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**Competitive pressures and enterprise performance in transition economies:
conceptual issues and empirical evidence**

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Introduction

How important is competition in the product market to the economic performance of the firm? How important is the corporate governance structure of the firm to its performance? How does external competition interact with corporate governance to influence firm performance? These questions are posed in a dramatic way in transition economies because product market competition and profit-seeking organizations with new ownership structures were both introduced within a short time period. This paper does not answer these questions. Its aim is to bring together the several often separate literatures that discuss the issues. In the first part, the competition-performance link in theory and empirical work is examined. In the second part, the ownership and governance structures in the firm and in particular, those that affect the key performance-related decision-making processes are investigated. In the third part, the sparse attention given in the literature to the possible interaction between external market pressures and corporate governance structures is considered. In each section, reference is made first to the theory and evidence from outside transition and second to transition-specific models and evidence.

In order to provide a focus for empirical work in transition economies on the role of product market competition and economic performance, details are provided in the appendix of equations estimated by the author/s of selected empirical papers.

1. Product market competition and firm performance

It is important to be clear at the outset that the influence of competition on firm performance is different from the impact of increased competition on the performance of the industry as a whole. For example, the ease of entry to an industry may influence the performance of existing firms in the industry but it would also affect entry and exit. Overall industry performance would reflect the net effect of all of these influences.

Theory and evidence from outside transition

In an important paper on competition and corporate performance, Nickell (1996) notes the limited attention that has been given to this issue and summarizes several routes through which greater competition in the product market might be thought to boost firm performance. Three different channels can be identified: (i) competition affects managerial incentives; (ii) competition affects the bargained effort of workers and (iii) competition affects the rate of innovation. We look at each channel in turn.

Competition affects managerial incentives A number of effects come from the impact of competition on managerial incentives to exert effort. The first mechanism derives from the threat to a manager's job if the firm goes out of business. If more competition threatens the firm's survival, this is a spur to greater managerial effort.

Second, more competition provides a wider basis for comparisons of managerial performance. If their performance can be compared more easily then managers have a

stronger incentive to exert effort so as to secure their position both on the internal and the external managerial labour market. In short, product market competition makes the monitoring of managers easier.

It has also been argued (Willig, 1987) that tougher competition makes profits more responsive to managerial effort. This may encourage greater effort unless the offsetting impact of more competition in depressing demand for the firm's product is too large. Willig's model identifies a possible source of ambiguity in the relationship between competition and managerial effort and hence between competition and performance. The second effect may be relevant in the context of early transition.

Implicit in the models of managerial effort is the assumption that managers have objectives other than profit maximization. Marris argues that greater competition constrains the ability of managers to pursue their desire of increasing the size of the firm (Marris, 1998).

There are few empirical tests of these effects. Nickell (1996) controls for industry level concentration and import concentration and tests whether a firm-level measure of competition is correlated with firm performance. He finds that two indicators of competition at firm level are significantly related to productivity growth: a survey-based measure (a dummy for 'firms reporting the presence of 5 or more competitors') and a measure of the firm's rents. More competition and lower rents are associated with better performance.

Blanchflower and Machin (1996) analyzed work-place data from manufacturing industry in the UK and Australia. They only had a firm-level indicator of the number of competitors and their dependent variable was the level rather than the rate of change of productivity. They found no evidence for effect of competition on the level of labour productivity in the UK and a small positive effect for manufacturing firms in Australia.

Hay and Liu (1997) use the motivation of a 'Willig-type' mechanism to link managerial effort in reducing costs to market share and price-cost margin. When competition is fiercer, the relationship between efficiency and performance is tighter and therefore the incentive is stronger for the manager to raise efficiency. They investigate this hypothesis by estimating the efficiency of firms in 17 UK manufacturing sectors. One aim of the paper is to find out whether the extent of competition affects the degree to which firms improve their efficiency in the short run. They find support for the view that the pressure of competition as indicated by a fall in market share leads to improved performance subsequently.

Competition affects the bargained effort of workers A second channel arises if workers also share in the firm's rents and engage in a bargain over wages and effort. Increased competition will raise bargained effort and hence marginal productivity (Grout, 1984, Haskel 1991). Haskel (1996) finds evidence that UK productivity growth in the 1980s was triggered by enhanced product market competition (deregulation, more competitors, stronger import penetration, and privatization). He regresses productivity growth on sectoral measures of concentration, entry and import penetration and on some

firm-specific variables. He finds that the coefficient on the concentration variable is negative while the other two sector specific variables are positively signed.

Competition affects the rate of innovation The third channel is a dynamic one. The standard Schumpeterian argument is that strong competition in the product market can have deleterious effects on innovation because it dissipates the rewards from innovation. This means that the incentive to sink the costs necessary to innovate is reduced. However, the opposite result can also be found. The emergence of new competitors will threaten the temporary monopoly profits from innovation and increase the incentive of the incumbents to shorten the innovation cycle. This effect operates through managerial incentives since introducing new products or processes involves managerial effort. The result is faster productivity growth (Aghion, Dewatripont and Rey 1997).

Support for the role of competition as a spur to innovation comes from recent econometric research using the number of innovations as the measure of performance (e.g. Blundell et al. 1995). This is consistent with the results of a quite different methodology (bench-marking using case studies) in which Baily and Gersbach (1995) found that 'head-to-head' competition in the same market resulted in faster innovation in several manufacturing industries.

Theory and evidence from transition

The impact of competition on performance through managerial incentives, through curtailing rent-sharing and through innovation all have resonance in the transition context. In transition, product innovation refers to the introduction of products new to the market rather than the introduction of products that are new per se. In addition, transition highlights one additional channel and emphasizes a different slant on another. First is the likelihood that in the short-run, the introduction of competition would have a deleterious impact on firm performance because it produces disorganization. Second, competition is viewed as squeezing the scope for rent-seeking more broadly than envisaged above.

Blanchard & Kremer (1997) model the initial situation in transition economies as one of bilateral monopoly relationships between firms. In a bilateral monopoly, there is one supplier and one buyer. The outcome of a bargaining game between the two is inherently indeterminate. Under central planning, targets were imposed on the pairs of buyers and sellers and this solved the indeterminacy. But once planning ended and markets were introduced, the bargaining problem between pairs of buyers and sellers reemerged. A collapse in the existing convention could trigger a breakdown of the production chain. The entry of new sources of supply would put an end to the underlying problem but would take time. Until new chains of supply were established, performance within firms (as well as in the industry as a whole) is depressed. Hence in the short-run more competition worsens firm performance and only when the 'disorganization phase' is over, does more competition raise performance.

Second, is the argument that a more competitive environment reduces the scope for rent-seeking and corruption. Where those benefiting from rent-seeking sought to protect their

position of privilege so as to avoid effort, then more competition would tend to improve performance. In a sample of Eastern European countries Claessens and Djankov (1997) analyze the role of regulation and corruption in firm performance. The index of regulation in their article is a composite of two indices: wages and price controls and regulation. Both of these indices are measured on a discrete scale between 1 and 5, with higher scores indicating more price control and regulation. The wage and price control index is based on interviews with different experts and reflects the answers to the following type of questions: prices of how many and which products are controlled by the government, does the government have a minimum wage policy, etc. The regulation index shows the degree to which the state sets production limits and quotas. The composite index is scaled down so that the maximum score equals 1. The index of corruption is also a discrete variable between 0 and 1, 1 indicating full corruption. The index quantifies actual and potential corruption in the form of patronage, nepotism and suspiciously close links between politics and business. The authors find that regulation brings about efficiency losses for privatized enterprises. But they also conclude that corruption is beneficial for privatized firms in the presence of excessive regulation.

There are few systematic studies of the impact of competitive conditions on enterprise performance in transition countries. Evidence for the initially deleterious impact of increased competition because of its effects on disorganization has been found by Konings (1998) as well as by Blanchard and Kremer (1997). Blanchard and Kremer use data on output for nine countries (Moldova, FYR Macedonia, Kyrgyzstan, Georgia, Azerbaijan, Belarus, Armenia, Albania and Russia). They find that disorganization (measured by the complexity of inputs in a sector) increases output decline. Konings finds that disorganization, measured by the number of firms in the sector has a negative effect on productivity growth in Bulgaria but not in Estonia. He concludes that the disorganization hypothesis only applies at the beginning of the transition.

Other studies produce conflicting results. This may reflect the ambiguity of the Willig effect or of the dynamic effect or the presence of the disorganization effect. However, the generally poor quality of data and the absence of good measures of competition at firm level suggest that the results may not be robust. Using a measure of competition at industry level, Konings (1998) found in his study of Bulgaria and Estonia that more competitive pressure in the industry enhanced firm performance in Bulgaria but not in Estonia. In a study of Bulgaria, Jones et al. (1998) found that a larger market share (firm specific variable: firm's value added/total industry value-added) in a firm was associated with better performance. This is consistent with the presence of the disorganization effect.

A different approach to this question was taken in a study of Georgian firms (Djankov and Kreacic 1998). Instead of looking at performance in a large sample of firms, they collected detailed information on restructuring decisions and whether it was related to competition. They found that competition from foreign producers tended to be associated with employment cuts and with changes in suppliers (but tended to reduce the likelihood of the disposal of assets, renovations and computerization). By contrast, firms with a

larger market share were more likely to engage in computerization, renovations, the establishment of a new marketing department and the disposal of assets. These findings emphasize the ambiguity of the role of competition. Some changes appear to be promoted by more competition whilst other changes occur in the presence of market power.

Summing up

A number of strands in the theoretical literature point towards more competition in the product market being a 'good thing' for efficiency but others suggest that some market power can be beneficial. The subtle connection between competition and efficiency is clearly not fully understood. It is perhaps not surprising that the empirical evidence is less than clear-cut.

3. Corporate governance and firm performance

A structure of corporate governance is necessary when there is a difference between the objectives of the owners and managers of the firm and when this conflict cannot be resolved contractually. The structure of corporate governance refers to a set of mechanisms inside and outside the firm that contribute to the alignment of managers' actions with shareholders' interests. Within the firm, the board of directors plays a key role. The board appoints and dismisses the top manager and sets managerial remuneration. Outside the firm, alternative owners can exert pressure on the manager through the threat of takeover. The nature and concentration of the owners of the firm and the practicality of ownership transfer would seem to be important in determining how well governance works.

Theory and evidence from outside transition

It is useful to note that there are three broad ownership/control configurations that are dominant in advanced market economies. The first is dispersed ownership with little overlap between ownership and management. This is the dominant structure for quoted companies in the UK and the US. The second is concentrated ownership with little overlap between ownership and management – this is dominant in quoted companies in continental Europe and Japan. Thirdly are companies with concentrated ownership and a large overlap between owners and managers. This is the characteristic structure for small and medium-sized companies in all advanced countries. If owners and managers largely overlap, then the agency problems that dominate the discussion of corporate governance are of limited relevance. But as we will see below, other problems can arise that have implications for performance – e.g. the owner-managers may have objectives other than profit maximization and they may have insufficient human capital to operate the assets efficiently.

The prevalence of these three types of ownership structure reflects their viability. To be able to react to poor performance and therefore to be willing to hold shares, an owner must either have access to 'exit' (via the marketability of shares that comes with a small stake in a quoted company) or to 'voice' (via the control that comes with a big stake). Large shareholdings in a quoted company are relatively illiquid so the use of 'exit' is

limited. The debates about corporate governance have concentrated on the first two ownership types. They raise very different agency problems.

The issue of corporate governance arose originally in the case of so-called 'Berle-Means' joint stock companies with dispersed owners. More recently there has been a lively discussion about the role of large shareholders (e.g. Shleifer and Vishny 1997 for a survey). A large shareholder has an incentive to carefully monitor managers and is able to exercise control because large shareholders are represented on the board of directors. This contrasts with the classic free-rider problem that characterizes dispersed ownership. Monitoring management and imposing corrective action is costly and if ownership is dispersed, there is no incentive for owners to incur these costs when the benefits will accrue to all owners.

The role of the takeover is usually invoked as the mechanism in an economy with dispersed share ownership through which discipline is imposed on managers. The idea is simple: poor managerial performance leads to the share price falling below the expected value of the firm under more efficient management. This creates the incentive for a takeover raider to make a bid for the company. However, as Grossman and Hart (1980) showed there is another free rider problem here even if the stock market is liquid and operates efficiently. In the face of a takeover offer, existing shareholders will hold on to their shares unless offered the higher share value that they expect to prevail under the new management. Hence the takeover can easily fail.

These free-rider problems help to define the agency problem in a firm with dispersed ownership since they identify the scope for managerial discretion. The presence of a large share-holder mitigates this agency problem. But if the large shareholder does not have the sole objective of maximizing the value of the firm, then concentrated ownership may not contribute to profitability. This issue is usually discussed by referring to the presence, in the owner's utility function, of a private benefit of control. The agency problem that arises in this case is between the large and the small shareholders. Although in principle the large shareholder can monitor the manager and extract the optimal managerial effort, it will be directed toward the objectives of the owner, which may deviate from profit maximization and hence not be in the interests of minority owners.

Only recently has there been a systematic attempt to document differences in the structure of ownership across countries. A cross-country study of ownership in the largest firms in 27 countries (La Porta, Lopez-de-Silanes, Shleifer 1998) and a much more detailed study of ownership in nine European countries (Becht and Roell 1999) found that dispersed ownership was quite rare. Controlling shareholders were often the state or families holding often holding control through pyramidal structures involving other large companies. Bank-ownership of companies was also uncommon (even in Germany). The concentration of voting power in Continental European companies was found to be very high as compared with the UK and the US.

The finding that the classic 'Berle-Means' corporation with widely dispersed ownership is not typical of large firms in most countries has encouraged studies of the impact of

ownership concentration on performance. Analysis has been conducted both at the level of countries and of individual firms and institutions. In the former, the question is whether concentrated ownership contributes to or detracts from country performance. In the latter, the variation in ownership concentration across firms within a country is exploited to identify the mechanisms through which ownership structure affects performance.

According to the principal-agent model, a major difference between dispersed and concentrated ownership is the superior monitoring ability of the large shareholder. This suggests that high-powered remuneration schemes would play a more important role when ownership is dispersed. However studies of managerial compensation that compare the US and Japan do not confirm this (Kaplan 1994). It appears that managerial rewards react in a similar way across these countries to changes in firm performance.

Similarly, it has not been possible to pin down an empirically significant difference between the disciplining of poorly performing managers in the US and Japan where ownership structures are completely different. Within country results (for Germany) also fail to confirm that ownership concentration is the key to the disciplining of managers in poorly performing companies (Franks and Mayer 1998). Morck, Shleifer and Vishny (1989) looked at poorly performing firms in the US and found that those performing poorly relative to firms in the industry were likely to face internal reform triggered by existing shareholders. They were not more likely to be taken over. Only poorly performing firms where the whole industry was performing poorly seemed more likely to be taken over. This is evidence that takeovers are typically motivated by factors other than that of disciplining management (further evidence is surveyed in Morris (1998)).

An assessment of the debates on comparative corporate systems and performance (Carlin and Mayer 1999a) indicates that while there are clear and persistent differences in structures within the advanced countries, the impact of these differences on performance is much harder to establish. In particular, it has proved very difficult to identify in firm-level data sets the mechanisms that are often hypothesized to provide the link from structural differences to performance. The resolution of this puzzle may lie in the fact that dispersed or concentrated ownership of large companies in advanced countries serve different purposes and are suited for different kinds of industrial specialization (Carlin and Mayer 1999b). In activities or industries that are characterized by a lot of technological uncertainty, dispersed ownership may be efficient whereas in industries in which long-term relationships with complementary factors such as skilled workers and suppliers are important, concentrated ownership may be efficient.

Although the persistence of concentrated ownership in large companies in many advanced countries may reflect comparative institutional advantage, this does not imply that the prevalence of ownership concentration in developing countries is efficient. Preliminary evidence reported in Carlin and Mayer (1999b) suggests in fact that whereas ownership concentration has a positive impact on performance in industries with certain characteristics in the advanced countries, it has a negative effect for this type of industry in a set of lower GDP per capita countries. This is consistent with the idea that whilst

concentrated ownership can in principle overcome monitoring problems, it can also provide the opportunity for large shareholders to pursue their own agenda. One determinant of the outcome will be the utility function of the large shareholder (e.g. a foreign company may have different objectives from the state as large shareholder).

Theory and evidence from transition

Parallel to these studies of corporate governance in the advanced economies, privatization has taken place in the transition economies. The academic debate about privatization methods has often taken for granted that a crucial component of a successful transition was the establishment of 'effective corporate governance' in privatized firms. This is interesting in the light of the weakness of the theoretical and empirical understanding of the connection between corporate governance and performance outside transition. The debate has focused on the likely importance of ownership concentration in view of the problems of monitoring managers if ownership is dispersed (along with the problems of creating liquid and well functioning stock markets essential to the dispersed ownership model) and on the specific incentive problems arising from the transfer of ownership from the state to certain kinds of owners. In some countries policy makers were convinced by arguments that cutting state control was a prerequisite for the establishment of a market economy even if that meant that the new owners of firms would be the existing enterprise-insiders.²

The issue of insider ownership is specific to transition. So-called 'mass voucher privatization with concessions to insiders' typically leads to ownership concentrated in the hands of the existing workers and managers. Why is this ownership structure specific to transition? This requires some explanation because superficially it looks a bit like the third ownership type described above – i.e. concentrated ownership with considerable overlap between owners and managers, which is prevalent in small and medium sized firms in advanced economies. Alternatively, the mass privatized firms could be viewed as a type of employee-owned firm, which although not widespread in the advanced economies is a well-understood ownership type.

The transition-specificity arises in part because incumbent managers are able to transform their de facto control rights into de jure ones at little cost. Moreover the managers usually attained their position in the enterprise in the pre-reform period and therefore under non-market economy allocation rules. The presumption in much of the transition literature therefore is that incumbent manager and worker shareholders will have strong interests in keeping their jobs, that there is considerable overmanning and that incumbent managers will not necessarily have the right human capital for the job.

The kind of insider ownership arising from mass voucher privatization schemes leads to majority ownership in private hands but with three problematic features: (i) incorrect incentives in the sense that *owners* do not maximize profits, (ii) inadequate human capital for the many restructuring tasks that need to be undertaken simultaneously and (iii) agency problems that will prevent the supply of finance to the firm by minority

² For earlier surveys of the transition literature, see for example Carlin and Landesmann, 1997 and Carlin, 1999.

shareholders. Models such as that of Aghion and Blanchard (1998) examine the determinants of ownership transfer from insiders to those who value it more highly. The intuition is very clear – employees will sell shares to an outside bidder unless they are able to coordinate their actions and thereby internalize the likely impact of a change in control on their chance of job loss. Managerial majority ownership will be even less likely to change because the manager's expected loss of private benefit from a loss of control will outweigh the bidder's offer. This model highlights the dangers of the mass voucher model of privatization and emphasizes the need for anonymity in share trading as a means of promoting ownership transfer.

Other methods of privatization have different outcomes for owners' incentives, managerial human capital and agency problems. This complicates the empirical analysis of corporate governance effects because it suggests that it is not only the structure of ownership that matters but also the method through which privatization occurred. To provide some structure for the analysis of empirical studies of the link to performance from ownership change and governance in transition, we look

- first at the methodological problem of selection effects,
- then at evidence of privatization and ownership effects when selection has been controlled for and
- finally at studies that try to pin down the mechanisms through which ownership effects occur.

Selection Deciphering the existing evidence on privatization and ownership effects in transition countries is difficult. Not only is there the problem of the likely interaction between ownership and privatization method, but there is the even more fundamental problem of the endogeneity of the method of privatization. To make any deduction about the impact of a change in ownership there must be a method of controlling for both the observable and unobservable pre-privatization characteristics of the firms. If this is not done, then the measured difference in performance following privatization may be due to pre-privatization differences in characteristics or potential.

In the few studies that have specifically examined the question of whether privatization processes selected enterprises by quality, systematic effects were found in four of the seven countries in one study (Claessens and Djankov 1997). They were also found in a study of Slovenia (Smith et al. 1997) but not in two other studies covering three countries (Frydman et al. 1998, Grosfeld and Nivet 1997) and in another paper about Hungary (Toth 1999). The studies produce different results for the same countries (Czech Republic, Poland, Slovenia). This may reflect the fact that the samples of firms in different studies were drawn from different privatization processes in the same country (e.g. small versus large firms in Poland; very early versus later privatization in Slovenia). These results suggest that selection effects in privatization may well have been important and that studies that do not take this into account are likely to provide an inaccurate answer to the question of whether privatization has made a difference to performance.

Ownership It is striking that in all of the relatively small number of studies that correct for selection effects, a positive impact of privatization has been found. In the

broader set of studies a more mixed picture emerges and this may be due to the failure to take selection into account.

In the studies taking account of selection effects, some information emerges about the impact of different types of owners. Foreign ownership is typically associated with performance better than that of state-owned firms. In line with the earlier discussion of the problem of confounding method of privatization and ownership type, there is no uniform evidence that insider-ownership is associated with poor performance.

A study of firms in the Czech Republic, Hungary and Poland (Frydman et al. 1998) found that both manager and employee-ownership were associated with performance no better than that of state-owned firms. But in studies of Russia (Earle and Estrin 1997), Estonia (Jones and Mygind 1999) and Slovenia (Smith et al. 1997) results to the contrary are reported for manager-owned, worker-owned or both kinds of insider-owned firms. A study of six CIS countries found that where managers either have a large stake (above 30%) or a small stake (less than 10%), then this makes a positive contribution to performance (Djankov 1999b). Halpern and Korosi (1999) analysed the profitability of Hungarian exporting firms. They found that higher shares of foreign ownership were associated with higher profitability in the early years of the transition but the difference between foreign and domestic ownership became insignificant later.

Mechanisms Many studies to date do not allow for a clear interpretation of why privatization or more specifically, new ownership types, have affected performance. For example, improvements associated with privatization may have been due to a change in incentives associated with ownership or to changes in the environment such as the severing of soft budget constraints or the withdrawal of political interference. Similarly, the reasons for the failure to find ownership effects need to be explored. There is some evidence from other studies on whether incentives of owners, human capital of managers or agency problems lie behind the weak impact of private ownership. The effectiveness of private ownership may also be affected by the existence of financial market failures.

Sometimes the new owners (generally insiders) do not have the correct incentives: instead of maximizing profits they want to use the assets of the firm to benefit themselves. Gaddy and Ickes (1998) argue that the Russian economy is converging to an equilibrium with two types of enterprise. On one side there are the 'modern', profit maximizing enterprises, while almost half of manufacturing firms have zero or negative profits and are engaged in informal activities such as barter. They show with a case study that in fact the second non-profit maximizing situation is optimal from the perspective of the new owners. The managers and owners (who in many cases are the same persons) have different objectives than profit seeking. Enterprises engage in informal activities as a means of survival, and as a response to the structure of taxation and the weak system of corporate governance. The authors argue that the directors of the non profitable enterprises maximize the sum of formal and informal profits. 'Formal' profits can be very costly: it attracts the attention of the tax authorities, it attracts the attention of criminal organizations and finally profits draw attention to the enterprise as a potential take-over

target. Also, firms with high profits cannot justify delays in payments. On the other hand, informal activities like barter help the firm to evade taxes.

Filatotchev, Wright and Bleaney (1999) use a survey to analyze the motives of managers of (partly) insider controlled Russian firms to buy shares from their employees. They show that managers are generally hostile to outside ownership and they effectively collude with employees to prevent outsiders from buying shares. They find evidence that the profit motive is not important in the decisions of managers to buy shares in their companies. Rather, managerial entrenchment is an important motive to buy shares. The managers of firms in which the managerial stake is high are more likely to intend to buy employees' shares. Higher insider control (meaning the proportion of managerial voting shares), on the other hand, decreases these intentions.

As noted above, it may be the form of privatization rather than the ownership type per se that is at issue. Some preliminary evidence that this is empirically important comes from a study of insider-ownership in Moldova and Bulgaria (Djankov 1999a). Firms privatized to insiders through MBOs showed greater dynamism in undertaking restructuring whereas there was no difference between state-owned and insider owned voucher-privatized firms. The explanation may be that managers valued the firm more when they had to pay for it.

Consistent with the Aghion-Blanchard model of insider privatization (1998) is the argument by Kuznetsova and Kuznetsov (1999) that the failure of private ownership to improve firm performance can be found in the twin absence of functional equity markets and of the maximization of shareholders profits as the motivation of owners.

The inadequate human capital of the managers of newly privatized firms can impede restructuring and thus prevent the improvement in firm performance. This possibility was highlighted in an early empirical study of Russian shops (Barberis et al. (1996)). Further confirmation was found by Claessens and Djankov (1999) in a study of managerial selection and its impact on firm performance using a sample of Czech firms listed on the Prague Stock Exchange. They found that the presence of a new manager in the firm was positively associated with productivity and with Tobin's q-ratio. The study found that the best performance was associated with a new outside manager appointed by a private owner. This was followed by a new manager from outside appointed by the government. New managers from within the firm registered the worst performance. Whether managers owned equity in the firm had no measurable effect on performance. The failure to achieve managerial turnover may reflect either an agency problem (poor control by owners e.g. in the Czech case) or an incentive problem (lack of interest in managerial turnover by insider owners).

Djankov (1999c) found that in Moldova management training improved firm performance. In case studies of Georgian firms Djankov and Krecic (1998) concluded that managers lacked the necessary skill for operating in a competitive environment: restructuring was only reactive, not deep. In the case of Romania Candea and Candea (1998) draw two conclusions based on the analysis of published data. First, in post-1989

Romania, managerial deficiencies are more severe than the shortage of other resources for restructuring and second, restructuring should be achieved by a process of human resource centered organizational change. In Russia, Gurkov (1998) concludes that in successful companies top managers enjoy a greater increase in strategic decision-making power while delegating the authority in human resource issues to shop floor managers. In unsuccessful companies the middle managers have relatively high power, worsening the possibility of reaching consensus on corporate strategy.

Summing up

Our understanding of governance structures at a theoretical and empirical level remains at an early stage. The persistence of different broad ownership types in advanced countries at similar productivity levels suggests that each ownership type might have different advantages. The prevalence of one ownership type in countries at lower levels of development may be explained by other features of the institutional landscape. Transition countries have undertaken ownership transfer on a massive scale using different methods and ending up with a variety of ownership types. One key differentiating characteristic of ownership and governance in transition is the prevalence of insider ownership. The empirical testing of privatization and ownership effects is very tricky because of the interaction between privatization method and ownership type and the possible selection effects in the method of privatization.

Competition and corporate governance

Since there is not a consensus on the conceptual or empirical understanding of each of the links that we focus on – product market competition to performance and ownership structure/corporate governance to performance – it is not surprising that the question of how the two might interact is even less clear. The presumption of some connection is highlighted by several of the models of competition, which rely on the effect of competition on managerial incentives. If there was no managerial discretion and owners always maximized profits then there would be no margin on which these competition effects could bear. The degree of product market competition would affect allocative efficiency but not managerial effort. Similarly from the perspective of the governance literature, if markets were perfectly competitive, then the failure to maximize profits would be penalized by extinction for the firm. It is the rents associated with market imperfections (including market power) that allow governance effects to operate. Of course perfect competition is a poor hypothesis for industries in which sunk costs are important. The presence of sunk costs creates rents, which can be appropriated by managers in the absence of effective governance.

Nickell et al. (1997) propose the hypothesis that competition and corporate governance are substitutes. Competition is especially potent in improving efficiency when governance structures are weak and vice versa. But a contrary perspective has been emphasized in the literature on complementarities that grew out of the approach to the internal organization of the firm developed by Milgrom and Roberts (1992). This is the notion of the complementarity of different reform measures: the effectiveness of corporate governance reform is enhanced by strong product market competition. In the substitutes case, a given increase in product market competition increases performance in

firms with bad corporate governance and has no positive effect where there is good corporate governance. In the complements case, a given increase in competition increases performance in firms with good corporate governance and has no effect where corporate governance is bad.

Empirical evidence is minimal. One study (Nickell, Nicolatsis and Dryden, 1997) investigated the link and found evidence from a panel of UK firms for the existence of substitutability between competition and corporate governance. Specifically they find that a reduction in firm-specific rents (i.e. an increase in the degree of product market competition) is associated with higher productivity growth in firms without a dominant owner. This is interpreted as suggesting that firms with a dominant owner (in this case from the financial sector) have more effective governance and that in its absence, product market competition is able to enhance productivity growth.

In principle, the transition provides a fertile ground for exploring these interaction effects since countries have introduced reforms affecting product market competition and ownership in different sequences and in different forms. The idea that some forms of restructuring in transition occur in a variety of ownership types in the presence of increased product market competition but that other forms of restructuring require effective governance has been explored. Elements of substitutability and complementarity can be found in these kinds of models (e.g. Aghion and Blanchard 1998).

In the transition context in particular, it is also possible that there are important direct feedback effects from the nature of ownership structures to the nature of product market competition. If there is a high degree of cross ownership between major firms within an industry, then in the face of a weak domestic competition authority, these ownership links may facilitate collusion in the product market. As discussed in EBRD (1997), a further negative feedback may ensue: if cross-ownership ties reflect the importance of rent-seeking coalitions³ then this may not only limit the extent of product market competition but also inhibit the demand for market institutions such as contract enforcement.

Conclusion

The main conclusions to be drawn from this overview of the literature on competition, governance and performance are the following. A number of mechanisms suggest that greater pressure of competition on the firm leads to a rise in its efficiency whilst other mechanisms suggest that some degree of market power can be beneficial for performance. Empirical evidence in advanced countries tends to support the first hypothesis although testing has been limited.

In transition, competition may contribute to disorganization in early transition. Later in transition, its effects are expected to be beneficial through squeezing the scope for rent-

³ They could instead reflect efficient arrangements to permit sunk investments to be made in long-term relationships.

seeking, although evidence is not clear. The persistence of different broad ownership types in advanced economies with similar levels of productivity suggests that each ownership type may have a different comparative advantage. The prevalence of concentrated ownership in transition countries and countries at lower levels of per capita GDP may reveal other institutional shortcomings.

Selection problems have hampered the identification of the relationship between ownership type and performance in transition economies. The analysis of the possible interaction of competition and governance effects on performance is at a preliminary stage both in transition and in advanced economies.

Appendix: Selected examples of equations estimated in the empirical papers surveyed

Competition and firm performance

Nickell (1996) estimated an equation of the following kind:

The data is based on published company accounts and is augmented by a survey. There is an unbalanced panel of 147 companies for the time period 1972-1986.

There are two dependent variables to represent log value added: log real sales and reported log real value added (which is not quite accurate, according to the author).

Explanatory variables are lagged log value added, log employment, log capital stock, a cyclical component by sector (overtime hours per worker/standard hours per worker and its inverse), firm level market share (lagged, t-2), sectoral measure of concentration, sectoral import penetration, log average of firm size (employment), survey measure of competition (dummy, equals 1 for more than 5 competitors), rent (profits-capital costs over value added), log employment over capital (squared), time and industry dummies.

To eliminate the firm specific effects, the model is estimated in first differences. Lagged value added, employment, capital stock, average employment, survey measure of competition and rents are treated as endogenous.

Nickell, Nicolatsis and Dryden (1996):

The data is based on published company accounts and is augmented by some information on ownership shares. The authors use an unbalanced panel of 582 companies for the time period 1982-1994 to analyze the effects of competition and financial pressure. To analyze the effects of competition and shareholder control they use a sample of 125 companies for the same time period. The analysis and the technique are very similar to Nickell (1996), but there are some additional variables.

The dependent variable is log real sales.

Explanatory variables in the competition-financial pressure equation are lagged log value added, log employment, log capital stock, a cyclical component by sector (overtime hours per worker/standard hours per worker and its inverse), firm level market share (lagged, t-2), sectoral measure of concentration, sectoral import penetration, log average of firm size (employment), rent (profits-capital costs over value added), lagged financial pressure (interest payments/cash flow), the product of rents and lagged financial pressure, time and industry dummies.

Explanatory variables in the competition-shareholder control equation are lagged log value added, log employment, log capital stock, a cyclical component by sector (overtime hours per worker/standard hours per worker and its inverse), firm level market share (lagged, t-2), sectoral measure of concentration, sectoral import penetration, log average of firm size (employment), rent (profits-capital costs over value added), shareholder control dummy 1 (equals to 1 if the probability of the control by the largest shareholder is more than 90-95 % and this shareholder is a bank, pension fund or insurance company), shareholder control dummy 2 (equals to 1 if the probability of the control by the largest shareholder is more than 90-95 % and this shareholder is family member, company pension fund or charity), shareholder control dummy 3 (equals to 1 if the probability of the control by the largest shareholder is more than 90-95 % and this shareholder is a non-

financial company), the product of rents and shareholder control dummy 1, time and industry dummies.

To eliminate the firm specific effects the first differences are estimated.

Claessens and Djankov (see below)

Konings 1998:

In the sample there are 1280 Bulgarian and 198 Estonian firms (number of employees > 100, total assets and sales >12 Million USD, from Amadeus) for the period 1992-1996. The data are taken from published annual company accounts.

Dependent variable: log real output growth.

Explanatory variables: log employment growth, log capital stock growth, competitive pressure (Herfindahl index in the two digit Nace classification, defined on the sample), change in the competitive pressure, financial pressure (interest payments/cash flow), change in the financial pressure, size of industry (industry sales), disorganization (number of firms in the sector) and year dummies. In one specification he also incorporates the product of disorganization and industry size. Employment, capital and financial pressure are treated as endogenous, so an IV estimation is performed.

Konings refers to (Konings 1997) as the basis for not including corporate governance variables.

Examples of selection tests and ownership tests

Smith et al. 1997:

The authors use a dataset for Slovene manufacturing firms (374- 684) between 1989-1992. The data come from balance sheets.

The authors control for selection bias using a two-step estimation. In the first step they predict foreign and employee ownership shares, using a probit estimation.

The right hand side variables in the first step are log exports, log revenues, log profits, log capital per labor ration, log wage bonus, log inventory/revenue, log long term domestic credit, log long term foreign credit, log short term domestic credit, log short term foreign credit, log long run credit to liability ratio and year dummies.

The dependent variable in the second OLS estimation is log value added.

The explanatory variables are log capital and its square, log employment and its square, ownership type (predicted foreign and employee ownership shares and their squares), the product of employee and foreign ownership, the product of the different ownership shares with capital and labor, industry dummies and time dummies.

Frydman et al. 1998:

The data come from a survey of 506 medium-sized (100-1500 employees) Czech, Hungarian and Polish firms between 1990-1993. (Employment performance estimated with 209 firms, cost performance is estimated with 171 firms.)

They estimate 4 regressions with the following dependent variables: average annual rates of growth of sales revenues, employment, labor productivity and material unit cost per unit of revenue.

The explanatory variables are ownership, country and initial level of performance. The ownership variables are discrete, representing the majority owner: SOE (numeraire), state in a privatized firm, foreign investor, private domestic financial firm, private domestic non-financial firm, domestic individuals, manager, workers. Also, group specific fixed effects (by ownership) control for the possible selection bias.

In another specification a similar exercise is performed, but the ownership dummies are different: SOE (numeraire), insider, outsider ownership dummies. The estimation technique is similarly FE.

Claessens and Djankov 1997:

There is a panel of 7977 firms between 1992-1995 from seven countries (Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, and Slovenia). The data come from balance sheets and profit and loss statements.

Dependent variables: sales growth and sales/worker growth.

Explanatory variables are sector specific input variables such as growth of log material inputs, the growth of log number of man-hours in the sector and log energy consumption growth) or sector dummies (the former in the case of the first dependent variable, the latter in the second case), privatization dummy, privatization*regulation, privatization*regulation*corruption, country dummies and year dummies. They correct for selection bias using a two step estimation procedure suggested by Amemiya (1974). First they estimate a probit model for privatization. They explain privatization with initial level of efficiency (variable cost/total revenues in 1991), size and sector by country. Then they calculate the predicted probabilities and compute the Mill's ratio (value of standard normal distribution/value of standard normal density) correction term for each firm. They include this in the OLS estimation of the performance equation. The negative sign of the estimated coefficients of this variable indicates that on average the best firms were privatized.

Djankov 1999b:

The author uses a sample of 960 privatized industrial firms in Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia and Ukraine in 1995-1997. The data are collected through a survey.

Restructuring activity is studied but one of the measures is rather a performance measure: real sales per worker growth.

Explanatory variables are ownership (continuous ownership shares: state-owned, managers-owned, employees-owned, local outsider-owned, foreign outsider-owned and individuals), industry and country dummies.

The author performs both linear OLS and non-linear estimations. This second means that ownership categories are divided into three categories: below 10%, between 10 and 30%, above 30% stake. This way he can study also the effect if concentration of ownership on firm performance.

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