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Russian Directors' Business Ethic: A Study of Industrial Enterprises in St Petersburg, 1993

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THIS ARTICLE EVALUATES the hypothesis of the business ethic of directors of post-Soviet industrial enterprises which was first outlined in a recent Russian study on microeconomic behaviour after 1991[1]. First, an ideal-typical model of the directors' 'ethical' [2] behaviour is discussed. Then we examine data gathered in 35 formal interviews with directors of major industrial enterprises in St Petersburg during summer 1993, in order to assess the changes which may have occurred since the original hypothesis was formulated. Finally, we examine statistically the correspondence between a director's orientation toward this ethic and his/her affiliation with either of two main directors' associations, as well as a number of hypotheses regarding the interrelationships between the directors' ethic, structural variables, state socialist and market enterprise features, and enterprise performance.

The business ethic of Russian industrialists

A description of the specific business ethic of post-Soviet industrial directors was first provided in the Boeva report on the behaviour of enterprises under the new economic conditions.[3] According to the report, state enterprises were left to their own devices after the economic ministries and the state system of planned supplies collapsed in the wake of the abortive August 1991 coup. They had to find partners and secure supplies on their own. The price shock of January 1992 left the majority of enterprises suffering simultaneously from sky-rocketing interenterprise debt and a lack of liquidity. With almost no funds to purchase supplies and with their own products going largely unpaid for by buyers, enterprises continued delivering products to each other in almost complete defiance of price and market incentives. As one of the authors, Vyacheslav Shironin, commented in a later interview, enterprises behaved after the price shock like Pavlovian dogs who had experienced too much stimulation and stopped responding to economic stimuli altogether.

The economy kept functioning, the Boeva report suggested, because of a certain 'business ethic' of industrial directors, which helped them keep their enterprises afloat in the crisis conditions of 1992. Although the report did not concentrate on this ethic specifically, the authors frequently treated it as an almost self-evident truth to explain price structures, suppliers' preferences, wage policy etc. Descriptions of the 'business ethic' dispersed throughout the Boeva report can be systematised to give an ideal-typical description of the enterprise director's 'ethical' behaviour which includes three main sets of his/her interactions: relations with other directors, relations with new market entities,[4] and relations with the staff (*kollektiv*) of a given enterprise.

Relations with other directors were extremely important in 1992 because, as a rule, directors tended to maintain old ties with major traditional partners from the days of centralised planning. These personal ties now seem to have become pervaded by a sense of loyalty, mutual help and joint responsibility. In the extreme, the rhetoric of mutual help demanded a continuation of deliveries to a partner even when that partner did not have any funds to pay for the supplies. The report used terms from the vocabulary of the Russian peasant commune, *krug* and *mir*, to account for the business ethic of contemporary Russian industrialists. This usage strongly suggested that the ethic under consideration was predicated on familiar features of communal life, i.e. on the mutual control of those who deviated from the established code of behaviour and on joint help for failing members of the commune. Within the circle of directors, the personal reputation of a given director became the guarantee of the economic survival of the whole enterprise. In effect, the price and supply policies of a given enterprise's partners were direct reflections of this reputation.

Researchers found three levels in price setting. Prices in exchanges with traditional major partners were regulated by cost-plus estimates, which were then adjusted according to the ethical standard which required that they take into account the economic situation of the buyer (a 'tolerable price'). This standard was backed up by 'horizontal pressure', that is, by a threat of retaliatory action by one's own major suppliers. Prices for the new state partners were allowed to be set at a somewhat higher level, and prices for new commercial firms were not communally regulated at all, thus ending up 2–2·5 times higher than the ones used between traditional partners.

Breaking away from the circle was extremely difficult owing to directors' mutual monitoring. A director could sever old ties only if he/she had 'sound' reasons, in the community's opinion, and if his/her decision did not seriously affect the delicate network of interindustry exchanges. Those rare deviants who managed to get away were generally invulnerable to 'horizontal pressure', and included either producers of supplies greatly in deficit or those few who could switch to production predominantly for external markets.

Relations of state enterprises with new market entities were very different. As a rule, state enterprises sought to buy or sell products on commodity exchanges only as a last resort, when nothing else was available. Entrepreneurs who 'came in from the street', without prior recommendation of another director, were viewed suspiciously. Instead of dealing with new private commercial banks, directors tended to rely on the former ministerial banks, which had by then also been transformed into independent banks. All in all, new market entities tended to be perceived by directors as unstable and unreliable partners.

In respect to the staff of their enterprises, directors were compelled to assume a rather specific *noblesse oblige* stance. As interviews demonstrated, the two primary objectives of directors' activities in 1992 were preserving previously achieved levels of industrial production and maintaining the existing *kollektiv*, with the latter having tactical priority. Thus, raising wages to keep up with inflation became the primary concern of directors. Some chose to fight rising food prices by bartering enterprise output for foodstuffs to be distributed among the employees; others invested in 'auxiliary farms' to produce some basic foodstuffs themselves. Housing and other welfare programmes were not discontinued, even when the costs of maintaining them soared. This *noblesse oblige* behaviour posed problems for directors, but they could not renounce it because of formidable social pressures and the potential erosion of the *kollektiv*.

Risking oversimplification, one could sum up this complicated pattern of relations in three phrases which captured the ideal type—cooperation with other directors, rejection of new market entities, care for the *kollektiv*.

Changes in 1993

Our interviews, conducted in summer 1993 in St Petersburg (we discuss the sample and interview context in a section below), enable us to assess the proposed ideal type empirically and to evaluate possible recent changes in the directors' ethic, given that the shock therapy conditions of 1992—which had put the phenomenon of the directors' ethic into the foreground and attracted researchers' attention—had already passed.[5] Our interviews have suggested that 1993 witnessed two primary and related developments which affected the industrialists' ethic—a decline of the rhetoric of 'mutual help' (if not a decline in the extent of activities comprised by this concept) and an increase in the number of enterprises breaking away from the *krug*.

Many directors cited strong financial pressures as the main reason for the decrease in what they perceived as 'mutual help'. 'In 1992 we all found ourselves in the same situation—like horses driven into the same corral—and we had to unite to save ourselves. Now the ruble has started to function again and we just cannot help everybody', said one respondent, a director of a heavy industrial plant. 'We are still friends with our colleagues, but when it comes to dividing money, our ways part'. The same thing took place in the consumer industries. For example, when the price shock of 1992 occurred, directors of 12 bread plants in St Petersburg gathered to found an informal union which helped every enterprise stay afloat by reallocating resources among them. In 1993 directors agreed that the union should be converted into a legally registered Guild of Bread Producers, which was essentially to act as a cartel, while mutual help within the union was to be curtailed.

Interviews indicated that 'mutual help' did not disappear altogether, but that each enterprise had to choose 'the essential few' with whom it would sustain these demanding relations. Former colleagues who manufactured similar products and now became competitors were frequently the first to be denied extensive help. On the other hand, major partners who were vertically integrated along with a given enterprise into a technological chain had greater chances of remaining within the receding network of 'mutual help'. The director of a hi-tech military plant reported: 'It is very hard to help a colleague now. We have lost our breath. Before, while we still had resources, we used to support everybody; now I can support only a few. If my Novgorod partner buys 40% of my output, I will go out of my way for him. I will distribute his products in St Petersburg and help distribute them elsewhere'.

The 'essential few' seemed to enjoy all the benefits of ethical behaviour. Although prepayment became an almost universal requirement in industrial exchanges in 1993, deliveries to core partners were still frequently shipped without it. In some cases payments for March deliveries had not yet arrived even by August, when the interviews were conducted. The difficult financial situation of an essential partner was often understood with considerable empathy (*voiti v polozhenie*), and tolerance was practised in these cases. In one spectacular case 'understanding' was guaranteed by no less strong bonding than intermarriage of managerial staff—not all that surprising given the Soviet practice of corporate upper mobility, which often sent managers from one enterprise to a higher position in another. In another telling case the director of a huge concern producing 90% of CIS gas turbines was able to assemble some of his 'essential few' literally in the same room and ask them to 'understand' why he had to demand minimal prepayment from them (frequently he had no funds to purchase the metal needed to start work on their orders).

Multiple partner exchanges—e.g. an enterprise delivering its products to its supplier's supplier—had been practised since 1992, and they were preserved within the essential partners' network in 1993. Establishing new economic ties through one's essential partner was also widespread. 'We lost our partner who produced quartz in Dushanbe. But through our old partners we found a Russian enterprise which we have persuaded to start producing quartz for us', was a rather typical response to our question about how enterprises reestablished broken economic ties. Whether the 'persuasion' mentioned involved some coercion or genuine consent is hard to say; what matters, however, is that this seemed to be the primary method of establishing new trustworthy contacts.

The 'essential few' may also have served as a core group to construct a conglomerate corporate structure. Large enterprises acquired shares in their partners and sold their shares to them. The precise scope of this activity is hard to estimate because it was done illegally in most cases. According to current Goskomimushchestvo (State Property Committee) regulations, enterprises which still have 25% of their capital under state control—and this effectively includes almost all large privatising enterprises and the military-industrial complex—are prohibited from making bids in stock auctions. However, at least five directors hinted at buying and selling some shares through intermediate firms which not infrequently were set up for this very purpose. This seems to point in the direction of creating systems of interlocking stockholding reminiscent of Japanese *keiretsu* concerns.

During 1993 the expression 'financial and industrial groups' (*finansovo-promyshlennye gruppy*) virtually became a catchphrase for many directors. The term referred to the desired prospect of development in heavy industries until it was in fact adopted by vice-premier Oleg Soskovets as one of the goals of the first governmental programme of 'structural policy in industry', adopted in August 1993.[6] During our interviews many directors of large enterprises reported that they wished to form or join such groups. Typical stock acquisition plans did not go further than investing in one's primary supplier or primary customer. However, two reported cases involved plans on a grand scale. Early projects of constructing *keiretsu*-type structures were seriously discussed by St Petersburg directors as far back as 1989, after some of them had visited Japan. Later, two realistic plans emerged. The directors of the core enterprises of Energomash and Tekhnokhim, two interindustry conglomerate giants created under Gorbachev's industrial reforms, decided to transform these largely defunct bodies into tightly knit industrial concerns. For example, Energomash still administers the allocation of market shares between turbine manufacturers and regulates some intraconglomerate exchanges. In opposition to this activity, which can be seen as a residue from the days of centralised planning, some of the most energetic member directors sought to rebuild the management structure of Energomash on the basis of the newly arising system of interlocking stockholding. They also intended to add a trading house and a former ministerial bank to the existing system so that Energomash would become a huge, financially integrated concern, with approximately 500 000 employees, capable of competing on international markets.

As was already noted, the formation of groups of closely intertwined 'essential' partners was simultaneously accompanied by a drive to abandon or 'let down' (*kinut'*) the inessential ones. Taking advantage of the latter practice, an enterprise could now suddenly 'let down' every partner and set out to 'drift on its own' (*odinochnoe plavanie*), in the most radical of cases. However, if breaking some industrial ties became more or less acceptable, breaking away completely was still extremely difficult. We will first describe the breaks actively initiated by our respondents, then examine those which they passively suffered.

From our interviews, we were able to single out three generally acceptable pretexts for disconnecting old ties in 1993. The first among those frequently invoked was the quality of the supplies delivered, and it was very widespread in consumer goods industries. Actually, this practice originated as long ago as 1983, when in a famous episode the Bolshevichka clothing factory refused to accept fabrics produced by Telman textile works. Having been summoned to the party *obkom* a dozen times, the director of Bolshevichka sternly maintained her stance, claiming that a crisis in sales had arisen due partly to the quality of the fabrics the factory had to utilize. 'We are at the end of a technological chain and if we continue producing stuff that nobody buys, the whole system will persist in crisis', was the argument at the time. Now, enterprises do not need to refer to 'the well-being of the whole people' to justify their actions, and the argument has become simpler: 'look, we cannot sell because of your low quality'. Interviews registered that old ties were severed under this pretext and that new suppliers were found in the production of office products, foodstuffs and consumer chemicals.

The second frequently invoked pretext was that of belonging to different CIS states. Political instability and difficulties in money circulation may indeed have been important factors in some cases, but often a Russian enterprise which initiated the break would then reestablish supplies at a lower unit price through its essential partners. This manoeuvre was mainly reported in hi-tech industries. The third pretext—discontinuing deliveries because of non-payment—was used only in contacts with non-essential partners; among essential partners this type of justification was not considered sound. However, as selling—not buying—became the central problem of 1993 (contrary to 1992, now 'you can buy almost anything if you have money', noted many respondents), enterprises attempted to obtain pre-payments from non-essential partners, justifying such requests on the grounds of their difficult financial situation.

On the experience of being 'let down' by other partners, directors rather uniformly reported only one recurrent situation: they were denied deliveries after the breakdown of the USSR. Quartz from Tajikistan, tyres from Armenia, chemicals from Kazakhstan and Ukraine, special steels and plastics from Ukraine were among the cases mentioned. However, the initial shock of being abandoned by an old partner was soon alleviated by establishing new contacts within Russia by the usual networking methods.

Our interviews yielded only three cases of enterprises which were capable of intentionally breaking away completely from the network. These enterprises suspended some ethical obligations and tried pursuing price incentives to the fullest in relations with other producers. The cases available all correspond to conclusions of the Boeva report: in two cases break-away enterprises produced consumer items in high demand, in the third case conversion to external markets was economically feasible.

In the most interesting case, the decision of an assembly plant, then part of a large electronics concern, to become an independent business provoked two years of hostilities, before ending in victory for the break-away plant. Producers of components for the final product, which was assembled by the break-away, could not find a comparable assembly line anywhere in Russia because of the latter's unique equipment, and finally accepted its dishonourable move. The 'horizontal pressure' mentioned in the Boeva report was in this case not limited to purely economic forms of retaliation (e.g. price increases). Our respondent reported other methods as well, which bordered on criminal: the use of influence to freeze the challenger's bank accounts, thefts of finished products from its storage site using false orders of a former concern, and even threats of physical violence. Apparently, these have stopped since the seceding director retaliated with similar measures and also enlisted the support of the reformist city administration. In another case, an optical fibre producer carefully disengaged itself from some of its former partners in order to set up joint ventures with Alcatel and ATT.

On the other hand, stories of attempts to break away in hi-tech industries which neither produce consumer goods nor have an export potential are narratives of failure. To cite just one: in a manner similar to the previous example, a section of a huge military shipbuilding concern aimed to survive on its own thanks to its unique machinery. In fact, this machinery was the subject of a COCOM scandal in the early 1980s, when it was purchased through intermediaries to manufacture screw propellers for Soviet submarines which would not register on NATO sonars. However, after a prolonged but unsuccessful search for market opportunities, and the possibility of strong horizontal retaliation, the challenger, even though supported by city officials in its break-away move, stayed within the former corporate structure.

Changes in pricing policy which occurred in 1993 were also rather significant. The universal three-layer price structure described by the Boeva report was no longer in operation for the majority of enterprises. A similar but more complex pattern seems to have emerged in its place. First, many consumer goods producers seem to have returned to the single delivery price, based on a simple cost-plus calculation, no matter who the distributor was. In some non-saturated consumer markets of 1993 this policy proved to ensure 100% sales. In the second set of cases, though, cost-plus price setting was completely rejected in those industries which experienced acute competition. Among our respondents these included cases as diverse as chemical industries, office products and agricultural machinery producers. Stiff price competition determined delivery prices in these cases, and this competition sometimes took curious forms. For example, the director of a factory manufacturing school notebooks instructed his marketing department to approach competitors with fake orders in order to find out other suppliers' prices. Reported profits varied from 35% in agricultural equipment to less than 10% in chemicals.

However, for the majority of industrial enterprises some kind of 'ethical' price differentiation still applied. Though the three-layer pricing system was now rare, many directors said they had to 'invoke their consciences' in establishing prices (*nado sovest' imet'*). This conscientious price setting still involved correcting a basic cost-plus estimate according to different objectives. Among those registered in the interviews were the following: to sell timber to old partners at a price which was 10% lower than the commodity exchange quotation used in other transactions; to get only 3% profit on the optical equipment sold to traditional clients (state-funded science institutes) while getting 300% profit selling personal medical equipment in hot demand to consumer goods' distributors—with these discrepancies explained by the need to preserve intact all production chains within an enterprise; deliberate losses in deliveries to major long-term domestic partners covered by gains from partially switching to export (in precision machine-building) etc. All these examples testify to the continuing tendency to 'care' for old partners: differentiate prices so as to 'take their position into account' (*voiti v polozhenie*).

New market entities

Relations with new market entities have also been modified in 1993 to a certain extent. As many state enterprises were auctioned off, attention to the form of property of a given partner subsided. A substantial number (10 out of 35) reported that they did not care about the form of ownership of a potential partner insofar as it was 'reliable'. Thus, ideological indifference was the dominant mood of 1993, but it was backed nonetheless by extensive preliminary checking on potential partners. In two cases marketing departments of enterprises were tellingly called 'security services' (*sluzhba bezopasnosti*), and their functions included checking the bank status of potential partners, looking over their financial reports over the last year, and calling on essential partners or friends in city offices to investigate the history of the business in consideration. Other 'security' functions were hinted at, but rarely discussed. However, reliability check-ups were mainly employed toward potential suppliers who had required pre-payment. Regarding delivery to new partners, the most frequently registered statement was: 'I do not care who they are if they pre-pay the delivery'. The problem of finding sufficient markets led to a growing desire to sell one's product to anybody, while purchases from new market entities were still practised with great caution. As we have already mentioned, major industrial enterprises tended to obtain new deliveries through networks of the 'essential few', even if it involved carrying bags filled with cash over substantial distances.

Many respondents denounced contacts with new commercial firms on a purely moral basis. 'They make money by simply re-selling what we produce', was the common response. It was not the case that directors did not understand the lawfulness of a trade profit margin; rather, the proximity of some of the new businesses to organised crime led them to christen everybody involved in private commerce 'parasites', 'speculators', 'thieves' and 'bandits'. Anxiety connected with crime was not unfounded. Estimates of the extent of infamous 'mafia' activities among the (former) state enterprises are hard to supply for obvious reasons. But one may tentatively conclude that many newly privatised enterprises with under a thousand employees, and almost all (with no relation to size) in high-demand consumer goods have encountered some sort of threat which has led them to pay one of the two competing 'security business' groups: either racketeers, or former militia and military servicemen who have become private security guards. In a few instances respondents gave examples of other directors selling controlling shares of their enterprises to unknown new businesses under threats of violence, or in exchange for covert acquisition of the second biggest share. Conventional among some directors, the equation of new businesses with gangsters is very hard to challenge. Interestingly enough, in the three cases of the most virulent critics of new market firms, these critics stayed afloat because of these firms, which always pre-paid the delivery and thus ameliorated the failing financial condition of the critic. However, all three wished to escape this lamentable dependence on 'thieves' as soon as the economic (and, possibly, security) situation would allow.

The non-moral reasons for rejection of new market entities were similar to the ones quoted in the Boeva report: these entities were viewed as non-stable markets, thus, reorienting production and abandoning old partners in favour of these new ones was pictured as risky. Often new market entities could not be compatible partners because of their small size. One respondent cited a potential loss of trademark prestige if she started distribution 'through street kiosks'. Only two respondents expressed their essential preference for dealing with new market entities. The first case was the break-away electronics enterprise discussed above, which sold its products exclusively to small commercial distributors in small batches, but at higher prices; while in the second case a machine-building concern had repeatedly to use such methods to sell consumer goods that it had taken in barter deals for its turret lathes in China.

Summing up this section, one may say that the aversion to selling to new commercial entities was generally disappearing, but the aversion to buying from them or engaging in joint ventures persisted.

The kollektiv

Relations with their *kollektiv* were also described by respondents in what we called 'the rhetoric of conscience' above. This rhetoric pervaded the discourse on labour relations. One director of a military enterprise actually described the difference between 'the directors' corps' and Gaidar's team in the following words: 'Every director has responsibility for the *kollektiv* (*sovest' pered kollektivom*). We are all used to working with collectives of 10 000 people, and respect for people is of primary importance for us. [On the contrary] Gaidar's people are scientists, they never worked in a group which exceeded 10 members'. This director considered the fact that he had never been late in paying wages over the last two years a matter of personal pride. Others reported in interviews that their objective was 'making the life of [their] workers better', and that this was the primary criterion according to which they evaluated their achievement. Directors elected by workers during the industrial experiments of 1986–89 rather expectedly felt morally obliged to their workers to an even greater extent than others.

Whether he/she wished it or not, 'care for the *kollektiv*' was forced onto a director. Delegations of women trod the corridors of directorates in 1993, telling stories of children that needed to be fed somehow. Directors consistently reported this maternal pressure. Once during an actual interview a delegation of female staff from a young pioneer camp (part of the enterprise's social welfare package) arrived from afar and forced its way into the directors' office demanding unpaid wages for the last two months. To the interviewer's surprise, the director—like a Russian landlord (*barin*)—solved the problem in two minutes by dismissing (over the phone and in the presence of the delegation) a clerk who supervised social welfare programmes and promising payment within a week to a group of now satisfied 'ye merry women' (*babon'ki*) as he paternalistically called them.

The lay-offs that were reported predominantly involved two main categories of employees: excessive personnel in R&D departments (most scientific institutes in military–industrial concerns lost up to 50% of their staff) and alcoholics/work dodgers. The highly skilled workforce, core of the industrial enterprise, was to be kept intact at any price. To achieve this objective, enterprises engaged in city-wide competition in wage rises—first unintentionally, later quite consciously. If a director could not afford wage rises, he/she could close down an enterprise for the summer and let everybody have unpaid leave. In addition to the old strategies of maintaining acceptable wages described in the Boeva report some directors found new ones. For example, some enterprises paid wages in consumer goods they produced, which were sold to employees at deliberately lowered prices, so that real wages would increase (if workers managed to sell or barter their products), while directors in these cases did not have to pay a prohibitive tax of 40% on increases in wage funds. The rhetoric of conscience and care was also necessary in delicate questions of forced retirement (predominantly of females), when it was presented as 'temporary—or partial—leave with payment of a minimum wage', which later tended to evolve into permanent leave. The rhetoric of care ensured flexibility in employment policy: a director could call on a given worker's responsibility to him/her and demand full labour effort in the event of an unlikely production boost.

Altogether, ethical imperatives did not change drastically from the ones described in the Boeva report. One new detail is of substantial importance, however: many respondents said they would abandon the *noblesse oblige* stance if they moved to a different enterprise. Then they would be able to practise all the harsh production rationalisation techniques of which they were aware. One even dreamt of closing down his enterprise for a day and then re-opening with different workers, so that he could treat them differently. Another reported: 'The position of the workers' collective is always the same: "you may choose whether or not to explain to us [the difficulties the enterprise experiences], but you must always pay. We have to feed our children". And I understand them. I made my way from the bottom to the top, but I still remember what was it like to live badly… I know how to manage this enterprise properly, but I simply cannot do it here'. This excerpt demonstrates the difficulties a researcher encounters in deciding whether directors were constrained by internalised ethical principles or by external controls that they were willing to shed.

Ethics and groups

Up to this point we have more or less consistently ignored the obvious rational choice explanations of some of the actions we called 'ethical'. Indeed, it is easy to discern the underlying economic interests in the practice of finding suppliers for your own supplier, which is allegedly done according to the ethic of mutual help, or to reveal the benefits of having a flexible and cheap workforce available, which are masked by the rhetoric of care. On a more sophisticated level, one could even explain bilateral links in price-setting, which are tied to directors' 'mutual consideration' for each other, in terms of modern microeconomics: these links appear when enterprises trade goods with low substitutability and with such a high level of technological content that the price vector is unable to carry all the information needed to achieve an efficient equilibrium.[7]

We have intentionally chosen to remain at the level of phenomenological description hitherto for two reasons. First, what matters for us is not the debatable fact that directors genuinely experience deep ethical feelings towards one another and towards their collectives, but that clusters of recurrent behaviours—which are conveniently grouped by the actors themselves under the heading of 'ethic'—are very important in the contemporary Russian economic scene. The assertion that this 'ethic' is just a cover-up for the realisation of certain vested economic or political interests may or may not be true; what interests us more, however, is the registered recurrent behaviour itself.

Second, our claim that a certain 'business ethic' exists rests on a different, non-objectivist approach linked to the specific nature of group cohesion, as it is characteristic of groups tied together by 'codes of honour'. The objectivist analysis, which attempts to pinpoint the objective interests of actors which they either cover up or are unable to understand, misses an essential point, first formulated by Pierre Bourdieu in his critique of economic explanations of gift exchange in 'primitive societies'. By his account, though objectivist explanations correctly uncovered the underlying structure of strictly enforced equivalent exchange present in every act of voluntary gift giving, they missed the fact that 'gift exchange is one of the social games that cannot be played unless the players refuse to acknowledge the objective truth of the game, the very truth that objective analysis brings to light, and unless they are predisposed to contribute, with their efforts, their marks of care and attention, and their time, to the production of collective misrecognition'.[8] In other words, if gift givers openly acknowledge that they are involved in equivalent exchange, and that they expect something of equivalent value in return, this is not gift giving anymore, and their act collapses. The same structure of collective misrecognition seems to exist in the 'ethical behaviour' of directors also, and the objectivist analysis fails to be objective enough to notice it. Indeed, if directors openly acknowledged that what guided them was pure economic interest, rather than any yearning to help each other (at least, among the essential few in 1993) or care for the *kollektiv*, the benefits they enjoy from participating in this game would disappear, as the ethical game would collapse under the heavy evidence of the reality of naked gain. Therefore, our argument for the existence of a 'directors' ethic' relies on the presence of a mechanism—among those who have chosen to play the ethical game—of mutual enforcement of a prohibition on talking about the economic interests which underlie this ethic. In contrast, this ethic does not exist among 'non-ethical' directors because they do not play the game of mutual control.

St Petersburg may have been, to a certain extent, a unique site where two distinct groups of enterprises—those who chose to play or not to play in the 'ethical game'—coexisted in 1993. These groups seemed to hold opposite views on ways of doing things—that is, on what was 'ethical' in everyday economic conduct. In fact, the 'ethical' Association of Industrial Enterprises was formed in 1989 by a group of directors of major military enterprises who were previously in close economic contact and represented the pride of Soviet industry, the industrial core of the St Petersburg region. The second group, the Association of Privatising and Private Enterprises, was formed in 1992 and tried to help those former state enterprises which sought to break away from the communal grip. Throughout 1993 the AIE and the APPE were represented by the media as 'the headquarters of reactionary directors' corps' and 'the league of reform-oriented enterprises' respectively.

This is partially true. The AIE was formed by Georgii Khizha, director of the Svetlana military industrial concern, together with eight other Leningrad directors whom he knew through day-to-day business contacts, in order to facilitate their joint lobbying activity. Khizha himself left later to become one of the three 'industrial' vice-prime-ministers in the first Gaidar administration, together with Shumeiko and Chernomyrdin. Aleksandr Aleksandrov, a former first party secretary of the Moskovskii district of Leningrad, took his post, and under his leadership the AIE expanded by 1993 to unite 31 major enterprises (almost all of which employ more than 2500 people each) and two banks. The AIE bears all the characteristics of a tightly knit elite group. The members of the AIE know each other through extensive economic and social contacts outside the association, and new members are usually brought in by old ones. Advertising its existence and expanding membership was never an objective of the AIE, said Aleksandrov in an interview: 'Our association does some serious work and we do not want to dilute ourselves just for the sake of expansion'.

The AIE brings together people 'close in spirit' (*blizkie po dukhu*) to discuss common problems and engage in economic lobbying. Political activity in the sense of party politics is generally eschewed. Among the main topics discussed in summer 1993 during the regular bi-weekly meetings were: what an enterprise should do if imminent danger of legal bankruptcy arises; establishing conventions on rules in inter-member financial relations; the situation in the shipbuilding industry, which was going 'too fast' in setting up partnerships with foreigners; and the adoption of a joint declaration to the government demanding substitution of taxation on sales for taxation on profits for enterprises with a lengthy production cycle.

The APPE, on the contrary, was more of a political organisation from the start. It was created as a 'body which defends the political interests of private entrepreneurs', as 'one of the components of the stable pro-reformist political block in Russia', according to Gaidar in a May 1993 interview in which he tried to explain why he had chosen to become chairman of this association.[9] Gaidar boasted that 600 enterprises had already joined the St Petersburg branch of the APPE. This may be the number which accurately reflects official membership, but interviews with executive directors in the local office indicated that the St Petersburg branch was more of a paper tiger.

In fact, every enterprise which came to the local governmental office that supervised privatisation was 'advised' to join the APPE in order to cut the costs of developing a suitable privatisation programme. Membership sky-rocketed, but there were only about 30 active enterprise directors who bothered to show up at the meetings of the 'public directorate' of the APPE, which took place only twice during 1993. Later, even this assembly was replaced by a small group of executive directors, nominated by the Moscow headquarters of the APPE. The style of the association's activity may be explained by the fact that it is a government-induced organisation which unites people who do not communicate beyond its walls. It may also be possible that the APPE members are individualistic to such an extent that they shy away from any collective endeavour. However, among the achievements of the APPE in St Petersburg were the disaggregation of the Arsenal military-industrial concern (10 000 employees) into six independent privatised units, and aid to break-away units within other concerns that contributed to their gaining independence.

The existence of the APPE and the AIE gave us a unique opportunity to test the hypothesis of the existence of the directors' ethic statistically. Indeed, if we were right in supposing that the AIE represented the 'ethical' community and the APPE, at least among its active core, united those who rejected the code of the business ethic of a post-Soviet director, then members of the AIE would be radically more prone, in comparison with members of the APPE, to adhere to a behavioural cluster that was first described in the Boeva report. In addition, it is of great interest—given the incipient diversification of orientations toward the directors' ethic discussed above—to examine whether directors of certain types of enterprises are more likely than others to adhere to the ethic. It would appear particularly likely that the size, industry and property form of an enterprise may influence a director's proclivity to participate in (or reject) the 'ethic game'. Also, one might imagine that, net of these other factors, the degree to which an enterprise resembles the ideal-typical image of a state socialist—or, on the other hand, a market—enterprise would likewise play a role. These hypotheses can only be tested using broader, multivariate statistical analysis.

Fortunately, the data we obtained in conjunction with the interviews discussed above allow us to conduct these analyses pertaining to the directors' ethic. As a preliminary step, however, we examine another topic of inherent interest: whether the conditions experienced and behaviours currently exhibited by enterprises resemble more closely those of state socialist or of market enterprises, according to conventional conceptions of the ideal-typical features associated with these two enterprise forms.[10] Accordingly, we view market enterprises as profit-oriented, demand-constrained price takers, who face hard budget constraints and operate in a competitive context. We might add that they utilise private commercial entities. State socialist enterprises, on the other hand, are output-oriented, supply-constrained (and labour-hoarding) price makers who exhibit soft budget constraints, have monopolistic positions and receive instructions or assistance from the state or from state-owned concerns.

Although it is fairly common to presume that market and state socialist features correspond to two mutually exclusive institutional contexts, and are thus inherently incompatible, the institutional confusion of the transition period in Russia provides unique ground to examine whether these features are incompatible in and of themselves (i.e. whether they cannot be combined within one enterprise). We also explore whether structural variables (size, industry, property form) or affiliation (with one or the other directors' group) are associated with market and with state socialist features, both because of the inherent interest such associations would bear and in order to avoid finding spurious association (or non-association) between the ideal types. Following our analysis of the correlates and mutual association of market and state socialist features, we proceed with our statistical analysis of the correlates of the directors' ethic. Then we briefly examine whether structural, affiliation, ideal-typical and ethical variables are in some way associated with the success of enterprises in current conditions.

Data and methods

The data for the statistical part of our analysis were gathered as part of a larger interview project jointly sponsored by the Working Centre for Economic Reform (an agency of the Russian government analogous to the Council of Economic Advisors in the USA) and the Institute of the Economy in Transition (Moscow). Interviews with approximately 150 enterprise directors or their immediate deputies were conducted in August–September 1993 in seven regions. Our data consist of material from the 35 interviews in the St Petersburg region, which were conducted either by Kharkhordin or by members of a team affiliated with the Leontiev Centre in St Petersburg. The government register of enterprises was used to select a sample and contact respondents. Selection criteria were designed to ensure a roughly equal distribution of enterprises across four industry categories—military, raw materials, high-tech and consumer goods—and by size (i.e. number of employees). The initial response rate was approximately 70%. When possible, refusals were replaced with directors from enterprises of the same industry and size.

Association with the larger project was indispensable for locating and gaining access to directors—who, after all, are very busy!—but it also involved certain constraints, as the interviews had to be conducted according to a pre-set questionnaire developed for purposes other than our own.[11] Directors were given copies of the 29 questions, addressing such topics as the type of problems faced by their enterprise, their general goals, and past developments and future plans regarding investments, product composition, output level, privatisation, supplier and customer ties, etc. Most of the questions asked directors to select any of up to three response categories—from a list of usually 8–10, including 'other'—which applied to them. The interviewer then noted which responses the interviewee chose.

Our analysis includes four purely independent variables (size, industry, property form and affiliation) and four variables which serve as both independent and dependent variables (market features, state socialist features, directors' ethic and enterprise performance). Consistent with the exploratory nature of our analysis, we looked, as Figure 1 illustrates, for all possible forward associations among variables, as well as a 'horizontal' association between market and state socialist enterprise features. It should be kept in mind that the paths in Figure 1 represent statistical associations and not causal paths, as they often do in diagrams of this form. Thus, for example, we examine whether affiliation is a useful *predictor*—and not necessarily a *cause*—of market features, state socialist features, directors' ethic and success.

It was a relatively simple matter to operationalise the structural and affiliation variables. On each questionnaire the industry of the enterprise and its number of employees were noted. One question asked directors to indicate who owned their enterprise; we grouped the detailed responses into three categories: state (e.g. owned directly by the state or by state associations), intermediate (e.g. owned by the workers' collective, by some state body and the workers' collective, by a combination of the collective and other individuals and/or institutions), and private (owned by a few domestic or foreign private individuals). Affiliation was determined by Kharkhordin during the course of the interviews or by consultation with representatives of the respective organisations. Directors affiliated with the Association of Industrial Enterprises comprised one category, which we label 'ethical' since we hypothesise that this group adheres to the directors' ethic; those affiliated with Gaidar's Association of Privatising and Private Enterprises—or whose enterprises were private—comprised a category we correspondingly label 'anti-ethical';[12] and the remainder comprise a third, 'unaffiliated' category. If a director turned out to be formally a member of both associations, then affiliation was defined according to his/her preference stated during the interview.

The remaining variables required more complicated procedures to operationalise. As a necessary preliminary step we transformed each quasi-open question into a series of dummy variables, the number of which corresponded to the number of response items after discarding the 'other' category. We then examined two-way cross-tabulations of the four respective independent variables with individual items that could be taken as indicators of different dependent variables.[13] This approach, we quickly concluded, was inadequate for a number of reasons. Each dependent-variable item was, by itself, too narrow to be taken as an indicator of the underlying concept, capturing only one aspect or element of it. This might not have posed a problem had a more or less consistent pattern of associations emerged between the independent variables and groups of related items, but such patterns were not readily apparent. Furthermore, the small number of cases made it impossible to undertake multi-variate analysis due to empty cells, a severe limitation.

We dealt with these problems by combining, *a priori*, the individual items which we felt pertained to each dependent variable into four respective scales, which then served as the dependent variables in a series of multivariate regression analyses. Our scale construction was constrained by the need to eliminate or keep to an absolute minimum the appearance of items on more than one scale, so as to avoid purely artifactual association. We recognise that any such procedure inherently involves a degree of arbitrariness and wish to emphasise the provisional character of our findings. We present the items comprising each scale and the rationale for their inclusion in the Appendix, so readers may judge their internal consistency and

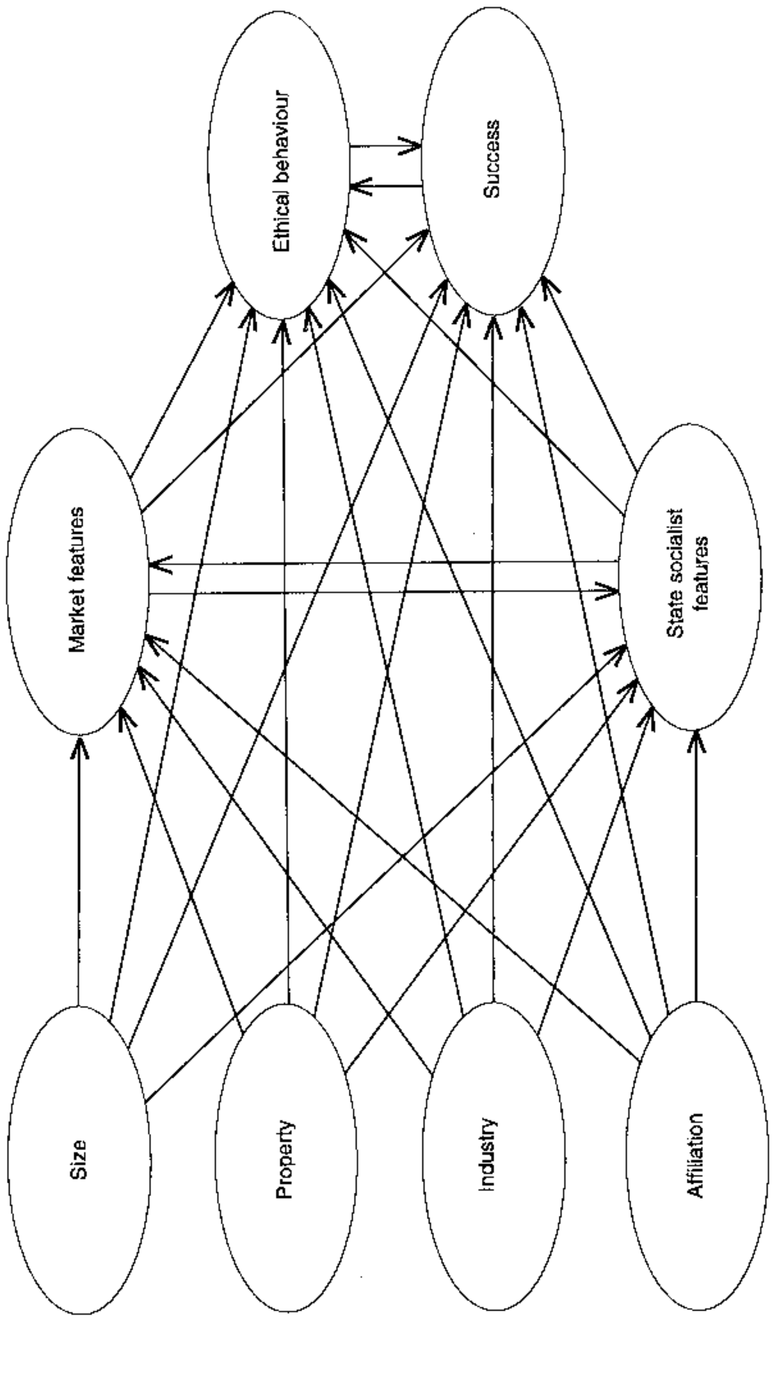

FIGURE 1. TESTED ASSOCIATIONS BETWEEN VARIABLES.

TABLE 1
DESCRIPTIVE STATISTICS

Variable	*N*	*%*		
Property				
1. State	15	42.9		
2. Intermediate	16	45.7		
3. Private	4	11.4		
Industry				
1. Military	8	22.9		
2. Hi-tech	12	34.3		
3. Raw materials	6	17.1		
4. Consumer goods	9	25.7		
Affiliation				
1. AIE	13	37.1		
2. APPE	9	25.7		
3. Unaffiliated	13	37.1		
	Mean	*SD*	*Min*	*Max*
Size				
(100 employees)	31.63	36.41	1.00	180.00
Scales:				
Market features	5.31	2.34	1.00	11.00
State socialist	4.97	2.29	1.00	11.00
Ethic scale	3.17	1.95	− 2.00	8.00
Performance	− 1.14	2.99	− 6.00	5.00

reliability for themselves. Despite the obvious hazards of this procedure, we find it the most adequate—indeed, the only—way to arrange the inchoate mass of data into a coherent picture which sheds light on our selected topics, given the constraints imposed on us by the data-gathering process.

Table 1 presents descriptive statistics for each of the variables in the analyses. Our analysis proceeds in three stages: first we examine the correlates of market and of state socialist features; then those of the directors' ethic; then those of enterprise performance. For each stage, a series of regression models was fitted. First, structural (with size-square in addition to size, to examine for non-linearity),[14] affiliation, and any subsequent variable(s) were entered as separate groups (with the categorical independent variables entered as sets of dummy variables.) Then, all variables were entered together. Finally, variables which were clearly insignificant were removed individually until a preferred model, including only significant variables, was identified. In a few cases, the removal of some insignificant variables rendered other insignificant variables significant, so they were kept in the model. We do not present every step in the construction of the preferred models, in the interest of space. Since our aim is to identify significant associations and note their sign, owing to the small number of cases we adopt a more flexible significance criterion—$p < 0.20$—than is customary. We envisage our results not as definitive but as a useful guide for future research. Thus we prefer not to accept the null hypothesis of no association unless the evidence is overwhelming.[15]

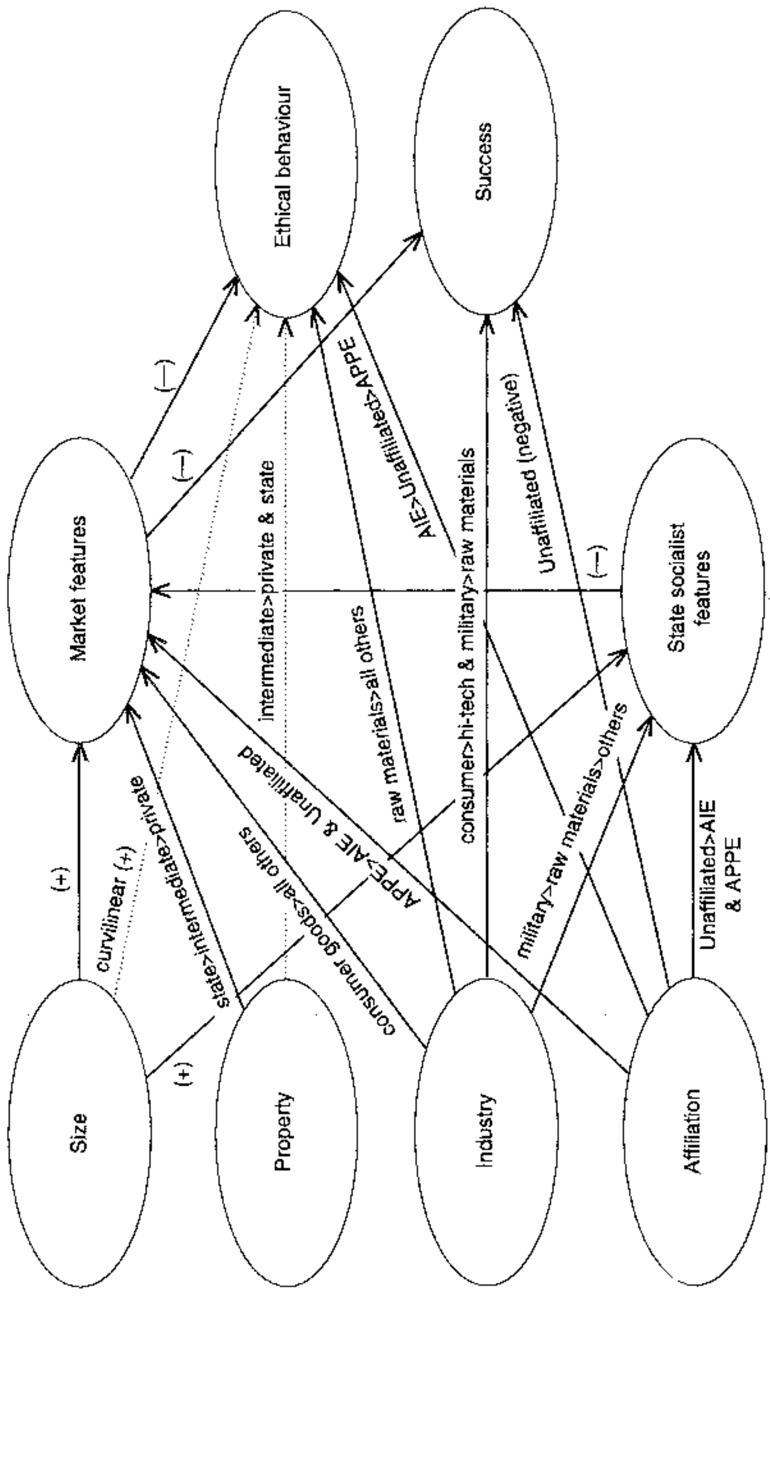

FIGURE 2. SIGNS AND MEANINGS OF SIGNIFICANT ASSOCIATIONS.

Results

Figure 2 shows the pattern of significant associations for each dependent variable suggested by our four preferred models. The lines connecting property and size with the ethic scale are dotted to reflect a complication we encountered in choosing a preferred model (discussed below). We turn now to the specific character of the associations and point out interesting features of our findings with reference to the regression models of each stage, presented in Tables 2 to 5. In each of these tables the second column presents regression coefficients and R-squares for the first three models, which include, in turn, the structural, affiliation and scaled variables (the Size Square coefficients and s.e.s are multiplied by 100 to show significant digits.) The third column presents the fourth model, including all independent variables together. The fourth column presents the 'preferred' model, from which all non-significant variables have been removed (except in the ambiguous case of the model for the ethic scale).

Tables 2 and 3 present models for the market and state socialist scales respectively. As the coefficients for Model 3 in each table demonstrate, the zero-order association between market and state socialist features, though negative, is not significant even by the lax criterion of $p < 0.20$. This implies that market and state socialist features are not incompatible, in the absence of control variables. However, as Model 5 in Table 2 indicates, net of property form, industry, size and affiliation, state socialist features are negatively associated with market features. Perhaps surprisingly, though, Table 2 also suggests that state-owned enterprises have significantly more market features than do the other two property categories, and privately owned enterprises appear to have the fewest such features, net of other variables (Models 4 and 5). In addition, size is positively associated with market features, enterprises in the consumer goods industry have more market features than those in the other three industries, and enterprises affiliated with Gaidar's APPE have more than those affiliated with the AIE and those with no affiliation.

Turning to Table 3, it is interesting to note that, net of other variables, market features are not associated with state socialist features when the state socialist scale is the dependent variable. Furthermore, state socialist features—like market features—are positively associated with enterprise size. Yet they are least common in the consumer goods and hi-tech industries (the corresponding effects in Model 5, Table 2 were constrained to be equal, with the resulting decline in R-Square a minuscule 0.0006) and somewhat less common in the raw materials industry than in military enterprises. They are also significantly more common among enterprises with no affiliation than in enterprises affiliated with either directors' organisation. We discuss the implications of these results in the next section.

We turn now to the ethic scale, which is our central concern. The relatively high R-squares in Table 4 (compared with those other models which have roughly the same sets of independent variables) suggest that the directors' ethic is closely related to the variables we consider—in particular to the affiliation variables (see Models 1 and 2). As anticipated, both with and without control variables, those directors associated with the AIE are significantly more likely than the other two affiliation groups to subscribe to the directors' ethic, and those affiliated with the APPE are the

TABLE 2
SELECTED MODELS FOR MARKET SCALE

Variable	Models 1–3 B	Models 1–3 S.E.	Model 4 B	Model 4 S.E.	Model 5 B	Model 5 S.E.
Property						
1. State	0		0		0	
2. Intermediate	−1.830*	(1.114)	−1.782*	(1.107)	−1.171*	(.868)
3. Private	−.881	(1.607)	−2.553*	(1.916)	−2.167*	(1.599)
Industry						
1. Military	0		0			
2. Hi-tech	1.815*	(1.263)	1.524	(1.445)		
3. Raw materials	2.164*	(1.276)	1.513	(1.336)		
4. Consumer goods	3.799***	(1.490)	3.481***	(1.683)	1.986***	(.930)
Size (100 employees)	0.045*	(.027)	.050**	(.029)	.032	(.011)
Size square (× 100)	−.013	(.016)	−.015	(.017)		
Affiliation						
1. AJE	1.538**	(.903)	.232	(1.057)		
2. APPE	1.094	(.998)	1.681*	(1.233)	1.438*	(1.017)
3. Unaffiliated	0		0		0	
Scales						
1. Market						
2. State	−.199	(.174)	−.244	(.212)	−.340**	(.171)
3. Ethic						
4. Performance						
Constant (Model)	(1)3.179*** (2)4.462*** (3)6.306***	(1.041) (.638) (.949)	(4)4.186***	(1.899)	(5)5.901***	(1.202)
R-square (Model)	(1).347 (2).087 (3).038]		(4).438		(5).390	

* = significant at $p < .20$
** = significant at $p < .10$
*** = significant at $p < .05$

TABLE 3

SELECTED MODELS FOR STATE SCALE

	Models 1–3		Model 4		Model 5	
Variable	*B*	*S.E.*	*B*	*S.E.*	*B*	*S.E.*
Property						
1. State	0		0		0	
2. Intermediate	.560	(1.072)	−.030	(1.089)		
3. Private	−.457	(1.546)	−.391	(1.855)		
Industry						
1. Military	0		0		0	
2. Hi-tech	−2.779***	(1.215)	−2.670***	(1.269)	−3.118***	(.773)
3. Raw materials	−2.320**	(1.227)	−1.503	(1.244)	−1.820**	(.999)
4. Consumer goods	−3.408***	(1.434)	−2.594*	(1.623)	−3.118***	(.773)
Size (100 employees)	.017	(.026)	.043*	(.027)	.021***	(.008)
Size square (× 100)	.002	(.016)	.001	(.016)		
	— — —	— —				
Affiliation						
1. AIE	0					
2. APPE	−.479	(1.012)	1.054	(1.125)		
3. Unaffiliated	.462	(.915)	1.737**	(.924)	1.575***	(.682)
	— — —	— —				
Scales						
1. Market	−.192	(.168)	−.213	(.186)		
2. State						
3. Ethic						
4. Performance						
Constant (Model)	(1).017 (2)4.923*** (3)5.994***	(.026) (.647) (.971)	(4)5.949***	(1.312)	(5)5.903***	(.772)
R-square (Model)	(1).373 (2).027 (3).038		(4) .491		(5) .443	

* = significant at $p < .20$
** = significant at $p < .10$
*** = significant at $p < .05$

least likely, scoring significantly lower on the ethic scale than the unaffiliated group (note the standard errors in Models 2 and 5). Enterprises in the raw materials industry score higher on the ethic scale than those in the other industries (which do not significantly differ from one another in this regard), and the more market features that an enterprise has, the lower its director's ethic score.

The preferred model we present for the Ethic Scale (Model 5) includes the dummy variable for Intermediate Property, even though it is not quite significant by our criterion ($p = 0.201$). We elect to do so because removing it from the model reduces R-square to 0.527 and renders Size insignificant ($p = 0.209$), and when Size is subsequently removed, R-square decreases to 0.499 and Size Square becomes insignificant ($p = 0.233$). The removal of Size Square produces a model with only the Raw Materials Industry dummy, the two Affiliation dummies and the Market scale, all of which are significant (R-square = 0.473). However, further investigation showed that net of these variables the Intermediate Property dummy is significant by our criterion ($p = 0.180$; R-square = 0.505). Thus, by our criterion the Intermediate Property dummy is not significant net of the two size variables, but is significant in their absence; and the size variables are significant net of the Intermediate Property dummy, but not in its absence.

While this complex pattern may conform to the true pattern of association, we feel it is more likely, especially given that the property dummy is only barely not significant net of the size variables, that the inclusion of additional cases would render all the effects in Model 5 significant, hence we prefer this model. However, to indicate the ambiguous character of these results, we present the corresponding associations as dotted lines in Figure 2. At any rate, if Model 5 is 'true', we note that the directors of enterprises of intermediate property forms score slightly higher on the ethic scale than do those of state or private enterprises, net of other variables. As for the size effect, it is noteworthy that we tested the same set of models for the Ethic Scale using, in turn, just the Size and just the Size Square variables rather than both of them together. In none of these models was either variable significant on its own. Together, however, the effects are significant, despite their high collinearity ($r = 0.910$). This suggests that the size effect is indeed curvilinear, with a declining (concave) slope (based on the negative sign of the Size Square coefficient) which changes direction at approximately 13 600 employees.[16]

Our models for enterprise performance are presented in Table 5. The generally lower R-squares for these models suggest that performance is less connected with our set of independent variables than are our other dependent variables, confirming the impression that in the current confusion of the Russian economy the performance of any given enterprise is not readily predictable. However, there are some noteworthy patterns. Enterprises in the raw materials industry are significantly less successful, followed by those in the military and hi-tech industries (whose coefficients were constrained, in Model 5, to be the same, resulting in a 0.0006 decrease in R-square). Also, unaffiliated enterprises appear to be less successful than those with either affiliation, and market features are negatively associated with performance, perhaps indicating that the institutional economic context is not yet conducive to them. Property form, enterprise size and the directors' ethic are not associated with performance.

TABLE 4

SELECTED MODELS FOR ETHIC SCALE

Variable	Models 1–3 B	Models 1–3 S.E.	Model 4 B	Model 4 S.E.	Model 5 B	Model 5 S.E.
Property						
1. State	0		0			
2. Intermediate	.966	(.912)	.865	(.879)	.714	(.545)
3. Private	−.617	(1.315)	.330	(1.494)		
Industry						
1. Military	−1.627*	(1.044)	−2.195***	(1.051)		
2. Hi-tech	−2.329***	(.923)	−2.416***	(.972)		
3. Raw materials	0		0		1.984***	(.680)
4. Consumer goods	−2.117**	(1.035)	−2.243**	(1.159)		
Size (100 employees)	.031*	(.022)	.024	(.023)	.026*	(.019)
Size square (×100)	−.019*	(−.013)	−.017*	(.013)	−.019*	(.011)
	— —	— —				
Affiliation						
1. AIE	0		0		0	
2. APPE	−2.342***	(.763)	−2.237***	(.922)	−2.086***	(.734)
3. Unaffiliated	−1.231**	(.691)	−1.256*	(.824)	−1.383**	(.671)
	— —	— —				
Scales						
1. Market	−.167	(.153)	−.176	(.158)	−.224**	(.120)
2. State	.066	(.152)	.075	(.165)		
3. Ethic						
4. Performance	−.030	(.117)	.095	(.107)		
Constant (Model)	(1)3.991***	(.954)	(4)5.991***	(1.432)	(5)4.364***	(.918)
	(2)4.231***	(.488)				
	(3)3.699***	(1.247)				
R-square (Model)						
	(1) .370		(4).581		(5).555	
	(2) .231					
	(3) .051					

* = significant at $p < .20$
** = significant at $p < .10$
*** = significant at $p < .05$

TABLE 5

SELECTED MODELS FOR PERFORMANCE

Variables	*Models 1–3* *B*	*S.E.*	*Model 4* *B*	*S.E.*	*Model 5* *B*	*S.E.*
Property						
1. State	.122	(1.584)	1.008	(1.749)		
2. Intermediate	0		0			
3. Private	1.864	(1.814)	.569	(2.425)		
Industry						
1. Military	2.516*	(1.797)	2.626	(2.185)	2.209*	(1.307)
2. Hi-tech	1.659	(1.603)	3.489**	(2.025)	2.209*	(1.307)
3. Raw materials	0		0		0	
4. Consumer goods	2.516*	(1.797)	4.842***	(2.232)	3.826***	(1.509)
Size (100 employees)	− .021	(.038)	− .030	(.046)		
Size square	.004	(.024)	.009	(.026)		
Affiliation						
1. AIE	− 1.197	(1.306)	− 1.149	(2.021)		
2. APPE	0		0			
3. Unaffiliated	− 1.581	(1.306)	− 2.628*	(1.913)	− 1.943**	(1.037)
Scales						
1. Market	− .299	(.232)	− .278	(.313)	− .447**	(.220)
2. State	− .137	(.233)	.083	(.324)		
3. Ethic	− .071	(.275)	.365	(.411)		
4. Performance						
Constant (Model)	(1) − 2.616* (2) − .111 (3)1.358	(1.572) (1.004) (2.152)	(4) − 2.633	(3.431)	(5) − .292	(1.673)
R-square (Model)	(1).915 (2).046 (3).055		(4).317		(5).247	

* = significant at $p < .20$
** = significant at $p < .10$
*** = significant at $p < .05$

Discussion

The set of significant associations between the 'directors' ethic' scale and other variables confirms our expectation that those directors affiliated with the AIE are substantially more likely to adhere to the ethic and those affiliated with the APPE are more likely to reject it. Net of other variables, the former score 2.09 points higher on the ethic scale, which exceeds the variable's standard deviation of 1.95. Thus, to the extent that there is variation in directors' adherence to the ethic, affiliation with either organisation—or with neither of them—is a sound indicator of where a particular director stands. Secondly, though there is no association between state socialist features and ethical behaviour, the significant negative association between it and market features suggests there may be an unarticulated economic logic underlying directors' orientation toward the ethic, and that mass media characterisations of the conservative character of the APPE may not be far from the mark.

Further, the curvilinear character of the relation between size and ethical score suggests that for super-large enterprises ethical behaviour loses relevance. They may be so big that 'horizontal pressure' applied to them can achieve nothing because of their exceptional monopoly status. Alternatively—in cases where these giants have a diversified internal production structure—they may have internalised 'ethical relations' as a principle of interrelation of their sub-units, while in external contacts they may well be able to afford to be 'anti-ethical' and relate with other comparable giants according to price incentives only. The somewhat ambiguous positive correlation between the intermediate property group and the directors' ethic can be attributed to the fact that enterprises in this group are right in the middle of a transition to new organisational structures. If one excludes the four cases in our sample of distinctly private enterprises (that is, those owned by a very small group of single individuals) because they are part of the anti-ethical group by definition, then, of those left, state enterprises may be said to enjoy some stability. The state enterprises in our sample are generally those which are prohibited from or are slow to privatise. On the contrary, the majority of enterprises in the intermediate property group have just completed their first steps on the road to privatisation. In this highly volatile situation they require some reliable methods to survive, and ethical behaviour is an obvious guarantee of reducing risks amidst the current flux.

The only puzzling finding in the ethical scale equations is the high score of the raw materials industry. The *ad hoc* explanation that we suggest is that the six enterprises which fall under this category in St Petersburg are mainly engaged in producing special supplies for local industries, and cannot put their output on the market elsewhere; St Petersburg, after all, is not a centre of extractive industry. Therefore, these six enterprises cannot enjoy the freedom of, say, oil producers, and they depend heavily on their long-established partners to survive. They may also have a rather more developed tradition of extensive care for their *kollektiv*, because otherwise workers would have left simply because of unfavourable working conditions in these industries (chemical, timber and metallurgical industries, in our sample). It is also perhaps telling in this regard that enterprises in the raw materials industry are significantly less successful than those in any of the three other industry groups according to our data.

The regression equations for the market and state socialist scales look rather more surprising compared with those for the ethical scale. First, our data suggest that there is hardly a negative (or mutually exclusive) relation between the two sets of features. The expected negative association appears only in one direction—when the market orientation is the dependent variable—and only when control variables are present. Secondly, both the state socialist and market scales are positively associated with size. Perhaps state socialist and market features are not incompatible for many enterprises. At any rate, our findings imply that conventional notions of the dichotomous character of state socialist and market enterprise features should be subject to further sceptical scrutiny—even if the apparent non-antagonism between the two sets of features in our sample may be solely the result of the transitory institutional setting of the 1993 post-Soviet economy.

In addition, the pattern of associations connected with the state socialist and market features are somewhat surprising in and of themselves. The market scale is predictably associated with consumer goods industries and APPE affiliation, but is related to the property variable in an unexpected fashion: state-owned enterprises score higher than others on the market scale, and these are the ones, as we have already mentioned, that are prohibited from or are slow to privatise. Private enterprises score lowest on the market scale, which is counter-intuitive. So far we have been unable to come up with an acceptable interpretation of this finding, merely attributing it to the exceptional nature of the transitional features of the present Russian economic scene. However, in the light of the counter-intuitive character of the association between property form and market features and the absence of any association between property form and state socialist features, we can say with certainty that our data provide evidence that, at least at present, there is not the traditional correspondence between property form and enterprise features that neoclassical positions would have us expect. On the other hand, industry is a better predictor of the degree to which an enterprise will exhibit either set of features: military enterprises score higher on the state socialist scale and those in the consumer goods industry score lower, as one would anticipate.

Conclusion

This article has identified and elaborated—based on concrete examples drawn from discussions with post-Soviet directors—a particular business ethic to which a substantial number of them subscribe, traced the changes in the content of and adherence to this ethic during 1993, and conducted a statistical analysis of the associations between various other variables and this ethic, as well as, *inter alia*, the relationship between market and state socialist enterprise features.

What larger picture of interrelationships between variables emerges in the current post-Soviet economic context? Most striking are three features: the salience of the contrast between those directors affiliated with the APPE and those affiliated with the AIE with respect to the directors' ethic; and the apparently absent (or, at least, highly ambiguous) associations between: (1) market and state socialist features, and (2) property form and either set of features. Considered together, these three findings suggest, in our view, that the two primary incompatible clusters may not be state socialist and market enterprise features or capitalist and state property forms—as conventional theory would have us expect—but the 'ethical' and 'anti-ethical' clusters, which represent two contrasting ways of doing things in a post-socialist society—one new, the other traditional and perhaps weakening somewhat, but hardly in mortal throes. That is, these two clusters—represented respectively by the APPE and the AIE, with the unaffiliated group comprising, as it were, an 'undecided' camp—do not correspond in any neat fashion to opposing sets of enterprise features or property forms: the only hint of such a correspondence is the negative association between market features and the ethic scale, but this association is only significant net of other variables, and, given the absence of either a corresponding positive association between state socialist features and the ethic scale or of a convincing pattern of incompatibility between state and market features, it can hardly be said that the difference in features is decisive in shaping which way of doing business directors choose.

Reflecting on the character of the contrast between these two approaches suggested by the characterisation of the directors' ethic in the first part of the article, we hypothesise that the dividing line between the two groups (or orientations or behavioural clusters) is one between two conceptions or strategies for building post-socialist markets. To be more precise: it is a difference between a strategy which conventionally envisions the market as a negation or withdrawal of the socialist state, and one which envisions the market as arising on the basis of 'ethical' relations. The first strategy, based on neo-classical economics, uncritically presupposes that the market, as a unity of exchanges between free individual actors, appears out of nowhere as if through a momentary act of God—i.e. shock therapy, which makes everything work the way it should. The second strategy has never really been formulated into a coherent doctrine in Russia, but derives from the gut feeling of a post-Soviet director, who builds networks of the 'essential few'. These networks may be further tied together by price mechanisms into a single system of a thereby emerging national market. The directors' ethic serves as a necessary principle of internal construction of these *keiretsu*-type structures, while it simultaneously stops functioning in their external contacts, which are mediated by pure economic gain. This second strategy of market building may closely parallel the strategy previously exemplified by the newly industrialised countries (NICs).

The coexistence of both strategies brings to mind the observation of Karl Polanyi in his under-appreciated classic *The Great Transformation*[17] that the unleashing of naked, untethered market relations so shocks society as to call forth a counter-movement based on communal ties, which is equally essential for creating an institutional context in which a market society can be stable and reproduce itself. Of course, Polanyi's level of analysis is not so much the business ethic of key economic actors as the social and political institutions which become objects of the struggle between market and communal forces. Yet it may not be too much of a stretch of his historical lesson to conclude that the continued coexistence of the two approaches within the emerging Russian business community bodes better for the eventual construction of a stable market economy than would the elimination of either tendency.

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APPENDIX 1

We constructed simple additive scales to operationalise the variables: market features, state socialist features, directors' ethic and enterprise performance. We sought to minimise the recurrence of individual items on more than one scale, to avoid purely artifactual association. The criteria we applied for ascribing items to each variable were as follows. We viewed as evidence of market features indications that enterprises were profit-oriented, demand-constrained and price takers, faced hard budget constraints, operated in a competitive context and utilised private commercial entities. We treated indications that enterprises were output-oriented, supply-constrained (and labour-hoarding) and price makers, exhibited soft budget constraints, had monopolistic positions and received instructions or assistance from the state or from state-owned concerns as evidence of state socialist features. It is because our aim is to test empirically—and not take for granted—whether the aggregates of the respective features are indeed incompatible that we constructed two scales instead of one market/state continuum, though some individual elements of the market and state socialist scales are antinomous (e.g. soft and hard budget constraints).

The directors' ethic has three components—close, mutually-assisting relations with other directors; negative views toward new market entities; and close, paternalistic relations with workers' collectives. We treated items—either behaviours or attitudes—which can be reasonably interpreted as reflecting any of these three as positive evidence of the directors' ethic, and items which can be interpreted as the antinomy of any of these three (unwillingness to cooperate with or help other directors, preference for market entities, pointed indifference to the collective) as negative evidence of the directors' ethic, i.e. evidence of an anti-ethic. Since the 'anti-ethic' represents opposition to components of the ethic, we scaled both on the same continuum, assigning negative values to items which testified to the 'anti-ethic'.

Regarding enterprise performance, we regarded actual and anticipated increases in the volume of production, the absence of shortages of any resources, and status as a joint venture with a foreign firm as signs of success (positive performance) and actual and anticipated decreases in the volume of production as signs of poor (negative) performance. We gave extra weight (see below) to extreme increases and decreases in production and to past, as opposed to anticipated, changes in the volume of production—since past changes are more reliable. Though these are hardly perfect indicators of enterprise performance and are perhaps weighted heavily toward a 'state socialist' conception of performance, since the main item is output level and not profitability, they nonetheless should give some indication of how an enterprise is doing. After all, in most cases increased production is a salutary sign for a market enterprise and declining production a symptom of problems such as declining productivity.

Following are all the questions and items we determined were related to at least one of the variables, with the corresponding variable(s) and sign of the relation:

1. Directors main goal for the enterprise:
    1. Preserve the collective (ethic +)
    2. Maintain salaries (ethic +)
    3. Increase profitability (market +)

5. Increase volume of production (state +)
6. Become a private enterprise (market +)

2. Main problems complicating the enterprise's economic situation:
1. Breaking of inter-enterprise ties (state +)
2. Tax burden (market +)
5. Constricting of demand for enterprise's products (market +)
6. Instability of work force, poor work attitudes (state +)

3. Resources most in shortage for the enterprise:
1. Raw materials (state +)
2. Assembled supplies (state +)
3. Labour (state +)
4. Equipment (state +)
5. Cash flow (market +)
7. No shortages (performance +)

4. Change in the volume of the enterprise's production in 1992 compared with the previous year:
1. Substantially increased (performance + 4)
2. Increased (performance + 2)
4. Decreased (performance − 2)
5. Substantially decreased (performance − 4)

5. Prognosis for change in volume of production during 1993 compared with the previous year:
1. Will substantially increase (performance + 2)
2. Will increase (performance + 1)
4. Will decrease (performance − 1)
5. Will substantially decrease (performance − 2)

7. Main reasons which led to change in product composition:
1. Change in demand (market +)
2. Shortage of material resources (state +)
3. Shortage of certain categories of workers (state +)
4. Growth in costs (market +)
6. Desire to increase profitability (market +)

8. Enterprise is investing in:
7. Construction of housing (ethic +)
8. Construction of other amenities in the social sphere (ethic +)
9. Other concerns—banks, trading and other firms (market +)

9. Sources of the means for developing the enterprise:
3. Other state enterprises (ethic +)
5. Long-term bank loans on market conditions (market +)
6. State investments, privileged long-term loans (state +)
8. Private sector, commercial entities (ethic −)

10. How enterprise guarantees cash flow:
2. Use state privileges to obtain loans (state +)
3. Take short-term loans on market conditions (market +)

11. How enterprise sets prices:
1. State sets limits (state +)
2. Cost-plus pricing (state +)
3. Orient toward the market price for analogous goods (market +)
5. Prices are deliberately set lower for old partners than for others (ethic +)
6. Try to raise prices (state +)

12. How enterprise establishes connections with suppliers:
1. Maintained old supplier connections (ethic +)
2. Via its ministry or department (state +)

   4. Via commodity exchanges, brokers (ethic −)
   5. Via commercial centres based on former Gossnab organs (state +)
   6. Using old business contacts (ethic +)

13. How enterprise finds customers:
   1. Maintained former ties, traditional co-operative ties (ethic +)
   2. Via its ministry or department (state +)
   4. Via commodity exchanges, brokers (market +)
   5. Via commercial centres based on former Gossnab organs (state +)
   8. A distributor firm takes care of it (market +)

14. Why the composition of the enterprise's customers changed:
   2. Because former customers could not pay (market + /ethic −)
   3. Customers turned down its products (market +)
   7. Decided to re-orient itself toward new private firms (ethic −)

15. Director's principles regarding working with private firms, new commercial entities:
   1. Prefer to have nothing to do with them (ethic +)
   2. Work with them only when absolutely necessary (ethic +)
   5. Prefer to work with private, not state firms (ethic −)

16. Enterprise's market position:
   1. Monopoly position (state +)
   3. Fair number of competitors (market +)

17. Enterprise's competitors in the Russian market:
   1. None (state +)

19. How enterprise finds potential foreign partners:
   3. Via a ministerial association (state +)
   6. Via commercial intermediaries (market +)

20. Enterprise's relations with foreign partners:
   4. Joint production in Russia (performance +)
   5. Joint production abroad (performance +)

21. Did enterprise lay off workers during the last year and a half?
   1. No (ethic +)
   3. Yes, a substantial number (ethic −)

22. Factors which determine wage policy of enterprise:
   1. Increases in the cost of living (ethic + /state +)
   2. Standard wages in its industry (ethic +)
   3. Local labour market (market +)
   5. Position of the workers' collective (state +)

26/8. Type of association enterprise has joined/wants to join:
   1. .None (ethic −)
   2. As before, subordinate to ministry or *glavk* (26 only, state +)
   4. Industry cartel, based on former ministry or *glavk* (ethic +)

27. Type of help provided by the enterprise's association:
   2. No help (ethic +)
   3. Help with supplies, inter-enterprise ties (ethic +)

We believe most of the assignments of these items to particular variables are self-explanatory, however a few deserve explanation. We took a concern for cash flow problems (3.5 and 10.5) to be evidence of a hard budget constraint, and thus applied these items to the MARKET scale. We viewed the taking of long-term loans at market interest rates (9.5) as reflecting a profit orientation and likewise assigned this item. Setting wages based on the rising cost of living was included in STATE as well as ETHIC since it can be viewed as a strategy to hoard labour reserves. Receiving no help from a producers' association but being a member of one anyway (27.2) suggests a desire for ties with other directors regardless of the economic benefits, and was thus viewed as evidence of directors' ethic.

The questionnaire form allowed respondents to select up to three response categories for each question. Since each question corresponded to a topic—say price-setting policy or changes in product composition—we decided that the units of our scales should be questions, not individual items. This meant that in cases where more than one response category could be taken as evidence of market features, state socialist features, the directors' ethic or successful performance, no more than one point could be added to the scale value, even if more than one such item was selected. However, when a question contained both positive and negative items relating to directors' ethic, we allowed both positive and negative contributions to the ETHIC value (no more than one point in either direction). In addition to questions 4 and 5, which were weighted somewhat differently, as discussed above, there was one exception to this principle: each item in question 3 which suggested a type of supply shortage situation a state socialist enterprise would face was included separately in the scale. Since the respondent could choose a maximum of three items, this increased the range of the STATE scale by three, not four points.

These, then, are the constitutive questions and possible range of each scale:

MARKET = (1.3 or 1.6) + (2.2 or 2.5) + (3.5) + (7.1 or 7.4 or 7.6) + (8.9) + (9.5) + (10.3) + (11.3) + (13.4 or 13.8) + (14.2 or 14.3) + (16.3) + (19.6) + (22.3)

STATE = (1.5) + (2.1 or 2.6) + (3.1) + (3.2) + (3.3) + (3.4) + (7.2 or 7.3) + (9.6) + (10.2) + (11.1 or 11.2 or 11.6) + (12.2 or 12.5) + (13.2 or 13.5) + (16.1) + (17.1) + (19.3) + (22.1 or 22.5) + (26.2)

ETHIC = (1.1 or 1.2) + (8.7 or 8.8) + (9.3) − (9.8) + (11.5) + (12.1 or 12.6) − (12.4) + (13.1) − (14.2 or 14.7) + (15.1 or 15.2) − (15.5) + (21.1) − (21.3) + (22.1 or 22.2) − (26.1 or 28.1) + (26.4 or 28.4) + (27.2 or 27.3)

PERFORMANCE = (3.7) + (Question 4) + (Question 5) + (20.4 or 20.5)

RANGES: Market: 0 to 13
State: 0 to 16
Ethic: −6 to 11
Performance: −6 to 8

APPENDIX 2

Correlation Matrix

	PROP1	PROP2	PROP3	IND1	IND2	IND3	IND4	SIZE	SIZESQ	ETH1	ETH2	ETH3	M-SCALE	S-SCALE	E-SCALE	P-SCALE
PROP1	1.0000	−.7947**	−.3111	.6285**	−.1390	.0657	−.5095**	.3378	.2561	.2902	−.1132	−.1878	.1075	.3939*	−.0172	−.1147
PROP2	−.7947**	1.0000	−.3296	−.4995*	.0621	.0391	.3787	−.1545	−.1608	−.1119	−.2775	.3629	−.1004	−.1913	.2467	−.0722
PROP3	−.3111	−.3296	1.0000	−.1955	.1189	−.1634	−.1996	−.2836	−.1464	−.2761	.6105**	−.2761	−.0100	−.3132	−.3596	.2915
IND1	.6285**	−.4995*	−.1955	1.0000	−.3932*	−.2476	−.3203	.1165	−.0004	.1448	−.0089	−.1368	−.1630	.5184**	−.0132	.0725
IND2	−.1390	.0621	.1189	−.3932*	1.0000	−.3286	−.4250*	.1310	.2310	−.1815	−.0118	.1922	−.0725	−.1506	−.2840	−.0262
IND3	.0657	.0391	−.1634	−.2476	−.3286	1.0000	−.2676	−.1073	−.1091	.1210	.0793	−.1928	.0038	−.0278	.4333*	−.2865
IND4	−.5095**	.3787	.1996	−.3203	−.4250*	−.2676	1.0000	−.1616	−.1564	−.0464	−.0470	.0889	.2320	−.3106	−.0525	.2059
SIZE	.3378	−.1545	−.2836	.1165	.1310	−.1073	−.1616	1.0000	.9102**	.4560*	−.2559	−.2245	.3876	.3031	.0075	−.2233
SIZESQ	.2561	−.1608	−.1464	−.0004	.2310	−.1091	−.1564	.9102**	1.0000	.3296	−.1544	−.1899	.3219	.2046	−.1294	−.1814
ETH1	.2902	−.1119	−.2761	.1448	−.1815	.1210	−.0464	.4560*	.3296	1.0000	−.4523*	−.5909**	.2289	−.0164	.4242*	−.0430
ETH2	−.1132	−.2775	.6105**	−.0089	−.0118	.0793	−.0470	−.2559	−.1544	−.4523*	1.0000	−.4523*	.0167	−.1371	−.3931*	.2059
ETH3	−.1878	.3629	−.2761	−.1368	.1922	−.1928	.0889	−.2245	−.1899	−.5909**	−.4523*	1.0000	−.2847	.1405	−.0686	−.1432
M-SCALE	.1075	−.1004	−.0100	−.1630	−.0725	.0038	.2320	.3876	.3219	.2289	.0167	−.2847	1.0000	−.1958	−.2061	−.2038
S-SCALE	.3939*	−.1913	−.3132	.5184**	−.1506	−.0278	−.3106	.3031	.2046	−.0164	−.1371	.1405	−.1958	1.0000	.1196	−.0649
E-SCALE	−.0172	.2467	−.3596	−.0132	−.2840	.4333*	−.0525	.0075	−.1294	.4242*	−.3931*	−.0686	−.2061	.1196	1.0000	−.0108
P-SCALE	−.1147	−.0722	.2915	.0725	−.0262	−.2865	.2059	−.2233	−.1814	−.0430	.2059	−.1432	−.2038	−.0649	−.0108	1.0000

Note: 1-tailed significance * − .01 ** − .001

PROP1	—State property	SIZESQ	—Size Square
PROP2	—Intermediate property	ETH1	—Affiliated with the AIE
PROP3	—Private property	ETH2	—Affiliated with the APPE
IND1	—Military industries	ETH3	—Unaffiliated
IND2	—Hi-tech industries	M-SCALE	—Market scale
IND3	—Raw materials industries	S-SCALE	—State socialist scale
IND4	—Consumer goods industries	E-SCALE	—Ethic scale
SIZE	—Number of employees (in hundreds)	P-SCALE	—Performance scale

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[1] The authors of that study, a group from the Russian government Working Centre on Economic Reform, conducted two rounds of interviews in 1991 (40 interviews in Moscow, Leningrad and Saratov in summer 1991, 30 interviews in Tatarstan and Bashkortostan in autumn 1991). They also used the results of a late 1991 collaborative survey of 150 directors in Russia, Ukraine and Kazakhstan, for which they developed the questionnaire and located the sample, while some of the interviews were conducted by Yurii Levada's Centre on the Study of Public Opinion. In January 1992 they conducted a survey of 65 directors who gathered for a constituent assembly of the Russian Union of Industrialists and Entrepreneurs, and they completed a series of deep interviews with selected directors in Moscow in March of the same year. See Irina Boeva, Tat'yana Dolgopyatova & Vyacheslav Shironin, *Gosudarstvennye predpriyatiya v 1991–1992 gg: ekonomicheskie problemy i povedenie* (Moscow Institute of Economic Policy, 1992), p. 4. The study will be referred to in this article as the Boeva report.

[2] Here and elsewhere we use the term 'ethic' to designate a particular system of mores shared by members of a certain community. This by no means implies that this 'ethic' is of a higher moral value than any other system of mores.

[3] This section is an abridged version of a longer argument spelled out in detail in Oleg Kharkhordin, 'The Corporate Ethic, the Ethic of *Samostoyatel'nost'* and the Spirit of Capitalism: Reflections on Market-Building in Post-Soviet Russia' (paper presented at the VI SSRC Workshop on Post-Soviet Domestic Politics, Toronto, June 1993).

[4] These include different forms of commercial enterprises, stock and commodity exchanges, private investment funds, private banks and other financial institutions, all of which appeared after 1985.

[5] For similar recent attempts, but from a different analytical perspective, see two interesting publications of the Expert Institute of the Russian Union of Industrialists and Entrepreneurs: Elvira Nabiullina, 'Predpriyatie delaet vybor', 13 (Moscow, February 1993) and Elvira Nabiullina, 'Predpriyatiya v usloviyah reformy: novye modeli povedeniya', 16 (Moscow, April 1993).

[6] See for example Nikita Kirichenko & Andrei Shmarov, 'Zhestkoi finansovoi politike prishel kayuk,' *Kommersant Weekly*, 35, 1993, p. 4.

[7] See for example Jacques Sapir, *Inflation, Stabilisation et Dynamiques Regionales en Russie*, Report submitted to EBRD (Paris, Ecole des Hautes Etudes en Sciences Sociales, 1993).

[8] Pierre Bourdieu, *The Logic of Practice* (Stanford, CA, 1990), pp. 105–106.

[9] Aleksandr Bekker, 'Egor Gaidar: Politicheskogo budushchego poka ne vystraivayu', *Segodnya*, 1 June 1993, p. 9.

[10] Janos Kornai, *The Dilemmas of a Socialist Economy: The Hungarian Experience* (Dublin, 1979); Janos Kornai, *Economics of Shortage* (Amsterdam, 1980).

[11] The questionnaire was composed by Irina Boeva of WCER and Tat'yana Dolgopyatova of IET, whose primary aims were to find out about directors' attitudes toward the state of their industries, the problems they faced and their immediate plans. It was agreed from the outset of Kharkhordin's participation in the project that he would have free access to the St Petersburg materials, and it is possible that the entire sample will be made available to us in the future.

[12] Again, the signifier 'anti-ethical' employed here by no means implies that members of the 'anti-ethical' group are amoral; it is used to describe the fact that certain actors do not share and even oppose the directors' business ethic.

[13] To take an example, the first question was as follows: '1. What goal do you, as director of this enterprise, place before yourself? (Select one or two): l. preserve the collective; 2. provide a normal level of salaries; 3. increase the profitability of the enterprise; 4. have a solid financial situation; 5. increase the volume of production; 6. become a non-state enterprise; 7. other'. This question was transformed into 6 dummy variables of the form: 1.1. Goal is to preserve the collective (yes/no); 1.2. Goal is to provide a normal level of salaries (yes/no)...etc. Some of these dummy variables may be taken as indicators of directors' ethic (items 1 and 2), some of market features (3 and 6) and some of state socialist features (1, 2 and 3).

[14] Owing to the high collinearity of size and size square ($r = 0.910$), we did not expect them to be jointly significant, yet they turned out to be so in our models for directors' ethic. We were attuned to the possibility that this multi-collinearity could generate high standard errors for one or both of the corresponding coefficients. Thus, when size was not significant in the presence of size square, we removed size square to ensure that multi-collinearity was not the source of the non-significance.

[15] It would be possible to present our analysis as a series of structural equations linked by path coefficients, i.e. as a conventional path analysis. However, we have opted not to do so, not only because several of our independent variables are categorical, which would hinder the presentation of results in a lucid fashion. More importantly, owing to our small sample size and the exploratory character of this endeavour, we believe it would be highly premature to specify the exact magnitude of a particular effect.

[16] This result is obtained by taking the first derivative of $y = 0.026(x) - 0.00019$ (x-square), where y = ethic scale and x = number of employees/100, then solving for $y = 0$ and converting x into number of employees.

[17] Karl Polanyi, *The Great Transformation* (New York, 1944).