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Struggling to Survive: A Case Study of Adjustment at a Russian Enterprise

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THE INSTITUTIONAL CHANGES FACING ENTERPRISES over the past decade as Russia has moved toward a market economy have been profound. Profit has replaced plan fulfilment as the key indicator of success. Ultimate responsibility for enterprise success or failure has devolved from the ministries and the plan administrators to the managers. Since the collapse of the Soviet Union in December 1991 the majority of enterprises have been privatised, thereby introducing a new governance structure in which managers formally answer to boards of directors and shareholders rather than to governmental or party structures.¹

How are Russia's manufacturing enterprises adapting to this new post-Soviet environment? Their capacity to adapt and to flourish is critical to the long-term economic well-being of Russia. Unlike many other countries that have made the transition to a market economy, Russia began with a developed industrial base. Although start-up businesses are part of the solution, the real challenge is to reorient pre-existing enterprises to become competitive in a market economy.

Why has the transition been so difficult for Russia? There is, of course, no easy answer to this question. Economists generally agree that market success in Russia requires macroeconomic stability and microeconomic restructuring. Given that inflation has been brought under control and macroeconomic conditions are generally stable, attention has turned to enterprise behaviour in seeking an explanation for poor economic performance.² Many authoritative commentators place primary blame on the managers.³ Some have gone so far as to describe the mentality of Russian managers as 'suicidal'.⁴ They argue that the managerial cadre in power at the time of the transition, who were trained to operate in an administrative-command system, have been unable to recognise the need for fundamental change in behaviour with the introduction of market reforms, and have been more concerned with preserving (and even expanding) their own personal power and wealth than with the survival of enterprises. They contend that too many of these managers have continued to rely on subsidies from the state rather than restructuring their businesses in order to become viable. To be sure, there is some truth to the argument. But the reality is considerably more complicated. The image of enterprise managers with their hands outstretched to the government, while surreptitiously absconding with enterprise assets, is a facile caricature.

This image is based primarily on surveys of industrial enterprises, supplemented by interviews with management.⁵ These surveys have rendered an impressive breadth of

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information about Russian enterprises in transition. Even more important, this work has allowed scholars to isolate conditions that appear to be conducive to restructuring. The emerging common wisdom is that restructuring is more likely to take place in enterprises where outsiders are in control or play a significant role in management decisions, and subsidies from the state have been substantially reduced or eliminated, thereby replacing the patron-client relationship with the government with an arms-length relationship. Over time, these assumptions have taken on a predictive character. The presence or absence of these conditions is not an either/or proposition but rather a more/less proposition. 'More' presence increases the likelihood that the enterprise will restructure. 'Less' presence strongly suggests an inability or unwillingness to restructure.

My research is based on a long-term case study. Case studies complement survey work by providing greater depth of information. The examination of the behaviour and motivations of economic actors at a single enterprise brings out the strengths and weaknesses of the common wisdom.

Case study of the Saratov Aviation Plant

The case study is of the Saratov Aviation Plant (Saratovskii Aviatsionnyi Zavod or SAZ).⁶ SAZ is best known for its production of the Yak-42 civilian airliners, though it also produces other aircraft and a variety of unrelated consumer goods. Over the past five years I have been studying SAZ's efforts to transform itself into a joint-stock company and to become competitive in the global aviation market.

SAZ is a good subject for in-depth study because its experiences represent a rare combination of the unique and the commonplace. For most of its history, SAZ has been a showcase enterprise. It first became well known for producing fighter planes that were critical to the Allied victory in World War II.⁷ For the remainder of the Soviet period it led a charmed existence as part of the military-industrial complex. It retained a leadership role during the initial period of the transition, and has frequently been identified as a 'pioneer of privatisation'.⁸ Its special status and close relationship with the Soviet state and the Communist Party allowed it to privatise in early 1991, well before any legal norms had been established for the privatisation of state enterprises.⁹ SAZ's unusual path to privatisation left it in the extremely unusual position of having all of its stock owned by SAZ workers and managers; the state retained no equity interest. In the years that followed, however, SAZ confronted the same problems as other industrial enterprises in Russia. The domestic market for its goods dried up, forcing SAZ to scramble to develop a capacity to sell abroad, a function from which SAZ management had traditionally been excluded and which had been handled by the ministry.¹⁰ Like most Russian enterprises, SAZ struggled to find its way in the new quasi-market environment. By 1994 sluggish sales and cash flow problems had forced SAZ onto a three-day work week. Even so, the company has often been unable to meet its payroll, and delays of several months have become routine. Ultimately, SAZ had to resort to periodic suspensions of production activities in order simply to survive.

According to the common wisdom that has emerged from the survey data, the conditions that are conducive to restructuring are generally absent at SAZ. Both the

management and ownership structure of SAZ have been continually dominated (and initially monopolised) by insiders. The refusal to abandon the corporate form of closed joint-stock company (*zakrytoe aktsionernoe obshchestvo*) clearly illustrates SAZ's commitment to insider control.¹¹ The general director remains the same and, more generally, managerial turnover has been minimal.¹² Although the state holds no stock in SAZ, the tradition of close cooperation with the government persists to a considerable extent. Thus, according to the causal factors identified, we should expect to find that SAZ has made no serious efforts to restructure. Indeed, SAZ is a textbook example of the sort of enterprise that many commentators argue is incapable of adapting to the new market conditions.¹³

At first glance, SAZ seems to confirm the predictions, i.e., it appears not to have restructured. Both ownership and management of SAZ continue to be dominated by insiders. The production profile remains unchanged; the key output is still the Yak-42 civilian airliner. SAZ's dependence on the state has persisted, albeit in different forms. Through the case study approach, however, a more complicated picture is revealed. When the three elements of restructuring are examined in more depth, SAZ's efforts to transform itself from a traditional state enterprise into a firm capable of competing in the global marketplace become apparent.

Ownership and governance structure

The process by which SAZ privatised, in which the Soviet government sold the assets to the workers, gave rise to 100% employee ownership.¹⁴ Since then, SAZ has had numerous opportunities to open up to outside owners, and has gone out of its way to avoid doing so. For example, when SAZ became a joint-stock company in 1993, the choice was made to limit stock ownership to employees.¹⁵ In order to encourage votes in favour of the closed form among workers (who had to approve the change in corporate form), SAZ management stressed that money in Russia was concentrated in 'criminal structures', thereby whipping up fear of mafia infiltration. The prospect of legitimate outside investors that might bring much-needed capital was not raised. The monopoly of employees on stock ownership was broken in 1994, but only slightly and only for long-term SAZ business partners hand-picked by the general director, and subsequently affirmed by a majority of shareholders.¹⁶ Another fork in the road came with the passage of a new joint-stock company law in late 1995 which required re-registration during the first half of 1996. The law reflected the strong governmental preference for limiting the closed joint-stock company form to firms with a small number of shareholders (less than 50). The law contains an exception that allows pre-existing closed joint-stock companies to retain this form. SAZ took advantage of this grandfather clause, thereby going against prevailing government policy.

Although insiders consistently dominated the ownership of SAZ, no single individual or group held a controlling interest. Instead, ownership was widely dispersed among SAZ employees. This was by design. Prior to 1996, the charter (*ustav*) imposed upper limits on the amount of stock that could be owned by any individual. Stock ownership by the board members was also restricted.¹⁷ The purpose of including such a provision was to signal to employees that privatisation represented a decisive change, i.e., that management was not exchanging its de facto control

during the Soviet era for legal ownership in the post-privatisation era. At the time of the annual shareholders' meeting in 1995, the nine members of the board of directors owned only 0.684% of SAZ's outstanding stock.¹⁸

The levels of insider ownership and insider representation on the board of directors have become routine questions when analysing Russian enterprise behaviour because it is assumed that domination by insiders tends to preserve the pre-privatisation status quo within the enterprise, and thereby discourage restructuring.¹⁹ Outsiders represent fresh blood, in that they are not beholden to the existing managerial structure, and are perhaps better able to view the enterprise's situation objectively.²⁰

Insiders have monopolised the equity ownership of SAZ. Similarly, until 1995 the board of directors was composed solely of top-level SAZ managers.²¹ At that time, three Moscow businessmen were elected to the board for two-year terms. As non-SAZ employees, these men were outsiders, but upon closer examination their status is less obvious. All three were proposed as candidates at the insistence of the general director. Three SAZ managers were 'persuaded' to give up their seats on the board so that these outsiders could run without opposition. All three were intimately familiar with SAZ. Two were affiliated with the Yakovlev Design Bureau (as general director and chief designer), which has traditionally been the primary source of R&D for SAZ, and the third was the president of a marketing firm with which SAZ had been working for some time.²² Thus, while these businessmen were technically outsiders, their long-time connection with SAZ and with its general director made it unlikely that they would raise any serious challenge to his policies. Yet in contrast to the directors of SAZ who, as managers, are subordinate to the general director, these outsiders did not owe their jobs or their reputations solely to the general director of SAZ. They also brought their collective experience in the aviation industry to the table. This distinction between the roles of inside directors as active managers and outside directors as ratifying or vetoing strategic choices is familiar throughout the advanced industrialised world.²³ The 1997 elections brought a return to the monopolisation of the board by SAZ management.²⁴ The failure of the experiment was due in large measure to the refusal of the outside directors to come to Saratov for board meetings or to provide the anticipated help in securing new business. The feud between SAZ and the Yakovlev Design Bureau, which is described below, also played a role.

More interesting than the composition of the board is the question of how SAZ is managed, i.e. whether becoming a joint-stock company and the attendant structural changes have made any noticeable difference. Like most Russian enterprises, SAZ has a tradition of one-man management (*edinonachalie*). The current general director of SAZ was first appointed by the ministry in 1988 when he was only 40. He was subsequently elected by the workers and has consistently been elected to the board of directors.²⁵ He has been singled out for praise by Westerners for his foresight and intuitive understanding of the market.²⁶ But he is seen quite differently by SAZ workers and other residents of Saratov. On his home turf he is considered a prototypical 'red' director.²⁷ No one disputes his tremendous personal charisma. During the Soviet period orders from the general director were obeyed without question, though it was understood that the general director's freedom of action was constrained by his need to fulfil the plan and otherwise satisfy ministerial and party

bureaucrats.²⁸ With privatisation, however, these bureaucratic masters disappeared for the most part. According to the new structure, the general director was now accountable to the board of directors and, ultimately, to the shareholders. But what did this mean in practice?

The general director himself recognised the problem. In an April 1991 interview he commented:

Do you think it is possible to fall asleep as the director of a state enterprise and wake up as the director of a [privatised] collective enterprise? This sort of metamorphosis is possible only on paper. In real life, everything is more complicated ... Most difficult is to change people's psychology.²⁹

During the period immediately following privatisation there is little evidence that the presence of the board and/or the shareholders acted as a constraint on the general director. During 1992 and 1993 both his private remarks and his public behaviour indicated that he felt himself to be beyond reproach. He assumed and enjoyed the almost complete trust of the worker-shareholders. As a result, the fear of shareholders' rejection of his policies, which could have acted as a constraint, was completely absent. When discussing proposals for large-scale joint ventures, which by law required shareholder approval, he was dismissive of this requirement because he felt confident that anything he proposed would automatically be approved by the worker-shareholders. He was right. Workers might have occasionally grumbled privately about his decisions, but they almost never voiced these complaints in public, nor did they vote against him or his policies. For example, in 1993 many workers were concerned about his decision to hold firm on the price of Yak-42s in negotiations with China, fearing that this might cause the entire transaction to collapse. In private conversations, middle-level managers complained about the general director's penchant for travelling abroad, noting that no sales had yet to result from these trips. But no one grilled the general director on this (or any other topic) at the annual shareholders' meeting or at any other public venue. In fact, the general director was the biggest vote-getter among the candidates for the board of directors, which he took as a strong personal endorsement.

The reticence of the SAZ shareholders had several sources. Perhaps the least important was a fear of being dismissed, which might seem the most likely. In the initial post-privatisation period SAZ management had not yet begun downsizing, and was still insistent that it would not be necessary.³⁰ When questioned, workers and middle-level managers did not identify fear of retribution as a reason why they did not speak out. Instead, their motivation was more amorphous. They were surprised by my question, as if challenging the general director was simply beyond the pale. Their responses were typically some variation on 'that is not how we do things here'. To some extent, their behaviour is evidence of respect for the office built up over the decades of Soviet-style *edinonachalie*. Their instinct was to obey orders, not to question their legitimacy. The striking public speaking skills of this particular general director were also relevant, as was the absence of alternative candidates for the top position.

The situation has not remained stagnant. With the introduction of reduced work-weeks, lay-offs and wage delays due to the absence of orders for planes, workers and

middle-level managers became more strident in their complaints and more willing to assign blame publicly to the general director. The change has come gradually. In the summer of 1994 SAZ workers threatened a sit-down strike over delays in wage payments. Management was able to forestall a crisis with promises to pay all back wages and with claims that orders for Yak-42s would soon materialise. A year later such promises fell on deaf ears. In September 1995 the SAZ workers staged a 'meeting' to protest against late wage payment. This amounted to a one-day strike. By shutting down a key bridge they were able to paralyse all activity in the Zavodskoi region of Saratov, where SAZ is located.³¹ Promises from SAZ management were not sufficient to quell the discontent. The *oblast'* governor had to step in and guarantee the payment of back wages.³²

The non-payment of wages was, of course, the catalyst for these public events. But the dissatisfaction of the worker-shareholders went far deeper. They held the general director personally responsible for the lack of orders for planes, and belittled his strategy of seeking foreign markets (in view of the inability of Russian airlines to pay for planes) as simply an excuse for foreign travel. It became increasingly difficult for the general director to justify his behaviour. His rosy scenarios for the future of SAZ in which they would return to full production were dismissed as fairy tales (*skazki*). The worker-shareholders grew immune to his rhetorical tricks, and privately referred to him as a 'snake charmer' (*zaklinatel' zmei*). By the spring of 1996 relations had deteriorated to such a point that a petition to recall the general director (and the other board members) was being circulated at SAZ. A public meeting was held at which the general director was held up to ridicule and was embarrassed through a series of personal questions.³³ Only the disorganisation of the shareholders and the absence of an obvious replacement saved his job. For someone accustomed to public adulation, the meeting was deeply humiliating and illustrated the extent to which the tables had been turned.

As a result of these criticisms, the general director began to modify his behaviour in two somewhat conflicting ways. He cut back on his foreign travel, and declined invitations that were not completely work-related.³⁴ In private conversations he candidly admitted that he did so in order to placate the workers. He also began to spend less time in Saratov, preferring to work out of the Moscow office of SAZ. Indeed, in 1996, for the first time since SAZ was privatised, the general director did not attend the annual shareholders' meeting, choosing instead to travel to China as part of an official presidential delegation. His behaviour could be part of a strategy to increase SAZ's business, since potential customers are unlikely to be found in Saratov. It could also be a way of physically distancing himself from his critics. Either way, there can be no doubt that the relationship between the general director and the worker-shareholders has undergone a fundamental change in the years following privatisation. Given that almost all SAZ shareholders are also workers,³⁵ it is sometimes difficult to determine in what capacity they are acting or to which set of concerns the general director is responding.

A third modification, forced on the general director from the outside, was aimed at restricting his authority. Since privatisation he had consistently served as both general director and chairman of the board of directors. The new joint-stock company law forbids the holding of these two positions simultaneously by the same person.³⁶ The

SAZ charter has been changed and, following the shareholders' approval of the new charter in April 1996, the general director stepped down as chairman of the board. SAZ's executive director, who has long run the plant on a day-to-day basis, became chairman. Interestingly, this formalistic change in titles has produced few changes in the balance of power. Despite this apparent demotion, the general director completely dominated the 1997 annual shareholders' meeting, delivering a long speech and responding to questions.

Although the preconditions of outsider influence were absent at SAZ, critical changes in internal governance nonetheless took place during the five-year period of the study. To be sure, change did not come quickly. Nor did it come in response to pressure from outside owners. Instead, crises induced by the transition to the market have caused worker-shareholders to modify their behaviour *vis-à-vis* the general director, namely to criticise publicly his management of the enterprise.

Relationship with the government

An enterprise like SAZ cannot easily be disentangled from the government or 'depoliticised'.³⁷ As a prominent enterprise within the military-industrial complex, SAZ enjoyed close ties with the Soviet government. Indeed, these connections were exploited to convince the then Prime Minister, N. I. Ryzhkov, to liberate SAZ from state control by selling the assets to SAZ workers.

Like other large enterprises, SAZ fulfilled many state functions during the Soviet period, and changes have come slowly. SAZ was responsible for housing and other social services. It did not transfer these assets and the related responsibilities to the municipal government (although the idea was much discussed) because it did not believe that the municipality had the resources necessary to maintain the assets.³⁸ There are many other examples of putative state functions that SAZ continues to perform. For instance, it is still responsible for organising polling stations in the area adjacent to the plant. This is a carryover from the days when the Communist Party committee within the plant would exercise this function. The *partkom* is defunct, and SAZ now has to pay its workers to prepare the 12 polling stations and to organise the voting on election days. Between December 1995 and 1996, for example, Saratov had elections for the State Duma, the *oblast'* дума, the Russian presidency (including a run-off), *oblast'* governor and Saratov mayor. For this work SAZ receives no reimbursement from the state, either directly or indirectly in the form of tax breaks. When questioned as to why they continue to fulfil these state functions, without exception managers say that SAZ has no choice; they fear the state's retaliatory capacity. When questioned about the specifics of what the state might do, the list always begins with the undermining of supplier relations. Thus, SAZ is concerned about state interference in market-based relationships, and not primarily with maintaining subsidies. The theme of such conversations is that the influence of the state is woven into every aspect of SAZ's business in ways that are never acknowledged or articulated.

SAZ has tried very hard to liberate itself from the bear hug of the state. In the years immediately following privatisation the rhetoric of the general director and his deputies stressed the importance of not depending on the state. SAZ began the

conversion process in 1988, and so was prepared for the sharp decline in state orders that came in the late 1980s and early 1990s. Both privately and publicly, SAZ management stressed the need to look outside Russia for new markets. In March 1993 the SAZ board of directors identified the opening of foreign markets as its top priority. Relying on Russian airlines for sales was deemed too risky. The future of Aeroflot was in question, and no Russian entity seemed to have the resources necessary to buy a plane.³⁹ Within the former Soviet Union, SAZ primarily sold planes through barter. Most of these planes went to SAZ's suppliers and, in return, SAZ's debts were forgiven and the relationships were saved.⁴⁰ Except for sales to Chinese airlines in 1991–93, SAZ was largely stymied in its efforts to penetrate foreign markets during this period.

To be successful, depoliticisation must be a two-way process. In addition to the enterprise relying for survival on the market rather than on the state, the state must also cease interfering in the business of the enterprise. One way of forcing enterprises to become self-reliant is to stop the flow of subsidies, i.e. to cease bailing them out when debts exceed revenue.⁴¹ As a general matter, determining whether an enterprise receives state subsidies is not easy. Subsidies have become increasingly opaque. They have taken on new forms, such as below-market interest loans funnelled through commercial banks, that are not always immediately visible.⁴²

SAZ is no exception. Direct subsidies have clearly diminished. Between 1988 and 1993 state orders decreased from 55% of production capacity to less than 5%. Support from the state for reconstruction and renovation projects has also dried up. For example, a plan to automate a portion of the production line, begun in the late 1980s with great enthusiasm in collaboration with the Ministry of Science, now stands abandoned owing to lack of capital. SAZ continues to receive some R&D support from the state for its work on the vertical take-off plane, but even this is a fraction of what it would have been in the Soviet era.⁴³ In response to the questions about direct and indirect state subsidies that I have been asking since 1993, the general director and his deputies consistently deny that SAZ receives subsidies. Their denials are vociferous, and laced with pride at their ability to survive independent of the state. Although I have uncovered several instances where SAZ received loans at below-market rates between 1993 and 1996, these loans were informally collateralised by the debts owed to SAZ by the Russian government, which it refused to pay. The very fact that the top managers viewed getting help from the state in negative terms, rather than as an entitlement, indicates an important shift in thinking.

The attitude of the general director toward state support began to change in the summer of 1996. Through his travels abroad, he came to understand that his foreign competitors, such as Boeing and Airbus, benefitted from various types of governmental support.⁴⁴ He began to question why the Russian government had done so little to help its domestic aviation industry, and had opened the Russian market to foreign competitors. Indeed, in 1994, SAZ's efforts to finalise a sales contract with a Chinese customer were undermined when the Russian government procrastinated on signing an intergovernmental trade agreement with China. Over time, the level of frustration increased. Two events catalysed the general director into action. First, the Russian government indicated that it was considering providing assistance to the Dutch aircraft builder Fokker in connection with the effort by a Russian consortium

(including the Yakovlev Design Bureau) to acquire Fokker.⁴⁵ At a Moscow press conference in August 1996 the general director said: 'I wish well to my competitor, Fokker ... The puzzling thing is why we cannot find money for Russia, but we seem to have the money to send there'. He noted that the amount of money in question, \$216 million in Western bank credits to be backed by the Russian government, would be sufficient to resolve the financial problems of at least three Russian aviation plants, including SAZ.⁴⁶

The second event that crystallised his thinking was Aeroflot's September 1996 decision to purchase planes from Boeing.⁴⁷ Although Aeroflot had been flying Boeing planes for several years, the SAZ managers consoled themselves with the knowledge that these planes were only leased. They assumed that when Aeroflot began to buy planes again, it would look within its own borders. Beginning in the autumn of 1996, the SAZ general director spoke out publicly and challenged the Russian government to support the domestic aviation industry more actively.⁴⁸ The Aeroflot decision served as something of a wake-up call for the Russian aviation industry more generally, and provoked an increase in lobbying and other activities.⁴⁹ Aeroflot attempted to placate the Russian manufacturers by agreeing to purchase 20 Il-96 planes produced in Voronezh.⁵⁰ This decision, however, did little to console the makers of the Yak-42 in Saratov.

Subsidies are, however, only one of the mechanisms used by the state to exert influence over the activities of enterprises. Fear can also be a powerful motivating force. By 1996 state orders constituted only a small percentage of the production capacity of SAZ, but they represented a source of income in a world in which orders were increasingly difficult to obtain. The concern over losing these orders to other plants led to a willingness to go along with whatever the Defence Ministry suggested. At the 1997 shareholders' meeting an amendment to the charter was approved that limited the rights of future foreign joint-venture partners to have access to any information about SAZ deemed a state secret. When pressed to explain why he had supported this change, the general director conceded that he had had no choice, claiming that it had been 'demanded from above'. He believed that, had he refused to make the change, he risked losing the defence orders.

Even after privatisation the state continued to influence and sometimes dictate the identity of buyers. Up to the end of 1994 the ministry carried on the role it had played during the Soviet period of identifying buyers. As in the past, SAZ was obligated to negotiate with these buyers, which consumed the time and energy of top management. Although the ministry could no longer prescribe the terms of the sale, its recommendations still had to be taken quite seriously. In an interview published in the factory newspaper in early 1994 the general director pointed out that, during 1993, 'the state [acting through the ministry] placed orders for 11 planes, signed contracts for 4 planes, and paid only for 40% of these.... We have had to reorient the rest of the planes to the Chinese and Middle Eastern markets'. The inability of the buyer to pay would often become apparent only after the plane had been fitted to his specifications. In the past, SAZ had been little troubled by such problems because the ministry would simply provide the necessary subsidies to the buyer.⁵¹ With the hardening of budget constraints, such payments were no longer possible. Through no fault of its own, SAZ remained locked into the old pattern of doing business. It could not refuse the

'suggestions' of the ministry, given that the ministry still controlled the certification process for the aviation industry. SAZ was eventually able to free itself from this arrangement, but not before incurring substantial losses.

In order to generate capital, SAZ sold military goods abroad in late 1993. The goods were sold through the Russian state licensee for such activities, Rosvooruzhenie, for approximately \$26 million. SAZ has had great difficulty in recovering these funds. Different explanations of the reasons for the failure of Rosvooruzhenie to pay have been advanced. Initially, the general director said that Rosvooruzhenie had reorganised itself into a new legal entity (which was quite common in 1993–94) and that its management denied liability for debts of the predecessor entity. Legally, such a claim was nonsensical, but SAZ's general director did not regard appealing to the *arbitrazh* court as feasible.⁵² He was convinced that the problem could only be resolved through personal diplomacy. By calling on the ties that remained between SAZ officials and the Russian government, the general director succeeded in having the debt acknowledged by Rosvooruzhenie. But SAZ remained unpaid because the debt had not been acknowledged by the Ministry of Finance and made part of the state budget. Once again, the general director and his deputies called on the traditional political patrons of SAZ in Moscow for help in getting this debt paid.⁵³ The money came, but too slowly and irregularly to allow SAZ to satisfy its payroll and other financial obligations. By the autumn of 1995 (almost two years after the sale) SAZ was still owed \$21 million. In the spring of 1997 a \$5 million debt remained outstanding.

By September 1995 the situation at the plant had reached a crisis point. The general director took advantage of the workers' rage (reflected in the one-day strike discussed above) to mobilise them for a protest march and demonstration. The organisation of the protest bore an eerie similarity to the staged mass events of the communist era. Management worked closely with trade union officials.⁵⁴ SAZ's poster shop prepared placards criticising the Russian government for not paying its debts to SAZ and blaming the government for the hardships being experienced by workers whose wages had been long delayed.⁵⁵ The placards did not, however, demand subsidies. The workers, led by the general director, the chairman of the trade union committee, and the local deputy to the State Duma,⁵⁶ marched from the plant to the central square in Saratov, which faces the headquarters of the *oblast'* government. They were accompanied by vans equipped with loudspeakers which informed bystanders about the many contributions SAZ had made to the country. In order to boost the number of participants, managers were ordered to march as well. After the speeches were over, buses from the plant took the workers back to the plant, just as they used to do for May Day or Revolution Day celebrations. Given the realities of post-Soviet Russia, SAZ had little choice but to behave in a politicised manner in order to secure payment of a legitimate debt.

In the wake of the strike and the protest march, a meeting was held at the Palace of Culture (*Dvoret's kul'tury*) of SAZ, at which the governor of Saratov *oblast'* attempted to address the concerns of SAZ workers and management. The atmosphere was openly hostile. The governor had little choice but to promise that workers would receive payment of back wages, and to promise his assistance in recovering the amounts owed to SAZ. According to SAZ managers, the money to pay wages came

not in the form of a direct subsidy from the *oblast'* government but from loans made by local commercial banks to SAZ at below-market rates at the request of the governor. According to SAZ management, these loans would be repaid when SAZ recovered the amounts owed to it. This circularity of debt is, of course, a familiar story in post-Soviet Russia.

The loans were a stop-gap measure. Although SAZ did sell several planes in the first half of 1996, the sales were to Gazprom, which paid not in cash but in its own accounts receivable. With some considerable effort, SAZ was able to trade these notes for items of value, but very little cash came out of these transactions. As a result, the first half of 1996 was marked by delays in wage payments and general worker-shareholder unrest. By May a petition was being circulated seeking the recall of the general director and the board of directors. A group of shareholders then wrote a letter to the *oblast'* governor asking for his help in resolving the problems at SAZ. The governor responded by ostensibly dismissing the general director.⁵⁷ An announcement was broadcast on an *oblast'*-wide radio station that the general director of SAZ had been removed (*snymal*). At that time, the general director was in Cuba on a business trip, and was completely out-of-touch with Saratov owing to the inadequacies of the Cuban telephone system. Upon his return, he refused to accept this dismissal and, in fact, the dismissal remained an empty threat. Legally, the governor's action was totally baseless. SAZ was, of course, a completely private entity, and no Russian law gave the governor the authority to dismiss its general director. But the very fact that the *oblast'* governor believed he had the power and authority to dismiss the general director of a completely privatised plant is compelling evidence that the legacy of the Soviet administrative-command system remains powerful.⁵⁸ In a remark published in the local paper, the governor suggested that SAZ could survive only by being re-nationalised.⁵⁹ The governor chaired a public meeting at which the SAZ worker-shareholders heaped abuse on the general director.⁶⁰ Although he hung onto his job, the general director did modify his behaviour *vis-à-vis* the governor. The level of deference increased markedly. The general director resumed the practice of notifying the governor in person of any international travel, which he had ceased doing when SAZ was privatised. In the SAZ newspaper in January 1997 he commented on the 'positive changes' that had come with the new governor, and noted that 'for the first time in many years, the *oblast'* government is paying attention to our plant, and we are receiving help'.

The relationship between SAZ and the government has zigzagged since its privatisation in 1991. SAZ has made a good-faith effort to survive on its own, but has had to deal with interference from the *oblast'* government, culminating in a Soviet-style attempt to dismiss the general director. The relationship with Moscow has also had its ups and downs. SAZ has been unable to recover legitimate debts owed to it by the Russian government. If SAZ's efforts to sell its planes abroad had met with more success, these unpaid debts would undoubtedly recede in importance. SAZ management must answer for these failures, but cannot be held responsible for the recession in the aviation market.⁶¹ On a superficial level, the general director's public calls for increased state support for the aviation industry may seem to indicate a low level of depoliticisation, but the reality is considerably more complicated.

Rethinking the production profile

At the most basic level, the production profile of SAZ has not changed since privatisation. At that time the Yak-42 civilian airliner was considered to be the key output, and it remains so. More importantly, SAZ management continues to be firmly committed to being part of the aviation industry. Within these parameters, however, SAZ has experienced considerable changes in how it goes about producing, the precise nature of the product mix, and to whom it markets and sells its output.

The critical point to be made is that SAZ management has not sat back and waited for opportunity to find it, nor has it relied blindly on state subsidies. Instead, it has been searching for its place in the global aviation marketplace. Part of this effort has been devoted to marketing the Yak-42 to potential new customers both abroad and within Russia. But SAZ management also sought to establish relationships with foreign and domestic partners that would yield new production opportunities. Closer to home, the shape of SAZ has been altered dramatically. In particular, the social assets have been spun off to a subsidiary (Zhil'e SAZ), and the labour force has been reduced and reallocated.

SAZ's external relations. In terms of its external relations, the years since privatisation can be broken down into three relatively distinct periods, during which SAZ management pursued different strategies. The first few years (1991–92) can best be regarded as an exploratory period. As a result of its privatisation and the opening of the Russian economy, SAZ was finally free to set its own agenda and management seemed to revel in this new-found independence. Management aggressively pursued opportunities to sell Yak-42s to China, and succeeded in selling six planes in 1991. They continued to pursue the course of defence conversion set in the late 1980s, and to work on new product development. One project flight-tested during this period was the Yak-54, a new sport or training plane that would seat two people. SAZ management also began to work with the Centre for Defence Conversion at the Institute of USA and Canada (ISKAN) on questions of internal management and potential joint venture partners.⁶² ISKAN arranged the first trip to the US for SAZ's general director, during which he visited Boeing and other American aviation plants.⁶³ Other foreign trips followed. SAZ experimented with leasing Yak-42s to airlines in geographical regions where its planes were unknown, such as East Asia and Latin America.⁶⁴ During this immediate post-privatisation period SAZ exhibited great confidence in its ability to succeed on its own.

As the initial success in China turned out to be a flash in the pan, SAZ management grew discouraged about its ability to survive on its own in what it quickly discovered was an incredibly competitive global aviation market in regional (short-haul) civilian airliners.⁶⁵ By 1993 the excitement of independence was giving way to nervousness about the ability to survive over the long run. In response, SAZ management sought strategic allies. Over the next two years, SAZ worked in tandem with the Yakovlev Design Bureau (Opytno-konstruktorskoe byuro imeni A. S. Yakovleva). The relationship was, of course, pre-existing but grew deeper and more comprehensive. The institutional closeness of SAZ and the Design Bureau was paralleled by a personal bond between the general director of SAZ and the chief designer (*general'nyi*

konstruktor) of the Design Bureau, who were of approximately the same age and background.

Together, they created the Yak Corporation (*Korporatsiya Yak*), which served as a vehicle for joint ventures and other investments.⁶⁶ Both SAZ and the Design Bureau retained their independent status; they simply contributed assets to the Yak Corporation to support various projects on a case-by-case basis.⁶⁷ A number of transactions were contemplated. In late 1993, for example, two Fortune 500 companies proposed a joint venture with the Yak Corporation. Negotiations foundered and then collapsed over a number of issues, including valuation of Yak-42s. In 1994 a joint venture was signed with IAI, an Israeli company, for the joint design and production of a new 19-seat executive jet, the Galaxy.⁶⁸ In anticipation of promised investment, SAZ spent its own resources to retrain its workers and retool the production line. The Galaxy bore some resemblance to the Yak-40, which SAZ produced during the 1970s, and would have been a good complement to the Yak-42.⁶⁹ Before serial production could begin, however, the joint venture fell apart.⁷⁰ SAZ officials placed blame on the Design Bureau for failing to complete its work in a timely fashion. Not surprisingly, the Design Bureau found fault with SAZ, claiming that IAI renegeed because SAZ had not met the production schedules.

The finger-pointing that accompanied the collapse of the joint venture undermined the relationship between SAZ and the Design Bureau. Perhaps the breach was inevitable, given that it was a partnership where the parties were less than entirely equal. The Design Bureau's economic resources and political connections dwarfed those of SAZ.⁷¹ Even more potentially incendiary was the power of the Design Bureau to award to, or withhold from, SAZ the production work that is its lifeblood. To some extent, therefore, the relationship was one of patron and client. The unravelling of the joint venture revealed that the Design Bureau had protected only its own financial interests in the joint venture agreement. In the words of the SAZ general director, 'as a result of a vulgar approach to the commercial aspects of the contract, the idea [of the joint venture] was ruined'.⁷² SAZ management had assumed that the Design Bureau would look out for both of them in structuring the joint venture. It turned out that SAZ was not even a party to the agreement. Just as SAZ management was struggling to absorb that information, it learned that the Design Bureau had awarded the lucrative contract to build Yak-130 fighter jets to another aviation plant.⁷³ The effect of what was perceived by SAZ as a double-barrelled betrayal by the Design Bureau was to destroy the personal relationship between the two principals. As an entity, the Yak Corporation lived on, but SAZ ceased to be an active participant.

Despite his anger over the Israeli joint venture, the general director of SAZ had not criticised the Design Bureau publicly because he did not want to risk destroying the institutional connection completely, thereby leaving SAZ out in the cold.⁷⁴ He confirmed these fears in a private conversation in July 1997. Less than a month later, the SAZ general director held a highly-publicised press conference in Moscow at which he went on the record opposing the plans of the Yak Corporation, spearheaded by its chief designer, to acquire Fokker. He made it clear that he had not been consulted. In response to a question about the likelihood that such an acquisition would take place, he responded:

I proceed only from media reports. I have no access to official documents. I know just as much as you do reading the papers. But being the head of an enterprise, the Saratov Aviation Plant, as someone who is fighting for the market, for investment and for partners, I cannot stand idly by. I have to react to what is published ...⁷⁵

He was given several opportunities to criticise the Design Bureau and specific individuals, but he pointedly refrained, noting that such comments were likely to be of little interest to journalists. But at the press conference and in subsequent printed interviews he left little doubt as to his feelings.⁷⁶

As the Design Bureau has receded in importance, SAZ has pursued a new strategy that mixes a strong sense of individualism with reliance on domestic partners, a continued exploration of foreign markets for SAZ output, and calls for the Russian government to demonstrate its commitment to the domestic aviation industry. The difficulties experienced by SAZ and other Russian aviation firms have contributed to a strong push by industry leaders for the creation of an industry-wide financial-industrial group (FIG).⁷⁷ SAZ management has participated in such discussions. Several proposals have been put forward, and such FIGs are beginning to take shape, but SAZ has yet to commit itself formally to membership in any group.⁷⁸ At the same time, SAZ's first priority continues to be obtaining orders for its planes. Among the countries visited by the general director during 1996 in search of orders for Yak-42s were China, Taiwan, Cuba and Iran.⁷⁹ Domestically, multiple Yak-42s were sold to Gazprom during 1996 and more have been ordered for 1997. These planes were fitted for executive use, a marketing strategy initiated a year earlier.⁸⁰ SAZ won the first foreign sales (to the United States) of its new two-person acrobatic training plane, the Yak-54.⁸¹ During this period, the general director also renewed SAZ's commitment to the development of the vertical take-off plane, known as the EKIP.⁸² During 1994 he travelled to the United States and elsewhere to talk with possible investors, but then put the project aside in favour of working with the Design Bureau (which is not involved in the EKIP). Beginning in mid-1995 his enthusiasm for the project returned.⁸³

Only time will tell whether this most recent strategy will succeed. For purposes of the analysis of restructuring, the pattern is more important. In contrast to the predicted behaviour of an insider-dominated firm with close ties to the government, SAZ has consistently demonstrated initiative in seeking out new partners and alliances. Moreover, it has demonstrated a willingness to reconsider and shift strategies when necessary. These are not the hallmarks of a firm that is waiting for handouts from the state, but of a firm trying to adjust to the new market environment.

SAZ's internal relations. Turning the focus to the internal development of SAZ, the pattern of pushing forward gradually is again apparent. Looking first at the critical question of manpower, SAZ has put aside the attitudes of state socialism. The shift in thinking did not come automatically with privatisation. Indeed, in an interview published in the factory newspaper a year after SAZ was privatised, the general director's rhetoric had changed little. He promised that 'despite the profound structural changes at our enterprise, none of our workers or engineers will end up on the other side of the factory gates'. He regretfully admitted that 'some departments

(*otdely*) may have to be eliminated', but contended that no one 'would be tossed aside arbitrarily', and that anyone affected would be given a 'choice of whether to remain with the collective or to search for happiness elsewhere'. By 1994, however, SAZ management was forced to face the inevitability of lay-offs. By the end of 1996 the work force had been reduced by one-third from its pre-privatisation level. Although some lay-offs did take place, most left voluntarily in search of higher wages. In all likelihood, these official figures understate the actual reductions. Many workers who remain on the books formally but who have mostly been laid off since mid-1994 assume that they will never be recalled. Indeed, the efforts of the general director to convince them of the rosy future just ahead for SAZ have become a subject for ridicule.⁸⁴

SAZ management has taken advantage of the work slowdown to reconsider the labour distribution throughout the plant. New plans have been developed for how to use the remaining workers more efficiently. Some production shops (*tsekhi*) have been merged in order to eliminate duplication of effort. The automation of certain production functions and the computerisation of many accounting and inventory functions has made certain jobs redundant, and these have been eliminated. SAZ's plans to further increase the level of automation have had to be put on hold owing to the lack of capital.

The structure of management has also been the subject of keen debate. Managers studied organisational charts from Western companies, picked out what was relevant, and adapted it to their circumstances. The resulting changes represented a compromise that did not go as far as some demanded but seemed to go too far for others. The explicit goal was to shift both the institutional structure and the underlying attitudes from those of a Soviet-era state enterprise to those of a market-based firm. SAZ recognises this to be an ongoing process.

SAZ has struggled with the question of what to do about its social assets. At the time of privatisation, SAZ (like other Soviet-era enterprises) presided over a virtual empire of housing, child-care, recreational and medical facilities.⁸⁵ As a result of privatising before clear norms had been established, SAZ retained more control over these assets than many other enterprises. Initially, SAZ managers strongly resisted the suggestion that these assets ought to be somehow detached from production assets. They saw them as a source of pride for SAZ workers, rather than as a drain on profitability. At the same time, no one at SAZ—not even the deputy director who was responsible for these social assets—knew the percentage of SAZ's revenue that went to maintain this empire. When pressed, managers gave estimates that typically ranged around 40%. But such issues did not concern them in the early days of privatisation.

The defensiveness receded gradually. Over time, SAZ managers and shareholders began to understand that potential investors might look askance at the extent to which these non-productive assets had been integrated into the financial obligations of the plant, and would be concerned that their production-related investment might be diverted to them. The realisation came more quickly to management. Worker-shareholders found it hard to let go of the benefits of the old system. Often shareholders' meetings degenerated into question-and-answer sessions related to housing problems. An appreciation of the deeply ingrained character of workers' expectations led SAZ management to cling to the housing stock. The general director and his deputies

frequently remark that even if the housing were transferred to the municipal authorities, SAZ workers would continue to come to them out of habit when repairs were needed. They have seen little point, therefore, in transferring legal title. Indeed, SAZ management initially resisted privatising the housing stock, and set up an office to assist residents with privatisation only in 1995.⁸⁶ As a rule, when former SAZ flats are privatised, the residents sign a maintenance contract with a subsidiary of SAZ. In the past, repairs were done for a nominal charge; SAZ management is working to raise the charges to market rates but fears that doing so in one fell swoop would be too great a shock for the residents.

As a general matter, SAZ has pursued a mixed strategy of turning over some assets to municipal control while retaining a firm grip on others. The criterion for distinguishing between the two categories was the importance of the assets to the daily lives of workers. To be blunt, the more workers depended on a service and so were likely to complain about its absence, the more tightly SAZ held on. Chief among the retained assets was the housing. The first to lose support from SAZ were the schools and medical clinic. SAZ had never believed itself to be the owner of these facilities, and had previously contributed to them only out of a sense of moral obligation. As resources dwindled, such expenditures could no longer be justified. Responsibility reverted to the municipality, though the school directors and the chief of the clinic continued to pester SAZ for money. SAZ did not divest itself of its sports facilities but, for the most part, they declined owing to lack of maintenance. Child-care facilities were a more sensitive question. The male-dominated top management was slow to appreciate the tremendous importance of child care to workers. Although SAZ closed seven kindergartens in the two years following privatisation, the other 13 remained open and the preferential rates for SAZ workers were kept in place.⁸⁷

During 1993 and 1994 top-level managers explored the idea of separating the social assets from the production assets. At the annual shareholders' meeting in March 1995 a proposal to spin off the social assets into a wholly-owned subsidiary, a joint-stock company known as *Zhil'e SAZ*, was approved. Although legally independent, *Zhil'e SAZ* has little freedom to act on its own. The general director of *Zhil'e SAZ* continued to serve simultaneously as the deputy director of SAZ for social questions. For the first years of its existence (and for the foreseeable future) *Zhil'e SAZ* survived solely on the basis of subsidies from SAZ. Its own revenue from repairs of privatised flats within the SAZ complex and rent paid for retail space were insufficient to compensate for the immense costs of running the social sphere. *Zhil'e SAZ* (like SAZ before it) was not legally entitled to recover the market cost for energy or housing from residents. Thus the operation inevitably runs at a deficit. On the positive side, at least, now that the assets have been spun off, the amount being diverted from capital reconstruction and other production-related expenses to the social sphere can be quantified more accurately.

Looking generally at SAZ's behaviour since privatisation with regard to its own internal structure, it is clear that efforts have been made to adjust to the new realities of the market. Perhaps SAZ management could have made better choices or could have moved more quickly. But the changes required—both in terms of structure and attitudes—were profound and could only be absorbed gradually.

Reconsidering restructuring in the light of the case study

SAZ represents a prototype of the Russian enterprise that prevailing common wisdom predicts would not engage in restructuring. Neither of the conditions identified as conducive to restructuring was present at the time of privatisation, nor did they emerge during the years that followed. Since its privatisation, SAZ has been controlled by insiders and its relations with the state continue to be highly politicised. This leads to a prediction of complacency on the part of SAZ. Superficially, SAZ might seem to bear out the prediction. The basic facts are inescapable. The production profile has remained largely unchanged since privatisation. The board of directors remains dominated by insiders; outsiders have no voice in enterprise management. The government (on both the national and *oblast'* levels) has periodically stepped in to help the plant through financial crises. Yet by examining the activities of the plant in great detail over an extended period it becomes clear that SAZ has made considerable efforts to adapt itself to the market environment and to liberate itself from the routine behavioural patterns of state socialism.

Reconsidering the assumptions

Theories are, of course, not based on single case studies, and the empirical richness of case studies can be expected to draw out nuances that are not apparent at a higher level of abstraction. But when a case so completely confounds the common wisdom, it is important to step back and consider the underlying assumptions.

Role of outsiders. Notwithstanding the absence of outsiders among ownership and management of SAZ, restructuring took place. This suggests that the importance of outsiders may be overstated. Implicit in much of the scholarly writing on enterprise behaviour during the transition in Russia are two interrelated assumptions about how managers think and behave. The first is that carry-over managers were either incapable of understanding the need for profound restructuring as a result of market reforms or incapable of articulating and implementing the necessary changes. The second is that managers from the outside, i.e. those who had spent their work lives at other enterprises, would undoubtedly do a better job.

The SAZ case study suggests that this blanket condemnation of carry-over managers is overstated. In analysing restructuring, it is important to distinguish between not trying and not succeeding. Many commentators paint with a broad brush and assume Russian managers are not interested in the survival of their plants. This was not true at SAZ. SAZ management clearly understood the need for profound change, and even instituted internal reforms in anticipation of the introduction of macro-level market reforms. Given the uncertainties of the late 1980s when SAZ began its programme of defence conversion and opening foreign markets, these actions were quite risky for individual managers and for SAZ as a whole. The risk-taking strategy continued throughout the post-privatisation period. Moreover, the changes they made did not represent minor tinkering but major overhauls. This is particularly evident in their strategy *vis-à-vis* external relations. Some commentators might argue that specific decisions have been less than optimal. SAZ managers

themselves recognise that they have made mistakes. But to be fair, even with the advantage of hindsight, it is difficult to say precisely how SAZ could have guaranteed success.

As to the second assumption, perhaps SAZ would be performing better had it been turned over to outside managers. This is now moot. Outsiders have an apparent advantage in that they begin with a clean slate. Unlike carry-over managers, they are not burdened by loyalties and other types of historical ties within the enterprise. But it often seems that the outsider is presumed to be perfectly trained to operate in the transition economy and impervious to opportunistic impulses. More realistically, lack of detailed knowledge of how the plant operates and unfamiliarity with long-term suppliers can be serious disadvantages. This is particularly true in the transition context, when obtaining purchase orders and/or extensions of debt rest more on informal personal ties than on arms-length negotiations.

Hard budget constraints. In analysing the likelihood of restructuring, there has been a tendency to equate depoliticisation with hard budget constraints. In the words of Blasi *et al.*, 'managers will not change their ways radically if they feel no hard budget constraint: they will have no incentive to restructure if the government has not set a tough limit on the aid it will give'.⁸⁸ The assumption is that eliminating subsidies will provide the incentive necessary to change behaviour. But perhaps too much emphasis is being placed on this external jolt, and too little credit is being given to the capacity of Russian managers to appreciate the need to adjust and act accordingly. After all, restructuring at SAZ—in the form of defence conversion—predated both privatisation and the reduction in state orders. This is not to deny that a link existed between hard budget constraints and restructuring activity at SAZ. Other aspects of restructuring (such as lay-offs and reductions in support of the social sphere) came only after the budget constraints had been somewhat hardened.

Reconceptualising restructuring

Commentators tend to define restructuring in terms of end-results. According to Blasi *et al.*, 'to restructure a company is to introduce all the management skills and investment capital necessary to enable it to design and sell at a profit the products and services that the customers want'.⁸⁹ In other words, restructuring has occurred only if the enterprise becomes capable of competing in the market. This reasoning is somewhat tautologous. More helpful would be a distinction between successful and unsuccessful restructuring. The SAZ case study hints that the same basic behaviour might be observed in both types of restructuring, and that market conditions beyond the control of enterprise management may have a strong impact on the ultimate outcome. This allows a more nuanced approach to Russian enterprise behaviour during the transition.

Corporate governance and managerial style. The SAZ case study suggests that too much emphasis may have been placed on opportunism as the key motivator of Russian managers. To be sure, Russian managers have engaged in unprincipled capital accumulation at the expense of workers and shareholders. But a more balanced

view would recognise that these selfish tendencies are counterbalanced by the strong desire of these managers not to be the captain of a sinking ship. The paternalism that permeated Soviet state enterprises (and continues to be a factor in the post-Soviet era) does not have entirely negative consequences. Similarly, the much-criticised dominance of insiders might have a silver lining. At SAZ, the fact that the general director and his deputies have spent virtually their entire adult life at this plant working their way up the ladder means that SAZ's setbacks are for them not merely business reversals but are deeply personal.⁹⁰ Top management has literally grown up alongside the workers, and is mortified by what has happened. At his August 1996 press conference the general director of SAZ said:

Another point is that I am a citizen of this country and a citizen of Saratov. And I am very concerned about the situation here.... I want [the SAZ workers] to have jobs, to get wages, to be able to cope with their problems and live normally.... Looking straight into my workers' eyes, I would like to explain what is going on.... I have to sort things out, comprehend and make it plain to the shareholders. I am accountable to them, and they keep asking me strictly why certain things happen, and what I did to prevent them. If I fail to do so, then they don't need such a chief.... I am responsible to a lot of people.⁹¹

By focusing so exclusively on the benefits that might have come from bringing in outsiders to manage the plant, the positive energy generated by the presence of insiders with a strong vested interest in the survival of the plant is perhaps not given sufficient credit. On a more practical note, only insiders understand how to manipulate the supply and other networks that have grown up over the years.

The managerial style bred by state socialism was not conducive to making the sort of fundamental changes required for restructuring. General directors were unaccustomed to being questioned. To some extent, such discipline is necessary to a hierarchical organisation such as an enterprise and is routinely present in Western corporations. The principles of Soviet-era one-man management pushed beyond what was needed to bring a sense of order to the enterprise. The give-and-take that would be helpful to generating ideas about how to reform is unlikely to develop. The SAZ case study provides evidence of how difficult it can be to penetrate the authoritative aura that surrounded the general director. But the case study also shows that such penetration can take place if given sufficient time. Moreover, external pressures created by the market may be just as effective as the demands of outside investors or the cessation of subsidies in forcing changes in the behavioural patterns of management. These changes may not come as quickly as if forced by outsiders or by the abrupt hardening of budget constraints. But they may be more effective over the long run because they have been generated by the workers, i.e. from within the enterprise.

Relationship with the government. The SAZ case study shows that hardening the budget constraints is only one piece of a very complicated puzzle. Thanks to the decades of state socialism, the activities of industrial enterprises and government have been woven together in a way that is now difficult to unravel. Removing state support from enterprises without simultaneously liberating them from the unwritten but understood duty to fulfil various state obligations and to kowtow to the state on

production-related decisions leaves them in an unenviable and ultimately untenable position.

The appropriate role for the state *vis-à-vis* industrial enterprises during the transition from state socialism is difficult to identify. Two countervailing forces are at work. On the one hand, for the market to operate the Soviet-era role of the state as micro-manager has to be phased out. On the other hand, the state cannot simply disappear. Although some commentators contend that 'true restructuring will obviate the need for further government assistance', this is unrealistic in any market economy.⁹² At a minimum, the state needs sufficient power and authority to create market institutions that have built-in incentives to encourage use. Ideally, it should play a facilitative role.⁹³

The SAZ case study suggests that, to some extent, just the opposite has been true in Russia. Far from providing an atmosphere that encourages self-reliance, the state (particularly *oblast'* level officials) has continued to meddle in SAZ's internal affairs. In its dealings with SAZ the state itself has demonstrated a lack of respect for market institutions by persistently not honouring outstanding debts. The Russian state has also shown a lack of sensitivity to the facilitative role played by states in most Western countries with respect to their interactions with their domestic aviation industries.⁹⁴ The Russian government complicated an already difficult negotiation for SAZ with the Chinese by dragging its feet on a related trade agreement.

Rethinking the production profile. Generally absent from the literature on restructuring is any serious consideration of factors beyond the control of the enterprise. Perhaps this stems from the presumption of macroeconomic stability. SAZ faced tremendous obstacles as it took on responsibility for marketing and selling its own planes. With the disintegration of Aeroflot, Russian airlines were in chaos and so lacked the resources necessary to buy new planes. The infrastructure needed to support complex transactions i.e. the legal and financial mechanisms typically used to finance the acquisition of planes in the West, was slow to develop in Russia. When SAZ looked outside Russia's borders it found a global depression in the aviation market. Its efforts were also hampered by the fact that its planes were not certified by Western authorities (such as the FAA).

Presumably the adherents of the theory would argue that SAZ should have reoriented its production away from aviation. From a practical point of view, this would not have been out of the question. As an assembly plant, SAZ has machinery that could be adapted to other purposes without tremendous difficulty. But as the tortuous process of adjustment within the US motor and steel industries illustrates, such changes rarely come quickly or painlessly.⁹⁵ Enterprises such as SAZ that have enjoyed industry leadership in the past and take pride in their past economic and patriotic contributions may find it particularly difficult to abandon their traditional mission.

Methodological approaches

Most of the work on enterprise behaviour has employed quantitative methods. Surveys are, of course, a valuable tool, but have certain limitations. The subject-

matter under study is highly sensitive, and it stands to reason that respondents might not be entirely candid. To be sure, the designers of survey instruments take this into account but, despite their best efforts, the desire on the part of Russian managers to present themselves and their enterprises in the most positive light may lead to results that are at odds with the truth. Many research teams have attempted to mitigate this effect by supplementing the surveys with less structured interviews with key managers. Typically, these are one-time encounters or, at best, may extend for several days. The interviewers often find managers evasive.⁹⁶ This tends to confirm the sensitive nature of the information being sought. A basic level of trust is helpful to obtaining such information. Trust is not easily given, and cannot be expected in a one-time conversation with an outsider (who often arrives in the company of government representatives).⁹⁷ At best, this methodology provides a snapshot of enterprise behaviour at a particular point in time.

An alternative methodology is presented by the SAZ case study. When I began to interact with SAZ managers in early 1992 I had the same experience of equivocation. Over time, I established a foundation of trust, which allowed me to ask sensitive questions and get reliable answers. I also developed a network of managers and workers throughout the plant with whom I spoke regularly over the five years of the study. This lessened the danger of the information being skewed by individual personal agendas within SAZ. By sustaining the study over five years, it has been possible to observe the evolution of attitudes and behaviour. The two methodologies—quantitative and qualitative—obviously complement one another.

Theoretical insights

Theories derived from neoclassical economics

The prevailing common wisdom about enterprise restructuring in Russia draws heavily on neoclassical economics. At its heart is a presumption that actors behave rationally and that to that end, they act to maximise their interests. From this stems a belief that the proper reform and realignment of institutions will stimulate restructuring on the part of industrial enterprises.⁹⁸ This harkens back to the shock therapy debate.⁹⁹ In essence, the claim is that radical and rapid changes in the external environment will provoke similar changes within enterprises. In the Russian context, the introduction of private property and the mass privatisation of industrial enterprises was critical to the endeavour. The outcome was not only to give property owners a stake in the perpetuation of reform but also to effect a radical society-wide change in expectations.

The apparent failure to restructure (or at least to restructure as quickly as had been desired) was blamed on the managers. To some extent this undermines the original theory, since new incentives were apparently not strong enough to counteract their will. The solution is to rid the system of these old 'red' directors and replace them with outsiders (both Russians and foreigners) with the necessary management skills and investment capital.

This approach is helpful but not fully satisfying. The dynamic identified, in which fundamental institutional reforms effect some sort of change in behaviour by enter-

prises, is undeniable. Similarly, it stands to reason that enterprise directors will be eager to preserve and expand their power during the reform period. But the theory falls short in two respects. For the most part, it fails to look inside the enterprise. Attention is focused on changing the incentives that act upon the enterprise. What goes on inside the enterprise and why the enterprise might pursue certain policies that are pro-restructuring, while resisting other aspects, is left unexplored. In addition, the extent to which the traditional explanation demonises the existing managerial class while lionising outside managers and investors is troubling. No one would dispute that many of these managers have feathered their own nest at the expense of their enterprise, but what is missing from the traditional explanation is the positive aspects of having managers that are deeply embedded in the networks that undergird the economy. As a result of the Soviet managerial style of *edinonachalie*, the general directors often have relationships and information that are specific to them and lose much of their value when shared with others. On the other side, there is little effort to explain why outsiders would be any less willing to take advantage of the laxity of legal norms to enrich themselves. In fact, in the absence of personal ties to the enterprise, these outsiders might have even less compunction about such behaviour.¹⁰⁰ In addition, the sharp line drawn between insiders and outsiders is blurred by the similarity of the socialisation process all managers underwent during the Soviet period.¹⁰¹

Evolutionary theories of change

In contrast, evolutionary theories of how economic behaviour changes shift the focus to the enterprise.¹⁰² While not denying the relevance of changes in incentives, the theory identifies factors that play a role inside the enterprise in stimulating or retarding change. The inquiry goes far beyond questioning whether there has been managerial turnover. It pays more attention to the actual environment in which enterprises operate, and considers the level of instability and the nature of information available to managers to be part of the explanation. The theory recognises the difficulty of changing long-standing patterns of behaviour, and uses this insight to explain why change often comes slowly and incrementally, rather than in big spurts. This insight is likewise helpful in understanding why enterprise management might first change its behaviour in external relations, since the routines in this area are likely to be newer and less entrenched. The theory identifies bounded rationality as another factor affecting the willingness and even the capacity of enterprise management to change. It is particularly useful in making sense of the slowly changing corporate culture and the tendency to passivity (at least initially) on the part of many Russian workers.¹⁰³

Evolutionary theories of how economic behaviour changes appear to be more helpful in explaining what has happened at SAZ. The desire or need to maintain pre-existing routines may vary across different issues, which explains why certain aspects of adjustment began almost immediately at SAZ, while others took time to build a consensus within management and the workforce. For example, the need to sell planes was obvious to all. Just as obvious was that, during the early 1990s, Aeroflot lacked the financial wherewithal to purchase new planes. Thus the speed

with which SAZ reoriented itself to foreign markets is not surprising. Other issues, such as lay-offs and divesting social assets, created more dissension. One cause of the discord was the more immediate personal stake of individual workers and managers in such changes. They required lifestyle changes and the sacrifices were apparent, which was certainly not the case with the decision to change the marketing strategy for the Yak-42. The consequences of that strategic change were felt only gradually, and were mixed with other causal factors. But equally important was a sense that important traditions at SAZ were being abandoned with the beginning of lay-offs and the spinning off of social assets. Like other enterprises, SAZ had been much more than merely a place to work during the Soviet period. But the post-privatisation changes signalled that the reign of collectivism was over. Such changes are undoubtedly essential if SAZ is to survive in the market environment, but moving too quickly risked losing the enthusiasm of the workforce for the changes.

Evolutionary theories make an effort to accommodate the messy reality of the transition for Russian enterprises. The underlying assumptions are less rigid and mechanistic than those typically found in neoclassical economics. This, in turn, allows more subtlety in the explanations. But its usefulness as a policy tool is limited by the inability to identify clear criteria that are likely to facilitate or stymie restructuring. No mechanism exists for distinguishing between enterprises. Instead, the analysis requires a thorough understanding of the internal politics of the enterprise, which may have certain commonalities but can be expected to vary among enterprises.

Thus each approach has its positive and negative features. The purpose of this article is not to demonstrate the superiority of one or the other approach but to participate in a dialogue designed to synthesise the best aspects of each. By doing so, and also incorporating certain transition-specific aspects, a more powerful approach may be created.

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¹ See Anders Aslund, *How Russia Became a Market Economy* (Washington, DC, Brookings Institution, 1995). For a less sanguine view of Russian privatisation, see Igor Birman, 'Gloomy Prospects for the Russian Economy', *Europe-Asia Studies*, 48, 5, 1996, pp. 735-743.

² Some economists question the success of macroeconomic stabilisation in Russia. E.g. Stefan Hedlund & Niclas Sundstrom, 'The Russian Economy after Systemic Change', *Europe-Asia Studies*, 48, 6, 1996, pp. 887-914.

³ E.g. Joseph R. Blasi, Maya Kroumova & Douglas Kruse, *Kremlin Capitalism: Privatizing the Russian Economy* (Ithaca, Cornell University Press, 1997); Aslund, *How Russia Became a Market Economy*, pp. 232-224, 269-271; Joseph Blasi & Andrei Shleifer, 'Corporate Governance in Russia: An Initial Look', in Roman Frydman, Cheryl W. Gray & Andrzej Rapaczynski (eds), *Corporate Governance in Central Europe and Russia: Insiders and the State* (Budapest, Central European University Press, 1996), pp. 62-77; Maxim Boycko & Andrei Shleifer, 'Next Steps in Privatization: Six Major Challenges', in Ira W. Lieberman & John Nellis (eds), *Russia: Creating Private Enterprises and Efficient Markets* (Washington, DC, World Bank, 1995), pp. 76-78.

⁴ Blasi *et al.*, *Kremlin Capitalism*, p. 179.

⁵ E.g. Barry W. Ickes & Randi Ryterman: 'Roadblock to Economic Reform: Inter-Enterprise Debt and the Transition to Markets', *Post-Soviet Affairs*, 9, 3, 1993, pp. 231–252; Simon Commander, Qimiao Fan & Mark E. Schaffer (eds), *Enterprise Restructuring and Economic Policy in Russia* (Washington, DC, The World Bank, 1996); Roman Frydman, Cheryl W. Gray & Andrzej Rapaczynski (eds), *Corporate Governance in Central Europe and Russia* (Washington, DC: The World Bank, 1996); Blasi *et al.*, *Kremlin Capitalism*.

⁶ Other Western scholars have written about SAZ. My work can be distinguished because it is based on long-term sustained contact with, and field research at, SAZ. In 1992 I spent two weeks at SAZ in January as part of a delegation from Stanford University, and in March I participated in a one-week seminar for SAZ managers held near Washington DC. In 1993 I spent March–May in Saratov. The general director then visited Madison WI for a week in September, and I spent much of November in Saratov. In 1994 I was in Saratov for two weeks in March and, from June through November, spent much of my time in Saratov. In 1995 I spent the summer in Saratov and met the general director in Moscow in November. In 1996 I spent a week in Saratov in March and returned for several weeks in June. In 1997 I spent most of April in Saratov. My time at SAZ has been spent talking with managers at all levels, attending meetings of managers (including board of directors meetings and annual shareholders' meetings), and reviewing corporate documents, contracts and copies of the in-house newspaper. While not in Saratov, I have kept in close contact with SAZ through telephone conversations and telex, fax and e-mail communication. The authors of some of the other 'case studies' had not conducted independent research at the plant, e.g. Philippe Aghion, Olivier Blanchard & Robin Burgess, 'The Behaviour of State Firms in Eastern Europe. Pre-Privatization', *European Economic Review*, 38, 6, 1994, pp. 1327–1349. Still others have based their conclusions on brief visits to the plant in the early years of the transition, with no follow-up investigation of subsequent changes, e.g. John A. Battiliga, 'A Case Study of Russian Defense Conversion and Employee Ownership', in Michael McFaul & Tova Perlmutter (eds), *Privatization, Conversion, and Enterprise Reform in Russia*. (Boulder, Westview Press, 1995), pp. 169–188; David Binns, 'Combining Defense Conversion and Privatization: The Saratov Aviation Plant', in John Logue, Sergey Plekhanov & John Simmons (eds), *Transforming Russian Enterprises: From State Control to Employee Ownership* (Westport, CT, Greenwood Press, 1995); Michael McFaul, 'The Allocation of Property Rights in Russia: The First Round', *Communist and Post-Communist Studies*, 29, 3, 1996, pp. 295–297.

⁷ See *Krylatye gody: ocherki istorii Saratovskogo aviatsionnogo zavoda* (Saratov, 1981).

⁸ 'Mozhesh' sdelat' bol'she—delai', *Ekonomika i zhizn'*, 1991, 16, reprinted in *Aviastroitel'*, 29 April 1991, p. 2 (in-house SAZ newspaper); Aleksandr Kislov, 'Chto khuzhe—bez poluchki ili bez raboty', *Izvestiya*, 30 January 1996, p. 2.

⁹ SAZ management first presented its ideas about privatisation (or de-statisation) to the then Prime Minister, N. I. Ryzhkov, at the XXVIII Party Congress during the summer of 1990. Ryzhkov subsequently visited SAZ at the end of July 1990. See generally Kathryn Hendley, 'Legal Development and Privatization in Russia: A Case Study', *Soviet Economy*, 8, 2, 1992, pp. 130–152.

¹⁰ The Aviation Ministry had a sub-unit, known as AviaEksport, which handled all sales abroad of Russian planes. SAZ had a relationship with AviaEksport, but was not permitted to maintain a continuing relationship with the buyers of its planes.

¹¹ The 1995 joint-stock company law attempts to limit closed joint-stock companies to entities with less than 50 shareholders. But article 94–4 of this law provides that closed joint-stock companies that were formed prior to this law and that have more than 50 shareholders are entitled to retain their status as closed joint-stock companies. M. Yu Tikhomirov (ed.), *Kommentarii k Federal'nomu zakonu ob aktsionnykh obshchestvakh* (Moscow, 1996), pp. 364–368. See also 'Ob aktsionnykh obshchestvakh', *Sobranie zakonodatel'stva RF*, 1996, 1, art. 1.

¹² During the five years of my case study only two top level managers—deputy directors (*zamestitel' direktora*)—have left. On the surface, both departures were voluntary. Both were replaced through promotions from within rather than by bringing in an outsider.

¹³ For a critique of closed joint-stock companies, see Maxim Boycko, Andrei Shleifer & Robert Vishny, *Privatizing Russia* (Cambridge, MA, MIT Press, 1995), pp. 75–77.

¹⁴ SAZ initially took the corporate form of a 'collective enterprise' (*kollektivnoe predpriyatie*). This was a property form recognised by Soviet but not by Russian property laws. When the Soviet Union ceased to exist, SAZ had to assume a corporate form recognised under Russian law. It first became a limited liability company (*tovarishchestvo s ogranichennoi otvetstvennost'yu*) and then a closed joint-stock company. See Hendley, 'Legal Development and Privatization'.

¹⁵ SEPO (Saratov Electromechanical Production Organisation), the other Saratov plant that was privatised in the same way and, in fact, was covered by the same governmental decree, diverged

from SAZ at this point and became an open joint-stock company. For additional background on SEPO, see Clifford G. Gaddy, *The Price of the Past: Russia's Struggle with the Legacy of a Militarized Economy* (Washington, DC, Brookings Institution, 1996), pp. 131–147.

¹⁶ The non-SAZ workers who have been approved as stockholders include an official of the Saratov bank where SAZ maintains its primary account, the chief designer of the Yakovlev Design Bureau in Moscow, officials of Moscow marketing firms that handle SAZ's account, and an American business consultant.

¹⁷ Initially, the chairman of the board of directors was limited to 0.2% of the total outstanding shares and other members of the board were limited to 0.15%. In 1994 the shareholders approved an amendment to the charter that increased the percentages to 2.4 and 1.8 respectively. Prior to the 1995 annual shareholders' meeting the amounts owned by the board were disclosed. The average ownership was 0.76%. These restrictions were eliminated when the charter was rewritten in 1996 in response to the new joint-stock company law.

¹⁸ From a comparative perspective, the level of ownership by top-level SAZ officials was rather low. In a December 1993 survey Blasi & Shleifer found that top management owned on average 8.6% of outstanding stock. All insiders owned on average 65%. See 'Corporate Governance', p. 80.

¹⁹ See John S. Earle & Saul Estrin, 'Employee Ownership in Transition', in Roman Frydman, Cheryl W. Gray & Andrzej Rapaczynski (eds), *Corporate Governance in Central Europe and Russia: Insiders and the State* (Budapest, Central European University Press, 1996), pp. 1–61; Joseph Blasi, with Darya Panina & Katerina Grachova, 'Ownership, Governance, and Restructuring', in Ira W. Lieberman & John Nellis (eds), *Russia: Creating Private Enterprises and Efficient Markets* (Washington, DC, The World Bank, 1995), pp. 125–139. The lines of authority among the shareholders, the board of directors and management are never as clear in practice as they appear in the law. See Mark J. Roe, *Strong Managers, Weak Owners: The Political Roots of American Corporate Finance* (Princeton, Princeton University Press, 1994).

²⁰ See Michael Useem, *Executive Defense: Shareholder Power & Corporate Reorganization* (Cambridge, MA, Harvard University Press, 1993) pp. 182–189, 201–206. Useem documents that, in the 10 largest leveraged buyouts from 1986 to 1988, the representation of outsiders on the board actually decreased following the takeovers (p. 184). This indicates that the correlation between outsider ownership and outsider representation on the board is not automatic.

²¹ When the joint-stock company was created in 1993 the chairman of the trade union committee tried to have one seat on the board reserved for a worker representative (such as himself). This effort failed. The board has been true to its stated purpose of exercising management functions.

²² This firm (Dakono-Air) had been instrumental in the leasing of Yak-42s in new markets, such as Cuba, Peru, Iran, Pakistan and the Philippines, as a means of stimulating demand.

²³ Alfred D. Chandler, Jr., *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge, MA, Harvard University Press, 1990), pp. 33, 49, 85; John R. Hall, 'The Ideal Director ...' *Across the Board*, July/August 1995, pp. 53–55.

²⁴ An important barrier was overcome in 1997 with the election of a woman to the board. Women are barely represented in the upper ranks of SAZ management. None of its deputy directors has ever been a woman. This female pioneer on the board is responsible for SAZ's internal bank, and is presently working to create a semi-independent bank on the premises of SAZ.

²⁵ The general director began his work life at SAZ and progressed rather swiftly through the ranks of management. With the exception of one year as an instructor for the *oblast* Communist Party organisation in the early 1980s, and 1985–86, when he worked at another Saratov enterprise, he has spent his entire career at SAZ.

²⁶ Laurie Hays, 'Russian Plant Weans Itself From Military: Consumer Goods, Airlines Spell Success for Saratov', *Wall Street Journal*, 5 January 1993, p. A10; Michael McFaul, 'The Allocation of Property Rights in Russia: The First Round', *Communist and Post-Communist Studies*, 29, 3, 1996, pp. 295–297. Journals geared to foreign investors also portrayed him as market-oriented, e.g. 'Alexandr Yermishin: An Unidentified Flying Opportunist', *Delovye lyudi*, May 1993, pp. 76–78.

²⁷ For example, in a report broadcast on the nightly television news programme 'Vremya' soon after the first round of the presidential election in June 1996, a SAZ worker said that he believed that the general director had been working energetically for the election of the Communist Party candidate, Zyuganov. Empirically, this statement was incorrect, but the existence of such a belief among SAZ workers demonstrates that the general director does not enjoy the reputation of democratic reformer among locals that he does among many Western observers.

²⁸ See generally Joseph S. Berliner, *Factory and Manager in the USSR* (Cambridge, MA, Harvard University Press, 1957); Michael Burawoy & Kathryn Hendley, 'Between Perestroika and

Privatisation: Divided Strategies and Political Crisis in a Soviet Enterprise', *Soviet Studies*, 44, 3, 1992, pp. 371–402.

²⁹ 'Mozhesh' sdelat' bol'she—delai', *Ekonomika i zhizn'*, 1991, 16, reprinted in *Aviastroitel'*, 29 April 1991, p. 2.

³⁰ Through 1993, in interviews published in the SAZ newspaper, the general director and his subordinates continued to insist that the economic difficulties being experienced would not require either reducing the five-day work week or laying off workers. Lay-offs did not begin in earnest until the summer of 1994.

³¹ This September 1995 incident is discussed in more detail below in the analysis of SAZ's efforts at depoliticisation.

³² Until December 1995 the governor of Saratov *oblast'* was Yu. Belykh. According to political insiders in Saratov, El'tsin dismissed Belykh as a result of his dissatisfaction with the results of the elections for the State Duma held in December 1995. In April 1996 El'tsin appointed D. F. Ayatskov to serve as governor. He won popular election in September 1996.

³³ E.g. K. Agababyan, 'U zavoda "vyrastut kryl'ya" tol'ko pod krylom gosudarstva', *Saratovskie vesti*, 18 June 1996, p. 2; Tat'yana Borisova, 'Gosudarstvu pod krylo—tam i sukho i teplo', *Saratov*, 15 June 1996, p. 2.

³⁴ In particular, he declined an invitation to speak at a seminar at the research division of the World Bank in the late autumn of 1995, even though that trip would have given him an opportunity to network with both Bank officials and potential business partners. In 1992 and 1993, by contrast, he visited the United States several times for academic conferences that held out little promise of acquainting him with potential investors.

³⁵ High levels of ownership by workers were common among privatised Russian enterprises. See Aslund, *How Russia Became a Market Economy*, pp. 230–244.

³⁶ Art. 66–2, 'Ob aktsionernykh obshchestvakh'.

³⁷ On the definition of 'depoliticisation' and its critical role in reform, see Boycko *et al.*, *Privatizing Russia*, pp. 10–11, 64, 125–131.

³⁸ At his August 1996 press conference the general director commented that 'Even if the residential quarters are taken away from me—50,000 people live there—when something breaks down in their homes, they come to me. They have developed this habit'. 'Press Conference Regarding the Russian Aircraft Industry', Official Kremlin International News Broadcast, 5 August 1996.

³⁹ On the legal ramifications of the instability of Aeroflot, see Piotr Siemion, 'Ownership Transformations in Eastern Europe: The Case of National Air Carriers', *Parker School Journal of East European Law*, 3, 4–5, 1996, pp. 519–540.

⁴⁰ For example, SAZ bartered planes to the Smolensk plant that manufactured the wings, and to the Zaporozhe plant that supplies the engines for the Yak-42. Other planes have gone to Gazprom and to the Balakovskii atomic energy plant pursuant to barter arrangements. Barter has been a constant fact of life for SAZ, both before and after privatisation.

⁴¹ Janos Kornai, 'The Soft Budget Constraint', *Kyklos*, 39, 1, 1986.

⁴² Simon Commander, Une J. Lee & Andrei Tolstopiatenko, 'Social Benefits and the Russian Industrial Firm', in Simon Commander, Qimiao Fan & Mark E. Schaffer (eds), *Enterprise Restructuring and Economic Policy in Russia* (Washington, DC, The World Bank, 1996), pp. 5–6, comment on the opaque character of subsidies in the post-Soviet era and the consequent difficulty of documentation.

⁴³ See D. Lomov, 'Taina Angara 18', *Zarya molodezhi*, 27 November 1996, p. 4; Elena Ardibatskaya & Dmitrii Lomov, 'Russkaya "letayushchaya tarelka" pikiruet na Vashington?', *Komsomol'skaya pravda*, 16 January 1997, p. 2.

⁴⁴ E.g. 'Sovmestnymi usiliyami—k stabilizatsii proizvodstva', *Aviastroitel'*, 22 January 1997, p. 3; 'Press Conference Regarding the Russian Aircraft Industry', Official Kremlin International News Broadcast, 5 August 1996.

⁴⁵ See Nikolai Novichkov, 'Korporatsiya "Yak" namerena integrirovat'sya v evropeiskuyu aviapromyshlennost', *Segodnya*, 16 July 1996, p. 2.

⁴⁶ Erin Arvedlund, 'Industry Chief Opposes Fokker Guarantees', *The Moscow Times*, 6 August 1996. See generally, Aleksei Orlov, 'Pochem "Fokkery" dlya naroda', *Nezavisimaya gazeta*, 2 August 1996, p. 6.

⁴⁷ Mikhail Zimin, 'Pervym delom samolety', *Itogi*, 10 October 1996, p. 24.

⁴⁸ E.g. Nikolai Manvelov, 'Rynochnye otnosheniya ne meshayut SAZu vypuskat' samolety', *Kapital*, August 1996, p. 14; see generally 'Im Stalin dal stal'nye ruki-kryl'ya, a Chernomyrdin—plamennyi privet', *Delovye lyudi*, January 1997, p. 44.

⁴⁹ E.g. Vera Postnova, 'Rukovodstvo respublikoi nedovol'no Aeroflotom', *Nezavisimaya gazeta*, 19 September 1996, p. 3; Vladimir Babenkov, 'Kuda nesut kryl'ya "Boinga"', *Rossiiskaya*

gazeta, 27 September 1996, pp. 1–2; Vladimir Kandryshv. 'Aleksandr Polyakov: "Nadezhda Aviatara"—v lobbirovanii rynka', *Otkrytaya gazeta*, 10, November 1996, p. 5.

⁵⁰ Igor' Chernyak, 'Shaposhnikov zapuskaet planer', *Delovoi vtornik*, 17 December 1996, p. 2. The Russian government subsequently issued a decree outlining its financial support for this plane. 'Postanovlenie Pravitel'stva Rossiiskoi Federatsii, "O merakh gosudarstvennoi podderzhki proizvodstva samoletov Il-96 M/T"', *Rossiiskaya gazeta*, 25 February 1997, p. 4. Production began in April 1997. 'V Voronezhe nachato seriinoe proizvodstvo avialainerov Il-96', *Segodnya*, 29 April 1997, p. 4.

⁵¹ Sometimes payment problems became apparent only after delivery. SAZ contemplated repossessing two Yak-42s that had been sold to Kazakhstan in 1994 owing to non-payment. In June 1996 the Kazakh government still owed SAZ \$2.4 million. Nine months later, in March 1997, the debt had only been reduced by \$100 000. The legal mechanisms for recovering debts from CIS countries had not been completely worked out. The option of requiring 100% prepayment, which many Russian enterprises resorted to during this period, was not feasible owing to the high price of planes. Other aviation plants faced similar problems. E.g. Mikhail Birin, 'Chinovniki vysokogo poleta riskuyut: Dva samoleta pravitel'stvennoi aviakompanii derzhatsya v vozdukhie na "chestnom slove"', *Vek*, 1996, 45, p. 2.

⁵² For an analysis of the underlying reasoning, see Kathryn Hendley, 'Legal Development in Post-Soviet Russia', *Post-Soviet Affairs*, 13, 3, 1997, pp. 231–256.

⁵³ According to a letter written by the local deputy to the State Duma, A. N. Gordeev, to El'tsin, both Chernomyrdin and Soskovets (then a deputy prime minister) had signed an order supporting the return of this debt to SAZ. Kislov, 'Chto khuzhe—bez poluchki ili bez raboty', *Izvestiya*, 30 January 1996, p. 2.

⁵⁴ The trade union at SAZ is part of the Federation of Independent Trade Unions (FNPR), the successor to the Soviet-era official trade union. Management made a half-hearted effort to get rid of the union following privatisation but failed. Conversations with workers and managers on various levels reveal the general irrelevance of the trade union as a protector of workers' rights. Most viewed the trade union as the distributor of vacations and other perquisites. As these grew less common, the mission of the trade union grew increasingly unclear.

⁵⁵ Among the slogans on the placards were 'Government! Honour the Debt of 26 Million Dollars' and 'Hungry Children—A Country Without a Future'.

⁵⁶ The local deputy was A. N. Gordeev, who has been a prominent member of the Communist Party. Prior to entering politics, Gordeev worked at SAZ.

⁵⁷ The governor also 'dismissed' two other general directors. One was the general director of SEPO which was, like SAZ, a completely private entity. The other was the general director of Korpus, a defence plant that had yet to privatise. Neither of these public dismissals resulted in the immediate removal of the general director. By the spring of 1997, however, of the general directors the governor attempted to dismiss, only the SAZ general director still had his job.

⁵⁸ In September 1996 Ayatskov won election with over 80% of the popular vote. Patrick Henry, 'Yeltsin's Candidate Wins Poll in Saratov', *The Moscow Times*, 3 September 1996. Not surprisingly, the Saratov press has treated him gingerly. E.g. A. Vorotnikov & V. Dines, 'Korenniki stanovyatsya v pryazhku', *Saratovskie vesti*, 28 January 1997, pp. 1–2. The Moscow press has begun to question the wisdom of Ayatskov's virtual monopoly over Saratov. See Aleksandr Krutov, 'Blesk i nishcheta Saratovskogo gubernatora', *Moskovskaya pravda*, 18 February 1997, p. 6.

⁵⁹ K. Agababyan, 'U zavoda "vyrastut kryl'ya" tol'ko pod krylom gosudarstva', *Saratovskie vesti*, 18 June 1996, p. 2.

⁶⁰ As a methodological note, it is worth pointing out that the local newspapers in Saratov contained no reports of these attempted dismissals, though they were the talk of the town during the summer of 1996. Each of the local papers did carry a story about the meeting at which the SAZ general director was publicly humiliated, but none mentioned the effort of the governor to dismiss him. E.g. K. Agababyan, 'U zavoda "vyrastut kryl'ya" tol'ko pod krylom gosudarstva', *Saratovskie vesti*, 18 June 1996; Lyubov' Sharshavova, 'Dela plokhie, no idut khorosho', *Saratov*, 19 June 1996, p. 2. Almost a year later, one of the smaller Saratov papers carried a story about Ayatskov's role in the removal of the general director of SEPO, another large former defence plant. Natal'ya Aleksandrova, 'Promyshlennuyu elitu pochistyat i profil'truyut', *Zemskoe obozrenie*, 4 April 1997, p. 7.

⁶¹ See generally E. Spirin, 'Est' li u rossiiskoi aviatsii budushchee?', *Nizhegorodskie novosti*, 11 September 1996, p. 2; I. Lozhkina, 'Mertvaya petlya rossiiskoi aviatsii', *Ekonomika i zhizn'*, 1996, 46, p. 12; Philip Butterworth-Hayes, 'Russia's Loss is the West's Gain', *Aerospace America*, September 1995, p. 4.

⁶² Prior to privatisation, SAZ was largely limited to consulting with the scientific-research institutes (*nauchno-issledovatel'skie instituty*) of the Aviation Ministry. It worked with these institutes on the initial privatisation plan which, in retrospect, was far from ideal. It is worth pointing out that the ISKAN group with which SAZ collaborated was headed by Andrei Kokoshin, who went on to become a Deputy Minister of Defence.

⁶³ One of the stops on this tour was the Center for International Security and Arms Control at Stanford University, which is where we first became acquainted in December 1991.

⁶⁴ On the leasing of Yak-42s in Pakistan, for example, see Tahir Ikram, 'Private Pakistani Airlines Strive to Outshine PIA', *The Reuters Asia-Pacific Business Report*, 2 September 1995.

⁶⁵ A thorough analysis of the failure of this initial strategy is beyond the scope of this article, but SAZ's underappreciation of the importance of marketing certainly played a role. Because its first success came as a result of the personal negotiating skills and charisma of the general director, SAZ mistakenly assumed that his charms would win them more contracts. To be sure, the good press about the general director opened the door of many foreign companies, but SAZ proved incapable of following through these promising contacts. Although a marketing department was set up, it was staffed by redeployed SAZ managers rather than by trained specialists. SAZ was also slow to appreciate the need to establish an independent servicing capability for planes sold abroad if it expected to compete with the Western giants. Such problems with marketing were common to Russian defence plants. See Kevin P. O'Prey, *A Farewell to Arms? Russia's Struggles With Defense Conversion* (New York, Twentieth Century Fund Press, 1995), p. 71.

⁶⁶ A Smolensk enterprise that manufactured the wings for Yak-42s was also part of the Yak Corporation, though largely a silent partner. The Yak Corporation was originally named Skorost'.

⁶⁷ The form sometimes left Western investors puzzled. The Yak Corporation appeared to have enormous assets, but the appearance was illusory. Russian observers were also taken in. Kokoshin often cited the Yak Corporation as a successful financial industrial group. See O'Prey, *A Farewell to Arms?*, p. 74.

⁶⁸ See David M. North, 'IAI Launches Galaxy Into Crowded Market', *Aviation Week and Space Technology*, 139, 13, 27 September 1993, p. 29; 'Yakovlev Design Bureau to Participate in Galaxy Business Jet', *Aviation Daily*, 313, 60, 24 September 1992, p. 475; 'Saratov Wins Galaxy Jet Work', *Flight International*, 16 March 1994.

⁶⁹ The Yak-40 was a 30-seat plane. Over 1200 were manufactured, and continue to fly in the former Soviet Union as well as 19 other countries.

⁷⁰ 'IAI Shifts Initial Production from Russia to Israel to Keep Galaxy on Schedule', *The Weekly of Business Aviation*, 61, 14, 2 October 1995, p. 142.

⁷¹ The Design Bureau has faced its own financial crises in recent years. For example, in December 1996 the Moscow telephone company cut off almost all telephones due to massive unpaid bills. Viktor Anoshkin, 'Moscow Phone Company Cuts Off Plane-Maker Yakovlev', *Reuters European Business Report*, 2 December 1996.

⁷² Aleksei Orlov, 'Pochem "Fokkery" dlya naroda', *Nezavisimaya gazeta*, 2 August 1996, p. 6.

⁷³ The chief designer had built up an expectation that SAZ would get this contract when, at the annual shareholders' meeting in March 1995, he promised that the manufacture of test planes would soon be transferred to Saratov.

⁷⁴ The idea that SAZ would switch allegiance to another design bureau, e.g. the Tupolev or the Ilyushin bureau, was not feasible in the Russian context.

⁷⁵ 'Press Conference Regarding the Russian Aircraft Industry', Official Kremlin International News Broadcast, 5 August 1996. This seemingly rash behaviour was prompted by a combination of frustration and anger. He was pushed over the edge during a business trip to Taiwan when he was asked about the Fokker deal in almost every meeting. He felt obliged to clarify his (and SAZ's) position publicly.

⁷⁶ *Ibid.*: Aleksandr Kislov, 'Chto khuzhe—bez poluchki ili bez raboty', *Izvestiya*, 30 January 1996, p. 2.

⁷⁷ See Nataliya Yachimennikova, 'Kuda letit' s odnim krylom?', *Rossiiskaya gazeta*, 22 September 1995, reprinted in *Aviastroitel'*, 11 October 1995, p. 2; Anatolii Tkachenko, '“Rosaviakonsortsium” szhimaet pal'tsy v kulak', *Delovoi mir*, 4–10 October 1996, p. 7; Roza Gorn, 'Aviastroiteli—za soyuz s bankami i gosudarstvom', *Ekonomika i zhizn'*, 1996, 48, p. 4.

⁷⁸ There are varying opinions among industry leaders about whether the FIG should be vertical, i.e. concentrate principally on plane manufacturing, or should expand its horizons to other ventures.

⁷⁹ Other Russian aviation plants were also seeking these same markets. Aviakor, a Samara-based manufacturer of Tu-154s, signed a contract in August 1996 to supply 12 planes to Iran. See Vladimir Ul'yanov, 'Samara otravlit v Iran dvenadtsat' Tu-154M', *Delovoi mir*, 16–22 August 1996.

⁸⁰ See Sergei Istratov, 'Aviastroiteli pereklyuchayutsya na vypusk administrativnykh samoletov i modeli biznes-klassa', *Segodnya*, 27 August 1996, p. 4; Nikolai Manivelov, 'Na biznes-samoletakh v Rossii letayut bol'shim kollektivom', *Kapital*, 18–24 September 1996, p. 9; Patricia Kranz, 'Gazprom One. You're Cleared for Takeoff', *Business Week*, 16 October 1995, p. 118.

⁸¹ The FAA has granted experimental approval to the Yak-54. SAZ has a contract to sell up to 48 more planes to the same US buyer over the next four years. Paul Proctor, 'Dancing Bear', *Aviation Week and Space Technology*, 146, 6, 10 February 1997, p. 13.

⁸² The term EKIP is an abbreviation for ecology and progress (*ekologiya i progress*).

⁸³ See D. Lomov, 'Taina Angara 18', *Zarya molodezhi*, 27 November 1996, p. 4; Elena Ardibatskaya & Dmitrii Lomov, 'Russkaya "letayushchaya tarelka" pikiрует na Vashington?', *Komsomol'skaya pravda*, 16 January 1997, p. 2.

⁸⁴ Lyubov' Sharshavova, 'Dela plokhie no idut khorosho', *Saratov*, 19 June 1996, p. 2.

⁸⁵ At the time of privatisation SAZ controlled over 300 buildings containing residential housing, three dormitories and 20 kindergartens. It contributed to the maintenance of four schools, a medical clinic, various sports facilities and summer camps for children, although the details of SAZ's contributions were handled by the trade union committee and not by management.

⁸⁶ Conversations with journalists in the spring of 1993 revealed that residents of SAZ housing had been sending complaints to local newspapers about SAZ's refusal to privatise its housing. The journalists advised these residents to pursue the matter in the courts, but the residents were reluctant to do so.

⁸⁷ Management claimed that the closures were due to low enrolments, but the protests of women workers suggest that alternatives were not available.

⁸⁸ Blasi *et al.*, *Kremlin Capitalism*, p. 128.

⁸⁹ *Ibid.*, p. 124.

⁹⁰ See Hendley, 'Legal Development and Privatization', p. 151.

⁹¹ 'Press Conference Regarding the Russian Aircraft Industry', Official Kremlin International News Broadcast, 5 August 1996.

⁹² Blasi *et al.*, *Kremlin Capitalism*, p. 124.

⁹³ See Karen Aziz Chaudry, 'The Myth of the Market and the Common History of Late Developers', *Politics & Society*, 21, 3, 1994, pp. 245–274; Peter Evans, *Embedded Autonomy: States & Industrial Transformation* (Princeton, Princeton University Press, 1995); Charles Lindblom, *Politics and Markets: The World's Political-Economic Systems* (New York, Basic Books, 1977).

⁹⁴ When Boeing was working to establish itself in the Chinese market, the US government worked with the company. The Chinese were given the impression that the purchase of Boeing planes might soften the US stance on trade and other nagging problems.

⁹⁵ E.g. Richard Preston, *American Steel* (New York, Avon Books, 1991).

⁹⁶ Blasi *et al.*, *Kremlin Capitalism*, pp. 62–64.

⁹⁷ *Ibid.*, pp. 4–10.

⁹⁸ See Aslund, *How Russia Became a Market Economy*; Boycko *et al.*, *Privatizing Russia*.

⁹⁹ See Peter Murrell, 'What is Shock Therapy? What Did It Do in Poland and Russia?', *Post-Soviet Affairs*, 9, 2, 1993, pp. 111–140.

¹⁰⁰ The experience of corporate takeovers in the USA during the 1980s suggests that outsiders are not always interested in managing the target company over the long run. E.g. David Carey, 'Can Raiders Run What They Raid?', *Fortune*, 4 June 1990, pp. 193–204.

¹⁰¹ Perhaps a better distinction could be made on the basis of age and/or nature of education. But this sort of generation-based argument is not typically made by Western commentators. E.g. Andrei Shleifer & Dmitry Vasiliev, 'Management Ownership and Russian Privatization', in Roman Frydman, Cheryl W. Gray & Andrzej Rapaczynski (eds), *Corporate Governance in Central Europe and Russia: Insiders and the State* (Budapest, Central European University Press, 1996), pp. 62–77; Horst Siebert, 'Comments', *European Economic Review*, 38, 6, 1994, pp. 1357–1361.

¹⁰² See Peter Murrell, 'Evolution in Economics and in the Economic Reform of the Centrally Planned Economies', in Christopher Clague & Gordon C. Rausser (eds), *The Emergence of Market Economies in Eastern Europe* (Cambridge, MA, Basil Blackwell, 1992), pp. 35–53; Richard R. Nelson & Sidney G. Winter, *An Evolutionary Theory of Economic Change* (Cambridge, MA, Harvard University Press, 1982).

¹⁰³ The miners, who adopted strikes as a part of their strategy in dealing with management and the state, constitute an exception. Other professions that engaged in aggressive tactics can be identified. But the vast majority of workers remained passive during the transition and adapted to the conditions created by management. This remained true even in the face of delays in paying wages and lay-offs of workers.