What is enterprise restructuring and what changes might induce it in transition countries? The answer to this question lies in the characteristics of the socialist economy and its enterprises. These have been widely discussed in many contexts and we do not need to reiterate anything but a few central issues here. (See Berliner 1976, Murrell 1990, and Kornai 1992 for details.) The classic socialist enterprise received a plan on output levels and on inputs to be used in the production process. Meeting this plan was of prime importance, and the plan was normally an ambitious one. Therefore, production issues dominated entrepreneurship, marketing, and cost minimization in managerial concerns. Consistently, the typical manager was a production engineer and not a businessperson. These managers responded to a complex mix of monetary and career-based incentives, which were a function of fulfillment of the plan, enterprise performance, and political loyalty. The crucial point here is simply that enterprise profits and enterprise efficiency were much less important to a socialist manager than to any manager of a capitalist firm, no matter how remote the manager was from shareholders.

A labyrinthine bureaucracy replaced the institutions and the markets of capitalism. It found customers and determined prices, with bureaucratic pressure substituting for competition. The state interceded between producer and buyer, most notably in isolating enterprises from domestic consumers and foreign markets. The bureaucracy acted as a contract-generating and a contract-enforcing agency. Its one-year plans were an immediate guarantee of short-term working capital. A centrally determined investment project would automatically receive long-term credits. Given the ubiquitous role of the state, much would be decided by negotiations, which were a major concern of top managers and a key element of their expertise. One consequence of the frequency of these negotiations was the universal presence of easy financing, which further turned managers’ attention away from profits and efficiency.

Internally, the enterprise was organized along very hierarchical lines. One-person rule was in place, and that one person was surrounded by process engineers, not by marketing personnel or developers of new products. Workers had virtually no role in enterprise decisionmaking, except in the limited sphere of personnel policy, where a variety of factors led to firing rates that were extremely low by any standard (Granick 1987). One such factor was the role that the enterprise played as provider of social welfare benefits. Hence, efficiency considerations were often a secondary consideration in determining the size of an enterprise’s work force.

Pretransition reforms did change this standard picture in some countries, notably Yugoslavia, Hungary, and Poland (Balcerowicz 1995 and Kornai 1986). In these countries, enterprises came closer to ultimate consumers, including foreign ones. Decentralizing reforms reduced the scope of bureaucratic decisionmaking. Markets and competition increased in importance. Paradoxically, however, abandonment of formal planning led to increased bargaining between the bureaucracy and the enterprise, perhaps even resulting in a further softening of budget constraints. Notably also, workers gained more power within enterprises, acquiring experience at being informal owners.

Restructuring, then, is change in the enterprise behaviors described above, particularly in levels of enterprise efficiency. To produce the empirical literature that we study, it has been necessary to construct measures of restructuring. Obviously there is great variation among authors on how to define this concept. Many papers focus on the end result and simply define enterprise restructuring as an improvement in performance (measured by growth in sales or level
of productivity, for example). Other studies look at the internal operations of the enterprise and focus on features that differ greatly under capitalism and socialism, measuring restructuring by whether these features have changed. Thus, for example, empirical studies have examined which enterprises have introduced marketing departments since reforms began.

One broad category of restructuring measures comprises quantitative indicators that are based on accounting information and that measure actual enterprise performance. The most common items in this set are indices that reflect the productivity of the enterprise or its rate of growth of production. We will use the term quantitative to refer to these indicators. Other indicators of restructuring depend less on quantitative accounting information. They are measured somewhat more loosely, perhaps derived from survey questions on economic performance that are posed to managers (such as forecasts of sales in the surveyed year) or from information collected about reorganization (for example, whether the enterprise has introduced new products), or perhaps reflecting operational factors further removed from current performance (for example, the extent of wage arrears). These indicators will be referred to as qualitative.

The prevailing sentiment among researchers is that the quantitative variables are to be trusted more. They certainly do measure directly the prime objective of enterprise restructuring: an improvement in economic performance. However, there is also the view that quantitative performance might suffer when an enterprise is undertaking fundamental efforts to reorganize and that these efforts might be observed earliest in the qualitative variables. Qualitative measures might therefore be leading indicators of enterprise performance. We focus primarily on the quantitative indicators in this paper. This focus results primarily from our own judgment, derived from our own empirical work and from an examination of the details of the papers surveyed here, that the reliability of the statistical studies of quantitative indicators is greater than that of the qualitative ones. Nevertheless, when sufficient analyses are available, we examine both types of indicators, finding that they generally lead to the same basic conclusions.

The standard study that we examine focuses on the amount of restructuring in an enterprise as the phenomenon to be explained (that is, as the dependent variable). Using statistical techniques, which we shall not detail here, researchers employ enterprise-level data to investigate how the degree of enterprise restructuring varies with the characteristics of the enterprises. Those characteristics, or explanatory variables, fall into two categories. First, there are the phenomena of primary interest, the set of variables that measure reforms as they impinge on the particular enterprise, for example, the proportion of the enterprise that has been privatized or the intensity of competition in the product market that the enterprise faces. We will discuss these variables in much detail in the sections of the paper that follow, devoting each section to an important category of explanatory variable.

The second category of explanatory variables includes enterprise characteristics in which we have little interest here. Examples are enterprise size, sector of operation, and region of country in which the enterprise is located. Given the lack of interest in these variables, why are they included in the empirical studies and why do we mention them here? The simple answer is that omission of these variables in the empirical studies would lead to biases in the results generated. Thus, it is important to include such variables (control variables) in statistical studies, precisely because their inclusion enables one to obtain more accurate results.

A different set of issues arises in the case of selection bias, the thorniest problem encountered in estimating the effects of reform measures on restructuring. Selection bias might occur when the decision on how a reform measure applies to an enterprise reflects some unmeasured phenomenon that also affects the amount of post-reform restructuring. If the most standard statistical techniques are used, the estimate of the effect of reform will be contaminated. There are statistical techniques that can reduce the likelihood of problems arising from selection bias. However, these are often not easy to implement, and attempts to counter selection bias vary in quality a great deal between studies.

We have mentioned these methodological problems in order to give the reader a flavor of the hurdles that confront researchers in endeavoring to understand the determinants of enterprise restructuring. Given the fact that this paper omits any precise description of the methodology of the pertinent empirical studies, it would be inappropriate for us to leave the reader with the impression that these studies are purely mechanical exercises, in which judgment and effort do not count. Rather, there are difficult problems to be solved and some studies do a much better job of solving these problems than others do. The papers we examined vary greatly in quality.

We have identified two important factors (addition of control variables and removing selection bias) that capture elements of a paper’s quality. There are other factors as well. One is the number of enterprises included in the study, since statistical precision varies with sample size.
Another is the number of years of reform captured in the data, since one would expect the effects of reforms to occur cumulatively over time. There are also intangible elements of the strength of a research exercise. However, a scholar familiar with a particular literature usually has an ability to judge the overall strength of analysis after examining carefully the methods used in a paper, reaching a subjective judgment of quality that reflects a sense of those intangibles. An essential part of our assessment of the empirical literature involves our reaching such a subjective judgment on each paper.

For each of the papers examined here, we arrive at a rating of the overall quality of the analysis in the paper. This quality rating reflects three items of information. First, there are the objective factors listed above. Second, there is our subjective judgment of the overall strength of analysis. Third, our quality rating reflects the relative standing of the scientific journal in which the paper is published, if it has been published. Thus, our ranking of quality reflects not only our own assessments, but also those of the economics profession.

In the companion paper to this one, we use statistical methods to aggregate the individual results of all papers on one topic into an overall result. We do this in two ways. First, we use our quality rating of the papers to determine the relative influence of each paper on the combined result. If we judge one paper to be twice as good as another, our aggregation attributes twice as much importance to the results of the higher-quality paper. Second, we combine the results of all of the papers without using any information about the quality of methodology: each paper counts equally in contributing information to our aggregate results.

Using these two approaches we are able to give the reader two differing assessments of the evidence, one based on our sense of the strength of the evidence in each of the individual papers and one based purely on a mechanical aggregation of the individual results. Obviously, we think that the most reliable aggregation is the one that uses our quality assessment. We provide the alternative evidence for the reader who is skeptical about our judgments.

All of the previous remarks are somewhat general, omitting discussion of exactly how we will present the evidence to the reader. Such discussion is most easily presented in context. We do so in the next section, examining state versus private ownership, which is the issue that has been examined most often in the empirical literature on enterprise restructuring.