | 37 |
| Separating the Disparate..... | 37 |
| Options and Methods..... | 38 |
| Ownership, and the Mechanism of Control | 39 |
| Programming Privatization..... | 42 |
| Ambit of a Program | 42 |
| Assisted Privatization | 42 |

| | <u>Pages</u> |
|---------------------------------------|---------------------|
| V. The Options (Cont'd) | |
| Regime for the Transition Period..... | 45 |
| Commercialization..... | 45 |
| The Role of Management..... | 45 |
| Incentives and Disciplines..... | 46 |
| Institutional Support | 47 |
| Transport Regulations..... | 49 |
| REFERENCES | 51 |

DRAFT
April 30, 1992

I. Guideposts

The problems that Central European countries face as they set about reforming and privatizing their industries are partly industry-specific, and in part problems of broader strategy and procedure.

The industry-specific issues arise from the shape in which individual industries emerge from decades of socialist organization of the economy. In the case of road haulage, the most conspicuous features of the state-owned enterprises that dominate professional road transport are their large sizes and the wide range of their operations; the division of markets ordained for them and the division of labor among them, and their internal management. The operational question is whether such characteristics will prove viable in a competitively organized market economy, and what changes should be expected or actively promoted to assure viability? On such questions one may reasonably hope to find some guidance in the experience of other countries outside the region. What justifies that confidence is the commonality of technology and techniques of road haulage in modern economies, and the associated close similarity usually observed in the structure of road haulage industries of different market economies, and in the organization and operations of their haulage enterprises.

In the matter of strategy and procedures for reform and industry privatization there is much less precedent to rely on. As these problems appear in the transitional socialist economies, they seem essentially unique. It is difficult to think of models to guide in decisions on whether to privatize in one leap or gradually; whether to give precedence in restructuring and privatization to demonstrably successful enterprises over weaker ones, and to proceed thus even when there are opportunities for disposing of failing entities; and, how to deal with enterprises that remain for the time being unprivatized? As the case of the road haulage industries of Poland and Hungary demonstrates and as will be shown, past reforms in the socialist economies offer no positive lessons for the transition to a market economy. Initial attempts in both countries to repeat their earlier prescriptions for reform, but in more radical dosage, proved inadequate for the declared purpose if not worse than that. Analogies

with divestitures in mixed economies, on the other hand, are likely to be deceptive. Those nationalized enterprises also operated under soft budget constraints and were open to political and sectional interference in major managerial issues. But they existed essentially within private economies, trading inputs, outputs and managers with private business, and existing continually under the discipline of comparability and comparison. Moreover, the mature financial and commercial mechanisms of the private economy — investment banking, stock exchanges, institutions for trade in corporate ownership and control — were readily available for the privatization of state-owned enterprises. The relatively smooth process and the speed and public acceptance of divestitures in Western mixed economies are explained by such circumstances which have no counterpart in the reforming socialist economies.

In the absence of fitting analogies and models, the procedures for restructuring and privatizing the industries of the Central European economies have to be worked out de novo. It is then particularly important to have an agreed understanding of objectives; of what restructuring and privatization of an industry such as road haulage are meant to accomplish. While official statements of the objectives have varied somewhat over time, and while the declared objectives of Hungary and Poland differ somewhat in scope and emphasis, the broad objectives are similar. We can summarize them as follows, with reference to the case of the road haulage industry:

— Any acceptable scheme should contain the promise of raising the productivity of resources employed in road haulage. It should also have the potential to create new jobs, thereby helping to preserve employment, though not necessarily in individual, established enterprises.

— It is general experience that productivity gains in industry are engendered by competition. Domestic haulage is still essentially a sheltered industry, immune to the kind of discipline from competing imports that affects its commodity-producing clients. If the stimulus of competition is to act, it has to work within the domestic haulage industry. Privatization should not be associated with the suppression of competition.

— Privatization measures should serve the social objective of widely spread ownership. In the case of road haulage (as of retail trade) this purpose would be fulfilled by small-scale entry into the occupation. Small-scale entrepreneurship in road transport is a source of competition, but will only be

sustainable in a competitive regime.

— State-owned haulage in the socialist countries does not lack managers of high technical competence and operating experience. But the past offered little scope for developing commercial skills. The success of privatization policies, however, is contingent on efficient responses by management, confronted not by ministries and administrators but by markets. The economic case for comprehensive and reasonably rapid transfer of economic activity from the control of state-owned to private enterprise is indeed based in good part on the argument that there is now no other way to transform a management culture that has grown up over the decades. Measures of reform should therefore offer the most compelling incentives, to be available even before genuine privatization, for the development of commercial and profit-seeking management.

— Privatization entails a major change in the relation between state and industry, and thus in the state's access to resources required for public use. Privatization schemes should therefore also help to put the state in funds. State property should not be dissipated, whether by selling off at unnecessarily low prices or through the leakages that experience shows to be threatening in the transition from indivisible social property to divisible private property.

— Lastly, and of importance in the design of solutions, schemes have to fit into the legal framework that countries have adopted in pursuit of systemic reform. Laws can change, but any given scheme has to be capable of implementation within the framework that exists at the time.

II. The Initial Position: Road Haulage at the End of the 1980s

Transport in GDP, and Road Haulage in Transport

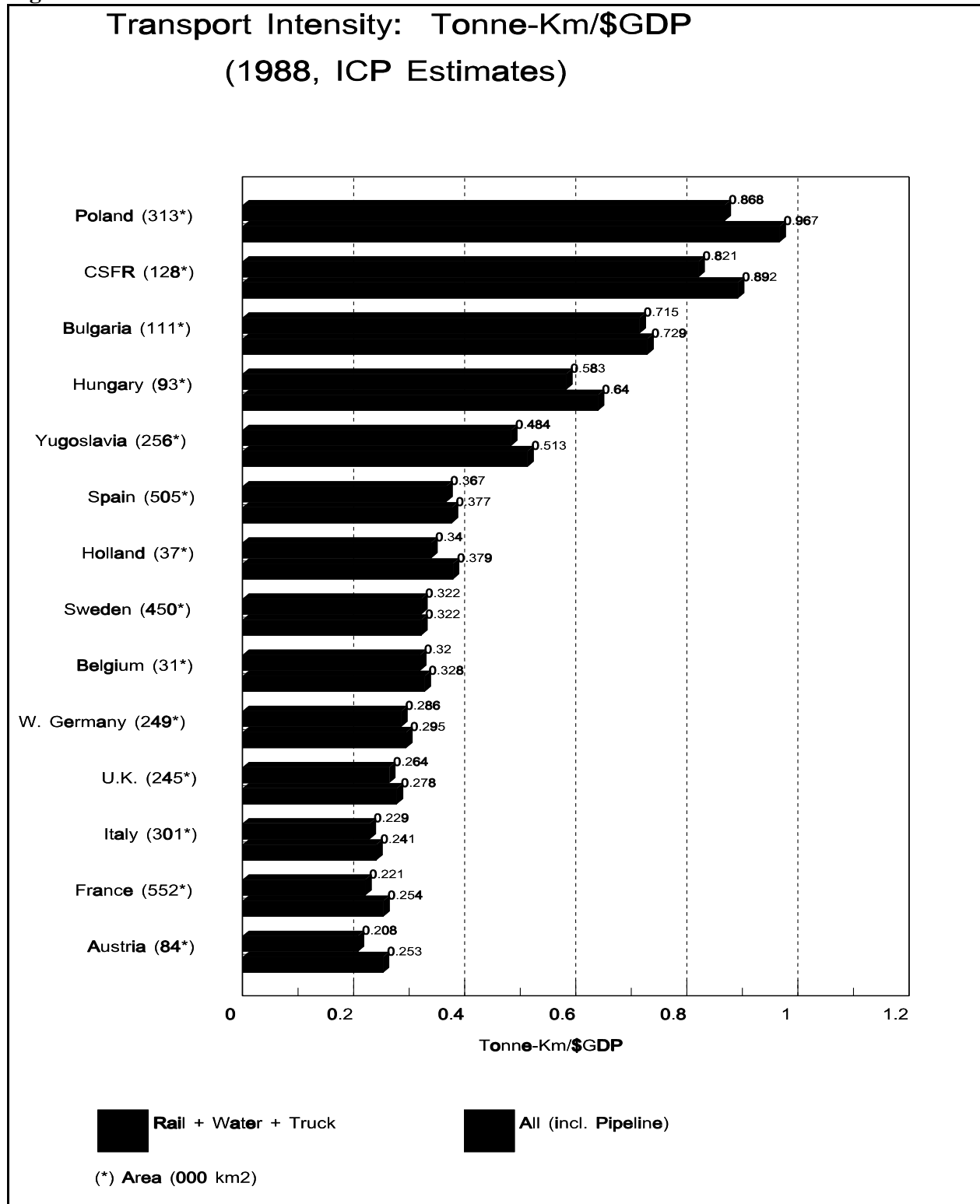
A common characteristic of the transitional socialist economies of Central and Eastern Europe is their high transport intensity. Relating the output of the freight transport industries in ton-kms, to GDP (adjusted for purchasing power), and limiting the comparison to countries that do not differ radically in area or population density, the contrast with Europe's market economies stands out. ^{1/} (Fig. 1) Poland appears to be using about 5 times as many ton-kms of transport per dollar of GDP as Western European countries, and Hungary, 2 - 3 times as many. ^{2/} Such contrasts are too great to be a mere artefact of differences of statistical method, or the results of errors in estimation. No unitary explanation of the contrast suggest itself. In all likelihood, it is the joint result of differences in the composition of production (e.g., Poland's remarkably high share of construction in GDP, 8 - 9 percent against the West European norm of 6 - 7 percent); of the distribution system for intermediate and consumer goods that characterizes the socialist organization of the economy, and of the high degree of industrial integration.^{3/} Such features of production and of industrial organization are underpinned by the pricing systems (normally cost-plus prices, allowing a profit

^{1/} GDP estimates in these comparisons are those of the International Comparison Project, World Table V (Summers and Heston, 1991), except for the estimates for Czechoslovakia and Bulgaria which were taken from Research Project on National Income in East Central Europe, Occasional Papers Nos. 111-119. L.W. International Financial Research Inc., New York, 1991. - Ton-Kilometers means one metric ton move one kilometer.

^{2/} In the national income accounts (GDP by Industrial Origin), Transport is combined with Communications, and includes passenger as well as freight transport, by all modes. Our estimate of the high freight transport intensity of Hungary's economy is nevertheless consistent with the share of Transport and Communications in GDP at Producer Prices: 8.5% to 9.5% throughout the 1980s, while typical values in Western Europe range between 4% and 7%, only Belgium reaching 8.5%. Poland's available National Accounts, however, do not point to an unusually high share of transport in total Value Added. The reason for this inconsistency of the National Accounts with our estimate of ton-kms per dollar of GDP cannot be a relatively low volume of passenger transport in Poland: railway passenger-kms per capita (1,278 in 1987) are far above the levels of Western European countries. Nor is the explanation likely to be an unusually low factor cost of Value Added by Poland's transport industries. The explanation is probably to be found in the data used by Poland's statisticians (only those of socialist professional transport organizations), and in the method of analyzing the industrial origin of GDP.

^{3/} See Major (1983), and Winiacki (1988).

Figure 1



margin) and the pervasive absence of a compelling profit motive. Deficits of enterprises could be negotiated away and covered by subsidies, and the larger the enterprise, the stronger its bargaining power. But the various causes assigned to high transport intensity will lose weight as the economies are transformed, and transport intensity will decline. It has already been declining: in both Hungary and Poland, ton-kms of freight by land rose between 1970 and 1986 at little over one-half the growth rates of national output.^{4/} In the medium-term, the decline should speed up, and the sector, shrink.

Road transport in the socialist economies, however, has a substantially smaller share of total ton-kms of freight than in Western market economies. Rail dominates massively: with 75 percent of land freight in Poland, and 60 percent in Hungary, its share far exceeds what is common in Western Europe. (Fig. 2) The high share of rail in Poland is partly explained by the importance of the movement of coal of which Poland is the world's fourth largest producer (after the USA, USSR and China). Removing coal from Poland's rail traffic, the share of rail declines to 62 percent (1989), close to the proportion in Hungary and thus still high relative to other countries. But the share of rail in both countries is declining, replicating the modal shift that has been going on in market economies, and at a greater proportional rate (Fig. 3). The shift is helped by changes in the structure of production, but not wholly determined by it: Hungary's data show that the share of the road rose during 1975-85 in practically each commodity class, in those that were declining in terms of transport demand as well as in those that were growing.^{5/}

These comparisons, based on data of limited accuracy but revealing strong contrasts, lead to predictions about the market position of road haulage in the medium-term. If the industrial structure of European market economies may be taken as the norm, the present high transport intensity of the Central European transitional economies should continue declining, probably at a faster rate than in recent years, and even after income starts growing again. In that sense, those economies will have

^{4/} In Hungary, ton-kms increased annually by 1.8 percent while real GDP rose at 3.8 percent. In Poland, ton-kms increased by 2 percent per year, and net Material Output, by 3.7 percent.

^{5/} For a further discussion, see Bennathan, Gutman, Thompson, 1991b.

Figure 2

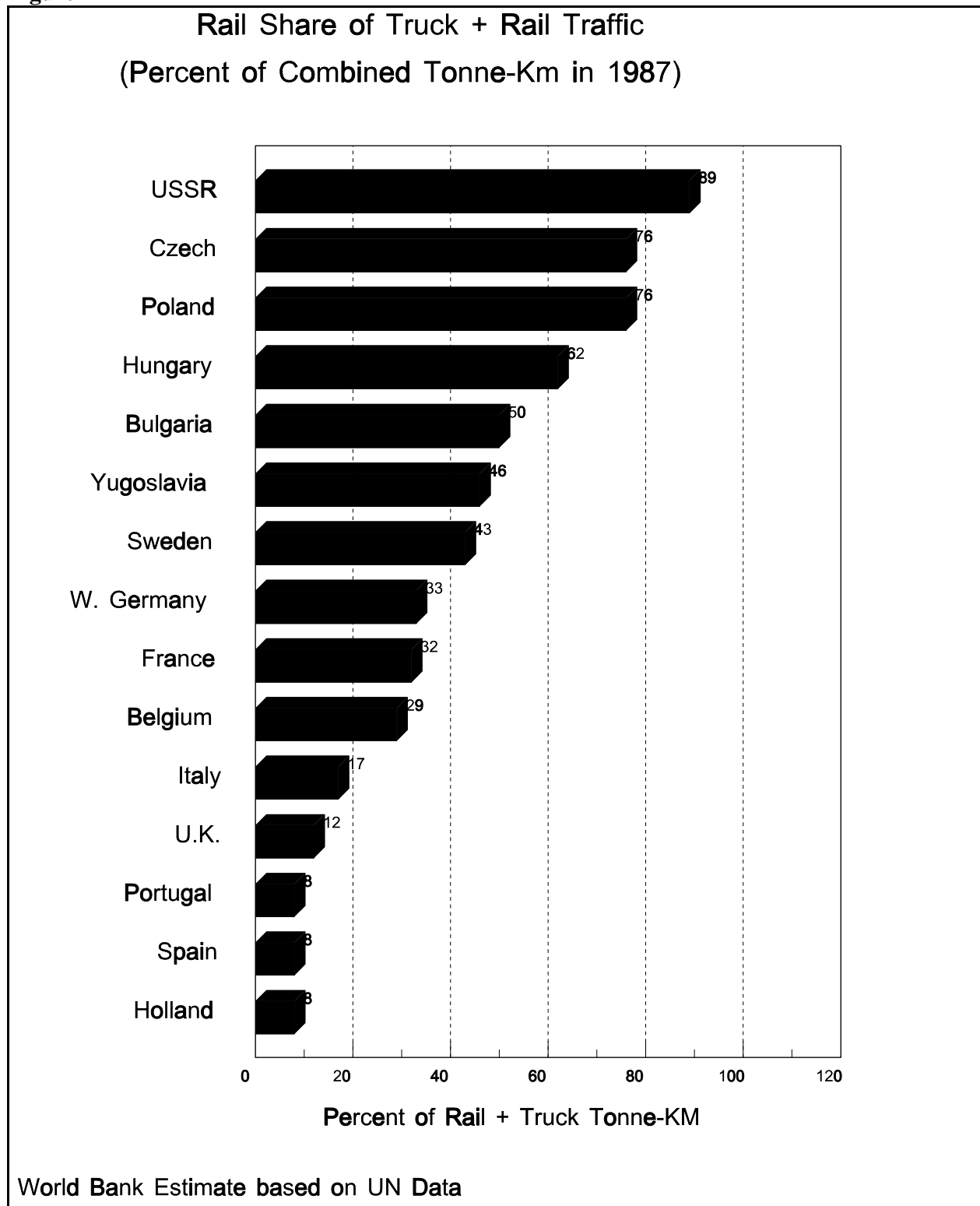
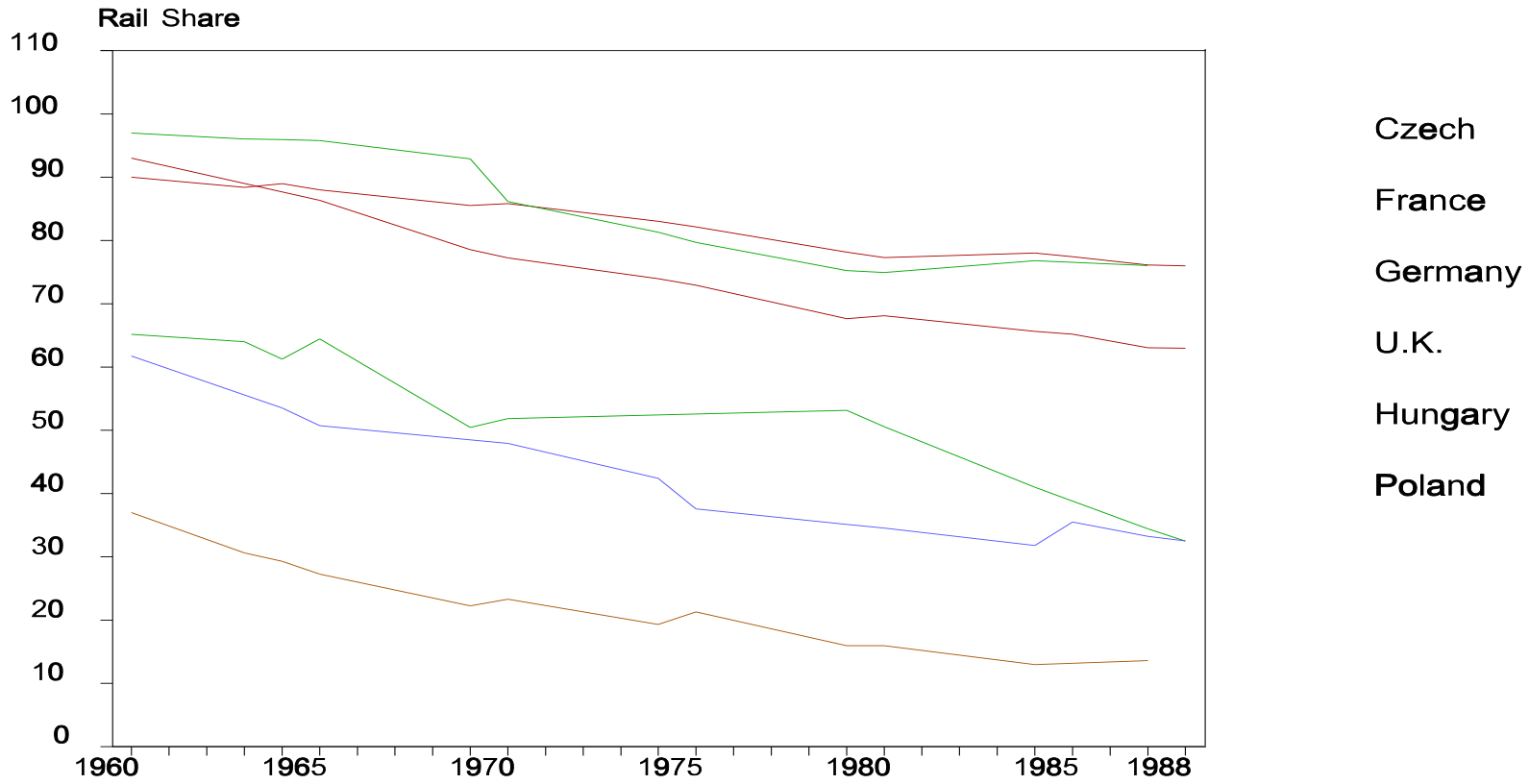


Figure 3

Rail Share of Rail + Truck Tonne-Km Percent



Rail Share, in percent, of Truck
Plus Rail Tonne-Km

an excess of freight transport capacity. But barring intervention by the authorities, rail transport will decline much faster than total freight transport. The modal shift will therefore at least partially shield the market for road transport. At its recent (pre-recession) size, it appears somewhat larger than one would expect in a European market economy. The judgement is based on a comparison of ton-kilometers of road haulage per Dollar of GDP, with a rough allowance for differences in country area (Table 1). It suggests that in the longer run, when the economies stabilize and resume growth, a haulage industry staffed and equipped for delivering service at recent levels would have some excess capacity, but not a great deal of it. The excess would be somewhat greater in Hungary (say, 10-15 percent in ton-kilometers) than in Poland (say, 8-12 percent), but in neither case is it massive. That view is consistent with the relative sizes of the stocks of road freight vehicles. While there is no theory about the determinants of national stocks of freight vehicles, intuition suggests a relation between fleet size, population, area and incomes. In terms of population density, Hungary seems closest to Austria and Portugal, each with a larger income per head and substantially larger fleets of trucks. Comparators are more difficult to find for Poland: Spain, which seems the nearest, has twice as many trucks (Table 2). On the quality of those stocks there is little information. Hungary's fleet of freight vehicles which has been growing faster during the 1980s than ton-kms of road freight, is not overaged by European standards. Poland's fleet, judging from a small sample, is older (Fig. 4). Large parts of the two fleets seem, however, to be technologically obsolete. While modern trucks, imported from the West, are largely employed on international trips, much of the domestic haulage is provided by rigid trucks which pull trailers if their capacity needs enhancing.

Excess capacity is not propitious for privatization (as was shown by Britain's experience in trying to sell off the National Freight Company in 1953).^{6/} In the near term, there is excess capacity in Hungary and Poland. But in the longer run, as income and economic activity recover, this impediment to privatizing the infrastructure and surviving equipment of road haulage, and to the productive employment of road haulage workers, should shrink. It will shrink the faster, the more rapidly traffic migrates from rail to road. Technical obsolescence, on the other hand, limits the relative efficiency of road transport and may therefore slow down the process.

^{6/} Beesley (1989).

TABLE 1
ROAD TON-KILOMETERS PER DOLLAR OF GDP^{1/}
EUROPEAN COUNTRIES

| <u>Country</u> | Area (⁰⁰⁰ km) | T-km of Road <u>Freight</u> GDP | |
|----------------|------------------------------|---------------------------------------|---------------------|
| Belgium | 31 | 0.08 | (.19) ^{2/} |
| Netherlands | 41 | 0.10 | |
| Switzerland | 41 | 0.10 | |
| Denmark | 42 | 0.12 | |
| Ireland | 69 | 0.11 | |
| Austria | 84 | 0.10 | |
| Portugal | 92 | 0.19 | |
| Hungary | 93 | 0.19 ^{3/} | (.22) ^{4/} |
| Greece | 131 | 0.16 | |
| Great Britain | 230 | 0.16 | |
| Germany (FRG) | 244 | 0.17 | |
| Italy | 301 | 0.20 | |
| Finland | 305 | 0.31 | |
| Norway | 308 | 0.10 | |
| Poland | 313 | 0.20 | |
| Sweden | 450 | 0.18 | |
| Spain | 505 | 0.37 | |
| France | 547 | 0.14 | |

^{1/} GDP in International

(International Comparison Project) Dollars

^{2/} Includes external (international) haulage.

^{3/} Omitting enterprise specialized in international haulage (length of haul = 1,505 km, compared with 25 km for Volán enterprise)

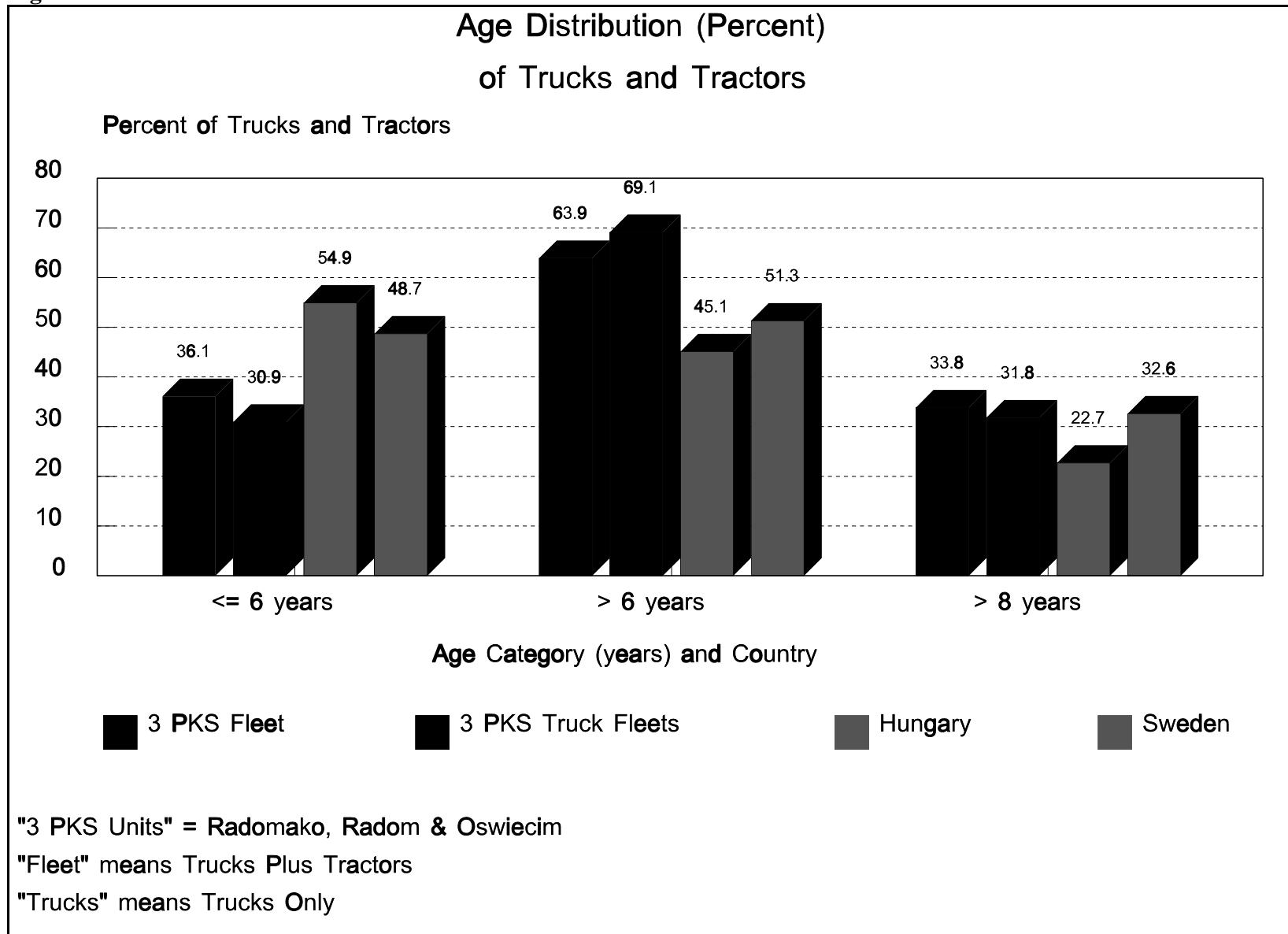
^{4/} Including enterprise (Hungarocamion) specialized in international haulage.

TABLE 2
Comparative Transport Data in 1988

| | Area (Km2) | Population (31 Dec) (000) | Population Density (pop/Km2) | Lorries: Total Fleet | | | | | | Total Lorries |
|-----------------|---------------|---------------------------------|------------------------------------|---------------------------|------------|------------|-------------|---------|--------|------------------|
| | | | | By Capacity, In Kilograms | | | | | | |
| | | | | 1500 | 5000 | 7000 | 10000 | | | |
| | | | | to 4999 | to 6999 | to 9999 | to 14999 | >15000 | | |
| Austria | 83,850 | 7,600 | 90.6 | 158,402 | 35,353 | 13,113 | 20,700 | 7,001 | 42 | 234,611 |
| Belgium | 30,513 | 9,920 | 325.1 | 152,489 | 66,514 | 15,165 | 17,898 | 14,777 | 3,058 | 269,901 |
| France | 547,026 | 55,870 | 102.1 | 2,757,731 | 398,219 | 45,714 | 62,010 | 51,393 | 6,818 | 3,321,885 |
| Germany (FRG) | 248,577 | 61,200 | 246.2 | 672,638 | 401,624 | 57,564 | 118,435 | 66,731 | 4,832 | 1,321,824 |
| Great Britain | 229,989 | 55,502 | 241.3 | 1,643,000 | 168,400 | 27,400 | 78,200 | 48,900 | 38,100 | 2,004,000 |
| Hungary | 93,030 | 10,600 | 113.9 | | | | | | | 179,203 |
| Netherlands | 40,844 | 14,760 | 361.4 | 351,703 | 54,689 | 14,503 | 25,265 | 16,245 | 5,361 | 467,766 |
| Poland | 312,677 | 37,860 | 121.1 | | | | | | | 919,321 |
| Spain | 504,782 | 39,850 | 78.9 | 1,622,023 | 169,246 | 32,470 | 45,993 | 106,085 | | 1,975,817 |
| Sweden | 449,964 | 8,440 | 18.8 | 182,205 | 30,223 | 7,593 | 17,885 | 25,435 | 3,940 | 267,281 |
| Yugoslavia | 255,804 | 23,560 | 92.1 | | | | | | | 260,988 |
| Portugal (1987) | 88,944 | 10,290 | 115.7 | 237,278 | 75,202 | 19,556 | 24,293 | 9,766 | | 366,095 |

Source: United Nations, Annual Bulletin of Transport Statistics, 1990.

Figure 4



Organization

Road haulage in Hungary and Poland at the end of the 1980s displays characteristic traits of the socialist organization of industry. Professional haulage in the socialized sector was supplied by a small number of large and highly integrated national organizations. But in the various phases of socialist economic reform — starting in Hungary with the New Economic Mechanism of 1968, in Poland, with the Directions of the Economic Reform of 1981 — new elements were admitted to the activity. The attempts then made to assign functions and market segments to the various operators represent the socialist counterpart to transport regulations familiar from market economies.

In the socialized sector, professional haulage was divided between two types of organization. One had assigned to it the function of Public Transport for both passengers and freight. In Poland, the main enterprise is (or was) Panstwowej Komunikacji Samochodowej (PKS), which employed in 1989 110,000 persons and operated 22,000 buses and some 21,000 trucks as well as 13,000 trailers. Its 234 divisions, grouped under directorates, covered the entire country.^{7/} A separate enterprise (PKAES) specialized in international haulage. Hungary's main public road transport enterprise was Volán, with a work force of 67,000 and a fleet of 8,000 buses and 13,000 trucks. International transport was initially again the exclusive province of a separate enterprise, Hungarocamion, with a fleet of 1,800 vehicles. These public transport enterprises, essentially common carriers, existed under the supervision and tutelage of the respective ministries of transport.

The other type of public transport organization are the Branch (or Special) transport enterprises, about six of them in each country. Their intended role and assignment was to provide transport services to specific industries. Jurisdictionally, they were subject to the various branch ministries: in Poland to the Ministries of Construction and Building Material, of Mining and Fuels, of Domestic Trade, of Food Industry and Procurement, of Communications and of Cooperatives (or rather the Central Union of Co-ops).^{8/} Initially, the branch transport enterprises had exclusive rights to the

^{7/} We include in PKS what were essentially 4 enterprises: the massive State Motor Transport, PKPS, comprising 193 divisions, grouped under 14 regional directorates and covering 40 voyvodships, and 3 further enterprises, PKPS, whose 41 local divisions covered the remaining 9 provinces of Poland.

^{8/} Korbonski and Wittich (1967).

supply of transport services to enterprises of their branch. Conversely, they were debarred from selling their services outside the branch.^{9/} In market economies also, some transport firms are specialized to the technical requirements of particular industries: the construction industry needs dumpers, forestry needs log carriers and the food industries need refrigerated trucks. The socialist "branch' transport enterprises, however, were to cater to all the transport needs of their client industries, across the country. The principle of separation was thus not technological but administrative, an aspect of the policy of industry integration. The organization of the economy in branches, each sponsored and controlled by a ministry had further implications for the transport sector. Winiiecki (1982) adduces it as one explanation of high transport intensity: enterprises were likely to seek supplies from others in their own branch, wherever those were located in the country. This was tactically wise and also efficient because, being both under the same controller, the probability of actually receiving what was needed was greater from the fraternal source.

The third element of road haulage in the socialized sector are the own-account fleets of state-owned, non-transport enterprises. This component of socialized haulage — "lorries used by public bodies", in the language of Hungary's statistics — did not operate for hire or reward, the restriction being implicit in the strictly circumscribed "profile", or range of legitimate outputs of the owner enterprise. In market economies, firms integrate transport into their enterprise either because of firm-specific technical requirements (such as transport of liquids or hazardous cargoes), or for work, usually in near-distance distribution, that is most economically performed by drivers familiar with the firm's market, with vehicles under the firm's direct control and at its immediate disposal. In the socialist economies, there were further incentives for having one's own vehicles and haulage establishment. When inputs were still centrally allocated and generally in short supply, nor always available even when allocated, managers wanted to have transport at call to take rapid delivery of the allocation or else hunt around for supplies. The argument for having one's own transport is reinforced when management bonuses depend on fulfilling quarterly production targets. When the flow of supplies is fitful and production management is poor and bureaucratically hemmed, end-quarters witness production

^{9/} See Hungary (1957, 1963): "Single-purpose transport companies (e.g., the Domestic Trade Transport Company, or the Dairy Transport Company) have the task of covering the Transport requirements of enterprises belonging to one special supervising body (ministry). They may not receive orders from the enterprises of other supervising authorities or from private individuals."

"storming" (Lauter, 1972). Management is thus led to provide haulage capacity for peak demand conditions. Also, in the more centralized phases of the countries' economic management, it was safer for state-owned enterprises to invest profits than to seek to retain them at the end of the accounting period.

In the course of the various economic reforms in Poland and Hungary, from the 1960s to the mid-1980s, some of the more effective restrictions on the different sectors of socialized road haulage disappeared. Hungary's reforms of 1968 freed state-owned enterprises from all specific restrictions on the acquisition and operation of trucks. The measure gave a strong impetus to own-account haulage. In Poland, in the course of the reforms of 1982, the Branch transport organizations lost their monopoly rights over branch haulage. The reforms of the early 1980s, in both countries, also opened the field for private trucking. Haulage, particularly suitable for small-scale operations under the control of the owner, grew rapidly as a component of the "second economy" which proved itself the most dynamic sector of the economies of Poland and Hungary in the 1980s. In Poland, the number of trucks and trailers in the private sector trebled between 1980 and 1989, growing from 25 to 47 percent of the national stock. The typical business is small-scale, operating low-capacity vehicles^{10/} but a number of larger companies established themselves during the decade. In considering the problems of industry reform and privatization, road haulage in these countries is therefore marked by the coexistence of large state-owned enterprises with a relatively large and growing private sector.

Division of the Market

After a decade of rapid growth of private haulage, private operators in Poland and Hungary emerged with shares of over one-fifth of total tonnage lifted by road, and of 17-18 percent of total national ton-kms of freight. (Table 3). But there the similarities in market shares in the two countries end. The relative shares of the different elements of socialized road haulage ('public' road transport, including the main national enterprises, PKS in Poland and Volán in Hungary; branch transport, and own-account haulage) differ markedly in the two countries. The greatest contrast is between the

^{10/} In Hungary, when private entry into trucking was allowed in the early 1980s, private individuals were restricted to the purchase of vans. (Sziraczki, 1990).

relative positions of Public and Branch transport. In Poland, Branch transport exceeds Public haulage (including international haulage) and the excess is most marked over the share of PKS which, like Branch haulage, has its main business in domestic transport. In Hungary, on the other hand, the share of Branch transport at the end of the 1980s is minor. There is less of a contrast in the share of own-account haulage, somewhat larger in Hungary than in Poland.

TABLE 3

**Tons Lifted and Ton-Km by Road, by Working Organization.
Poland and Hungary, 1987 and 1988/89
Percentage Distribution**

| Organization or Mode of Working | Poland 1987 | | Hungary 1987 | | Poland Hungary 1988 1989 | |
|--|----------------|--------|-----------------|--------|--------------------------------|----|
| | Tons | Ton-Km | Tons | Ton-Km | Ton-Km | |
| | % | % | % | % | % | % |
| 1. "Public haulage" | 6 | 22 | 28 | 41 | 21 | 37 |
| 1a. --main enterprise in domestic haulage ^{1/} | 5.7 | 18 | 27 | 26 | 17.3 | 21 |
| 2. Branch Transport ^{2/} | 29 | 25 | 7 | 8 | 25 | 6 |
| 3. Own-account haulage, socialized enterprises | 45 | 37 | 51 | 42 | 36 | 39 |
| 4. Private hauliers | 20 | 16 | 15 | 9 | 17.4 | 18 |
| (5.) (Professional haulage: 1+2) | 35 | 47 | 34 | 49 | 47 | 43 |

Source: Poland - Statistical Yearbook and Ministry of Transport and Communications.
Hungary - Institute for Transport Sciences.

^{1/} Poland: PKS; Hungary: Volán.

^{2/} In Poland's terminology: Special Transport.

In market economies, one observes quite generally a division of labor between professional and own-account haulage by which longer hauls of freight are assigned to general trucking enterprise, operating with relatively large vehicles. This distribution of work represents the competitive solution to the economics of trucking, valid in all but the smallest countries.^{11/} That it is a competitive solution, rather than one enforced by regulation, appears from the division of labor in countries where entry into haulage is freest, such as Sweden or the United Kingdom. In those 'deregulated' countries, the division of work according to lengths of haul is carried furthest even though own-account fleets are free to operate over the entire territory and also free to carry for third parties.

Different economic classes of haulage are therefore associated with different average lengths of haul. Conversely, average lengths of haul contain information on the type of operations of enterprises within the different classes: not precise nor conclusive information, but enough to establish strong presumptions. By this criterion the operations of the different sectors in Hungary's road haulage seem remarkably undifferentiated. The differences are smallest in domestic haulage, approximated by removing the Hungarocamion enterprise from the average for Public Transport^{12/} (Table 4). The average length of haul of the Volán group, the main operator in Hungary's public haulage, is only 50 percent higher than the own-account average. When Hungary is compared with European market economies, one notes both the comparatively low length of haul in Hungary's professional haulage and the relatively narrow gap between professional and own — account haulage (Table 5). The impression of unusually low differentiation would be further

^{11/} The assignment of long hauls to large trucks follows from the economies of scale in truck size. The difference in transport cost, per ton shipped in trucks of different size, increases linearly with distance. The greater the distance of shipment, therefore, the stronger will be the incentive to use large vehicles. That is the case for assigning the longer haul to the larger truck, within any one fleet. But own-account fleets contain typically the smaller sizes of vehicles since those are most versatile in use. The average firm does not send (or collect) large shipments with sufficient frequency to warrant the purchase of the larger truck sizes. Hence the assignment of long hauls to professional haulers.

Since the saving from using the larger vehicle increases with the distance of shipment, the division of work between professional and own-account haulage in domestic transport should in principle be less pronounced in very small countries. In those countries, it will be governed by other factors. But if differential lengths of haul are taken to be the indicator of market division, they are unlikely to be a smooth function of country size or extent of road network. Intuitively one expects a threshold of distance below which the separation will be weak.

^{12/} Hungarocamion, specialized in international haulage, accounted in 1989 for 0.2 percent of tonnage lifted, but for 12 percent of total ton-kms in Hungary's road haulage.

TABLE 4

**Average Length of Haul in Road Haulage
Poland and Hungary, by sector**

| Sector | Poland, 1988 Km | Hungary, 1989 Km |
|---------------------------------------|----------------------------|-----------------------------|
| Public (incl. international haulage) | 96 | 37 |
| of which PKS or Volán | 83 | 26 (31) ^{1/} |
| Branch Transport | 22 | 28 |
| Own Account Socialized enterprises | 22 | 21 |
| Private Haulage | 21 | 20 |

Sources: Poland - Statistical Yearbook; Ministry of Transport.
Hungary - Institute for Transport Sciences.

^{1/} Omitting Volán Tomegaru which specialized in haulage for the construction industry.

TABLE 5
Average Lengths of Haul in Road Haulage

| | Area '000 km ² | Professional Haulage ^{1/} (km) | Own Account Haulage (km) | Ratio Professional to Own-Account |
|---------------------------------------|------------------------------|---|--------------------------------|--|
| Hungary, 1989 | 93 | 25 | 21 | 1.19 |
| Volán, all haulage | | 28 | | 1.18 |
| Volán, without Tomegaru ^{2/} | | 31 | | 1.33 |
| Poland, 1988 | 313 | 47 | | 2.14 |
| PKS | | 84 | 22 | 3.82 |
| Sweden, 1989 | 4500 | 74 | 44 | 1.69 |
| U.K., 1987 | 230 | 91 | 53 | 1.72 |
| 1983 | | 88 | 54 | 1.63 |
| France, 1983 | 547 | 123 | 42 | 2.93 |
| Denmark, 1987 | 42 | 45 | 37 | 1.22 |
| Netherlands, 1988 | 41 | 58 | 52 | 1.11 |
| Belgium, 1989 | 31 | 45 | 40 | 1.13 |

^{1/} Hungary and Poland: "Public" plus Branch (or Special) haulage. Market economies: haulage for hire or reward (France and Belgium: Compte d'autrui).

^{2/} Tomegaru is specialized in transport for construction.

^{3/} Vehicles above 3 tons gross vehicle weight.

^{4/} Vehicles above 3 tons payload.

- 5/ Domestic haulage by Danish trucks.
- 6/ Domestic haulage.

strengthened if the samples from the Western European countries did not exclude the smaller sizes of goods vehicles. The same presumption of an unusually restricted division of labor between professional and own-account operations arises from comparing the share of own-account haulage in Hungary with what it is in market economies (Table 6). In terms of ton-kms of haulage, the share is appreciably higher in Hungary, excepting only Belgium which has the smallest area of the countries that can be compared. The presumption is therefore that the operations in Hungary's own-account haulage overlap with professional haulage to an extent that is not normal in Europe's market economies. Such overlaps are known from countries or periods when protectionist regulation has lowered the efficiency of professional haulage enterprise and raised the cost of transport. It is not then the overlap that raises the costs, but the regulations that induce the overlap.

These presumptions about abnormalities in Hungary's road haulage, and implicitly about changes to be expected in the course of the economy's transformation, are based on notions derived from the settled conditions of the road haulage activity in Europe's market economies. Such comparisons tell one little about what is likely to happen in the transition: the rate at which demand is going to change in the course of far-reaching structural alterations of output and industry organization, and the rate at which different components of the transport system will adapt to such changes in the market. The present state and prospective developments of road haulage in Hungary or Poland cannot, in fact, be discussed except in connection with the unusually large share of railways in the total supply of ton-kms of freight transport, large in Hungary and exceptionally large in Poland. The narrow spread of lengths of haul by different sectors of Hungary's road haulage must surely be explained, if only in part, by the extended role of rail with its longer hauls. Transport users are adapted to this prevailing modal pattern of supply of transport service. Users who survive the transformation of the economy without much change of location or production methods, will switch modes when it fits best into their own plans, and that timing cannot be foretold with confidence.

TABLE 6
Transport of Goods by Road:
Percentage Distribution by Mode of Working

| Country | Year | Area (⁰⁰⁰ Km ²) | Tons Lifted (tons) | | | Tons Moved (ton-km) | | |
|-----------------------|------|--|-------------------------------------|---|--|-------------------------------------|---|--|
| | | | Own- Account (percent) (1) | Professional Haulage (percent) (2) | Private Haulage (percent) (3) | Own- Account (percent) (4) | Professional Haulage (percent) (5) | Private Haulage (percent) (6) |
| Hungary | 1989 | 93 | 47 | 30 | | 39 | 43 | 18 |
| | 1987 | | 51 | 34 | 23 | 42 | 49 | 9 |
| | 1981 | | 60 | 40 | 15 NA | 47 | 53 | NA |
| Poland | 1988 | 313 | 43 | 36 | 21 | 36 | 47 | 17 |
| | 1987 | | 45 | 35 | 20 | 37 | 47 | 16 |
| Sweden | 1987 | 450 | 23 | 76 | see (2) | 16 | 84 | see (5) |
| U.K. ^{1/} | 1987 | 230 | 41 | 59 | see | 29 | 71 | see |
| | 1983 | | 48 | 52 | (2) see (2) | 36 | 64 | (5) see (5) |
| France ^{2/} | 1983 | 547 | 64 | 36 | see (2) | 38 | 62 | see (5) |
| Denmark | 1987 | 42 | 30 | 70 | see (2) | 26 | 74 | see (5) |
| Netherlands | 1988 | 41 | 36 | 64 | see (2) | 33 | 67 | see (5) |
| Belgium ^{3/} | 1988 | 31 | 55 | 45 | see (2) | 51 | 49 | see (5) |

- 1/ Excluding trucks below 3 tons gross vehicle weight.
- 2/ Excluding trucks below 3 tons payload.
- 3/ Internal transport.

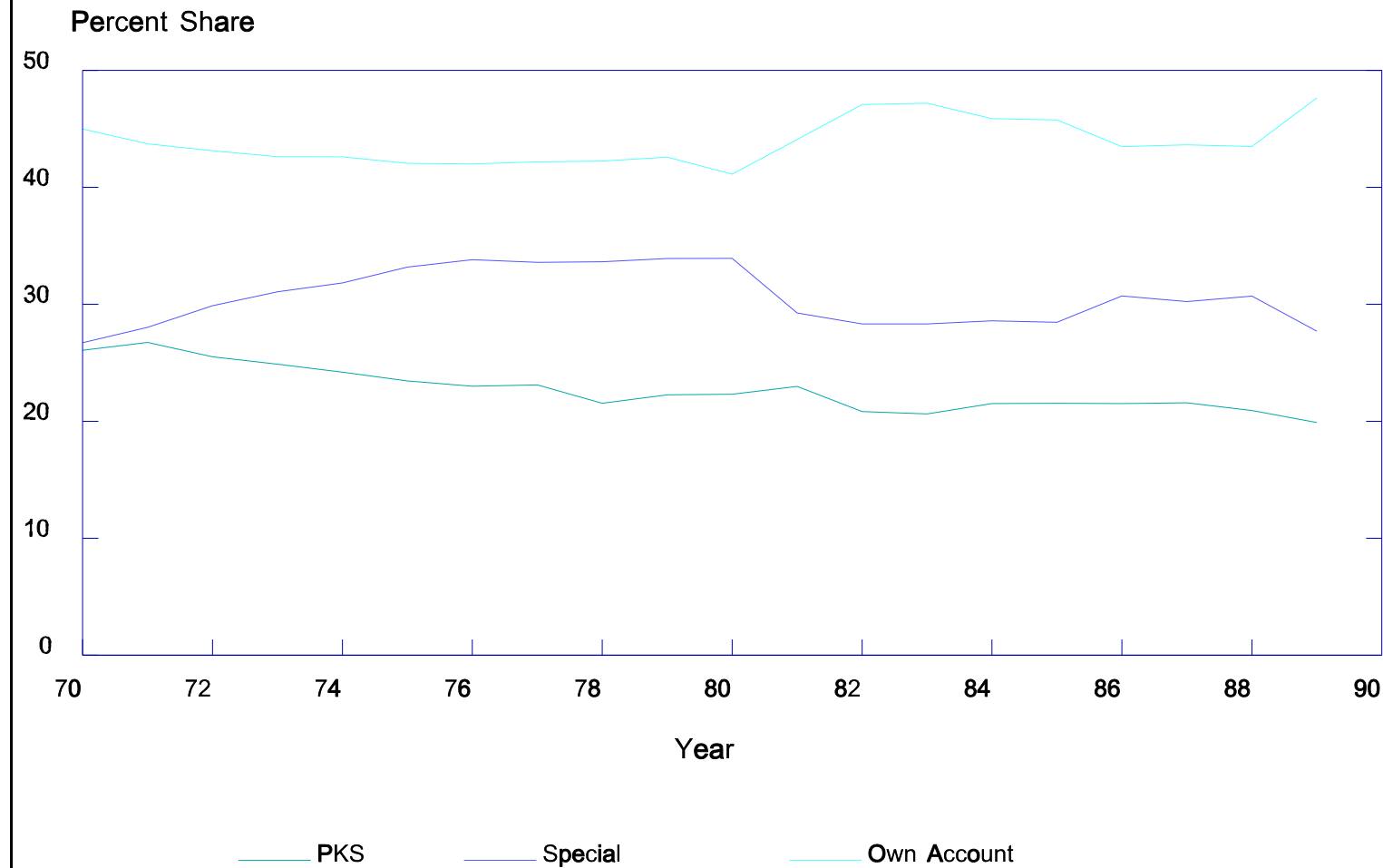
Poland's road haulage at the end of the 1980s presents a very different picture, from that found in Hungary. The share of public transport, in ton-kms of freight, is appreciably smaller (Table 6). There is much greater differentiation in average lengths of haul of the different segments of the industry (Table 4). By that test, PKS, the main public transport enterprise, roughly approximates the operating characteristics of professional transport in Europe's market economies (Table 5). While PKS lost traffic steadily throughout the 1980s, it shed the short hauls and retained or acquired the long ones.^{13/} The average length of its hauls doubled between 1980 and 1989: the enterprise appears to have specialized, willy-nilly, and increasingly, in longer-distance trucking.

Again, by the tests of market shares and average lengths of haul, socialized own-account transport in Poland does not seem abnormal by the standards of Western Europe (Tables 5 and 6). The problematic aspects of Poland's road haulage appear rather in the sheer size and the operating characteristics of the Branch transport enterprises. Branch enterprises, too, lost traffic throughout the 1980s, the loss in tonnage lifted amounting to a full half. But their share of national ton-kms by road moves in a strictly inverse relation with own-account haulage (Fig. 5). The inverse path is particularly pronounced after 1980, in a decade that starts with 3 years of deep economic recession. It is normal experience in the road haulage of most countries that professional haulage takes the brunt of recession in the market while industrial own-account fleets remain more fully utilized. In addition, however, there was deregulation. In the reforms of 1982, Branch transport lost their monopoly hold over the transport requirements of their assigned industrial branches, and their tariffs were decontrolled in 1984, about the time that recovery started in the economy and the traffic share of the enterprises once again rose. One cannot disentangle the effects of recession and recovery from those of deregulation; but combining the evidence of the inverse movement of the shares of professional branch and own-account haulage with the evidence of identical average lengths of haul, the two modes of working appear as near-perfect substitutes. That conclusion in itself suggests an

^{13/} The average length of haul of traffic lost by PKS (1986-89) was less than one-third of the average length of haul of retained traffic: 24 kms against averages of 76 kms in 1986 or 86 kms in 1989.

Figure 5

Poland: Percent Share of Tonne-Km By Class of Haulage



inefficient overlap between own-account and professional haulage operations. Adding together own-account and Branch haulage data for 1988, it appears that 92 percent of Poland's road tonnage of freight, and 74 percent of ton-kms by road, had average lengths of haul of 22 km. The structure of industrial production, including the large sectors of mining and construction, contribute to the explanation of this large share of road transport moving over short distances. More of the explanation, and probably most, is supplied by the role of railways in Poland's freight transport. Abstracting from PKS (and the enterprise specialized in international haulage), road transport in Poland was and remains compressed into the short-distance sector of freight transport, the railways essentially retaining command over the longer hauls in a large country. While the share of the railways is declining, the transition of road haulage to its usual function and role in Europe's market economies may not only be slow but it will also be contingent on far reaching changes in the working methods, organization and equipment of enterprises that are still acting mainly as the short end of longer railway hauls.

III. The First Reform, and Consequences

Reform by Dismemberment

The critical turning points in the political and economic systems of Hungary and Poland came in 1989. In each, the radical nature of the turn was marked by the promulgation of economic programs for the institution of a market economy, and by measures intended to initiate or accomplish the transformation. In the case of road transport, these measures consisted of dismembering the large, state-owned enterprises. PKS in Poland, and Volán in Hungary, were each carved up into their constituent operating entities, each to operate, from a given date, as autonomous enterprises. Poland, moreover, reassigned the resulting separate entities to different jurisdictions. Units of PKS that transported passengers, including therefore those that combined passenger with freight transport, stayed under the tutelage of the Ministry of Transport. The rest, specialized in freight, were removed to the jurisdiction of the voyvodships, with significant legal and fiscal consequences.

The Successor Enterprises

The Characteristic of Integration

The dismemberment of Poland's PKS resulted in the emergence of 277 units, destined (with the exception of units that were closed down) to independent existence from July 1, 1990. Hungary's Volán was dissolved into 28 separate enterprises.

A generic feature of the socialist organization of economies is the high degree of industrial integration. Enterprises are large and combine a wide range of vertically and horizontally related activities (inputs, outputs and their complements) together with all the related assets and equipment. The traits of this principle survive clearly in the disaggregated units of the former large, unified, road transport trusts. By their mixture of operations, their sizes and the range of their properties and facilities, the successor units offer a remarkable contrast with what is normal in the road transport enterprises of market economies.

Passengers Combined with Freight

Integration manifests itself most noticeably in the combination of passenger with freight transport within the same entities. Of Poland's PKS successor units, 27 were specialized in passenger transport, 13 in freight haulage, and 140 provided for both people and goods. The mixed units together operated 16,000 goods vehicles in 1989 and 17,000 buses, representing 76 and 77 percent of the respective stocks in the PKS aggregate. In Hungary, one Volán successor unit was wholly devoted to passenger transport, another three solely to haulage, while the 18 country enterprises combined both types of work. Together, these mixed Volán units operated 9,544 trucks and 6,730 buses, 75 and 84 percent respectively of the total Volán stock. Neither in Poland's PKS nor in Hungary's Volán did passenger transport or haulage form negligible parts of the operation and employment of individual mixed road transport entities. Since one finds roughly one bus driver per bus and one truck driver per truck of an entity's fleet, the relative weight of the two types of work in the individual work forces may fairly be measured by the proportions of buses or trucks in the individual fleets.

Proportion of Trucks in Total Fleet (trucks + buses)
End-1989

| <u>"Mixed" entities</u> | <u>Enterprises Average</u> | <u>Median</u> |
|-------------------------|----------------------------|---------------|
| Poland: PKS | .48 | .49 |
| Hungary: Volán | .60 | .67 |

In the firms of a market economy, the relative commercial importance of different activities — to revenues, costs, net income, assets — should appear from the accounts. In Poland and Hungary, the accounts of enterprises are poor evidence for the state and results of the enterprise. The prices at which output was sold were originally controlled. Hungary set maximum freight rates, Poland mandated the freight tariff, but in each the rates were decontrolled in 1989. Passenger fares are controlled in both countries, and subsidized. In past years, passengers were also subsidized by freight, within the enterprises. With the decline of the economies in 1989, freight revenues of the state-owned

professional haulage industries have declined steeply.^{14/} But there are common facilities in the mixed entities and if accounts have to be rendered, the cost of such joint resources in an undivided enterprise can be imputed very flexibly, to one activity or the other. Currently, therefore, as has been plausibly reported, passengers are subsidizing freight.

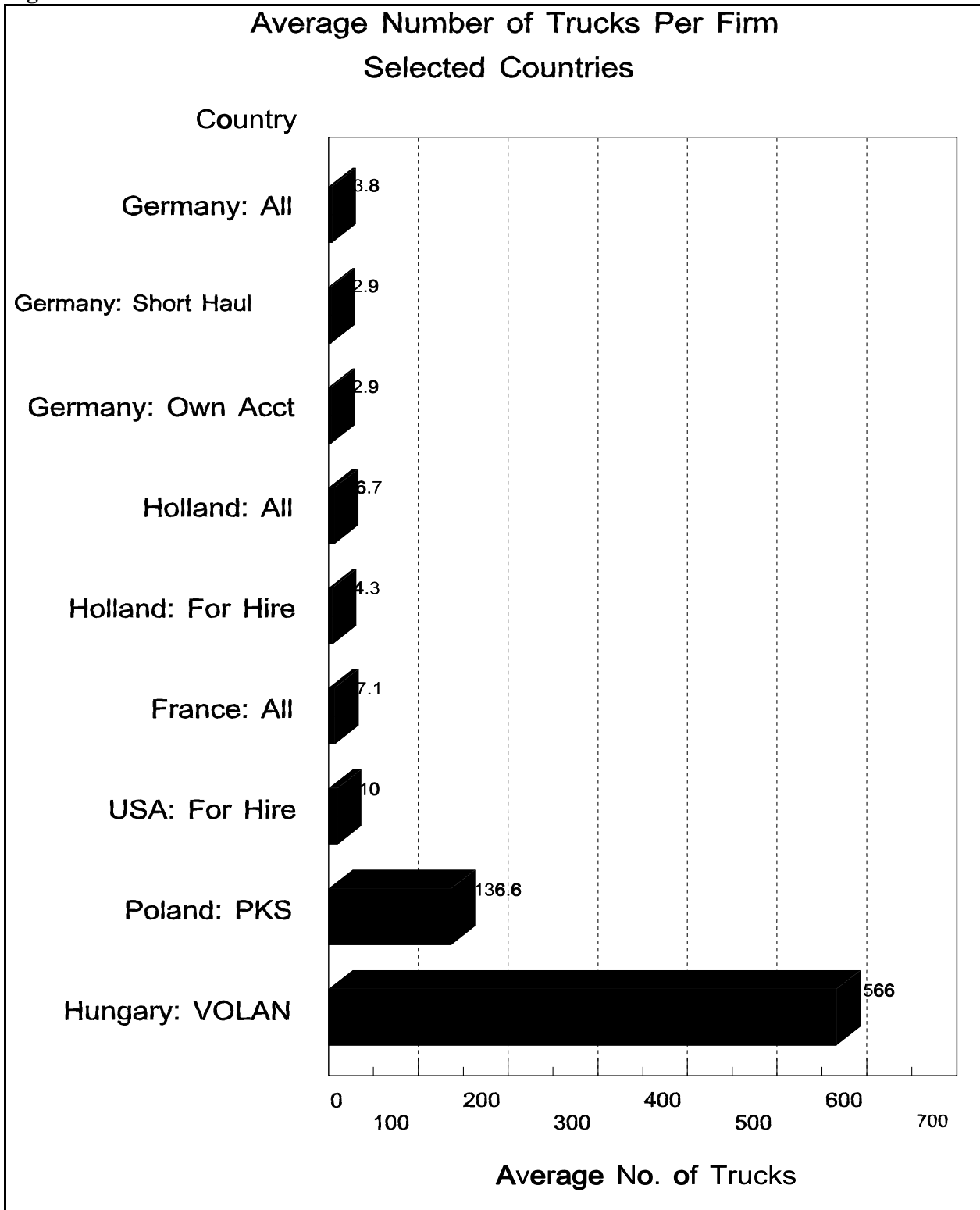
Firm Sizes

Considering only the haulage component of the enterprises that emerged from the break-up of the monolithic trusts, one notices their large sizes. The pure road haulage enterprises of Poland's PKS have on average, 240 trucks per entity, with a range from 137 to 574. Mixed units have smaller fleets, 113 trucks on average, with 47 trucks with the smallest fleet. In Hungary, the haulage fleets of individual Volán enterprises are larger. At end-1989, Volán's three pure haulage enterprises had 2,510, 799 and 418 trucks.^{15/} In the 18 mixed enterprises, fleet sizes ranged from 328 to 1,035 units, with an average of 530. Fleet sizes of that order are exceptional in Europe's market economies (Fig. 6).

^{14/} For Poland's PKS, passenger revenue after subsidy in 1989 exceeded freight revenue by perhaps two-thirds. In 1990, it was expected that the relation would be strongly inverted, and that passenger revenues, even before subsidy (at the reduced rate) would exceed freight revenue by 90 percent.

^{15/} The fleets of Volán Tefu, Duna Volán and Volán Tomegaru.

Figure 6



Enterprise Assets and Facilities

The autarkic character of socialist enterprise is further reflected in the range of assets and facilities that individual establishment control. In both Poland and Hungary the estate of road transport enterprises, after separation, included housing, holiday homes and medical facilities for their staff. Since the haulage enterprise also undertook loading and unloading of vehicles, they possess large amounts of mechanical loading equipment. Most striking, however, is the range and size of workshops. The socialist economies of Central and East Europe are noted for the relative absence of independent suppliers of components and sub-assemblies. The estate of PKS and Volán enterprises therefore also includes component producing units that one would not expect to find in a road transport enterprises operating in the setting of a market economy, developed or developing. Practically all the enterprises control extensive workshops, and some own heavy workshops engaged in vehicle rebuilding. The work forces of PKS and Volán contain roughly one mechanic for every two to three drivers and a least one Volán enterprise has one maintenance and repair bay for each vehicle, truck or bus, in its complete fleet. The explanation of these large workshop facilities must lie partly in the state of the vehicles and in the experience of high demand for transport services.

Range of Operations

In market economies, haulage firms tend to specialize in different segments of the market for haulage service. In Poland and Hungary, however, state-owned haulage enterprises are highly diversified. Diversification is greatest in Hungary while Poland's PKS has moved, or been driven, to concentrate on longer-distance haulage which is the staple occupation of general trucking in market economies. But even in those PKS enterprises that earn the larger part of their revenue from long-distance haulage (50 kms or longer) there is still much varied short-distance working: haulage of construction materials and agricultural products and various kinds of less-than-truckload jobs. Diversification is carried further in the Volán enterprises each of which seems to be providing for the entire range of haulage jobs within the country. Local short-distance work is combined with long-distance haulage, with bulk transport, transport of construction materials, consolidation and distribution, delivery to and collection from, railway stations, spot-market provision of truck and driver

for work under client's control, small-volume, rapid distribution by van, and vehicle leasing. The equipment is correspondingly diverse.

Enterprise Structure for a Market Economy

Enterprise size and the mix of enterprise output or operations are the most readily observable characteristic that distinguish the road transport industry of Eastern and Central Europe's transforming economies from those of the market economies of Europe and North America.

In the market economies, haulage not ordinarily combined with passenger transport in one and the same transport business. Whatever economies of scope may be available from the combination, the fact that one does not observe it indicates that they are outweighed by the disparities of markets for transporting persons and transporting goods, and by the very dissimilar managerial requirements. The evidence from market economies suggests further that there are significant economies of specialization within the haulage industry. General trucking is not carried on in combination with local distribution or industrial contract work or the other varied types of service which Volán enterprises in Hungary and PKS and, especially, the Branch transport organizations of Poland seek to supply.

Next, research in industrial countries suggests that road haulage (at least its full truck-load component) is subject to constant returns to scale. If the size distribution of firms and the analysis of the costs of trucking firms in some of those countries nevertheless points to economies of size, that is the effect of the regulatory system. Larger enterprises have readier access to additional licenses than smaller ones. In the smaller enterprise, the probability of having the appropriate license for undertaking a particular job when it is offered is lower than in the larger firm (Friedlaender and Spady, 1981). In the socialist economies, such non-technological economies of size resulted from the general organization of industry, and the system of economic controls. Large industrial enterprises have tended to buy service from large transport enterprises since that saves transaction costs and makes the administrator's life easier. The tendency is reinforced by the absence of a dominating profit motive. And the power of the enterprise to bargain successfully with the state, for performance targets, subsidies and the level of administered prices, increases with its size. In a market economy which allows competition in road transport, these advantages vanish. The data of Europe's market economies

do indeed suggest that there may be diseconomies of large size in the haulage industry.^{16/} In those countries, road haulage has accordingly proved itself a main entry in to small-scale entrepreneurship, and a main sector for medium-size enterprise. So it is also proving itself in Poland and Hungary, in the growing margin of small-scale private trucking that surrounds their large state-owned enterprises.

There are close similarities between the structure of road haulage industries in different market economies, and the observation of similarity is consistent with the technology of trucking, the economics of trucking and the principal-agent problems that characterize the business. Insofar as structural features observed in market economies represent the norm for viable performance of the service under competitive conditions, it follows that as the economies of Eastern and Central Europe approach the norms of market economies, road haulage will undergo structural change. It is then a question of policy how that restructuring should be undertaken, and by whom and when?

Transformation: Legal Framework, Policy, and Road Blocks

Formal Status of Enterprises

In a formal sense, state-owned enterprises in both Poland and Hungary, at the end of the 1980s, possessed considerable autonomy.

In Hungary, detailed annual planning to the level of the individual enterprise ended with the institution of the New Economic Mechanism in 1968. From then on enterprises were to maximize profits, with managers' bonuses tied to those profits. Policy in the early 1970s turned again towards more centralization, but a new process of reform, towards greater enterprise autonomy, started in 1979 (with the Sixth Five-Year Plan, 1981-85) and was then reinforced by measures taken in 1986. In Poland, the State Enterprises Act of 1981 conferred on state enterprises the status of "autonomous, self-managing and self-financing economic entities, with formal corporate status".

^{16/} In France, in the mid-1980s, 15 percent of the total stock of goods vehicles was operated by firms with fleets above 200 vehicles. In Hungary, 33 percent of the national stock appears to be controlled by firms with over 327 vehicles. (Bennathan, Gutman, Thompson, 1991b.)

In neither country did these reforms allow full autonomy in the management of enterprises and their assets, to the degree that prevails in most state-owned enterprises in Europe's market economies in the recent decades. State intervention occurred in the granting of subsidies and pricing, and, in Poland, in determining the production "profile" of enterprises and in merging and liquidating them.

Formally, and seemingly also in practice, autonomy of enterprises from central direction went further in Hungary than in Poland. In state-owned road transport, moreover, the power of control over enterprises is very differently distributed in the two countries. The difference exists in two dimensions: first, in the distribution of rights among state authority, enterprise managers and workers; second, in the ways in which different component of road transport were assigned to alternative governance systems and fiscal regimes.

In Poland, employee self-management in state enterprises was instituted in 1981. PKS enterprises were — and remain in some part — under the sponsorship of the Ministry of Transport and Communications, the industry's "founding body", and under the control of their Workers' Councils. The workers, through their delegates, exercise substantial control over managers (appointed by the founding body but removable by the workers) and, with some veto rights, over the disposal of profits, over investments and employment and (in limits) over wages, and over major operational issues. That was also the constitution of the large Branch transport enterprises.

The state's regular control over the state enterprises operates through fiscal and financial obligations. Increases in wage bills over prescribed limits attract penal taxes. Second, since 1989, the capital of state-owned enterprises is deemed to consist of founder's capital and the enterprise's own funds. Founder's capital in each enterprise was computed as the 1983 book value of fixed capital plus 25 percent of inventories financed from equity, all revalued for inflation. Enterprises are under the obligation to pay interest on this debt. This payment to the Treasury, called "dividend", replaces the former profits tax and was due, in 1990 and 1991, at the rate of 32 percent.

The reorganization of 1989, however, entailed a differentiation of status among PKS entities engaged in road haulage. Those engaged in passenger transport, hence also the 140 "mixed" PKS

enterprises but not the rest of Poland's state-owned road haulage, retain the status of public utilities and remain under the sponsorship of the Ministry of Transport. As public utilities, their liability for payment of the "dividend" on founder's capital is reduced by two-thirds of the standard rate. They are exempted from various taxes and receive subsidies, negotiated between the Ministries of Transport and Finance, specifically for the support of passenger transport. They are protected against bankruptcy proceedings. There results a significant discrimination in favor of one sector of road haulage, against all the rest.

In Hungary, also, the transport of passengers confers public utility status if it is the main activity of the enterprise. Under the rules prevailing in 1990, enterprises that draw more than one-half of their revenues from passenger transport may raise wages throughout the enterprise at a higher rate than allowed to other industries, before attracting surtax on the wages bill. Eight of Volán's 18 "mixed" units earn roughly one-half their revenues from passengers and as the economic depression continues, this proportion is rising. In this way the system discriminates against pure haulage enterprise. But discrimination does not extend to Hungary's version of "founder's dividend". Profits tax, levied in 1990-91 at 18 percent of post-tax profits, falls equally on all state-owned enterprises.^{17/}

But public utility status also excludes Hungary's road transport from the class of state-owned enterprises functioning under "the general management of an enterprise council, or the general meeting of the employees." That is the status of three-fourth of Hungary's state enterprise. Road transport enterprises, however, as public utilities, function "under the supervision of state administration".^{18/} The autonomy of the enterprises in terms of the rights of managers and workers, is thus limited by comparison with Poland's road haulage, and the power of the state to initiate transformation is correspondingly greater.

Legal Framework

^{17/} Hungary's tax system does, however, discriminate in favor of professional haulage, against own-account haulage. VAT is charged at 15 percent on the former, but at 25 percent on the sales of the enterprise that integrates transport into its own operations.

^{18/} Act VI of 1977, on State-Owned Enterprises, and Implementing Decree No. 33/1984, para 17.

The reform programs of both countries steer towards the transformation, and ultimately, privatization, of socialized enterprise. Their laws establish the framework for this transformation. They are enabling laws that leave much room for policy decisions, but they do state the limits (which one presumes to have political and social sanction) for the policies by which enterprise transformation may be pursued.

Hungary's legislators moved first. The Act on the Transformation of Economic Organization, passed in May 1989 and since amended, regulates the manner in which state-owned enterprises of different status may be transformed into limited liability or joint stock companies.^{19/} The right to initiate "corporatization" of "enterprises under the supervision of state administration" vests in the founding body, acting with the consent of the Ministry of Finance. It vests, equally, in the enterprise itself which may ask the founding body to ordain the transformation. The amendment of 1990 appears to qualify somewhat the state's right to move independently for transformation, since it now requires the founding body to seek 'the opinion of the enterprise'. But the government's power to take the crucial decision for this class of enterprises remains much greater than in the case of Hungary's state enterprises governed by management and employees. Once the decision is taken, the founding body prepares the enterprise for transformation according to the requirements of the law. The shares in the new business become the property of the State Property Agency, except for shares corresponding to contributions by any third party.

Poland established the Bureau of the Plenipotentiary for Ownership Change in November 1989. Its first task was to prepare policies and laws for turning state-owned enterprises, in their entirety or in part, from indivisible 'social' property to divisible 'personal' property, capable of being owned, controlled and traded by natural or corporate persons. The results of much preparatory work and discussion are embodied in the Act on the Office of the Minister of Ownership Changes, and the Act on the Privatization of State-Owned Enterprises, of August 1990. Two main avenues are staked out for the process of "privatization". The first is transformation of state-owned enterprises into companies

^{19/} Act XIII 1989, entering into force on July 1, 1989. The chief amendments, to date, are contained in Act LXXVII, 1990.

governed by Poland's old commercial code, in the form of either Public Limited (joint stock) or Limited Liability companies. (In Poland, as also in Hungary, the law appears to have been drafted principally with an eye to joint stock organization). Ownership of the enterprise after "corporatization" vests initially in the Treasury which may sell parts or all to third parties. While transformation may be preceded by some restructuring of the enterprise, or followed by restructuring before sale of rights to third parties, it is essentially a method for changing the ownership status of an enterprise in its existing entirety. The alternative avenue is called liquidation (or winding-up). It connotes a more far-reaching rearrangement of the components and assets of an enterprise. Single assets or units of an enterprise may be sold or merged with other assets to form new companies which may initially be held in the sole ownership of the Treasury. Alternatively, the whole or parts may be let to a new lessee company, formed for the purpose by the employees of the "liquidated" state-owned enterprise. A major difference between these two modes exists in the matter of "competence" — the right to initiate action. Transformation occurs mainly at the instance of the enterprise itself, meaning, its Executive Director and Workers' Council. If the founding body wants to move for transformation, it needs the consent of the enterprise. In either case, the Minister of Ownership Change may refuse the request for state reasons. Lastly, the Prime Minister may order transformation, on the request of the Minister of Ownership Change and after obtaining "the opinion" of the enterprise. The employees also have the right to propose liquidation or winding-up (terms with a wider meaning than shutting-down) if the object is to let the enterprise in whole or in part to the employees. But if the purpose is to sell parts or all of the enterprise, or to sell piecemeal, the initiative lies with the founding body, subject to challenge by the workers and director of the enterprise. In the latter case, therefore, it is a matter for policy whether the decision to liquidate is taken and carried out. In 1990 and 1991, policy appears to be that winding-up is the appropriate measure when an enterprise has failed to pay its taxes or the 'dividend' due on founder's capital.

Impedances

Road haulage had been included in Poland's and Hungary's first programs of enterprise transformation and privatization. But in neither country has there been much progress during 1990 and 1991, in transforming, corporatizing or privatizing road transport enterprises. In Hungary, one large Branch transport enterprise and one large Volán haulage enterprise were transformed into joint-stock companies, the shares held by the State Property Agency. In Poland, minor liquidations of PKS entities took place in 1990, but none of them were entities with public utility status.

To the extent that the initiative should come from the side of the state — founding bodies or Minister for Ownership Change — there are several sound explanations for slow progress. Practice had first to be developed and rules and guidance had to be formulated. Agencies were understaffed and their foreign and local consultants had to find their way through complex jobs of evaluation and business analysis. Preference was given to large and more transparently promising enterprises since those were most likely to attract foreign interests. Moreover, both countries were throughout in deep recession. Little domestic demand for acquiring state-owned enterprises was to be expected.

But, in the schemes of both countries, it was also the enterprises themselves that were to take the initiative to restructure, transform and find private buyers and investors. The policy of dismembering Volán or PKS, of leaving the resulting entities to autonomous existence and the imminent withdrawal of subsidies and state assistance, implied such an invitation to self-help. Several road haulage enterprises in both countries, in the PKS and Volán groups and beyond, did start, or continued, to discuss joint-ventures or take-overs with foreign interests. But this search for investors was usually constrained by the condition that the enterprise was to be kept essentially intact in its current extent. Of restructuring, which should generally entail re-scaling and separating the inherited enterprise and its assets, there has been little sign.

Both countries had had experience with policies of enterprise autonomy under state ownership. Poland's experience in this regard was similar to that of Hungary where state-owned enterprises have been free since 1985 to sell off establishments and machinery, or close down units, to meet losses or improve productivity. But if enterprises used this right at all, it was only after many years of losses, under the pressure of state agencies that were no longer willing to cover the cost (Sziraczki, 1990).

Experience with those earlier reforms gave no grounds for expecting that enterprise managers and workers would do anything other than hold on to what there was, for as long as possible. Now, as then, managers had no proprietary interest in the enterprise. Now, moreover, the incentive of managerial bonuses tied to profits lacked force since the economies and the transport market were in decline. The managerial objective in those circumstances could not be to maximize the net worth of the enterprise. The objective is rather to preserve the enterprise as it is, undiminished in extent and employment. That is the appropriate strategy for maintaining the manager's own position, his job and status.^{20/}

The policy of management also conformed to the broad interests of the work force. The laws on transformation or ownership change of both countries provided some compensation for the employees of transformed enterprises. The penal taxation of wage bill increases above norm could be, and was, relaxed for transformed or privatized enterprises. In each country, there are provisions for workers' shares in transformed enterprises, to be given or sold at large discounts.^{21/} But in the prevailing condition of economic depression, rising unemployment and uncertain prospect for the economy, the chances of staying employed appear best in large enterprises within which profitable segments subsidize losing activities. In Poland's road transport industry, moreover, enterprise transformation would take away the workers' far-reaching powers over enterprise management leaving them with more limited co-determination rights within enterprise supervisory boards. In both countries, therefore, the preference of work forces supported the precautionary management policy of holding the enterprise together.

The plans formulated by the managements of individual road transport enterprises in both countries, in 1990 and 1991, reflect this defensive attitude. There are plans for internal reorganization by way of subsidiary formation; for changes in the nature of business (e.g., freight forwarding, or vehicle leasing, or dealerships for foreign-make trucks) and for converting the original operating enterprise into a holding company, to hold all those new offsprings. But offers for parts of the business such as had been received in several instances, would be turned down. Selling parts of the whole was a

^{20/} Poland's Act on Privatization of State-Owned Enterprises provides moreover a strong counter-incentive to privatization efforts by managers. " Nominated employees" will cease to be employed in the transformed enterprise, unless they are re-engaged (Art.9, para. 2). Other employees, however, are to keep their positions.

^{21/} Poland: Act on the Privatization of State-Owned Enterprise, Art. 24. - Hungary: Act VI, 1988 (Company Act), para 244, and Act XIII, 1989, on enterprise transformation, para 2(1), (3).

last resort, to stave off bankruptcy or liquidation. For as long as enterprises could stay out of serious difficulty, managements sought to stay away from government agencies in charge of preparing and controlling enterprise transformation: the State Property Agency in Budapest or the Ministry of Transport in Warsaw. Intervention by those agencies is bound to lessen the control of managers and workers over the fate of their enterprise and might result in restructuring and rescaling (as well as other changes inimical to management interests). Managers accordingly kept their distance and attempted to find partners or investors, and to negotiate with them the terms on which transformation would be proposed to the authorities. That experience, repeated also in other Central and Eastern European countries,^{22/} forms the decisive case for privatization: for establishing not merely ownership rights but also effective control in the owner's interest.

Internal Transformation and Sideways Privatization

Internal transformation in state-owned haulage enterprises and in the haulage departments of socialized industrial enterprises of Poland and Hungary did nevertheless take place. Often this extends to forms of partial privatization.

Poland's PKS and Hungary's Volán enterprises are letting vehicles, and Branch transport enterprises in Poland have let off complete depots. In many of these cases, the lessees are the enterprise's own staff and management. In Poland, state-owned industrial enterprises have turned their transport departments into self-contained subsidiaries, jointly owned by the mother enterprise, its workers and the managers and workers in the subsidiary. The subsidiary is the lessee of the mother enterprise and has the option to purchase the leased equipment and facilities. The incentives for this decentralization are partly fiscal in that the wage bill of the subsidiary can be raised above norm without attracting penal taxes. But productivity in haulage also improves, and the financial discipline over road transport is strengthened: the service is accounted and paid for.

Hungary's Volán entities were particularly active in the formation of subsidiary companies. Individual county enterprises have created 20 or more such formally independent units, usually

^{22/} It corresponds to the experience of Germany's Treuhand: see, for example, Handelsblatt, 29 August 1991 — comments of Mr. Hero Brahm, Treuhand Vice President, on the privatization of the ceramics combine Tridelta AG.

separating out distinct activities such as accounting or local distribution. The most popular legal form of offshoot companies is the Limited Liability Company; next to it, the Deposit Partnership in which the mother enterprise stands in the place of the partner with unlimited liability.^{23/} The creation of these free-standing and quasi-private satellites was presumably also motivated by fiscal reasons, such as the exemption of companies with a revenue below FT 20 million (US\$320,000) from the wage bill tax, and by the accelerated depreciation available to private enterprise.

But subsidiary formation also opened opportunities for privatization within the family circle of the enterprise. Hungary's State-Owned Enterprises Act had allowed management to transform part of their enterprise into separate companies, organized in various commercial forms. The 1989 Act on enterprise transformation confirmed that right, in clearest language.^{24/} The Company Act of 1988, however, had allowed individuals (natural persons) to participate in different forms of business associations, with state-owned enterprises.^{25/} The way was thus open for managers to create subsidiaries in which they and the employees of the state enterprise would invest, whether in the form of money or work, thereby becoming the partners of the mother enterprise, in a business that typically supplied, or worked for, the mother enterprise.

There are clear advantages in this formation of legally distinct entities, with their internal and external relations ordained by modern company law. The advantages are clearest in the interim stage that precedes a complete re-ordering of ownership rights, and before unambiguously entitled owners have established effective control over the enterprise. The subsidiary then stands apart from the problematic ownership conditions of the mother enterprise. A new opening balance is drawn up and accounting starts afresh. Experience in reforming socialist economies (including East Germany before unification) showed these to be essential preconditions for third parties to enter into joint ventures with state-owned industries. Not the least benefit from separating units from the main enterprise and

^{23/} The Deposit Partnership corresponds to the German Kommanditgesellschaft, or the French Société en Commandité. — The Volán offshoot companies include also a few Unlimited Partnerships, and Affiliated Companies.

^{24/} Act VI of 1977, on State-Owned Enterprise, and Implementing Decree 33/1984, para 20, and Decree 59/1989 authorized the board of directors of a state enterprise to establish branch companies and undertake major participations in business associations. Act XII of 1989, on the Transformation of Business Organizations, para 18, authorized the boards of directors to transform branch enterprises into business associations.

^{25/} Act VI of 1988. This mixed participation had not been legal before, except in the form of a Civil Law Company (corresponding to the German Gesellschaft des Bürgerlichen Rechts).

endowing them with a legally distinct character is the potential effect on the accountability of management, and the greater transparency of economic and commercial results of different branches.

But the risks of abuse are equally clear, and the discovery or suspicion of abuse has caused strong criticism of "spontaneous privatization" in Hungary, or "Nomenklatura privatization" in Poland. If managers and workers of the mother enterprise participate in the new entity with their own resources, and if those contributions are fairly valued, there should be no objection. But the transformation becomes problematic when valuations are distorted. Private contributions may then get valued high relative to the contributions from the state-owned estate of the parent enterprise; transfer pricing between daughter and mother become means of transferring wealth. Similar risks exist whenever state-owned property is sold, whether to third parties, or to enterprise staff or former staff.

A Hungarian law of January 1990 sought to bring such vulnerable transactions — whether outright sales, or enterprise participation in business associations, or leasing — under the control of the State Property Agency.^{26/} One unhelpful consequence of the law appears to have been to deter the management of viable Volán units from drastic restructuring of their enterprises, and from pursuing all genuine and legitimate options for partial privatization. Moves that would bring the State Property Agency into their affairs were evidently seen as prejudicial to the integrity of their enterprise.^{27/}

^{26/} Act VIII of 1990, on the Protection of Property Entrusted to Enterprises of the State, in force from March 1, 1990.

^{27/} Act VIII, 1990, required that the State Property Agency be notified of any proposed participation, letting or sale, of assets, if the value exceeds specified levels or specified percentages of the enterprise's total assets. In all such cases, it provided for an audit by the agency and laid down the procedures to be followed in order to ensure the arm's-length character of the transaction. Para 1(d) set the limit for discretionary sales of assets or leasing contracts at FT 50 million (US\$820,000) in any two years. Managers of Volán Units gave to understand that they would not willingly cross this line, and that it presented a real impediment to enterprise restructuring.

IV. Premises of Policy

Privatization: Speed, and Order of Precedence

Privatization Models, and Implementation

A major issue in the privatization strategy of the reforming countries of Eastern and Central Europe is the speed with which the process is to move. The next question is then, in what order, and by what criteria, should enterprises be selected for privatization?

The plans of the countries differ in the mechanics of divestiture, and in the stations envisaged for the process. Small-scale privatization is provided for in broadly similar ways. It covers chiefly retail establishments and their transfer to private owners or lessees. The details vary, including notably the reliance on competitive bidding, but the intention has been to move fast.

Poland's model provides separately for different size classes of enterprise. Large enterprises will be transformed into corporations. Their shares will be bought and ultimately traded by a group of newly created mutual funds, bidding for shares against the privatization vouchers which the state is distributing to the public (who may use them only for buying shares in the mutuals), to the social security fund, the banks and the mutuals themselves. Medium-sized and small enterprises, 5,000 to 6,000 in number, are to be sold by treaty, liquidated or turned into state corporations at the instance of founding bodies, regional agencies or Ministry of Ownership Change.

Hungary's program for large and medium scale privatization (of large and medium sized enterprises) provides for the flotation of the shares in selected enterprises, transformed into companies, on the local and foreign stock exchanges. Further enterprises will be transformed and their shares appropriated by the State Property Agency which will seek to sell them, or such part as is not to remain state property. It provides also for buyer-initiated privatization, negotiated by the enterprises and audited and controlled by, or on behalf of, the State Property Agency.

How rapidly should ownership and control, or just control, of economic enterprise in the state-

owned sector be transferred to non-government parties? The argument for speed relies on the lack of clear incentives facing state-owned enterprise, or, indeed, the perversity of incentives. A protracted process will, moreover damage the economy further, oppose obstacles to privatization, and enlarge the opportunities for asset stripping. Above all, gradualist privatization will provoke political resistances on the part of those who lose employment or who blame the decline in living standards on privatization. The risk of a gradual process is then that privatization will be halted. On this view, for tactical as well as efficiency reasons, restructuring of enterprises should be left to the new owners. (Lipton and Sachs, 1990). Counterarguments, at this level of generality, turn essentially on the efficiency of the private economy that is to replace the state-owned industries. Rapid privatization cannot ensure that the state's property will reach the hands of better owners. Kornai (1990) thus stresses the importance of deliberate placing of enterprises. The approach implies, if not case-by-case privatization, than at least a gradual procedure that will contribute to a "ground-up" development of the private sector.

Hungary's and Poland's programs have been ambitious. Small retail establishments were to be rapidly sold off, or let off. Poland plans to privatize one-half of the 9,000 state-owned enterprises in the space of three years, to 1994. In Hungary, 50 percent of the state-owned share in sectors that do not have to operate as monopolies, are similarly to be privatized by 1994, that is, within three years.

The start has been slow. Progress in Poland, in the period to mid-1991, appears to have fallen somewhat behind Hungary where matters were helped by substantial inflows of foreign direct investment. But in both, delays are caused by the limited capacity of the privatization agencies. Other obstacles consists in tangled and obscure ownership rights on enterprises, establishments and premises: problems that obstructed the privatization of Hungary's retail establishments in 1991. The enterprises themselves remain reluctant to transform and negotiate privatization except on terms that are not conducive to speed nor always consistent with the wider objectives of economic policy. Lastly, the recession continues. Poland's GDP fell 4.3 percent in 1990, and by 14.9 percent in the first five months of 1991. By mid-year, unemployment had reached 9.4 percent of the working population and was rising. Hungary's GDP fell by 4.3 percent in 1990, repeated apparently in 1991, while unemployment was reported at 6.1 percent in September 1991. In both countries, the market for transport of goods declined deeper than national output or industrial production: the normal reaction of transport to

fluctuations in production. In Poland, tons lifted by socialized professional transport (road and rail), in the first quarter of 1991 were a full 60 percent below the corresponding period of 1988; road haulage had dropped further, by 72 percent. An unknown part of this loss was compensated by the growth of private trucking. In Hungary, ton-kilometers of goods transported by road in the first half of 1991 were 30 percent below the level of the corresponding period of 1990; rail ton-kilometers fell 25 percent. (Industrial production, by the same comparison, was reported to have lost 12 percent).^{28/}

In such circumstances, private domestic investment which forms the most obvious basis for privatizing domestic road haulage, is bound to be low. Official statistics of income, output and employment in both countries are known to be imperfect and may well be exaggerating the intensity of the decline. But even a considerable error in the estimates should not negate the impression of deep recession. That impression is consistent with political reactions, strongest in Poland where privatization plans were scaled back in October 1991 with the object of preventing bankruptcies.

The Case for Gradualism

Which of the various privatization models are appropriate for road haulage? If the organization and scale of haulage enterprises in Europe's market economies are seen as the norm, most haulage enterprises in Poland and Hungary will tend to be directly controlled and managed by their owners. The mean enterprise size should therefore be significantly smaller than in the present socialized sectors. In terms of the explicit model formulated by Poland, the appropriate category for road haulage, after restructuring and scaling-down of its constituent entities, is small or medium class privatization, organized and guided by founding bodies and other state agencies.

The speed with which road haulage could be privatized, or just offered to private parties, depends in part on the disposition of the right to initiate proceedings. These constitute less of a hurdle in Hungary than in Poland, but there the barriers might be lowered by the introduction of additional inducements to the enterprises. Attempts at wholesale privatization, in pursuit of a policy of speed,

^{28/} Polish data from World Bank reports and from the Statistical Bulletin. Hungarian data from Statisztikai Havi Kozlemenyek.

could not, however, distinguish between enterprises that promise to be viable and others of doubtful viability. Viability of the socialized road transport undertakings, in their present structure, is difficult to assess, quite particularly when the enterprise combines freight with passenger transport. Enterprises of doubtful promise are more difficult to evaluate than those with promise, and the low price offered will reflect the risk. The issue is politically sensitive, as experience has shown. If sales are done by open auction, as should be practicable in the disposal of smaller haulage units, the political risk may be minimized. Not so, however, the risk that privatized haulage enterprises which get into difficulty will raise demands for outright bail-outs, or more persuasively, for market protection.

The standard method for protecting the haulage market of incumbents is by regulations that segment markets and restrict entry. Road haulage enterprises in Hungary and Poland are already arguing for control of competition by way of regulatory restriction on entry into the profession and its various markets. The demand is for "concessions" on the German or Austrian model of quantitative restrictions ("Genehmigungen"). Many countries of Europe and North America have subjected road transport to entry restrictions. Most regimes originate in the depression of the nineteen-thirties and were designed initially to protect the railways, and subsequently, to protect incumbents against newcomers and against each other. A wealth of studies and research have shown such restrictions to be cost-raising and distorting in their effect on the structure of the industries.^{29/} Starting in the 1960s, several of the regulatory systems were dismantled and the general trend in the European and American market economies is towards deregulation. For Poland and Hungary, however, the argument from social policy should be as weighty as that from efficiency. In each country, private haulage has been growing throughout the 1990s. There as elsewhere, it has shown itself to be particularly suitable for small-scale operations, and an opening for entry into small-scale entrepreneurship. In Hungary, in 1988, small-scale and one-man trucking enterprise afforded employment to 26,000 persons and the numbers will have grown much since then. In Poland, in 1990, 150,000 private truck owners registered with the tax authorities an activity in public haulage. Each country strives to develop employment and property ownership for its middle classes. Restrictive regulation of road haulage would partially expropriate those private people who have already established themselves in the occupation, and

^{29/} On the effect of regulation upon relative transport prices under Germany's restrictive regime, see Gellner and Lammich (1991) and sources quote there.

narrow the field for newcomers in search of independent economic activity. But recent experience of Hungary suggests that it is difficult to resist claims for protection from investors in privatized state enterprises once they come under competitive pressure.^{30/} Privatizing enterprises that do not seem viable in their present size and structure invites such demands. On those grounds, of efficiency and social policy, precedence in privatization ought to go to the enterprises that seem viable in their present shape.

That makes the case for gradual, or staged, privatization of road haulage. But if that policy is adopted, it will obviously not be pursued for an indefinite period. Enterprises that remain unviable for several years should be disbanded, and unless a term is set for the policy, enterprises kept in state ownership will face the wrong incentives. The problem to be solved is therefore, how should enterprises be governed in the interim, with a view to maximizing the chances of viable units emerging in the period before a final disposal of remaining assets and establishments? To the extent that enterprises in the two countries differ in legal status and that the countries have adopted different laws, part of the solution is specific to the countries, and, within countries, to different categories of road transport enterprise. But the problem of incentives for management are common, and we focus on those.

Management, and Incentives for Management

Road haulage in Poland and Hungary has no lack of technical managers of high quality. The scarcity is rather of managers with commercial skills, orientation and experience. That kind of experience was more available to management in enterprises engaged principally in international transport, or in freight forwarding. For those that served predominantly the internal market, the old order did not offer much scope or inducement for the development of those skills.

The enterprises operated under layers of management, from apex organizations down to the divisional headquarters in Poland, or county directorates in Hungary, and further down to subordinate

^{30/} In October, 1991, Hungary raised import tariffs on color television, mainly in response to complaints by new joint ventures based in Hungary. Also, shoe imports are to be subjected to quotas. Financial Times, 11 October 1991.

operating units. At the pinnacle of Volán stood the Volán Union.^{31/} It "harmonized the economic activities" of the individual Volán enterprises, represented them in negotiations with government, with the source of credit and with large clients. The enterprises were linked by contracts, undertook joint purchasing and while independently taxed, restricted themselves to assigned market areas. In Poland, individual PKS units accounted to their supervisory bodies but were not involved in investment decisions or in contacts with sources of finance, credit or subsidy. Managers of the subordinated divisions made their requests for equipment and other capital items. But the decision on how much to expend from the resources of the enterprise and state grants, how much and what to acquire, and how to distribute it among the subordinate units, was reserved for the supervising body. In each country, the concentration of major managerial functions at the top responded to the structure of the banking systems. Before the reform of the banking system, in the late 1980s, credit for road transport had to be sought from the directorate of the national bank that had infrastructure assigned to it. With the establishment of "two-level banking" in Hungary, and of the "universal" banks in Poland, those directorates emerged as independent institutes, taking their traditional clients with them.^{32/} Banker experience in the industry and its constituent parts was thus highly concentrated and is spreading only slowly to other institutions and their staff. It was therefore natural that transactions with the banks (as with the Budget) were subject to a corresponding principle of concentration, and reserved to the apex managers. In terms of the functions assigned to management at the lower levels of the pyramid, the individual divisions or directorates or their subordinate operating units were not, therefore, "firms" in the sense of market economies. Experience that is required in the managers of such firms is scarce in the corps of managers of the state-owned road transport organizations. They neither received nor felt a strong need for, the commercial and financial information that managers in market economies demand as a matter of course. The lack of a compelling need for such information at the lower layers of the organization may go some way towards explaining the underdeveloped state of accounting in the operating units, extending in some cases even to the state of cash-flow accounting.

^{31/} Under Hungary's law (Act, VI, 1988, on Economic Associations) Unions are economic associations formed by legal entities for the sake of promoting the efficiency of their operations, for the harmonization of their economic activities and the representation of their professional interests.

^{32/} In Poland, infrastructure was the original client of the State Credit Bank of Warsaw; in Hungary, of the Hítel Bank.

Privatization creates strong incentives for the development of commercially competent managers. In the road haulage business of market economies, owners tend to stay close to their firm if they do not actually manage it themselves. But if privatization is to proceed gradually though continuously, over a period, some enterprises will stay in state-ownership. The problem to be solved then, is what incentives for managers, and what obligations on the enterprises will maximize the chances of the enterprise restructuring itself so as to become marketable as a viable business. The problem is not unique to the road transport industry but has features specific to it.

A basic requirement of the regime appropriate to road transport enterprises that yet remain unprivatized, is an unambiguous ordering of the ownership relation. Effective appropriation by a unique owner is easier in Hungary than in Poland where the rights of workers and managers effectively compete with those of the state as owner of the residual income.

Ownership implies the right to control. Controls intended to limit the room for managerial actions can be enshrined in rules. Whether more active intervention is practicable (guidance on business strategy, or scrutiny of specified managerial decisions) should depend on the capacity of the supervising bodies. The more limited is that capacity, the stricter would have to be the rules, to protect the ultimate owner who bears the ultimate liability.

The cost of reliance on rules is therefore that it narrows the scope for enterprising managers. Similarly, exclusive reliance on the possibility of bankruptcies or liquidations which deprive managers of their job will, as is well known, induce risk-averse behavior.^{33/} Managers of road transport enterprises will seek to stave off the danger by means that may fail to maximize the value of the enterprise; for instance, by the sale of assets that will have the least impact on the technical or physical scale of the enterprise. To limit the resulting distortion, the (negative) incentive of bankruptcy will have to be balanced with performance targets which are not easily determined in the near-term circumstances of Poland's and Hungary's transport markets.

^{33/} For a fuller discussion, see Newbery (1991); also Borensztein and Kumar (1991).

V. The Options

Freight and Passengers

Separating the Disparate

Even if passenger transport were not subsidized, the combination with road haulage in the same business seems fundamentally inefficient in terms of management and operations and also in fiscal terms.

The two activities differ in their techniques (e.g., in the capital/labor ratios) and in their markets. Passenger transport is typically tied to a local market. In Poland, 60 percent of passenger trips are within the narrow locality, another 30 percent within the same voyvodship, and only 10 percent go further. Organizing passenger transport by the country's administrative divisions may then be sensible, operationally as well as fiscally. For road haulage, however, the market area is not in general the administrative division, be it county or county subdivision. Local distributors work within or around the locality, but for other freight business the local authority boundaries are locationally and commercially irrelevant. Techniques of production and type of market are major determinants of management style. Different types of managers are needed for the distinct services.

Subsidization of passenger transport adds to the case for separation. Subsidized services require some measure of administrative control. This feature also determines the type of management appropriate to the enterprise. But no amount of administrative oversight will prevent the seepage of subsidies to other branches of the operation of an enterprise that has freight haulage as a significant part of its work. Lastly, in Poland and Hungary, public utility status confers legal privileges and fiscal exemptions. Whenever the entire enterprise benefits from this status, the haulage department is placed at an unjustifiable advantage over the rest of the industry. Separation of passenger transport from freight haulage is therefore a precondition for restructuring and privatizing state-owned road haulage.

Options and Methods

The separation of passenger transport from haulage might be attempted by formally rigid departmentalization of the two activities within the single enterprise. Assets and liabilities would be valued and imputed, to appear separately in the balance sheets, and accounting and operational management would be strictly separate. Joint facilities would either be established as separate cost and profit centers, selling their services to the using departments, or incorporated with one or the other operating department. The fiscal benefits of public utility status would be confined as far as possible to the passenger transport department. This option of internal separation would create the least disturbance to existing road transport entities. By the same token, however, it would tend to perpetuate the status quo. The use of, and accounting for, subsidies intended for passengers would be difficult to control. Privatization of mixed entities, whether by sale or lease, will prove difficult since bus operation and haulage operation are different activities with different appeal to entrepreneurs. If retained in state ownership, it will be difficult to attract effective managers to an operation that remains partly under public supervision and will not be free of bureaucratic characteristics, familiar from railway organizations.

There is then a strong case for the alternative option of establishment separation. Separation, preceded by audit, valuation and division of assets, including depots and stations specific to either form of transport, should extend to all the aspects of business: financial, managerial, commercial and operational. Facilities that cannot be divided should be established as independent units. Locational separation, including main offices, should be at the discretion of the two managements. Responsibility for passenger services should be assigned to the subsidizing authorities, central or local. Models for organization and control of road passenger transport, with or without private sector participation, may be found in Europe's market economies of approximately similar population size.

Inefficient organization of a large segment of public road transport imposes a cost on users and on the economy. The task of uncoupling passenger from freight transport so as to create separate establishments is likely to be considerable. It will require guidance and the readiness of state or founding organs to exercise the authority of final arbiter. But there is no case for waiting or for tying the separation of establishments to specific stages of a country's privatization program. Separation is not just a precondition for privatization but promises also to raise the productivity of transport resources in advance of privatization.

Hungary's authorities appear to be equipped with all the necessary powers to ordain a separation of establishments. The weakness lies rather in the capacity of the present institutions to guide and monitor the process. That argues for the creation of an institution which, as indicated later, should also be required to speed the process of road haulage privatization. Institutional development will also be required in Poland. There, however, the existence of Worker's Councils in the mixed transport entities of PKS may present a special problem. By virtue of performing passenger services, the mixed entities enjoy public utility status and the various benefits of that status extend to the entire work force. The logical solution seems to lie in a withdrawal of public utility status from mixed entities, confining it to pure passenger transport enterprises. It may be thought right to add positive incentives to this negative one, by allowing some compensation to workers in the separated haulage entity that might either be created at the initiative of the relevant authorities, or by way of the formation of self-contained pure haulage subsidiaries of the individual PKS enterprise. Assets and liabilities (including Founder's Capital) would be distributed between subsidiary and mother enterprise (or between the distinct establishments) in proportion to the separate work forces, or according to a formula that gives weight to both plant and equipment, and work force. If separation occurs through the establishment of subsidiaries, the contracts between parent and daughter would need to be monitored as in all cases of subsidiary formation.

Ownership, and the Mechanism of Control

Irrespective of the proposed limits of privatization of state-owned enterprise or the speed of the process, the elementary first step is to establish the ownership relation. The formal aspect of this appropriation should be easier to accomplish in Hungary's road haulage sector (where enterprises are "under the supervision of state administration") than in Poland where the personnel of the PKS enterprises had been accorded rights that are normally vested in owners. But the other aspect of establishing ownership consists of collecting the assets. This requires a census of what is owned, and therefore an analysis of the debts and claims of parent and daughter enterprises — of inter-Enterprise indebtedness which characterizes the state of socialist industries at the end of the 1980s, and of the distinct rights to parts of the estate of an enterprise or business (specifically, to land and the claims lying on it). In performing this adjunct to formal appropriation, all the transforming socialist

economies have encountered great and perplexing difficulties. Hungary's attempts to privatize retail establishments were caught in these nets in 1991, and the industrial transformation program of that year was based on no clear idea of the total estate and its components. Poland's PKS units in late 1990 remained ignorant of their own liabilities since these had still to be extricated from the tangled records of the provincial directorates.

Assertion of ownership right and collection of properties promise to answer only part of the purpose of privatization or enterprise transformation. The other part consists of installing a mechanism of control. The problem is solved, for better or for worse, by direct sale or transfer of the enterprise to a 'residual' owner who will operate it, as one would expect in the case of small or medium-size road haulage enterprises. Indirect privatization, exemplified by the distribution of vouchers to Poland's citizens, has to be complemented by a mechanism of control on behalf of the owners. A distinct mechanism of control and supervision is required for enterprises retained in state ownership pending privatization.

Measures of "corporatization" which have been widely discussed and increasingly practiced in the transitional economies, encompass several stages in the process of enterprise transformation. The essence of the technique is to turn socialized enterprises into corporate organizations consistent with the prevailing company law (which in Hungary and Poland, resembles closely the laws of Germany or Austria). Corporate form requires a clear identification of owner (which is the state or a state agency), prescribes the organization of management and supervision with the duties and rights of owners, managers and directors, and imposes auditing and accounting obligations. It thus turns the social enterprise into a formally commercial organization, on a par with private business similarly organized. Corporate ownership and control are capable of being sold, in whole or part, in conformity with commercial and company law.

Corporatization in Hungary and Poland has generally been envisaged for the large enterprises, or large parts of large enterprises. In Hungary it was accomplished de facto for two large road transport enterprises and proposals were canvassed (but not adopted) for corporatizing Volán road haulage entities after consolidation into a limited number of large groups.

Specific corporate forms imply different systems of control or management. Much of the discussion of corporatization in the transitional economies envisaged transformation of social enterprises into joint-stock companies, probably on the notion that property divided into shares (of a unit value that can be freely decided, from case to case) is easily sold and traded. Road haulage, however, is generally found more suitable for organization on a small-scale and for owner-manager control, and the form of association that dominates in market economies corresponds to this scale of operations. Road haulage in Europe's market economies contains a limited number of large enterprises organized as joint-stock companies but the greater part of trucking is performed by medium or small businesses which adopt a simpler form of organization.^{34/} The argument that transfer of enterprises to efficient management via secondary markets (stock exchanges) can assure a gradual achievement of the efficiency objective of privatization is therefore unlikely to hold for road haulage. If haulage is carried on efficiently by medium sized or small enterprise, the organizational form to be prepared for in the process of commercialization of state-owned haulage should be one for which free markets have opted. Experience in Europe's market economies as well as in the private sectors of Hungary and Poland, points to the forms of Limited Liability or Partnership organization as the preferred forms.^{35/}

^{34/} This also holds for the United States where a number of large road haulage undertakings are quoted on the stock exchange but where it is nevertheless found that "trucking is essentially a small business with large numbers of small fleets in operation...". (Moody's 1991).

^{35/} In Hungary, the great majority of the many small enterprises formed (in the private sector) in 1990 and 1991 took the form of Limited Liability Companies: their number rose fourfold in 1990. (Financial Research Ltd., 1991).

Programming Privatization

Ambit of a Program

The case for an explicit multi-stage, limited-duration privatization program for state-owned road haulage in the transitional socialist economies rests on two considerations. First, if precedence in privatization is to be given to enterprises that appear viable in the expected market conditions, some enterprises will stay for a time in the state's portfolio. Second, if road haulage is regarded as being essentially a component of the private sector of a market economy, there must be provisions for removing enterprises in stages from the state's holdings: a term must be set to the transition period.

Programs must therefore provide both for the selection of enterprises for first-line privatization, by various methods, and for a regime for the intermediate period that promises to generate viability in enterprises held back in the first round.

First-line privatization as well as the control of enterprises remaining in the portfolio, and guidance to both sets, requires institutional backing. The program should therefore provide for the establishment of a privatization office for the industry and assign responsibilities to it.

Road haulage is everywhere an object of public regulation. If privatization is to be promoted, the state has to commit itself to a regulatory system. The scheme of road transport regulation forms an essential adjunct to a privatization program.

Assisted Privatization

A privatization program to be completed over, say, 4 years — a period that seems appropriate for Hungary's and Poland's socialized professional road haulage — has to prescribe targets for assisted privatization in each of its stages. Since the existing entities appear of a larger size than will survive in a competitive market for road transport, targets cannot be set in terms of the number of enterprises to be divested. Alternative targets are either in terms of the number of heavy goods vehicles to be privatized,

or in terms of the percentage of ton-kilometers performed in 1989 and allocable to marketable entities or sub-entities.

Genuine buyer-initiated privatization will reduce the size of the total estate for privatization and thus the effort needed in each stage, but the results should not be credited to any one stage of the program.

The recommended criterion for the selection of enterprises for each round of privatization is prospective viability. A pre-selection in Hungary may therefore include Volán entities positioned close to the country's borders which have managed to enter into a substantial business of cross-border trade.^{36/} In Poland, a first analysis points to the smaller units of PKS, specifically those that have withdrawn from heavy involvement in local haulage and managed to build up business in the longer hauls.^{37/}

Assistance in assisted privatization must extend to the search for buyers or tenants, the conduct of the sale and therefore valuation and the framing of contracts that may have to provide compensation or other incentives for the employees. Compensation to managers and employees should be the easier to assure the more viable is the enterprises put forward for privatization. But the vehicles in Volán or PKS fleets may represent less of an attraction to prospective buyers or tenants than the infrastructure of haulage establishments (parking areas, maintenance workshops, storage, office and external depots) or its market contacts. Valuation of those objects, by seller and buyer, is more difficult and speculative than the valuation of second-hand equipment. In such circumstances, German privatization practice has resorted to incomplete (partial) contracts by which the initial valuation of the enterprise is subjected to subsequent revision.^{38/} To avoid the moral hazard inherent in such contracts, or the need for

^{36/} See Bennathan, Thompson, Gutman, 1991b.

^{37/} An analysis of samples of PKS enterprises (Bennathan, Gutman, Thompson, 1991a) suggested that (i) freight revenue per truck (1989) declines as firm size (in numbers of trucks) increases; (ii) given fleet size, freight revenue per truck is higher for pure freight enterprises than for "mixed" entities; (iii) average lengths of haul (1989) decline as firm size (truck numbers) rises; (iv) the percentage decline in ton-kilometers under the impact of recession (1989-90) was greater for the larger fleets.

^{38/} Cf. Axel Granzow, "Symbolische Preise für Treuhandbetriebe." Handelsblatt, 18-19 October 1991.

complex arbitration procedures, the concept may be implemented in the context of a lease. The infrastructure or the entire estate of the entity may be let with the option to purchase. The ultimate price of the leased asset is then determined either as the market value at the time of purchase less a discount (following the practice of West European leasing companies under some of their contracts), or as an initially agreed multiple of the highest competitively offered annual rent for the lease.

If the size of the road haulage industries of Hungary and Poland is measured in terms of essential infrastructure, equipment and aggregate annual output (1989), then in the longer run, capacity will be somewhat in excess of demands. But, as suggested earlier, the excess should not be very great (perhaps of the order of 8-12 percent, in ton-kilometers of pre-recession output).

In the short run, however, the countries are in deep recession and in the throes of structural change, and these conditions oppose obstacles to privatization. There is then a strong case for lowering all such obstacles as do not arise from the economic recession and, secondly, for seeking to supplement the financing capacity of potential buyers or lessees. Under the first head, the market for haulage entities would be strengthened if the sale of land, freehold or on long lease, was freely admitted. Further, negative attitudes to management buy-out engendered by abuses in the late 1980s (spontaneous privatizations), narrow the natural market for privatizations. The managers of an enterprise are more familiar than others with its tangible and intangible assets, and figure prominently among the buyers of corporate entities in market economies. If institutional scrutiny of offers can be assured, management should be regarded as a perfectly legitimate and potentially rich source of offers for road haulage entities.

The impediment formed by the population's, low financing ability is lessened by the institution of leasing which Poland's law and program provides for explicitly. But lessees may also have to invest, specifically in vehicles. A supplement to the capacity and expertise of banks may be expected from the development of leasing companies which are major suppliers of finance for the road haulage industries of market economies. Leasing of new assets is developing in both Hungary and Poland, and the large leasing industries of Europe's market economies may be called on for assistance in further development of techniques and also of funds.

The substantial growth of private truck ownership and associated private haulage, in both Poland and Hungary, appears to have been based mainly on the acquisition of second-hand equipment. Such small-scale privatization should be encouraged since it makes for efficient service, forms a flexible adjunct to the resources of larger transport organizations, and is desirable on social grounds. Transfer to private hands has slowed in the recession. It ought to be supported by systematizing the leasing of vehicles by state-owned haulage enterprises and by the introduction of leasing companies that are capable of taking over second-hand equipment from state-owned enterprises and letting it out on hire-purchase terms. While such sales also require institutional scrutiny to prevent abuse, this need not be detailed but may be exercised by periodic control of uniform sales contracts and the equipment accounts of sellers.

Regime for the Transition Period

A program of staged privatization of road haulage will leave a proportion of enterprises, declining in time, in state ownership. While a staged program aims at market-led transformation of enterprises, they cannot be left in statu quo, subject only to an obligation to service their debts and pay their taxes. Transformation in the interim should be actively induced, assisted and controlled.

Commercialization

Enterprises retained in public ownership pending privatization should be prepared for the event by a process of commercialization. Accounting should be reformed on prescribed lines, a register of all assets should be compiled and the enterprise should undergo a preliminary audit. These measures correspond to the preparatory steps in the production of a company prospectus in a market economy. They should serve to distinguish profitable from weak parts of the activities, and to reveal the direction of cross-subsidization. A basis will then exist for reviewing, with expert help to be provided in the program, the structure of the enterprise, for designing changes in its structure, and for separating out disparate activities into self-contained and independently accounting subsidiaries.

The Role of Management

The privatization policies of Hungary and Poland leave enterprise managers, formally or in practice, with some initiative in pursuing opportunities and in designing and sponsoring deals with third parties. Whatever institutional capacities may be mobilized to guide the process, realism requires that the efforts of the managers be harnessed to it. Conflicts of interest cannot be totally prevented, but the room for conflicts and their consequences can be narrowed by a clear definition of managers' rights, and limits, in promoting privatization. Such a charter for managers should give them scope for reshaping or exchanging equipment and premises, for changing location and for establishing subsidiaries and appointing second-line managers to head those. But the rules must prescribe that any such action needs to be justified periodically by reference to the demands of the market and to the ultimate goal of privatizing the enterprise or its parts.

Incentives and Disciplines

A central issue in a program of staged privatization is the incentive scheme for managers.^{39/} The efficiency of a given scheme hinges on the authorities' capacity to monitor the state of enterprises and the actions of managers, capacities that still need building up in both countries. It hinges further on the degree of certainty about the economic environment of the enterprise — demand for road haulage, costs and access to finance in the next 2 to 3 years — and that is low in the countries concerned.

Schemes appropriate to road haulage enterprises start from the discipline and incentives implicit in the prevailing privatization laws and the rules applied to state enterprises. Managers of state-owned haulage enterprises (including mixed enterprises) in Hungary and Poland are appointed by the state (or the founding organ) which also fixes their remuneration. The program should assert and reinforce their accountability to the state as ultimate owner. Managers should then also be removable by the state. An obvious reason for removal would be breach of the rules (e.g., transfer pricing in transactions with entities in which the manager has an interest), or liquidation of an insolvent enterprise during the currency of the program. But, as a specific discipline, managers of entities that remain unprivatized at the end of the program may then also be dismissed. The employment of managers should therefore be based on a contract for a period no longer than the end of the program.

^{39/} Cf. Tirole (1991).

In the present state of the price systems, and with the low monitoring capacity of the authorities, enterprise profits are poor indicators of performance. The effect of manager bonuses tied to profits is therefore doubtful, and should in any case not be conceded before the enterprise has undergone commercialization. But rewards for successful sponsorship of privatization of their enterprise should be accorded to managers (over and above the agreed entitlement to shares at discounted prices), whether in lump sums or in the form of a pension.

In advance of improved accounting, financial discipline on the enterprise has to rely on the taxation of wages and, specifically, the penal tax on wage bill increases above norm. In Poland, discipline of sorts is exerted on enterprises by their obligation to make regular payment of interest due on a part of enterprise capital (the "dividend" on founder's capital). But in Hungary, the obligatory dividend to the state is just a flat rate of tax on (pre-tax) profits. The problem of exacting performance to an adequate standard is not, of course, specific to the road transport sector. A technique that has been applied in other countries is the imposition on state enterprise of a required rate of return (for distribution or retention in the enterprise). In the transitional economies, this might be imposed on road haulage, retained in state ownership during the currency of the privatization program, at a rate related non-linearly to the rate of growth of national production or income in the preceding half-year. As a positive incentive for enterprise efforts towards privatization the rate of excess wage bill taxation may be lowered upon privatization (or simply, reduced to zero in such cases). Enterprises that fail to pay their taxes, or fail to achieve a required rate of return, should be candidates for state intervention by way of compulsory transformation, piecemeal sale of assets or units, or just suppression. Enterprises remaining at the end of the program unprivatized would similarly be intervened, sold off or let off in part or whole, or liquidated according to the normal use of the term.

Institutional Support

The structure of road haulage in market economies, the technical and commercial divisibility of the operations and the growth of private haulage in the ex-socialist economies all suggest that privatization in this sector should be easier and more self-propelling a process than it is proving to be in other industries. But if the process is not to be wasteful of tangible assets, people and experience, if

dissipation of public property is to be avoided and if pressures for anti-competitive regulation is to be forestalled, it requires a program, and the program requires an institutional focus. Staged privatization has to be controlled and impelled, and enterprises remaining in public ownership during the currency of the program have to be monitored and controlled by an owner or the owner's representative. Guidance will be needed in the commercialization of enterprises, in accounting, preliminary valuation and legal organization of the business. Restructuring requires analytical support. If guidance and support are to be provided economically, it should be the task of one institution which may then also become the recipient of foreign technical assistance, from official and private sources.

Among existing institutions in Hungary and Poland, the task may be assigned to the sponsoring ministries of transport (which retain their responsibility for general transport policy and thus have authority beyond the enterprises remaining under their tutelage) or to the privatization offices (State Property Agency or Ministry Agency, or Ministry for Ownership Change). Sector-specific privatization projects may not, however, be easy to accommodate in their existing work programs. State privatization agencies are stretched to the point where they can only be expected to focus on the privatization process, but not on the regular exercise of ownership controls. Sponsoring ministries are equally burdened, are furthermore in control of regulatory policy, and were in the past closely connected (and, in some cases, remain connected as sponsors) with sections of road transport. Integrating a privatization program in the work and apparatus of the ministries may therefore provoke internal tension and conflicts of interest. Those could be avoided if the program was assigned to a separate commission or holding company, responsible to the state privatization agency and the sponsoring ministries but otherwise free in the exercise of ownership control and the details of program execution. Procedural models may be available in the sectoral privatization companies founded by Germany's Treuhand. Following such precedents, or models that have been under discussion in both Hungary and Poland, the task could be assigned to private contractors, provided that they can be relied on to deal at arm's length with consultancy groups engaged in the privatization of industry or services. Alternatively, one of Hungary's or Poland's commercial banks may undertake the function of custodian or holding company for road haulage earmarked for privatization.

Transport Regulations

Road haulage is a classic object of economic regulation. Regulatory rules and practices in the market economies of Europe and North America have restricted entry into professional haulage, distinguishing market segments defined by distance, type of service or commodity. During the past 30 years, the trend has been towards deregulation, and the competition rules of the European Community are expected to reinforce the trend.^{40/} Where deregulation has advanced furthest, quality licensing (operator licensing, requiring merely proof of probity, technical competence and, for larger fleets, adequacy of parking and maintenance facilities) has replaced quantity licensing, with entry being free into all haulage markets under national jurisdiction.

Under the past socialist organization of the economies, road transport regulation took the form of market assignments to different socialized enterprise engaged in professional haulage or own-account operations. Entry by private operators was restricted and the size, type and numbers of vehicles that they could own was controlled. In the 1980s, and most drastically after the first turn towards a market economy, these restrictions were dismantled in Hungary and Poland. Competition became legally free and the competitive incursion by the private sector into what was the province of large socialized enterprises has been substantial. Competition between the components of the socialized transport enterprises has been less noticeable. Instead there have come from that sector insistent demands for control of competition. The case for control is urged by large, established enterprises, operating large assets and employing many people. The political pressure is thus great.

Regulatory control of competition has at least some sympathizers in ministries of transport. Apart from the pressures exerted by important interests with past or present close personal and organizational links with the ministries, the interest of the state as seller of transport enterprises may also argue for restrictive regulation. It is easier to sell a haulage business, and sell it at an enhanced price, if the buyer is also given protection from competition. The case against restrictions, however, rests first, on the efficiency costs of entry barriers, sufficiently documented in the large volume of research on economic regulation in market economies. But efficiency may be regarded as a consideration for the long term while the cost of adjustment to competition in the midst of severe recession is perceived as an immediate problem. In that case, the argument from social policy should

^{40/} Cf. OECD, 1990.

weigh in the balances against the introduction of a restrictive regime. The expansion of middle-class entrepreneurship is a standard object of policy in the transitional economies of Central Europe, and road haulage for hire or reward is a standard sphere for small-scale business and of business starts from a small base. The fact that it has already proved itself to be so in Hungary and Poland has the further consequence that the adoption of entry-restricting regulations would partly expropriate large numbers of small entrepreneurs — perhaps up to 150,000 in Poland, and perhaps 40,000 in Hungary — who have bought goods vehicles and entered openly into work for third parties when that became legally possible.

Arguments of efficiency, social policy and equity point to the adoption of a system of light regulation, preferably on the model of operator licensing. Such a system is also likely to prevail in the European Economic Community. Hungary, Poland and others in Central Europe may want to adapt to that system rather than subject their industry to dislocation later on.^{41/} But whatever the decision is, deferring it should militate against the prospects of privatization. Nobody can be expected to invest in a Volán or a PKS enterprise, or any of the other entities emerging from the socialized haulage sector, if he cannot be sure of the restrictions that will be imposed on his operations. Rapid commitment to the regulatory regime for road haulage is therefore essential.

^{41/} The separate problem of assuring competitive access to the permits for international haulage, negotiated between states, is particularly important to Hungary. For a discussion and recommendations, cf. Bennathan, Gutman and Thompson, 1991a.

REFERENCES

- Beesley, Michael E. 1989. "United Kingdom Experience with Freight and Passenger Deregulation." In: Conference of European Ministers of Transport, Road Transport, Paris: ECMT.
- Bennathan, Esra, Jeffrey Gutman and Louis Thompson. 1991a. Reforming and Privatizing Poland's Road Freight Industry. World Bank, Policy Research and External Affairs, Working Papers, WPS 750.
- . 1991b. Reforming and Privatizing Hungary's Road Haulage. World Bank, Policy Research and External Affairs, Working Papers, WPS 790.
- Borensztein, Eduardo and Mannecham, S. Kumar. 1991. "Proposals for Privatization in Eastern Europe". IMF Staff Papers, vol. 38, No.2.
- Financial Research. 1991, Reports from the Tunnel. Budapest: Financial Research Ltd. mimeo.
- Friedlaender, Ann F., and Richard Spady. 1981. Freight Transport Regulation: Equity, Efficiency and Competition in the Rail and Trucking Industries. Cambridge, Mass.: The MIT Press.
- Gellner, Berthold and Klaus Lammich. 1991. "EG Wettbewerbsregeln und deutsche Verkehrsordnung." Internationales Verkehrswesen, vol. 43, No.7/8.
- Hungary, Central Statistical Office. Statistical Yearbook. Various years.
- Korbonski, Andrzej and Claus Wittich,. 1967. Index of Polish Transport and Communications, 1937 and 1946-65. Occasional Papers of the Research Project on National Income in East Central Europe. (Thad Alton, ed.) New York: Columbia University.
- Kornai, Janos. 1990. The Road to a Free Economy. New York: W.W. Norton and Company.
- Lauter, Geza P. 1972. The Manager and Economic Reform in Hungary. New York: Frederick Praeger.
- Lipton, David and Jeffrey Sachs. 1990. "Privatization in Eastern Europe: The Case of Poland." In Brookings Papers on Economic Activity, No. 2.
- Major, I. 1983. "Tensions in Transportation and the Development Level of Transport in Some Socialist Economies." Acta Oeconomica, vol. 30, No.2.
- Moody's Investors Service, Inc. 1991. Moody's Transportation Manual. New York: Moody's Inc.

Newbery, David M. 1991. Sequencing the Transition. Center for Economic Policy Research, Discussion Paper No. 575.

OECD. 1990. Competition Policy and the Deregulation of Road Transport. Report by the Committee on Competition Law and Policy. Paris: OECD.

Poland, Główny Urząd Statystyczny (Central Statistical Office). Rocznik Statystyczny. (Statistical Yearbook.) Various Years.

Sziraczki, Györgi. 1990. "Employment Policy and Labor Market in Transition: From Labor Shortage to Unemployment." Soviet Studies, vol 42, No.4.

----- . 1983. "The Development and Functioning of an Enterprise Labor Market in Hungary." Economies et Sociétés. Series AB, No. 13.

Summers, Robert and Alan Heston. 1991. "The Penn World Table (Mark 5): An expanded set of International Comparisons." Quarterly Journal of Economics, vol. CVI, No. 2.

Tirole, Jean. 1991. "Privatization in Eastern Europe: Incentives and the Economics of Transition." In Oliver Blanchard and Stanley Fischer, eds., NBER Macroeconomic Manual 1991. Cambridge, Mass.;; The MIT Press.

Winiecki, Jan. 1988. "The Distorted World of Soviet-Type Economies." Series in Russian and East European Studies, No. 8. Pittsburgh, Pa; University of Pittsburgh Press.

World Bank, 1987. Poland. Reform, Adjustment and Growth. Washington, DC: The World Bank. 2 vols.

----- . 1984. Hungary. Economic Development and Reforms. Washington, DC; the World Bank.