

**ROSOBORONEKSPORT:
ARMS SALES AND THE STRUCTURE
OF RUSSIAN DEFENSE INDUSTRY**

Stephen J. Blank

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FOREWORD

In August 2006, the U.S. Government imposed sanctions on Russian arms sellers and producers, *Rosoboroneksport*, Russia's main arms-selling agency, and *Sukhoi*, which manufactures aircraft, because of their arms sales to Iran. Although Russian observers believe that Washington did so because of these firms' arms sales to Venezuela, these sales to such dangerous states oblige us to analyze the Russian defense export program and the structure of its defense industry. Until now, that industry would have collapsed without arms sales. Arms sales thus have become the main source of its revenue until the present and will play a key role in Russia's ongoing attempt to regenerate its armed forces while winning friends and influence abroad.

Unfortunately, Russia appears to be aiming to win friends and influence strictly among anti-American states and cement an alliance or coalition among them. Moreover, Russia's program of weapons exports reveals the inner workings of its defense industry and the relationship between state and society that is a fundamental driver of its foreign and defense policies. Since 1991, when the Russian Federation came into being, there have been few, if any, attempts to look at this sector of the economy and its relationship to the state, but the patterns revealed here are of the utmost importance for anyone wishing to come to terms with current Russian foreign and defense policies. For this reason, the Strategic Studies Institute (SSI) is pleased to present this monograph on a salient issue in international security.


DOUGLAS C. LOVELACE, JR.
Director
Strategic Studies Institute

BIOGRAPHICAL SKETCH OF THE AUTHOR

STEPHEN J. BLANK has served as the Strategic Studies Institute's expert on the Soviet bloc and the post-Soviet world since 1989. Prior to that he was Associate Professor of Soviet Studies at the Center for Aerospace Doctrine, Research, and Education, Maxwell Air Force Base, and taught at the University of Texas, San Antonio, and at the University of California, Riverside. Dr. Blank is the editor of *Imperial Decline: Russia's Changing Position in Asia*, coeditor of *The Soviet Military and the Future*, and author of *The Sorcerer as Apprentice: Stalin's Commissariat of Nationalities, 1917-1924*. He has also written many articles and conference papers on Russian, Commonwealth of Independent States, and Eastern European security issues. Dr. Blank's current research deals with proliferation and the revolution in military affairs, and energy and security in Eurasia. His two most recent books are *Russo-Chinese Energy Relations: Politics in Command*, London: Global Markets Briefing, 2006; and *Natural Allies?: Regional Security in Asia and Prospects for Indo-American Strategic Cooperation*, Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2005. Dr. Blank holds a B.A. in History from the University of Pennsylvania, and an M.A. and Ph.D. in History from the University of Chicago.

SUMMARY

This monograph focuses on the relationships between the state and Russia's defense industrial sector, particularly *Rosoboronekспорт* (ROE), the main state agency for arms sales. ROE is more than a seller of weapons; rather, it has become an industrial behemoth that is monopolizing whole sectors of this industry on behalf of the state. Its activities reflect the fundamental nature of the Russian state's relationship to the economy, which increasingly is regressing to tsarist or even Soviet models in some respects. In this respect, defense, like energy, is a vital sector of the Russian economy that the state intends to control directly. And the Putin regime has implemented a conscious strategy of increasing state control over more and more branches of industry beyond those two sectors.

The parallels between these two sectors and the leadership's views of them strikingly reflect this regression to patrimonial forms of management and ownership. Yet, it remains unclear whether or not the moves towards greater state control can really bring the defense industry out of the prolonged crisis it has endured. Because the Union of Soviet Socialist Republics (USSR) was in effect a military-industrial complex writ large with a militarized economy, since 1991 this sector consistently has failed to deliver to Russia's forces the needed weapons and technologies. That failure is the root cause of the attempts by the state to take over that sector and use ROE as a major actor in the process. Arms sales also are *a* major, if not *the* major, source of funding for all research and development (R&D) and procurement.

Yet, even as arms sales revenue grows and ROE takes over more and more of the defense sector on

behalf of the state, it is by no means clear that such procedures can either restore the defense industrial sector's capability or that Russia's arms can continue to be competitive with those of foreign rivals. Nor is it certain that arms sales revenues can keep growing, for it appears that those sales may soon reach a plateau as India opens up its weapons market to Russia's competitors, and China's technological capability improves. At the same time, ROE is a key player in a foreign and defense policy that is increasingly anti-American and anti-capitalist, or anti-liberal. ROE and the progress of the defense sector as a whole, therefore, are key indicators of the continuing trajectory of both Russian domestic and foreign policies, including defense policy.

ROSOBORONEKSPORT: ARMS SALES AND THE STRUCTURE OF RUSSIAN DEFENSE INDUSTRY

Introduction.

Russia's regression to an authoritarian, even autocratic, system, a so-called "managed democracy" or, more recently, "sovereign democracy," is an established and recognized fact. Not accidentally, this regression has also gone hand in hand with an increasingly adversarial policy towards the United States. One element of this adversarial policy is the conspicuous sale of weapons to states who are openly or potentially anti-American, e.g., Venezuela, Iran, Syria, and perhaps even China. Russia makes these sales in order to strike at U.S. interests while simultaneously advancing its own interests, which include obtaining a foothold in the target states' defense and foreign policies and acquisition of revenues along with market share from these defense sales. Therefore its anti-American policy thrust is by no means the only reason for such arms sales.

Until now, precisely because the state would not or could not procure sufficient weapons for its armed forces, the defense industry could not survive without exports and the revenue gained thereby. This point holds true across the board except for firms that are classified as strategic and which therefore are being subsidized fully.¹ But even those firms labeled as strategic need to export in order to gain foreign revenue (apart from the government's other foreign and defense policy gains) and to continue funding research and development (R&D) and the development

of newer, more modern weapons, as well as their serial production. So while this anti-American motive certainly figures in those transactions, other and deeper motives relating to Russia's political-economic structure are at work in this sector.

Arms sales policies and the organization of defense industry in all states link together both domestic and foreign policy interests and processes. In other words, study of Russia's defense industry not only points to the states targeted by Moscow as potential buyers of its weapons, it also illuminates key aspects of Russia's regression to autocracy, i.e., its domestic political economy. Hence the study of the structures of these particular organizations provides considerable insight into the overall organization of Russian defense industry, defense and foreign policy, and overall political economy.

While the foreign policy interests involved in the selling to these aforementioned states *seem* relatively easy to understand, there has been little, if any, study of the domestic organization of Russian defense industry in the last few years by Western authors or published in Western journals and books.² This neglect is undeserved not only because the Russian government has made major efforts at reforming this sector, but also because the issues and structures involved in those sales are self-evidently important for international security. And as Russia's defense machine revives, thanks to the infusion of cash derived from the sale of oil and gas, the nature and direction of Russian defense industrial policy and arms sales also become considerably more topical. It certainly is not coincidental that the revival of arms sales to states antagonistic to the United States has accompanied the accelerating regression to autocracy in Russia.

For this reason, this monograph focuses on the domestic role of ROE, Russia's main arms sales organization, in Russia's politics and economics. While obviously this is only one part of ROE's story, this aspect of ROE and of defense industrial policy offers analysts the possibility of obtaining vital insights into Russia's overall political economy and national security policy.

One could with some justice call the lobbies and bureaucratic factions that are active in this sphere of Russian policy (including the relationship between them and policymakers) a military-industrial complex (MIC). However, with regard to Russia, that term is somewhat simplistic, or even misleading. For example, the Soviet Union, as we have long known, did not *have* an MIC, rather it *was* one. It was a mobilization economy built in the expectation of an ultimate major war and subordinated to that expectation. Thus its defining quality was its structural militarization.³ Contemporary Russian firms and state organizations active in defense industry and arms sales originated in that system and bear the marks of that origin as bureaucratic state agencies in their continuing closeness to the state, even as they have evolved through 15 years of convulsive, unending, and visibly unsuccessful changes. Accordingly, this monograph concerns itself with the relationship of ROE, the key arms sales organization, to the state, to defense industrial policy, and to defense industry. These relationships reveal much that is important, if not crucial, to understanding Russia's politics and economics.

Much if not all of Russian politics, especially in the defense industrial sector, is bureaucratic politics, i.e., rivalries between competing factions and lobbies within increasingly state-directed or coordinated bureaucracies for favor, resources, and political

turf bestowed from above. It follows that ROE's relationship to them is the subject of unceasing and vigorous bureaucratic rivalry and interest. Due to these rivalries, and to the ever more visibly statist and controlling ideology that animates the current Russian political leadership, ROE increasingly oversees not just arms sales but also the whole defense industrial sector, as well as a rising share of civilian industry. Thus, a recent report observed that:

Russia's arms export agency is seeking partial control in every new major industrial conglomerate, a move seen by analysts as part of a Kremlin drive to increase its sway over strategic and lucrative economic sectors.⁴

Not surprisingly, Maxim Pyadushkin, editor of *Russia/CIS Observer*, described this process as a tool for nationalizing the sectors that the Kremlin seeks to control: aviation, shipbuilding, metals, machine building, arms production, and, we might add, energy.⁵ Consequently, control of ROE, its subordinate agencies, and industrial firms is truly a mouth-watering prize and thus the object of much bureaucratic wrangling and maneuvering.

The Argument of This Monograph.

The argument here is, first, that ROE epitomizes much of the unique Russian state supervision of industry as a whole, not just the defense industry. This applies to both tsarist and Soviet models of industrial and political organization. And if a wholesale nationalization of key sectors is occurring, that only further reinforces the argument. And since ROE and other vertically integrated defense firms or holding companies are intruding ever more deeply into civilian

sectors like the automobile and truck industries, as well as those noted above, this is not a far-fetched claim.⁶ Indeed, many dilemmas traditionally characteristic of the defense industrial sector have begun to pervade the entire economy.

Second, this organization of state control represents the recrudescence of the tsarist or neo-Muscovite patrimony that survived both tsarism and the Soviet epoch where it reappeared.⁷ In this model, the state owns at least the commanding heights of economic life, if not the entire territory as its patrimony (*Votchina* in early tsarist times). In fact, as Grigory Yavlinksy recently reiterated, the entire economy operates within a system of informal, shadow relationships, including a vast, equally informal government that must control or own all property through control over resources and the judiciary. Hence property rights are either nonexistent or at best conditional upon service to the state. And since secure property rights do not exist except on paper, or only for those enterprises too small to be of major political concern, or whose owners have submitted entirely to the state for now, the “Tsar” and his subordinates have latitude to engage in a habitual reapportionment of assets in order to create a new class of servitors.⁸ The parameters and content of acceptable corporate behavior in such a relationship are defined largely by the state, not the firm in question.

The Tsarist or Patrimonial Model.

Ownership here means stewardship rather than having legal title as understood in the West, and is always subject to revocation at the whim of the “Tsar,” President, or his designated servitors. Certainly President Vladimir Putin has not hesitated to invoke

the “social responsibility” of business in partnership with (i.e., subordination to) the state.⁹ For example, ROE seized control of AvtoVaz, the automobile firm, aided by 300 armed policemen and trumped up tax evasion charges, actions that resemble the nationalization of Yukos.¹⁰

Such examples of state takeover in fact epitomize many of the processes of the economy which the Russian economist, Vladimir Mau, describes as a kind of reincarnation of the New Economic Policy (NEP), launched by Vladimir Lenin in 1921 and terminated by Joseph Stalin in 1928-29.¹¹ Others, like Pyadushkin, see a creeping nationalization instead of a NEP, but the similarities are strong enough to submerge the differences, given the strength of the state-owned sector.¹² According to Mau, as the state takes over more and more of the key strategic sectors, private ownership is obliged to sell out. At the same time, the state retreats from owning petty or small businesses of a “nonstrategic” nature, or it devolves ownership into subfederal governmental units.¹³ However, the moves by ROE and Gazprom into the automotive industry and other civilian sectors like banking suggest that the state’s appetite is growing in tandem with its eating. Now, even the shipbuilding industry is being nationalized.¹⁴ Therefore, it is likely that the state will continue taking over formerly privately-owned businesses in what it deems to be “strategic” sectors—a designation that includes ever more of the vital productive sectors of the economy—and then turn them over to the management and control of state bureaucrats loyal to the regime in order to consolidate state control.

Indeed, all such “stewards” are servitors of the regime who are granted control over these properties as

a reward for service and allowed to enrich themselves through corruption and rent-seeking for the duration of their tenure. “Rent-seeking” here means that people who are placed in a position where they have control over assets are able to appropriate the proceeds or rents from those assets to their private use without developing the property in question through a strategy of optimal investments. For example, ROE makes a 3.8 percent commission on all arms sales. It is well-known that, for both Presidents Boris Yeltsin and Vladimir Putin, the arms sales organization served as a slush fund by means of which unaccountable funds went straight to the President for unspecified political purposes.¹⁵ Thus those funds and commissions are merely among the more visible examples of the rents accruing to key state players from the sale of weapons abroad. It is also the case that many of the funds that accrue personally to Sergei Chemezov, the director of ROE, and his key subordinates are equally untraceable. In return, these servitors must carry out policies made atop the government machine.

These servitors are thus rent-seeking elites who maneuver to obtain exclusive and unaccountable control of the rents accruing from the properties under their control – in this case, defense industries. The sale of their products, the ensuing commissions, and the kickbacks generated during negotiations for arms sales represent rents that the state grants them in return for service. Therefore the government is a rent-granting state.¹⁶ It, not the servitors, “owns” these industries or can use force majeure to seize and then allocate such assets as it sees fit to functionaries of its choice.

Indeed, government spokesmen occasionally admit to what is going on. Vladislav Surkov, President Putin’s chief ideologue and Deputy Head of his Presidential

administration, told the press that the heads of these state-run companies “serve the state and will not become an independent political force.”¹⁷ Moreover, he went on to observe that,

These people are changeable. When the country’s leadership changes, and other political forces come to power, they will probably change these people. I do not see any problem with this. . . . This is normal. . . . These people are here today, gone tomorrow. They serve, they are not owners. So they cannot pose any political threat.¹⁸

Thus private owners of defense firms, as is the case in other strategic sectors like energy, are increasingly being displaced by state control and managers, often from the so-called power agencies (*Siloviki*). These managers are not just the firm’s CEOs and Chief Operating Officers (COO), they can also be the Chief Financial Officer (CFO) and members of the Board of Directors of the firm.¹⁹ It is as if Defense Secretary Donald Rumsfeld were a member of Lockheed-Martin’s Board of Directors. This trend is accelerating throughout the entire Russian economy.²⁰ The ability of these “managers” to control these firms and appropriate the rewards accruing to themselves from this service depends upon their success in meeting state goals and maximizing state control, not legislative or legal accountability.

Equally important, the government welcomes the *Siloviki’s* intervention in the economy. In January 2005, Prime Minister Mikhail Fradkov stated that,

We still need the FSB’s role in providing the government and executive power bodies with up-to-the-minute information that will help us provide an effective legal foundation, make decisions on equal competition

conditions, develop business, and create a favorable investment environment.²¹

Moreover, as the noted defense analyst Aleksandr' Golts told Ekho Moskvyy radio station,

It would be a mistake to assume that AvtoVaz will be involved in export of arms and military hardware. In my opinion, the essence of the issue lies somewhere else, Rosoboroneksport is a state-owned company which has, for several reasons, always recruited people from foreign intelligence [political and economic] and Main Intelligence Directorate [military intelligence] and nurtured them as the most valuable cadres. Besides, this company is characterized by absolute secrecy. It seems that such [a] form of management has been approved by somebody at the top [of the government] as a highly efficient one. And now it will be introduced in all the businesses controlled by the state.²²

Chemezov, another colleague of Putin from his KGB days in Germany, says the major aim of this "nationalization" is to ensure that Russian firms fulfill their export contracts: "If there is no possibility of monitoring the process of contract fulfillment from the inside, it will be hard to control the quality of the end product."²³ The idea that the market or contract law enforced by courts might ensure this fulfillment apparently seems to have escaped Chemezov and his masters.

Other officials like Arkady Dvorkovich, Putin's Economic Advisor, justify this trend towards nationalization or state control on the grounds that,

This is because the period we are living in [is] the transitional period from one model of economic development to another. The companies would be expected to adhere to standards of efficiency and transparency associated with privately run corporations.²⁴

Since this rationalization flies in the face of everything we know about economics and Russia, one wonders whether Dvorkovich is trying to deceive himself or us.

Energy as a Model Strategic Sector.

The system now taking shape in defense industry as a whole, and with regard to ROE in particular, resembles the structure that is already discernible in the energy sector. In both these cases, which from the state's viewpoint are the dominant strategic sectors of the economy, Russia is building a system where single bureaucratic giants or nominally private firms, made up of bureaucrats who control the board of directors, are organizing giant vertically integrated firms for each branch of the industry. They then use that leverage to take over other industries and place them under state control. AvtoVaz and the trucking industry firm, KamAz, are merely the latest such examples.²⁵ Even if ownership is nominally private, real control over these firms belongs to bureaucrats appointed by the state who view the positions given to them not just as a means of serving the state and of implementing policy, but also as a springboard to wealth and/or power. Thus tough bureaucratic rivalries invariably break out over the disposition of these "assets."

That the regime sees the defense sector as being comparable to the energy sector in its strategic importance for Russia cannot be questioned. The similarities with the energy sector are striking. For instance, President Putin has stated that, "in terms of its significance and scope the global weapons market is comparable with such segments of the global economy as energy and food. Competition here is

extremely strong.”²⁶ Moreover, he also stated that the strengthening of Russia’s economic and political position in the world—his chief objective—“depends directly on the effectiveness of the work in the sphere of military-technical cooperation.”²⁷ And, of course, the revenues from such cooperation go directly to military modernization.²⁸

Furthermore, in the energy sector we see that state-owned and state-run firms are increasingly inefficient, show low growth rates, and are, if anything, inhibiting economic growth. Gazprom, for example, is an outstanding example of that trend.²⁹ So we can probably expect similar trends of suboptimal economic activity from the defense industrial sector due to its growing takeover and control by the state. Centralization and state ownership, touted as necessary economic reforms, are, in fact, exactly the opposite of what are needed from an economic point of view. Stagnation is the most likely result in the energy industry. Such trends are even more likely in the defense industrial sector, for, as one commentator put it, that sector “remains the most problem-ridden, closed, and bureaucratized sector of our economy. Not one of the many programs designed to reform it has thus far yielded any results.”³⁰

Ironically, even high officials, e.g., Gherman Gref, the Minister of Economic Development and Trade, understand this but nevertheless paradoxically continue the suboptimizing economic policies of state takeover and centralization. The newspaper, *Nezavisimaya Gazeta* (*The Independent Newspaper*), reported the observation of a high-ranking official in these words:

The economic policy is now mainly geared toward increasing the state sector. An attempt is [also] being made to ensure an increase in economic growth rates. “On the one hand, it is correct, for it is necessary to build facilities comprising the infrastructure and thus create

conditions for the development of business. On the other hand, state expenditures, particularly in the investment sphere, are not always efficient, and it may happen that the more money is distributed by functionaries, the higher the level of corruption,” our source stated. He is convinced that it is inexpedient to increase the state sector of the economy. Budget investments, as a rule, are not highly efficient. Besides, the authorities, in essence, are driving themselves into a vicious circle. On the one hand, . . . the task is set in the context of the privatization program to reduce—by 2008-2009—the amount of property controlled by the state to a minimum required to produce state functions. At the same time, we are currently “actively developing the state sector by increasing the state’s stakes in joint stock companies, but we experience problems in managing these stakes. Instead of increasing the state sector’s effectiveness we are expanding the sector itself.” If the situation persists, any reduction of the state sector in the coming years will be out of the question.³¹

Yet this “dialectical” policy whereby the state chases itself, as it were, continues with no letup, as the example of AvtoVaz indicates.³² Certainly state officials, even those who understand the absurdity of what they are doing, continue to proclaim that only “state investment,” their preferred term for the process, can rescue Russia.³³ For example, Gazprom, like ROE, is buying up automobile firms and placing them under its control, which means state control.³⁴ Similarly, in September 2004 the government announced the takeover of Rosneft by Gazprom. When Yukos was taken over shortly thereafter by Rosneft, which itself was already earmarked for assimilation into Gazprom, this sequence of policies revealed Putin’s ambition to create companies which would be the Russian equivalent of Saudi Arabia’s Aramco.³⁵ Since then, Gazprom has also moved to take control of Russia’s electricity and nuclear energy industries.³⁶ Thus,

A Russian political analyst even suggested that the merger between Gazprom and Rosneft would only be the starting point of the establishment of the biggest energy company in the world. The analyst pointed out a kind of holdings company named "Gosneftgaz" composed of Gazprom, Rosneft, Surgunftegaz, Lukoil, Yukos, and Sibneft could be established before the end of President Putin's second term, that is, 2008.³⁷

Putin's ideas about the proper organization of the energy industry, which he and his colleagues openly regard as a strategic industry, consciously point in the direction of this suboptimizing and economically opaque neo-Muscovite model. No doubt these ideas also apply to the defense sector. Putin wrote in his graduate thesis and subsequently published articles that "regardless of whose property the natural resources and in particular the mineral resources might be, the state has the right to regulate the process of their development and use."³⁸ His May 2006 presidential speech to the Federal Assembly echoed the theme that businessmen's profits exist at the sufferance of the state.³⁹ Then there is his corollary view that, due to the chaos of the 1990s, the state must reassert control of those resources because it alone has the capacity to ensure a rational use of resources for the national interest.⁴⁰ Putin underscored the critical importance of control over energy, not just to the economy's revival but also to Russia's survival:

The basic strategic tasks for the natural resource bloc involve achieving the transition to a rational combination of administrative and economic methods of government regulation in the sphere of resource exploitation. . . . In terms of a general conclusion, it follows that existing socio-economic conditions, and also the strategy for Russia's exit from the deep crisis and the restoration of her former power on a qualitatively new basis,

demonstrate that conditions in the natural resource complex remain the most important factor in the state's near-term development.⁴¹

Indeed, not only is the energy complex the guarantor of economic development and a locomotive of overall industrial development (an argument Putin and his supporters have also made about the defense sector and evidently still believe to be true⁴²), but its development ensures Russia's recovery as a great power.⁴³ Putin also argued that since the entire energy sector suffers from a shortage of investment and capital to modernize its plant and infrastructure (just as the defense industrial sector does), the state must create "large financial-industrial corporations" that cut across economic sectors and which will be competitive globally. The state-dominated and vertically integrated financial-industrial corporations must generate revenue for moving from extraction to processing industry, help develop exports, ensure domestic supplies, further develop the domestic raw material base, and help the energy sector invest in foreign firms.

These financial industrial groups will operate within the framework provided by the state, and if they serve the state in this way, they can expect to hold onto their assets. From this list of tasks set for the new financial industrial groups, it is evident that Putin views their control of Russia's assets as a form of guardianship from which the management and the "owners" are free to profit. It is also clear that Putin does not understand this stewardship as ownership, as it often is construed in the West, where owners have full control of their assets and the authority to determine the direction of their firms' development. Putin goes on to state this rather clearly: "the state has the right to regulate the process of the acquisition and the use of natural resources, particularly mineral resources, independent of on whose property

[they] are located; in this regard, the state acts in the interests of society as a whole, as well as in the interests of private owners whose interests conflict and who need the help of the state organs of power to achieve a compromise.⁴⁴ (*italics in original*)

This dirigiste (i.e., state-directed) concept of the energy sector embraces the entire economy. Some might see here a plan for huge Chaebol-like vertically integrated monopolies, as was the case in South Korea. But, in fact, what really is happening is a regression to the Muscovite patrimonial model, one of whose fundamental characteristics is state ownership and the conditioning of control of state assets on mandatory service to the state. Indeed, Putin's justification of state control merely replicates tsarist and Soviet officials' defense of their autocratic and patrimonial systems of rule.

Similarly, Putin's language, as well as words of Surkov quoted above, shows that energy revenues are a rent bestowed upon trusted servitors to direct as long as they serve well. Not only is this the newest incarnation of the patrimonial Muscovite system, it also entails a retreat from global integration to an autarchic, zero-sum concept of the energy complex (and defense sector). Even though Putin is demanding that industries, e.g., aircraft, be competitive with foreign firms on the global market, not just the domestic, and attract foreign investment, state control and ownership, accompanied by restrictions on foreign investment, inevitably lead to both autarchic tendencies and stagnation.⁴⁵ Indeed, Defense Minister Sergei Ivanov recently conceded that "in the military sense, Russia remains a self-contained sovereign party."⁴⁶

Therefore it is hardly surprising that autarchic drives and interests are increasingly being voiced in both energy and defense industrial sectors. In his

address to the Federal Assembly on April 25, 2005, Putin cited the need for legislation clearly delineating security requirements so that Russia could attract foreign investment, but insisted upon preemptive control by “national [entities], including state capital,” over defense industry and strategic natural resources.⁴⁷ Similarly, the state-controlled Gazprom wants to become “one of the largest integrated energy companies in the world, spanning oil, gas, and electricity,” not to mention the automotive industry.⁴⁸ This rationale for huge vertical state-run monopolies has now been extended to the railroad system that is supplying energy to China in advance of pipelines.⁴⁹

Putin’s Chief of Staff, Sergei Sobyenin, has expressed the view that the energy industry is a prime mover of the broader industrial sector—an argument that, as in the defense sector’s case, is hardly borne out by the record.⁵⁰ Similarly, Sergei Ivanov, who is very close to Putin and his possible successor, stated in 2003 that,

The state, in my view, should not lose control over all the strategic branches of industry. This does not mean encroaching on their activity, but it must control them, know the situation, and understand in what direction these branches are developing. . . . If we do not begin to invest significant state funds in exploration in the next few years, we risk having to cope with serious consequences in the coming 10-15 years. The state, knowing the situation, can make balanced decisions about investing funds for geological exploration in one or another region of the country, taking into account companies’ development plans, and then conduct open licensing for the exploitation of these deposits. This is something that the state must do, because in recent years we have become convinced that private companies will not invest in exploration work. Besides this, minerals and resources are state property, not private. Therefore the state has the full right to control this process and manage it in the interest of the entire country’s development.⁵¹

Ivanov's remarks also echo the sentiments of his Soviet or tsarist forebears, which would have been about as economically justified as are his arguments. As we have seen here, this distrust of markets and of private enterprise typifies Russia's previous and current rulers.⁵² But their arguments make some sense if one regards the energy and defense industry primarily as a strategic asset through which the state regenerates itself along with a patrimonial type economy. Certainly Ivanov used this argument to justify the destruction of Yukos and its owner, Mikhail Khodorkovsky, in 2003-05. Ivanov's statements, along with Putin's and those of other officials, articulate an official consensus about the need for state control over energy and a fortiori over defense industry.⁵³ For Kremlin leaders, energy is the state's primary strategic asset, both in terms of domestic revenues and in terms of maximizing foreign influence and leverage, and they will not let this weapon slip from their control. Therefore, while the government might permit foreign firms to buy minority equity in Russian energy companies, it will not let any foreign firm or government exercise influence over any of those companies. All these points apply even more to the defense industrial sector.

The Consequences of the Tsarist Model.

In such a system, opacity is the rule, not the exception, and this would be so even if we were not dealing with the naturally secretive defense sector. Accordingly, accountability in this sector is limited at best, and corruption and criminality are ubiquitous throughout the entire economy.⁵⁴ Thus it recently was observed that "in Russia, corruption is the strongest vertical structure, on which the entire state arrangement

is based.”⁵⁵ Indeed, as the Russian press and Russian specialists like Leonid Kosals and Vitaly Shlykov often have observed, Russia’s defense industry is riven by corruption and even criminal violence, including forcible seizures of companies and the murders of executives of defense firms in the competition for control over the rents accruing from arms sales either to the Russian army or abroad.⁵⁶

Nor is this unusual or atypical. Analogous trends are all too discernible in the energy industries, Russia’s most strategic assets. And this commingling, if not integration, of criminality with state policy is not confined to the domestic situation but is also exported in a deliberate effort to undermine or penetrate foreign regimes.⁵⁷ So while arms sales everywhere represent an effort to influence foreign regimes and often are accompanied with bribes, kickbacks, and other forms of corruption, such criminality in Russia is not an added cost of doing business. Rather, it is intrinsic to the system. ROE and the defense industrial sector are not anomalies in their behavior but instead epitomize Russia’s “political economy” and foreign relations.

Neither do these pathologies stop here. The numerous bureaucracies and bureaucratic actors involved in arms sale policy lend themselves to incessant bureaucratic rivalries, which preclude efficiencies or even effectiveness in the defense and energy sectors. In the latter, Gazprom’s declining performance speaks for itself.⁵⁸ But in the defense sector, rivalries over control of the procurement system led to a deadlock by 2005, whereby increasing injections of budgetary funds failed to lead to any meaningful increase of procurement by Russia’s own forces.⁵⁹ In this struggle between Ivanov and the leadership of the State Defense Order Committee led by Andrei Belyaninov, Ivanov

prevailed at the latter's expense, putting improvement of the quality of weapons at some risk. As one assessment of this rivalry concluded, "In other words, increasing the status of one department working in the sector of the state defense order damages another department."⁶⁰

At the same time, this form of political-economic organization is, of course, inherently suboptimal. In the Russian case, the lure of a state takeover of the defense industrial sector as an ostensibly rapid and decisive solution to its seemingly endless problems is a continuing temptation. This remains true even though that solution exacerbates the problems facing this sector due to the failure to overcome the legacy deformities inherited from the Soviet and Stalinist mobilization economy. Indeed, since Putin's rise to power, the reflexive response of officialdom whenever confronted by political-economic shortcomings invariably has been more centralization in the presidential apparatus itself, a typical Communist, if not tsarist, response as well. Therefore, to understand ROE, its relation to other state agencies and the defense industrial sector, and its interaction with global trends and foreign governments, is to understand not just a sector, but the essential nature of Russia's neo-Muscovite model.

The Overall State of the Defense Industrial Sector.

Despite 15 years of continuous reorganizations and upheavals, Russia's defense industry remains a backward, crisis-ridden, unproductive sector and is acknowledged as such by high-ranking state officials, not just outside analysts.⁶¹ It currently works at about 20-30 percent of its capability, depending on the particular analysis or estimate in question.

Its infrastructure and personnel are aging, and the former is increasingly dilapidated. Only 20 percent of Russian weapons are of contemporary quality, and this depressing fact actually represents an improvement on earlier conditions.⁶² Moreover, the visible and even accelerating deterioration of the quality of those weapons and the increasingly heroic efforts necessary to keep them serviceable had already made their presence felt in arms exports by 2002.⁶³ In March 2002, *The Times* of India reported that,

The Parliamentary Standing Committee had issued recommendations last week urging the government to avoid overdependence on Russia for armaments and spare parts. The Committee report did reportedly acknowledge that Russia has been and will remain a steadfast source of defense equipment for India, but cautioned that New Delhi's current dependence on Moscow for as much as 80 percent of its arms imports is not a healthy situation. It likewise observed that Russia was not providing military hardware on the same beneficial financial terms that it had during the Soviet era, and urged both that New Delhi cease making advance payments for future weapons acquisitions from Russia, and that it seek in the future to put more defense contracts up for competitive tender.⁶⁴

While plans are underway to engage in wholesale reequipping of the Russian military through the next decade, industry is still often unresponsive and oriented toward exports that produce desperately needed hard currency, not toward the domestic defense community.⁶⁵ Russian officials are also increasingly insistent that Russian defense industries produce for the domestic civilian market, much as their Soviet predecessors did.⁶⁶

Indeed, it appears that the new trend is to have factories that work largely for the civilian sector also

produce for the military. This, too, represents a step back towards the Soviet model, where every plant, including ostensibly civilian ones, were, in fact, geared to produce for the needs of the defense sector's mobilization endeavors and where defense factories, to maintain production lines, produced (generally substandard) goods for the civilian sector.⁶⁷

Hence the significance of foreign arms sales, which are supposed to go a long way toward funding not only the preservation of valuable arms-producing firms, but also the entire defense industrial sector. In 2005 three goals were set for the defense industrial sector: guaranteeing conditions for serial production of weapons that have good prospects for use and sales; maintaining and developing Russia's position in the global arms market; and diversifying production so that the defense industrial sector produces goods that are usable in the civilian sector (sometimes resorting to import substitution even if that works against the mandated autarchy of the 1970s).⁶⁸ Despite a registered account of defense sector enterprises as late as 2003, estimates of the sector's present size vary wildly, ranging from 1,265 firms all the way up to 1,700.⁶⁹ This disparity in assessments of how many firms actually make up the defense industrial sector, which according to one official account used to include over 2,000 firms, testifies to the endemic confusion that prevails.⁷⁰

To judge the failure to get rid of Soviet-era firms, we may compare the number of firms in this sector reported in 2003-04 – 1,700⁷¹ – with the figure to 2005, which was still close to 1,700 defense firms in operation, far more than are needed or can be sustained. After all, 25-40 percent of them are bankrupt, depending on the particular source consulted!⁷² Thus, very little has been achieved in converting this sector into a full-fledged system of market relationships where uncompetitive

firms are forced out and their resources freed for more profitable use. Many of those firms remain uncompetitive, even those not bankrupt, as was the case 5 to 15 years ago, and depend on state bailouts to continue working in the defense sector.⁷³ Worse yet, current trends suggest a regression towards the structural militarization of the Soviet economy and the imposition of state controls in the neo-Muscovite paradigm instead of reliance upon market forms of organization.⁷⁴ Indeed, recently announced plans indicate that by 2015 Moscow hopes to be spending 4.939 trillion rubles (or \$185 billion) annually on defense.⁷⁵

One key reason for this revival of the Soviet-like structural militarization is that, as the central vehicle for arms sales, ROE has been assigned objectives that go far beyond supervising arms sales, embracing ever larger responsibilities in restoring Russia's defense industry as a whole. To the extent that central direction and control are strengthened, these uncompetitive and wasteful firms probably will continue to operate or be integrated into larger firms and drag them down too.

While economic revival remains the regime's principal task, its true and ultimate objective is facilitating Russia's revival as a great Eurasian power, Russian leaders' traditional goal. Putin has responded to the defense sector's crisis by recentralizing it—not resovietizing—as part of his overall program. Although rising defense spending claims the majority of the official budget, this sector also continues to consume vast sums of unaccounted for and unaccountable funds. Moreover, its appetite and diet are both growing. One account of the draft 2006 budget presented to the Duma in 2005 made no bones about its being a budget primarily oriented toward growth of the defense sector and therefore quite opaque:

In fact, a significant part of the military budget expenditures and the corresponding goals are hidden under entirely civilian designations. For example, one of the goals, whose achievement must be ensured by corresponding state expenditures, is the growth of machine building export. In figures, this appears as follows: in 2005, machine building export must comprise \$14.8 billion. At the same time, arms export—and this part of machine building export—has been placed at \$5.1 billion. For now, the fulfillment of these tasks is not convincing: in the first half of 2005, the export of machine building products comprised only \$5.5 billion (for reference: in the first half of 2004, \$6.5 billion worth of machines and equipment were exported, and \$14.4 billion worth of analogous products were exported for the entire year). Our *Kommersant* correspondent was unable to obtain data on the semi-annual export of arms. However, we do know that even the plan for their export in 2005 is less than the data in the actual export of arms in 2004 when it comprised \$5.8 billion.⁷⁶

Tightened state control with lessened transparency and accountability can only perpetuate that condition. In 2005, Vladimir Mukhin stated:

According to the roughest estimates, over one-half of the country's budget will come under the new military-industrial control. Solely in respect of direct allocation around \$16 billion will officially pass through the Russian Federation Defense Ministry-controlled Federal Agency for the Defense Order and Federal Agency for Military-Technical Cooperation in 2004 (according to Economic Development and Trade Ministry data, 341.2 billion rubles will be removed from the defense order and R 150 Billion from the arms business). Expenditure on special construction and military reform, as well as on defense industry administration, must be put into this category. *However, Comptroller's Office audits of the military department regularly reveal the nontargeted use of vast resources.*⁷⁷ (Emphasis added.)

These moves to create an omniscient Ministry of Defense also added 100,000 railroad troops to the Ministry of Defense (MoD) rolls. Thus, as of 2005, Ivanov's MoD:

Includes the Russian Federation Federal Service for Military-Technical Cooperation [FSVMC], Federal Service for the Defense Order, and Federal Service for Technical and Export Control, which have been transformed from committees under the Russian Federation Defense Ministry, plus the Federal Agency for Special Construction. In respect of questions concerning the nuclear defense complex, the Defense Ministry also will control the Federal Agency for Atomic Energy, which is part of the new Ministry of Industry and Energy. The Russian Federal Railroad Troops Service, disbanded by presidential edict, also has passed to the Ministry. The department's oversight functions extend to the administrations for munitions, conventional weapon, guidance and control systems, and shipbuilding, which have been reestablished within the Industry and Energy Ministry in place of the analogous agencies that have been abolished.⁷⁸

Since then, Ivanov and his Ministry have gained even more control over this sector, including oversight of ROE which is being used increasingly as a financial and state control agency over all of defense industry. Insiders in defense industry have hailed these moves as a return to the past that would encourage formation of state-led, vertically integrated, defense-industrial complexes to produce modern weapons and technology.⁷⁹ Certainly many observers advocate MoD control of that industry.⁸⁰ Moscow also hoped to concentrate "winners" in large blocs controlled or at least directed by the state and to eliminate uncompetitive enterprises.⁸¹ Indeed, Putin even placed high-ranking state officials as directors of some firms, a classic example of patrimonialism in action.⁸²

However, despite the state's continuing failure to reform this sector, Moscow will not let private industry run it lest those firms fail. First Deputy Minister of Industry, Science, and Technology Aleksandr' Brindikov said that Russia must save even inefficient production capabilities for future contingencies against the possibility of wartime need.⁸³ As Aleksandr' Golts wrote,

Even though Russia annually spends more and more financial resources on arms production—thus in 2005, government defense contracts were worth a total of 187 billion rubles—its volume is negligible. The reason is that the industry is based on purely Soviet principles. The Defense Ministry wants the defense industrial complex to be ready to produce the whole spectrum of arms—from Topol-M strategic missiles to Kalashnikov assault rifles. Therefore it has to spread considerable financial resources thin on the ground—to go around between all enterprises in equal but infinitesimal shares. As a result, for instance, this year the Russian military will receive just a few combat aircraft—not new, but retrofitted old models.⁸⁴

Stalin's market-defying logic and total war mobilization outlook still prevail.⁸⁵ Meanwhile, the Russian government has resorted to throwing money at procurement with little return. According to one account, Ivanov recently told the State Duma, "More than 40 state and government officials sign off on the state defense order, but no one is ultimately responsible for its execution."⁸⁶ On hearing this, reporter Oleg Vladykin of the *Moscow Times* wrote,

From the financial watchdog's chief perspective, continuous increases in military spending on the procurement of arms and military equipment do not necessarily guarantee that these funds are used effectively.

A lack of clear mechanisms for interaction between the “power structures” and the defense industry has often jeopardized production deadlines, quality standards, and, most importantly, the stability of prices.⁸⁷

Thus in November 2005 Ivanov had to admit that defense allocations were falling short of needs, with the Navy and Air Force particularly lacking in supplies.⁸⁸ Meanwhile, 70-80 percent of the armed forces’ equipment was obsolete in the unanimous view of commentators.

In May 2006, Ivanov told Putin that the military would spend over 4,000 billion rubles, with other power structures spending about 1,000 billion rubles, on procurement of weapons for the state armament program through 2015.⁸⁹ Nominally, these figures represent major increases over past expenditures, but, given the results to date and what we know of state-controlled firms’ economic performance in the past, we are entitled to question whether Russia actually will receive an adequate return on its defense investment.

In this connection, a recent paper by Irina Isakova observes that the Ministry of Defense commissioned over 400 items of equipment to make up for years of insufficient funding, with serial production and deliveries to the armed forces being anticipated for 2010.⁹⁰ She noted that the second reading of the planned State Defense order for 2007 was scheduled for June 2, 2006. Supposedly even more money was to be allocated for defense spending so that it would rise by 27-28 percent over the 2005 level rather than the earlier planned 20 percent. In the Defense Order for 2007, the ministry would spend 302.7 billion rubles, increasing procurement by 22 percent. The ministry would also increase spending on R&D by 20 percent so as to reach \$10 billion. Ivanov had claimed earlier

that serial production of weapons could now begin.⁹¹ Total defense spending, according to Ivanov, therefore would exceed \$29.6 billion.⁹²

Moreover, total spending over the projected life of the defense order was to approach 5 trillion rubles, a figure close to China's projected official defense budget for the period. The purpose behind these expenditures is to reequip Russia's armed forces so that they could, in accordance with the requirement expressed by Putin in his May 10, 2006, speech to the Federal Assembly, wage one global war, one regional war, and several local wars simultaneously, if need be.⁹³ In other words, Putin here reasserted the need for a comprehensive mobilization of the economy on behalf of the armed forces. The constantly rising figures, the difficulty in monitoring what the defense sector really is spending and buying, and the discrepancies in announced spending totals suggest to this author a heightened opacity in defense spending.⁹⁴ Of course, such opacity may reflect continuing bureaucratic pathologies which are built into the system deliberately to inhibit any real ability to trace and monitor state spending. Possibly both factors—malfeasance *and* design—are at work here.

However, the June 2, 2006, meeting alluded to above was postponed. Its purpose was to draft the State Defense Order and the so-called targeted development program to increase both procurement and the technological quality of armaments. Deputy Head of the new Military-Industrial Commission (of which more below) Vladislav Putilin now talked of spending 250-400 billion rubles on that program. As he and Ivanov both said, the government now seeks to minimize as far as possible any time lag between adoption of the state armaments program through 2015

and the targeted development program for reequipping and developing the defense industrial sector through 2015.⁹⁵

At the same time, Russian arms exports, upon which industry depends, are hitting a yearly ceiling of about \$5-6 billion, forcing industry to consider selling nuclear-capable systems that have the downside effect of enhancing proliferation threats facing Russia.⁹⁶ Worse yet, many experts believe that the quality problem inherent in Russian arms sales of Soviet-generation weapons is constraining prospects for future arms sales. While the spare parts market for these weapons is evidently growing, the market for the weapons themselves is declining, with both China and India, Moscow's main customers, increasingly looking either to indigenous production or to the West.⁹⁷

Neither do observers see any visible improvement in actual procurement. Indeed, many experts believe that no real research is currently taking place, including that in vital cutting-edge fields, and that talk of new weapons is just that, talk.⁹⁸ One ferocious critic of the armed forces, Aleksandr Khramchikin, observes that reports of a fifth-generation aircraft were merely speculation because there was no real competition between Sukhoi and MiG, no blueprints, and no basis for tenders. Even though Sukhoi won a tender and boasts of catching up to the U.S. F-22 *Raptor* already in service, by the time this is supposed to happen, 40 percent of U.S. aircraft will be unmanned.⁹⁹ Current reforms aim to replace the military's conventional weaponry fully by 2020-2025. Meanwhile, Russia will focus on upgrading existing systems by adding new technologies incrementally through 2015, particularly the information component of weapons.¹⁰⁰ As these reforms occur, priority will go to funding R&D for new weapons and to maintaining open production lines

and capabilities for existing weapons during the same period. Industry will use this period, or so it is planned, to start introducing new weapons so that upgrades, repairs, hardware development, and procurement reach 50-60 percent of annual defense spending by 2015, thereby preserving production capabilities.¹⁰¹

To raise exports, Putin merged Russia's arms exporters, whose competition allegedly knocked down the price of exports, into one group under his direct authority, i.e., ROE, and gave operational control to the MoD.¹⁰² He also cut over 600,000 mostly paper jobs in defense industry through 2006, possibly closing factories and even whole design groups. The aerospace and shipbuilding industries in particular will be concentrated drastically into state-controlled holding companies, just like the energy sector.¹⁰³

This is exactly what Ivanov has called for as he takes even greater control of this sector.¹⁰⁴ Some 35-40 giant holding companies under state control supposedly should unite the existing 1,700 defense enterprises and eliminate laggards.¹⁰⁵ Their nuclei will be those firms engaged in exports. The three key groups of firms will be those supplying finished weapon platforms like aircraft, submarines, tanks, etc.; those supplying weapon systems to go on those platforms; and those supplying such auxiliary items as engines, generators, and maintenance systems.¹⁰⁶ While in 2001-02, many of these plants' production was 5-7 percent of capacity, their level since has risen, but only to some 15-25 percent of capacity. Ivanov also maintains that the remaining production capacity will be used to manufacture high-technology civilian goods, thus warding off bankruptcy.

While he argues that this scheme is not a replication of the Soviet system under which firms made cookware

and weapons together, it is in fact a return to that system.¹⁰⁷ As Alexander Golts observes,

In speech after speech, Ivanov has been insisting that the military-industrial complex can drive the Russian economy. As proof, he has noted that defense industries account for more than 70 percent of all high-tech products and employ more than 50 percent of the country's scientists. Ivanov also maintains that by 2015 Russian defense industries will devote more than 70 percent of their production capacity to the manufacture of civilian goods.¹⁰⁸

If we combine these claims with the fact that ROE is taking over part, if not all, of every new major industrial conglomerate (as discussed earlier), then we can perceive clearly that the state takeover of the economy for purposes of military development—the same overriding goal of Soviet economics—is recurring.¹⁰⁹ Indeed, as one of Putin's aides admitted, "The solutions are half-Soviet."¹¹⁰ Little that we have seen, however, gives reason to believe that the defense sector can be the locomotive of high-technology production, as Stalin, Putin, and now evidently Ivanov all have maintained.

The Russian Critique of the Defense Sector.

External observers, industrialists, and high officials like Deputy Defense Minister General Alexei Moskovskiy all agree that defense industrial policy has failed, barely meets military needs, or has not been implemented. These critics highlight severe quality shortcomings throughout the industry as well. These critiques underscore the state's inability to make the neo-Soviet and neo-tsarist model work under present conditions.¹¹¹ There are many reasons for this.

Certainly the legal environment, the tendency of ROE to favor deals over service, and the regime's overall preference for putatively autarchic development, inhibit the growth of foreign contracts and sales. Thus Vladimir Urban reported that India proposed in 2004 to President Putin that it was ready to begin joint defense research work with Russia for the entire cycle of product development. But Russian laws and ROE's preference for deliveries for which it receives a commission (rent-seeking again) stood in the way of this proposal. Likewise, post-delivery servicing is not attractive to the defense firms who manufacture weapons.¹¹² In a similar vein, Israel proposed to Russia that it cooperate with Moscow in developing unmanned aerial vehicles (UAVs) to scout for Russian aerial armaments platforms, even to the point of a joint venture that would make Russian strike aircraft significantly more attractive as a sales package. Yet Moscow evidently prefers to go it alone, maintaining freedom to sell its own weapons to countries like Syria.¹¹³

A recent study by the respected Strategy and Technology Analysis Center (STAC) found that in many if not all cases, arms sales funds never even reached the defense-industry complex, yet this sector still survives almost exclusively due to exports. Even though state funding supposedly has risen by several orders of magnitude since 1999, STAC found that this sector still would not receive state funds in 2005 because the state administration, despite Putin's reforms, remains broken. Konstantin Makiyenko, Deputy Director of STAC, found that,

Defense agencies were abolished in the course of the state administration reforms [2004], so defense enterprises are no longer required to report their condition. Thus I

don't believe that even the government knows the true situation in the military-industrial complex. In fact, even the picture we've come up with is not complete – because we did not assess the condition of classified producers of strategic weapons.¹¹⁴

In 2003 Sergei Ivanov complained that “units have only 70-85 percent of the required armament in working order, and the figure is less than 20 percent for up-to-date models.” He also complained about “inexpedient acquisitions.”¹¹⁵ Nor is this a surprising outcome. Golts and Tonya Putnam observe that defense spending from 1999 to 2003 more than doubled in real terms.¹¹⁶ Yet readiness/procurement did not improve.¹¹⁷ One anonymous deputy industrial engineer in a Moscow defense plant wrote to the newspapers that,

We are already observing the loss of control of this entire very complex system, uncertainty, clearly criminal competition for purchases of weapons and the receipt of resources for the development of new models. Already right now the single customer [the weapons directorate of the Ministry of Defense] is not managing the situation in the defense industry and does not know the troops' needs. . . .¹¹⁸

Another problem is that the military sets its own funding priorities without any real civilian oversight. Thus money disappears into untraceable “black holes.” For example, in 2002 79 billion rubles went for 340 different types of military equipment. Yet,

In many cases . . . the orders have been for a single piece of equipment (e.g., one tank or one airplane) rather than for an entire series. Year after year the Defense Ministry has paid for this piecework without any guarantee that these weapons could be manufactured on a large scale. Nevertheless, Russia's 2002 armament program

again neglected to specify any government priorities for procurement.¹¹⁹

Similarly, the 2005 federal budget raised defense and security forces' spending 30 percent and mandated the following procurements:

Three battalions of T-90 tanks (90 vehicle in total), three battalions of armored transport vehicles (again 90 machines), the first battery of the *Iskander-M* operational-tactical missile complex (consisting of two launcher units, two warships, two TU-160 "Blackjack" strategic bombers (one new one to be refitted), seven modernized SU-17SM multi-role fighter jets, seven ballistic missiles (four *Topol-M* silo-based rockets and three on mobile launchers), nine military satellites, and seven booster rockets. In short the budget calls for the purchase of about 300 individual weapons and pieces of military hardware, at a total cost of 188 billion rubles (\$6.8 billion).¹²⁰

Yet, as we have seen, those targets were not reached, leading some analysts to complain that unless funding levels are raised, the entire armed forces may collapse in a number of years.¹²¹ Naturally the 2006 and 2007 budgets, especially for procurement, aimed for a further considerable increase of spending. As Vladykin observers,

In 2006 almost 237 billion rubles (about \$ 8.8 billion has been set aside for the procurement of arms, military hardware, and other equipment compared with 183 billion rubles (about \$6.7 billion) last year. According to Sergei Ivanov, an additional 54 billion rubles (about \$2 billion) will be spent on modern high-tech arms for the Air Force and the Air Defense Forces, as well as—in light of the U.S. plan to deploy ABM systems in Eastern Europe—on reinforcing Russia's ABM system. Projections for 2007 arms production levels were announced recently: funding is to increase by another

28 percent. Further modernization of the Armed Forces will cost the state treasury 302.7 billion rubles (about \$11 billion). Total defense spending is expected to reach 800 billion rubles (about \$29.5 billion).¹²²

Supposedly, 55 percent of government armament program funds from 2007 to 2015 will be spent on new weapons.¹²³ However, to obtain an accurate picture, these figures should be readjusted upwards because the vagaries of the Russian system understate the actual burden of defense spending on the economy (more on this below). Nevertheless, the real issue remains not the amount of spending, but rather its efficiency or effectiveness in providing Russia with the weapons it needs.

Moves that point toward a restoration of the Soviet system also naturally restore Soviet economic pathologies such as substitution of plans and reports for actual execution, systematic obfuscation or falsification of statistics, and an uncompetitive, wasteful, and inherently inflationary defense economy. Indeed, many reports of improved procurement are evidently just another Potemkin village.¹²⁴

While the Ministry of Economic Development and Trade stated that inflation in 2004 was 12 percent, in fact it was 29 percent, with metal prices rising even more in 2003-04, causing procurement failures and additional costs of 50-55 billion rubles in 2003 alone. Military producers had to absorb the difference, and many state orders were not met.¹²⁵ Similar events occurred in 2005 and undoubtedly continue to occur, given the nature of the economy.¹²⁶ As the Russian government still cannot meet modern budgetary-industrial challenges, and defense economic structures remain premodern nonmarket institutions, military modernization occurs

in a strategic and economic vacuum that cannot sustain such projects or impose credible, hard-nosed budgetary and policy constraints. Moreover, a neo-Soviet system predictably invites the replication of many Soviet pathologies as “rational” structural responses to the distorted economic realities of the system, e.g., efforts to deceive the state and overcharge it for inferior or nonexistent projects.¹²⁷

Defense Spending and Structural Militarization.

Defense modernization still entails excessive economic and political costs and means, essentially preserving or transforming Soviet structural militarization to meet current challenges but without clear strategic guidance as to what the priority threat or threats are.¹²⁸ In fact, to read authoritative documents like Putin’s May 10, 2006, speech to the Federal Assembly, it would appear that the main threat is not terrorism, but the United States and NATO, so naturally spending will go to those contingencies.¹²⁹ It is unlikely that this Soviet-like restoration, which resembles the endless Soviet and tsarist reorganizations to “perfect” the state apparatus, can fulfill Russia’s weapons plans for 2010 or 2015, modernize the defense economy, or overcome the legacy of structural militarization.

For example, the defense industry reportedly recovered far enough by 2003 to produce at 42 percent of its 1990 levels, when it produced twice as many weapons as did American defense industry. Thus Russia produces almost as many weapons as does America. Yet its gross national product (GNP) still has not recovered to 1990 levels and is 15 percent of America’s.¹³⁰ As of 2004, according to Moskovskiy, it met only 10-15 percent of the armed forces’ needs.¹³¹

The defense industry's condition satisfies nobody. Ivanov complained that industry wants bailouts from the state rather than to compete and sell on the basis of a market, and conceded that Russia still lives off the Soviet heritage.¹³²

The systematic obfuscation of economic statistics also makes it virtually impossible to obtain a clear idea of the extent of the economy's militarization or an accurate understanding of defense spending. Thus estimates of that militarization vary significantly. The International Institute for Strategic Studies (IISS) in London observes that Russian defense spending through 2002, using the regime's formal budgetary statistics, amounts to only about 2.5-3 percent of annual gross domestic product (GDP).¹³³ However, this conclusion does not consider the widespread reliance on falsified statistics, extra-budgetary allocations, budget add-ons like that decreed at the end of 2004, funds under the control of the General Staff for nonmilitary purposes, regional and local spending on the military, and noncash transactions.¹³⁴

As a result, estimates of the true amount of defense spending, and of the burden of defense spending on the economy, vary, but they all do so in ways that significantly revise upward the proportion of defense outlays relative to Russia's GDP and budget. Indeed, defense spending is the largest component of the budget. Irina Isakova argues, with regard to the 2004 budget, that national defense budget headings amounted to 2.56 percent of GDP, a figure that excludes pensions and paramilitary forces that were funded elsewhere. Using the IISS assessments and adding these data, defense spending came to 680 billion rubles, or 4.05 percent of Russia's GDP.¹³⁵ She also found that in 2005 the presentation of the budget was changed so that all

defense-related expenditures were brought under a special section on national defense, including a special chapter itemizing the breakdown of the state defense order on funds for R&D, maintenance of existing equipment, and procurement of new equipment for both the regular and paramilitary forces. The 2006 budget removed the itemization but specified the classified amount of funds transferred to the MoD (183.1 billion rubles out of 297.7 billion rubles allocated to it). All defense spending officially amounted to 666 billion rubles, again around 2.8 percent of GDP.¹³⁶ Yet this figure is not consistent with the aforementioned procurement figures because, if it captures total defense spending, then hardly anything is left for spending on personnel or other needs, a result we know is patently absurd.

Alternatively, Christopher Hill of the British Ministry of Defence (MoD) presented figures for 2001 and 2004 concerning the continuing excessive burden of defense spending upon the Russian economy. Hill estimated that actual spending in 2000 was 143 billion rubles in terms of 2000 prices, having risen significantly from 1999, with the official 2000 defense budget reflecting little more than half of true defense spending.¹³⁷ In 2001, he found that defense spending rose to \$50 billion in constant 2000 prices. IISS came in with a somewhat higher estimate of \$57 billion in constant 2000 prices.¹³⁸ In 2001 the government announced its intention to reapportion arms spending to an even 50-50 ratio between conventional and nuclear weapons by 2011.¹³⁹ Although defense spending has risen greatly since 2001, there is no reason to assume either less opacity or a reduced defense burden compared to that year.

Hill also assumed that the military accounts for one-third to one-half of all spending on science, but

official statements suggest his estimate was unduly conservative.¹⁴⁰ Thus, as of 2001, defense spending probably accounted for 5 percent of GNP, a high proportion by NATO, if not past Soviet, standards.¹⁴¹ Hill, together with Peter Sutcliffe, argued in 2004 that Russian defense spending remained in the 4.5-5 percent-of-GDP range, that much defense spending continues to remain off the budget or “extra-budgetary,” and that actual spending on defense by NATO standards of measurement in 2004 was 480 billion rubles.¹⁴² They also found that Russia could probably reach official conscription and weapon procurement targets by 2010.¹⁴³ Ivanov’s latest reforms, described below, confirm that prediction. Although Isakova’s and Hill’s figures do differ somewhat, they are close. Taken together, they show the need for not taking official Russian declarations at face value. Russia’s actual defense spending is considerably more than that announced in the official budget, a fact making the poor return on its investment even more striking.

Mikhailov insisted upon priority for systems related to terrestrial and sea reconnaissance; information support of troops; automated weaponry combat control; precision strike from land, sea, and air; modern global and theater navigation; optical and radio detection, ranging, and information processing; and new munitions “possessing significantly greater energy capacity, means for their delivery, and others.”¹⁶⁰ He outlined several key areas in which, using exclusively domestic production, Russia must compete, given the rising American threat: space and missile engineering to build *Topol*-Ms, missile defenses, new generation of space apparatuses “for various targeting procedures,” aeronautical engineering for new fighter planes, anti-air or air defense engineering, 4th- and 5th-generation

submarine missile cruisers, heavy aircraft-carrying cruisers, precision-guided missiles, tanks, C2 systems for ground forces, and highly integrated microprocessors, supercomputers, and neuroprocessors.¹⁶¹ Richard Staar reported that future defense spending would feature major increases in aerospace systems; microelectronics; electro-optical systems; new strategic, tactical, and miniature nuclear weapons; the first *Borey*-class nuclear submarines armed with the new SS-NX-28 sea-launched ballistic missiles (SLBMs) (*Bulava*); the navy; and command, control, communications, and intelligence (C3I) technologies for both information warfare and nuclear C3I.¹⁶²

The program for naval spending on new ships, originally expected to double by 2008, has gone awry. The Navy, at least according to its proponents in 2005, risked collapsing even though new, smaller ships are apparently coming on line.¹⁶³ According to Staar, Russia has spent significant amounts researching directed-energy weapons: lasers; microwave radiation emitters; particle-beam generators using subatomic particles to destroy targets at the speed of light; a new mass plasma weapon that could by ionizing the atmosphere destroy incoming enemy missiles and aircraft; anti-stealth radar; stealthy air-launched cruise missiles; newly tested antiaircraft and anti-missile systems (i.e., the S-400 with a range of 250 miles); and a plasma coating to make 5th-generation Russian aircraft invisible.¹⁶⁴ Until these weapons are ready — Staar's list omitted weapons based on discovery of new physical principles, information weapons, C3I systems, nuclear weapons, etc. — Russia must continue upgrading existing systems.¹⁶⁵

These programs reflect emerging Russian views of future war.¹⁶⁶ As a 2002 Swedish study observed,

According to the Russian military doctrine, future conflicts will be characterized by, among other things, a wide use of stand-off weapons, electronic warfare, increased information confrontation, efforts to disorganize state and military command and control systems, highly efficient high-precision weapons, massive air operations, and the use of airborne forces. Technologies to support the development of such future forces and capabilities are thus of highest importance.¹⁶⁷

Russian defense industry may remain competitive in traditionally strong sectors like nuclear, laser, and space satellite technology. But its excessive dependence upon the state and structural militarization makes it inherently dysfunctional. Russia still may be falling behind in cutting-edge innovative technologies relevant to future wars even without considering issues of manpower; professionalizing the armed forces; underinvestment in education and science; organizing the forces to maximize the potential of new systems and technologies; and the catastrophic state of its infrastructure.¹⁶⁸ Consequently, the defense industry remains in crisis despite Putin's efforts to overcome it by reasserting state control, a policy which, at best, will have dubious results.¹⁶⁹

Undoubtedly this crisis will provoke further reforms. Already the regime appears to be seeking to channel funds from a reformed customs program whereby the Federal Border Service has been resubordinated to direct governmental control by the President, not the Ministry of Economic Development and Trade.¹⁷⁰ Arms sales, creation of more vertically integrated holdings in the economy, and establishment of ruble-denominated commodity exchanges for gas, oil, gold, and possibly other commodities will also serve as a source of defense funding.¹⁷¹ In addition, the government is sponsoring what it calls public private

partnerships (PPP) to facilitate private investment in defense industry. While the initial idea (as of July 2006) is to keep control of these partnerships out of the hands of the MoD, it still seems that attempting to sponsor private investment in these vertically integrated and state-controlled firms is a new variant of the old Muscovite and Soviet practice of coercing private labor and/or resources into state service.¹⁷²

At the same time, Ivanov now urges defense industries, not the government, to fund R&D on their own and *give* weapons to the military. He resorts to these measures because the state defense order now exceeds the volume of exports, and production has begun to revive. Supposedly, such an expedient eliminates “dead souls” on the state’s ledgers, firms that produce nothing, and also puts the onus of producing genuinely new weapons on industry so that the military is not stuck with Soviet weapons masquerading as new ones.¹⁷³ While it is unclear whether such reforms will succeed, clearly the defense economy’s crisis is linked to and reflects the state’s own abiding crisis.

This crisis apparently has reached a head since 2005. Participants in the debate over this crisis point to under-investment by the state in defense industry (a perennial accusation since 1991 whose partial validity obscures the failures of industry), and to the defense industrial sector’s concentration on exports rather than on providing weapons to Russia’s armed forces (an argument ignoring the fact that the armed forces could not pay for weapons until quite recently). Under a market economy, producers naturally would orient production to customers who could pay for their products.¹⁷⁴ Others cite rising costs for steel and other basic materials of production which forced reductions in output because prices per weapon have increased.

Meanwhile quality standards lag, making Russian weapons uncompetitive abroad and reducing the amount to be garnered from arms sales after 2007.¹⁷⁵

Adding to this particular quandary is the fact that both India and China, Moscow's main customers, may soon be less eager to buy. There are several reasons. India and China are developing their own weapons licensing and export capabilities based on Russian technology transfer and will not need so many Russian weapons. In some cases, India and China find legitimate fault with Russian systems' quality. The economics of the two countries will be opened up quite soon to much tougher foreign competition, reducing their favorable trade balances and perhaps leaving less surplus for foreign weapon purchases.¹⁷⁶ Finally, China and India are forming joint enterprises with Russia to sell Russian weapons, e.g., helicopters, thus moving the two countries away from being net arms purchasers.¹⁷⁷ Thus many analysts expect Russian arms sales to plateau in the near future.¹⁷⁸ Moreover, Chemezov has admitted that Russian exporters have not succeeded in dramatically increasing the quality of exports.¹⁷⁹ Thus the impetus to produce for foreign markets might reach its limit quite soon.

As the Russian economy grows along with Russia's military capability, the crying need to produce modernized technologies for a force possessing only about 20 percent of modern systems in its arsenal also will grow. Thus Moskovskiy observed that,

While the program now in effect lays the focus on funding retrofits and tests of new equipment, which account for up to 40 percent of all assets allocated, the new program to be in effect till 2015 envisages that 80 percent of all funds will be spent for mass-production and delivery of state-of-the-art equipment and materiel and their modernization in the interests of the armed forces.¹⁸⁰

Likewise, the Ministry of Industry and Energy is drafting an independent plan to tap the defense industry to mass-produce products for its use and the modernization of Russia's strategic energy industry.¹⁸¹ Thus we can discern a clear trend towards the creation of a defense-energy industrial complex under state control. But this trend also places pressure on ROE not just to find ever more export markets abroad, something it already is doing, but also to become a major player if not the key player in coordinating domestic production of defense industry.

With the overall trend towards state control, monopolization, and autarchy, we see a powerful and increasingly concerted drive towards restoring past structures and behaviors through the medium of key companies like ROE. As early as 2003, STAC (CAST) warned that exports would plateau and that defense industry must reorient towards state contracts for Russia's armed forces.¹⁸² Moreover, this trend toward reorienting the defense industry on behalf of domestic consumers represents not just a trend towards autarchy and to a considerable degree a retreat from globalization, it also fully comports with tendencies already visible in 2001 toward greater state centralization and control.

At that time Putin had opted to reconcentrate arms sales and defense industry under his control, supposedly to maximize revenues. To raise exports, he merged Russia's arms exporters, whose competition allegedly knocked down the price of exports, into one group under his direct authority. That move also will force central control of all intergovernmental military-technical commissions except those for China and India, and will entail issuance of licenses for foreign exports. Supposedly this step was to force

many smaller or noncompetitive plants to concentrate resources and production and create truly marketable products. As noted earlier, Putin also decreed cuts of over 600,000 mostly paper jobs in defense industry through 2006, possibly closing factories and even whole design groups. According to General Arkady Sitnov, former head of the military's procurement program, in 1997 most of Russia's 2,000 design bureaus were not competitive.¹⁸³ The aerospace and shipbuilding industries in particular are supposed to be drastically concentrated into state-controlled holding companies as discussed earlier.¹⁸⁴

While it was very uncertain whether these plans could be implemented completely and overcome the problems at both the local and central levels, it was clear to observers as early as August 2000 (when the plans were first being discussed) that they essentially represented a return to the Soviet model.¹⁸⁵ Shlykov, a scathing critic of the system, agreed with the critiques laid out above. He noted that the arms sales program was a fantasy since Russia was selling weapons it could not yet produce and using advance revenues obtained from preliminary sales agreements to finance that production.

To put it bluntly, this amounts to nothing more than a Ponzi scheme. Shlykov also observed that the system was so broken that, at best, it would produce only 10 percent of Soviet defense output in 1991, that 90 percent of defense firms (whose number he claimed was 1,700) had no orders and could not fulfill them even if they received orders, and that subcontractors had lost interest in dealing with the system. Whereas at that time 800,000 people worked in aviation and aerospace in Russia compared with 98,000 in Europe, Europe's production far exceeded Russia's both qualitatively and

quantitatively. Russian military hardware's real costs are so high when compared to Western costs that Russia has no comparative advantage; quite the opposite, given low-quality production and poor workmanship. Despite the fact that those few producers and exporters who had been privatized are profiting and finding a way in the market, Putin insisted on nationalizing the defense industry. By restoring the Soviet model, Moscow virtually ensured that the system would not work, that conventional and nuclear missile branches (since the latter are to be cut severely) would break down, and that MoD would have to finance the entire rearmament out of its own budget.¹⁸⁶

While the concentration of producers in the arms industry is clearly a worldwide trend in keeping with the forces unleashed by globalization and the end of the Cold War, the past record of Russian defense industrial reforms and reorganizations (of which there have been at least a dozen since 1991) leads one to accept Shlykov's assessment, not the government's.¹⁸⁷ Moreover, the overall economic policy seems to show an increasing bias for more government control, not less.¹⁸⁸

Interestingly, the calls for expanded state control and actions taken toward that end closely resemble the failed plans of 2001, which attest to the state's incapacity to manage so huge a system. In other words, we are witnessing a reinforcement of failure whereby ever more centralization and state control become the answer to earlier failures of the same policy. By 2004, Sergei Stepashin, Chairman of the State Audit chamber, already had called for the state to assume the regulatory function of debtor-creditor relations in the defense sector to cope with the enormous number of bankruptcies there.¹⁸⁹ Similarly, Moskovskiy has

urged the Federation Council to give the industry more state support.¹⁹⁰ And testifying to the widespread and ingrained mantra of the Russian elite that the answer is always more centralization and state control, Federation Council chairman Sergei Mironov recently declared:

Neither has the state shown any aptitude in administering the programs currently overseen by it. Putin and other high officials have stated that the 2005 state defense order was financed by 99.98 percent and fulfilled by 97.3 percent.¹⁹⁷ In fact, the state's program to begin its continuing integrating defense firms into large holding companies in 2004 has been a failure.¹⁹⁸ Putin's advisor on defense industrial affairs, Aleksandr' Burutin, recently admitted that although a new program for the defense industry complex is being formed, the old one was a total failure. Only 7 of the 34 integrated structures were created and only a few of them were operating efficiently. Nevertheless "a newly created working group headed by Industry and Energy Minister Viktor Khristenko is considering restructuring and integration in all industries."¹⁹⁹ Similarly, in July 2005 Igor Gavriadsky, Deputy Head of the Federal Industry Agency, admitted that of the 75 defense and high-tech industries slated since 2002 for integration only three had been fully established. Yet even so he demands more state support for the industry and maintains the widespread myth, common to high officials, that this industry can be the locomotive for an overall industrial recovery.²⁰⁰

Moreover, these problems could not be resolved merely by raising defense spending, because in 2004 funding of the state order went up by 7 percent while the output of hardware and armaments actually fell by almost 5 percent.²⁰¹ This set of figures merely confirms the trend observed above toward stagnant or falling production and procurement despite ever greater

injections of cash into the system. Nevertheless, despite considerable state attention to this sector and endless reorganizations, some analysts and observers still charge that the state has no defense industry program, that the state refuses to support that sector, and that the cumulative deficiencies of the sector and of the state's role could lead to the destruction of the defense industry in 5 years.²⁰² In 2005 Burutin admitted that, while the state program envisaged integration of industries to solve "the entire range of problems" firms might face, in fact, the destructive tendencies of the 1990s still typified the situation in this sector.²⁰³ He added that only 10 of the 75 firms scheduled for integration had been established, so that, by his own figures, integration in 2005 went backward.²⁰⁴

Neither was ROE any more effective in generating revenues for the defense sector through arms sales. According to the Russian Federation Accounting Office, only 10-20 parent factories of the approximately 1,700 defense plants ever received actual export orders from *Rosoboroneksport*. In 2001 it transferred only 4 percent of its net income to the federal budget, whereas the law called for it to ante up 10-50 percent. Russia's Accounting Chamber, the supreme accounting body, complained that not only were "irregularities" in ROE's financial procedures apparent, but that the framework of its activity was so convoluted it defied meaningful control.²⁰⁵ Similar machinations could be found elsewhere in the defense industrial sector, which one newspaper called "the most problem-ridden, closed, and bureaucratic sector of the economy. Not one of the many programs designed to reform it thus far," the newspaper continued, "has yielded any results."²⁰⁶ Under these conditions, it is hardly surprising, as Moskovskiy conceded, that the new

armaments program is largely a political document and that, in fact, insofar as contracts are concerned, the government and this sector are still operating and will continue to operate under the existing armaments program.²⁰⁷ Moskovskiy added,

It is a paradox but the state customer works according to [the] old legislation and normative base, and the general contractor is already working according to market rules: money in the morning, chairs in the evening. There is a gap between these two spheres. They are coming together extremely slowly and ineffectively. The effectiveness of a ruble invested in this picture is sharply declining.²⁰⁸

Yet despite the failure of the state, its answer becomes more of the same: centralization, state control, monopoly, and autarchy.

Three New Reforms.

The current answer to these problems takes three forms: (1) unification of all defense procurement into a single office by 2007 as begun in late 2004 and again advocated by Putin in his May 10, 2006, speech to the Federal Assembly; (2) further integration of defense industries, most recently the radio-electronic, air, and now shipbuilding industries; and (3) the creation of a military-industrial commission.²⁰⁹ First, with regard to unification of procurement:

In 2005, the MoD will hire an external auditor to conduct research on market costs of major weapon systems in which the Ministry is interested. The Ministry's procurement and finance agency will introduce a uniform tender format for all armed services and non-MoD Security agencies. Weapons will be procured at fixed prices and the MoD suppliers will be bound by tighter quality control, requirements, and delivery schedules.

Few, however, expect rapid changes. A lawyer with the MoD's atomic energy agency told [*Jane's Defense Weekly*] that the lack of transparency inside the procurement system serves the interests of both Ministry personnel and contractors.²¹⁰

Officials believe that setting up a single procurement center in the Ministry will,

Facilitate coordinating both current and long-term programs and plans for the creation of arms and military equipment for domestic and foreign customers. It also will raise the technical level of models of arms and military equipment supplied for domestic needs up to global requirements, ensure unified state control over the quality of goods and a coordinated pricing policy, and it will carry over the positive experience of military-technical cooperation in the performance of pre-contract work and fulfilling contracts in the sphere of the state defense order.²¹¹

While establishing this system certainly reduces the number of procurement agencies throughout the Russian defense and security sector, it still remains to be seen whether a unified procurement system actually will reduce costs and improve quality, effectiveness, and efficiency. Transparency apparently is not even a goal.

Second, with regard to integration of defense industries, Ivanov and Putin steadfastly have championed the idea of integrated defense industrial firms controlled, if not owned, by the state. They began with the helicopter and radio-electronic industries in 2003-04 and have since sought to create such integrated holding companies throughout the sector.²¹² Thus in the helicopter industry, ROE created an integrated sector, consolidating plants and design bureaus under the "multisector investment and industrial group"

Oboronprom.²¹³ Since then, it has embarked upon a spree of acquisitions and integrations as recounted above. Ivanov apparently believes that the integration of both state-owned and shareholding enterprises in these vertically integrated behemoths will force out the uncompetitive firms through bankruptcy proceedings and lead to a concentration of efficient resources in more competitive integrated establishments invigorated by new management.²¹⁴ Thus the regime seeks to set up these vertically integrated holdings on the basis of vital end products and horizontally integrated structures based upon auxiliary technologies and components.²¹⁵

Ivanov believes that such vertically and horizontally integrated holding firms will, as in Soviet times, produce high-tech civilian goods even though few of the old defense plants were closed after 1991 and most of them still cannot compete even in the defense sector, let alone in consumer products.²¹⁶ Furthermore,

Sergei Ivanov continues to insist that large holding companies be formed in the defense industry based on the types of arms that they produce. The Almaz-Antey Air Defense Concern and the Tactical Missiles Corporation already exist, and decisions have been made to create a consolidated aircraft manufacturing company, a missile-and-space holding company, and another in the field of electronics. Next in line are armored equipment and shipbuilding, the latter to be divided into manufacturers of surface ships and submarines.²¹⁷

In a similar case, the Russian Conventional Weapons Agency in 2003-04 began setting up similar vertically integrated holding companies across Russia for small arms, precision-guided missiles, and optronics, plus an optical holding company.²¹⁸ Experience suggests that these vertically integrated firms cannot survive except by dependence upon the state order and thus

are dependent upon the state. Certainly this is what happened in 2003-04.²¹⁹ Thus, in effect, even if there are private owners or shareholders, the state controls these firms.

An example from February 7, 2005, shows just how this state control is ensured. On that date, the state transferred to the Tactical Missiles Corporation 38 percent of the shares of Salyut OAO (joint stock company), 38 percent of the shares of Smolensk Aviation Plant OAO, and 50+ percent of shares of Gorizont OAO. To acquire these shares, the Tactical Missiles Corporation is conducting further share issues on behalf of the state to be reimbursed by the shares in the companies being transferred.²²⁰ Thus the state has become or will become the dominant shareholder in these firms.

The most recent example is the creation of a unified aviation firm to manufacture both civilian and military aircraft, as originally proposed in 2003. Once again, the state will be the main shareholder, if not owner. This proposal encountered considerable resistance, leading many to suspect that issues connected with this integration and possible criminal connections in the industry were behind the murder of key aircraft firm executives in 2003.²²¹ But the government has persisted, recently launching the integration of five commercial airline companies and pressing Aeroflot to buy out other domestic carriers to consolidate the domestic aircraft industry. It hopes to force a massive concentration of resources in a single unified corporate structure that will encompass the full range of civilian as well as military aircraft production. It is hoped that this will safeguard Russia's technological independence and ability to compete on the world market in both civilian and defense aircraft.²²² Such consolidation may

be justified economically because a good number of Russia's many airline firms are struggling to stay alive, with much actual production capacity having been lost since 1991. Integration also is spreading to companies that manufacture aircraft engines, despite calls for retaining competition here.

Meanwhile, it is still unclear whether there really is the political will here or elsewhere to cut away all the dead wood of the past generation.²²³ As Valery Bezverkhny, First Vice President of the Irkut aircraft firm, said, "We have an overcapacity on paper but much of the real manufacturing capability has been lost." Yet those firms, facilities, and personnel continue to exist.²²⁴

Ostensibly, the intent "is to provide a focus for the limited amount of state funding available for aerospace defense research and development, and to begin to rationalize the sector to a size at which it is sustainable."²²⁵ But it also is clear that the state will wholly control these vertically integrated firms whether they are in the aerospace or other industries. Boris Aleshin, formerly Deputy Prime Minister and now Head of the Russian Federal Agency for Industry, told an interviewer that the new aerospace firm United Aircraft Corporation (OAK) will manufacture and provide not just aircraft but also follow-on service and marketing support. Each division of the company, whether it be commercial, logistics, military transport, or combat, will sign contracts and pursue "normal activity." But the managing company directed by the state obviously will coordinate all these efforts. Although OAK's structure is supposed to be transparent to all businessmen, the managing company will "control assets, form reserve and investment funds, and develop favorable conditions for business

development.”²²⁶ In other words, the managing company will exercise firm financial and political control on behalf of the state over all the various divisions of the aerospace business as united into one giant holding company.

However, behind this rosy scenario there are many problems. The state will own 75 percent of OAK, and, while most of the companies entering into Irkut are state-owned or controlled, Irkut is a successfully restructured public company of which the European Aviation and Defense Group (EADS) owns 10 percent and institutional investors own 30 percent. Integrating Irkut into OAK means renationalizing this firm. As one recent assessment concludes, this trend parallels what happened in the oil industry, where Kremlin officials, often from the power ministries (the so-called *Siloviki*) have taken control. Neither is this an unusual occurrence; Putin is pushing for the consolidation of all of Russia’s automobile manufacturers into a single integrated state-run group; *Rosoboroneksport* is taking control of another major car manufacturer, *AvtoVaz*, which is one of those three firms. Thus ROE, i.e., the state, is renationalizing the automotive industry and also is trying to move into metals, including acquisition of the firm *VSMPO-Avisma*, the largest Russian producer of titanium.²²⁷

In addition, ROE evidently plans to form a large new metallurgy industry holding to unite all the major enterprises that produce strategic raw materials for the aerospace industry under its management and control, and has begun taking steps towards that goal. The purpose is not just to prevent the “capture of these industries by foreign firms or by allegedly criminal firms,” but rather to keep all strategic raw materials under autarchic state control through ROE, which will be the muscle behind them.²²⁸ This trend

to autarchy can be seen in the reluctance of ROE to support joint ventures with foreign governments and/or firms since it does not receive a commission from them. This preference for supply contracts over joint ventures or service contracts may inhibit realization of the goal of improving funding and innovation through involvement of foreign partners.

Nevertheless, within the Russian defense industry it is clear that ROE is emerging as a financial-industrial power in its own right.²²⁹ Indeed, under Chemezov's leadership ROE is attempting to maintain one foot in the very secretive world of arms sales and defense industry and the other foot in the more overt world of public policy. In April 2006 Chemezov mobilized the hitherto dormant Russian Union of Machine Builders, getting about 50 large companies to join the Union's original 16 founders, and got himself and his deputy appointed to lead the Union. The Union's new mission was described as "active lobbying for the interests of the [heavy industry and the defense sector] on regional, federal, and international levels."²³⁰ Thus the Union became a vehicle for lobbying on behalf of preferential treatment and increased arms sales and defense spending.

Simultaneously, as we have noted above, ROE is expanding the process of state takeover and integration of private and public firms into the automobile and metallurgical sector as well. Once these mergers are completed, Aleshin already has promised to turn his attention to the shipbuilding industry, which will also be integrated under state control. ROE undoubtedly will play its now-familiar role as the state's agent for financial control over these integrated giants.²³¹

Finally, the third new reform is creation of a permanent, strengthened Military-Industrial Commis-

sion (MIC) to which ROE is being subordinated and which will represent what appears to be in all but name a new MoD industry. But it will also exercise control over much of the civilian sector such as the metals (including titanium) and automotive industry.²³² This trend is in effect a concerted response to such complaints as Burutin's in 2005, i.e., that uncontrolled privatization and bankruptcies, as well as a decline in state control, were still occurring in the defense industrial sector despite the move toward integrated firms. Burutin observed that only 10 of the 75 planned firms were in any way integrated.²³³ Therefore, in his view, a comprehensive reorganization plus a program of state support for defense industry, including perfection of the "power vertical" structure, were needed to rescue it.²³⁴ Moreover, such programs were necessary because,

The defense industry incorporating high-tech branches and carrying out 75 percent of R&D can become the only starting point for boosting the innovations policy in Russia and form the basis for reviving our country's economy. The defense industrial complex is surely capable of launching serial production of modern weapon systems for qualitative rearmament of our Army, Navy, and law-enforcement structures.²³⁵

Thus Stalin's hobby horse idea, ridden often by Putin, here gallops again: the defense sector remains the only true force for economic and great power revival.²³⁶

This MIC is not a new organization. As Ivanov observed, it has always existed. Now, however, it will be a permanent body that makes timely, rapid, and effective decisions in controlling the defense industrial sector.²³⁷ Indeed, by 2004 Moskovskiy was calling for a restored MIC at the Prime Ministerial level, one "with

standing executive powers, a permanent staff, and the tasks of running the defense sector, coordinating state-sector defense customers, drawing up and placing defense procurement orders, and given pricing and tariff setting powers as well." He believed that "the market will not regulate this, the state must direct its own defense procurement."²³⁸ Obviously, this statement indicates which way the bureaucratic wind was blowing by that time.

But the actual decision to re-create this commission in November 2005 clearly stemmed from Baluyevsky's public complaint that this sector could not meet the military's plans by 2010-11. Given the continuing crisis in this sector despite all of Putin's reforms through 2005, it is quite likely that his warnings were not misplaced. Indeed, Ivanov and Putin agreed with him.²³⁹ A chorus of newspaper accounts reported the paltry quantitative results of procurement, the rising costs of materials, the pervasive corruption, and the lack of transparency in this sector. Even officials admitted that the quality of weapons had been in decline since 2004.²⁴⁰ The centralization undertaken since 2000 was not bringing about the decisive transformations required by the regime, so the predictable answer was more centralization and an announcement that the MIC was coming under Ivanov's control.

This MIC continues the process begun in 2004 to make Ivanov's Ministry a kind of super ministry as noted above.²⁴¹ Beginning in 2004, Ivanov engineered the removal of Chief of Staff General Anatoly Kvashnin and launched a series of "reforms" of the internal organization of the MoD, centralizing it even more under his control.²⁴² He then began to rebuild the defense industrial administrations, taking control of FS *Rosoboronzakaz* (Federal Service for the Defense

Order or, more accurately, Defense Procurement), *Rosoboronekспорт*, and the Federal Agency for Military-Technical Cooperation.²⁴³ According to Ivanov, the new MIC under his control will be a permanently operating body with broad powers, possibly even including preparation of draft presidential resolutions and overseeing their enforcement.²⁴⁴ The MIC, he said, will operate on a permanent basis, allowing it “expeditiously to manage the country’s defense industry, handle specific programs for its development, and draft government resolutions and presidential decrees pertaining to its development.”²⁴⁵ Although Ivanov denied that he is creating a large new bureaucracy, he admitted that the MIC is becoming a “new mechanism of administration.”²⁴⁶

Although Prime Minister Mikhail Fradkov sought to gain control over the MIC and force Ivanov, who double-hats as a Deputy Prime Minister, to report to him, he failed, indicating both the ongoing bureaucratic struggles within the government and Ivanov’s primacy.²⁴⁷ These struggles are the daily stuff of Russian politics, with everyone having a substantial interest in a sector maneuvering to gain exclusive control over it at the expense of rivals.²⁴⁸ Indeed, the decree making Ivanov head of the MIC further weakened Fradkov because, while he has the authority to approve its decisions, he is not part of the commission. The commission is a permanently standing body outside the regular government, and its leaders, save for Ivanov himself, are not part of the government apparatus. Moreover, Ivanov and his team need not reconcile, coordinate, or discuss their deliberations with Fradkov or the regular government before submitting them for approval. They can also draft presidential resolutions and decrees without

submitting them to Fradkov for approval because of Ivanov's position as Defense Minister.²⁴⁹

Creation of the MIC also weakened the regular government, moving ever more key functions into the presidential administration which oversees Ivanov's expanded domain, and removing them from any kind of Parliamentary or public accountability. As one observer commented,

Economic Development Minister German Gref and industry and energy Minister Viktor Khristenko will unequivocally be the losers in this reshuffle in addition to Mikhail Fradkov. The former loses control of the defense order, and it is not known at all what the latter heads now. The Federal Agency for Industry under Boris Aleshin's leadership will pass under [Deputy Chief of the MIC, Vladislav] Putin's wing, because it essentially tackled . . . the military industry.²⁵⁰

Similarly, it is now the case that the MIC will tell the government and Ministry of Finance what the defense order will be before the state budget is drawn up rather than the other way around as had hitherto been the case and logic would dictate. In effect, the MIC will have a privileged and unquestioned priority in that budget which is unaccountable to any legislative or regular governmental scrutiny. Instead, the defense order remains an economic and budgetary charge accountable only to the President personally and to his direct line of command down through Ivanov.²⁵¹ Here again, we see that the entire defense sector and the industries it will control, as part of what might be called the President's personal government, have been removed from any kind of governmental or Parliamentary oversight.

Ivanov was also granted the right to choose his own high-ranking officials from the government

and presidential administration for commensurate posts within the MIC. He will control a budget of approximately \$42 billion, which includes budgets of the MoD and the budget of Khristenko's Ministry of Industry and Energy. He also will distribute foreign arms sales through ROE, which he now also controls.²⁵² Inasmuch as the entire defense establishment ultimately reports to Putin, not Fradkov, the defense industrial sector—which is expanding into the civilian economy—now has been removed from any oversight and control by the regular government. By way of emphasis, apparently, Ivanov's Deputy, Retired Lieutenant General Vladislav Putilin, publicly stated that he and the other members of the MIC will be permanently in charge of certain problematic areas relating to weapons development on land, sea, and air; that he is totally independent of the regular government staff; and that he was authorized to assume control of the so-called national projects for the military-industrial complex.²⁵³ Similarly, Ivanov is calling for the MIC to direct defense industry to produce high-tech civilian products. Although he denies this is a reversion to the Soviet system whereby defense plants also produced pots, pans, and what have you for the civilian sector, that in fact is exactly what is happening.²⁵⁴

It is thus clear that the MIC also will assume directive or coordinative responsibility regarding projects and programs erstwhile managed by other ministries, giving it control over much of the civilian sector. Its oversight of the budget of the Ministry of Industry and Energy will, of course, only reinforce such authority.²⁵⁵ It is equally clear that the MIC bids fair to become a government within the government, another part of the presidential administration reserved essentially to Putin's autocratic and patrimonial fiefdom with no

oversight from society. In other words, the outcome of the bureaucratic struggle between Fradkov and Ivanov, which Ivanov has won, presages an enormous expansion of the MoD's remit into the civilian economy, and the consequent further militarization of that economy.²⁵⁶

Not surprisingly, this development now will require a new and enormous bureaucracy to supervise the agencies and industries overseen by the MIC in monitoring implementation of state policy. The MIC supposedly will ensure that at least half of future defense budgets is spent on development of the armed forces; establish a unified procurement and supply system for weapons, military hardware, and logistic support; and "substantially increase the number of modern long-range aircraft, submarines, and launchers in the Strategic Missile Force."²⁵⁷ Beyond ensuring greater coordination and output, as well as more rational expenditure of the state order, the MIC will have to deal with the skyrocketing price of energy, labor, materials, and transport, and recruit more young professionals to this field. It also will have to establish more stable and long-term contracts and plans, i.e., for 3, 5, and 10 years, not annual contracts and weapon production cycles.²⁵⁸ On behalf of these goals, Ivanov already has called for a new weapons program for 2007-15 and a 28 percent increase in the procurement budget and a unified procurement and logistics system.²⁵⁹

It is clear from the foregoing that even if Russia, as Putin and Ivanov have often claimed, will not engage in a Soviet-style arms race, it is reverting to an ever more Soviet, or at least Tsarist-like, defense industrial structure. Today the defense apparatus as a whole, including its expanding economic structures, is removed from control by either Parliament or the regular government, clearly having become part of

Putin's personal administration or *Votchina* in a modern sense.²⁶⁰ Hence they will be even less transparent than before.

In keeping with the Russian tradition that in trying to root out inefficiencies and ineffectiveness, the government instinctively resorts to more centralization. This centralization then entails the creation of ever more auditing and inspection agencies to perform those regulatory functions summed up in the Russian definition of the word *Kontrol'*. Ivanov thus is creating what one writer called an audit pyramid under him in the MIC commensurate with the vast militarization of the economy over which he now presides. The justification for such compounded monitoring is that otherwise rampant corruption will ensue. Once again, the market has not been trusted. For such monitoring, as long experience elsewhere has shown, markets do better than any other human contrivance.²⁶¹

Since the MIC's instruction specifies that it will be the chief standing body for implementing state policy in the defense sector through the completion of the 2007-15 armament program, the MIC will remain in existence for another 9-10 years at least. Thus it will oversee the establishment in 2007 of a single agency to oversee all purchases of military hardware and rear services property and logistics. Not only will that agency have oversight responsibility for several hundred billion rubles annually, it will have to perform functions of *Kontrol'*, i.e., assuring that all this money is spent on buying goods and services through single contracts. This responsibility includes an anti-corruption feature "since the military will decide what to buy, and the agency's specialists will decide where to buy it."²⁶²

As Mukhin pointed out earlier, this system already exists within the MoD where FS *Rosoboronzakaz*

exercises such oversight functions under the MoD's control. Indeed, that agency already duplicates the same functions as the state's Auditing Chamber. Yet neither the Auditing Chamber nor FS *Rosoboronzakaz* will be abolished when this new purchasing and auditing organization is set up. Indeed, FS *Rosoboronzakaz*, which is already supervised by ROE, apparently will become an independent agency outside the Defense Ministry that supervises the new agency and then reports to the Auditing Chamber. Thus we have Ivanov's "auditing pyramid," with numerous *Kontrol'* agencies supervising each other as well as the entire procurement process.²⁶³

ROE also works closely with *Rosoboronzakaz* as it imports foreign defense technology for the armed forces' use to help them realize the defense order and enhanced procurement quality.²⁶⁴ This kind of structure highlights one of the abiding features of the rent-granting state and rent-seeking elite relationship. This system virtually compels the state to set up an endless and proliferating number of *Kontrol'* organizations to regulate, monitor, inspect, and verify implementation of policies. Each of these bureaucracies inevitably falls prey to the same pathologies as exist elsewhere in the state administration. Rather than regulate by law and market, bureaucratic despotism and centralization are invoked as mantras, only to fail and lead to fresh attempts to square the circle at a higher level of centralized and thus incompetent, nonresponsible authority. Moreover, within this administrative system typical of Russian history, ROE likely will play a vastly more important supervisory and *Kontrol'* type role than merely overseeing the sales of Russian weapons abroad. Most likely, it will be the MIC's key agency to regulate the defense industrial sector. Yet, as ROE

plays this role of *Kontrol'* and public policymaker, it clearly will not forsake the opacity that has brought it so far. As we have noted above, ROE is itself mired in financial irregularities and secretive practices that shun the light of outside monitorship and exposure. Nevertheless,

ROE has accumulated enough of what its officials call "saved profits" to start investing in defense R&D projects with solid export prospects. In addition to drawing on its own assets, ROE has been able to freely attract credit resources from [the state foreign trade bank] and other financial institutions.²⁶⁵

ROE and Defense Industry.

There are abundant grounds for concluding that the state and the economy are regressing, and that the economy is experiencing growing militarization. First of all, there is no doubt that Putin and the Russian government believe that, "in terms of its significance and scope, the global weapons market is comparable with such segments of the global economy as energy and food. Competition here is extremely strong."²⁶⁶ Similarly, as early as 2004, management changes at key defense industrial firms like the RSK MiG corporation led Ruslan Pukhov, Director of STAC (CAST), to observe:

The latest events point to the conversion of Rosoboroneksport, which is in the hands of presidential appointees, into a kind of MoD Industry. It was Sergei Chemezov, CEO of the national military-technical cooperation broker [i.e., ROE] who was the key figure in the formation of the *Vertolety Mil'ya* [Mil' helicopters] helicopter holding company, and it was he who lobbied for the appointment to the post of head of MiG of Aleksei Fedorov, his Irkutsk high school classmate.

After this, the MiG corporation will most likely lose the right to independent foreign economic activity or will not avail itself of it, having signed over the authority to Rosoboroneksport.²⁶⁷

Pukhov then drew the only appropriate conclusion, namely, that the state was now going to impose order from above as well as ownership and control over the defense industrial sector.²⁶⁸

There is no doubt that ROE can play this role. An estimated 70-90 percent of the revenues and production volume of many critical defense companies is tied to exports of systems or of spare parts, giving ROE enormous leverage vis-à-vis these industries.²⁶⁹ Today ROE proclaims itself “the sole state intermediary agency for Russia’s exports/imports of defense-related and dual-use products, technologies, and services.”²⁷⁰ This observation fully accords with Chemezov’s publicly stated view that only one government-owned company should be exporting Russian defense products abroad. Otherwise, he indicated every time multiple exporters appeared, the volume of sales plummeted. Still, he does support keeping private firms in reserve as independent sellers of spare parts.²⁷¹

Indeed, Chemezov has been an unapologetic proponent of state control of the defense industrial sector by ROE from at least 2003, if not before. And throughout this period, he consistently has striven to increase both his and ROE’s power and profile within the government, thus enhancing state control over the sector through him and his organization.²⁷² Even as the entire defense industrial and arms sales sector underwent numerous reshuffles and reorganizations in 2000-05, suggesting that the status quo is by no means immutable, he held to this position.²⁷³ Thus in 2003 during one such reorganization, he unsuccessfully

proposed that ROE, which is a federal state unitary enterprise, be converted into a joint stock company and that, as part of this process, a percentage of shares from the military-industrial holding companies that were then being formed be transferred to ROE. This percentage should be high enough to impart veto authority. This way, ROE could place its people on the holding companies' boards and control their foreign economic activities. Indeed, in numerous defense industries ROE personnel already were sitting on the boards of directors of the company along with other state officials.

This is because in 2003, as part of the periodic and ongoing bureaucratic reshufflings, ROE was placed under the control of the Federal Service of Military-Technical Cooperation (FSVTS). This was due, at least in part, to the new law of 2002 subjecting all Federal state unitary enterprises, including ROE, to the state, in this case represented by FSVTS. AS ROE was less than delighted by this process, it proposed to float ROE's shares, transfer them to the state, and set up, on the basis of the ensuing joint stock company, "a core holding company in the sphere of military-technical cooperation, oriented to the implementation of state policy in this sphere." Putin decided against doing this and instead appeared inclined to move FSVTS out from control of the MoD to direct subordination to him.²⁷⁴

Chemezov's plan was rejected then, but it now appears to have succeeded.²⁷⁵ Nevertheless, there are reports that ROE may be undergoing another reorganization that would change its corporate structure and legal status.²⁷⁶ Still, the rejection of Chemezov's plans in 2003-04 had two significant outcomes. First, for some time this decision subordinated ROE to the FSVTS. FSVTS plays a key role in arms sales because

it issues licenses to exporters for each specific deal, sets prices, ensures compliance with state policy in military-technical cooperation, and grants the right to firms to do business in some parts. Since the right to export depends on securing licenses, FSVTS has a major share of control over exports, and this forces ROE to engage closely with it.²⁷⁷ Thus, in fact, there is a high degree of overlap in these two agencies' functions and consequently much rivalry. It was FSVTS that quashed Chemezov's original proposal for making ROE a joint stock company. This rivalry restrains both organizations, allowing for Ivanov and thus Putin to have alternative views on how the defense industrial sector and arms sales policies ought to be organized. Hence bureaucratic rivalry remains, as in the best tradition of Russian politics, a built-in factor in arms sales policy and in so many other sectors of Russian politics.

Second, the decision of 2004, pushed by FSVTS, also subordinated ROE to the MoD and allowed ROE and the Ministry to begin taking control of financial flows from arms sales and to some extent of defense investments.²⁷⁸ It also cemented ROE's subordinate relationship; close contact still exists between ROE and the Ministry which undoubtedly will carry over into ROE's relationship to the MIC.

ROE works closely with the Ministry to increase control over trade in conventional weapons, raise funds for future R&D activities through arms sales, supply the armed forces with hardware and training, and build an effective security system with other members of the Commonwealth of Independent States (CIS) through military-technical cooperation (VTS), often at subsidized prices. This involvement entails visits by Ivanov to foreign capitals or strategically

important regions in Russia in order to conclude working agreements and decide which weapons to release from the Ministry for sale or lease abroad by ROE.²⁷⁹ The Ministry's prior involvement in such preliminary path-clearing appears to be a precondition for ROE's detailed implementation, including actual contracting. Such sales sometime include obligations to train the foreign forces who will be operating the weapons or equipment purchased. If any such training obligations are in the contract, the Ministry needs to be involved.²⁸⁰ Ivanov obviously has significant influence over the entire field of military-technical cooperation abroad. Moreover, he enjoys Putin's confidence and even recommends high-level appointments to ROE.²⁸¹

Given Ivanov's consistent aggrandizement of power within MoD throughout the period since 2003, it is hardly surprising that ROE has encouraged the formation of the large vertical integrated holding companies in the defense sector and their spread into other industries. As the consolidation of the MoD's control over the entire defense sector has accelerated and strengthened, ROE at the same time has been able to expand its oversight functions over defense industry. In 2005 it announced plans to increase its involvement in the management of export-oriented enterprises, particularly the holding companies.²⁸² Of course, if a company originally was not part of those holding companies but was subsequently integrated into them, as is now increasingly becoming the norm, it becomes fair game for ROE, who is clearly moving in a big way into the ostensibly civilian economy. What Chemezov now claims to want is not so much to hold shares in these firms, let alone a controlling interest, but to be able to gain seats on their boards of directors.²⁸³

But in fact, Chemezov wants power over the entire sector, *including* ownership of shares of defense

sector firms. He is trying to have his deputy, Vladimir Pakhmonov, appointed as head of the new civilian unified defense procurement office so that Pakhmonov would control all defense procurement.²⁸⁴ Similarly, Chemezov has announced the formation of ROE's own holding company, OPK *Oboronprom* (Unified Industrial Corporation). This firm appears to have grown out of the helicopter holding firm of the same name. Oboronprom is supposedly not intended to sign contracts for arms sales, but rather to decide how best to implement contracts and to decide which firm will execute it.²⁸⁵ Oboronprom actually will be a powerful organizational and financial weapon over all defense industries to ensure their submission to state dictates. Indeed, this may have been part of the plan all along.

In fact, despite Chemezov's statements, Oboronprom is an essential mechanism in providing ROE the means to buy stock and install its representatives in defense firm management. In 2004, Chemezov already was advocating such a plan, only to be rebuffed then.²⁸⁶ But since then, clearly his view has prevailed. Oboronprom, structured as a multiprofile investment group, was set up to allow ROE and *Rosimushchestvo* (the Federal Agency for Management of Federal Property) to buy stock in export-oriented defense firms, e.g., the recently formed helicopter holding company of the same name.²⁸⁷ More recently, the integrated helicopter industry, whose integration was engineered by ROE, has been placed on the list of strategic enterprises closed to foreign investment.²⁸⁸ Some analysts believe that the new Oboronprom has enough financial and lobbying power to consolidate whole sectors of industry in this fashion.²⁸⁹

Thus Oboronprom, supported by presidential decrees, has taken over several firms and placed

its managers on their boards in the new vertically integrated helicopter holding company, and now owns a high percentage of shares in numerous other firms, e.g., Sukhoi.²⁹⁰ Similarly, Oboronprom has actively encouraged the process of forming these large, vertically integrated firms in the aircraft, helicopter, shipbuilding, missile-building, and defensive systems sectors. Seeking to expand its influence over the programs and capacity of these industries, ROE has established ownership and management roles in them, often through Oboronprom's purchase of their shares or placement of management officials in them. These firms include the new OAK, the United Industrial Enterprise helicopter firm, Baltiyski Zavod and Severnaya Verf shipbuilding firms, the Air Defense holding company Ob'edinitelnye Systemi (United Systems), the missile firm Takticheskoe Raketnoye Vooruzheniye, and Almaz-Antey air defense firm. ROE, as noted earlier, also has moved into the automobile and metallurgy industries.²⁹¹

Thus by acting as the state's agent in the purchase of controlling or at least veto-wielding interests in defense firms and then extending that control into other predominantly civilian sectors, and by placing its people on their boards, ROE acts as a major player in bringing those industries under state control and reorganizing the defense industry.²⁹² ROE is involved in the work of over 700 enterprises, providing credit totaling 3-4 billion rubles annually under its guarantee and insurance arrangements.²⁹³

Equally important, those other companies which, under previous legislation and decrees, have received the right to export independently and have the means to do so are, in practice, cooperating quite closely with ROE. It remains to be seen whether they can

compete with ROE, or whether the latter can compete with them while maintaining the terms of the newest reorganization of defense industry depicted above. In any case, even if ROE cannot compete with these other firms in the world market, by law those firms are obliged to relinquish 51 percent of their shares to the state if they are going to sell arms abroad.²⁹⁴ Therefore, ROE might be able to find bureaucratic, i.e., nonmarket or extra-market, ways of subordinating them to its control, if not having outright ownership. Furthermore, in view of ROE's expanding role in both defense and civilian industry, including the managerial realm, ROE and the new MIC will interact a great deal in fulfilling the latter's mandate to streamline the financing of military production.²⁹⁵

As part of this interaction, ROE has been and probably will continue to be active in importing foreign defense technologies so that Russian firms can meet the state defense order, which is soon likely to become the biggest source of orders, surpassing orders from abroad. ROE's entree into the state defense industrial sector will also oblige it to become more involved in seeing to the fulfillment of the state order. Indeed, such an interaction fits with Chemezov's expressed view that ROE should "place orders for export of military hardware and hold tenders for Russian plants."²⁹⁶ Further action along those lines obviously would expand ROE's commercial activities greatly.

As both state control and opacity grow in this sector, there is a reversion not only to Soviet-type strictures but also to pressure to adopt Soviet-style practices, e.g., selling arms on credit. Although Ivanov recently has reiterated that Russia will not sell weapons on credit (though it may make loans to solvent countries), Moscow already has forgiven three-fourths of Syria's

debt to Russia in order to sell that country weapons.²⁹⁷ Likewise, Russia's recent arms sales deal with Algeria entails forgiveness of Algeria's old debt to the Soviet Union in return for Algerian implementation of the deal and purchase of Russian arms.²⁹⁸ ROE benefits under this arrangement because no arms will be shipped until payment has been received, giving ROE and its firms quicker access to capital. Russia may also receive compensation by gaining access for Russian energy companies to Algerian oil and gas fields.²⁹⁹ At the same time, ROE has also announced its willingness to entertain flexible approaches to payment for weapons sales, including payment in goods or, as Chemezov says, returning to barter trade.³⁰⁰ This is another way in which Russia could expand its foreign client network.

ROE and the entire sector are under pressure to expand their client base for a number of reasons. First, as we have seen, Putin, Ivanov, and Chemezov all recognize that arms sales are no less a strategic sector than energy, and they are a major source of external funding for the recovery of Russia's defense capability. Indeed, control over funding from arms sales is regarded as the only means of ensuring the renewal of Russia's military capability in the future.³⁰¹ Second, there is an ongoing shift from air and air defense systems to the naval systems as the predominant weapons of choice in the export business. This necessitates a reorientation to new clients or to different needs of existing clients.³⁰² While it remains unclear whether this is a long-term trend, ROE must adapt to the possibility that it will be of long duration since ROE's client base clearly is diversifying as Russia seeks arms sales opportunities in Latin America, the Middle East, Southeast Asia, and Africa, in addition to India and China.

China and India both have sought to enhance their own indigenous production capability and

even to diversify among customers. Moreover, they are also increasingly compelling Russia to sell them technology and know-how to enable them to take such steps.³⁰³ As this author and others have noted, this trend was foreseeable since the global market has been for some time a buyer's market to which sellers must adapt to compete.³⁰⁴ Therefore, ROE and the Russian government, rhetoric to the contrary notwithstanding, must be flexible, offering new creative ways of making deals, e.g., debt for deals, offset packages, barter, or access to energy fields in return for arms.

Conclusion.

Even though the defense industry has been in failure for over 15 years and already was backward technologically during the late Soviet epoch, it still contains 75 percent of Russia's research, development, test, and evaluation capacity, a continuing legacy of Stalinism. And despite the experience of all Russia's major interlocutors, its officials still believe that the defense sector can again become the locomotive of high-tech production.³⁰⁵ Clearly we are dealing with a leadership that, with a simple answer to all problems, lacks complete knowledge and understanding of the outside world. That simple answer, of course, is centralization and state control, methods that just happen to enrich the apparatchiks who conceive and implement them. The takeover by the state of this sector parallels what is happening throughout the economy, and the deleterious results of such state control for growth are obvious to all.³⁰⁶

Although officials continue to demand the restoration of an industrial policy and aggressive state policies to make it happen, the addition of more bureaucrats – for

that is what centralization and state control entail—only increases the number of corrupt rent-seeking elites fighting for a piece of a gradually diminishing or too-slowly-growing pie.³⁰⁷ Thus, among other things, the new “anti-corruption” campaign is compromised before it starts. Endemic corruption, rent-seeking, and rent-granting are the true motors of the economy and government.³⁰⁸ Anders Aslund recently observed,

As all of these examples demonstrate, structural effects are of no interest to the government. Re-nationalization is being driven by the interests of state officials looking to extend their power and wealth. The government does not even promote these moves until they have already happened, and there is no apparent ideology behind nationalization.³⁰⁹

Thus these drives toward rent-granting of profitable sectors of the economy to loyal rent-seeking elites are continuing.

The cabinet is now working on a document that bars foreign investment in any so-called strategic enterprise where that investment could be interpreted as “an attempt to establish control.” Governmental approval must be obtained before any such investment occurs, and one easily can guess how those affected firms and the state will react to such intrusions.³¹⁰ We therefore can reasonably expect that foreign efforts to invest either in the energy sector or in the defense and high-tech sectors will be inhibited greatly, if not totally frustrated. Inasmuch as the crisis in the defense industrial sector continues, and the responses to it are simply more defense spending and procurement along with greater opacity and state control, the structural factors underlying the crisis will not be addressed.³¹¹

These “solutions” ensure as well that the structural militarization characteristic of the Soviet economy,

cogently decried by Shlykov, will revive and gain further impetus.³¹² Likewise, we can expect an even more determined effort to sell arms abroad, even if they are inferior quality, to more and more consumers, not just for the sake of diversifying customers, but also to safeguard the positions of the elite. There is also, of course, the ever-present *podtekst* (subtext) of reacting to putative U.S. pressure, both strategic and ideologic, upon Russia. We can also expect more sales to states like China, Iran, Venezuela, Syria, and other potential “bad actors” around the world. Indeed, one reason Moscow opposes sanctions on Iran is that they could lead to a cessation, under a United Nations ruling, of Russian defense exports to that country.³¹³

For the foreseeable future, we can expect to see further efforts to extend and consolidate the neo-Muscovite paradigm of rent-granting and rent-seeking that we have seen as increasingly characteristic of the overall economy.³¹⁴ We even see more than a hint of a resuscitation of Ivan the Terrible’s draconian extreme whereby his private governmental possessions were severed from the regular government and economy of the time. Russian analysts may justify the “sequestration” of the defense sector under the total control of the president and the lack of parliamentary supervision over its relations with the state by comparing it to European practices regarding defense industry.³¹⁵ But nothing in Europe approaches the renewal of tsarist-like power that we are now seeing in Russia and which only brings closer the likelihood of another economic-political crash.

The trends visible for some time in the defense industrial sector – rent-seeking, rent-granting, autocratic opacity, economic nationalism and autarchy, asset-stripping, pervasive corruption, and the return

to Soviet practices of barter, credits, and noncash transactions fueled by bribes – can only lead to another dead end. Whether that crash comes sooner or later, we cannot say, but there is no doubt that this paradigm is intrinsically suboptimizing and noncompetitive with the economic organization of other states. As history shows, it inevitably leads Russia into strategic competitions that it cannot afford and to economic and political rigor mortis. If this structure continues, can Russia – and the global community – afford the crash that becomes increasingly more thinkable with each regressive step?

Recommendations.

Recent events should tell analysts and policymakers alike that trends relating to Russian arms sales are not mere academic issues which we need to grasp so as to stay on top of our Russian specialty. Apart from the ongoing sale of Russian weapons to China, which is a matter of long-standing U.S. concern, Moscow, in the recent past, has consummated major arms sales of SU-30 fighters, helicopters, and *kalashnikovs* (numbering 100,000 assault rifles) to Venezuela, announced its support for opening a factory there to produce weapons locally, proclaimed its readiness to sell weapons to Argentina in return for beef, and was exposed as the principal supplier of deadly short-range rockets and antitank missiles as well as possible antiair missiles to Iran and Syria, which thereupon were transferred to Hezbollah in Lebanon.³¹⁶ Not surprisingly, the U.S. Government also recently announced sanctions against ROE and Sukhoi for their arms sales to Iran, although Moscow interpreted the sanctions as a response to the sales to Venezuela.³¹⁷

These actions on Moscow's part strongly suggest that it has abandoned any pretense of cooperation with Washington in the Middle East and will also try to support anti-American states and actors like Venezuela out of a desire to make money, gain influence, and restrict U.S. flexibility and sway in world politics. It is also increasingly likely that in the theaters we and our allies will be fighting in during future operations, i.e., Iraq, Afghanistan, and conceivably elsewhere, we could well find ourselves fighting against people armed with Russian weapons. Nor will these be weapons bought on politically unaffiliated world or black markets. Rather, as in the 2002 case when Iran loaded the *Karine-A* ship with large numbers of weapons bought in Russia for terrorist operations against Israel by the Palestinian authority, they will be weapons that Moscow knowingly sold to "rogue states," fully aware of their potential future destinations. When we add Russia's clear support for actions to oust the United States from its base in Kyrgyzstan and earlier from the base in Uzbekistan, this adversarial orientation becomes even clearer, suggesting greater Russian indifference to the outcome of the global war on terrorism (GWOT) than before and possibly even a measure of direct hostility to the United States itself.³¹⁸

Under the circumstances, what can we do besides monitoring trends, drawing the appropriate conclusions, and imposing sanctions (which is what the State Department does under U.S. law)? Like it or not, and as Putin himself has admitted, we are in tough competition with Russia globally. Therefore we must be more aggressive in offering security cooperation and weapons to allies or interested parties who are threatened by Russia's exported weapons, e.g., Southeast Asia, which has become a major focus

of Russian attention recently, the Middle East, and Latin America. Since Venezuela's motive in securing military capabilities is vastly incommensurate with any rational need for self-defense, the weapons acquisitions suggest offensive interests. We must therefore enhance deterrence of such adventurism in Latin America. It is quite likely that some of these Russian weapons will go to insurgents or even terrorists, e.g., in Colombia or elsewhere on that continent, so that friendly states must be strengthened against such threats and given the means to repel them. At the same time, we should put Venezuela on strict notice that its expansive designs will not be tolerated.

Perhaps the most dangerous theater where we or our allies will encounter Russian weapons is the Middle East. We need to strengthen deterrence against Iran and its allies and make sure that sanctions against ROE and other defense firms stick for a long time. The recent fighting in Lebanon suggests the harm such weapons can do in the hands of a well-trained adversary, whether it is a terrorist, militia, or regular army. Arms sales to Syria and Iran should be sanctioned because they facilitate the continuing delivery of those weapons to terrorists all over the region and beyond.

Moreover, such irresponsible arms sales should be publicized broadly in an information campaign to raise the costs to Moscow of such dealing. Greater European awareness of these activities ultimately would impose more costs on Moscow than is presently the case. This information campaign should pointedly raise the issue of whether Moscow really supports the war on terrorism beyond its own Chechnyan problem, or is merely using it as a pretext for free riding on the American anti-terrorist horse while pursuing its own anti-American interests. As we have often noted, one major reason

for the current organization of ROE and the defense industrial sector in Russia is the opportunity thereby afforded to maximize rent-seeking. To the extent that we multiply the tangible material and political costs of this form of state organization, we render it ever more dysfunctional and counterproductive over time. While such actions to block the proliferation of Russian conventional weapons abroad will take time to register their effect, time works for us and against Russia in this, if not other matters, if we will use it wisely.

ENDNOTES

1. It should be noted that the number of such firms and the scope of such so-called strategic enterprises are expanding to include not only defense firms, but even newspapers and other media, thereby extending the reach of the state's financial control over their activities, another sign of the developments referred to in the body of this monograph.

2. Stephen Blank, "Russian Defense Industry in an Age of Globalization," *Defense Industry Globalization: A Compendium of Papers Presented at a Conference on Defense Industry Globalization*, Washington, DC, November 16, 2001, Atlantic Council of the United States, Washington, DC, 2002, pp. 43-88; Stephen Blank, *Reform and the Revolution in Russian Defense Economics*, Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, May 1995, also published in *The Journal of Slavic Military Studies*, Vol. VIII, No. 4, December 1995, pp. 690-717; Stephen Blank "Challenging the New World Order: The Arms Transfer Policy of the Russian Republic," Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1993, also published in the *Journal of Slavic Military Studies*, Vol. VI, No. 2, June 1993, pp. 234-261; Vitaly Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," in Steven E. Miller and Dmitri Trenin, eds., *The Russian Military: Power and Purpose*, Cambridge, MA: MIT Press, 2004, pp. 160-182; Vitaly Shlykov, "The Anti-Oligarchy Campaign and Its Implications for Russia's Security," *European Security*, Vol. XVII, No. 2, 2004, pp. 111-128. See also Irina Isakova, *Russian Defense Reform: Current Trends*,

Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, October 2006.

3. Peter Almquist, *Red Forge: Soviet Military Industry Since 1965*, New York: Columbia University Press, 1992; Vitaly Shlykov, "Back Into the Future, or Cold War Lessons for Russia," *Russia in Global Affairs*, No. 2, 2006, eng.globalaffairs.ru/numbers/15/1018.html; Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," pp. 160-182.

4. Nabi Abdullaev, "Russia Revamps Industrial Strategy: Arms-Export Agency Seeks Sway Beyond Defense Sectors," *www.defensenews.com*, July 3, 2006.

5. *Ibid.*

6. *Ibid.*; Guy Chazan, "Kremlin Capitalism: Russian Car Maker Comes Under Sway of an Old Pal of Putin," *Wall Street Journal*, May 19, 2006, p. 1.

7. Peter Baker and Susan Glasser, *Kremlin Rising: Vladimir Putin's Russia and the End of Revolution*, New York: Scribner's, 2005, p. 417; Steven Rosefielde, *Russia in the 21st Century: The Prodigal Superpower*, Cambridge: Cambridge University Press, 2004; Marshall T. Poe, *The Russian Moment in World History*, Princeton: Princeton University Press, 2003; Stefan Hedlund, *Russian Path Dependence*, London: Routledge, 2005; Emil Pain, "Will Russia Transform Into a Nationalist Empire," *Russia in Global Affairs*, Vol. III, No. 2, April-June 2005, pp. 71-80; Stephen Kotkin, "Its Gogol Again," Paper presented as part of the project, *The Energy Dimension in Russian Global Strategy*, James A. Baker III Institute for Public Policy, Rice University, Houston. These are only a few of the authors who now see the vitality of the tsarist metaphor as a means of explaining Putin's Russia.

8. Mikhail Vorobiev, "Restaurants, Taxis, Girls," *Vremya Novostei*, June 7, 2006. As Professor Steven Rosefielde of the University of North Carolina pointed out to the author, although there are increasingly clear property rights for owners of land titles and leases for small business owners, major firms' experience, like that of AvtoVaz and Yukos, suggests that conditionality of property rights remains the 6-ton elephant in the room.

9. "Text of Speech by Russian Federation President V. V. Putin at Results Ceremony of the Third All-Russia Competition, Russian Organization of High Social Effectiveness, Moscow, December 10, 2002," *Foreign Broadcast Information Service* (Henceforth FBIS SOV), December 11, 2002.

10. Chazan, p. 1.
11. "Economist Mau Analyzes the 'New NEP'," *Current Digest of the Post-Soviet Press* (henceforth CDPP), Vol. LVIII, No. 7, March 8, 2006, pp. 7-8.
12. *Ibid*; Abdullaev.
13. "Economist Mau Analyzes the 'New NEP'," pp. 7-8.
14. Abdullaev.
15. Chazan, p. 1.
16. Rosefielde; Hedlund.
17. "Heads of Russian State Cos. Are Loyal to Kremlin, Official Says," *RIA Novosti*, June 28, 2006, en.rian.ru/Russia/20060628/50604486.html.
18. *Ibid*.
19. Moscow, *Agentstvo Voyennykh Novostei*, Website, in English, June 30, 2005, *FBIS SOV*, June 30, 2005.
20. "Who Is Watching Diamonds and Who Is Watching Gas," *Argumenty I Fakty*, June 5, 2006, from BBC Monitoring; Judith Ingram, "Putin's Circle Increasingly Controlling State Companies," *Associated Press*, June 23, 2006.
21. *Interfax*, January 28, 2005.
22. Moscow, *Ekho Moskovy News Agency* in Russian, November 22, 2005, *FBIS SOV*, November 22, 2005.
23. Abdullaev.
24. Ingram.
25. Chazan, p. 1; Abdullaev.
26. "Russia Needs Permanent Adjustment of Arms Export Policy – Putin," *Interfax*, December 28, 2005.
27. "Speech to the October 3, 2002, session of the Military-Technical Cooperation Commission," Moscow, www.president.ru, *FBIS SOV*, October 3, 2002.
28. *Ibid*.
29. Rudiger Ahrend and William Thompson, "Unnatural Monopoly: The Endless Wait for Gas Sector Reform in Russia," *Europe-Asia Studies*, Vol. LVII, No. 6, September 2005, pp. 801-821.

30. "Chief Arms Exporter To Oversee Defense Contracts," *CDPP*, Vol. LVI, No. 16, May 19, 2004, p. 5.

31. Igor Naumov, "Budget for Developing State Sector. The Problem of Increasing Economic Growth Could Be Solved at a Much Lower Cost," Moscow, *Nezavisimaya Gazeta*, in Russian, August 29, 2005, *FBIS SOV*, August 29, 2005.

32. Vladimir Mau, "Russia's Economic Policy—Setting Priorities," *Russia in Global Affairs*, Vol. IV, No. 2, April-June 2006, pp. 186-187.

33. Vera Sitnia, "The Government's Gift: State Capitalism as the Source of Russia's Economic Miracle," *Vremya Novostei*, No. 102, June 15, 2006, retrieved from Lexis-Nexis. At the same time, they also are implicitly writing off the possibility and desirability of attracting foreign investment because the demands of those investors for transparency and sound business practice are unacceptable to these elites.

34. Arkady Ostrovsky, "Kremlin Seeks to Boost Power of Aerospace and Motor Industries," *Financial Times*, February 25, 2006, p. 5; Guy Chazan, "Russia May Build Aeroflot Into National Carrier," *Wall Street Journal*, April 24, 2006, www.wsj.com.

35. Julia Nanay, "Russia and the Caspian Sea Region," Jan H. Kalicki and David L. Goldwyn, eds., *Energy and Security: Toward a New Foreign Policy Strategy*, Baltimore and Washington, DC: Johns Hopkins University Press and Woodrow Wilson Center Press, 2005, pp. 128-129.

36. *Strafor.biz*, "Special Report Pt. II: The Rise of Gazprom Inc.," October 21, 2004, www.straftfor.biz.

37. Keun-Wook Paik, "Russia's Oil and Gas Export to Northeast Asia," *Asia-Pacific Review*, Vol. XII, No. 2, 2004, p. 62.

38. Harley Balzer, "Vladimir Putin on Russian Energy Policy," *National Interest*, November, 2005, www.inthenationalinterest.com.

39. "RF President Putin's Speech to the Federal Assembly, May 10, 2006," www.president.ru, accessed on May 11, 2006.

40. Balzer.

41. *Ibid.*

42. Moscow, *Interfax*, December 15, 1999, Moscow, *ITAR-TASS*, in English, November 6, 1999, *Foreign Broadcast Information Service, Central Eurasia* (henceforth *FBIS SOV*), November 6, 1999; Moscow, *Nezavisimaya Gazeta*, in Russian (Electronic Version), July

22, 1998, *FBIS SOV* 98-222, August 13, 1998; Moscow, *Izvestiya*, in Russian, December 24, 1996, *FBIS SOV* 96-248, December 26, 1996; Moscow, *Nezavisimaya Gazeta*, in Russian (Electronic Version), July 22, 1998, *FBIS SOV* 98-222, August 13, 1998; Moscow, *Izvestiya*, in Russian, December 24, 1996, *FBIS SOV* 96-248, December 26, 1996; Moscow, *Nezavisimaya Gazeta*, in Russian, *FBIS SOV*, 98-077, March 18, 1998; "Interview With Deputy Head of Federal Agency for Industry Igor Borisovich Gavriadsky by Nezavisimoye Voennoye Obozreniye Reporter, Aleksandr' Babakin," Moscow, *Nezavisimoye Voennoye Obozreniye*, in Russian, July 22, 2005, *FBIS SOV*, July 22, 2005.

43. Martha Brill Olcott, "Vladimir Putin and the Geopolitics of Oil," Paper Presented as part of the project, *The Energy Dimension in Russian Global Strategy*, James A. Baker III Institute for Public Policy, Rice University, Houston, 2004.

44. *Ibid.*, p. 19.

45. Vladimir Putin, "Introductory Remarks at State Council Presidium Meeting on the Situation in and Development Prospects for the Aircraft Manufacturing Industry," *Zhukovsky*, February 22, 2005, www.president.kremlin.ru/eng/text/speeches/2005/02/22/1412_84405.shtml.

46. "Russian Defense Minister Says Defense Industry Commission Reports to Premier," *Russia TV*, March 26, 2006, from BBC monitoring.

47. Balzer.

48. *Ibid.*

49. *Ibid.*

50. "Putin Aide Says No Need for Shame over Oil-Oriented Economy," *Interfax*, November 27, 2005.

51. Harley Balzer, "The Putin Thesis and Russian Energy Policy," *Post-Soviet Affairs*, Vol. XXI, No. 3, 2005, p. 213.

52. "Heads of Russian State Cos. Are Loyal to Kremlin, Official Says."

53. Keun-Wook Paik, pp. 61-62.

54. "Two-Thirds of Russian Banks Involved in Money-Laundering," www.pravda.ru, *Vremya* May 23, 2006, *Johnson's Russia List*, May 23, 2006.

55. "Chopping At Tails," *Gazeta.ru*, May 22, 2006, *Johnson's Russia List*, May 23, 2006.

56. Vitaly Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," in Steven E. Miller and Dmitri Trenin, eds., *The Russian Military: Power and Purpose*, Cambridge, MA: MIT Press, 2004, pp. 160-182; Vitaly Shlykov, "The Anti-Oligarchy Campaign and Its Implications for Russia's Security," *European Security*, Vol. XVII, No. 2, 2004, pp. 111-128; Leonid Kosals, "Criminal Influence/Criminal Control Over the Russian Military-Industrial Complex in the Context of Global Security," *NATO Defense College Research Paper*, No. 1, March 2004, pp. 6-8; Moscow, *Ekho Moskvy in Russian*, June 4, 2004, *FBIS SOV*, June 4, 2004; Moscow, *ITAR-TASS*, April 14, 2005, *FBIS SOV April 14, 2005*; Moscow Center TV in Russian, September 30, 2003, *FBIS SOV*, October 1, 2003; Moscow, *Moskovskaya Pravda*, in Russian, April 17, 2003, *FBIS SOV*, April 17, 2003; Moscow, "Interview With OAO Giprometz General Director Vitaly Rogozhin, *Rossiyskaya Gazeta*, in Russian, July 13, 2005, *FBIS SOV*, July 13, 2005.

57. Janusz Bugajski, *Cold Peace: Russia's New Imperialism*: Washington, DC: Center for Strategic and International Studies, Praeger, 2004; Richard Krickus, *Iron Troikas*, Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2006; Keith C. Smith, *Russian Energy Politics in the Baltics, Poland, and the Ukraine: A New Stealth Imperialism?* Washington, DC: Center for Strategic and International Studies, 2004.

58. Ahrend and Thompson, pp. 801-821.

59. Viktor Litovkin, "Militarism Is an Unaffordable Luxury," *Russia Profile*, May 16, 2006, www.ocnus.net/artman/publish/article_24267.shtml; Viktor Litovkin, "Russia's Military Order," *RIA Novosti*, May 11, 2006, www.bilkent.edu.tr/crs.russianmilitaryorder.htm.

60. Aleksandr' Babkin, "The Defense Ministry Has Prepared Four Versions of the Armament Program," *Nezavisimoye Voyennoye Obozreniye*, February 25-March 3, 2005, retrieved from Lexis-Nexis.

61. "Russia's New Defense Programme To Avoid Earlier Mistakes-Official," *Interfax-AVN Website*, in English, March 22, 2006; Aleksandr' Burutin, "Front Line; Russia's Defense Industrial Complex Today," *Military Parade*, in English, February 28, 2005, *FBIS SOV*, February 28, 2005; Litovkin, "Russia's Military Order, Litovkin, "Militarism Is an Unaffordable Luxury."

62. General Alexei Mikhailovich Moskovskiy, "Confidence in Tomorrow," Moscow *Voyennyi-Promyshlennyi Kuryer*, in Russian, March 10, 2004, FBIS SOV, March 10, 2004.

63. Moscow, *Krasnaya Zvezda*, in Russian, March 24, 2005, FBIS SOV, March 24, 2005; Moscow, *Agentstvo Voyennykh Novostei*, Website, in Russian, June 15, 2005, FBIS SOV, June 15, 2005; Moscow, *Agentstvo Voyennykh Novostei*, in Russian, June 16, 2005, FBIS SOV, June 16, 2005.

64. "Sukhoi-30s Develop Technical Snags," *SAPRA India Bulletin*, September, 2003, p. 28; Vivek Raghuvanshi, "India Grounds Fleet of Sukhoi Fighters," *Defense News*, September 15, 2003, p. 66.

65. Alexander Golts, "Arming the World: Russia's Lethal Weapons," *Moscow News*, February 23-March 1, 2005; Alexey Nikolsky, "The MIC Is Losing Clients: Russian Arms Are Not All That Popular in the World," Moscow, *Vedomosti*, in Russian, June 16, 2005, FBIS SOV, June 16, 2005; Mikhail Vinogradov, Aleksandr' Sadchikov, "Compromise Between Defense and the Defense Industry," *Izvestiya*, March 22, 2006, pp. 1-2; retrieved from Lexis-Nexis.

66. Moscow, *ITAR-TASS*, in Russian, November 5, 2005, FBIS SOV, November 5, 2005; *ITAR-TASS*, July 14, 2006.

67. *Ibid.*

68. Nikolai Khorunzhy, "Interview with Industrial Energy Ministry Department Chief Yuri Koptev," Moscow, *Izvestiya Moscow Edition*, in Russian, October 4, 2005, FBIS SOV, October 5, 2005.

69. Moscow, *Agentstvo Voyennykh Novostei*, website, Moscow, November 6, 2003, FBIS SOV, November 6, 2003.

70. *Ibid.*

71. Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," pp. 160-182; Moscow, *NTV Mir*, in Russian, May 22, 2004, FBIS SOV, May 22, 2004.

72. Vitaly Shlykov, "The Economics of Defense in Russia and the Legacy of Structural Militarization," pp. 160-182; Moscow, *NTV Mir*, in Russian, May 22, 2004, FBIS SOV, May 22, 2004.

73. FBIS SOV, March 10, 2004.

74. Moscow, *Rossiyskaya Gazeta*, "Interview with Sergei Ivanov," May 4, 2005, FBIS SOV, May 4, 2005.

75. Oleg Vladyskin, "Russia's Defense Spending Gradually Taking Off," *Moscow Times*, June 9, 2006.

76. Andrei Bagrov, "Government Gives Deputies Budget and 120 Billion Rubles," Moscow, *Kommersant*, in Russian, August 26, 2005, *FBIS SOV*, August 26, 2005.

77. Vladimir Mukhin, "One-Half of Budget Entrusted to Sergei Ivanov: Defense Ministry Becomes Key Department," Moscow *Nezavisimaya Gazeta*, March 11, 2004, *FBIS SOV*, March 11, 2004.

78. *Ibid.* Thus the Ministry acquired control of the entire defense industry complex (OPK, whose four agencies—the Russian Conventional Arms Agency [RAV], the Russian Agency for Control Systems [RASU], Rossudostroyeniye [Russian Shipbuilding Agency], and Rosboyepripasy [Russian Munitions Agency]—were disbanded. Rosaviakosmos, the Russian Air and Space Agency, was divided between the Space Agency and the aviation sector which became part of the Federal Industry Agency with the other four liquidated agencies. Viktor Myasnikov, Vladimir Mukhin, and Vladislav Kramer, "Security Offices Weigh In Heavily: The Defense Ministry Grew by 10 Percent and the Defense Industry Got Its Own Mini Ministry," *Nezavisimoye Voyennoye Obozreniye*, March 12, 2004, *FBIS SOV*, March 12, 2004.

79. *Ibid.*; "Organizational Development of the Military and Modernizing the Armed Forces," *www.svip.ru*, *FBIS SOV*, April 14, 2004, quoted in Andrei Shoumikhin, *Modernization of the Armed Forces in Russia: Goals and Problems*, National Institute for Public Policy, *www.nipp.org*, 2004, pp. 3-4.

80. *Ibid.*

81. Moscow, *Nezavisimoye Voyennoye Obozreniye*, in Russian, July 21-27, 2000, *FBIS SOV*, July 24, 2000.

82. Moscow, *Kommersant*, in Russian, December 19, 2001, *FBIS SOV*, December 19, 2001.

83. Lyubov Pronina, "Private Defense Firms Warned," *Moscow Times*, July 11, 2003, p. 5.

84. Golts, "Arming the World."

85. Pronina, p. 5.

86. Vladyskin.

87. *Ibid.*

88. Moscow, *Agentstvo Voyennykh Novostey Website*, in English, November 9, 2005, *FBIS SOV*, November 9, 2005.

89. "RF to Spend RBL 4, 939 to Purchase Weapons, Ivanov," *ITAR-TASS*, May 30, 2006.

90. Isakova.

91. Vladykin.

92. Isakova.

93. Veniamin Ginodman and Alexander Rotkin, "The Specter of the Soviet Army," *Newsweek Russia*, No. 33 (101), June 19-25, 2006; "RF President Putin's Speech to the Federal Assembly, May 10, 2006."

94. Isakova; Stephen Blank, "Reading Putin's Military Tea Leaves," *Eurasia Daily Monitor*, May 19, 2006.

95. "Official Unveils Rearmament Plan, *Interfax-Agentstvo Voyennyykh Novostei website*, June 2, 2006; "Defense Minister Orders Rapid Completion of Defense Industry Blueprint," *Interfax-Agentstvo Voyennyykh Novostei*, June 2, 2006.

96. Golts, "Arming the World," *FBIS SOV*, June 16, 2005; Alexey Nikolsky, "Arms Exports Declining," Moscow, *Vedomosti*, in Russian, November 5, 2004, *FBIS SOV*, November 5, 2004.

97. "Military Expert Downbeat on Prospects for Russian Arms Exports," *Ekho Moskvy*, May 31, 2006, received from BBC Monitoring; Vladimir Urban, "The Last Record of the Russian Arms Business," Moscow, *Moskovskiye Novosti*, in Russian, June 17, 2005, *FBIS SOV*, June 17, 2005.

98. Ginodman and Rotkin.

99. *Ibid.*

100. Jan Leijonhielm, Jenny Clevstrom, Per-Olov Nilsson, and Wilhelm Unge, *Den Ryska Miliartenkisa Resurbasen (The Russian Military-Technical Base)*, Stockholm, Totalforsvaretsforskiningsinstitut, 2002, Executive summary, p. 8, available at www.foi.se; General Alexei Mikhailovich Moskovskiy, "Confidence in Tomorrow," Moscow *Voyennyyi-Promyshlennyyi Kuryer*, in Russian, March 10, 2004, *FBIS SOV*, March 10, 2004.

101. *Ibid.*

102. Julian Cooper, "The Arms Industries of the Russian Federation, Ukraine and Belarus," *SIPRI Yearbook, 2004*, Stockholm: Oxford University Press, 2004, p. 433.

103. *FBIS SOV*, July 24, 2000.

104. "Defense Minister Reviews His Five Years in Office," *CDPP*, Vol. LVIII, No. 13, April 26, 2006.

105. Russian Reform of Arms Trade To Continue Says Klebanov," *Interfax*, November 22, 2000, retrieved from Lexis-Nexis.

106. Olga Antonova, "Defense Industry Will Be Split Into Corporations," *Vremya Novostei*, March 26, 2001, retrieved from Lexis-Nexis.

107. "Russian Defense Minister Says Defense Industry Commission Reports to Premier."

108. Alexander Golts, "More Complex Production," *Moscow Times*, July 4, 2006, p. 11.

109. Abdullaev.

110. Cited in John Lloyd, "And Then There Were 15," comment in *free.guardian.co.uk*, July 31, 2006, *Johnson's Russia List*, No. 173, August 1, 2006.

111. Moskovskiy; Moscow, *Agentstvo Voyennykh Novostei*, March 29, 2005, *FBIS SOV*, March 29, 2005.

112. Urban, *FBIS SOV*, June 17, 2005.

113. *Ibid.*

114. Alexei Nikolsky, "The Starving Military-Industrial Complex," *Vedomosti*, June 9, 2005, *FBIS SOV*, June 9, 2005.

115. Yuliya Kalinina, "The Army Armored Train Brought Out of the Siding," *Moskovskiy Komsomolets*, in Russian, November 19, 2003, *FBIS SOV*, November 19, 2003.

116. Golts and Putnam, pp. 132-133.

117. Viktor Myasnikov, "Defense Spending Is Growing. Arms Deliveries Are Sliding," Moscow, *Nezavisimoye Voyennoye Obozreniye*, in Russian, August 26, 2005, *FBIS SOV*, August 26, 2005.

118. Alexander Babakin, "The Nearly Irreversible Process of Decrepitude," *Nezavisimoye Voyennoye Obozreniye*, in Russian, September 23, 2005, *FBIS SOV*, September 23, 2005.

119. *Ibid.*, p. 133. Even if the intent is to preserve production capabilities, this hardly seems like an economically rational way to do so unless one expects a remobilization for a general war.

120. Viktor Litovkin, "Weapons by Numbers," *Russia Profile*, Vol. II, No. 3, April 2005, p. 13. The 2005 procurement list also includes two surface warships, nine defense satellites for intelligence and communication, and seven upgraded Su-27SM fighters to engage ground targets. The modernized SU-25 fighter also will engage ground targets, and 50 MI-24 attack helicopters will get night vision equipment. Russia will also add 12 satellites to the Global Orbiting Navigation Satellite System by 2010, bringing the total to 24.

121. Iliyas Sarsembaev, "Russia: No Strategic Partnership With China in View," *China Perspectives*, No. 65, May-June 2006, pp. 31-32.

122. Vladykin.

123. Moscow, *ITAR-TASS*, June 20, 2006, *FBIS SOV*, June 20, 2006.

124. Olga Bozhyeva: Guard Detail: Secret Firing," Moscow, *Moskovskiy Komsomolets*, in Russian, April 29, 2004, *FBIS SOV*, April 29, 2004.

125. Litovkin, "Weapons by Numbers," pp. 13-14, Moscow, *Krasnaya Zvezda*, in Russian, April 27, 2004, *FBIS SOV*, April 27, 2004.

126. *FBIS SOV*, August 29, 2005.

127. Golts; Peter Almquist, *Red Forge: Soviet Military Industry Since 1965*, New York: Columbia University Press, 1992.

128. Rosefielde; Shlykov, pp. 160-182; Hedlund.

129. "RF President Putin's Speech to the Federal Assembly, May 10, 2006."

130. Steven Rosefielde, "Russia 2084: The Treadmill of Muscovite Radical Reform," Robert Larsson, ed., *Whither Russia: Conference Proceedings*, Swedish Defense Research Agency (FOI), Stockholm, 2004, pp. 35-36.

131. *Moskovskiy*, *FBIS SOV*, March 10, 2004.

132. *FBIS SOV*, May 4, 2005.

133. Cited in Rosefielde, *The Prodigal Superpower*, pp. 96-97.

134. *Ibid.*; Ben Wetherall, "President Putin Announces Major Increase in Russian Defense Budget for 2005," *World Markets Research Centre*, August 13, 2004, retrieved from Lexis-Nexis; Peter

J. Sutcliffe and Chris Hill, "An Economic Analysis of Russian Military Reform Proposals: Ambition and Reality," in Aldis and McDermott, eds., pp. 284-285.

135. Isakova.

136. *Ibid.*

137. Presentation by Christopher J. Hill of the British Ministry of Defense at the Center for Strategic and International Studies, Washington, DC, January 31, 2001; Christopher J. Hill, "Russian Defense Spending," in John P. Hardt, ed., *Russia's Uncertain Economic Future*, edited for the Joint Economic Committee of the Congress of the United States, Armonk, NY: M. E. Sharpe & Co., Inc. 2003, pp. 161-182.

138. *Ibid.*

139. *Ibid.*

140. *Ibid.*

141. *Ibid.*

142. Sutcliffe and Hill, pp. 284-285.

143. *Ibid.*, pp. 285-295.

144. Golts, *Armiya Rossii*, pp. 171-175; Golts, "Arming the World."

145. *Ibid.*; FBIS SOV, June 16, 2005; FBIS SOV, November 5, 2004.

146. Leijonhielm, *et al.*, p. 8.

147. Moskovskiy, FBIS SOV, March 10, 2004.

148. Mark Kramer, "Guerilla Warfare, Counterinsurgency, and Terrorism in the North Caucasus: The Military Dimensions of the Russian-Chechen Conflict," *Europe-Asia Studies*, Vol. LVII, No. 2, March 2005, pp. 209-290; Mark Kramer, "The Perils of Counterinsurgency: Russia's War in Chechnya," *International Security*, Vol. XXIX, No. 3, Winter 2004-05, pp. 5-63.

149. Moscow, *Agentstvo Voyennykh Novostey* Website, in English, November 9, 2005, FBIS SOV, November 9, 2005; Golts, *Armiya Rossii*, pp. 171-175; Sutcliffe and Hill, pp. 284-285; Shlykov, pp. 160-182; Moskovskiy, FBIS SOV, March 10, 2004; Nikolsky; Dmitri Litovkin and Nikolai Khorunzhy, "Arms Procurement Goals," *Izvestiya*, March 15, 2006, p. 6, retrieved from Lexis-Nexis; *Radio Free Europe Radio Liberty Newslines*, November 10, 2005; "Russia's

Chief of the General Staff Doubts Plans to Upgrade," *RIA Novosti*, November 9, 2005.

150. Frank Umbach, "The Maritime Strategy of Russia: the Gap Between Great Sea Power Ambitions and the Economic-Military Realities," Juergen Schwarz, Wilfred A. Herrmann, and Hanns-Frank Seller, eds., *Maritime Strategies in Asia*, Bangkok: White Lotus Press, 2002, pp. 171-206; S. Sokut, "Corvettes Instead of Cruisers," Moscow, *Nezavisimoye Voyennoye Obozreniye*, in Russian, December 28, 2001, *FBIS SOV*, December 28, 2001; Mikhail Khodarenok, "The Navy as a Means of Fighting Banditry," *Nezavisimoye Voyennoye Obozreniye*, in Russian, August 15, 2003, *FBIS SOV*, August 15, 2003; Vladislav Kulikov, "Invisible Ship Will Be Seen Only in Russia," Moscow, *Rossiyskaya Gazeta*, in Russian, February 14, 2004, *FBIS SOV*, February 14, 2004; Foreign Media Analysis, "Russia: Media Campaign for Blue-Water Navy Ending Fruitlessly," *FMA*, in English, January 30, 2004, *FBIS SOV*, January 30, 2004; Moscow, *Mayak Radio*, in Russian, April 2, 2004, *FBIS SOV*, April 2, 2004; Moscow, *Agentstvo Voyennykh Novostei, Internet*, in English, March 9, 2004, *FBIS SOV*, March 9, 2004; Moscow, *ITAR-TASS*, in Russian, January 13, 2004, *FBIS SOV*, January 13, 2004; "Russia to Get New Battleships," *RIA Novosti*, May 24, 2005; "Navy Chief Says Russia Can Be Left With 50 Warships by 2020," *Kommersant*, February 7, 2005, retrieved from Lexis-Nexis.

151. "RF President Putin's Speech to the Federal Assembly, May 10, 2006."

152. "Rearmament," *CDPP*, Vol. LIII, No. 1, January 31, 2001, pp. 13-14.

153. Andrei Lebedev, "Yuri Baluevsky: The Russian Military Has a Chance to Straighten Its Spine," *Izvestiya*, March 2, 2005, p. 11. This was graciously made available to the author by Robert Otto.

154. Shlykov, p. 181; Baluevsky, Press Conference, February 19, 2004.

155. Sergei Ptichkin, "New Weapons Will Not Appear Soon," *Rossiyskaya Gazeta*, in Russian, August 8, 2002, *FBIS SOV*, August 8, 2002; Moscow, *ITAR-TASS*, in English, November 26, 2003, *FBIS SOV*, November 26, 2003.

156. "Interview of Russian Control Systems Agency General Director Vladimir Simonov," Moscow, *Krasnaya Zvezda*, in Russian, December 19, 2001, *FBIS SOV*, December 19, 2001.

157. "Rearmament," pp. 13-14; "Army to Buy 'Wonder Weapons'," *Ibid.*, pp. 13-14.

158. *Ibid.*

159. Moscow, *Nezavisimoye Voyennoye Obozreniye*, in Russian, July 21-27, 2000, *FBIS SOV*, July 24, 2000.

160. *Ibid.*

161. *Ibid.*

162. *Ibid.*; Richard Staar, "A Russian Rearmament Wish List," *Orbis*, Vol. XLIII, No. 4, Fall, 1999, pp. 605-612; Richard Staar, "Funding Russia's Rearmament," *Perspective*, Vol. X, No. 1, September-October, 1999, pp. 1-2, 8-10.

163. *Radio Free Europe Radio Liberty Newslines*, June 1, 2004; Vadim Saranov, "The Fleet Under the Knife: The Admirals Don't Know What Kind of Ships They Need," Moscow, *Versiya*, January 13, 2003, *FBIS SOV*, January 13, 2003.

164. Staar, "A Russian Rearmament Wish List," pp. 605-612; Staar, "Funding Russia's Rearmament," pp. 1-2, 9-10; Stephen Blank, "The Material-Technical Foundations of Russian Military Power," *Ankara Papers*, No. 7, London: Frank Cass, 2003.

165. *Ibid.*

166. Peter Raimov, "If War Will Come Tomorrow," Stephen J. Cimbala, ed., *The Russian Military Into the Twenty-First Century*, London: Frank Cass, 2001, pp. 30-50.

167. Leijonhielm, *et al.*, p. 11.

168. *Ibid.*, pp. 13-15.

169. *Ibid.*; Shlykov, pp. 160-182; Blank, *The Material-Technical Foundations of Russian Military Power*, *FBIS SOV*, February 19, 2004.

170. Isakova.

171. *Ibid.*

172. *Ibid.*

173. Vitaly Shlykov, "The Defense Minister's Attack on the Defense Industry," *Izvestiya*, March 3, 2005, p. 4, retrieved from Lexis-Nexis.

174. "Russian Defense Industry Stifled by Under Investment, Says Business TV," *RBK TV*, in Russian, April 18, 2006, retrieved from Lexis-Nexis.

175. Litovkin and Khorunzhy; Aleksandr' Kostyurin, "Will We Not Bankrupt the Country?" Moscow, *Krasnaya Zvezda*, in Russian, July 1, 2005, *FBIS SOV* July 1, 2005; Moscow, *Agentstvo Voyennykh Novostei*, in Russian, June 15, 2005, *FBIS SOV*, June 15, 2005.

176. Stephen Blank, *Natural Allies?: Regional Security in Asia and Prospects for Indo-American Strategic Cooperation*, Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2005, pp. 111-121.

177. "Russia, China Set Up Joint Enterprise to Sell Mi-26T Helicopters in China," *Interfax Agentstvo Voyennykh Novostei, Website*, June 5, 2006.

178. For a view that these sales will not hit a plateau, see *Interfax-Agentstvo Voyennykh Novostei*, May 19, 2006, retrieved from BBC Monitoring.

179. Moscow, *Agentstvo Voyennykh Novostei*, in Russian, June 16, 2005, *FBIS SOV*, June 16, 2005.

180. "Weapon Supplies to Account for 80 Percent of Funds to Be Earmarked Under New State Arms Program," *Interfax*, April 19, 2006, retrieved from Lexis-Nexis.

181. *Ibid.*

182. "Russian Defense Industry Must Look Homeward to Thrive: Study," *AFP*, June 9, 2003.

183. Moscow, *Interfax News Agency*, September 3, 1997, retrieved From Lexis-Nexis, September 12, 1997.

184. "Russian Reform of Arms Trade To Continue Says Klebanov," *Interfax*, November 22, 2000, retrieved from Lexis-Nexis.

185. Vitaly Shlykov, "Potemskinskii Kompleks," *Itogi*, No. 14, April 2001, pp. 30-32; Fred Weir, "Can Russia Deliver on Arms Sales?" *Christian Science Monitor*, November 29, 2000, p. 6, *FBIS SOV*, July 27, 2000; Moscow, *Kommersant*, in Russian, August 3, 2000, *FBIS SOV*, August 3, 2000.

186. *Ibid.*

187. *Ibid.*
188. "Russia Recentralizing the Economy," *Stratfor.com*, May 23, 2001.
189. Moscow, *ITAR-TASS*, in English, February 24, 2004, *FBIS SOV*, February 24, 2004.
190. "Russian Minister Urges More State Support for Defense Sector Enterprises," *Interfax-AVN*, in English, April 18, 2006.
191. "Russian Senator Says Defense Sector Enterprises Should Have Special Status, *Interfax-AVN Website*, in English, April 18, 2006.
192. "RF President Putin's Speech to the Federal Assembly, May 10, 2006."
193. "Russian Duma to Amend Defense Industry Bankruptcy Rules," *RBK TV*, April 25, 2006, retrieved from Lexis-Nexis.
194. "Russian Defense Industry Stifled by Under Investment, Says Business TV."
195. "25 Percent of Strategic Enterprises Face Bankruptcy—Deputy Minister," *RIA Novosti*, April 25, 2006.
196. Andrei Garskiy, *Krasnaya Zvezda*, in Russian, June 17, 2005, *FBIS SOV*, June 17, 2005; "Duma Source Says Government Has No Money To Pay Debts To Defense Industry," *Moscow, Agentstvo Voyennykh Novostei*, in English, June 28, 2005, *FBIS SOV*, June 28, 2005.
197. "Russian Official Reports on Implementing State Defense Order in 2005," *Interfax-AVN Website*, May 6, 2006.
198. Moscow, *Agentstvo Voyennykh Novostei*, in English, March 3, 2004, *FBIS SOV*, March 3, 2004; *Ibid.*, February 24, 2004, *FBIS SOV*, February 24, 2004.
199. "Russia's New Defense Programme To Avoid Earlier Mistakes-Official."
200. *FBIS SOV*, July 22, 2005.
201. Moscow, *Agentstvo Voyennykh Novostei*, in English, July 22, 2005, *FBIS SOV*, July 22, 2005.
202. D&S Editorial Office, "Arms Business Will Become a Problem for Russia," May 6, 2005, retrieved from Lexis-Nexis.
203. Burutin, *FBIS SOV*, February 28, 2005.
204. *Ibid.*

205. Alla Kassianova, "Enter Rosoboroneksport," *Program on New Approaches to Russian Security*, Policy Memo No. 406, Center for Strategic and International Studies, Washington, DC, 2006, p. 2; "Chief Arms Exporter to Oversee Defense Contracts," p. 5.

206. *Ibid.*

207. Moscow, "Interview with Armed Forces Chief of Arms Aleksei Moskovskiy," *Vremya Novostei*, in Russian, June 24, 2005, *FBIS SOV*, June 24, 2005.

208. *Ibid.*

209. "RF President Putin's Speech to the Federal Assembly, May 10, 2006."

210. Denis Trifonov, "Russian Defence Reform: Reversing Decline," *Jane's Defence Weekly*, June 8, 2005, www.4janes.com/subscribe/dw/doc.

211. Moscow, *Agentstvo Voyennykh Novostei*, in Russian, December 8, 2004, *FBIS SOV*, December 8, 2004.

212. Moscow, *Nezavisimoye Voyennoye Obozreniye*, in Russian, December 26, 2003, *FBIS SOV*, December 26, 2003.

213. Kassianova, p. 2.

214. Isakova.

215. Moscow, *Vestnik Vozdushnogo Flota*, No. 3, May-June 2003, *FBIS SOV*, accessed on November 5, 2004.

216. "Defense Minister Reviews His Five Years in Office."

217. *Ibid.*

218. Moscow, *Agentstvo Voyennykh Novostei Website*, in English, March 3, 2004, *FBIS SOV*, March 3, 2004.

219. Moscow, *Agentstvo Voyennykh Novostei Website*, in English, February 24, 2004, *FBIS SOV*, February 24, 2004.

220. Moscow. *Eksport Vooruzhennyi*, in Russian, April 1, 2005, *FBIS SOV*, July 27, 2005.

221. Konstantin Lantratov and Sergei Ryzhkin, "Military-Civil Aviation. Airplanes Will Be Caged in a Single Company," Moscow, *Kommersant*, in Russian, December 24, 2004, *FBIS SOV*, December 24, 2004; Vladimir Ivanov, "Boris Aleshin Reviving Soviet Aviation Industry," Moscow, *Nezavisimaya Gazeta*, in Russian, February 11, 2004, *FBIS SOV*, February 11, 2004.

222. Isakova.

223. "Report: Putin Approves Airline Merger," *Moscow Times*, May 5, 2006; Moscow, *Agentstvo Voyennykh Novostei Website*, in English, April 22, 2005, *FBIS SOV*, April 22, 2005; Douglas Barrie and Alexey Komarov/Zhukovsky, "Stunted Growth," *Aviation Week & Space Technology*, August 22-29, 2005, p. 36.

224. *Ibid.*, p. 36.

225. Douglas Barrie and Robert Wall, "Property of the State," March 13, 2006, p. 50.

226. Moscow, *Agentstvo Voyennykh Novostei Website*, in English, June 14, 2005, *FBIS SOV*, June 14, 2005.

227. Kassianova, p. 2.

228. ROE Promotion Brochure on Brazilian website "Rosoboroneksport State Corporation 2000-2005 to New Horizons of Military-Technical Cooperation," www.defesanet.com.br/russia/rosoboron_5_years.htm.

229. Ostrovsky, p. 5; Chazan.

230. Kassianova, p. 5.

231. "Russian Industry Official Heralds Shake-Up for Military Shipbuilders," *ITAR-TASS*, March 10, 2006; Lyubov Pronina, "Russian Agency Expands Industry Consolidation," February 3, 2006, www.defenenews.com/story.php?F=1509537&C=europe.

232. *Ibid.*; Nikolai Vardul and Konstantin Simonov, "Sergei Ivanov Has Been Appointed Successor," Moscow, *Gazeta*, March 21, 2006, retrieved from BBC Monitoring.

233. *FBIS SOV*, February 28, 2005.

234. *Ibid.*

235. *Ibid.*

236. Moscow, *Interfax*, December 15, 1999; Moscow, *ITAR-TASS*, in English, November 6, 1999, *FBIS SOV*, November 6, 1999; Moscow, *Nezavisimaya Gazeta*, in Russian (Electronic Version), July 22, 1998, *FBIS SOV*, 98-222, August 13, 1998; Moscow, *Izvestiya*, in Russian, December 24, 1996, *FBIS SOV*, 96-248, December 26, 1996; Moscow, *Nezavisimaya Gazeta*, in Russian (Electronic Version), July 22, 1998, *FBIS SOV*, 98-222, August 13, 1998; Moscow, *Izvestiya*, in Russian, December 24, 1996, *FBIS SOV*, 96-248, December 26, 1996; Moscow, *Nezavisimaya Gazeta*, in Russian, *FBIS SOV*, 98-077, March 18, 1998.

237. "Russian Defense Minister Says Defense Industry Commission Reports to Premier."

238. Moscow, *RIA Novosti*, in Russian, November 23, 2004, *FBIS SOV*, November 23, 2004.

239. *FBIS SOV*, November 9, 2005; Moscow, *Channel One TV*, in Russian, November 9, 2005, *FBIS SOV*, November 9, 2005.

240. "Russia Has a State Monopoly on Arms Exports, *Vremya Novostei*, December 26, 2004, retrieved from Lexis-Nexis.

241. Mukhin.

242. Trifonov; Vadim Solovyov, "Staff Reshuffles Completed at the Defense Ministry," *Nezavisimaya Gazeta*, November 19, 2004, retrieved from Lexis-Nexis; Carolina Vendil Pallin, *Defense Decision Making and Russian Military Reform: The Oblomov Approach*, Stockholm: Swedish Defense Research Establishment FOI, 2006, pp. 173-174.

243. Andrei Reut, Viktoriya Okolona, Aleksandr' Andryukhin, Mariya Stepanova, and Aleksandr' Stepanov, "What is Behind Operation Customs?" *Izvestiya*, May 16, 2006.

244. "Russian Military-Industrial Commission to Have Broad Powers, Ivanov," *Interfax*, March 21, 2006.

245. *ITAR-TASS*, March 21, 2006, retrieved from BBC Monitoring.

246. *Radio Free Europe Radio Liberty Newsline*, March 21, 2006.

247. Vladimir Mukhin and Viktor Myasnikov, "The Defense Tug of War," Moscow, *Nezavisimoye Voyennoye Obozreniye*, in Russian, December 2, 2005, *FBIS SOV*, December 5, 2005; Moscow, *Kommersant*, in Russian, December 2, 2005, *FBIS SOV*, December 2, 2005.

248. Vardul and Simonov; Aleksandr' Babakin, "The Defense Ministry Has Prepared Four Versions of the Armament Program," *Nezavisimoye Voyennoye Obozreniye*, February 25-March 1, 2005, p. 6, retrieved from Lexis-Nexis; Yuri Lebedev, "Clinging to Branches," Moscow, *Komsomolskaya Pravda*, in Russian, June 28, 2005, p. 3, *FBIS SOV*, June 28, 2005.

249. "Russian Defense Minister Says Defense Industry Commission Reports to Premier"; Pavel Felgengauer, "An Old Body Revived for Ivanov," *Novaya Gazeta*, March 23, 2006, retrieved from Lexis-Nexis; Oleg Liakhovich, "Sergei Ivanov to Head New Military-Industrial Commission," *Moscow News*,

March 24, 2006; "Russian Military-Industrial Commission's Head Interviewed About New Role," *Rossiyskaya Gazeta*, March 22, 2006, retrieved from Lexis-Nexis; Pavel K. Baev, "Ivanov Takes Charge of Russian Military-Industrial Conglomerate," *Eurasia Daily Monitor*, March 28, 2006; "Russian Defense Minister Says Defense Industry Commission Reports to Premier."

250. Nardul and Simonov.

251. Andrei Lavrov, "The Khaki Budget," *Gazeta*, May 10, 2006, p. 13, retrieved from Lexis-Nexis.

252. "Defense Minister Forms a New Administration," *Kommersant*, March 21, 2006.

253. Petr Netreba, "Sergei Ivanov Will Control Land, Sea, and Air," *Kommersant*, March 22, 2006, pp. 1, 4; *CDPP*, Vol. LVIII, No. 12, April 19, 2006, p. 11.

254. "Press Conference With Vice Premier and Minister of Defense Sergei Ivanov," March 28, 2006, retrieved from Lexis-Nexis.

255. Konstantin Lantratov, "Russia Will Have More Arms," *Kommersant*, May 10, 2006, p. 2, retrieved from Lexis-Nexis; Viktor Litovkin, "Russia's Military Order."

256. Mukhin and Myasnikov, *FBIS SOV*, December 5, 2005.

257. Lantratov, "Russia Will Have More Arms," p. 2; Litovkin, "Russia's Military Order."

258. *Ibid.*

259. Mikhail Sergeyev, "Ivanov Takes Charge of the Defense Sector," *Bizness*, May 12-14, 2006, p. 2, retrieved from Lexis-Nexis.

260. To a French historian, this division of the state into the "regular state administration" and the presidential sector which comprises the key strategic sectors of the economy beyond any other control may look like a Russian effort to construct a "domaine reservee" as in the French system, or, to the Russian historian, as a perverse echo of a trend begun by Ivan the Terrible to create a separate personal government apart from the nominal regular government, likely a more valid perspective.

261. *FBIS SOV*, November 23, 2004.

262. Vladimir Mukhin, "Sergei Ivanov Is Establishing an Audit Pyramid," *Nezavisimaya Gazeta*, May 15, 2006, p. 3, retrieved

from Lexis-Nexis; Nabi Abdullaev, "Russia To Hand Defense Procurement to Civilian Agency," *defensenews.com*, May 22, 2006.

263. *Ibid.*

264. Alexey Nikolskii, "Military Cooperation: Rosoboronim-port," *Defense and Security*, August 12, 2005, retrieved from Lexis-Nexis.

265. Kassianova, p. 2.

266. "Russia Needs Permanent Adjustment of Arms Export Policy-Putin."

267. Vladislav Kramar, "Fradkov Has Begun the Redivision of Defense Industry With MiG: Selling Planes Without Political Cover Is Impossible," Moscow, *Nezavisimaya Gazeta*, in Russian September 28, 2004, *FBIS SOV*, September 28, 2004.

268. *Ibid.*

269. Nikolai Poroskov, "Nikakoye Real'noye Voyennoye Stroitel'stvo v Rossii ne Vedetsya," *Vremya*, August 9, 2005.

270. "Rosoboroneksport at XI," Security and Safety Technologies International Forum, February 7-10, 2006.

271. "The Soviet Union Did Not Receive Such Huge Revenues in Foreign Currency Each Year," *Rosoboroneksport*, October 24, 2005, www.rusarm.ru/pages_firm/medi/pr_027.htm.

272. Kassianova, pp. 3-6.

273. For example, Lyubov Pronina, "New Agency Rules Russia's Defense Industry," *Defense News*, March 22, 2004, p. 18; Lyubov Pronina, "President Starts Reshuffle of Arms Exporters," *Moscow Times*, November 20, 2003; Konstantin Lantratov, "President Takes Control of Military Exports," Moscow, *Kommersant*, in Russian, April 25, 2003, *FBIS SOV*, April 25, 2003.

274. Konstantin Lantratov, "President Will Continue Reform of Military-Technical Cooperation System," Moscow, *Kommersant*, in Russian, November 5, 2003, *FBIS SOV*, November 6, 2003.

275. *Ibid.*; Ivan Yegorov, "Vestiges of Perestroika-Style Economic Accountability, Rosoboroneksport Is Changing Its Form of Ownership," Moscow, *Gazeta*, in Russian, September 20, 2004, *FBIS SOV*, September 20, 2004.

276. Alexander Vitovsky, "Military Cooperation: It's Not an Easy Undertaking to Sell Weapons," *Parlamentskaya Gazeta*, December 28, 2005, p. 3.

277. Mikhail Dmitriyev, "Front Line. Current Status and Development Perspectives of Russia's Military-Technical Cooperation With Foreign Countries," *Military Parade*, April 30, 2005, pp. 4-5; Vadim Solov'ev and Viktor Myasnikov, "Double Special-Control Over the Weapons Market, the Federal Service for Military-Technical Cooperation Wages a Fierce Battle Against Internal and External Competition," *Nezavisimoye Voyennoye Obozreniye*, December 2, 2005, *FBIS SOV*, December 2, 2005.

278. "Russia: Policy Changes Afoot in Defense Industry," *Oxford Analytica*, *Oxford Research*, June 16, 2004, p. 1.

279. Anatoly I. Mazurkevich, "International Military Cooperation. As Befits Russia's Status and Resources," *Russian Military Review*, April 30, 2005. General Mazurkevich is Chief of the International Cooperation Directorate in the Ministry of Defense.

280. Anatoly I. Mazurkevich, "International Cooperation: Considering New Realities," *Rossiiskoe Voyennoye Obozreniye*, January 31, 2006, *FBIS SOV*, January 31, 2006.

281. Igor Korotchenko, "Military Status, New Prospects of the Defense Ministry," *Defense and Security*, December 1, 2003, retrieved from Lexis-Nexis.

282. Moscow, *Agentstvo Voyennykh Novostei*, Website, in English, June 16, 2005, *FBIS SOV*, June 16, 2005.

283. *Ibid.*

284. Nabi Abdullaev, "Russia To Hand Defense Procurement to Civilians," *Defensenews.com*, May 22, 2006.

285. *Ibid.*

286. Konstantin Lantratov and Ivan Safronov, "Russian Federation President Familiarizes Himself With Arms Trade Plans," Moscow, *Kommersant*, in Russian, September 18, 2004, *FBIS SOV*, September 18, 2004.

287. Yuri Avdeyev, "In Charge of Oboronprom," *Krasnaya Zvezda*, in Russian, July 23, 2005, *FBIS SOV*, July 23, 2005.

288. Guy Anderson, "Russia Adds Oboronprom to Its List of Protected Companies," *Jane's Defence Weekly*, July 5, 2006, www.4.janes.com/subscribe/jdw/doc_view.jsp?K2DocKey=/content1/janesdat/mags;Moscow,NezavisimayaGazeta,inRussian,November2,2005,FBISSOV,November2,2005.

289. Nikolai Poroskov, "Interview With Konstantin Makiyenko, Deputy Director of CAST," *Vremya Novostei*, August 9, 2005.

290. *Ibid.*

291. Pronina, "Russian Agency Expands Industry Consolidation."

292. *Ibid.*

293. "Rosoboroneksport State Corporation 2000-2005 to New Horizons of Military-Technical Cooperation."

294. Federal Law on Military-Technical Cooperation of the Russian Federation With Foreign States, Adopted by the State Duma on July 5, 1998, and by the Federation Council on July 9, 1998, projects.sipri.expcon/natex/pcon/Russia/114law.htm.

295. Netreba, p. 11.

296. "The Soviet Union Did Not Receive Such Huge Revenues in Foreign Currency Each Year."

297. "Russia To Sell Arms Only to 'Solvent Countries'," *ITAR-TASS*, May 13, 2006; Stephen Blank, "Bashear Assad Comes to Moscow, Seeking Gifts," *Eurasia Daily Monitor*, January 26, 2005.

298. *RIA Novosti*, March 1, 2006; *RIA Novosti*, March 11, 2006; Lyuba Pronina, "Russia, Algeria to Strike \$4B Arms Sale Deal," *Moscow Times*, January 26, 2006.

299. *Ibid*; Viktor Litovkin, "Outside View: Russia's Algerian Arms Deal," *UPI*, March 14, 2006.

300. Moscow, *Agentstvo Voyennykh Novostei*, Website, in English, June 16, 2005, *FBIS SOV*, June 16, 2005.

301. Mikhail Dmitriyev, "The Arms Market: A Special Commodity," *Russian Military Review*, June 20, 2004, pp. 20-23; "Russia Needs Permanent Adjustment of Arms Export Policy—Putin."

302. Mikhail Barabanov and Konstantin Lantratov, "Money From the Depths," *Kommersant*, October 5, 2005, retrieved from Lexis-Nexis.

303. Vivek Raghuvanshi, "India's HAL Eager for Aviation Ventures," *Defense News*, November 17, 2003, p. 3; Raghuvanshi, "India Strives for Missile-Building Hub," *Defense News*, February 24, 2003, p. 34; Timothy D. Hoyt, "India: The Regional Hegemon"; in *Military Industry and Regional Power: India, Iraq, and Israel*, New York: Taylor & Francis, forthcoming, pp. 123-155. Cited by kind

permission of the author; Damon Bristow, "Globalization Versus 'Self Reliance' in India's Defence Industry: Can the Conflict Be Resolved?" in The Atlantic Council of the United States, *Defense Industry Globalization, A Compendium of Papers Presented at a Conference on "Defense Industry Globalization,"* Washington, DC, November 16, 2001, pp. 103-120; Evan S. Medeiros, Roger Cliff, Keith Crane, and James C. Mulvenon, *A New Direction for China's Defense Industry*, Santa Monica: Rand Corporation, 2005.

304. Stephen Blank, "Russian Defense Industry in an Age of Globalization," pp. 43-88; *Interfax-AVN*, May 19, 2006.

305. *FBIS SOV*, July 22, 2005.

306. Aslund.

307. Moscow, *ITAR-TASS*, in English, August 4, 2005, *FBIS SOV*, August 4, 2005; Phyllis Dinino and Robert Orttung, "Explaining Patterns of Corruption in the Russian Regions," *World Politics*, Vol. LVII, No. 2, July 2005, pp. 524-528.

308. "Chopping At Tails."

309. Aslund.

310. Mikhail Sergeyev, "Military Secrets," *Gazeta.Ru.*, May 23, 2006, retrieved from *Johnson's Russia List*, May 23, 2006.

311. Oleg Leonidovich Sergeyev, "Monopolism, Lobbyism, and Lack of a Clear Military-Technical Policy. Preference Is Given to Ineffective But Expensive Projects instead of to the Satisfaction of the Defense Industry," *Moscow, Nezavisimoye Voennoye Obozreniye*, in Russian, May 12, 2006, *FBIS SOV*, May 12, 2006.

312. Shlykov, "Back Into the Future Or Cold War Lessons for Russia."

313. *RIA Novosti*, July 13, 2006.

314. Rosefielde; Poe; Hedlund; Pain, pp. 71-80; Kotkin.

315. Moscow, *Voyenno-Promyshlennyyi Kuryer*, in Russian, May 23, 2005, *FBIS SOV*, May 23, 2005.

316. Kelly Hearn, "Russia Negotiating Arms Sales to Buenos Aires: Talks Follow \$3 Billion Weapons Pact With Venezuela," *Washington Times*, August 9, 2006, p. A11; Anna Smolchenko, "Russia, Argentina in Talks on Arms Deal," *Moscow Times*, August 10, 2006, retrieved from Lexis-Nexis; "Russia Puts Together Package of Arms Exports Proposals for Argentina," *Russia &*

CIS Military Newswire, August 9, 2006, retrieved from Lexis-Nexis; Steven Erlanger and Richard A. Oppel, Jr., "A Disciplined Hezbollah Surprises Israel With Its Training, Tactics, and Weapons," *New York Times*, August 7, 2006, p. 8; Maria Grishina, "Who Penetrated The Armor? Israelis Blame Their Problems on Russian-Made Weapons," *Vremya Novostei*, August 7, 2006; Alexei Nikolsky and Ekaterina Kudashkina, "Russian Rockets Prevent Israel From Winning War in Lebanon," *Vedomosti*, August 10, 2006, retrieved from Lexis-Nexis; Adrian Bloomfield, "Israel Humbled by Arms From Iran Battlefield Reveals Secret Source of Hizbollah's Anti-Tank Missiles," *The Daily Telegraph*, August 15, 2006, p. 1, retrieved from Lexis-Nexis; Igor Plugtarev, "Israeli Tanks Run Up Against Russian Weapons," *Nezavisimaya Gazeta*, August 15, 2006, retrieved from Lexis-Nexis.

317. "The US Introduces Sanctions Against Russian Companies," *Vedomosti*, August 7, 2006, retrieved from Lexis-Nexis; Natalya Portyakova, Konstantin Lantratov, Ivan Safronov, Sergei Ryzhkin, Alexandra Gritskova, and Maria Cherkasova, "A Dry Remnant; US-Russian Strategic Partnership Is Over," *Kommersant*, August 7, 2006, retrieved from Lexis-Nexis; Marina Pustilnik, "Arms Embargo or a Blessing in Disguise," *Moscow News*, August 11, 2006, retrieved from Lexis-Nexis; Julia Duchovny, "US Slaps Russia With Sanctions," *Moscow News*, August 11, 2006, retrieved from Lexis-Nexis.

318. Pavel K. Baev, "Russia Wrapping Up Its War Against Terror," *Eurasian Daily Monitor*, August 14, 2006.