Telecommunications: a Crisis Sector in Eastern Europe

The explosion of demand in Eastern Europe for telecommunications services, after decades of neglect, will place unprecedented pressure on manufacturers, service providers, and government authorities. This applies to Bulgaria, Czechoslovakia, Hungary, Poland, and Romania equally.

Historically, Eastern Europe's telecommunications infrastructure has been the victim of government bias against services and "nonproductive" activities, the high capital intensity of telecommunications development, and, especially, a policy to prevent widespread access to communications facilities. The 1980s explosion in digital electronics further widened the gap between Eastern Europe and the West. Consequently, many foreign investors hesitate even now to commit investment to Eastern European ventures for lack of an appropriate telecommunications network.

Painful gap

Per capita GNP in most Eastern European countries is approximately $2,000 to $2,500. About 10 telephone lines (DELs) are available per 100 people on average. (Experts measure the telephone density of a country by direct exchange lines—DELs—based on each line's being connected to a single telephone set.) Assuming that per capita GNP for the region as a whole grows 2-2.5 percent annually during the 1990s, the region's GNP would reach $2,800 to $3,200 (in today's dollars) by the end of the decade. This would be equivalent to the GNP growth in Northern Europe in the early 1950s and the United States in the 1930s. By this measure, Eastern Europe's telecommunications capacity would have to double by the end of the century—that is, grow about 8 percent annually.

Telecommunications infrastructure today, however, is a far more important component of economic growth than it was 20 years ago. Networks in Eastern Europe will have to grow at least 150 percent in this decade to achieve coverage rates of between 27 and 30 DELs per hundred population. This goal implies annual growth rates of 10 to 12 percent, or roughly

What's inside...

World Bank Networking

The Bank will allocate almost $1 billion to upgrade telecommunications in Central and Eastern Europe in the next four years. (page 3)

Ownership Changes in the Soviet Union — Opinion from Moscow

Sergei Shatalov describes the recent changes in Soviet enterprise structure, the increasing amount of privatization, corporatization, and employee buyouts. But he warns of "fake" ownership transformations—when ministries want to preserve their economic leverage. (page 4)

Research Update: Industrial Reform and Productivity in Chinese Enterprises

A progress report on a current research project involving the Bank, two universities, and three Chinese research institutes. (page 6)

Environment in Eastern Europe: Despair or Hope?

The post-socialist European economies should expect widespread environmental improvement only in the long term, warns the author, offering a tailored "clean up" program: increase energy and other natural resource prices, invest in industrial restructuring and pollution control, and adopt pragmatic environmental laws and regulations. (page 9)

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three times faster than previous network growth in the region. Without a rapid rise in GNP, raising capital for this expansion will be difficult. Expansion will require between $22 billion and $38 billion, and rehabilitating the existing network will add an additional $10 billion to $12 billion. The total comes to between $32 billion and $50 billion, or 1.3 to 2 percent of total GNP.

Financing such an undertaking in countries that lack sophisticated financial systems and ready access to international capital markets will be difficult. Even with optimistic assumptions about domestic manufacturing, the need for imported equipment will double, bringing costs to between $5.5 billion and $11 billion in the next 10 years.

After the 1988 revision in the NATO Coordinating Committee (CoCOM) export-control program, Eastern European countries were permitted to import digital technology, although not of the latest type. Recently CoCom lifted its ban on more sophisticated equipment. Another general revision is not expected until the mid-1990s. Thus, a gap will remain for some years.

### Remedial strategies

Strategies to deal with these problems will have to contain the following components:

* **Network development.** It is necessary to relieve the severe congestion, high fault rate, slow fault clearance, and traffic limitations, and to extend networks in rural areas and introduce new services.

* **Domestic financing.** The telecommunications networks must generate their own funds from service and user fees since the domestic capital markets in Eastern Europe are weak and the economies fragile. As for outside financing, instruments that are tied in some way to service connection, such as subscriber bonds, user subscriptions, or telecommunications associations, are the most promising ones.

* **Foreign financing.** The World Bank and other international institutions will remain central players, both on their own and as catalysts for other sources through cofinancing (see box). However, they are unlikely to contribute more than 40 to 50 percent of the total foreign financing required. Direct investment from abroad is the most desirable source of capital because it also brings foreign management expertise. Direct foreign investment includes equity participation in joint ventures with Eastern European telecommunications companies, direct purchases of network sub-units (for example, local or rural networks), and construction of entirely new enterprises such as packet-switched data networks, private networks, and mobile networks.

The legal and regulatory framework for transferring ownership, granting licenses, and regulating tariffs and services remains a major hurdle. Commercial bank lending for telecommunications has been scarce in the past, but this may change if cofinancing opportunities expand (with international agencies or foreign investors). Bilateral government grants and credits, or semi-tied financing, are promising sources of funds. The current political pressure and the highly competitive nature of the telecommunications equipment market virtually guarantee the availability of this sort of financing.

### Telecommunications Development in the 1980s — Who were the laggards?

<table>
<thead>
<tr>
<th>GNP per capita US$ millions (1988)</th>
<th>DELs* per 100 pop.</th>
<th>Growth in DELs %/year (1980s)</th>
<th>Telecom investment %/GNP (1980s)</th>
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<td><strong>Middle-Income Countries</strong></td>
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<td>Czechoslov. -</td>
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<td>Turkey 1200</td>
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</tbody>
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* Direct exchange lines

Source: authors

"Question: How can you spot an American in Hungary?
Answer: He's the one who starts dialing as soon as he picks up the phone!"

(Popular joke in Hungary, where it takes at least 20 seconds to get a dial tone.)
World Bank Networking

Telecommunications services were still integrated with the Hungarian Post when the Bank approved its first telecommunications loan to Hungary in 1987. Last year the Hungarian government separated telecommunications operations from the postal and broadcasting system and set up the Hungarian Telecommunications Company (HTC). After a communication law is approved by parliament, the HTC will be transformed into a joint-stock company.

The $70 million first loan went toward financing about 70 percent of the Post's telecommunications equipment imports over four years. The World Bank approved a second telecommunications loan ($150 million) for Hungary in 1990, cofinanced by the European Investment Bank. This loan will support the first three years of a 10-year development plan, drafted with the World Bank's assistance.

As recently as 1988, telephone coverage was only eight direct exchange lines (DELS) per 100 people. The waiting period for telephone service usually took eight to 10 years. Funds were allocated toward rehabilitation and extension of the cable and transmission network. The development plan aims to expand telephone coverage to 45 phones per 100 people by the end of the decade. This would mean installing some 2.5 to 3 million new subscriber lines (about a third of which will be replacement).

Other top priorities of the 1991-93 development program are to decongest the present network and satisfy the urgent need of the business community, especially foreign investors and joint ventures, for telecommunications service. At a preliminary cost estimated at $1 billion, HTC intends to build an overlay digital network for long-distance traffic, augment the international communications network, and connect the existing analog network with a new digital one.

Simultaneously, HTC will implement an intensive program to replace old electromechanical local exchanges with digital exchanges and extend automatic telephone service in rural areas. A third Bank loan of about $150 million is scheduled for approval in 1993 and will support the later stages of the plan.

In Poland the telephone situation is worse. More than half the automatic exchanges were built before World War II. Next to Albania, Poland has the lowest telephone density in Europe. At the end of 1989, only 3.1 million DELs were in operation, meaning that about one in 12 Poles had access to a telephone. About 2.3 million potential subscribers are on the waiting list for telephone service, but the average waiting period is 15 years. With telephone services so scarce, telegraph service is commonly used in rural areas.

The Polish telecommunications sector recently got a boost from the Bank, however: on April 25 a $120 million loan was approved to support the installation of a new digital long-distance telephone network connecting major urban centers. International service will be expanded as well. More than 70,000 new subscribers, many of them businesses, will be connected to the new system. The European Investment Bank is cofinancing the project with $90 million. To assist Poland's information and processing infrastructure further, the Bank has begun preparation of another loan for about $150-200 million, which probably will be finalized next year.

Other countries of the region are also potential candidates for the Bank's telecommunications loans. Czechoslovakia expects to sign a loan next year for $150 million. Romania is expecting a $77 million emergency loan for importing cables and spare parts to prevent the telecommunications system from collapsing. A much larger sectoral loan of about $100-150 million might follow in 18-24 months. Bulgaria is anticipating a modernization loan of about $100 million from the Bank to support its system, which — thanks to major investments in recent years — is in relatively better shape than the others in the region.

To sum up, in the next four years $900 million in World Bank loans — 10-15 percent of all Bank funds allocated for Central and Eastern Europe over that period — will be available to support the vital telecommunications sector in Eastern Europe.

Some suggestions

East European telecommunications firms must reduce operating and investment costs and improve productivity. (The Eastern European telecommunications entities employ up to 300 percent more people than do the world's most efficient networks, and 50 to 100 percent above what efficient networks with the same level of technology require.) They must overhaul their corporate culture, develop human resources, and raise productivity without heavy layoffs. For this, technical assistance from the West would be valuable.

A suggested strategy for reform would include, in the short term:

• Separating postal and telecommunications services;
• Establishing a high-level task force to address telecommunications needs and identify the main bottlenecks to expanding services;
• Removing regulatory and operational responsibilities from the current telecommunications entities;
• Setting a specific timeframe to ensure telecommunications self-financing and prevent it from absorbing the postal system's losses;
• Setting out distinct interim policies on tariffs; and
• Coordinating foreign offers of aid, financing, investment, and consulting.

A strategy for the medium term would include:

• Working out a regulatory framework to transform telecommunications entities into independent joint stock companies;
• Outlining conditions for market entry by other providers (licensing, franchising, and so on); and
• Establishing prices and tariffs.

In summary, no economic development is feasible in Eastern Europe without a radical improvement of the telecommunications infrastructure. Foreign assistance is critical; however, the individual countries must choose and ultimately execute policies — and there are no shortcuts.

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Ownership Changes in the Soviet Union — Opinion from Moscow
Sergei Shatalov on the pains of transition

Massive divestiture of state-owned enterprises is widely perceived in the Soviet Union as the centerpiece of economic restructuring. In fact, many influential politicians and economists cite quick privatization as the single most important condition for economic reform to succeed.

Although the Soviet Union has geared up for major privatization later than its Eastern European counterparts, similarities are apparent: the distortions created by so-called “spontaneous” privatization, concerns about social equality, difficulty in the valuation of enterprises, and legal hurdles, among other things.

The size of the task is striking. No other Eastern European country has had such a huge state sector in both relative and absolute terms as the USSR. According to a current estimate, 92 percent of all productive capacity is in the hands of the state: that is, 47,000 industrial enterprises and more than 800,000 entities in trade and services. Privatization of all these assets by sale, even at depreciated book value, would seem out of reach. The potential demand from domestic investors would involve an estimated Rb150 billion, but the book value of productive assets is estimated at Rb 2,000 billion — this gap suggests that divestiture may take decades to achieve.

Main directions

Hardly six months have passed since the term “privatization” became official Soviet terminology. Privatization in the Soviet Union is perceived as the process of diversifying and decentralizing enterprise ownership and economic decision-making. To this end, the All-Union laws, drafted in early 1991, embrace three consecutive processes:

• elimination of direct administrative control over enterprises;
• transformation of state-owned enterprises into joint stock companies (corporatization); and
• transfer of ownership rights to private individuals, collectives, and other enterprises.

Enterprises’ shortage of funds, the high cost of borrowing, the lack of savings for investment, undefined valuation procedures, negative public attitudes toward markets and labor-for-hire, and opposition from middle-level government bureaucrats are major obstacles to changing existing ownership structures. The bureaucratic response is especially important: according to a March poll (conducted by the All-Union Center for Public Opinion Surveys of the Academy of Sciences), more than 60 percent of enterprises seeking release from direct ministerial control cite difficulties with the bureaucracy. Frustration with slow decentralization efforts and the perception of lost business opportunities are pushing enterprises toward unilaterally cutting the bonds of administrative control.

Ownership transformation proceeds according to two scenarios:

• administered from above by the ministries and/or agencies of the central government, or
• implemented by enterprises themselves — usually reorganized into joint stock companies, bought out by the employees, or sold outright.

Legally, transformation from above is supported by the USSR Law on Enterprise. The law introduced the notion of enterprise ownership and formulated important legal guarantees for ownership rights. The ministries claim de facto full ownership rights to the enterprises they control. Accordingly, enterprises are restructured as joint stock companies, and various ministries retain the controlling shares of stock.

This was the case with the Agrokhim holding company, which controlled several dozen fertilizer and pesticide enterprises. These were administered by the Ministry for Fertilizer Industry (MFI). MFI became a sub-unit of the huge and inefficient Agroprom, the State Committee for Agriculture. Agroprom was recently dissolved, and the ministerial apparatus adapted...
fast to the new situation: in their struggle for survival, they set up Agrokhim, which exerts the same degree of control over its enterprises as MFI had before.

Transformation of the KAMAZ truck factory is considered a "showcase privatization" in that the ministry will keep only a minority interest in the enterprise, on orders from the central government. The KAMAZ plant has about 140,000 employees; the book value of its assets is estimated at Rb 4.5 billion. Physical amortization is probably as high as 40 percent of this value, but this was not taken into account in the company's valuation. KAMAZ's capital was split into shares with nominal value of Rb 100, and 26 percent of the shares were offered to employees. The Ministry of Automotive Industry retains a further 26 percent of the authorized capital, with the rest being sold to the public and to foreign investors.

United front against ministries

To rid themselves of ministerial control, large enterprises usually reorganize as joint stock companies. VAZ car factory, employing over 100,000 workers, decided in February 1991 to become an open joint-stock company. Employees' committees demanded control over the capital. In the end a more guarded action prevailed. Regular shares would be distributed among employees, and anybody would be eligible for a Rb200 share for each year on the plant's payroll. Employeers' combined share would be less than 10 percent of the total capital stock of Rb 11 billion. Restructuring VAZ includes offering shares to the public and allowing foreign partners to obtain up to 49 percent of the capital stock. However, the ministry's position is still unclear, and the VAZ initiative may degenerate into another case of ministerial privatization.

In other cases, big enterprises form industrial associations as a first step toward cutting their ties with the ministries. Independent associations unite several large enterprises — those with a similar production mix — that were previously controlled by one ministry. Technokhim in the fertilizer and plastics industry and Energomash in the power generation equipment industry are examples of such industrial organizations. Such associations wield enough leverage and have sufficient funds to dictate to ministries their own terms for "uncoupling."

Big industrial associations are further able to reduce the buyout costs of their members and even finance buyouts with their own funds or through low-cost credit from the state banks. On several occasions associations have exerted leverage at the level of the central government, circumventing the responsible ministries altogether. The evolving ownership structure is usually based on cross-ownership, with members of the associations owning a stake in one another's enterprises.

Sometimes weaker and smaller enterprises are more successful in becoming commercial entities and manage to avoid interference by ministerial authorities, who have little interest in retaining small firms in any case.

Accelerated privatization

Since late 1990, spontaneous privatization has accelerated. Smaller enterprises become collectively-owned entities through employee buyouts or they are privatized outright, usually by auction. Dozens of cases are reported each month, including in regions where old political and economic structures still dominate (Siberia and the Central Asian republics, for example). The sectoral composition of the privatized entities varies widely.

In most instances, management is the driving force behind privatization, and employees are persuaded to go along by promises of job security and pay raises. Enterprises are transformed into closed joint-stock companies. Employees receive shares, but management holds the controlling stake.

More than 200 such buy-outs are documented. Almost all took place in industry and construction and involved small- or medium-sized firms. The Moscow Ventilator Plant buyout in 1990 is a typical example. The firm's combined assets were valued at Rb 6.5 million; 32,500 shares with a nominal value of Rb 200 were issued and were sold to employees. Out of 500 employees, 300 chose to become shareowners. Employees had only to furnish a cash down payment of 25 percent (Rb 3,000); the plant itself had enough funds to extend non-interest-bearing loans to finance the rest of the purchase. This debt will be redeemed from future profits. (It should be noted that, frequently, funds that are accumulated during periods when plants are leased out are later used for the buy-outs.)

It is unlikely that collective ownership will become dominant in the Soviet economy. The management of most collective enterprises surveyed by the author expressed interest in issuance of shares to the wider public. However, the Soviet stock market is still in its embryonic stage, and specialized institutions such as investment funds are non-existent. Some collective enterprises might try eventually to sell their shares directly to the general public, however.

Some enterprises view the option of buying out all fixed assets (even at depreciated book value) as too burdensome in a short period of time. At the same time, ministries are unwilling to transfer ownership to collectives gratis. A compromise path is advocated by V. Tarasov, head of the private consulting firm Organizer. Tarasov's model predicates a stage-by-stage transformation, with only the stock of supplies and materials bought-out in the first year while fixed assets remain the property of the state. The loan needed by the buyers would be smaller and its repayment more manageable.

Uncertain evaluations

Under the present political economic conditions it is almost impossible to evaluate the real efficiency gains from different forms of spontaneous privatization. A recent survey of 30 buy-outs showed that immediately after the ownership changes, production shot up (without retooling) by 15-30 percent simply as a result of more discipline and more efficient use of
resources. Salaries increased 160 percent on average. Management of big enterprises also claims that independence has boosted profits and allowed long-delayed streamlining of enterprise operations. It remains to be seen whether these gains are real or due solely to inflation.

The present All-Union government is the first one to attempt genuinely large-scale ownership transformation in the Soviet Union. However, the central authorities allow only the economic and political elite to play an active role in the process; all other social groups seem to be excluded. By early 1991, monetary and price reform had wiped out a significant part of household savings and had scared off foreign investors. Most probably, the privatization initiative has already been taken over by the Soviet republics, and some of them have started to implement their own divestiture policies. In an optimistic scenario, this trend would continue, with the republics probably giving the central government some opportunities to save face.

Other, less optimistic, scenarios cannot be excluded. The present regime may collapse, only to provide opportunity for other political forces to attempt the reintroduction of authoritarian rule under the slogan of “law and order.” However, even in this case, it is unlikely that the process of privatization could be entirely halted.

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### Spirit of the Law

In April the Soviet Federal Council of Nationalities approved a draft law on denationalization and privatization of industry. The draft sets out the All-Union authorities’ proposed framework for this process, whether conducted by the Union, the republics, or lower levels of government.

"Denationalization" is defined as the changing of ownership from state to non-state entities. "Privatization" is defined as:

- the direct acquisition of plants by their employees,
- the reconstitution of enterprises into joint-stock companies,
- the leasing of enterprises by investors, with the option of subsequent purchase,
- the transfer of share ownership into joint-stock companies to private citizens, and/or
- the private ownership of complete enterprises (whereby the enterprises become partnerships or family firms).

For All-Union enterprises, the Soviet State Property Fund determines what may be sold. It may itself acquire state enterprises and is responsible for the annual schedule of denationalization.

For other enterprises, analogous republican and local organizations are expected to perform this function and to act within the guidelines set by the legislation.

For each enterprise in the program, the Soviet State Property Fund or its republic/local equivalent creates a commission to carry out the valuation and to organize the transfer of ownership. The commission must include representatives of the “owner” (the branch ministry), the labor collective, and the trade union. Anybody — whether Soviet citizen, enterprise employee, foreign person, or legal entity — may become a new owner.

The workforce has the right to use the proceeds from the sale of their assets or their retained profits to finance the purchase of an enterprise. Employees may be offered shares at preferential rates or receive other benefits equal to 30 percent of the value of the enterprise.

Additionally, they have the buyer’s right of first refusal.

The sale of an enterprise can be by any method, including auction or tender, and enterprises may be sold on credit. However, a 20 percent down payment is required, and the maximum credit term is 10 years. Proceeds from the sales belong to the state, and priority is given to using them for financial stabilization.

### INDUSTRIAL REFORM AND PRODUCTIVITY IN CHINESE ENTERPRISES — A PROGRESS REPORT

This project is a joint effort among the World Bank, Brandeis University, and the University of Pittsburgh in collaboration with three Chinese research institutes in Beijing — the Institute of Economics (CASS), the Research Center for Rural Development, and the Institute of Quantitative and Technical Economics (CASS). It is funded by the World Bank, the Henry Luce Foundation, and the National Science Foundation. The project, which started in May 1990, will be completed in June 1992. Its objectives are to understand the factors that affect the productivity and efficiency of Chinese enterprises and to evaluate the impact of industrial reform in that country. The project also aims to increase the institutional research capacity of the collaborating Chinese institutions.

Three key issues of industrial reform and their relationship to industrial productivity in China are addressed in this project: (i) To what extent and in what industries have reforms brought about substantial increases in industrial efficiency? (ii) Why do enterprises perform differently with respect to productivity, growth and efficiency, and how can these differences be accounted for? and (iii) How do specific policies influence the production and investment behavior of enterprises?

This project uses enterprise-level data from 1980-1987 for some 1,200

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**Sources:**
-Spirit of the Law
- Industrial Reform and Productivity in Chinese Enterprises: A Progress Report

**World Bank/CECSE**
state-owned enterprises, collectives, and township and village enterprises (TVEs). It uses the data to estimate and compare levels and changes in total factor productivity (TFP) before, during, and after reform. Of special interest is the extent to which differences in TFP can be explained by changes in TFP. During the transitional phase, such as the various contract responsibility systems, and/or having the freedom to set prices and hire labor and to export and import directly. The first phase of the project has been devoted to cleaning up the existing data and undertaking re-surveys to collect missing information.

However, the existing data do not have enough observations on collectives and TVEs, and data on some key industrial branches, especially heavy industry, are missing. To correct these shortcomings, a unified survey has been designed by the collaborating institutions. This survey will be carried out in June 1991 and will update industrial information for 1,000 enterprises (through 1989). The new data will also cover 500 new enterprises (replacing 400 enterprises that had reported implausible data).

To date, considerable progress has been made in identifying and testing the key hypotheses that will underly the next phase of the work:

- the nature of the management contract systems (about six of these) under which an enterprise operates has a significant impact on the level and growth rates of TFP;

- the type of ownership under which an enterprise operates (state-owned, collective, or TVE) has a significant impact on the level and growth rates of TFP;

- the greater the degree of freedom to lay off and recruit workers that is granted to an enterprise under various labor market reforms, the greater is the TFP;

- the greater the share of total investments financed from retained earnings, the greater is the relative efficiency of capital;

- the degree of market competition is positively related to the level and growth rate of TFP;

- the degree of openness to foreign trade — as measured by (a) higher access to foreign exchange via higher retention rates, and (b) lower percentage of exporting/importing via government foreign trade corporations — is positively related to the level and growth rate of TFP;

- over time, there will be a convergence of factor returns among industries as the increasing role of factor and product markets; and

- the incidence of product innovation is positively related to the degree of domestic and foreign competition.

Currently, project participants are describing the institutional and historical context of industrial reform in China. Topics include the nature of the contract responsibility systems under which Chinese enterprises have been operating during the transitional regime; stylized facts on Chinese enterprises; a macroeconomic overview of industrial development and growth; and historical developments leading to reform in the ownership structure of Chinese enterprises. Participants' papers will comprise the first section of a planned book, *Industrial Reforms and Productivity in Chinese Enterprises*. Additional chapters will deal with the empirical analysis of productivity changes, their relationship to specific reforms, and their policy implications.

Although most of the analytical work is incomplete, the project has already generated a number of research papers (seven papers are available in the project's Research Paper Series — see box).

The project is directed by I. J. Singh, Principal Economist, Socialist Economies Reform Unit (CECSE). The Research Coordinator is Professor Gary Jefferson, Department of Economics, Brandeis University. Individuals or institutions with research projects related to this project are invited to contact the Project Coordinator, Ms. Donna Schaller, The World Bank, 1818 H St. N.W., Room N-6031, Washington, D.C. 20433. Telephone: (202) 473-8966.

**Research Paper Series**


RPS No. 5 *Lessons From China's Economic Reform*, by Kang Chen and Inderjit Singh (CECSE), and Gary H. Jefferson (Brandeis University). Forthcoming in *Socialist Economies in Transition*, Aray, Hillman, and Brankovich, eds. (under consideration by World Bank for publication).


Interested parties may request papers by calling 202-473-6710.
Milestones of Transition

European Community foreign ministers have agreed to improve the terms of association agreements with Czechoslovakia, Hungary, and Poland. The EC has offered better trade terms for agriculture, steel, and coal, and the three countries have called on the European Community to "consider a special category of affiliate membership for the new democracies of Eastern Europe," said Frans Andriessen, the EC commissioner for external affairs.

Soviet trade with Eastern Europe in the first quarter of 1991 fell 10 percent from the same period last year, according to a recent report from the Soviet Bank for Foreign Economic Affairs. Trade among the smaller East European countries could fall 30-40 percent, predicts the president of Czechoslovakia's national bank. Central banks in the region have expressed support for a proposal to adopt the Ecu system for intra-COMECON trade.

In April, Romania introduced its biggest staple-food price rise in almost 50 years. The government is trying to cushion the blow by handing out cash, indexing wages to prices, and setting temporary limits on price increases. The price rise accompanied the introduction of a progressive individual income tax, with rates ranging from 6 to 45 percent.

Mongolia's economic crisis, with its food rationing, power cuts, rising unemployment, and plunging industrial output, is likely to worsen this year, Prime Minister Dashiyn Byambasuren has told parliament. In the first quarter of 1991, more than half the industrial enterprises showed a drop in production of 20-30 percent compared with 1990. Foreign trade has fallen 60 percent since 1990.

China faces an extremely difficult situation in state finances this year, China's Finance Minister Wang Bingqian told the April session of the National People's Congress. The budget deficit for 1990 was 15 billion yuan, 6 billion over target, and a shortfall of 13.3 billion is expected in 1991. Wang blamed the performance on the low efficiency of state industry and a drop in industrial output, which led to a rise in tax arrears. The 1991 budget calls for revenues of 343.8 billion yuan, up 6 percent, and spending of 357.2 billion, up 5.2 percent. At the same time, Congress has passed a new law imposing uniform tax rates on foreign and joint venture companies. This replaces the various tax packages that many cities and provinces offer to foreign investors. The new law, effective July 1, reduces the tax rate for most foreign concerns from 50 percent to 33 percent. Foreign enterprises in the special economic zones and those involved in infrastructure projects will be able to deduct another 15 percent although they will continue to pay a 3 percent local income tax.

Yugoslavia's Prime Minister Ante Markovic has announced the devaluation (the second in four months) of the dinar by 30 percent. The move is intended to compensate for $5.4 billion of excessive public spending in recent months. Yugoslavia has also asked the Paris Club to reschedule $940 million of overdue debt. Finance Minister Branimir Zekan cited a worsening balance of payments and an expected sharp drop in tourism earnings. Meanwhile, a decision by the Paris Club to reschedule Bulgaria's $1.8 billion debt is likely to pave the way for a complete rescheduling of its $8.5 billion debt to the London Club.

The Soviet economic crisis has affected all areas of the economy, and the slump is likely to continue through the year, Deputy Chairman of the Soviet Committee for Statistics Nikolai Belov said recently. For the first time, production fell not only in the basic sectors of the economy, such as the energy, metallurgical and chemical industries, but also in those sectors that produce consumer goods. Belov said that further worsening of the social and economic situation may be expected unless a crisis program is adopted right away. The so-called Pavlov program includes freeing prices from government control by October and privatizing one-third of all small businesses by January 1992.

A healthy current account of $150 million in the first quarter is allowing Hungary to expand its imports, according to state secretary Janos Martonyi of the Ministry of International Economic Relations. Import liberalization is central to Hungary's effort to reduce inflation from 32 percent (February). Wider availability of Western goods also serves to narrow the gap between the official exchange rate (72 forints to the dollar) and black market rates (around 77 forints to the dollar).

Angola plans to privatize 100 companies over the next two years, according to Finance Minister Agualdo Jaime. Some of these companies, nationalized after independence, would be returned to their former, mostly Portuguese, owners. He declined to name the companies on the list and said the plan was a pilot measure.

The German Treuhand wants to promote more management buyouts in eastern Germany, according to Brigitt Breuel, the privatization agency's new president. Several key assets have been sold to east German states: the Meissen China Company and the Leipzig Fair to Saxony and the Carl Zeiss Jena to Thuringia. Another 7,000 companies remain under Treuhand ownership, but the organization has 2,000 outstanding offers in hand. About 1,000 of the 8,000 companies that originally received DM30 billion in short-term credit guarantees from the Treuhand are no longer in a position to pay back their loans, however.
Environment in Eastern Europe: Despair or Hope?

"The previous regime, with its arrogant and intolerant ideology, reduced man to a production force and nature to a production tool. In this way the regime attacked the very essence of man and nature and denigrated the relationship between them." Vaclav Havel, President of Czechoslovakia

It has become almost axiomatic to refer to environmental pollution in Eastern Europe as a stark symbol of the old communist system. In fact, the new democratic governments have made little effort to hide the dire consequences, such as:

- vast stretches of dead rivers so polluted that the water is not fit for industrial uses;
- massive air pollution from coal-burning and metallurgy industries, which is causing high rates of chronic bronchitis;
- contamination of agricultural lands above metal deposits, resulting in high exposure levels to carcinogens;
- large areas of forests lost or irreversibly damaged; and
- rural areas and many cities experiencing water shortages.

Because of the havoc from industrial pollution, mining wastes, and domestic sewage, some countries have designated various zones as ecological disaster areas.

Although Central and Eastern European governments have been calculating the high economic cost of environmental damage, they have neglected to enforce appropriate anti-pollution policies. Nor have they focused much on how their environmental problems compare with those in Western countries and what the experience of the West has been in this area.

Comparing the two Europes

The heavily industrialized regions of Western Europe and North America in many respects once resembled — 30 to 40 years ago — the present-day polluted areas of the Central and Eastern European countries. Changes in the West from the 1960s through the 1980s had a fundamental impact on Western industry; changes included the restructuring of inefficient heavy industry (particularly metallurgy), technological breakthroughs, the growing shift of economies toward the service sector. Some of these changes were spurred on above all by the dramatic oil price shocks in the 1970s. Meanwhile, the CEE countries' industrial systems were largely insulated from such factors. Success was measured by the extent to which production targets were met — regardless of financial or human cost or environmental effect.

Most of the CEE countries continue even today to rely on coal and lignite, which compounds their environmental problems. Those energy resources account for 78 percent of primary energy consumption in Poland and 60 percent in Czechoslovakia, compared with 24 percent for Western Europe. In the most polluted region of Poland, the 24-hour concentration of black smoke — probably the most harmful type of common air pollution — exceeds six-fold the European Community's (EC) standard.

It is not appropriate to take the worst cases as representative of the general situation, however. Apart from the worst areas in these countries, average levels of exposure to the major pollutants are not notably high. However, exposure levels to pollution over the past two decades have hardly changed, whereas they have subsided substantially in most OECD countries. This is partly because of stricter environmental policies in the West, but also, and primarily, because of the West's adaptation to high energy prices. As a consequence individual
countries have had to change their economic and industrial structures.

In Poland, energy conservation, and lower industrial output (as a result of international price levels), could reduce emissions of the major air pollutants by 50-60 percent, according to Gordon Hughes of the University of Edinborough. Changes in the industrial structure could further improve the air quality (particularly by reducing the emissions of metallic dust).

How to clean up?

- **Market clearing prices.** Highest priority should be given to increasing energy (and other natural resource) prices to reflect their true scarcity. Poland has already increased its energy prices by 350-600 percent. Additional increases will be necessary to bring prices in line with international levels. In Czechoslovakia the price of lignite was, until recently, below the cost of mining it. For higher prices to lead to resource conservation, however, enterprises must bear full responsibility for their actions and must not be allowed to pass along higher input prices to consumers, nor should enterprises receive offsetting subsidies from the state.

- **Selective large investments.** Sizeable investments will be necessary to support industrial restructuring, pay for energy sector improvements (control of particulate emissions and restructuring of district heating systems), and improve water quality. In Poland in 1985 a quarter of all soot emissions were from Katowice province; just three enterprises (two steelworks and a power plant) were responsible for 10 percent of the country’s entire emissions. At the same time, only about half the particulate emissions in Katowice came from the tall stacks of the major polluters. The rest came mainly from low stacks burning high-ash coal in inner-city areas.

Because these kinds of polluting industries are not easily able to install appropriate emission-control equipment, the most effective solution for them would be further investment in coal cleaning technology (coal cleaning will be made more attractive once prices reflect the different grades of coal); and switch to natural gas.

Investments will be required to reduce sulphur dioxide emissions in selected areas. It might be appropriate to rely initially on foreign (and preferably concessional) assistance since a significant portion of the benefits from such investment actually accrues to third countries. Audits would be a useful way to select environmentally sound investments for individual industrial companies. The best time for such audits is during industrial restructuring.

Investments in sewage systems and reliable water supply systems will be very expensive, making it all the more important that these are based on a careful assessment of costs and benefits. Attention should be focused on upstream sources of pollution and on toxic pollutants. Appropriate institutional arrangements in the water sector (e.g. river basin management) will contribute to improved decision making.

- **Pragmatic laws and regulations.** All the CEE countries are rewriting their environmental laws and implementing new regulations. The tendency appears to be to design large, all-encompassing laws that allow little flexibility. However, given the urgent need to bring the law and the present situation into alignment, it might be preferable to implement realistic interim regulations and to stimulate broader discussion of any proposed major legislation.

In the absence of realistic standards and enforcement — for example, hardly any city in the world would meet Poland’s too-strict standard for suspended particulate matter — cynicism about the law will perpetuate inefficient practices. In particular, the rush to meet EC standards may need to be tempered by a careful evaluation of costs and benefits over time, by a clear determination of who should bear the costs, and by a determination of how the standards would be implemented in a gradual, multi-year program. The experience of such recent EC members as Spain and Portugal may be useful in this regard.

Many issues need to be considered; for example, introducing stricter standards for new industries might prevent the start-up of new, less polluting industries while allowing old industries to continue operating as usual. On the other hand, there should be no incentive for foreign polluting industries to move their operations to CEE countries that have lax standards. Furthermore, it might be prohibitively expensive to meet many emission standards in the short to medium term. Given the likelihood of further deterioration of water resources, initial emphasis might be on introducing and enforcing stricter water effluent standards.

- **Strict fees and fines.** Sound environmental management in Central and Eastern European countries was discouraged by environmental fees and fines that were allowed to become totally insignificant — partly as a result of inflation — compared to the environmental damage and production costs of industry. In Poland, for instance, resource user fees in 1987 represented 0.5 percent of the production costs of energy and mining, even though these industries were the worst polluters. In the same year, fines against these enterprises for exceeding pollution standards reduced their profits by only 0.7 percent on average. In all CEE countries, countless violations went unreported, and many firms received exemptions from fines because full assessments would have forced them into bankruptcy.

In Poland, fees have recently increased 15-fold and fines 27-fold, with both pegged to inflation. Other countries are expected to institute higher fees as well. For the system to work, however, enterprises should be able to make their own investment decisions and if necessary import the appropriate pollution-control equipment.

- **Decentralization.** In Western countries, a number of environmental management functions devolve to the provincial or regional level where there is a reasonably broad tax base to support these functions and sufficient responsiveness to local problems. Several CEE countries, in the rush to
restructure their political landscape, have also initiated far-reaching decentralization processes while considering centralized monitoring and inspection at the national level. The right mix of responsibilities and obligations is critical, however, since central authorities might be pulled into no-win political fights over local priorities. At the municipal level, on the other hand, powerful constituents could prevent enforcement of inconvenient regulations.

**Qualified outlook**

It is right to be hopeful about eliminating the environmental problems in Eastern Europe, but it would be erroneous to expect widespread improvement in the short term, even in the best scenario. The Ruhr area in Germany was once an environmental wasteland where blue sky was an alien concept. Today parts of this area serve as a model for how an old industrial and mining zone can be cleaned up to such a degree that parts of it serve as a natural recreation area.

The cost of the Ruhr clean-up was enormous nevertheless: sustained environmental investments over 20 years and more than a million industrial jobs lost.

*Richard Ackermann, EMTEN World Bank*

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## World Bank's Greening of Eastern Europe

### Poland

The $18 million Environment Management Project (1990) is providing an umbrella framework for multilateral and bilateral assistance in the most polluted areas of Poland. The $250 million Energy Resource Development Project is helping to increase domestic production of natural gas. This will improve air quality in urban areas once additional investments have been made in transmission and distribution.

The energy resource project is also encouraging energy conservation and fuel substitution by supporting energy price reform.

Additional projects in Poland include: the Industrial Environment Project (loan estimated at over $100 million) to assist restructuring of major industrial polluters in the heavy chemicals and coal mining sectors; and the Heat Supply Restructuring and Conservation Project ($150 million). The latter aims to increase energy efficiency and reduce coal-related pollution through rehabilitation/modernization of district heating networks and through air pollution abatement investments.

The Bank prepared a technical background paper in 1989, and work is being completed on a study for a broad policy, institutional, and investment strategy to address the highest priority environmental concerns in Poland. The study analyzes the significant economic policies that have led to improved environmental conditions in the West and evaluates the likely impact of similar policies in Poland. The methodology is being applied to similar studies in other countries.

### Czechoslovakia

A review of Czechoslovakia's environmental problems, institutions, and programs will be completed in June and will be the basis for a three-year plan of action. The federal and republic governments of Czechoslovakia, the European Community, and the U.S. government are collaborating with the Bank in this study.

The Bank's first projects in Czechoslovakia — for structural adjustment and for technical and financial advisory services — will contain strong environmental components. Within the next year, an energy project will finance an ala flue gas desulfurization and particulate control. This will be followed by a full-scale environment project dealing with water pollution and hazardous waste management as well as institutional strengthening.

### Hungary

The Bank has supported Hungary's shift away from subsidized energy and toward effective demand management and economic pricing. The Bank has further assisted in the development of natural gas as an environmentally clean alternative to coal and lignite. This support has involved loans totaling nearly $400 million — primarily through three energy conservation projects, a petroleum project, and a power project. Future projects for the energy sector and for industrial restructuring (loan amounts in excess of $100 million each) will have important environmental benefits. A technical background paper on environment was recently completed, and preliminary work is being carried out on a strategy study.

### Yugoslavia

An environmental strategy paper from the Bank will be final in June and will be a major input for the Yugoslav government's own strategy paper. Along with the European Community's PHARE program, the Bank is initiating reviews of the federal and Republic of Croatia environmental agencies and assessing the implications of Yugoslavia's adopting EC air quality standards.

With partial support from the Mediterranean Environmental Technical Assistance Program and Japanese grants, preparation of comprehensive environment investment projects is under way in Rijeka, Split, Montenegro, Belgrade, and Ljubljana. Loans could total as much as $500 million. A thermal power rehabilitation project with important environmental features is already under preparation. A Bank-managed Japanese grant is supporting a river basin management study of the Sava River.

### Bulgaria and Romania

In Bulgaria, a preliminary assessment of the environmental situation has been carried out by the Bank, and a broader study is being initiated with the government, as in Czechoslovakia. Large-scale energy and industrial restructuring projects, as well as the proposed Structural Adjustment Loan, will address environmental issues, particularly in terms of natural resource pricing. In Romania, a study to review the nature and extent of the country's environmental problems and the priorities for their mitigation is expected to begin this summer.
On the World Bank/IMF Agenda

ICF Stake in Hungarian Suzuki Venture

Suzuki has become the first Japanese carmaker to assemble vehicles in Eastern Europe. Magyar Suzuki (Hungarian Suzuki) a joint venture of Japan’s Suzuki and C. Itoh, Hungary’s Autokonszern, and the IFC will start production of 1- and 1.3-litre Suzuki Swift cars at the end of 1992. The Hungarian government agreed to guarantee the loans for building a $262 million assembly plant. The IFC put up $6.6 million in equity capital and is to provide a $30.7 million long-term investment loan.

New Bank Study on Transformation

Reforming the post-socialist economies in Europe will likely take at least a decade and will require broad systemic changes, according to a report from the World Bank’s Socialist Economies Unit. (The study, “Economic Transformation in Eastern/Central Europe: Issues, Progress and Prospects,” will be published in June in the Bank’s Policy and Research Series.) Former socialist economies might need five to 10 years to recover from the contractions of 1989-91, assert the authors. The expected sizeable terms of trade loss vis-a-vis the USSR heightens the importance of access to markets in the West. The main engine of long-term structural change — even more important than privatization — will probably be the autonomous growth of new private businesses, facilitated by supportive public policy.

Human Resources Loan to Hungary

A $150 million World Bank loan, approved in April, will help Hungary with human resource development. The main features of the program are: improved employment information and services; retraining programs for unemployed workers; reform of vocational secondary schools; expansion and reform of higher education; development of practical foreign language training; and support of science and technology research.

IMF Assistance to Romania

In April the IMF approved credits up to $748 million for Romania over the next 12 months. Under a stand-by credit arrangement, $518 million will be available. Under a contingency financing program, $178 million will be available if high energy prices affect the balance of payments. Romania could draw a further $52 million from the Compensatory and Contingency Financing Facility for higher energy costs. The package is in addition to the IMF’s disbursements of $285 million from the CCCF, approved in March. The Bucharest government aims to eliminate the monetary overhang and correct relative prices, reduce inflation from 38 percent in 1990 to 15 percent by the end of 1991; build up foreign reserves and improve the balance of payments position; and arrest the economic slide.

IMF Package to Poland

In April the IMF approved a financing package of about $2.5 billion for Poland’s economic reform. Approximately $1.665 billion from the extended stand-by facility would be available over three years for basic economic reform. Another $601 million in contingency financing could help Poland alleviate its balance of payments shortfalls (arising from higher fuel costs). A further $221 million was approved for to finance the cost of higher energy imports; the amount might increase to $340 million if relevant conditions are met. The government’s economic framework for 1991-93 aims to: stabilize the economy quickly; accelerate transformation to a market economy; and eliminate the overhang of external debt. For 1991, the program envisions a reduction of inflation to 36 percent (from 250 percent in 1990) and a modest recovery of output after a sharp fall in 1990.

Bank Delegation in Tirana

The first World Bank mission to Albania, led by Adil Kanaan (EM4CO), took place in April. Kanaan told TRANSITION that privatization and financial sector restructuring and development are the Albanian government’s top priorities. The nation’s constitution is currently being debated by parliament and is expected to be adopted shortly, after which a new government is expected to be formed.

New Bank Loans to China

The World Bank’s concessory-lending affiliate, the International Development Association (IDA), has approved a credit of $77.8 million to help the government of Liaoning Province improve water supplies and urban transport in the cities of Shenyang, Fuxin, and Yingkou. Total project cost, which includes construction of water pipelines and treatment plants and improved pollution control, is $128.6 million. To upgrade transport in Jiangsu Province, the Bank and IDA have approved $153.6 million ($100 million from the Bank). Over the next 15 years the local government will rehabilitate the provincial road network and the Nanjing-Shanghai corridor road, and will construct a new shiplock and a bridge. Total project cost is $312.8 million.

Highway Improvement in Laos

A 40-year IDA credit of $45 million to the Lao People’s Democratic Republic will partially finance the rehabilitation of a 266-kilometer road from Namkhading to Savannakhet. In another development, the IMF has approved a $12 million loan under the Structural Adjustment Facility. The Lao government wants to achieve 5 percent economic growth in 1991 and slash the inflation rate to 14 percent. In the medium term, the government will further liberalize foreign trade and improve the environment for nonstate economic activity.
Conference Diary

Transformation Process
April 25-26, Washington DC

Annual World Bank Conference on Development Economics, organized by the World Bank/ PRE. Privatization is the “paramount economic policy issue” facing Eastern Europe today, and if there is no breakthrough in privatizing large state-owned firms, the entire process could be stalled, with dire consequences for reforming economies. This was stated by Harvard University professor Jeffrey Sachs in his paper Accelerating Privatization in Eastern Europe: The Case of Poland. Sachs also claimed that privatization should almost always precede restructuring for industrial enterprises. According to Jan Vanous, head of the consulting firm PlanEcon, serious mistakes during the past 18 months have set back the reforming economies of Eastern Europe. The mistakes he cited include ignoring the microeconomic foundations of macroeconomic policy. Vanous asserted in his report, Near-Term Prospects for Economic Reform in Eastern Europe, that the region is facing “a crisis which, in relative terms, will go beyond the Great Depression of the 1930s.” In Prospects for Economic Reform in the USSR, Anders Aslund of the Stockholm School of Economics pinpointed laxity in Soviet monetary and fiscal policies as a major cause of the Soviets’ current economic crisis.

East European Transformation
May 3-4, Princon, NJ

Two-day conference organized by the Department of Economics at Princeton University. Papers included: Means of Privatization in Eastern Europe (Grosfeld), Savings and Retail Price Reform in a ‘Queue-Rationed’-Type Economy (Alexeev), Sequencing — Is There a J-Curve for Economic Reform? (Brada and King), Sequencing the Transformation (Portes), Analysis of Hungarian Tax Reform (Newberry), Transition Problems in the Czech Economy (Svejnar), Dilemmas of Transforming Agriculture (Marrese).

Gateways to Trade and Investment in the Changing Soviet Landscape
May 10-13, Middlebur Wy, VT

Seminar on trade and investment strategies, economic relations among Soviet republics, and the emerging legal environment. Among the participants will be both the president and the prime minister of Lithuania, the prime minister of Estonia, the vice president of Latvia, and former Soviet foreign minister Eduard Shevardnadze. Information: George Bellerose, Director, Geonomics Institute, 1 Hillcrest Avenue, Middlebury, VT 05753. Tel: (802) 388-9619

Making Sense of the Soviet Marketplace
May 6, Washington, DC

Workshop on Soviet commercial and legal information, to train U.S. firms to identify, locate, and evaluate information for commercial relations in the USSR. Co-sponsored by M. L. Heslin Associates, consultants on Soviet trade, and InterPia, a monthly publication on Soviet trade and investment news. Information: Mark Ritacca. Tel: (301) 608-0167 or fax: (301) 608-3315

Eastern European Economies in Transition
May 23, Washington DC

One-day conference sponsored by the Society of Government Economists (SGE). Edward Hewett will present the keynote address on “Transition from Central Planning to Markets.” Macroeconomic issues, labor market readjustment programs, private sector investment, banking, foreign debt, and international trade are among the topics. Information: Marvin Fell. Tel: (202) 267-6817

Eastern European Regional Meeting of Correspondent Institutes
May 27-28 Warsaw, Poland

Two-day conference sponsored by the International Center for Economic Growth (U.S.) and Poland’s World Economy Research Institutes. Representatives from 25 public research organizations and entrepreneurial associations in Bulgaria, Czechoslovakia, Hungary, Poland, and Yugoslavia are invited. Main topics include: privatization, reform prospects in individual countries, implications of economic and political liberalization, institutional development, and exchange rate and macroeconomic adjustments.

Privatization and Entrepreneurship: the Dynamics of Growth in Eastern Europe
June 6, Washington, DC

An economic forum, organized by the National Economists Club and the IMF Visitors Center. Panelists will include Klaus Friedrich of the IMF, Barbara Lee of the University of Maryland, Jan Van Outen of the IMF, and Barry Wood of the VOA.

Econometrics of Short and Unreliable Time Series — Model Building of Economic Transition in Eastern Europe
June 14-16, Vienna, Austria

Conference at the Institute of Advanced Studies on the constraints in empirical studies that rely on deficient data. Topics include: the pitfalls of traditional econometrics in short and unreliable time series; the current state of econometrics and statistics for model building; estimation and forecasting with short and unreliable time series; and current efforts to model and forecast the economic transition in Eastern Europe.
Gabor Oblath and David Tarr  
**THE TERMS-OF-TRADE EFFECTS FROM THE ELIMINATION OF STATE TRADING IN SOVIET-HUNGARIAN TRADE**  

Since the (former) CMEA countries have abandoned their traditional trading mechanisms and switched to convertible currencies, as of 1991, the issue of whether the Soviet Union offers favorable terms-of-trade to its Eastern European partners takes on major importance. The authors introduce a new data set, adjusted for product quality, based on extensive interviews with firms involved in the bilateral trade. They also evaluate the consequences of a possibly unredeemable transferable rubles surplus on the terms-of-trade estimates.

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Luis A. Riveros  
**WAGE AND EMPLOYMENT POLICIES IN CZECHOSLOVAKIA**

In terms of labor market policies, wage control should prevent the acceleration of inflation in the short term, but the private sector should be exempt from wage regulations, according to the author. In the long term, reforming labor market institutions must take priority so that labor market functions are in harmony with the overall market environment. The paper concludes that wage indexation could cool inflationary expectations and stimulate employment adjustments, but wage policies—particularly minimum wage policies—have a distortionary effect. Breaking the practice of providing social benefits to job holders and not to the needy is fundamental for rapid adjustment.

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Valdas Samonis  
**DEBT FOR EQUITY SWAPS IN POST-COMMUNIST EASTERN EUROPE: TURNING A CURSE INTO A BLESSING?**  
University of Toronto, Toronto, 1991

The international debt crisis that began in the early 1980s demands unconventional, imaginative solutions. Debt-for-equity swaps have been employed with some success as a vehicle for debt reduction and foreign investment promotion in countries such as Chile and Argentina.

Debt owed to the West constitutes one of the most painful and destabilizing legacies of communism in Eastern Europe. Under present circumstances it is unlikely that Poland, Hungary, or any other East European country will be forgiven much more than half their accumulated debt. The paper explores whether privatization laws and foreign investment regulations in post-communist Eastern Europe facilitate debt-for-equity swaps (see next entry).

According to the author, many countries in Eastern Europe will probably adopt large-scale, massive, and swift privatization based on the concept of citizen vouchers. This choice is the result of the growing realization that deep East-West systemic and developmental differences render the classic privatization method inadequate. Foreign investors likely only participate in the later stages of privatization, when the share valuation problem has been solved and other standards are in place. Traditional xenophobic tendencies act as constraints as well. Privatization in Eastern Europe might offer, therefore, only limited opportunities for debt-for-equity swaps, concludes the paper.

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Ishac Diwan and Fernando Saldanha  
**LONG-TERM PROSPECTS IN EASTERN EUROPE: THE ROLE OF EXTERNAL FINANCE IN AN ERA OF CHANGE**  

The paper argues that private investors have an important role in the process of reform in Eastern Europe. As a result, external creditworthiness is key for a successful transition. Large governments that are borrowing tend to crowd out private investment schemes that might be arranged between international investors and domestic firms. Thus, the public sector should abstain from excessive external borrowing to leave room for the private sector in the limited credit markets.

This also implies that public debt reduction may be especially desirable in the highly indebted countries of Eastern Europe. Rather than flood the public sector with new loans, the international organizations should attempt to increase domestic creditworthiness by supporting debt reduction and restraints on borrowing. Such a strategy would also force governments to finance their deficits internally, thereby increasing accountability.

Finally, the paper argues that debt-for-equity programs represent an attractive vehicle for debt reduction in Eastern Europe. Such schemes, when related to the privatization effort, are not inflationary—as in the case of the public debt for private equity schemes of Latin America. The current variety simply represents a swap of public liabilities. It creates value to the extent that foreign private investment leads to positive externalities. The challenge will be to create swap mechanisms that allow the Eastern European countries to retain a large share of those gains.
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Leonid Ivanovich Abalkin
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Council of Ministers, Moscow, 1990, 197 p.

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Pawel H. Dembinski
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Price Waterhouse, New York, 1990

Jan S. Prybyla
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