Creating Capital Markets in Central and Eastern Europe

Gerhard Pohl, Gregory T. Jedrzejczak, and Robert E. Anderson
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Gerhard Pohl, Gregory T. Jedrzejczak, and Robert E. Anderson

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Foreword

Some of the countries of Central and Eastern Europe have made remarkable progress in privatizing their enterprises by transferring ownership from the state to private citizens. This has created millions of new shareholders. It is estimated that more citizens now own shares of enterprises in Russia than in the United States and Great Britain combined.

This initial distribution of share ownership will change over time as millions of citizens and financial institutions buy and sell shares. The countries of Central and Eastern Europe need to develop the stock markets and related institutions such as brokerages, clearing and settlement organizations, and regulatory agencies to handle the large volume of share trading that is likely to occur after privatization. In the not too distant future, it is likely that the stock markets of Moscow, Prague, Poland, Budapest, and Kiev will become as important in their economies as those of New York, London, Paris, Frankfurt, or Tokyo.

This study attempts to answer two basic questions. The first question is the role of capital markets in the new market economies of the region. Is the role merely to provide a convenient and low cost market for buying and selling shares? Alternatively, will capital markets be a source of badly needed new equity capital to help with the restructuring of enterprises in the region? Will capital markets encourage managers of enterprises to undertake the needed restructuring and discipline them if they do not, for example, through low share prices or hostile takeovers?

The second question is how and to what extent the governments in the region should encourage the development of capital markets. A laissez faire approach would be to let the market participants develop for themselves the best institutions and arrangements for trading shares. Stock exchanges will arise spontaneously as the need for them arises. A more active approach would be for governments to sponsor the creation of stock exchanges and establish the overall legal and regulatory framework. It is hoped that this paper can help governments in the region adopt sound policies for the development of capital markets.

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Where appropriate, references are made to papers presented at the conference. The views expressed here, however, are those of the authors and should not be considered a consensus view of the participants or sponsors of the conference. The authors thank Claudia Morgenstern (International Finance Corporation) and Robert Pardy and Paul J. Siegelbaum (World Bank) for their helpful comments and suggestions.
Summary

With the privatization of so many state enterprises in the countries of Central and Eastern Europe, policymakers are asking themselves how and to what extent governments should promote the development of formal capital markets. At this stage, that essentially means markets for shares of companies. As in the case of mature stock markets, governments should put in place the necessary legal and regulatory frameworks to ensure fair, efficient, and transparent trading. The details (floor or electronic trading, single or multiple exchanges, and so on) will vary from country to country. Experience elsewhere and in the region, however, suggests that some issues are common to all countries and that some observations can be made.

Shareholder protection. There must be clear and simple legal rules about creating and running joint-stock and public limited-liability companies. These regulations should be embodied in new company law or in a revised commercial code. Both presuppose that other legislation is in place—covering property rights, contracts, bankruptcy, and so on.

Which type of financial system? Bank-based or market-based? In bank-based systems banks are both lenders to and big shareholders in corporations. Such exposure provides the banks with board representation and allows them to play a strong role in corporate governance. In market-based financial systems shares are widely held by the public either directly or indirectly through mutual funds, pension funds, and insurance companies. Corporate governance is exercised by selling shares in poorly performing companies. Countries in the region, however, can have the best of both worlds by adopting a diversified financial system in which different institutions and market practices compete. Due to limited availability of financial information and uncertainty about the success of companies, markets are likely to be dominated by large financial institutions that have better access to information.

Stock market structure. Traders should not be required to use a single exchange, but multiple markets should not be encouraged. Government-imposed trading in a single market may result in monopoly and inefficiency. The trading system best suited to countries of the region is the call market—that is, buy and sell orders are accumulated over a period and executed simultaneously when a market clearing price is established. With the necessary safeguards, dual-function broker-dealers should be allowed; such speculators bring price stability to stock markets. All trading should be transparent, with fast reporting of the size and price of trades.

Voucher funds. In countries with voucher privatization programs, investment funds can play a major role in capital market development and in the supervision and control of enterprises. Funds should be encouraged to use their voting power to improve management and to bring pressure on enterprises to restructure. Fund managers and sponsors should be banned from dealing in the shares of enterprises in which the fund has a stake. Moreover, funds should not be allowed to corner the shares in any industry or market.

Regulation. Because many countries in Central and Eastern Europe aspire to join the European Union, they might consider adopting similar or compatible regulatory
regimes. These regulations would cover many areas, including accounting and auditing standards, capital adequacy requirements for banks (and restrictions on insider lending), regulations on investment funds, and enabling statutes on securities market intermediaries and self-regulatory bodies similar to those set up under the U.K. Financial Services Act.

Enforcement. Governments must pursue and prosecute with vigor all fraud, theft, insider trading, and other criminal acts by market participants.
Introduction

Many enterprises in the countries of Central and Eastern Europe have been transferred to private ownership—often as joint-stock companies whose shares can be bought and sold. An important postprivatization issue for these countries is what the role of government should be in developing capital markets where these shares can be traded fairly and efficiently.

These markets include organized stock exchanges and associated institutions such as depositories and clearinghouses, over-the-counter markets, and informal markets. Participants include financial services providers (such as brokers, dealers, banks, pension funds, and mutual funds), as well as individual investors.

We use the term capital market here to refer to markets for shares (equities) of joint-stock companies and do not deal with markets for other securities, such as bonds, options, or futures. Equities are more important than other types of securities at this stage of capital market development in the region. By issuing shares, a company raises capital for modernization and expansion and gives new shareholders ownership rights to monitor and control the management of the company, for example, by electing the board of directors. In other words, the shareholders play the dominant role in corporate governance.

Market capitalization is the market value of all shares in publicly traded companies—in other words, the number of shares issued by the company times the current market price. In a public company the shares can be sold to the public, including small investors. In a private or closely held company the shares may be sold only by one large investor to another, and shares are rarely traded in organized markets.

Successful mass privatization has created market capitalization in some countries that, relative to the size of their economies, approaches or exceeds that in many industrial countries (figure 1). Countries that have not used mass privatization typically have a small market capitalization because fewer companies have been privatized.

Measuring market capitalization is difficult in countries that have used mass privatization, such as the Czech Republic and Russia, because shares of many companies are not traded, are traded infrequently, or are traded outside organized markets. Moreover, some companies may still be owned by the state, and thus many shares are not available for trade. And these measures of market capitalization may overemphasize the importance of capital markets since shares are rarely traded.

Many think of organized stock exchanges as the principal market for trading shares, but exchanges are just one type of market. Trading that occurs outside an organized exchange is sometimes called “off-market.” This term is misleading since any trade of shares occurs in a market of one form or another.

In organized or formal capital markets, traders regularly meet in person or over a

Capital markets in some transition economies are already larger than those in many Western countries relative to the size of their economies.

In English, the term “capital” has come to mean all sources of finance for enterprises, including bank loans, corporate debt, and suppliers credits. “Capital market” has become synonymous with the term “financial market.” In this paper we use “capital” in its more traditional meaning—the resources that a “capitalist” contributes to operate his or her business. In English, the terms “equity” and “shares” are now used instead of this narrow meaning of “capital.” “Capital” still has this narrow meaning in most European languages, however, and probably will be more familiar to Central and Eastern European readers than “equity.”
communications network to buy and sell shares according to the established rules of that market. Such markets include stock exchanges with a trading floor and over-the-counter markets where traders deal with each other over telephones and computer networks.

Informal markets cover all other markets where buyers meet sellers and arrange transactions. These markets might include individuals buying and selling on street corners, selling through advertisements in newspapers or on bulletin boards, brokers standing outside factory gates offering to buy shares distributed to workers in mass privatization programs, or institutional investors such as funds buying and selling large blocks of shares over the telephone. These markets may trade many more shares than formal markets, especially in the early stages of capital market development.

One weakness of these informal markets is their lack of transparency. It is difficult to know the prices at which shares are being traded because there is no formal reporting mechanism. This can lead to an inefficient market where the same shares trade at different prices depending on the region of the country, the size and sophistication of the trader, the trader's access to inside information, and so on.

A second weakness is that these markets are usually unregulated, and so there is greater scope for cheating investors, particularly small, unsophisticated investors. Lacking efficient formal markets, shareholders have no choice but to trade on informal markets.

Thus the central policy question is whether and how the governments in the transition economies should promote the development of formal capital markets to trade the shares of newly privatized enterprises. Several issues must be considered:

- What is the role of capital markets in allowing firms to raise needed capital for restructuring through the sale of new shares?
- Will capital markets encourage managers to Restructure and to increase profitability? In other words, what is the role of these markets in corporate governance?
- Should development of capital market infrastructure and institutions occur early in the transition so that a well-functioning market can facilitate privatization, or should this wait until after privatization?
- What are the minimum legal rights of shareholders to receive profits earned by the company and to control management? How should these rights be defined in company law, and how can they be enforced?
- Should the government or exchanges attempt to stabilize prices of shares, and if so, how?
- How should the government or exchanges attempt to stabilize prices of shares, and if so, how?
- How can the government ensure that an efficient system is in place for transferring shares from seller to buyer and for transferring payment from buyer to seller?
- How should the government regulate capital markets to improve their efficient operation and reduce fraud? What model of regulation is best suited to the transition economies?

Formal, organized capital markets are likely to better serve the public

Figure 1. Ratio of market capitalization to gross domestic product, 1993 (percent)

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<td>0.1</td>
</tr>
<tr>
<td>United States</td>
<td>0.2</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.3</td>
</tr>
<tr>
<td>Japan</td>
<td>0.4</td>
</tr>
<tr>
<td>Russia</td>
<td>0.5</td>
</tr>
<tr>
<td>Germany</td>
<td>0.6</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.7</td>
</tr>
<tr>
<td>Estonia</td>
<td>0.8</td>
</tr>
<tr>
<td>Mongolia</td>
<td>0.9</td>
</tr>
<tr>
<td>Poland</td>
<td>1.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>1.1</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1.2</td>
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Note: Czech second wave capitalization extrapolated from first wave. Total Russian capitalization extrapolated from twenty-five largest traded companies. Source: Authors' estimates from data supplied by country officials and IFC 1994.
The Role of Capital Markets

The countries of Central and Eastern Europe are moving rapidly to privatize state enterprises and to remove government controls over industry and commerce. Seventy years of socialism have yielded overwhelming proof of Adam Smith's views that market forces are more efficient in solving most production and distribution problems than large organizations and administrative controls.

Large firms survive in market economies only where technological or other scale economies outweigh the monitoring and control (principal-agent) problems inherent in managing large organizations through administrative controls. Transition economies have inherited large firms and organizations in almost every line of economic activity.

Privatization of existing state enterprises is only a first step in the restructuring of transition economies. If market reforms are to be successful, the privatized enterprises must be profoundly transformed. For example, they must stop producing unprofitable products; adopt better design, production, and marketing techniques; spin off nonessential activities into separate firms; and invest in new products and production facilities. The current universe of a few thousand firms eventually will be replaced by a more diversified set of a few hundred thousand firms. This cannot be done at once, and restructuring will be a continuing process. Capital markets—markets for ownership and control rights over firms and assets—will play an vital role in this restructuring.

Banks loans are likely to continue to be the most important source of debt financing for enterprises. Corporate bonds are not a major source of capital for enterprises even in some industrial countries, such as Germany or Japan, and will probably not be important in Central and Eastern Europe for some time. Government securities, including bonds, notes, and bills, however, will grow in importance as governments find better ways to finance their deficits. Many new exchanges in the region trade long-term government securities.

Capital markets include not only the infrastructure to buy and sell securities (the stock exchange, electronic trading system, or coffee house, as the case may be), but they also include the applicable rules (formal and informal) and the market participants that buy, sell, or own such instruments and advise on corporate control transactions (spinoffs, takeovers, management buyouts, mergers, acquisitions, and so on).

Most capital market activity in Central and Eastern Europe is secondary market transactions—that is, transfers of ownership of existing shares. Primary market activity—the mobilization of investment finance through the sale of new shares or other securities—is likely to remain comparatively small.

While the opening of stock exchanges has attracted much attention, these efforts were largely symbolic. The most important steps toward creating capital markets lie elsewhere. These include:

- Adoption of a legal infrastructure for private sector activity, including a company law that sets out standard contractual arrangements for limited-liability companies owned by many small investors.
- Incorporation of state enterprises as joint-stock companies.
- Transfer of ownership to private individuals.
The joint-stock company as a transition device

The most important step is the removal of government from commercial activities, that is, the transfer of all state enterprises to private owners. Since most state enterprises are large, joint-stock corporations or public limited-liability companies owned by many individual shareholders, they remain the most promising vehicles for fostering rapid restructuring of Central and Eastern European economies.

While sales of a few firms to foreign investors may be feasible, more governments are realizing that a mass privatization program, in which shares of enterprises are transferred to the public for little or no payment (for example, using vouchers), is the most practical solution.

Restructuring can be accelerated by putting in place an appropriate capital market infrastructure that includes clear and simple legal rules about the creation and management of widely owned, joint-stock corporations (or public limited-liability companies). These rules are normally embodied in company law, but they presuppose that other elements of private economic law are in place, notably those governing property rights, contracts, pledges (security), and bankruptcy.

These laws may already exist in some Central and Eastern European countries in old civil and commercial codes, but they require extensive revision. In other countries a new civil and commercial code, based on Western models, may be the simplest solution. The commercial code should include rules about the creation and functioning of at least three different types of firms—partnerships, private limited-liability companies, and public limited-liability companies.

Depending on the extent of rules provided in these company laws, separate securities regulation may not be required. But tighter regulations than those provided for public limited-liability companies are needed for banks and other financial service providers (brokers, mutual funds, and so on), since there is more opportunity for fraud and imprudent behavior in financial institutions than in most other lines of economic activity. Directives of the European Union covering banking, mutual funds, and investment services provide a useful guide to the minimum requirements that should be embodied in national legislation.

If company laws are clear and reasonable and if other necessary economic laws are in place, restructuring can (and will) start. But this assumes that state enterprises have been transferred to the private sector and have been cut off from government subsidies and intervention. To ensure that hard budget constraints are imposed on privatized enterprises, privatization should include banks and other financial institutions early on.

If company law is well designed, investors can ensure that managers act in their interest and will be disciplined if they deviate too far from the objective of maximizing profits and thus shareholder wealth. Monitoring of management can be enhanced by promoting core investors (for example, voucher investment funds), by making appropriate provisions for the representation of voting rights of small shareholders (proxies), and by forcing managers to return periodically to lenders or to the capital market by providing them only with short- or medium-term debt financing and requiring them to pay out profits as dividends.

Managers face other disciplines. Most important is competition in product markets. Where corporate governance is lax or inefficient, product market competition may force inefficient firms to shrink or exit, making room for more-efficient competitors. Low import barriers and stiff foreign competition may bring even more pressure to bear and stimulate higher efficiency gains than domestic capital markets and good corporate governance. An essential complementary factor is the absence of government intervention and subsidies. Despite slow progress with privatization in many Central and Eastern European countries, some loss-making enterprises have already begun significant restructuring by reducing their work force once subsidies and bank lending have been curtailed.
Western models

Financial systems are classified as bank-based or market-based. Japan, Germany, and most of Western Europe have bank-based systems, while the United States and the United Kingdom have market-based systems. The main characteristics and comparative performance of these systems are discussed in Walter (1993).

In bank-based financial systems, banks are both lenders to and shareholders in large joint-stock corporations. With substantial equity and debt exposure, banks act as strong monitors. They have representation on boards of directors (and thus access to nonpublic information). Financial markets tend to be smaller and less liquid, and transactions less transparent (at least to outsiders). Bank control over corporations need not be based on shareholding alone. Where banks can engage in brokerage, trust, or mutual fund business, they can exercise control by exercising voting rights on behalf of small investors. Alternatively, banks might write restrictive loan contracts or lend only short term to retain influence over management decisions.

In market-based financial systems, shares are held by the public either directly or through institutional investment vehicles, such as mutual funds. Shares are actively traded and corporate governance is exercised by investors selling shares in poorly performing companies. Poorly managed firms may eventually become the target of a hostile takeover. One precondition for this arrangement to be workable is extensive disclosure of reliable financial information. Hostile takeovers and leveraged buyouts are commonplace only in the United Kingdom and the United States. Such takeovers reflect the absence of insider controls on management (for example, by large corporate or financial stakeholders). In the United States corporate control by financial institutions is severely restricted, not only for banks but also for mutual funds and insurance companies.

Still, the differences between bank- and market-based financial systems should not be exaggerated. Both systems fulfill the same functions—collecting information about investment opportunities, monitoring performance, and taking action on this information. While capital markets are important, their role often is misunderstood.

Some of the most important but least understood features of financial systems in market economies are:

- **Retained profits are the dominant source of internal finance in all market economies**, accounting for 70 to 100 percent of net corporate finance (investment funding, net of accumulation of financial assets). Internal financing tends to be higher in the market-based systems (the United States and the United Kingdom; table 1).
- **Banks are the dominant source of external finance in all countries.** Over the past twenty years, bank financing has been even higher in the United Kingdom and the United States than in “bank-based” Germany. Only Japan can still be characterized as a bank-based financial system.
- **Very little net finance is raised from securities markets.** In the United Kingdom and the United States net equity issues have been negative, as leveraged takeovers and management buyouts have replaced shares with bank and corporate debt.
- **Large firms rely increasingly on retained earnings.** Large firms often become financial institutions in their own right. Smaller companies “go public” to raise risk capital in equities markets, but larger firms are increasing financial leverage to lower financing costs (and strengthen management incentives).

- **This broad pattern also holds true for the emerging market economies of Asia and Latin America.**

<table>
<thead>
<tr>
<th>Table 1. Sources of net corporate financing, 1970-89 (percent of net investment financing, excluding accumulation in financial assets)</th>
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<tbody>
<tr>
<td>Source: Corbett and Jenkins 1994.</td>
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<td>---------------------------------</td>
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<tr>
<td>Internal</td>
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<tr>
<td>Bank</td>
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<td>Bonds</td>
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<td>Trade credit</td>
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<td>Other</td>
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The recent wave of utility privatization in these countries, however, has briefly raised securities issuance. This has significantly increased stock market capitalization, but reflects primarily a shift in ownership, rather than additional investment finance.

- Cross-border portfolio investments have become a major source of external finance for emerging market economies. Foreign portfolio investors hold as much as 20 percent of all shares in Malaysia, Mexico, and Thailand. While portfolio inflows are still small in Central and Eastern Europe, they may become a major issue in the future. If portfolio investors are to be welcomed, company law and securities markets regulations should be closely aligned with those of Western market economies.

Efficient financial systems

The main aim of a financial system is to allocate financial resources to the best uses. This is easier said than done, particularly in the countries of Central and Eastern Europe because of the limited information about enterprises available to investors, and lenders' lack of skills and experience. There are thousands, if not millions, of firms and investment opportunities in any economy at any time. Investors and lenders must redirect new capital away from "losers" toward "winners" who have the greatest chance of success. In this regard, the biggest problem in the countries of the region is the lack of speed and vigor in dealing with the losers. Too much capital is still provided to firms that have little chance of success. This capital often takes the form of bank loans provided under government direction or pressure.

Even firms that could be winners fail to maximize their cash flow by cutting costs. In Western countries winners usually finance themselves more from internally generated cash flow than from bank or market financing (see table 1). Better information enables financial institutions and markets to move resources more quickly from poorly to well-managed companies and thus to speed economic growth. The greatest weakness of the financial systems in Central and Eastern Europe is their failure to stop the financing of losers, thereby reducing financing for potentially successful firms.

Financial systems and corporate governance

A country's corporate governance system is determined not only by company and securities laws but also by the subtle interplay between different parts of economic legislation. Small differences in legal systems can lead to large differences in control techniques, financial patterns, and the institutional structure of the financial system. In the United States, for example, securities markets play a big role in the financial system, and nonfinancial corporations are the main monitors of management (Frankel and Montgomery 1991). In Japan and Germany, however, banks are the principal monitors and wield considerable influence over management appointments, particularly for firms in distress (Charkham 1994).

The exclusive reliance on market discipline in the United States is not a natural outcome. It is heavily influenced by restrictive banking laws that have prevented banks from owning nonfinancial corporations and from nationwide branching, brokerage, and underwriting of securities. Insurance companies and mutual funds also face severe restrictions on ownership stakes and active governance in corporations. Since management also controls the proxy voting process (and nominations to the board of directors), this leaves only stock market "exit" by individual investors as a corporate control mechanism. Once market discounts are large enough, other corporations (or extraordinarily rich individuals) are attracted to launch hostile takeover bids to replace management.

There is lively debate among the developed market economies about which system is more appropriate (Walter 1993). Proponents of bank-based systems argue that banks have better access to information and can react more quickly to managerial shortcomings. Supporters of stock market-based systems argue that these systems provide more financing to entrepreneurial firms and that bank-based systems are too conservative. They also point out the
potential risks to the banking system if banks become large owners of risky enterprises, as well as the conflicts of interest between the role of banks as lenders to and owners of an enterprise. For example, there are concerns in the Czech and Slovak Republics about banks controlling the large voucher funds that in turn are major shareholders of enterprises and banks. In Russia there is concern about “circular ownership,” in which enterprises own the banks and the banks own the enterprises.

Empirical work has been unable to reject the hypothesis that banks are better corporate monitors than financial markets or that the existence of universal banks has a positive impact on economic growth (Steinherr and Huveneers 1992). But the differences between the two systems are small, and many other factors (for example, educational systems) may be at work.

The choice is perhaps academic. It is possible to have the best of both worlds by adopting a diversified financial system in which different types of institutions and market practices can compete. Put another way, there is no reason why banks should be restrained from participating in financial markets and corporate monitoring if they are subject to appropriate prudential standards (such as portfolio diversification, liquidity, and fiduciary rules). If banks, mutual funds, or other financial institutions fail to do a good job at corporate monitoring and control, there is still the possibility of a takeover by another (nonfinancial) corporation, assuming that shareholders can be convinced of its merits. Few takeovers have occurred in bank-based financial systems.

Control or arm’s-length finance

It is perhaps more useful to distinguish between “control-oriented” and “arm’s-length” financial practices than between bank- and market-based financial systems. If firms have core investors with significant stakes (or proxy votes), management will be under more scrutiny. If share ownership is widely dispersed, however, and solicitation of proxy votes is controlled by management, shareholder influence is small and not much different from arm’s-length bank financing. Unsatisfactory performance can only be sanctioned by selling shares. If bank lending is concentrated but share ownership dispersed, control may be exercised by lenders while investors merely watch.

Small differences in legal doctrines of fairness may permit lenders to exercise control over firms in distress. Anglo-American legal views are quite different from civil-law countries in this regard. Such small differences in legal doctrine can lead to different financial market practices and structure (see the discussion of “equitable subordination” in bankruptcy in Frankel and Montgomery 1991).

Where are Central and Eastern European countries heading? Probably toward control-oriented finance, using contractual arrangements similar to those used by venture capital investors in the West. Such investors will provide both capital and managerial expertise but will insist on monitoring and, if necessary, controlling the management to protect their investment.

As long as information is unreliable and disclosure limited, arms-length finance can work only when reliable and enforceable performance guarantees can be given. Liquid stock and corporate bond markets, widely dispersed ownership, and markets for corporate control are thus unlikely to develop soon.

A case in point is the Czech Republic. Many early observers regarded widely dispersed ownership as the weak point of mass privatization. The outcome showed the opposite. Nowhere else in the world (except perhaps in Japan) are core investors as prominent as is the Czech Republic, where a dozen investment funds manage almost one-half of all shares on behalf of individual investors.

Control-oriented finance is more similar to the structures and instruments used in the past. It is also easier to carry out because it requires less development of related institutions and skills such as brokers, organized exchanges, auditors, lawyers, and financial specialists. Large investors deal directly with the managers of an enterprise, provide experts to evaluate the company, and can trade with each other without benefit of an organized exchange.
Securities Trading Systems

Stock exchanges around the world have adopted many different trading systems

A trading system is simply a mechanism by which buyers and sellers are brought together and agree on prices so that a trade in securities can take place. Securities markets are not unique in this regard since trading systems must exist for all services and commodities in a market economy. Trading systems for securities can range from small investors trading on street corners to national stock exchanges using the latest in computer technology.

Organized stock exchanges tend to be the best type of market for small to medium-size trades of shares in large companies. Investors wishing to buy and sell bigger blocks of shares, however, tend to trade directly with each other in informal markets. In many countries (for example, the Czech and Slovak Republics and Russia), most trading is done outside organized markets. Such trading will only move to an organized market if it offers a better service. Mature market economies offer a variety of trading systems or markets.

In establishing an organized market an important issue is the structure of the trading system or systems. The number of trading systems has increased due to deregulation, increased competition, and new telecommunications and computer technology. The first major deregulation occurred in the U.S. securities market in 1974. Then in 1986 came the “Big Bang” deregulation of the London securities market, which had a huge impact throughout Europe. Before the Big Bang the London Stock Exchange had relied on a privileged group of market makers (called jobbers) to ensure a smoothly functioning and stable market. After the Big Bang the exchange in London—and eventually in most of Europe—was opened to other financial institutions, commissions and market access were deregulated, computerized trading systems were introduced, and transaction cost, including taxes, were lowered.

At the same time, the (then) European Community (EC) allowed greater freedom for investors to trade on any exchange in the EC. Exchanges in other European countries began to lose customers to the more efficient and cheaper London exchange, leading them to deregulate their markets and to improve their trading systems. Since many countries in Central and Eastern Europe want eventually to join the (now) European Union, EU trading systems and regulatory regimes are useful examples for them to follow.

Cohen and others (1986) discuss trading practices before the Big Bang. Pagano and Roell (1990) and Huang and Stoll (1992) discuss trading practices in markets around the world. An easy-to-read description of the issues facing the U.S. capital markets can be found in U.S. OTA (1990).

Securities trading is changing rapidly due to improvements in communications and computer technology. Private exchanges—not the government—should choose the most appropriate trading system. Officials, however, must understand trading systems to be able to exercise proper oversight and to create suitable regulation. Government regulation also may influence the economic attractiveness and feasibility of different trading systems.

Trading systems can differ according to:
* Market consolidation—a single stock exchange versus a number of competing stock exchanges and over-the-counter markets.
* Auction timing—continuous markets versus batched (or call) markets.
• Functions of intermediaries—brokers versus dealers and market makers.
• Entry restrictions—prohibiting banks or other financial institutions from engaging in direct market-making.
• Transfer of securities—physical movement of securities versus dematerialized systems.
• Payment for securities—cash, check, or bank wire transfer.

Besides simply matching buyers with sellers, a well-functioning securities trading system provides four services to market participants:

• Price discovery. Trading systems establish market prices that balance supply and demand for securities. Rapid dissemination of prices enhances transparency.
• Market stabilization. A large volume of trading (liquidity) and participation of many well-informed and well-capitalized dealers who are willing to engage in short-term speculation leads to more predictable and stable prices.
• Market surveillance. Securities trading systems can be used to monitor trades and to protect market participants from fraud and manipulation.
• Quality certification. Through membership and listing requirements, securities trading systems can ensure minimum standards of competence and integrity of market intermediaries (members) and of securities traded.

Order handling

Buy and sell orders to be executed on a securities trading system can differ depending on several factors, including:

• Price instructions. Orders are usually either limit orders or market orders. A limit order gives a maximum price for a buy order and a minimum acceptable price for a sell order. Market orders are executed at the best price offered by the market.
• Role of agent. Brokers simply act as intermediaries, matching sell and buy orders at predefined prices and volumes. Dealers buy and sell securities for their own account and may buy or sell at announced prices to any investor who wishes to accept their offer.

• Duration. Limit orders usually have a fixed duration after which they expire. Orders remain active until they are executed, withdrawn, or expire.
• Volume. Trading systems often deal separately with small and large (block) orders.

Market consolidation and competition

Securities often are traded in several markets, and many countries have more than one exchange. Transactions also can be conducted off-market when a buyer and a seller trade directly or when buy and sell orders are matched by a broker.

Policymakers face some key decisions in determining the best kind of stock market structure (table 2). In the past twenty years there has been much debate concerning the benefits and drawbacks of consolidating all trades in a single exchange. Some experts point out that, just as competition is beneficial in other markets, the competitive effects of multiple exchanges will lower the costs of trading securities. Others point out that multiple exchanges have a detrimental effect on market quality, volume of trade, and price stability faced by individual traders.

<table>
<thead>
<tr>
<th>Recommendation Option</th>
<th>Comment</th>
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| ✔ | Fragmentation integration
| ✔ | Single function brokers and dealers
| ✔ | Dealer (quote-driven) market
| ✔ | Discreet trading (call market)
| ✔ | Opaque system (slow or no reporting) |

Traders should not be required to use a single exchange, but multiple exchanges should be integrated to the extent possible to create a single market.

Broker-dealers are needed to ensure the presence of speculative traders but create conflicts of interest.

Unofficial speculators and dealers should be allowed to participate in auctions to increase stability.

A call market is best until order flow increases to a level adequate for continuous trading.

Transparency is increased in order-driven markets. An issue is reporting of off-market transactions.

Source: Based on the presentation by Marco Pagano at the November 1994 Prague workshop on "Creating Capital Markets in Central and Eastern Europe" sponsored by the Central and Eastern Europe Privatization Network and the World Bank.
It is probably true that trading is more efficient and costs are lower if all buyers and sellers of a security are brought together in a single market. Trading of shares in a particular company may naturally consolidate at a single exchange, resulting in a more efficient market. But if this exchange has high costs and poor service, traders should have the option of buying and selling through a competing exchange or off-market.

Some regulatory authorities or exchanges have attempted to force consolidation of trading in a single exchange. This has been done by forbidding cross-listing, by restricting in-house matching by brokers, by requiring notification of the official exchange about off-exchange transactions (put-throughs), and by establishing a centralized depository of securities.

The efficiencies of consolidated trading may be enjoyed even if more than one exchange exists. Each exchange can specialize in the shares of certain companies. For example, one exchange may specialize in large companies, using a trading system most suitable for shares with heavy trading. Another could specialize in small companies using a trading system suitable for lightly traded shares. In Germany, steel and mining stocks were traded mainly on the Düsseldorf exchange, while automobile and foreign stocks traded on the Frankfurt exchange. Systems also have been developed to link different exchanges trading in the same shares, thus producing a single national market.

Russia is an interesting example in this regard. Because of its size, poor communications, and local or regional ownership of many companies, multiple regional exchanges will exist for some time. The issue is how these regional exchanges can be integrated over time to create a national market for enterprises whose shareholders are not limited to a single region.

**Role of speculation**

A well-functioning market is expected to set prices that maximize the volume of transactions, are responsive to the changing market environment, are stable over the medium term, and result in similar prices for similar securities. The process of determining a market equilibrium price—the price discovery mechanism—is perhaps the most important but least understood function of securities trading systems. Price discovery depends on the design of a trading system, including the extent of market consolidation, participation of intermediaries acting as market makers, role of quotations and orders, dissemination of information, costs of operation, and market growth rate.

Investors and traders can be divided into two categories, though no investor is necessarily always one or the other. Long-term investors buy shares for price appreciation and dividends and expect to hold the shares for some time. Short-term investors, or speculators, buy and sell based on their expectation of a significant change in price over the near term and plan to hold the shares only for short periods. Speculators also are called dealers, jobbers, or specialists. We will use the term "market maker" if the participant has an official role in the exchange and "dealer" if the role is unofficial.

Market makers and dealers play a key role in price discovery and stabilization. They actively buy and sell securities for their own account in response to expected short-run fluctuations in the price of securities or changes in supply and demand. Brokers buy or sell only on behalf of the ultimate investor. Broker-dealers do both.

Some exchanges have official market makers. The role of market makers is to initiate and drive the process of proposing equilibrium prices within a bid and offer spread and to react to the response to these prices. Market makers on the New York Stock Exchange (called specialists) are responsible for keeping trade of assigned securities liquid and orderly, which means standing ready to buy and sell shares at a fair price, if necessary. Market makers in the London Stock Exchange and the U.S. NASDAQ are obliged always to give two quotes: bid and ask.

Dealers play an important, though unofficial, role in exchanges without formal market makers (for example, in the call markets commonly seen in Central and Eastern Europe).
Dealers attempt to make a profit by buying shares when a temporary excess supply causes a price fall and by selling shares when a temporary excess demand causes a price increase. In doing so, dealers stabilize the market. Trading systems that exclude dealers or other short-term speculators have larger price swings.

The trend in other countries is away from trading systems that rely on official market makers to find the market price that balances supply and demand. Instead all traders are allowed to make offers or orders. Dealers still participate in one form or another and bring stability to the market.

One question is whether brokers should also be allowed to be dealers, since such an arrangement may produce a conflict of interest. Broker-dealers may put their own interest as dealers ahead of the interest of clients for whom they act as broker. For example, a dealer may sell securities from inventory to a client at a price above that at which the same securities could be purchased elsewhere.

The active involvement of dealers and other speculators increases the efficiency and stability of capital markets. Thus dealers should be encouraged, especially in the early days of capital market development when few participants may have the ability or resources to be active speculators. Brokers should be allowed to be dealers and dealers to be brokers, to encourage the participation of dealers. But regulatory safeguards are needed to avoid conflicts of interest between these two functions.

**Quote or order-driven markets**

Differences in the role of dealers and market makers are most pronounced between trading systems that rely on price quotations and systems that rely on orders. In quote-driven markets (also called dealer markets) market makers compete for orders by publishing bid (buy) prices and ask (sell) prices. Thus the market maker is ready to accept orders on both sides of the market. The rules of the exchange determine the extent to which dealers must reveal to the public any restrictions or volumes attached to the proposed prices.

In order-driven markets (also called auction markets) market participants reveal their orders to buy or sell at specific prices. These markets can be continuous or call, operated only by brokers, only by market makers, or by a mix of brokers and market makers.

There are a number of arguments for order-driven markets. Depending on the patterns of supply and demand for shares, they can provide a better price discovery mechanism. In a quote-driven system, it is impossible for all orders to interact. This argument is particularly valid for Central and Eastern European countries, with their thin and erratic markets. In addition, the new brokers in these countries may not have adequate capital to act as dealers or market makers, which would require them to hold inventories of shares.

**Auction frequency**

Auction markets can be call or continuous markets. In a call market buy and sell orders are accumulated over a specific period and executed simultaneously when a market-clearing price is established—that is, when the market is "called." In a continuous market orders can be executed whenever bid prices (buy order) and asking prices (sell order) cross, in other words, whenever the buy order price exceeds the sell order price.

The main advantage of call markets is their simplicity of price discovery and the ease of disseminating information to investors. The timing of an order in a call market is not as important because all orders brought to the market before call time are treated equally. This is important for markets in Central and Eastern Europe, where communications systems are poor.

The advantage of continuous markets is that they allow traders to learn and adjust to current market conditions from observation of incoming orders, bid and ask quotations, prices, and volume of transactions. As a result decisions better reflect current (minute-to-minute) market conditions. Continuous markets also guarantee execution of orders at the market price and trading without delay. Both features are particularly important for speculative investors.
The main disadvantage of continuous markets is their vulnerability to manipulation and abuse. This can happen when the recording of the time sequence of order inflow and trading priority rules are imprecise and when rules of conduct of market intermediaries are not enforced. Although call markets are probably better suited to the needs and technological capacity of the countries in the region, the two systems can be used together. A call market may be used for thinly traded shares or for orders that have accumulated overnight. A continuous, computer-assisted system may then be used during opening hours for stocks with heavy trading of small or medium-size orders. A less formal system involving negotiated trades may be necessary for orders that are too large for the continuous system.

**Transparency**

A basic assumption of the theory of competitive markets is that they are fully transparent and information is available free of charge. Securities markets are far from this ideal. The cost and availability of information differ significantly from country to country.

Transparency can increase both the efficiency and fairness of securities markets. Complete transparency would require both the disclosure of all bids, offers, and orders before transactions take place (pre-trade information) and the volume and prices of transactions completed (posttrade information).

Most trading systems report price and volume of trades at the end of the day (closing price), while a few report only price. Price and volume information is available through exchanges, newspapers, and television. All major markets also provide online information about prices and volumes through specialized domestic communications networks and international commercial networks, such as Dow-Jones and Reuters. A few markets open their limit order books to the public at large, concealing only the names of buyers and sellers. The most prominent are Toronto CATS and the Tokyo Stock Exchange.

Though most experts generally favor transparency, some argue against it in certain cases. One is when the market relies on market makers or specialists, in other words, price- or quote-driven markets. Continuous quote-driven markets report best bid and ask quotations but not the entire flow of orders. This is mainly due to the opposition of market makers, who would lose a competitive advantage since they have better and earlier information than the rest of the market participants. It is argued that sharing this information with all participants would make it harder for market makers to bring order and liquidity to the market.

A second case involves large block trades. It is argued that such trades should not have to be reported until some time after they take place—say, ninety minutes. The trader may want to split up the large block into smaller trades and would not want to disclose an early partial trade for fear that it would cause a large price change in the market, to the trader's disadvantage. The issue of transparency is discussed in detail in IOSC (1992).

The optimal degree of transparency may also depend on other factors, including:

- **Structure of the trading system.** Call markets will benefit little from online information about prices and volumes, since such information cannot be used before the market is called. In highly automated continuous markets with computer-supported trading, however, earlier access to information (measured in seconds) can create significant gains.

- **Size of the market.** With only a few market makers, full transparency of their positions can result in oligopolistic trading strategies, resulting in collusion among them against external traders (the public).

Informal and less-regulated markets dominate trading in some countries of the region. One consequence is that sophisticated traders and dealers who have better access to information about companies, demand and supply conditions, and prices may earn substantial profits at the expense of less-sophisticated and less-informed investors. The long-term solution is to increase the information available and to
regulate to ensure equal treatment for all investors.

Market stabilization

By one definition, a market is efficient if the price of a company's shares reflects all available information about its future operations and earnings. Thus prices should change only when new information becomes available. In reality share prices fluctuate simply because of random increases in supply or demand that have little to do with the underlying fundamentals of a company's operations. One measure of a well-functioning market, however, is stable prices or prices that do not fluctuate wildly. Since prices must change when new information is available, however, it is difficult to judge whether share prices are moving to a new equilibrium level or fluctuating excessively.

One prerequisite of an efficient and stable market is liquidity. Liquidity can be measured by the relationship between money volume of trading and changes in market prices. The greater the money volume needed to cause a significant change in the price of a stock, the greater its liquidity. In other words, random changes in supply and demand would not cause a large change in the price of shares in a liquid market.

Liquidity can be viewed in terms of three market characteristics:

- **Depth**—a market has depth if orders exist at prices above and below the current equilibrium price.
- **Breadth**—a market has breadth if large orders can be absorbed without large price changes.
- **Resiliency**—a market has resiliency if price changes due to market imbalances quickly attract new orders to the market on the shortage side.

Ensuring sufficient liquidity should be one of the main considerations of market participants, policymakers, and regulators. Low liquidity may result from the small volume of shares of publicly traded companies, the small population of investors, and the desire of investors to keep shares rather than trade them. Market liquidity can be enhanced by such measures as widely and quickly disseminating price information, integrating submarkets, and encouraging market makers or dealers.

In selecting a trading system, there is often a tradeoff between immediacy (the ability to trade promptly) and price stability. Continuous trading systems provide immediacy but, because of thin trading, prices may be unstable. In call markets traders may have to wait for an auction, but the batching of numerous orders will result in more price stability. Thin trading and price instability have led most exchanges in Central and Eastern Europe to adopt call auctions rather than continuous trading.

Some exchanges with continuous trading systems have introduced policies to improve price stability. These policies are risky, however, because they can interfere in the adjustment of prices to new equilibrium levels. If price instability is a serious problem, the better choice may be to use a call auction.

Policies to encourage price stability include:

- **Special market-opening procedures.** Continuous markets are only open during normal business hours. Thus, each morning the market must deal with orders received overnight. Most continuous markets use procedures for setting opening prices that resemble call markets. All overnight orders are hatched, and an equilibrium price is established that maximizes the volume of trade.

- **Price limits.** Imposing specific percentage limits on the fluctuation of prices from session to session is the most direct and most widely used instrument of stabilization. If the limit is reached, officials ban further trades for a short period and may announce the "heavy" side of the market (supply or demand). In some cases trading may revert to a call auction. Such limits, however, should not attempt to prevent fundamental changes in the market clearing price. In such cases limits can be suspended to allow an adjustment to the new equilibrium price level.

- **Refusal to alter destabilizing orders.** Some trading systems do not allow official market makers to place destabilizing orders on their own account—for example, to sell when prices are falling or to buy when prices are rising.
Clearing and Settlement

After a trade has been made, payment for securities must be transferred from buyer to seller and ownership transferred from seller to buyer. Clearing refers to the process of verifying the number and identity of shares in a particular transaction, the price and date of the trade, and the identity of the buyer and seller. Settlement involves two steps—transferring payment from buyer to seller and transferring legal ownership of the shares from seller to buyer. If these two steps are done simultaneously, the system is said to have achieved “delivery versus payment.” Serious problems can arise if one step occurs much before the other.

Counterparty risk

Though clearing and settlement may appear to be merely administrative or accounting procedures, problems can arise if one party to the deal does not live up to the agreement. The worst situation occurs when the ownership of the securities is transferred but the payment is not made, or when the payment is made but the ownership is not transferred. The loss of one of the parties could then equal the full value of the security traded.

Even if the trade is canceled because one party does not meet its obligations, the other party may still suffer. For example, a seller may discover that the price of the security has fallen after the sale was agreed to, or the buyer may discover that the price has risen. It is generally considered unacceptable for a stock exchange to have to cancel a transaction because one party did not meet its obligations. For example, the stock exchange cannot tell a seller some days after the trade was carried out that sale cannot be completed because the buyer did not make the required payment.

In most exchanges the two parties are typically brokers acting as intermediaries for the ultimate investor. Thus the brokers must be satisfied that their clients will meet their obligations to either deliver the securities or make payment. If the ultimate buyer or seller does not meet their obligations, then the broker will in most cases be liable.

What assistance does the exchange or the clearing and settlement organization provide to guarantee the performance of the two parties to the trade? Because of the need to ensure the performance of the two parties, there often is a close relationship between the stock exchange and the clearing and settlement organization. The exchange or its large members may own and operate the organization.

Trading is hindered without the assistance of the clearing and settlement organization because each party must independently verify the creditworthiness of the other. One party may refuse to participate in a trade that has been arranged by the exchange because of lack of confidence in the counterparty. The clearing and settlement organization, in cooperation with the exchange, can reduce this counterparty risk in three ways. The first (and rarely used) is to require that both parties provide securities and payment in advance of executing the trade. This is essentially what is done by the RMS exchange in the Czech and Slovak Republics because it deals with many small investors who do not trade through brokers.

The second way is for the exchange or clearing and settlement organization to restrict participation by, for example, requiring that brokers meet certain capital
standards. This usually means that the clearing and settlement organization will limit membership to the most reputable and creditworthy brokers, dealers, and market participants. Nonmembers may participate only through one of the members. The member must then insure the creditworthiness of the nonmember.

The third way is to organize a mutual guarantee system whereby all members of the clearing and settlement organization agree to collectively stand behind the performance of members.

A clearing and settlement organization is not required in off-market trades where the buyer and seller deal directly with each other. In such cases the two parties make their own arrangements for clearing and settlement and for satisfying themselves that the other party will meet its obligations.

Alternative systems

The systems used by clearing and settlement organizations are complicated, vary greatly from country to country, and are beyond the scope of this paper. A comprehensive description of the various systems appears in IOSC (1992a, b).

The Group of Thirty, a nonprofit organization of market participants from thirty industrial countries, has made recommendations on the operation of clearing and settlement systems that have become unofficial standards. These recommendations are intended to ensure an efficient and low-risk system. Among the recommendations: that final settlement occur within three days of the trade, that settlement be “delivery versus payment,” that netting of transactions be considered, and that a central share registry or depository be used to the maximum extent possible (for more details see Zhou 1991 and Pardy 1992).

Legal form of securities

The system used for the transfer of securities depends greatly on the legal form of ownership. There are three options.

- A paper share certificate may be the only legal proof of ownership. In this case, paper certificates must be physically transferred from the seller to the buyer.
- Paper certificates may be immobilized in a central depository (for example, the Depository Trust Company in the United States). Share owners may be legally entitled to receive a paper certificate but are willing to leave them with a depository for easy trading.
- Shares may be “dematerialized” and no paper certificates exist. The only proof of ownership is an entry in the database of the central share registry.

Clearing and settlement is simpler and cheaper in the second and third cases. Either may be difficult to achieve, however, because of outdated regulations, political opposition, inadequate technology, and the need for speed in privatization. The best compromise may be to recognize paper share certificates but to encourage a move toward share depositories. This could be done first for the largest investors (brokers, dealers, funds, and banks) and eventually for small investors, as happened in many Western countries.

The Czech Republic and Russia illustrate some of the benefits and difficulties in choosing a legal form for securities. Because the Czech Republic used a centralized computerized system for its voucher auctions, it was relatively simple to register each shareholder in a central computer, thus avoiding the need for paper certificates. In contrast, Russia’s mass privatization program was decentralized because of the size of the country and because creating a central share registry would have slowed mass privatization. The end result is a dematerialized system, but the registries are managed by enterprises and can be used to hinder or manipulate share trading.

Payment systems

Clearing and settlement must be closely integrated with a country’s banking and payment system. A poorly developed payment system may be the biggest obstacle to the development of capital markets. There is little point in striving for rapid transfer of share ownership if payment takes days or weeks to complete.
Perspectives of Market Participants

Investment funds improve the efficiency of capital markets and the system of corporate governance

Investors have different needs and objectives. The interests of investment funds and other institutional investors, for example, are likely to be quite different from those of foreign companies.

Investment funds

Investment funds are likely to be important investors in Central and Eastern Europe, particularly in countries that have already carried out mass privatization using vouchers, such as the Czech and Slovak Republics, Russia, and Lithuania. In other countries planning similar privatizations, many vouchers will be transferred to such funds. Thus the larger funds may own more shares than any other single investor. In the Polish mass privatization scheme, all shares will be held by funds.

Investment funds can both facilitate and hinder the functioning of capital markets. Funds help the development of capital markets in three ways. First, they allow investors to own part of a diversified and lower-risk portfolio of shares and thus encourage citizens to invest in shares. Second, they make capital markets more efficient. (A market is efficient if the price for shares reflects all available information about the future profitability of the enterprise.) Investment funds are better able to obtain information about the prospects of enterprises. Thus they will tend to bid for undervalued companies and sell overvalued companies and will bring stock market prices more in line with future prospects of companies, thus creating a more efficient market.

Third, the funds’ large shareholdings in enterprises make it easier for them to monitor, supervise, and influence the behavior of managers. Small investors are not able or willing to invest the time and effort necessary to perform this function. Funds in the Czech and Slovak Republics are already beginning to monitor and influence managers of enterprises that were privatized through vouchers (Anderson 1994; Coffee 1994). This is less the case in Russia, where funds typically own a minority of shares in a company and the managers (insiders) are dominant (Blasi 1994).

Though funds may improve the governance of enterprises, what about the governance of the funds? Funds are typically owned by thousands of small investors who may have little influence over the fund managers. The ability of the fund owners to control the fund managers can be increased through appropriate regulation (discussed in more detail below).

Large investment funds may make it difficult for capital markets to function smoothly because they tend to trade large blocks of shares. All exchanges have difficulty in handling such trades while avoiding a large drop in price when a block is sold or a big increase when a block is purchased. A less formal trading system is usually adopted where large institutional investors trade directly with each other. This is the case in the Czech and Slovak Republics, where most trades by the large funds are done off-market. This practice may make it appear that trading on the official exchange is thin and illiquid because a large part of the trading is done outside the exchange. Some observers have even proposed that funds be required to trade only on an exchange. This approach would be a mistake because exchanges are unable to deal with large block trades. In any event, traders should be able to use whatever trading mechanism best meets their needs.
A different argument, however, can be made that large institutional investors should still report the prices at which they trade shares, even if the trade is done off-market. In this way information that funds may have about the value of companies is shared with all investors.

**Foreign investors**

Foreign investment can take two forms. The first is called foreign direct investment. Here, a (usually Western) company invests directly in a local company or starts a new enterprise (a “greenfield” investment). Such investors insist on some influence or control over management to ensure that their investment is protected. Some investors may insist on owning at least a simple majority of shares so that they can control daily operations. Others may insist on owning a “supermajority”—two-thirds or three-quarters of outstanding shares—which allows them to control fundamental changes in the company.

The second form of foreign investment is portfolio investment. Here, Western financial institutions, such as mutual or pension funds, buy shares in established companies. Such investors usually do not attempt to exercise direct influence over the management of the enterprise. If they are unhappy with the management, they “vote with their feet” by selling their shares.

When the reforms began in Central and Eastern Europe, many believed that foreign capital, management skills, and technical expertise would rush in, bringing about a rapid restructuring of the economy. That expectation proved unrealistic, but there has been a substantial flow of foreign investment to the region, and this flow could increase as reforms continue.

Few countries have enjoyed a larger inflow of foreign capital compared with the size of their economies than have Hungary and the Czech Republic (figure 2). Hungary and some other countries have seen a high degree of foreign investment because they sold enterprises to foreign investors during the initial privatization. Foreign investors can play a major role in corporate governance and can influence enterprises to undertake needed restructuring.

Foreign investors may find it easier to purchase an enterprise from private owners than from the government during the privatization process. The sale of an enterprise from one private owner to another is less political and is subject to less public scrutiny and criticism. Many citizens oppose the sale of public enterprises to foreign investors during privatization, and politicians use these nationalist sentiments to win votes. One recent example is the cancellation of the sale of a Hungarian hotel chain to foreign investors.

Countries that sold their enterprises to mostly domestic investors in a mass privatization program may see an even larger wave of foreign investment as the initial private owners sell all or part of their enterprise shares to foreign investors. This may already have begun in the Czech Republic, where the ratio of foreign direct investment to GDP is 3.4 percent, among the highest in the world (see figure 2). In Russia, where workers and managers became the dominant owners of enterprises, owners may be forced to sell to outsiders in order to attract capital for expansion and modernization. The insiders may have to give up control to outsiders in exchange for the survival of the enterprise.

Portfolio investors can buy shares in a company without gaining control, but they are only likely to do so if the shares are

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**Figure 2. Ratio of foreign direct investment to gross domestic product, 1993**

<table>
<thead>
<tr>
<th>Transition economies</th>
<th>Hungary</th>
<th>Czech Republic</th>
<th>Poland</th>
<th>Bulgaria</th>
<th>Romania</th>
<th>Other developing countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Morocco</td>
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<tr>
<td>Portugal</td>
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<tr>
<td>Mexico</td>
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<tr>
<td>Indonesia</td>
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<tr>
<td>Egypt</td>
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<tr>
<td>Brazil</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Source: OECD balance of payments data.
offered at low enough prices to reflect the risk. Recent examples include purchases of
shares in energy and natural resource companies in Russia at prices substantially
below the asset value of the companies.

Such portfolio investments are highly speculative. These investments have a potentially high return, but if company law
fails to protect the interests of minority shareholders and the company is controlled
by insiders (workers and managers), outsiders may not share in future profits.

At the end of the day, a capital market is only as good as it is perceived by its
investors. The views of foreign portfolio investors are the best test of the performance
of an emerging market because of their wide experience and high standards
(Mullin 1993; van Agtmael 1984). These investors have some concerns about Central
and Eastern Europe, including:

- *Market environment.* This covers all components of sovereign risk, including
  political stability (for example, risk of renationalization), legal stability, taxation, foreign
  exchange rules, and restrictions on capital and profits repatriation. Legal stability includes, in particular, the ability to
  enforce contracts. Also important is the macroeconomic environment, including
  GDP growth rate, inflation, and exchange rate stability.
- *Financial benefits.* This includes return on investments and portfolio diversification. Diversification means reducing finan-
  cial risk by including securities from markets where price changes do not closely
  follow other markets. In technical terms there is low correlation between price
  changes in these markets (van Agtmael 1993).
- *Institutional efficiency.* Foreign investors demand that securities trading be
  smooth, safe, and fast. This requires efficient custodian services, a depository for
  securities, a trading system, and clearance, settlement, and payment systems.

A capital market is only as good as it is perceived by its investors

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**Table 3. Problems encountered by investors during the trade cycle**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market access</td>
<td></td>
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<tr>
<td></td>
<td>• Legal limitations on foreign portfolio investments.</td>
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<tr>
<td></td>
<td>• Foreign exchange limitations.</td>
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<tr>
<td></td>
<td>• Only &quot;on the spot&quot; transactions, no possibility of trading offshore.</td>
</tr>
<tr>
<td>Custodian agent selection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Shortage of qualified local institutions.</td>
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<tr>
<td></td>
<td>• Internationally recognized custodian banks not yet present.</td>
</tr>
<tr>
<td>Trade</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lack of information on market practices and investment opportunities.</td>
</tr>
<tr>
<td></td>
<td>• Small number of traded securities.</td>
</tr>
<tr>
<td></td>
<td>• Incompetent domestic brokers, and foreign brokers not allowed to trade.</td>
</tr>
<tr>
<td>Settlement, cash side</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Slow payment system.</td>
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<tr>
<td></td>
<td>• Margin transactions not allowed.</td>
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<tr>
<td></td>
<td>• Require full, up-front payment.</td>
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<tr>
<td></td>
<td>• Counterparty's failure to pay.</td>
</tr>
<tr>
<td></td>
<td>• No guarantee fund.</td>
</tr>
<tr>
<td>Settlement, securities side</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Nonexistent or inefficient depository.</td>
</tr>
<tr>
<td></td>
<td>• Slow physical delivery.</td>
</tr>
<tr>
<td></td>
<td>• Borrowing of securities does not exist.</td>
</tr>
<tr>
<td></td>
<td>• Counterparty's failure to deliver.</td>
</tr>
<tr>
<td>Market exit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Limitation on repatriation of capital and dividends.</td>
</tr>
<tr>
<td></td>
<td>• Liquidity.</td>
</tr>
</tbody>
</table>

A trade cycle: an investor's perspective

Investors in equity markets follow a trade cycle. The cycle begins with the decision to
enter the market and ends with the realization (and perhaps repatriation) of invested
capital and profits. Both foreign investors and domestic investors may be challenged
in Central and Eastern European markets by problems that arise at different points in
this cycle (table 3).

**Custodian agent.** When foreign investors decide to enter one market they have to:
- Acquire local currency.
- Select a domestically licensed broker.
- Appoint a custodian bank.

The shortage of reliable custodian services seems to be the most severe institutional bottleneck for potential foreign
investors in Central and Eastern European markets. Investors appoint custodian banks to ensure confidentiality, to limit exposure
to credit risk, to protect assets, to gather information, to act on behalf of the investor
in the clearing and settlement process, and to communicate with the depository. These services are particularly essential for institutional investors, such as mutual or pension funds, which often have strict internal audit rules requiring high-standard custodian services. The use of custodians by mutual funds is usually required by law.

Internationally recognized custodian banks often move into countries with

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emerging stock markets to develop a long-term market presence and to deliver custodian services to their international clients. In most Central and Eastern European markets, there is a Catch-22. Foreign investors cannot invest because of the lack of custodians, who are not present because they lack clients. Domestic banks can help fill this gap. As a first step, international custodian banks usually select local banks or brokerage houses as subcustodians (Fry 1991).

Depository receipts. A related issue is the increased use of American Depository Receipts and Global Depository Receipts as vehicles for foreign investors to buy and sell shares. These receipts represent a claim to ownership of shares held by a depository or custodian in the home country, often a branch of a foreign bank. Shares represented by these receipts are not traded on an exchange in either the home country or in the country where the investor is located. Instead a depository receipt is traded in the investor's country. To be traded on a foreign exchange, depository receipts usually must meet the same standards for listing as any other share traded on that exchange. Depending on the country, the depository receipt performs other important services for the foreign investor, such as collecting dividends paid on the shares and exercising voting rights at the annual meeting.

Information availability. The information available to foreign investors regarding specific investment opportunities, market practices, services, foreign exchange, and taxes is limited but increasing rapidly in Central and Eastern Europe. Information may not be available because it is not presented in internationally accepted formats, because it is not actively marketed to foreign investors, or because international rating agencies do not rate investments in the country. Promotion of portfolio investment opportunities is not only the responsibility of exchanges and brokerage houses, but also of banks and government agencies.

Clearing and settlement. Foreign portfolio investors need reliable custodian agents

Market exit. Some policymakers and politicians in Central and Eastern Europe view capital markets as one-way "money traps." According to this view, once money is invested it should stay in the country and dividends and capital gains should be reinvested in the local economy, if not in the same company. This is not acceptable to international portfolio investors. Countries in Central and Eastern Europe are competing for portfolio investments with many other countries that offer similar investment opportunities in terms of return and risk. For investors, conditions of exit may be more important than return on investments. Unlike some direct investors who use accounting tricks and unofficial channels to repatriate income and capital, portfolio investors must use official channels. As a result, limitations on repatriation of capital and profits result in low inflows of capital.

One final concern is market liquidity: can large international investors sell shares on the local market without greatly depressing the price?
Regulation of Capital Markets

Government needs to establish the basic rules of a modern market economy

Capital markets need to be regulated in a more detailed way than the basic requirements of contract or company law. The key policy question facing governments in Central and Eastern Europe is, what type of regulatory regime should be established?

There are two approaches. The first is to identify the key characteristics of capital markets, identify why these markets produce less-than-optimal outcomes, and design a regulatory regime that corrects these market failures. The second is to examine the regulatory regimes that have been adopted in other countries (see, for example, OECD 1988) and, based on experience in those countries, choose the regime best suited for the conditions of Central and Eastern Europe. The first approach might be called theoretical, the second might be considered practical.

Institutions

Various government and private bodies and institutions play an important role in any regulatory regime. These include:

- **Self-regulatory organizations.** Self-regulatory organizations may comprise exchanges, issuers, organizations of investors, and professional organizations of financial services providers. These groups can operate as formal organizations or as informal lobbyists. Government regulatory agencies may supervise their activities and give them official recognition and status. For example, the government may require that all qualified participants in a particular profession or group become members of a self-regulatory organization and may review the organization's terms and conditions of membership.

- **Administration.** Local authorities, the central bank, and agencies of the central government play an important role. But problems can arise when particular market segments or functions are supervised by different arms of government.

  - **Lawmakers.** Parliament or the president are usually the sovereign sources of law. In some countries a referendum is used to decide fundamental issues. International organizations are the source of conventions and directives.

Regulatory models

The basic principle of a market economy is to leave as much as possible to private parties and for the government to regulate and control as little as possible. A preferred option is for the government to set out simple principles and standards and to leave enforcement to participants, for example, through civil legal action.

Historically, capital markets have emerged when governments stepped aside and left it to the private sector to enter into contractual arrangements to raise funds for large ventures. The emergence of these markets was closely linked to the appearance of joint-stock or public limited-liability companies. The most important step was the removal of government chartering (concession) requirements for such companies and their replacement with a few standard rules governing the corporate contract among sponsors, investors, and management. Rapid technological progress and the onset of scale economies in industrial production turned this small legal innovation into a major economic force.

Hard on the heels of economic liberalization, however, came imprudence, opportunism, and fraud by company managers.
and owners, which led some governments to impose stricter rules on limited-liability, joint-stock corporations. In Western Europe these rules were generally included in commercial codes. In the United Kingdom and the United States company law and other special statutes complemented or replaced the evolving “common” law. The objective was to provide a set of “best practice” rules for corporate contracts that protected third parties, such as creditors and minority investors, from abuse.

Even so, a great deal of regulation is left to market participants. Much regulation is informal and relies on reputation. Some is more formal and carried out by self-regulatory bodies, such as a stock exchange or association of securities dealers. The United Kingdom has maintained a strong tradition of minimal legislation and extensive reliance on informal rules and policing. The United States, by contrast, has become the most legislated, regulated, and litigious society.

In most European countries company law is at the core of capital market regulation. In the United States company law is the responsibility of the individual states, but the federal government can regulate companies indirectly through securities legislation if securities are offered for sale in more than one state, which is usually the case.

Capital market rules vary considerably across countries. What is legislated in detail in one country is left to informal practices or self-regulation in another. For example, German company law requires an independent supervisory board composed only of outside directors. A similar objective is achieved in the United States through New York Stock Exchange rules, which require all listed companies to establish an audit committee composed only of outside directors, and in the United Kingdom through a voluntary code (the Cadbury code). Similarly, European Union company directives require extensive disclosure of financial information for all large companies, regardless of ownership. In other countries stock exchange regulations or securities laws may lay down disclosure requirements.

Despite these differences, company and securities laws and regulations in all these countries have the same aim—to render capital markets fair, efficient, and transparent. Slight differences in the rules and subtle interactions between different laws or regulations (company, contract, banking, securities, bankruptcy, and so on) can, however, lead to different patterns of monitoring and control of public, limited-liability companies by their owners.

The bewildering array of national laws and regulations led the (then) European Community to issue company and capital markets directives to enhance fairness and transparency in the common market. These directives are embodied in national legislation (often in quite differently labeled laws). These directives are useful models for several reasons: they are compatible with the civil law tradition of most Central and Eastern European countries; they represent a modern consensus view of how much regulation is necessary; countries aspiring to membership in the European Union will eventually have to comply with these rules; and the sequencing of the directives gives some hints of what may be most essential (for example, the contents of the first four company law directives). An overview of these measures is provided in Balling (1993) for company law and in Walter and Smith (1989) for securities regulation.

**Company law**

The objective of company law is similar in all market economies: to mediate among groups of claimants, such as majority and minority shareholders, management, and creditors. Until recently provisions in company laws varied dramatically from one country to another. In the United States company law even varies by state—although some uniformity has been introduced by federal securities legislation.

EU company law directives now cover all major areas (box 1). The directives are concerned mainly with the disclosure of information to investors and the protection of investors, creditors, and other interested parties. The major subjects that a company law must address are:
General
- Legal entity
- Limited liability
- Free transferability of shares

Management and control
- Allocation of powers between shareholders, directors and management
- Appointment, rights, and duties of the board of directors
- Appointment and responsibilities of management

Rights of shareholders
- Voting rights, appointments of directors, fundamental changes
- Transfer of shares
- Access to information, audit
- Rights of minority shareholders

Capitalization and distributions
- Shares, types, voting rights
- Authorization, subscription
- Preemptive rights
- Dividends

Fundamental changes in corporate structure
- Formation
- Capital increase or decrease
- Change of articles (charter)
- Mergers and acquisitions
- Dissolution

A common problem in most countries of Central and Eastern Europe is poor enforcement of existing laws. Enacting modern laws following the best Western examples is of little value if the laws are not enforced. Enforcement may be poor because of weak or nonexistent commercial courts and inefficient or corrupt administration. It may also be in the interest of some managers of privatized companies to keep regulations vague and unenforceable. Experts on company law have attempted to draft a law that is largely self-enforced and thus still effective even in the absence of enforcement by the courts (box 2).

Securities law

For a long time Western economies used only company law as the basic capital market regulation. Company law provided the monitoring, control, and disclosure framework for the most risky securities—that is, equity shares that are residual claims on the net worth of companies. Other securities, such as bank notes or corporate bonds, were less risky, more easily understood, and did not require specific regulations beyond contract law. Securities regulation on the level of the European Union remains limited, reflecting the importance of company law directives for trading in shares (box 3). A directive on investment services in the securities field, modeled on the U.K. Financial Services Act, also has been proposed but not yet enacted.

Self-regulatory organizations

Except in the United States, securities regulations beyond company law usually cover only regulation or certification of market intermediaries (such as brokers, dealers, or investment funds) to limit fraud and theft. This can be left entirely to self-regulatory organizations, usually professional associations, or to a combination of statute law that sets out broad rights and obligations of market participants and detailed rules established by self-regulatory organizations.

Professional associations of financial service providers usually adopt minimum financial standards, codes of ethics, and self-insurance mechanisms. The risk with self-
regulatory organizations is that they can also oppose competition and create cartels or monopolies, especially if self-regulation is sanctioned or enforced by government regulatory agencies without adequate oversight. For example, setting unreasonably high standards for new brokers to enter the market may become a way of limiting entry, reducing competition, and raising brokers’ commissions. The revised UK Financial Services Act of 1986 provides a useful example of how to combine broad statutory regulation with self-regulatory organizations to set and enforce detailed rules (see Security and Investment Board 1989).

**Investment fund regulation**

Investment fund regulation is one area where regulatory practice in Central and Eastern Europe should differ from common practice in the European Union and the United States. In EU directives investment funds are referred to as “undertakings for collective investment in transferable securities.” By tradition, both in the United States and in the European Union, funds are not allowed to play a role in corporate governance—that is, to exercise influence over companies in which they own shares. This approach grew out of an early-twentieth-century populist movement that opposed concentrations of economic power. One consequence is that in the United States even large investors own only a small percentage of shares of a particular company, although there is a trend toward allowing pension and mutual funds to exercise greater influence over companies. In Germany banks and insurance companies have always been permitted to own large blocks of shares and to exercise influence over enterprises, but mutual funds have not.

One concern about large financial institutions owning controlling blocks of shares is that they may use this power to create monopolies. For example, a fund with a large share ownership in most of the firms in an industry could encourage them to collude in setting prices and thus reduce competition. Antimonopoly agencies should have the authority to block a single financial institution from becoming a major shareholder in multiple firms in the same industry.

Another concern is that smaller funds with a large shareholding in one particular company may be putting all (or most) of their eggs in one basket. To protect investors, it may be necessary to require funds to have a minimum amount of diversification in their portfolio. Investment in

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**Box 2. A self-enforcing company law**

A company law can be designed to be effective even though judicial enforcement is weak. Experts who have drafted a company law for Russia followed certain principles to make the law self-enforcing:

- High penalties for violations of the law. Because the probability of both discovering a violation and successfully prosecuting it is small, the penalty for violations should be high. Thus the law will still be effective in deterring violations.
- Procedural protections instead of prohibitions. Company law could attempt to prohibit certain behavior or activities, but it is difficult to clearly define these activities. Instead the law should specify that company management must follow certain procedures in making decisions designed to protect shareholder rights. For example, the law could require board directors who are not managers of the company or shareholders themselves to appear at general meetings to approve key decisions. The law could also specify voting procedures that must be followed at these meetings, such as cumulative voting.
- "Bright line" rules of behavior. Western laws often give general principles for the behavior of companies and their managers. These principles have been interpreted and refined by many court decisions, and judges are experienced in judging whether violations have occurred. In a self-enforcing law, however, clear and simple rules of behavior should be provided that require little judicial interpretation and that help guide companies and managers toward proper behavior.


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**Box 3. EU securities law directives**

1. Conditions for admission of securities to stock exchange listing,
2. Disclosure requirements at the time of offering ("listing particulars"),
3. Financial reporting requirements for listed companies,
4. Disclosure requirements for unlisted securities offered to the general public,
5. Disclosure of acquisition or disposal of major holdings in listed companies,
6. Insider dealing, and
7. Investment funds ("undertakings for collective investment in transferable securities").
8. Investment services in the securities field (proposal modeled after the UK Financial Services Act).

the shares of any one company may not account for more than, say, 10 percent of a fund’s assets.

Meeting these concerns about monopolization and portfolio diversification may require special rules or procedures. But these concerns should not be used to ban all financial institutions from exercising influence and control over enterprises, especially since there is a shortage of large investors in Central and Eastern European countries. Rather, banks, funds, and other financial institutions should be encouraged to exercise influence and control over enterprise managers through their shareholdings. One major reason for the failure of the communist economic system was the state’s poor conduct as owner of enterprises. It is important that good private owners be found. Though not perfect, banks and funds are likely to be the best available owners (see Anderson 1994 and Coffee 1994). Some basic principles for regulating funds, however, need to be followed (box 4).

**Impact of the tax system**

Though company and securities laws receive the most attention in developing capital markets, tax laws are just as important. A poorly designed system of corporate taxation can greatly harm the functioning of joint-stock companies and capital markets. (For a more complete discussion, see Black 1994.)

High corporate income tax rates are harmful in a number of ways. They:

- **Reduce the flow of information from companies to shareholders.** High tax rates encourage companies to hide profits and to lie to tax authorities. As a result companies do not provide accurate information to shareholders, who have no way of judging the performance of the company. The market price of the shares will be reduced, making it difficult to raise new capital.

- **Make contract enforcement difficult.** Companies may enter into informal agreements to hide profits from the tax collector. For example, the company may appear to be selling its product at a low price under an official agreement while in reality selling at a high price under an informal agreement. Such informal agreements, however, cannot be enforced in the courts. Companies may be forced to use illegal (even mafia) means of enforcement.

- **Encourage corruption.** To avoid paying high taxes, companies have a strong incentive to bribe officials to not enforce the law. Similarly, tax officials may use the tax laws to create obstacles for a company unless they receive a bribe.

As more companies move into private ownership and individuals begin to receive substantial income from dividends and capital gains, governments in Central and Eastern Europe will need to develop a fair tax system. High taxes on these sources of income compared with other income can discourage citizens from owning shares and thus impair the development of capital markets.

A special problem arises with investment funds. If a corporate income tax is levied on funds as well as on joint-stock companies, investors in funds will have to pay substantially more taxes than other investors. Corporations will pay the tax on profits and pay out dividends to the funds; the funds will then pay corporate income tax again on this dividend income. There must be a way to
exempt fund income from the corporate income tax.

**Regulatory challenges**

Capital markets are perhaps the best example of the incompatibility between existing regulatory systems, inherited from a command economy, and new market requirements. The regulatory and legal framework for capital markets is thin in almost all the countries of Central and Eastern Europe. With few exceptions, securities law is not supported by executive instructions and court interpretations. And the broader legal environment, including the civil code, company law, and bankruptcy law, is not developed enough to deal with more complex questions. The first few years of experience in capital market regulation in Central and Eastern Europe show that the main effort should focus on the following:

- **Legality.** Much needs to be done to improve the legal systems in Central and Eastern Europe. Investors are particularly sensitive to unclear legal situations. One consequence of this uncertain framework is that investments require a high premium to cover the additional risk. For most Western institutional investors, even a high risk premium may not compensate for the uncertainty, and thus they may not invest at all.

- **Self-regulation.** In mature markets, areas not covered by laws are regulated by court decisions and interpretations, self-regulatory rules, customs, and rules of proper behavior. This framework does not yet exist in Central and Eastern Europe, and it will take time to build.

- **Regulatory administration.** Court procedures to solve conflicts related to capital market contracts are slow and costly. Administrations or agencies that regulate securities markets should be granted the legal authority to act quickly and efficiently. They should be empowered to freeze company bank accounts, confiscate assets, conduct searches, and seize documents. Elaborate and complicated laws regulating securities markets are often accompanied by weak enforcement. One concern, however, is that regulatory agencies may use their power for political ends.

- **Contract enforcement.** Financial contracts are difficult to enforce because the actions of buyers and sellers do not occur simultaneously. Delivery versus payment systems attempt to render performance at the same time, but any settlement and clearance system requires some time for trades to become final.

**Costs of regulation**

A good system of regulation can improve the operation of capital markets, a poorly designed one can be harmful. Some of the costs and distortions caused by poor regulation include:

- **Creation of monopolies and cartels.** Government regulation has reduced competition and created monopolies and cartels in some countries.

- **Regulatory capture.** Because financial service providers have the incentive and the resources to influence the regulatory agency, they may be able to manipulate the agency for their benefit at the expense of the public or ordinary investors.

- **Excessive regulatory costs.** Regulators may impose requirements on the industry where the high cost of compliance is greater than benefits to investors.

- **Inhibit innovation.** Regulations may not keep pace with technical progress and limit innovation.

**Regulatory priorities**

Based on international experience, regulatory regimes should have the following priorities:

- To introduce or revise civil and commercial codes to reflect modern practices. The company law sections should be compatible with the first four EU company law directives and should be largely self-enforceable;

- To introduce international accounting and auditing standards (fourth and fifth EU company law directives);

- To introduce strict standards for banks incorporating capital adequacy rules, portfolio diversification requirements, and insider lending restrictions (first and second EU banking directives).
A result of mass privatization in the Czech Republic, shares in many companies are traded, but trading is dominated by a few large funds whose trades occur outside of the organized exchanges.

- To introduce regulations on investment funds similar to the EU directive on undertakings for collecting investment in transferable securities, but without Article 25 on voting control limits; and
- To introduce enabling statutes on securities, market intermediaries, and self-regulatory bodies similar to the UK Financial Services Act.

In drafting special securities market laws or regulations, three principles should be followed:
- Regulation should promote competition—not create a monopoly stock exchange or limit the number of financial service providers. Actual or threat of competition among exchanges and other financial service providers is the most effective regulator.
- The primary goal of regulation should be to increase information disclosure so that investors can make the best possible decisions—for example, by requiring companies to issue detailed financial statements, funds to issue prospectuses, and stock exchanges to disclose prices at which shares trade.
- The government should vigorously exercise its police powers by discovering and prosecuting theft, fraud, insider dealing, and other criminal acts. The problem in many countries is not that the laws or regulations are inadequate, but that they are not enforced.
Development of capital markets has taken quite different paths in the countries of the region. Table 4 gives data, where available, on organized stock exchanges that have been established in the region. In some, notably Hungary and Poland, capital market development was emphasized early in the transition process. One objective was to privatize enterprises by selling their shares on the new capital markets.

Other countries, such as Russia, emphasized rapid mass privatization and left development of capital markets for later. Though there are now more privately owned, joint-stock companies and shareholders in Russia than in almost any country in the world, Russia has a rudimentary capital market.

**Czech Republic**

The emphasis in the Czech Republic was on rapid transfer of ownership from the state to private citizens, mainly through voucher privatization. Capital market development was closely integrated with privatization. Privatization has been rapid, and the total value of shares in private companies (market capitalization) now approaches or exceeds that in many Western countries (see figure 1).

From the beginning, secondary trading of shares was seen as the main vehicle for concentrating ownership and thus for strengthening corporate governance. Due to the speed and scale of mass privatization, the Czech Republic adopted a liberal approach to the regulatory and disclosure requirements for firms included in the program. Shares of 1,500 enterprises were offered in one initial public offering (where citizens could use vouchers to buy shares) with only minimum disclosure requirements and market regulation.

Available public information was augmented by the analyses undertaken by large investment funds and by a learning process in the consecutive rounds of voucher auctions. Unsophisticated small investors who did not transfer vouchers to the funds and made their own investment decisions still benefited from this analysis because the funds bid up the prices of shares in attractive companies and forced down prices for unattractive ones.

Investment funds arose spontaneously when their sponsors saw a profitable opportunity to attract voucherholders to participate in the funds. Many promised to provide a high return on investments and to exercise their ownership rights vigorously. After the funds appeared, the government put in place a light-handed regulatory regime to control some of their activities. Banks established most of the large funds, and these funds in turn became major owners of the banks. Representatives of funds sit on supervisory boards of privatized companies and often on management boards.

The secondary capital market has been shaped by two factors. First, a large number of companies were offered to the public simultaneously. Second, about 75 percent of the adult population became investors directly or through investment funds. Thus a securities market with a large trading capacity was required immediately.

The government's main contribution to the development of the capital market infrastructure was to create a system where ownership of shares was recorded in a central, computerized share registry. Paper certificates were not used. This registry records any transfers of ownership and pro-
Table 4. Stock Exchanges in Central and Eastern Europe

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>Treasury plus 28 banks and brokers</td>
<td>Member banks</td>
<td>38 banks and brokers</td>
<td>Ministry of Finance and central bank</td>
<td>45 including government and central bank</td>
<td>24 banks, 2 insurance companies, 1 oil company, and 7 brokers</td>
<td>Ministry of Finance, banks, investment, and other companies</td>
</tr>
<tr>
<td>Membership</td>
<td>49 brokers, 1 bank</td>
<td>84 banks and brokers</td>
<td>28 permanent and 16 temporary banks and brokers</td>
<td>20 banks and 43 brokers</td>
<td>17 banks, 21 brokers, 2 insurance companies</td>
<td>62 members with a right to trade</td>
<td></td>
</tr>
<tr>
<td>Public companies</td>
<td>53</td>
<td>39</td>
<td>More than 1,000</td>
<td>More than 600</td>
<td>40</td>
<td>1,750</td>
<td></td>
</tr>
<tr>
<td>Traded companies</td>
<td>50</td>
<td>35</td>
<td>More than 1,000, 37 listed</td>
<td>More than 600</td>
<td>17</td>
<td>38</td>
<td>102</td>
</tr>
<tr>
<td>Capitalization</td>
<td>$4 billion</td>
<td>$1.7 billion</td>
<td>$14 billion</td>
<td>$2 billion</td>
<td>$210 million</td>
<td>$500 million</td>
<td>$76 million for 102 companies, $800 million for 1,750 companies</td>
</tr>
<tr>
<td>Trading system</td>
<td>Order-driven call auction five days a week</td>
<td>Daily open outcry and electronic trading</td>
<td>Call auction five days a week</td>
<td>Electronic continuous trading and call auction</td>
<td>Twice a week open outcry, electronic trading other days</td>
<td>Open outcry and electronic trading</td>
<td>Order-driven call market one day a week</td>
</tr>
<tr>
<td>Clearing and settlement</td>
<td>Central share registry</td>
<td>Central depository and cleaning agency (Keler Ltd.)</td>
<td>Subsidiary of the exchange</td>
<td>Organized by the exchange</td>
<td>To be created</td>
<td>Informal</td>
<td>Central depository</td>
</tr>
<tr>
<td>Other securities traded</td>
<td>Treasury bonds</td>
<td>Government bonds, T-bills, vouchers</td>
<td>Government and company bonds</td>
<td>Government and company bonds</td>
<td>Government and company bonds</td>
<td>Securities commission</td>
<td>Securities commission planned</td>
</tr>
<tr>
<td>Regulatory authority</td>
<td>Securities commission</td>
<td>Securities commission</td>
<td>Ministry of Finance (a securities and exchange commission is planned)</td>
<td>Ministry of Finance (a securities and exchange commission is planned)</td>
<td>Securities commission</td>
<td>Securities commission planned</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Member of the International Federation of Stock Exchanges</td>
<td>100 other companies traded on over-the-counter market</td>
<td>Trading also occurs on RMS system. About 80 percent of trading is off-market</td>
<td>Trading also occurs on Bratislava Options Exchange and RMS system. About 80 percent of trading is off-market</td>
<td>About 90 percent of trading is off-market</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Publications of the exchanges, questionnaires provided by exchange officials, and author estimates.

Provides each enterprise and fund with an up-to-date list of its shareholders.

Various securities markets emerged. These include the Prague Stock Exchange, with restrictive rules of entry for both securities and intermediaries; the RMS system, which uses the infrastructure developed for the voucher auctions and can be used by small investors without the assistance of brokers; and direct trading between large, sophisticated investors, such as investment funds.

The government has adopted a hands-off approach to regulation and has allowed the various markets and exchanges to compete with each other. The government has only recently required that prices of trades made by the large funds outside the organized exchanges be disclosed to the public. In this way small investors know what the large, more sophisticated investors think the shares are worth.

**Poland**

In Poland, creation of capital markets infrastructure and gradual privatization through initial public offerings were seen as an integrated process. Offerings of medium-size and large companies to the public through
the stock market were assumed to be the main method of privatization. The regulation of the public offerings and trading on the secondary market copied the high standards of Western countries. Transparency and prudent behavior were the primary objectives of privatization and secondary trade design.

Contrary to these early expectations, sales to workers and managers have probably been the most important method of privatization. These sales were made by liquidating enterprises. A disturbing aspect of this method of privatization is that workers may own enterprises collectively rather than individually. This could result in some of the problems encountered in worker-owned enterprises in the former Yugoslavia and some other countries of the region.

Three years after the Warsaw Stock Exchange was established, only about fifty companies' stocks are being traded—mainly because of a slow privatization program and, perhaps, overly ambitious disclosure and fiduciary standards. Market trade is dominated by short-term speculators. The Warsaw Stock Exchange is currently the only market that trades shares publicly. It is open to all licensed brokerage houses.

Market architecture may be changed and volume of trade increased by the implementation of the long-delayed mass privatization program. This program envisages the creation of fifteen national investment funds whose shares will be traded on the Warsaw Exchange. The assets of the funds would be the stock of about 500 companies, accounting for about 25 percent of Polish industry. These funds are also expected to sell shares of the individual companies in their portfolio on the Warsaw Exchange. An over-the-counter market will probably be created to handle the large increase in the number of shares traded.

Russia

About 24,000 medium-size and large Russian enterprises have been converted into joint-stock companies; some 16,000 of them have been transferred to private ownership through mass privatization. This is far more than in any other country in the region. Officials attempting to create capital markets must overcome a number of problems not found in other countries. First is the huge number of shareholders. Second is the country's large geographic size and poor communications systems, which mean that markets will likely be fragmented or regional. Third is the relatively weak judicial system, which makes it difficult for the government to enforce laws regulating capital markets.

Mass privatization strongly favored workers and managers and has largely resulted in insider ownership. On average, workers retain 50 percent of the equity, managers 10 percent, and only 20 percent of shares are held by outside investors (another 20 percent remains in state hands and is being auctioned off).

One concern is that managers may try to require that worker ownership be collective rather than individual so that managers can maintain control. Thus there may be limited tradability of company shares. This could change, however, if workers insist on selling shares to outsiders or if enterprises face financial difficulties and have to turn to banks or other large investors to provide new capital. Equity investors providing new capital will insist on control over the company and the right to sell their shares. Greater outside ownership and control and increased tradability of shares will be the price paid by insiders to survive (Blasi 1994).

On the institutional side, tradability has been hampered because each enterprise controls its own share registry. Some managers have been accused of using the registry to block transfer of ownership to investors not favored by management. In any event, it is costly for a purchaser of shares to physically visit the enterprises to register the transfer of ownership. Moreover, because no paper certificates are issued, it may be difficult for a purchaser to prove ownership.

Recent decrees require firms to use independent share registrars and depositories. Though compliance is uncertain, this will make it easier for insiders to sell shares and for outside investors (foreigners, banks, funds, other enterprises) to buy.

Though the Warsaw exchange is perhaps the most developed in the region, few companies are traded because of the slow pace of privatization
Secondary trading of shares is decentralized, and only a little is carried out on the 100 or so organized exchanges. Trading will probably consolidate in a smaller number of regional exchanges, but a single national exchange is unlikely.

Most trading is carried out off-market, mainly by brokers trying to assemble large blocks of shares in particular companies. These brokers typically buy from workers who received shares as part of mass privatization. The brokers are often acting for large outside investors or for managers who wish to consolidate control over enterprises.

One unresolved issue is the clarification of property rights of new shareholders, particularly their ability to sell their shares and to exercise ownership rights in the general meeting of shareholders. A new company law is still under preparation. A more complete discussion of recent developments in the Russian capital markets can be found in Morgenstern (1994) and Leeds and Harman (1994).

Establishing regulations and rules of fair trading by market intermediaries such as stock exchanges, brokers, and investment funds will also take time, but banking reforms have proceeded much more rapidly than elsewhere in Eastern Europe (Pohl and Claessens 1994). Self-regulatory organizations are likely to play a more important role in establishing and enforcing the rules of the market than in the Czech Republic and Poland. Mendelson and Peake (1993) discuss the major choices.
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