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# Entrepreneurs in Economic Reform

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Abstract: New firms have been created at a striking rate the transition countries. The entrants generated welfare gains by creating jobs, supplying consumer goods, constraining the market power of the state firms, and building reform momentum. We summarize evidence on the relative role of entrepreneurs and the state in economic reform. Early in the transition, the government's main contribution to entrepreneurship was to avoid impeding the entrepreneurs' self help. Later, the entrepreneurs came to need positive assistance from the state: institutions to support contracting and finance.

## 1. Introduction

Reflecting on the first eight years of China's economic reforms, Deng Xiaoping remarked that "all sorts of small enterprises boomed in the countryside, as if a strange army appeared suddenly from nowhere." The rapid growth of the new firms "was not something I had thought about. Nor had the other comrades. This surprised us."[1]

These new firms arguably were the single most important contributor to China's reform success. They drove China's reform momentum and economic growth. As Deng said, however, their emergence was "not the achievement of our central government." The reformers had failed to foresee, by Deng's admission, the pivotal feature of their own reforms.

Many of the other ex-communist countries had similar experiences. As in China, new firms were drivers of reform. They strengthened the budding market economy by creating jobs, supplying needed consumer goods, mobilizing savings, and ending the state firms' monopoly on industry. As in China, also, the reformers often failed to anticipate the force of entrepreneurship.

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The speed of entry was not anticipated because the new firms faced a hostile environment. Setting up a business is risky anywhere, but it is especially risky in an economy undergoing deep reform. With prices volatile as a result of the reforms, it is unclear which lines of business are going to be the most profitable. State firms harass the new firms, fearing competition, and corrupt bureaucrats extort bribes. Operating without the normal market-supporting institutions, the new firms usually cannot rely on the courts to enforce their contracts; bank loans are unobtainable for most; and there is little legal or regulatory provision for outside shareholding.

These handicaps notwithstanding, large parts of the new market economy arose spontaneously, through the entrepreneurs' initiatives.[2] We summarize in this paper some evidence from the transition economies about the relative role of entrepreneurs and the state in building a market economy.

The entrepreneurs created productive firms by self help: they supplied for themselves substitutes for the missing institutions. Interfirm relationships filled the gap. Reputational incentives substituted for contract enforcement by the courts. Trade credit substituted for bank credit. Retained earnings substituted for outside equity.

While spontaneous market development occurred in all of the transition countries, it came at varying rates. Some governments impeded the entrepreneurs' self help, creating conditions that made it hard for them to cooperate with each other. Others created an environment that was conducive to self help.[3] Furthermore, there are limits to spontaneous development. Eventually, as the firms' activities became more sophisticated, they came to need the assistance of formal institutions. Some governments fostered entrepreneurship by building the required market-supporting infrastructure. Other governments' institution-building fell short.

## 2. Profits and Entry

Much has been made of the differences in conditions at the beginning of the transition in different regions (e.g., Central Europe vs. the former Soviet Union) or

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[1] Deng said this in 1987 to a delegation visiting from Yugoslavia. His statement appeared in *People's Daily*, June 13 1987, and is quoted here from Zhao (1996, p. 106).

[2] There are two routes to a private sector. The other route, far more discussed and studied than entry, is privatizing the existing state firms. The effects of privatization are surveyed by Megginson and Netter (2001) and Djankov and Murrell (2001).

countries (e.g., China vs. Russia). But in terms of market development, there was one important similarity across all of the transition countries. The planned economy was dominated by very large firms, producing relatively few consumer goods. Small and medium sized firms were almost non-existent, though they are a large part of almost every developed market economy. Trade and services were also a much smaller fraction of the economy than is typical for a market economy. Economic reforms led to a significant restructuring of these economies. Prices were freed to reflect the scarcity of consumer goods and services, and firms' profits reflected prices. The imbalances inherited from the planned economy created enormous profit opportunities for the early entrants. Entrepreneurs responded by starting up enterprises at a rapid—though varying—rate in each of the transition countries.

Poland, Russia, and China span the range of entrepreneurship experiences. Poland was among the most successful in fostering new private firms. Russia was among the least successful, though entry occurred even there. China took its own unique path.

In China, most of the new entrants were not private firms but rural enterprises run by local governments, the township and village enterprises (TVEs). At the start of the reform era, 1979, the average profits of nonstate firms were 28% of invested capital. This is very high in comparison to earnings in a mature market economy: small businesses in the United States typically earn returns between 9% and 15% of assets. As China's transition proceeded, these firms' profits fell to 15% of invested capital in 1984 and to 5% in 1991 (Naughton, 1995, p. 150).

Poland shows similar rates of entry, though the new firms were mainly ordinary privately-owned firms. Profit rates of manufacturing firms in their first year of operation fell from an average of 25% of invested capital for firms formed in 1990 to 6% for firms formed in 1995.

In Russia, also, profits earned by entrants were high at the start of the reforms: firms established in 1990 earned an average profit of 17% on invested capital in their first year of operation. By contrast with China and Poland, however, profits did not decline over time: first-year profits for firms established in 1995, at 16%, were almost as high as those for the firms established in 1990 (Johnson, McMillan, and Woodruff, 2001b).

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[3] As Frye and Shleifer (1997) said, governments acted both as a helping hand and a grabbing hand.

A telling measure of the success of a country's reforms is the time-path of entrants' profits (shown in Figure 1). The high profits earned early in the transition are easily explained. The starting point was a heavily distorted economy with unfilled market niches. Firms that were able to overcome the impediments to doing business and produce and sell goods and services were very profitable. In Poland and China, as market-supporting institutions developed, the impediments declined and so rents fell. Russia's stalled transition shows up in the continued high profit levels.

The differing profit trends reflect the differing rates of entry. Entry occurred rapidly in China, driven by the extraordinarily high rates of profit earned by rural firms early in the reforms. The share of China's industrial output accounted for by rural enterprises increased from 9% in 1978 to 30% in 1991 (Naughton 1995, p. 164). None of the increase in output of rural firms in China came from privatized state firms, so all of it is attributable to newly formed firms.

In Poland, also, entry was rapid. Industrial employment in private-sector firms increased from 15% in 1991 to 37% in 1994, according to Konings, Lehmann and Schaffer (1996) (using data from the Polish Central Statistical Office). The 21 percentage-point increase was apparently largely the result of new entrants, since privatized firms represented only 6% of industrial employment in 1994. At a minimum, then, one-sixth of industrial employment in Poland in 1994 was in de novo firms ("de novo" meaning started from scratch rather than being spun off from state-owned firms). The level of self employment in Poland increased from 6% of the labor force in 1988 to 12% in 1993, according to Earle and Sakova (1999) (using labor-market surveys).[4]

Russia, by contrast, saw less rapid entry. Just 6% of manufacturing employment was found in de novo firms in 1995 (Richter and Shaffer, 1996). Self employment increased from 2% of the labor force in 1988 to 3% in 1993 (Earle and Sakova, 1999).

Confirmation of this difference comes from data on small firms collected by Djankov and Nenova (2001). Since small firms were uncommon in the planned economy, smallness is a reasonable proxy for de novo startups. They find that small firms

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[4] The labor survey data indicate that the majority of the self employed work for their own account. These workers may represent not robust entry but the desperation in the face of unemployment (Earle and Sakova 2000). Nevertheless, in 1993 over 4% of Poland's workforce was made up of self employed who also hired other workers, a level much higher than in the other transition countries examined by Earle and Sakova.

represented 24% of manufacturing employment in Poland in 1997, but only 10% in Russia.[5]

Entry may have been even more marked in services than in manufacturing. In Russia, the share of small firms in the service-sector employment increased from 12.5% in 1989 to 29.7% in 1997, while in Poland it increased from 33.9% to 74.2% (Djankov and Nenova, 2001). These increases came while services were becoming a much larger part of the overall economy. In Russia services grew from 40% of nonagricultural GDP in 1989 to 62% in 1997; in Poland they grew from 40% to 66%.[6]

Entry was much more robust, then, in Poland and China than in Russia. Other transition countries saw entry to varying degrees. Ukraine and the rest of the former Soviet Union were like Russia, for example, whereas Slovakia and Vietnam were more like Poland. Profits were high early in the transition because the inefficiencies of the planned economy left unsatisfied demands and unfilled market niches. Where reform was successful, it brought competitive markets, eroding profits. Where it was less successful, the entrants' profits remained high.

## 3. Entrepreneurs' Strategies

Ongoing relationships among firms can substitute for missing institutions. The prospect of future business allows firms trust their customers to pay their bills and their suppliers to deliver quality goods. (Interviews with Vietnamese managers summarized in McMillan and Woodruff (1999a) indicate that they think quite consciously in terms of developing relationships with specific customers and suppliers.)

Where the courts are unreliable, contracting can rest on the shadow of the future. It is early in the transition that relational contracting works especially well. When it is hard to locate alternative trading partners—because firms are scarce or market information is inadequate or transport costs are high—firms make efforts to maintain

[5] For Russia small manufacturing firms are defined as those with less than 100 employees, rather than 50 as in Poland. Hence the difference between Poland and Russia is understated. The Djankov and Nenova data also show that employment in small firms grew rapidly in Poland during the 1990s, from an average of 7.5% in 1990-1992 to 23% in 1996-1998. (Comparable data for Russia are not available, because of changes in the criteria by which small firms are defined.)

[6] In Russia, the increasing importance of the service sector occurred in spite of the fact that output of services actually declined by 1% per year during the 1990s; manufacturing declined much more rapidly. Data are from the World Development Indicators database.

their existing relationships. Locked in with each other, they behave cooperatively (Kranton, 1996, Ramey and Watson, 1996). The evidence we present below suggests that self-enforcing contracts are all that is needed to support a lot of entrepreneurship, especially at the start of the reforms.

As the transition proceeds, however, relational contracting becomes an ever less reliable basis for business. First, market development lowers the costs of switching trading partners, weakening a firm's threat to cut off dealings if a trading partner reneges on a deal. The temptation to take the money and run increases, so the assurance of formal contracts comes to be needed. Second, the scope of personalized interfirm relationships is limited. To grow beyond a certain size, firms need to manage anonymous dealings: for example, to begin trading with firms in distant cities rather than just with nearby firms. Anonymous trades may need formal contractual assurance. Third, as products become more complex, there is an increased need to order them, and to commit to buy them, in advance of production, and thus an increased risk of reneging if there is no legal enforcement of contracts. Fourth, firms can for a while grow incrementally by investing their retained earnings; but to benefit from economies of scale they need at some point to make discrete investments. Investments that are large and have a long-delayed return are unlikely to be made on the basis on ongoing relationships; they require legal protection to prevent other firms (or the government) from appropriating them. Moreover, as profits decline through the transition, firms increasingly need access to external finance if they are to grow.

Formal institutions to support entrepreneurial activity developed slowly in most transition countries. In Vietnam, economic reforms began in earnest in 1986. A decade later, formal market institutions were still nascent. Courts able to enforce contracts between private firms were just being created. Banks still served state-owned firms almost exclusively. There were no credit reporting bureaus. Among manufacturers we surveyed between 1995 and 1997, less than 10% said that courts or the government could enforce a contract with a buyer or seller and just 10% said that they had received credit from banks when they started their business (McMillan and Woodruff, 1999b). In another survey carried out in 1997, 74% of private firms reported having no debts to banks, and

such debts represented only 20% of the capital among the 24% of the firms that did have them (Ronnas, 1998).

Yet Vietnam's private sector boomed. The number of private firms registered grew by 40% per year between 1993 and 1997. Private-sector employment grew from 3.8 million to 10.2 million between 1988 and 1992, while employment in state firms fell from 4.1 million to 3.0 million and in cooperatives fell from 20.7 million to 18.6 million. Then from 1992 and 1995 private-sector employment grew by more than 2.4 million, during which time state-sector employment remained constant.[7] Most of this private sector growth came from new entry or expansion of household enterprises. Vietnam has had no formal program of privatization. Though there were some ad hoc spin-offs from state-owned firms, these represent a minority of the private firms.[8]

Vietnam is extreme in its lack of formal institutions, but the other transition economies are essentially similar. The absence of credit markets, courts, credit bureaus, and other market institutions created substantial impediments to entry. Potential entrants had to find money with which to purchase equipment and inputs. They had to identify reliable suppliers and customers, when most firms were new and little information was available. Clearly, the unusually high profit rates early in the transition provided a strong incentive for entrepreneurs. But what substituted for the missing formal institutions? Evidence from Vietnam shows that informal, self-help arrangements created by the entrepreneurs were critical early in the transition.

Consider, for example, access to capital. Even in developed market economies, the most important source of capital for small and medium sized firms is trade credit from suppliers (Petersen and Rajan, 1997). The lack of formal financial markets meant that credit from suppliers was even more important to private sector firms in transition countries. In 53% of the relationships between the manufactures we surveyed and their customers, some portion of the bill was paid on credit. That suppliers were willing to

[7] Registration data from McKenzie (2000); employment data from Wolff (1999, p. 63). Joint ventures between state firms and foreign investors are included in the state sector. Beginning in 1993 statistics for collectives and private firms were combined. The increase of 2.4 million jobs is for private firms and collectives combined; however, it is reasonable to presume that collectives continued to decline (their output shrank from 2.7% of GDP in 1992 to 0.8% in 1998), meaning the employment increase is attributable to private firms.

[8] Only 6% of firms we surveyed in 1995 said that more than 50% of their equipment came from state-owned firms (McMillan and Woodruff 1999b).

offer credit in the absence of formal enforcement of contracts was remarkable. What gave the suppliers confidence that payments would be made? In McMillan and Woodruff (1999a, 1999b) we find evidence that the willingness to sell goods on credit depended upon repeated interactions. Trading relationships most often began with cash transactions, as partners were "tested." Firms got contractual assurance by dealing with firms they knew through having dealt with them before.

Informally enforced trade rests on the shadow of the future. A firm lives up to its agreements because it wants to go on doing business with its trading partner. For the future to weigh heavily enough to induce cooperative behavior, the discounted value of the future profit stream must outweigh whatever immediate profits can be squeezed from the deal. Some of the conditions in the transition economies actually worked against cooperation. The scarcity of credit meant the opportunity cost of capital was high. With high discount rates, firms have an incentive to take current profits rather than wait for future profits. Moreover, as we saw, profits on average declined over time in many of the transition countries. To the extent that this was predictable, the gains from forward-looking behavior were lowered. That firms were nevertheless able to operate mutually beneficial relationships is striking.

Other circumstances of the transition aided informal enforcement. Cooperation is easier to sustain when severing the relationship results in a higher cost to the firms involved. Early in the transition, trading partners were most often located in the same city, or even the same neighborhood. There were relatively few such nearby firms producing any given product. Hence, when a supplier severed a relationship with a customer, the customer had to incur a relatively high cost of searching for another trading partner. As a result, trading partners tended to be locked in with each other. This motivated the firms to make efforts to sustain their existing relationships (Kranton, 1996; Ramey and Watson, 1996).

Cooperation is also more easily sustained if punishment for malfeasance comes not only from the trading partner who has been cheated, but also from other firms in the community. We found that gossip was important in Vietnam's manufacturing community. Firms gathered information about potential or existing trading partners from other firms in the community—their trading partners customers or suppliers. Sometimes

the gathering of information about trading partners is more organized. Trade associations helped firms to work productively with each other, by spreading information about who had breached contracts and coordinated the sanctioning of them. This meant that reneging brought more severe consequences than merely losing the business of the offended party, and thus increased the likelihood of cooperation (McMillan and Woodruff, 2000; Recanatini and Ryterman, 2000).

The entrepreneurs' self-help mechanisms evolved over time to support more complex transactions. Early in the transition, firms sold mostly to customers located in the same city. They were likely to limit sales to customers about whom they have prior information from family members, friends or other firms with whom they do business. And they were likely to visit a customer's factory or store before selling to it. These are ways to reduce the risk of dealing with new trading partners, though they involve costs of exclusion or of time spent investigating trading partners. Relationships with firms located in distant cities are harder to manage than local sales, but limiting the circle of trading partners means passing up some opportunities for growth. Sales to customers located in other cities, and to customers about whom the manufacturer had no prior information, became more common as the transition progressed.

Data on these changes from surveys in six countries (Vietnam, Poland, Romania, Slovakia, Russia, and Ukraine) are summarized in Table 1. Managers were asked about the characteristics of their oldest and newest customer relationships. The table splits relationships into those that began earlier and later in the transition. Relationships labeled old are those begun within the first six years of the reforms—before 1993 in Vietnam and before 1995 in Eastern Europe—while those labeled new were formed between 1994 and 1997 in Vietnam and between mid-1995 and 1997 in Eastern Europe. All of the variables are measured at the start of the relationship, and as such are indicators of how new relationships get formed. Table 1 shows statistically significant increases in transactions with customers from other cities, with customers about whom nothing was known at the start of the relationship, and in relationships that were initiated without the seller having visited the buyer's factory or store. In Poland, for example, 35% of the customer relationships started by surveyed firms between 1989 and mid-1995 involved customers from a different city, compared to 45% of relationships started in 1995 or after. (The

difference is significant at the 0.05 level; t = 2.40.) About 39% of the newer customers in Poland were anonymous when the trading relationship began, compared to 27% of the older customers (t = 2.94). Trading started in 38% of the new Polish relationships without the seller visiting the buyer's facility, compared with 29% of the older relationships (t = 2.15). The patterns in the other five countries are similar.

Further evidence on the increase over time in the sophistication of dealings comes from Bulgaria, where quality incentives developed. Suppliers became increasingly willing to guarantee quality and to replace substandard goods, based on their trading relationships (Koford and Miller, 1998).

Though somewhat limited in scope, these data suggest that the problems of governing more complex relationships can be overcome not only where courts work relatively well, as in Poland, but even where courts do not function at all, as in Vietnam. Receiving no help from the state, entrepreneurs made do for themselves, by relying on the incentives that arise in ongoing relationships. Relational contracts substituted for the courts; trade credit and profit reinvestment substituted for financial markets. This self help supported increasingly sophisticated transactions.

## 4. State Impediments to Entrepreneurship

Governments in transition countries often take actions that make it hard for entrepreneurs to operate. Expropriation of profits is the most blatant of such actions. Managers of startup firms were asked whether “extralegal” payments were needed in order to receive government services or a business license (Johnson, McMillan, and Woodruff, 2001b, 2001a). More than 90% of Russian managers said they were, compared with about 20% of Polish managers. Corruption deters investment. Those firms in the sample that were the most concerned about corruption invested nearly 40% less than those least concerned. The mafia is a further deterrent to entrepreneurship. Asked whether payments to private agencies were necessary for “protection” of their activities, more than 90% of Russian managers and 8% of Polish managers said they were.

The managers were also asked whether they would invest $100 today if they expected to receive $200 in two years (an implied annual rate of return of 40%). The responses to this question give an indication of both the opportunity cost of money and

the security of property. A striking 99% of the Russian managers said they would not, compared with 22% of the Polish managers.

Illegitimate takings aside, official policies often make it expensive to set up firms. Entrepreneurs must apply for business licenses, to establish that their company's name is unique and provide proof of their startup capital; then they must file with the tax and labor authorities. In Russia, setting up a new business takes an entrepreneur over two months days and costs 38% of per capita GDP in official fees (Djankov et al., 2000). In Poland, it takes nearly a month days and costs 28% of per capita GDP. In Vietnam, it takes nearly six months and costs 150% of per capita GDP.

The government can create barriers to entry in more subtle ways as well. Macroeconomic instability, a feature of most transition economies just after reforms, can undermine the sort of informal cooperation that, as argued above, was an important substitute for underdeveloped market institutions. Consider a trading relationship in which the seller allows the buyer to pay with thirty days delay. In stable times, the ability to delay payment has a fixed and predictable value to the buyer and cost to the seller. The value of continuing the relationship is also predictable. The level of credit offered can be set in such a way that repayment is in the seller's interest. But now suppose after the goods are delivered by the seller, there is some unforeseen shock that increases the value to the buyer of not making the required payment—a sharp decrease in bank credit or a rapid decline in the buyer's demand—that affects only the trading partners' current payoffs, and not the stream of future gains from the relationship. If the shock makes the gains from not paying large enough, we should expect that the buyer not to pay.[9]

Risks were inherent in any trading relationship in all of the transition countries. But government policies sometimes increased them. Unstable macroeconomic conditions made it harder to predict the behavior of trading partners. High and variable rates of inflation and economic growth lead to fluctuations in a trading partner's gain from breaking the cooperative relationship. Macroeconomic stability was conducive to the development of informal trading relationships. On this score, countries like Slovakia,

[9] The situation we have in mind is similar to the Rotemberg and Saloner's (1986) model of price wars during economic booms. In their model, collusion is most likely to break down in a boom when the demand for the product is high, because that is when an individual seller's gain from undercutting the group-maximizing price is highest. Hence collusion is harder to sustain in industries with more variable demand.

where inflation peaked in 1991 at 35%, and Poland, where inflation peaked in 1990 at 75% fared well. Russia and Ukraine, where price stability was much longer in coming, fared worse. Of course, the lack of entry in Russia and Ukraine may have contributed to macroeconomic instability as well as the other way around. We know of no data which would allow us to separate the directions of causation. But given the importance of informal arrangements in trading relationships during the transition, theory tells us that, by making cooperative relationships harder to establish, macroeconomic instability created an additional barrier to entry.

The government's decisions on privatizing state firms may also have an impact on the rate of entry of new firms. Mass privatization could add to the general uncertainty, deterring entry. Across Russia's regions, more new firms have been formed where there was less privatization of small state enterprises controlled by local governments. By contrast, more entry has occurred where there was more privatization of large-scale state enterprises controlled by the federal government (Berkowitz and Holland, 2001).

The continued presence of state enterprises, on the other hand, might also raise barriers to entry. They absorb scarce capital and receive regulatory favors. Anecdotes abound of state firms stifling new entrants to prevent them becoming competitors. In Kazakhstan, for example, Djankov and Nenova (2001) find evidence that the continued existence of large state firms acts as a significant barrier to entry.

A major role of the state early in the transition, then, is to merely stay out of the way. Entrepreneurs can go a long way in devising for themselves workable ways of doing business. The government must limit the negatives—the corruption and macroeconomic instability that would impede the entrepreneurs' self help. As the transition proceeds, however, the need arises for the state to take positive actions in support of entrepreneurship.

## 5. State Support for Entrepreneurship

The reputational incentives that work in place of formal institutions are aided, as noted, by the fact that trading partners are locked in with each other, because of the difficulties of finding other people to deal with. As market development proceeds search costs fall, and so the cost of breaking a relationship also falls. Firms therefore become

less willing to cooperate with each other. As market information improves, the need for workable laws of contract and courts able to enforce them becomes more pressing.

Furthermore, relational contracting cannot support certain kinds of transactions: those involving large enough sunk costs that one party's temptation to renege outweighs any reputational considerations. As production techniques become more sophisticated, there arises a need for investments that are large and have a long-delayed returns. Such investments require legal protection to prevent the government or other firms from appropriating the quasi-rents. They cannot be based on the firm's own retained earnings, so there must be accessible sources of external finance.

When firms are small, they need only deal with customers and suppliers with whom they have a particular connection: those located nearby, or managed by a friend or relative, or coming via personal recommendations. Firms were able to some extent to overcome these limitations, as noted above: even in Vietnam they were able to trade at a distance. Such informal mechanisms are limited, however. To grow large, firms must be able to sustain arms-length anonymous dealings, so reliable laws of contract come to be needed.

While contracting is mainly supported by informal relationships among firms, the courts also foster it. The courts in the transition economies are still inadequate; it takes a long time to build a well functioning legal system. The evidence shows, however, that even these highly imperfect courts facilitate doing business. Managers of start-up firms were asked in a 1997 survey whether they could appeal to the courts to enforce a contract with a trading partner. In Poland, 73% said they could and in Russia 56% said they could. Belief in the courts affects behavior. Those who say the courts are effective offer more trade credit and are more willing to take on new trading partners. (Johnson, McMillan, and Woodruff, 2001a; see also Frye and Shleifer, 1997; Hendley, Murrell, and Ryterman, 2000). By making it easier for new firms to enter, workable courts improve on relational contracting and boost overall productivity. Even weak courts serve a useful purpose.

As with formal contracting, the absence of well-functioning credit markets is less important early in transition. In place of external funds, firms reinvest from their own profits. The high profits mean that entrepreneurs have the resources they need for expansion, without needing to borrow. This has been the biggest single source of

investible funds for start-up firms in Eastern Europe. In addition, where interfirm relationships are working well, firms receive trade credit from their suppliers. Trade credit was almost nonexistent among Russian firms as of 1997, but in Poland it was as large a source of firms' capital as bank loans (Johnson, McMillan, and Woodruff (2001b). As entry occurs, profit rates are driven downward. Development of credit markets becomes more important. In Vietnam, there is some evidence that credit markets were beginning to reach new private firms. As we noted above, 24% of firms in a 1997 survey reported having bank credit, a substantial increase over the 8% in 1991 (Hemlin, Ramamurthy and Ronas, 1998).

An alternative source of capital is private equity markets. State support is needed for an equity market to develop as well. In Poland, according to Glaeser, Johnson, and Shleifer (2001), a regulator who intervened to protect minority shareholders from expropriation by insiders allowed the stock market to develop rapidly. New issues were offered frequently. In the Czech Republic, by contrast, the absence of regulatory oversight meant people were, rightly, reluctant to invest in firms because they feared the managers would misuse their money, and so the stock market stayed inactive. Across the transition countries of Eastern Europe and the former Soviet Union, according to Slavova (1999), stock markets are better developed and outside equity is more readily obtainable where rules protecting outside investors are more stringently enforced.

Entrepreneurs running de novo startups in Poland reported in a survey that an average of 25% of their equity capital was owned by private firms or individuals other than the top manager and his family. This represents a higher level of outside ownership than other countries for which such data are available—but not much higher. Comparable percentages in Vietnam, Slovakia and Romania were 19%, 19% and 14%, respectively (Johnson, McMillan and Woodruff 2000; McMillan and Woodruff, 1999b). The lesson once again is that informal mechanisms work up to a point. Investors are willing to entrust their money to managers they have some reason to believe in, perhaps because of ties of family or ethnicity or because the manager comes recommended by a trusted third party. Large firms with diversified shareholding clearly cannot develop by such informal mechanisms; but some degree of outside ownership can.

Why is regulation important for the development of private equity markets? One reason is because informal enforcement is difficult. Fixed costs of issuing shares to a large group of investors prevent a slow buildup of the relationship, with investors testing entrepreneurs as trading partners in Vietnam reported doing. Because outside shareholders lack information on the firm's internal affairs, managers can easily expropriate the returns owed to the shareholders (Johnson and Shleifer, 2001). Shareholders need legal and regulatory protection before they are willing to hand their money over to firms.

Evidence that self-help mechanisms in financial markets have limits comes from Earle and Sakova's study of entrepreneurship in six Eastern European countries (including Poland and Russia). Using labor market surveys, they find that, compared to wage workers, employers are more likely to have received property during post transition restitution, and to have had higher earnings in 1988. They also find that the parents of those who became employers were more likely to have owned a business prior to communism, and more likely to have had a university degree than are the parents of wage workers. All of these findings suggest that access to capital was a binding constraint on entry, one not entirely overcome by the informal credit.

China did things differently in its support of new firms. Entry occurred in the nonstandard form of the township-and-village enterprises (Che and Qian, 1998; Whiting, 1996). These firms were publicly owned, by communities of a few thousand people. They were managed by village government, and the profits were shared between villagers and local government by explicit rules. Around 60 percent were reinvested, and the remainder was paid as bonuses to workers or used for local public goods such as education, roads, and irrigation. Managerial discipline in the township-and-village enterprises came from their hard budgets and their intensely competitive product markets.

The TVEs received some benefits from having the village government as a partner. Access to state banks and to rationed inputs was eased. Public ownership helped remedy the lack of laws, protecting against arbitrary expropriation by the state, as well as helping with contract enforcement. Some check on the downside of state ownership, the government's propensity to impose inefficient decisions on the firms or to appropriate the firms' profits, was needed. China's local governments, arguably, did not sabotage their

township-and-village enterprises because of the combination of the competitiveness of the firms' output markets and the localness of the government control, which meant the government officials could see that if they overtaxed their firms the firms would fail and their own revenue source would be lost.

The TVE organizational form was a transitional device. After a decade and a half of growth, they began to be privatized. By the late 1990s, more than a half of them were partially or fully privately owned (Li and Rozelle, 2000). By the turn of the century the TVEs were well on their way to becoming conventional firms.

Entrepreneurs require more from the state, then, than the absence of interference. Workable institutions are needed if firms are to be able to grow large enough to benefit from economies of scale. Firms need laws of contract, so they can take on anonymous dealings, and financial regulation, so they can get bank loans and outside shareholding.

## 6. Welfare Effects of Entrepreneurship

The creation of jobs has been arguably the new entrants' most important contribution to the transition countries' welfare. In Vietnam, as noted, the private sector created, in net terms, some 10 million jobs in the seven years following the start of reforms, while the state-owned and collective firms shed workers. This is similar to most of the transition economies for which data exist. In Estonia, for example, privately owned firms created almost all of the new jobs between 1989 and 1994, while over the same period state-owned firms shed jobs at rates as high as 20% per year and created almost no new jobs (Haltiwanger and Vodopivec, 2000).[10]

Among private sector firms, de novo startups created jobs significantly faster than did privatized firms. Data from surveys of manufacturing firms reported in Johnson, McMillan and Woodruff (2000) find that 86% of de novo firms in Romania created jobs between 1994 and 1996, while only 13% of privatized firms did so. In Slovakia, 79% of de novo firms grew, against 52% of privatized firms, and in Poland 76% of de novo firms report growth, compared to 54% of privatized firms. Belka et al (1995) provide survey data showing that de novo firms in Poland grew faster and invested at a higher rate in

[10] Haltiwanger and Vodopivec, who use data from labor-market surveys, do not separate de novo startups from privatized firms. However, both gross job creation—total jobs added by expanding firms —and net job

1993.[11] Bilsen and Konings (1998) find that de novo firms in Bulgaria, Hungary and Romania grew more quickly than privatized or state-owned firms between 1990 and 1996. Though they represented less than 3% of employment in the Bilsen-Konings samples in Bulgaria and Romania, de novo firms were responsible for the creation of more than half of the new jobs in those countries. Bojnec and Konings (1998) show that de novo firms in Slovenia are more likely both to hire and to fire workers than are state-owned or privatized firms. Richter and Schaffer (1996) find among a 1994 sample of Russian manufacturing firms that compared to state-owned and privatized firms, de novo firms are "growing rather than contracting, operating at higher levels of capacity utilization, expanding employment rapidly, and investing more (p. 254)." Finally, in a sample of firms from 25 transition countries, Carlin at al. (2001) find that sales and employment grow faster in de novo firms than in privatized or state firms; they also find that productivity gains are smaller, probably reflecting the initial inefficiency of the state firms.

The finding that de novo firms perform better than privatized and state-owned firms is not universal. The Johnson, McMillan and Woodruff data show essentially no difference in the growth rates of startups and privatized firms in Russia and Ukraine, the former contrasting with the Richter and Schaffer data. Lizal and Svejnar (2001) find that the rates of investment of private firms in the Czech Republic were somewhat lower on average than those of state-owned firms in the 1992-1998 time period (though they also find that small firms in the Czech Republic were credit-constrained while large firms were not, which may explain in part their first finding). The evidence indicates, then, that de novo firms were more dynamic than even privatized state firms, except perhaps where the latter had favored access to capital.

The Estonia data highlight another attribute of entrants. Haltiwanger and Vodopivec separate the net change in employment into the creation of new jobs by expanding firms and the destruction of existing jobs by shrinking firms. Very few of the

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creation rates — total jobs created minus the jobs eliminated by shrinking firms — were highest among firms with fewer than 20 workers, which are most likely to be startup firms.

[11] Most of the studies referred to here find little difference between the performance of state-owned firms and privatized firms. Frydman, Gray, Hessel and Rapaczynski (1999) show that privatized firms performed significantly better when privatization was accompanied by new management. Their data from the Czech Republic, Hungary and Poland do not include any de novo firms.

group of state-owned firms were expanding in the first half of the 1990s, so job creation by SOEs was small. Since most of the SOEs were shedding workers, job destruction among SOEs was large. In contrast, the private sector as a whole was growing quite rapidly. So job creation was robust in the private sector. Yet, surprisingly, the private sector also had higher rates of job destruction than did the SOE sector. These data indicate more dynamism in the private sector, with some firms expanding rapidly and other contracting. Haltiwanger and Vodopivec show that simultaneously high rates of job creation and job destruction were especially pronounced among the smallest firms, those with fewer than 20 workers. The high rates of churn indicated are what we would expect in a rapidly reforming economy. Indeed, Davis and Haltiwanger (1999) show that small firms in most western economies are also more dynamic, a finding they attribute to learning by small firms. Firm level learning is arguably more important in the transition setting, where costs and demands are subject to far wider uncertainty than in a stable economy. The entrants provide a large number of independent experiments on how to do business. To the extent that others can observe a firm's success, each entrant thereby generates an externality, revealing information about which lines of business are profitable.

The new firms, further, impose competitive discipline on the existing firms. State-owned and privatized firms in Eastern Europe and the former Soviet Union are significantly more likely to undergo restructuring if they face competition (Brown and Earle, 2001; Carlin et al., 2001; Djankov and Murrell, 2000). In China through the 1980s, while the TVEs burgeoned, the state firms' markup of price over marginal cost fell by 15%. This increased competitiveness of the output market was associated with an increased total factor productivity for the state firms (Li, 1997).

A political-economy effect is yet another consequence of entry. By creating a class of people who earn their living in the market economy, entry builds a constituency in favor of reform, and thus creates a commitment to continued reform (Dewatripont and Roland, 1995; Fang, 1996).

Some indication that overall economic performance is correlated with entry comes from Berkowitz and deJong (2000). Comparing economic growth rates of the

different regions of Russia, they find the faster growing regions have more entry of firms, either started from scratch or spun off from state firms.

"By pursuing his own interest," Adam Smith said of the merchant, "he frequently promotes that of society more effectually than when he really intends to promote it." The entrepreneurs in the transition countries exemplify Smith's dictum. The new firms brought genuine welfare gains. They created jobs, supplied consumer goods, constrained the market power of the state firms, and built reform momentum.

## 7. Conclusion

Entrepreneurs act as reformers. It is not only government officials who set the rules of operation of the new economy. Much of the task of devising the new ways of doing business is taken on by the entrepreneurs.

Early in the transition process, the government's main contribution to entrepreneurship is to stay out of the way—to avoid creating conditions that impeded the entrepreneurs' self help. Later, the entrepreneurs come to need positive assistance from the state, in the form of institutions to support contracting and finance.

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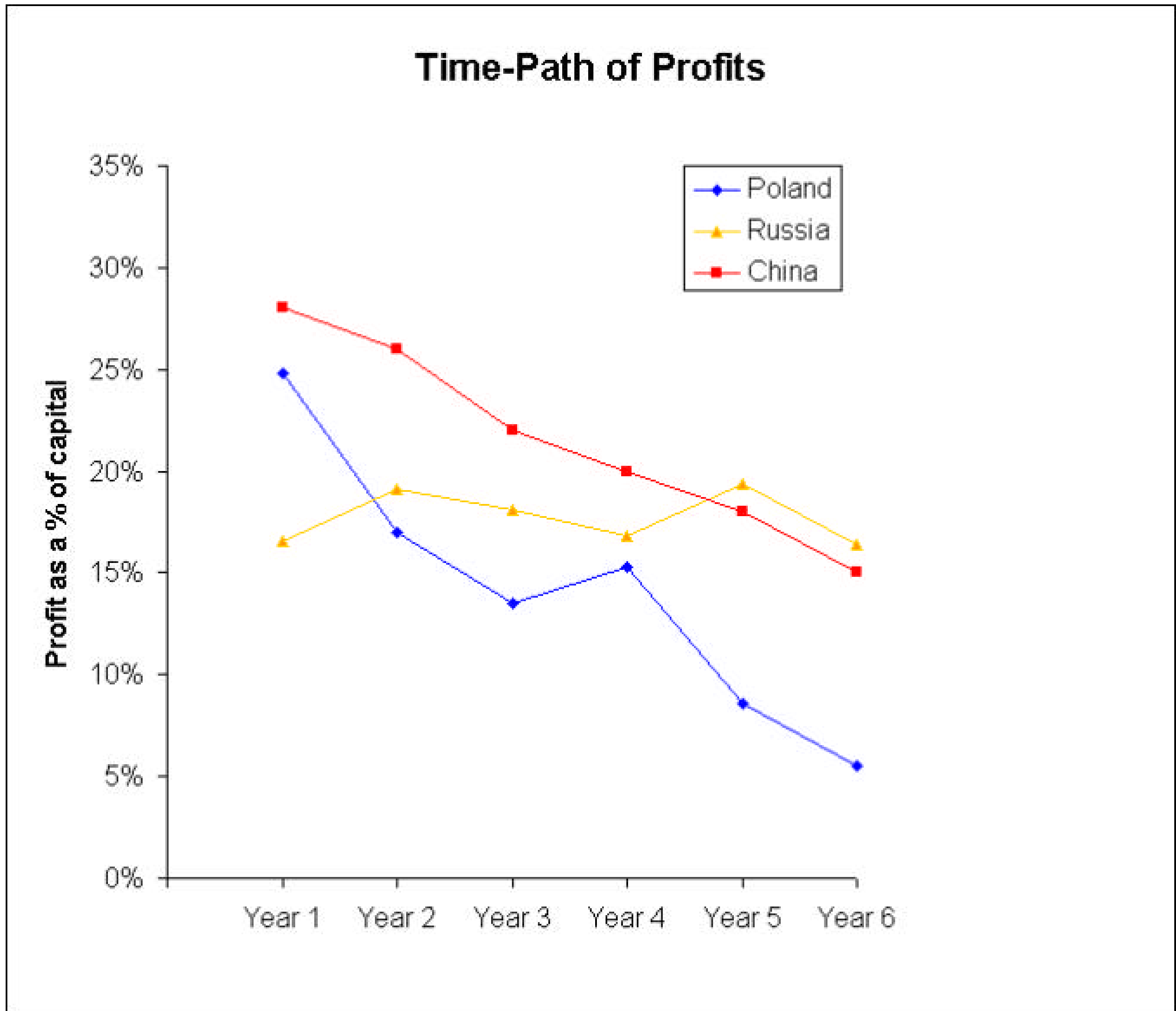
**Figure 1**




The horizontal axis shows the number of years into reform. For China, year 1 means 1979 and year 6 means 1984. For Poland and Russia, year 1 means 1990 and year 6 means 1995.

*Sources*: China: Naughton (1996, p. 150). Poland and Russia: Johnson, McMillan, and Woodruff (2001b).